

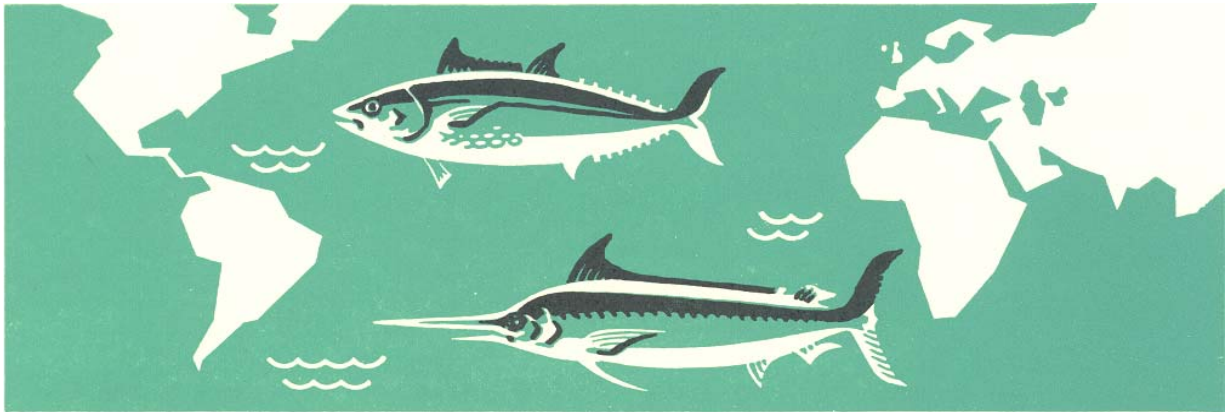
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**INTERNATIONAL COMMISSION  
for the  
CONSERVATION of ATLANTIC TUNAS**

**COMMISSION INTERNATIONALE  
pour la CONSERVATION  
des THONIDÉS de L'ATLANTIQUE**

**COMISIÓN INTERNACIONAL  
para la  
CONSERVACIÓN del ATÚN ATLÁNTICO**

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**R E P O R T  
for biennial period, 2012-13  
PART I (2012) - Vol. 3  
Annual Reports**

**R A P P O R T  
de la période biennale, 2012-13  
I<sup>e</sup> PARTIE (2012) – Vol. 3  
Rapports annuels**

**I N F O R M E  
del período bienal, 2012-13  
I<sup>a</sup> PARTE (2012) – Vol. 3  
Informes anuales**

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## FOREWORD

The Chairman of the International Commission for the Conservation of Atlantic Tunas presents his compliments to the Contracting Parties of the International Convention for the Conservation of Atlantic Tunas (signed in Rio de Janeiro, May 14, 1966), as well as to the Delegates and Advisers that represent said Contracting Parties, and has the honor to transmit to them the "*Report for the Biennial Period, 2012-2013, Part I (2012)*", which describes the activities of the Commission during the first half of said biennial period.

This issue of the Biennial Report contains the Report of the 18<sup>th</sup> Special Meeting of the Commission (Agadir, Morocco, November 12-19, 2012) and the reports of all the meetings of the Panels, Standing Committees and Sub-Committees, as well as some of the Working Groups. It also includes a summary of the activities of the Secretariat and the Annual Reports of the Contracting Parties of the Commission and Observers, relative to their activities in tuna and tuna-like fisheries in the Convention area.

The Report is published in four volumes. **Volume 1** includes the Proceedings of the Commission Meetings and the reports of all the associated meetings (with the exception of the Report of the Standing Committee on Research and Statistics-SCRS). **Volume 2** contains the Report of the Standing Committee on Research and Statistics (SCRS) and its appendices. **Volume 3** includes the Annual Reports of the Contracting Parties of the Commission and the Observers. **Volume 4** includes the Secretariat's Report on Statistics and Coordination of Research, the Secretariat's Administrative and Financial Reports, and the Secretariat's Reports to the ICCAT Conservation and Management Measures Compliance Committee (COC), and to the Permanent Working Group for the Improvement of ICCAT Statistics and Conservation Measures (PWG). Volumes 3 and 4 of the Biennial Report are only published in electronic format.

This Report has been prepared, approved and distributed in accordance with Article III, paragraph 9, and Article IV, paragraph 2-d, of the Convention, and Rule 15 of the Rules of Procedure of the Commission. The Report is available in the three official languages of the Commission: English, French and Spanish.

## PRÉSENTATION

Le Président de la Commission internationale pour la conservation des thonidés de l'Atlantique présente ses compliments aux Parties contractantes à la Convention internationale pour la conservation des thonidés de l'Atlantique (signée à Rio de Janeiro le 14 mai 1966), ainsi qu'aux délégués et conseillers qui représentent ces Parties contractantes, et a l'honneur de leur faire parvenir le « *Rapport de la période biennale 2012-2013, 1<sup>re</sup> Partie (2012)* », dans lequel sont décrites les activités de la Commission au cours de la deuxième moitié de cette période biennale.

Ce rapport contient le rapport de la 18<sup>e</sup> réunion extraordinaire de la Commission (Agadir, Maroc, 12-19 novembre 2012) et les rapports de toutes les réunions des Sous-commissions, des Comités permanents et des Sous-comités, ainsi que de divers Groupes de travail. Il comprend également un résumé des activités du Secrétariat et les rapports annuels remis par les Parties contractantes à l'ICCAT et les observateurs concernant leurs activités de pêche de thonidés et d'espèces voisines dans la zone de la Convention.

Le rapport est publié en quatre volumes. Le **Volume 1** réunit les comptes rendus des réunions de la Commission et les rapports de toutes les réunions annexes, à l'exception du rapport du Comité permanent pour la recherche et les statistiques (SCRS). Le **Volume 2** contient le rapport du Comité permanent pour la recherche et les statistiques (SCRS) et ses appendices. Le **Volume 3** contient les rapports annuels des Parties contractantes de la Commission. Le **Volume 4** comprend le rapport du Secrétariat sur les statistiques et la coordination de la recherche, les rapports administratifs et financiers du Secrétariat et les rapports du Secrétariat au Comité d'application des mesures de conservation et de gestion de l'ICCAT (COC) et au Groupe de travail permanent sur l'amélioration des statistiques et des mesures de conservation de l'ICCAT (PWG). Les volumes 3 et 4 du rapport biennal ne sont publiés que sous format électronique.

Le présent rapport a été rédigé, approuvé et distribué en application des Articles III-paragraphe 9 et IV-paragraphe 2-d de la Convention et de l'Article 15 du Règlement intérieur de la Commission. Il est disponible dans les trois langues officielles de la Commission: anglais, français et espagnol.

## PRÉSENTACIÓN

El Presidente de la Comisión Internacional para la Conservación del Atún Atlántico presenta sus respetos a las Partes contratantes del Convenio Internacional para la Conservación del Atún Atlántico (firmado en Río de Janeiro, 14 de mayo de 1966), así como a los delegados y consejeros que representan a las mencionadas Partes contratantes, y tiene el honor de transmitirles el “*Informe del Período Biental, 2012-2013, Iª Parte (2012)*”, en el que se describen las actividades de la Comisión durante la segunda mitad de dicho periodo bienal.

El Informe Biental contiene el informe de la Decimoctava Reunión Extraordinaria de la Comisión (Agadir, Marruecos, 12-19 de noviembre de 2012), y los informes de todas las reuniones de las Subcomisiones, Comités Permanentes y Subcomités, así como de algunos Grupos de Trabajo. Incluye, además, un resumen de las actividades de la Secretaría y los Informes anuales de las Partes contratantes de la Comisión y de observadores sobre sus actividades en las pesquerías de túnidos y especies afines en la zona del Convenio.

El Informe se publica en cuatro volúmenes. El *Volumen 1* incluye las Actas de las Reuniones de la Comisión y los Informes de todas las reuniones relacionadas (con excepción del Informe del Comité Permanente de Investigación y Estadísticas - SCRS). El *Volumen 2* el Informe del Comité Permanente de Investigación y Estadísticas (SCRS) y sus apéndices. El *Volumen 3* incluye los Informes anuales de las Partes contratantes de la Comisión. El *Volumen 4* incluye el informe de la Secretaría sobre estadísticas y coordinación de la investigación, los informes Administrativo y Financiero de la Secretaría y los informes de la Secretaría al Comité de Cumplimiento de las Medidas de conservación y ordenación de ICCAT (COC) y al Grupo de Trabajo Permanente para la mejora de las estadísticas y normas de conservación de ICCAT (GTP). Los volúmenes 3 y 4 del Informe Biental se publican solo en formato electrónico.

Este Informe ha sido redactado, aprobado y distribuido de acuerdo con el Artículo III, párrafo 9, y el Artículo IV, párrafo 2-d del Convenio, y con el Artículo 15 del Reglamento Interno de la Comisión. El Informe está disponible en las tres lenguas oficiales de la Comisión: inglés, francés y español.

*MASANORI MIYAHARA*

*Commission Chairman / Président de la Commission / Presidente de la Comisión*

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<sup>1</sup> Reports received and distributed for the 2012 ICCAT annual meetings. Many Reports submitted to the Commission contain detailed information in the appendices. For reasons of economy, these appendices are not included in this publication, but can be requested from the Secretariat in the original language. In addition, Compliance Reporting Tables have been extracted from the Annual Reports and the information contained therein has been assimilated into the Compliance Tables (Appendix 2 to ANNEX 10 of the 2012 Commission Report).

<sup>2</sup> Rapports reçus et diffusés pour les réunions annuelles de l'ICCAT de 2012. Plusieurs rapports soumis à la Commission joignent des informations détaillées dans les appendices. Aux fins d'économie, ces appendices ne sont pas inclus dans ce volume, mais peuvent être sollicités auprès du Secrétariat dans la langue d'origine. En outre, les tableaux de déclaration d'application ont été extraits de ces Rapports annuels et l'information contenue dans ces tableaux de déclaration a été incorporée aux tableaux d'application (Appendice 2 à l'ANNEXE 10 du Rapport de la Commission de 2012).

<sup>3</sup> Informes recibidos y distribuidos para las reuniones anuales de ICCAT de 2012. Muchos informes presentados a la Comisión incluyen información detallada en apéndices. Por razones de economía, dichos apéndices no se incluyen en esta edición, pero pueden solicitarse a la Secretaría en su idioma original. Además, las tablas de transmisión de información sobre cumplimiento se han eliminado de los informes anuales y la información de dichas tablas se ha incluido en las tablas de cumplimiento (Apéndice 2 al ANEXO 10 del Informe de la Comisión de 2012).

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**ANNUAL REPORTS OF CONTRACTING PARTIES  
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**ANNUAL REPORT OF ALGERIA  
RAPPORT ANNUEL DE L'ALGÉRIE  
INFORME ANUAL DE ALGERIA**

Ministère de la pêche et des ressources halieutiques

SUMMARY

*Small tuna and swordfish catches recorded in 2011 by Algeria amounted to 1,797 t, carried out mainly by a national artisanal fishing fleet. Algeria has not recorded any bluefin tuna catches for 2011. This year was devoted to take stock of the existing national tuna fishing capacity and the measures regulating tuna fishing, in particular the provisions in the decree of 19 April 2010 establishing bluefin tuna fishing quotas for national flag vessels that fish in waters under national jurisdiction and establishing the modalities of their distribution and their implementation. It should be noted that the national tuna vessels owners encountered problems regarding its compliance, and consequently, there was no participation in the 2011 fishing campaign. The above-mentioned regulation includes provisions of ICCAT recommendations, in particular, those included in Rec. 08-05, yet also imposes other national measures as regards the exploitation of this resource. Different contacts took place with national operators aimed at identifying the constraints encountered as regards this fishery (fishing equipment, know-how, implementation of regulations, etc.). The fishing administration also carried out the necessary steps in consultation with the other national institutions (Ministries of Transport and Defence) to proceed with the revision of the above-mentioned decree of 19 April 2010. Likewise, all these steps are included in the framework of preparations of the 2012 fishing campaign.*

RÉSUMÉ

*Les captures des thonidés mineurs et d'espadons enregistrées en 2011 par l'Algérie se sont élevées à 1.797 tonnes, réalisées pour la plus grande partie par une flottille de pêche nationale artisanale. L'Algérie n'a enregistré aucune capture de thon rouge au titre de l'année 2011. Cette année a été consacrée à faire le point sur la capacité de pêche thonière nationale existante et sur le dispositif réglementaire régissant la pêcherie thonière, notamment les dispositions de l'arrêté du 19 avril 2010 instituant des quotas de pêche au thon rouge pour les navires battant pavillon national exerçant dans les eaux sous juridiction nationale et fixant les modalités de leur répartition et de leur mise en œuvre. Il est à signaler que les armateurs thoniers nationaux ont rencontré des problèmes quant à son application et, par conséquent, aucune participation à la campagne de pêche 2011 n'a été formulée. En effet, le texte réglementaire suscité reprend les dispositions des recommandations de l'ICCAT, notamment celles de la 08-05, mais également impose d'autres mesures nationales en matière d'exploitation de cette ressource. Différents contacts ont eu lieu avec les opérateurs nationaux afin d'identifier les contraintes rencontrées par rapport à cette pêcherie (équipements de pêche, savoir-faire, mise en application de la réglementation, etc.). L'Administration de la pêche avait également entamé les démarches nécessaires en concertation avec les autres institutions nationales (Ministères des transports et celui de la défense nationale) pour procéder à la révision de l'arrêté du 19 avril 2010 susmentionné. Aussi, toutes ces démarches rentrent dans le cadre des préparatifs de la campagne de pêche de 2012.*

RESUMEN

*Las capturas argelinas totales de pequeños túnidos y pez espada registradas en 2011 por Argelia ascendieron a 1.797 t, realizadas en su mayor parte por una flota nacional de pesca artesanal. En 2011, Argelia no ha registrado ninguna captura de atún rojo. Este año se ha centrado en poner al día la capacidad de pesca nacional de túnidos existente y el dispositivo*

*reglamentario que rige la pesca atunera, sobre todo las disposiciones del decreto del 19 de abril de 2010 que establece cuotas de pesca de rojo para los buques que enarbolan pabellón nacional y que faenan en aguas bajo jurisdicción nacional y que establece las modalidades para su reparto e implementación. Cabe señalar que los armadores atuneros nacionales se han encontrado con problemas a la hora de aplicarlo, y por consiguiente, no ha habido participación en la campaña de pesca de 2011. En particular, el texto reglamentario mencionado recoge las disposiciones de las recomendaciones de ICCAT, sobre todo las de la Rec. 08-05, pero también impone otras medidas nacionales en materia de explotación de dicho recurso. Se han establecido diferentes contactos con los operadores nacionales para identificar las limitaciones que se han observado en esta pesquería (equipos de pesca, conocimientos, implementación de la reglamentación, etc.). La Administración de pesca también ha emprendido las gestiones necesarias, junto con otras instituciones nacionales (Ministerio de Transporte y Ministerio de Defensa Nacional) para proceder a la revisión del decreto del 19 de abril de 2010, mencionado antes. Asimismo, estas gestiones se encuadran en los preparativos de la campaña de pesca de 2012.*

## **Ière Partie (Informations sur les pêcheries, la recherche et les statistiques)**

### ***Chapitre 1 : Information annuelle sur les pêcheries***

Les captures algériennes totales des thonidés et d'espèces voisines enregistrées, au titre de l'année 2011, se sont élevées à 1.797 tonnes métriques et sont réparties comme suit :

- espadon : 216 t
- bonite : 355 t
- thonine : 98 t
- palomette : 9 t
- melva : 1.119 t

Cette production a été réalisée au moyen d'une flottille nationale artisanale, de type long-liner et senneur dont la longueur varie entre 9 et 15 m.

Concernant le thon rouge, il est à signaler que l'armement thonier algérien, qui était composé de dix (10) senneurs et de deux (2) palangriers, n'a pas participé à la campagne de pêche au thon rouge en 2011. De ce fait, aucune capture n'a été réalisée au courant de cette année.

#### ***1.1 Fréquences de taille***

Des échantillons de taille d'espadon *Xiphias gladius* ont été effectués au niveau des ports de débarquement des zones Ouest (22 individus), centre (21 individus) et Est (16 individus) du pays, soit un échantillon estimé à 59 individus.

Cette investigation a fait ressortir que la taille des spécimens présente une différence selon les régions. En effet, la région Est se caractérise par une dominance de petits spécimens contrairement aux deux régions centre et Ouest qui possèdent presque la même distribution de taille composée de plus grands individus. Ce qui pourrait s'expliquer par la saison d'échantillonnage, en hiver pour l'Est et au printemps pour le centre et l'ouest du littoral algérien.

L'intervalle de taille considéré est principalement composé d'individus dont la taille varie entre 45 et 125 cm. Aussi, il est à noter qu'il n'a pas été possible de procéder au sexage de ces individus échantillonnés du fait qu'ils sont débarqués éviscérés.

### ***Chapitre 2 : Recherche et statistiques***

Sur le plan du suivi de l'exploitation des ressources halieutiques, le secteur de la pêche continue d'appliquer le dispositif réglementaire instauré en matière de collecte de données statistiques et ce, conformément au Décret exécutif n° 04-186 du 30 juin 2004 fixant les conditions et les modalités de collecte et de transmission des

informations et des données statistiques sur les captures et les moyens mis en œuvre pour exploiter les ressources halieutiques, notamment en matière de données sur l'effort de pêche et les aspects socio-économiques.

Ce dispositif de collecte de données relative à l'activité de la pêche est exécuté et mis en application par les agents collecteurs, désignés et dépêchés par l'administration des pêches territorialement compétente, au niveau des ports de débarquement. Les informations statistiques requises portent essentiellement sur les espèces pêchées en quantité et en qualité, les zones de pêche, etc.

Toutes ces informations sur l'activité de la pêche à l'échelle nationale seront rassemblées, transmises compilées et centralisées au niveau du fichier national du Ministère de la pêche. Ce fichier constitue une base de données sur le nombre et type de métier par catégorie, les caractéristiques de cette flottille, les engins de pêche utilisés, les productions réalisées, le taux d'immobilisation des navires, le nombre de sorties en mer, etc.

Ainsi, tous ses renseignements constituent d'année en année une série historique indispensable pour une évaluation indirecte des stocks de poissons. Ce dispositif est conforté par l'exécution de campagnes d'évaluation directes des stocks halieutiques, périodiques et régulières, grâce à l'acquisition de l'Algérie d'un navire de recherche, équipé pour mener des campagnes d'évaluation et de prospection en mer.

Par ailleurs, et conformément aux dispositions de l'arrêté ministériel du 16 avril 2006, le capitaine de chaque navire doit conserver un journal de pêche à bord de son navire dans lequel il est tenu de noter quotidiennement toutes les informations et données sur les opérations de pêche.

Concernant la collecte des données sur le thon rouge, l'Algérie par le biais de son dispositif réglementaire, notamment l'arrêté du 10 avril 2010, instituant des quotas de pêche au thon rouge pour les navires battant pavillon national exerçant dans les eaux sous juridiction nationale et fixant les modalités de leur répartition et leur mise en œuvre prévoit l'embarquement de deux contrôleurs à bord de chaque navire thonier participant aux campagnes de pêche.

En plus de veiller au respect des quotas alloués, des zones de pêche, de la période de pêche, ces contrôleurs ont pour mission de collecter des informations sur les captures réalisées, les durées des opérations de pêche et l'effort de pêche déployé.

Quant à la recherche scientifique se rapportant aux thonidés et aux espèces voisines, des travaux de recherche, notamment sur les paramètres biologiques, la croissance et l'exploitation de ces espèces, sont effectués. À ce titre, une étude portant sur des éléments d'informations sur la biologie du thon rouge (*Thunnus thynnus*) est entreprise sur la base d'une série de données collectées durant la dernière décennie 2000-2009. Les résultats font ressortir une différenciation de croissance en fonction du sexe, les mâles dominant dans les premières et dernières classes de taille alors que les femelles dominant dans les classes intermédiaires. L'évolution annuelle du ratio des sexes présente pour toutes les années des proportions de femelles nettement supérieures à celles des mâles. Les paramètres de croissance estimés par l'analyse des structures de taille par la méthode de *Powell-Wetherall* ont été revus par l'application de la méthode de *Bhattacharya* basée par l'analyse de structure d'âge.

Aussi, dans le cadre du programme national de recherche, l'axe de recherche sur l'étude et le suivi des grands migrants halieutiques se poursuit, notamment pour l'espadon, espèce pour laquelle un dispositif d'échantillonnage biologique a été mis au niveau de certains ports de débarquement des produits de la pêche, afin de collecter des informations sur la taille, le poids des spécimens et les engins de pêche utilisés, et des moyens de captures mis en œuvre. Toutefois, l'obtention du sexe des individus échantillonnés comme déjà mentionné demeure difficile.

## **II<sup>ème</sup> partie (Mise en œuvre de la gestion)**

### ***Chapitre 3 : Mise en œuvre de mesures de conservation et de gestion de l'ICCAT***

Il est nécessaire de rappeler que l'Algérie a adopté en 2010, un arrêté ministériel définissant les modalités de répartition des quotas de pêche au thon rouge, leur mise en œuvre ainsi que le suivi et le contrôle de la pêche de cette espèce dans les eaux sous juridiction algérienne (arrêté ministériel du 19 avril 2010).



Aussi, il est à souligner que l'arrêté susmentionné, dont une copie figure en appendice, est fondé sur les dispositions des recommandations de l'ICCAT, notamment la Recommandation 08-05 amendée par les Recommandations 09-06 et 10-04 portant sur un plan de rétablissement de la pêcherie du thon rouge de l'Atlantique Est et de la Méditerranée.

Il y a lieu de signaler que l'Algérie, en plus des dispositions des recommandations de l'ICCAT suscitées, a introduit dans cet arrêté deux autres dispositions supplémentaires portant sur l'interdiction de recourir aux opérations de pêche conjointes et d'exercer au niveau des eaux internationales. Ces deux dispositions ont posé problème aux opérateurs nationaux qui n'ont pas pu participer à la campagne de pêche 2011.

De ce fait et dans le cadre des préparatifs de la campagne de pêche au thon rouge au titre de l'année 2012, l'Administration des pêches algériennes a procédé à partir de la fin de l'année 2011 à la révision du dispositif réglementaire régissant l'exploitation du thon rouge dans les eaux sous juridiction en prenant en considération les problèmes rencontrés par les armateurs thoniers algériens en cours des années 2010 et 2011 et en se basant sur les dispositions de l'ICCAT, notamment la Recommandation 10-04. Ce nouveau dispositif a été adopté en mai 2012 (arrêté du 15 mai 2012 modifiant et complétant l'arrêté du 19 avril 2010 instituant des quotas de pêche au thon rouge pour les navires battant pavillon national exerçant dans les eaux sous juridiction nationale et fixant les modalités de leur réparation et de leur mis en œuvre).

Ceci étant et en matière des mesures de conservation et de gestion du thon rouge, le dispositif réglementaire mis en place par l'Algérie réglemente entre autres les aspects suivants :

- la gestion et la répartition des quotas,
- la période de fermeture de la pêche au thon rouge, aussi bien pour, les senneurs que pour les palangriers de plus de 24 mètres (du 1<sup>er</sup> juin au 31 décembre pour les palangriers de plus de 224 mètres et du 15 juin au 15 pour les senneurs),
- les conditions de transfert du thon rouge vivant de la senne vers la cage remorquée (autorisation au préalable de l'administration chargée des pêches territorialement compétente, contrôle et suivi des opérations par une caméra vidéo sous-marine),
- les tailles minimales marchandes et
- les prises accessoires.

En matière d'enregistrement d'informations, le capitaine du navire est tenu de :

- communiquer à l'administration des pêches territorialement compétente et au service national des gardes-côtes, un rapport hebdomadaire de capture,
- communiquer un rapport de capture journalier à l'administration des pêches territorialement compétente comportant les informations se rapportant à la date et à la localisation des captures et
- conserver à bord un carnet de pêche.

En ce qui concerne la pêche à l'espadon, il y a lieu de souligner que cette pêcherie est pratiquée d'une façon artisanale en Algérie au moyen de navires de type petits métiers, armés à la palangre et dont les longueurs varient entre 4 mètres et 12 mètres.

En matière de réglementation, cette pêcherie est régie par les dispositions du décret exécutif n°03-481 du 13 décembre 2003, fixant les conditions et les modalités d'exercice de la pêche, lequel prévoit des autorisations de pêche pour l'exploitation de cette ressource quel que soit le type et la longueur du navire.

Par ailleurs et conformément à la Recommandation 09-04 de l'ICCAT sur l'espadon de la Méditerranée, un arrêté fixant la période de fermeture de la pêche de l'espadon dans les eaux sous juridiction nationale a été promulgué le 21 septembre 2011 (voir copie de l'arrêté joint en annexe).

Aussi, le dispositif de documents statistiques ICCAT et le document de capture de thon rouge (BCD) pour la commercialisation de l'espadon et du thon rouge est mis en place. Toutefois, il y a lieu de signaler qu'en 2011, l'Algérie n'a effectué aucune importation et/ou exportation de l'espadon et de thon rouge et, par conséquent, aucun document statistique n'a été enregistré.

#### ***Chapitre 4 : Schémas et activités d'inspection***

L'arrêté suscité prévoit pour le suivi et le contrôle des opérations de pêche au thon rouge, l'embarquement de deux contrôleurs observateurs à bord de chaque thonier devant participer à la campagne de pêche au thon rouge quelle que soit sa longueur.

Aussi et en application des dispositions de cet arrêté, l'Algérie a mis en place en 2011 une instruction interministérielle (Ministère de la défense nationale/ Service national des Gardes-côtes et Ministère de la pêche) fixant les modalités de désignation, d'intervention des contrôleurs observateurs à bord des navires de pêche au thon rouge battant pavillon national (instruction n°150 du 10 Mai 2011)

Par ailleurs, le projet relatif à la fourniture et à l'installation d'un dispositif de contrôle et de surveillance des navires de pêche (VMS), inscrit dans le cadre du programme du secteur de la pêche, est en cours. Quatre-cents (400) balises ont été expédiées. Le logiciel du dispositif est finalisé et la procédure d'obtention des différentes autorisations y afférentes au système est en cours. Toutefois, il est à signaler que les thoniers algériens sont déjà équipés de balises.

#### ***Chapitre 5 : Autres activités***

Néant

#### **Appendices<sup>1</sup>**

Instruction interministérielle n°150 du 10 mai 2011 fixant les modalités de désignation, d'intervention des contrôleurs observateurs à bord des navires de pêche au thon rouge battant pavillon national exerçant dans les eaux sous juridiction nationale ainsi que leurs missions.

Arrêté du 21 septembre 2011 fixant la période de fermeture de la pêche de l'espadon dans les eaux sous juridiction nationale.

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<sup>1</sup> The Appendices are available at the Secretariat. / Disponible auprès du Secrétariat. / Disponible en la Secretaría.

**ANNUAL REPORT OF BARBADOS  
RAPPORT ANNUEL DE LA BARBADE  
INFORME ANNUAL DE BARBADOS**

Christopher Parker<sup>1</sup>

**SUMMARY**

*The Barbados total catch of tuna and tuna-like species under the management purview of ICCAT was estimated at around 260 t for 2011. Of the 39 longline vessels registered in the local fleet, only 25 fished during the year. No vessels larger than 24m LOA are registered in the Barbados fishing fleet. However two longline vessels greater than 20m LOA remain registered in the fleet but were not active during the reporting period as they undergo extensive refurbishment. The sampling programme to collect detailed information on fishing trips, including catch composition through post-trip interviews of fishermen, was fully and successfully operational throughout 2011. The sampling programme to collect sample fish lengths was successful in the case of yellowfin tuna, where an adequate number of size data were collected and reported, but was much less successful in the case of marlin species where few data were collected, due to a number of factors. At the time of reporting, legal drafting is well on the way, of a new suite of fisheries regulations geared toward improving information gathering, monitoring and control of all local fisheries and fish trade, including for large pelagic species under the purview of ICCAT.*

**RESUME**

*Il a été estimé que la prise totale de la Barbade de thonidés et d'espèces apparentées relevant du mandat de gestion de l'ICCAT avoisine 260 tonnes au titre de 2011. Seuls 25 des 39 palangriers enregistrés de la flottille locale ont pêché pendant l'année. Aucun bateau de plus de 24 m de longueur hors-tout ne figure dans la flottille de pêche de la Barbade. Or, deux palangriers de plus de 20 mètres de longueur hors-tout demeurent immatriculés dans la flottille, mais n'ont pas opéré pendant la période de déclaration, car ils ont fait l'objet d'une importante remise en état. Le programme d'échantillonnage destiné à recueillir des informations détaillées sur les sorties de pêche, y compris la composition de la capture, au moyen d'entretiens avec les pêcheurs après la sortie, a été pleinement mis en œuvre pendant l'année 2011 avec succès. Le programme d'échantillonnage destiné à échantillonner des tailles de poissons a été fructueusement mené à bien dans le cas de l'albacore dont un nombre suffisant de données de taille ont été recueillies et déclarées, mais a donné des résultats moins satisfaisants dans le cas des espèces de makaires pour lesquelles peu de données ont été recueillies, en raison de plusieurs facteurs. Au moment de la rédaction du présent document, l'élaboration de textes juridiques de nouvelles réglementations sur les pêches visant à améliorer la collecte d'informations, le suivi et le contrôle de toutes les pêcheries locales et du commerce de poissons, y compris pour les espèces de grands pélagiques relevant du mandat de l'ICCAT, est à un stade très avancé.*

**RESUMEN**

*La captura total de Barbados de túnidos y especies afines bajo la supervisión de ordenación de ICCAT se estimó en aproximadamente 260 t para 2011. De los 39 palangreros con registro en la flota local sólo 25 estuvieron activos durante el año. No hay buques de más de 24 m de eslora total registrados en la flota pesquera de Barbados. Sin embargo, hay dos palangreros de más de 20 m de eslora total que siguen registrados en la flota, pero que estuvieron inactivos durante el periodo de comunicación ya que han sido objeto de una importante restauración. El programa de muestreo para recopilar información detallada de las mareas de pesca, lo que incluye la composición de la captura, mediante entrevistas a los pescadores tras las mareas, funcionó plenamente y con éxito durante 2011. El programa de muestreo para recopilar*

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*muestras de tallas de peces tuvo muy buenos resultados en el caso del rabil, para el cual se recopiló y comunicó una cantidad adecuada de datos de talla; pero tuvo peores resultados en el caso de los marlines para los que se recopilaron pocos datos debido a varios factores. En el momento de redactar este informe, está muy avanzado el proceso de elaboración de texto legal de nuevos reglamentos pesqueros encaminados a mejorar la recopilación de información, el seguimiento y control de todas las pesquerías y comercio de pescado locales, lo que incluye las grandes especies pelágicas bajo supervisión de ICCAT.*

## **Part 1 (Information on fisheries, research and statistics)**

### ***Section 1: Annual Fisheries Information***

In 2011, the estimated total Barbados catches of large pelagic species under the purview of ICCAT was around 260 t. As usual the longline fleet landed the majority (80%) of the island's catch of the large highly-migratory species group (tunas, billfishes and swordfish). On the other hand the majority (88% ) of wahoo (*Acanthocybium solandri*) were taken by the smaller vessels using single-hook lines, usually during fishing trips targeting flying fish (*Hirundichthys affinis*) and associated large pelagics (please refer to Barbados National Report 2010 for a detailed description of vessel types comprising the local fishing fleet). Longliners landed around 46% of the island's total shark catch. Sharks are not targeted by local fishermen as they are not a popular local market species.

Of the 39 longline vessels registered in the local fishing fleet in 2011, only 25 were actively fishing during the year. There are no vessels larger than 24m LOA in the Barbados fishing fleet. However, there are two longline vessels greater than 20m LOA registered in the fleet but these were inactive throughout the reporting period as they were being refurbished. These vessels will be added to the ICCAT Record of Vessels over 20m when they are seaworthy and allowed to commence fishing. No foreign owned vessels are registered in the Barbados fishing fleet. All Barbadian fishing vessels are home-based and none use purse seine gear. No transshipments of large pelagics were made through Barbados in 2011.

### ***Section 2: Research and statistics***

The collection of detailed information on sampled fishing trips *inter alia* fishing effort (e.g. no. of hooks and sets), fishing location and species composition via post-trip interviews of vessel captains, continued in earnest throughout the year. This detailed information was collected for around 40% of the total number of longliner trips for the year. In addition length and weight measurements were taken primarily for specimens of yellow-fin tuna and a limited number of blue marlin from some of these sampled trips.

A sampling plan was put in place from June 2011 whereby the longline fishermen themselves identify the caught marlins to species level at sea and tag them appropriately to facilitate accurate species-level dockside sampling and reporting. This procedure is necessary as the animals are beheaded and most of the fins, including the first dorsal fin, removed at sea; making it impossible to accurately identify the landed dressed carcasses to the species level. The way that the carcasses were dressed also caused problems in locating usable standard measurement points on the landed carcasses. In 2011 efforts were focussed on measuring carcass lengths between the anterior limit of the pectoral fin and the anterior limit of the caudal fin. However, in many cases the tail fin of possible samples had been cut off from farther up the trunk, resulting in the loss of the entire caudal peduncle. Therefore, from mid-2012 measurements were taken between the anterior limit of the pectoral fin and the anterior limit of the second dorsal fin, as both of these fins are typically only clipped in the dressed form and as such are discernible on most landed specimens. In addition, the first months of the programme also suffered from relatively fewer number of marlins landed in the year and the modest levels of fishermen participating in the programme. The combination of these factors resulted in the small number of measurement data collected in 2011. The levels of fisherman participation and coordination with data collectors has subsequently greatly improved. In addition, fishermen are also encouraged to remove less of the caudal fin to allow for the establishment of a conversion factor between the two measures.

## **Part II (Management Implementation)**

### ***Section 3: Implementation of ICCAT Conservation and Management Measures***

The Fisheries Act (1993, amended in 2000) includes most of the basic legislation related to the management and development of fisheries in Barbados. The Chief Fisheries Officer is responsible for the general administration of the Act. The Fisheries Act includes a number of clauses that ensure that all locally registered fishing vessels have a genuine link with Barbados. The Act also mandates that any foreign fishing vessel may only fish in the waters of Barbados with special permission from the Minister responsible for Fisheries. Stricter management of fisheries are prescribed through specific Fisheries Management Regulations arising from the parent Act. The first suite of fisheries management regulations under the Fisheries Act (1993) were enacted through the Fisheries (Management) Regulations (1998). Regulations specific to ICCAT species included prohibiting the landing of yellowfin or bigeye tunas of less than 3.2 kg live weight and prohibiting the use of drifting pelagic nets greater than 2.5km in length. The maximum penalty for breaking any of these regulations is a fine of \$50,000 Bds and/or two years imprisonment.

During the reporting period, legal drafting and review of a new suite of Fisheries Management Regulations aimed at improving the monitoring and management of all major local fisheries was almost completed. The new draft regulations that pertain to management of fisheries of ICCAT species include the establishment of a legal minimum landed size for swordfish, the mandatory detailed reporting of fishing activities of longliners and iceboats including fishing locations and species caught. In addition, regulations have been included to mandate detailed reporting of all information deemed necessary for effective control by entities involved in the distribution and trade in these species. Barbados also continues to actively pursue options for implementing a VMS programme for its longliner and ice boat fleets.

None of the large pelagic species under ICCAT purview is discarded in Barbados. It is simply not in keeping with the ethos of the local fishing community to engage in or condone practises such as shark finning. Barbados does not participate in the blue fin tuna fishery. One application for the issue of Export Certificates for swordfish was received by the Fisheries Division in 2011. The Fisheries Division did not receive any specific reports of suspected IUU fishing activities or other issues of non-compliance with ICCAT measures.

The transshipment of fish from foreign-based vessels through Barbados is allowed only with the written permission of the Chief Fisheries Officer. The process for attaining such permission and procedures for monitoring the transshipment activities have been detailed in earlier national reports (e.g. 2010, 2011). However, no transshipments of large pelagic species from foreign-based vessels through Barbados ports occurred in 2011.

### ***Section 4: Inspection Schemes and Activities***

Catches of large pelagic species under the purview of ICCAT by the local fishing fleet are landed only at monitored landing sites. An on-going programme of dockside monitoring, that includes the collection of more detailed information on the fishing activities of vessels through post-trip interviews of boat captains, for subsequent reporting to ICCAT was fully implemented throughout 2011. The protocol for any transshipment of ICCAT species through the Barbados Port has been described in earlier national reports.

### ***Section 5: Other Activities***

None to report.

**ANNUAL REPORT OF BELIZE  
RAPPORT ANNUEL DU BELIZE  
INFORME ANUAL DE BELICE**

James Azueta<sup>1</sup>, Valerie Lanza<sup>2</sup>

*SUMMARY*

*As a Member of several major RFMOs, including ICCAT, Belize has continued to maintain a compliant fleet in all the areas where our vessels operate. Belize's fishing fleet operating in the ICCAT area is comprised mostly of longliners which are licensed to target tuna and tuna-like species. Belize also has 5 purse seiners actively operating in the area. The total number of tuna longliners operating in the ICCAT Convention area has increased over the past several years, from 11 in 2006 to 12 in 2007, 14 in 2008, 20 in 2009, 22 in 2010, 26 in 2011 and 19 in 2012. The purse seine fleet was comprised of one vessel in 2010 and has increased to 5 vessels in 2011 and 2012. Over the last five years, total catches of tuna and tuna-like species and sharks amounted to 1676.18 metric tons (t) in 2007, 1431t in 2008, 1664 t in 2009 to 6851.59 t in 2010 and 14,409 t in 2011. Yellowfin has been the dominant catch for the past several years amounting to 71% of the total catch in 2006, 69% in 2007, 81% in 2008 and 59% in 2009. However, in 2010 and 2011 the dominant catch was skipjack, amounting to 39% and 51%, respectively, of the Belizean overall catches. The average size of the vessels in 2006 and 2007 was 116 gt, 133 gt in 2008, 359 gt in 2009, 397 gt in 2010 and 583 in 2011. Blue shark and Mako shark continues to be the most common non-tuna species in the longline fishery followed by blue marlin. The compiled data including Task I and Task II for 2011 and the list of authorized vessels have been reported to ICCAT. Subsequent updates have also been sent to the Secretariat. Belize continues to monitor, control and surveille its high seas fishing fleet to ensure that the activities of these vessels are fully compliant with Belize's national laws and international Regulations, the FAO "Compliance Agreement", the "Fish Stocks Agreement", the "IPOA IUU" as well as the Resolutions and Recommendations adopted by ICCAT and other relevant RFMOs.*

*RESUME*

*En sa qualité de membre de plusieurs ORGP importantes, dont l'ICCAT, le Belize n'a cessé de maintenir une flottille respectueuse des normes dans toutes les zones où ses navires opèrent. La flottille de pêche du Belize opérant dans la zone de la Convention de l'ICCAT est composée principalement de palangriers munis d'une licence pour cibler les thonidés et les espèces apparentées. Nous disposons également de cinq senneurs opérant activement dans la région. Le nombre total de palangriers thoniers opérant dans la zone de la Convention de l'ICCAT a augmenté au cours de ces dernières années, passant de 11 en 2006 à 12 en 2007, puis de 14 en 2008, à 20 en 2009, 22 en 2010, 26 en 2011 pour s'établir à 19 unités en 2012. Notre flottille de senneurs ne comptait qu'une unité en 2010 et a augmenté en 2011 et 2012, passant à cinq unités. Au cours des cinq dernières années, nos prises totales de thons et d'espèces apparentées et de requins s'élevaient à 676,18 t en 2007, 1.431 t en 2008, 1.664 t en 2009, 6.851,59 t en 2010 et 14.409 t en 2011. L'albacore constitue la prise dominante au cours des dernières années représentant 71% de la capture totale en 2006, 69% en 2007, 81% en 2008 et 59% en 2009. Néanmoins, en 2010 et 2011, notre prise dominante était le listao, représentant 39% et 51% respectivement de nos prises globales. La jauge brute moyenne de nos navires en 2006 et 2007 était de 116 tonneaux, de 133 tonneaux en 2008, de 359 tonneaux en 2009, de 397 tonneaux en 2010 et de 583 tonneaux en 2011. Le requin peau bleue et le requin-taupe bleu demeurent les espèces non-thonières les plus communes au sein de notre pêcherie palangrière, suivies du makaire bleu. Les données compilées incluant les données de la Tâche I et de la Tâche II au titre de 2011 et la liste des navires autorisés ont été déclarées à l'ICCAT. Des actualisations ultérieures ont également été envoyées au Secrétariat. Le Belize continue de suivre, contrôler et surveiller sa flottille de pêche hauturière afin de garantir que les activités*

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*de ces navires respectent rigoureusement ses lois nationales et réglementations internationales: l'Accord d'application de la FAO, l'Accord sur les stocks de poissons, l'IPOA-IUU, ainsi que les résolutions et recommandations adoptées par l'ICCAT et d'autres ORGP pertinentes.*

## RESUMEN

*En su calidad de miembro de varias OROP, incluida ICCAT, Belice ha seguido manteniendo una flota que cumple las normas en todas las zonas en las que operan nuestros buques. La flota pesquera de Belice que opera en la zona de ICCAT está compuesta por palangreros que tienen licencia para dirigirse a túnidos y especies afines. Actualmente, contamos también con cinco cerqueros que operan activamente en la zona. El número total de palangreros atuneros que operan en la zona de ICCAT se ha incrementado en los últimos años pasando de 11 en 2006 a 12 en 2007, 14 en 2008, 20 en 2009, 22 en 2010, 26 en 2011 y 19 en 2012. Nuestra flota de cerco contaba con 1 unidad en 2010 y se ha incrementado hasta cinco unidades en 2011 y 2012. Durante los cinco últimos años las capturas totales de túnidos y especies afines y tiburones han sido las siguientes: 1.676,18 t en 2007, 1.431 t en 2008, 1.664 t en 2009, 6.851,59 t en 2010 y 14.409 t en 2011. El rabil ha sido nuestra captura predominante en los últimos años, respondiendo del 71% de la captura total en 2006, del 69% en 2007, del 81% en 2008 y del 59% en 2009. Sin embargo, en 2010 y 2011, la especie predominante en nuestras capturas ha sido el listado, que respondió, respectivamente, del 39% y del 51% de las capturas totales. El tamaño medio de nuestros buques en 2006 y 2007 fue de 116 TB, de 133 TB en 2008, de 359 TB en 2009, de 397 TB en 2010 y de 583 TB en 2011. La tintorera y el marrajo dientoso siguen siendo las especies más comunes, al margen de los túnidos, en nuestra pesquería de palangre, seguidos por la aguja azul. Se comunicaron a ICCAT los datos recopilados, lo que incluye la Tarea I y Tarea II para 2011 y la lista de buques autorizados. También se han enviado a la Secretaría actualizaciones posteriores. Belice sigue realizando actividades de seguimiento, control y vigilancia de su flota pesquera de altura para garantizar que las actividades de estos buques cumplen plenamente su legislación nacional, así como las regulaciones internacionales, el Acuerdo de cumplimiento de la FAO, el Acuerdo sobre poblaciones de peces, el PAI-IUU, así como las Resoluciones y Recomendaciones adoptadas por ICCAT y otras OROP pertinentes.*

## Part 1 (Information on Fisheries, Research and Statistics)

### Section 1: Annual Fisheries Information

#### 1.1 Annual catch by species and gear in the ICCAT Convention area

**Tables 1 and 2** show the annual catch and effort data by gear and species for our fleet which operated in the area over the past 5 years (Source: Fishing logs and fishing vessel voyage reports, discharge data, mate's receipts, invoices, purchase agreements).

As you will observe almost all our catches remain within the quota levels set for each species in 2006, 2007, 2008 and 2009. In 2010 and 2011 our vessels exceeded its northern albacore quota levels due to increased demand for this species within our fisheries. Our swordfish quota was also exceeded in 2011 due to developing capacity in this fishery. Payback and management plans relating to these two species have been submitted to the Secretariat.

#### 1.2 Number of vessels by gear, size (fleet structure)

Our fleet in 2011 consisted of 27 vessels of > 24 meters in LOA, all of which were licensed to operate exclusively in the ICCAT Area. **Tables 3 and 4** show the number of active vessels which operated within in the Convention area by year, gear and size.

#### 1.3 Fishing patterns (catch by area)

**Table 5** shows the area of operation of the Belizean vessels.

#### *1.4 Estimated total catches of non-target, associated and dependent species*

The catches of non-target, associated and dependent species are given in **Table 6**.

#### *1.5 Useful information*

The fleet which fishes on the high seas is registered by the International Merchant Marine Registry of Belize (IMMARBE) and is licensed by the Belize Fisheries Department. Matters of policies are determined jointly by the Ministry of Fisheries, Forestry and Sustainable Development and the Director General of IMMARBE.

### **Section 2: Research and Statistics**

#### *2.1 Summary of observer and port sampling programmes*

For the purpose of compliance, surveillance is conducted on a regular basis or as result of an investigation by: boarding at sea, or at port, plant checks, requesting the assistance of other Government Organizations as necessary. We do not currently have and at sea Observer Program. However as the need arise we hope to utilize that which is available by the Commission. We are currently working with other governments on the implementation of a port observer program at one of the major port where our vessels discharge. With funding from ICCAT we are currently engaged in negotiations for a port sampling program in Trinidad which expectantly will commence in early 2013.

#### *2.2 Research activities*

We do not conduct research activities in the Convention Area

#### *2.3 Statistical data collection system in use*

Fishing vessels owners/operators are required to submit data on their fishing operations based on our format for such reporting, which includes a detailed Fishing Log and Fishing Vessel Voyage Report, discharge reports, mate's receipts, invoices, purchase agreements. We have also implemented in 2011 a logbook system in which all our vessels are required to keep on board manual logbooks to be completed daily. Operators are also now required to provide us with, in addition to the above, monthly estimates of their catches prior to discharge. We are also working with our VMS providers on the configuration of a new platform within our system for electronic data reporting.

#### *2.4 Data coverage of catch, effort, and size data for all species*

Our operational effort level is verified by VMS. The coverage was 100% in 2007, 2008 and 2009 and 2010. Our operational catch level for 2007 was verified by mate's receipts and sales invoices and/or purchase contract. This included species and size by weight in 2007 and weight and length in 2008, 2009, 2010 and 2011. The length measurements are based on a 25% ratio of the daily catches of each species.

## **PART II (Management Implementation)**

### ***Section 3: Implementation of ICCAT Conservation and Management Measures***

All our fishing vessels which are operating in the ICCAT Convention Area are compliant with ICCAT's Conservation and Management Measures as well as our National Laws and International Regulations.

#### **– Recommendations and Resolutions on closed seasons**

- With regard to Recommendation 06-06 Concerning the Western Atlantic Bluefin Tuna Rebuilding Program, paragraph 13, we are not engaged in this fishery and none of our LSTLFVs have been licensed to target bluefin tuna in the Convention area.
- With regard to Recommendation 09-04 on Mediterranean Swordfish, paragraph 1, we are not engaged in this fishery and none of our LSTLFVs have been licensed to target Mediterranean Swordfish in the Convention area.



– **Recommendations and Resolutions on data and minimum size**

- With regard to Recommendation 96-14 on the topic of Compliance in the Bluefin Tuna and North Atlantic Swordfish Fisheries, paragraph 1; we have not licensed any vessels to target Bluefin tuna in the Convention Area. With respect to North Atlantic Swordfish, we have registered and licensed 2 vessels to target this specie in 2011 in accordance with the quotas which we have been allocated for this specie.
- With regard to Recommendation 97-01 to Improve Compliance with the Minimum Size Regulation, paragraph 2, during 2007 and prior years, our fishing vessels are required to report size by weight. However, in 2008 we introduced the requirement for measurement by length for 25% of our vessel's daily catches for each species. Also, in regard to paragraph 2 and 3, none of our vessels are licensed to fish bluefin tuna in the Convention area.
- With regard to Recommendation 98-14 on the Application of Three Compliance Recommendations, we attach herewith our ICCAT Reporting Table.
- With regard to Resolution 01-16 on the Deadlines and Procedures for Data Submission and in accordance with Paragraph 1, our Task I and Task II as well as our listing of vessels licensed to operate in the Convention area was submitted to the Secretariat on 2<sup>nd</sup> May 2012. Our compliance table was submitted to the Secretariat on 24<sup>th</sup> July 2012.
- With regard to Recommendation 03-13 Concerning the Recording of Catch by Fishing Vessels in the ICCAT Convention Area, our fishing vessel Owners/Operators are required to submit data on their fishing operations based on our format for such reports, which includes a detailed Fishing Log and Fishing Vessel Voyage Report. We have also recently implemented a bonded logbook that all vessels must carry on board at all times. We are also currently negotiating the implementation of an e-log system for our vessels to be provided through our vessel monitoring system.

– **Recommendations and Resolutions on capacity limits**

- With regard to Recommendation 93-04 on Supplementary Regulatory Measures for the Management of Atlantic Yellowfin Tuna, all our vessels which are currently licensed to target yellowfin tuna in the Convention Area have fished within the catch limits allocated to each vessel and in compliance with this Recommendation.
- With regard to Recommendation 98-03 on the Bigeye Tuna Conservation Measures for Fishing Vessels larger than 24 meter overall, paragraph 1 of this Recommendation does not apply to Belize flagged vessels because in accordance with paragraph 3 our catches are below 2000 t per annum.
- With regard to Recommendation 04-01 on Multi-Year Conservation and Management Program for Bigeye Tuna, we caught less than 2100 t in 2000 and consequently, in accordance with paragraph 7, paragraphs 2 and 4 of this Recommendation do not apply to us.

– **Recommendations and Resolutions on statistical documents**

- With regard to Recommendation 01-21 Concerning the ICCAT Bigeye Tuna Statistical Document Program, we have issued several statistical document during 2011 for bigeye tuna caught in the ICCAT Convention Area for export to Japan. Attached is a report detailing this information.
- With regard to Recommendation 01-22 on Establishing a Swordfish Statistical Document Program, we issued several Swordfish Statistical Documents in 2011 for swordfish caught in the ICCAT Convention Area for export to Spain and Japan. Attached is our reporting detailing this information

– **Recommendations and Resolutions on other measures relating to individual species**

- With regard to Recommendation 06-09 to Further Strengthen the Plan to Rebuild Blue Marlin and White Marlin Populations, none of our vessels target these species as their main target species; however, it is caught in small quantities as a by-catch.
- With regard to Resolution 03-10 on the Sharks Fishery, paragraph 2, we do minimize waste and discards from shark catches in accordance with Article 7.2.2(g) of the Code of Conduct for Responsible Tuna

Fisheries. Furthermore, we only have two vessels targeting Shortfin Mako and Blue Shark. Our draft NPOA-Shark complies with the Standards of the FAO-IPOA.

- With regard to Resolution 03-11 on Sea Turtles, we do encourage the release of marine turtles that are incidentally caught alive in our fishing activities generally and have commenced requiring specific data for the incidental by-catch of sea turtles. We have not received any reports in 2011 from any of our fishing vessels of any interaction with sea turtles.
  - With regard to Resolution 03-04 relating to Mediterranean Swordfish, we have not licensed any of our fishing vessels to target Mediterranean Swordfish in the Convention Area.
  - With regard to Recommendation 05-05 Concerning the Conservation of Sharks caught in association with Fisheries Managed by ICCAT, the historical catches of Atlantic Shortfin Mako and Blue Shark caught by our vessels in previous years are indicated in Part 1 of our Annual Report
  - With regard to Resolution 05-08 on Circle Hooks, currently, none of our vessels licensed to operate in the Convention area utilize circle hooks.
  - With regard to Resolution 06-08 on Fishing Bluefin Tuna in the Atlantic Ocean, we are not engaged in this fishery.
  - With regard to Recommendation 07-06-Spplemental Recommendation by ICCAT Concerning Sharks, paragraph 3, we do not conduct any scientific research for North Atlantic Shortfin Mako and Porbeagle shark in the Convention area; neither do we catch these species in that area.
  - With regard to Recommendation 08-07 – Conservation of Bigeye Thresher Sharks caught in association with fisheries managed by ICCAT, we are not engaged in this Fishery, nor do we encourage this type of fishery or by-catch of same.
- **Recommendations and Resolutions concerning trade sanctions**
- Recommendation by ICCAT 02-17 and 03-18 regarding Bolivia and Georgia are respected.
  - Recommendation by ICCAT for Bigeye Tuna Trade Restrictive Measures on Georgia is respected.
- **Recommendations and Resolutions concerning VMS**
- With regard to Recommendation 03-14/04-11 Concerning Minimum Standards for the Establishment of a Vessel Monitoring System in the ICCAT Convention Area we wish to re-state that we have successfully implemented and maintained VMS Reporting on all fishing vessels which operate on the high seas, irrespective of their length. It is based on Inmarsat, utilizing Inmarsat C, Inmarsat Mini C and Inmarsat D+ equipment. Our provider is Polestar Space Applications Limited who utilizes an automatic, real time internet based service called Purplefinder Vessel Management Solutions. This reporting system complies with the aforementioned Recommendation. We are presently in the process of negotiating the upgrade of our system to include new features such as geo zones, e-logs, alerts for unrestricted zones etc.,
- **General Recommendations and Resolutions**
- With regard to Recommendation 07-10, paragraph 7, we conduct Port Inspections for the purpose of ensuring compliance, surveillance on a regular basis or as a result of an investigation by: boarding at sea or port, plant checks, observer teams, requesting the assistance of other Governments/Organizations as necessary.
  - With regard to Resolution 99-07 on Improving Recreational Fishery Statistics, this is practiced in our national waters. All fishing boats engaged in such activities are obliged to respect all our national fisheries regulations. The catches in any annual tournaments are reported by the organizers to the Fisheries Department. Belize is currently cooperating with OSPESCA in the production of a report on sports fishing. Also, as reported last year, we introduced our Yachting Codes which contain guidelines for recreational fishing both in national waters and on the high seas.

- With regard to Resolution 01-18 to further define the scope of IUU Fishing, we have instructed all our vessel owners and operators and other concerned parties to refrain from engaging in transactions and transshipments of tunas and tuna-like species caught by vessels carrying out illegal, unregulated and unreported fishing activities, which include, inter alia, any fishing not in compliance with relevant ICCAT Conservation and Management Measures in the Convention Area or in other areas. Furthermore, this is expressed as a condition in all our Licenses and authorizations.
- With regard to Recommendation 03-12 Concerning the Duties of Flag States in relation to their Vessels Fishing in the ICCAT Convention Area, we are fully compliant with the requirement in this Recommendation.
- With regard to Recommendation 03-16 by ICCAT to adopt Additional Measures against Illegal, Unreported and Unregulated Fishing, these are contained in our ISO 9001-2000 compliant Quality Management System and will be reflected in our National Plan of Action for IUU.
- With regard to Recommendation 06-11- Establishing a Program for Transshipment, in 2011 we had 3 vessels which engaged in authorized transshipment at sea. All three vessels were over 24 meter LOA. We have implemented a program to control transshipment at sea from fishing vessels to authorized carrier vessels. We have notified the Commission of our interest to participate in the Regional Observer program for transshipment at sea and have submitted our transshipment reports to the Secretariat.
- With regard to Recommendation 06-16 on an Electronic Statistical Document Pilot Program, we have not yet developed any such programs.
- With regard to Recommendation 11-15 on the Report on implementation of reporting obligation for all ICCAT Recommendations, Belize submitted this report to the Secretariat on February 2, 2012. Belize has adhered to all relevant reporting requirements.
- With regard to Recommendation 11-08 on the conservation of silky sharks, Belize have issued fishing circular to all vessel owners and operators regarding the harvesting of silky shark consistent with this Recommendation. All fishing vessel circulars are considered legally binding in accordance with Belize legislation. Monitoring will be done at port when discharge takes place.
- With regard to supplemental recommendation 11-09 on reducing incidental by-catch of seabirds in ICCAT longline fisheries, Belize has issued Fishing Vessel Circular to all concerned parties consistent with this Recommendation. As a legally binding document, owners and operators are required to adhere to whatever instructions are contained therein. We are still in the process of collecting information on the mitigation measures and will supply this information to the Secretariat as soon as it is consolidated. The drafting of our National Plan of Action for Reducing Incidental Catches of Seabirds in Longline Fisheries is in its infancy as we are currently gathering the relevant information required to be contained in this document.

In accordance with ICCAT Circular 2927/2012 we wish to report on the following:

– **Swordfish – Mediterranean – Rec 11-03**

- We do not have any vessels which target Med-SWO in the ICCAT Convention area.
- We do not have any sport/recreational vessels authorized to catch Med-SWD.
- We have not issued any special fishing permits for harpoons and longline for highly migratory pelagic stocks in the Mediterranean.
- With respect to report on effectiveness of SWO-MED closures, we do not have any vessels targeting this specie in the ICCAT Convention area.

– **Swordfish – North Atlantic (Rec.11-02)**

- Our North Atlantic Swordfish Management Plan was combined with our Southern Swordfish Plan submitted last year.

– **Chartering arrangements (Rec.02-21)**

- Belize have not engaged in any chartering arrangements

– **IUU Vessels activities (Rec.11-18)**

- We have no data to report on any alleged IUU activities conducted by vessels operating in the ICCAT Convention area.

– **Bluefin (Rec.06-07)**

- Belize has not licensed any vessels to target Bluefin Tuna in the ICCAT Convention area.

– **Data on non-compliance (Rec.08-09)**

- We have no data to report on suspected non-compliance measures in the ICCAT Convention area.

– **Trade measures data (Rec.06-13)**

- Belize is not an importer of tuna or tuna like species or fish products nor do we receive landings of such species in our ports.

– **Data collected under the national BFT observer program (Rec.10-04)**

- N/A – our vessels do not target BFT.

– **Number of discards and releases of hammerhead sharks (Rec.10-08)**

- We have received no data on any interaction with hammerhead sharks by our vessels which fish in the ICCAT Convention area.

– **Results of sampling program and/or alternative at the time of BFT caging (Rec.10-04)**

- N/A – we do not harvest BFT.

– **By-catch and discard data**

- We are currently in the process of implementing new reporting requirements for our fishing vessels in the ICCAT area with respect to data submission of by-catch and discards.

– **Data on seabirds incidental catch by species (Rec.11-09)**

- We have received no data from our fishing fleet of incidental catches of seabirds. We are currently working on the drafting of our NPOA for Seabirds.

– **General reports**

1. Summary of Access Agreement – Belize have not entered into any access agreements in 2011.
2. Reply to letter of concern – Our response to ICCAT's letter of concern was submitted to Secretariat.
3. In-port transshipment reports – Belize have not authorized any in-port transshipments in 2011.
4. Bluefin Tuna – Belize has no vessels engaged in this fishery.
5. By-catch – Belize have received no data on catches of silky sharks in the ICCAT area, nor of any seabird interaction.
6. Ad-hoc information – Belize have received one report of IUU allegations by our vessel of which we have submitted a report to the Secretariat. There has been no change to our previous internal actions report submitted.

7. Annual List of Northern Albacore Vessels – Attached is our list of vessels with a directed fishery on northern albacore.<sup>3</sup>

**Table 1.** Annual catch and effort statistics for our long line vessels for major tuna species only.

<i>Year</i>	<i>Effort (Hooks)</i>	<i>N. ALB</i>	<i>S. ALB</i>	<i>YFT</i>	<i>BET</i>	<i>N. SWD</i>	<i>S. SWD</i>	<i>Total</i>
2007	267511	21.58	31.94	1164.12	60.15	8.725	119.73	1406.62
2008	218412	26.23	31.11	1160.42	68.97	.976	31.95	1319.66
2009	272834	38.70	213.45	988.35	59.70	112.25	111.36	1523.81
2010	249230	365.601	302.635	288.268	48.046	106.400	120.871	1231.82
2011	391140	351.182	334.934	320.839	557.07	184.008	206.617	1954.65

**Table 2.** Annual catch and effort statistics for our purse seine vessels for major tuna species only.

<i>Year</i>	<i>Effort (Fishing Days)</i>	<i>YFT</i>	<i>BET</i>	<i>SKJ</i>	<i>N.ALB</i>	<i>S.ALB</i>	<i>Total</i>
2010	116	1770	200.54	2714.36	50		4734.90
2011	478	2893	661	7428.5		30	11,012.5

**Table 3.** Longline vessels authorized to operate in the ICCAT area.

<i>Year</i>	<i>Base Port</i>	<i>LOA</i>		<i>GT</i>	
		<i>20-29</i>	<i>30&lt;</i>	<i>50-299</i>	<i>300&lt;</i>
2007	TTO	11		11	
	URY		1		1
2008	TTO	12		12	
	URY		2		2
2009	TTO	12		12	
	URY	1	2	1	2
	ESP	1	1	1	1
2010	TTO	12		12	
	URY	1	2	1	2
	ESP	1	1	1	1
2011	TTO	11		11	
	URY	1	3	2	2
	ESP	1	1	1	1

**Table 4.** Purse seine vessels authorized to operate in the ICCAT area.

<i>Year</i>	<i>Base Port</i>	<i>LOA</i>		<i>GT</i>	
		<i>20-29</i>	<i>30&lt;</i>	<i>50-299</i>	<i>300&lt;</i>
2010	CIV		1		1
2011	CIV		5		5

<sup>3</sup> Available from the Secretariat.

**Table 5.** Area of operation of vessels.

<i>Year</i>	<i>Quadrant</i>	<i>Latitude Positions</i>	<i>Longitude Positions</i>
2007	SW	Between 00S-25S	Between 15W-65W
	NW	Between 00N-25N	Between 15W-65W
2008	SW	Between 00S-25S	Between 20W-65W
	NW	Between 00N-25N	Between 20W-65W
2009	SW	Between 00S-25S	Between 20W-65W
	NW	Between 00N-25N	Between 20W-65W
2010	SW	Between 00S-25S	Between 20W-65W
	NW	Between 00N-25N	Between 20W-65W
2011	SW	Between 00S-25S	Between 20W-65W
	NW	Between 00N-25N	Between 20W-65W

**Table 6.** Catches of non-target, associated and dependent species in m/t.

<i>Year</i>	<i>BSH</i>	<i>MAK</i>	<i>SAI</i>	<i>BUM</i>	<i>SPF</i>
2007	236.45	17.44	12.07	3.78	
2008	109.03	1.600			
2009	113.82	23.08			
2010	733.00	59.86	75.82	3.379	11.83
2011	1282.11	128.19	8.059		

**ANNUAL REPORT OF BRAZIL  
RAPPORT ANNUEL DU BRÉSIL  
INFORME ANUAL DE BRASIL**

Mutsuo A. Filho, Bruno L. Mourato, Fabio H. V. Hazin, Leticia B. Canton

*SUMMARY*

*In 2011, the Brazilian tuna fleet fishing for tuna and tuna like fishes consisted of 583 vessels registered in 13 different ports; this might appear an increase from the past year, when 96 vessels were reported, but was simply due to the inclusion of 486 small boats (10 to 20m) as a result of a revision of the Brazilian Registry of fishing vessels. The chartered vessels represented 2.6% of the fleet. The Brazilian catch of tunas and tuna-like fishes, including billfishes, sharks, and other species of minor importance (e.g. wahoo and dolphin fish), was 52,014.97 t (live weight). The majority of the catch was taken by baitboats (61% of total catch), with skipjack tuna being the most abundant species (92.5% of the baitboat catches). The total catch of tuna longline fishery was 11,673.72 t (22.4% of total catch), with swordfish, blue shark and yellowfin tuna representing almost 56% of longline catches. The total catch of white marlin and blue marlin was 59.66 t and 63.35 t, respectively. Approximately 7.8% of 2011 catch resulted from the fishing activities of small scale fishing boats based mainly in Itaipava- ES (southeast Brazilian coast), which target a variety of species with different fishing gears, such as, longline, handline, trolling and other surface gears. A total of 40,514 fishes were measured at sea and while landing, and two silky sharks were tagged with archival electronic tag close to Saint Peter and Saint Paul Archipelago. The research on monitoring of incidental catches of seabirds and sea turtles in the longline fisheries continued to be done, as well as research on mitigation measures to avoid catches of these species.*

*RESUME*

*En 2011, la flottille thonière du Brésil ciblant des thonidés et des espèces apparentées se composait de 583 navires immatriculés dans 13 ports différents. Cela peut sembler une augmentation importante par rapport à l'année antérieure au cours de laquelle 96 navires avaient été immatriculés, mais cela est simplement dû à l'ajout de 486 petits navires (de 10 à 20 m) comme suite à la révision du registre brésilien de navires de pêche. Les navires affrétés composaient 2,6% de la flottille. La prise brésilienne de thonidés et d'espèces apparentées, y compris les istiophoridés, les requins et d'autres espèces d'importance secondaire (par ex. thazard bâtard et coryphène commune), s'élevait à 52.014,97 t (poids vif). La majorité des captures a été réalisée par les canneurs (61% de la prise totale), le listao étant l'espèce la plus abondante, représentant 92,5% des prises des canneurs. La prise totale de la pêcherie palangrière de thonidés s'est élevée à 11.673,72 t (à savoir 22,4% de la prise totale), l'espadon, le requin peau bleue et l'albacore représentant près de 56 % des prises palangrières. La prise totale de makaire blanc et de makaire bleu s'élevait à 59,66 t et à 63,35 t respectivement. Environ 7,8% de la prise de 2011 provenait des activités de pêche des petits navires de pêche basés principalement à Itaipava-ES (littoral Sud-Est du Brésil) ciblant plusieurs espèces avec différents engins, dont la palangre, la ligne à main, la ligne de traîne et d'autres engins de surface. Un total de 40.514 poissons ont été mesurés en mer et au débarquement et des marques-archives électroniques ont été apposées sur deux requins soyeux à proximité de l'archipel de Saint Pierre et de Saint Paul. La recherche s'est poursuivie sur le suivi des prises accidentelles d'oiseaux de mer et de tortues marines dans la pêcherie palangrière, ainsi que la recherche sur des mesures d'atténuation destinées à éviter les prises de ces espèces.*

*RESUMEN*

*En 2011, la flota atunera brasileña que pesca túnidos y especies afines estaba compuesta por 583 buques registrados en 13 puertos diferentes; esto podría parecer un incremento con respecto al año anterior, en el cual se comunicaron 96 buques, pero simplemente se debe a la inclusión de 486 pequeños buques (10 a 20 m), como resultado de una revisión del registro*

*brasileño de buques pesqueros. Los buques fletados representaban el 2,6% de la flota. La captura brasileña de túnidos y especies afines, incluyendo istiofóridos, tiburones y otras especies de menor importancia (por ejemplo, peto y dorado) ascendió de 52.014,97 t (peso vivo). La mayoría de la captura la realizaron los buques de cebo vivo (61% de la captura total), siendo el listado la especie más abundante (92,5% de las capturas de cebo vivo). La captura total de la pesquería de palangre ascendió a 11.673,72 t (22,4% de la captura total). El pez espada, la tintorera y el rabil respondieron de casi el 56% de las capturas de palangre. La captura total de aguja blanca y aguja azul ascendió a 59,66 t y 63,35 t, respectivamente. Aproximadamente el 7,8% de las capturas brasileñas de 2011 procedieron de pequeños buques con base principalmente en Itaipava-ES (costa sureste de Brasil) que se dirigen a diversas especies con diversos artes, como palangre, liña de mano, curricán y otros artes de superficie. Se midieron en total 40.514 peces en el mar y en los desembarques, y se marcaron dos ejemplares de tiburón jaquetón con marcas archivo electrónicas cerca del archipiélago de San Pedro y San Pablo. Continuó la investigación de seguimiento de las capturas incidentales de aves marinas y tortugas marinas en las pesquerías de palangre, así como la investigación sobre medidas de mitigación para evitar que se capturen estas especies.*

## **Part I (Information on fisheries, research and statistics)**

### ***Section 1: Annual Fisheries Information***

#### *1.1 Tuna fleet and ports*

In 2011, the Brazilian tuna fleet consisted of 583 vessels registered in the following ports: Rio Grande-RS (12), Itajaí-SC (42), Santos-SP (3), Rio de Janeiro-RJ (47), Itaipava-ES (378), Salvador-BA (4), Recife-PE (10), Natal-RN (46), Camocim-CE (23), Belém-PA (4), São Luís-MA (1), Cabedelo-PB (1), and Parnaíba-PI (12). Of these 583 boats, 568 were national and 15 were foreign chartered vessels.

#### *1.2 Total catches and composition*

The Brazilian catch of tunas and tuna-like fishes, including billfishes, sharks, and other species of minor importance (e.g., wahoo and dolphin fish), was 52,014.97 t (live weight) in 2011 (**Table 1**), representing an increase of almost 25% from 2010, when the catches reached 41,684.51 t. The main species caught were skipjack tuna (30,563.34 t; 59%), dolphin fish (4,379.23 t; 8.4%), yellowfin tuna (3,498.83 t; 6.7%), swordfish (3,033.03 t; 5.8%), blue shark (1,979.53 t; 3.8%), bigeye tuna (1,799.22 t; 3.4%), unclassified tunas (1,718 t; 3.3%) and southern albacore (1,269.06 t; 2.4%).

The increase in 2011 of the catches of skipjack tuna in Brazilian fisheries (approximately 48% when compared to 2010 catches), was due to the increase in the availability of the schools, in the abundance of bait and in the demand by the market.

In 2011, as in the previous year, the majority of the catch was taken by baitboats, which accounted for 31,691.92 t (61% of total catch of the Brazilian tuna fleet), with skipjack tuna being the most caught species (29,322.07 t; 92.5% of the total baitboat catches).

The total catch of the tuna longline fishery was 11,673.72 t which represented a decrease of 5% in relation to 2010 (12,293.08 t), with swordfish (2,800.15 t), blue shark (1,912.6 t) and yellowfin tuna (1,793.82 t) representing almost 56% of longline catches.

The total catch of white marlin and blue marlin was, respectively, 59.66 t and 63.35 t (98% of the total catch of both species was taken by longline).

Part of the Brazilian catches resulted from the fishing activities of small-scale fishing boats based mainly in Itaipava-ES (southeast coast). Although comprised of relatively small boats, this fleet is highly mobile, operating throughout most of the Brazilian coast and targeting a variety of species with different gears like longline, handline, trolling and other surface gears. In 2011, this fleet composed by 378 vessels caught 4,080.2 t of tuna and tuna-like fishes, of which dolphin fish contributed with 2,048.61 t (almost 50% of the production).



## **Section 2: Research and Statistics**

Several institutions directly assisted the Ministry of Fisheries and Aquaculture (MPA) in processing and analyzing data from 2011: Universidade Federal Rural de Pernambuco (Federal Rural University of Pernambuco-UFRPE) and Universidade Federal do Rio Grande do Norte-UFRN (Federal University of Rio Grande do Norte), located in the Northeast; Universidade Veiga de Almeida, Instituto de Pesca de São Paulo (São Paulo Fisheries Institute), located in the Southeast; Universidade do Vale do Itajaí (Itajaí Valley University-UNIVALI) located in the South. These institutions, together with Projeto TAMAR and Instituto Albatroz, continued to conduct several research and statistics activities on tuna and by-catch species caught by Brazilian boats.

Besides the catch and effort data regularly collected from Brazilian tuna fisheries, in 2011, a total of 35,947 fish were measured at sea; the main fish species measured were swordfish (11,006), albacore (8,475), blue shark (5,311), yellowfin tuna (5,150) and bigeye tuna (4,204). A total of 4,567 skipjack tunas were measured while unloading.

### **2.1 Tagging**

In 2011 two silky sharks were tagged in Saint Peter and Saint Paul Archipelago.

An important research effort on billfishes and sharks, in cooperation with U.S., Venezuela and Uruguayan scientists, continued to be developed, including collection of vertebrae, spines, stomachs and gonads, for age and growth, feeding habits and reproduction studies, as well as habitat utilization, through PSAT tags, and gear selectivity, by the use of circle hooks, hook timers, and TDRs.

Another important research program started in 2009 (MADE Project – Mitigating Adverse Ecological Impacts of Open Ocean Fisheries), in cooperation with EU scientists, and aims at investigating spatial and technical management measures to reduce the by-catch of pelagic sharks by pelagic longliners, including habitat utilization, through PSAT tags, and gear selectivity, by the use of hook timers and TDRs.

Research on tunas (yellowfin, bigeye and albacore) continued to be developed, with the financial support of the Ministry of Fisheries and Aquaculture, including some aspects of the biology of these species, such as age and growth, reproduction and feeding, as well as studies on habitat utilization, through PSAT tags, and gear selectivity, by the use of hook timers and TDRs.

In 2011, 13 cruises were monitored by the Ministry of Fisheries and Aquaculture, aiming at assessing the seabird bycatch. During this cruises 129,914 hooks were monitored and 36 of 133 sets were conducted with toriline as mitigation measure. Despite of this, three seabirds of two different species were captured: black-browed albatross (*Thalassarche melanophris*) (n = 2) and white-chinned petrel (*Procellaria aequinoctialis*) (n = 1). The total CPUE in 2010 was 0.096 birds/1000 hooks, while in 2011 it was 0.023birds/1000 hooks.

Furthermore, in 2011, 14 cruises were monitored aiming at assessing the sea turtle bycatch, corresponding to 429,819 hooks, 390 sea turtles of three different species were captured: loggerheads (*Caretta caretta*) (n = 371), leatherbacks (*Dermochelys coriacea*) (n = 10) and olive ridley (*Lepidochelys olivacea*) (n= 9).

## **Part II (Management implementation)**

### **Section 3: Implementation of ICCAT Conservation and Management Measures**

In order to adequately comply with ICCAT recommendations, the Brazilian government has implemented several rules regulating Brazilian tuna fishery, as indicated below:

- Interministerial Rule No. 04, 15 April 2011, establishing the mandatory use of mitigation measures to reduce seabird by-catch by longline fleet that operate in waters over Brazilian jurisdiction, at South of 20°S of latitude;
- Interministerial Rule No. 05, 15 April 2011, establishing the prohibition of retention onboard, unloading, storage and commercialization of *Alopias superciliosus*;
- Interministerial Rule No. 06, 15 April 2011, establishing the national catch limits for swordfish for the years 2011 and 2012;

- Interministerial Rule No. 01, 29 September 2006, establishing the National Onboard Fishing Fleet Observer Program (Programa Nacional de Observadores de Bordo da Frota Pesqueira-PROBORDO);
- Interministerial Rule No. 02, 04 September 2006, establishing the National Fishing Vessel Monitoring System (Programa de Rastreamento de Embarcações Pesqueiras por Satélite-PREPS);
- Interministerial Rule No. 26, 19 July 2005, establishing new procedures for filling-in and submitting fishing logbooks of the Brazilian tuna fisheries;
- Interministerial Rule No. 12, 14 July 2005, establishing the mandatory release of all white and blue marlins which are alive by the time of boarding and the prohibition of sale of any white and blue marlins caught;
- Rule IBAMA No. 121-N, 24 August 1998, that prohibit the discard of dead sharks whose fins have been removed and establish a proportion between fins and the weight of sharks carcass that are landed.

In 2012, new rules will be published, which involve:

- Establishment of conservation measures for shark species (*Alopias superciliosus*, *Carcharhinus falciformis*, *Carcharhinus longimanus*, hammerhead sharks - Sphyrnidae) caught by longline fleet; this rule will replace the Interministerial Rule No. 05, 15 April 2011;
- Establishment of mitigation measures to reduce seabird by-catch; this rule will replace the Interministerial Rule No. 04, 15 April 2011;
- Establishment of rules and procedures for landing, transshipment, storage and commercialization of sharks and rays caught in Brazilian waters or over its jurisdiction, by national or chartered vessels; this rule will replace article 3 of Rule IBAMA No. 121-N, 24 August 1998.

#### ***Section 4: Inspection Schemes and Activities***

Through Normative No. 05, of December 21, 2009, the Ministry of Fisheries and Aquaculture established the National Manage of Certification of Catches (Regime Nacional de Certificação de Capturas-RCC), to guide companies that export fish products from Brazil to European Union, in order to accomplish with EU Regulation No. 1005/2008.

To obtain this certification, the exporting company and the vessels that caught the products must require (considering the normative) it to the Ministry.

Aiming the validation of forms to export and re-export tuna and tuna-like fishes, the Brazilian government maintains a list of employees that are authorized to validate the certifications.

#### ***Section 5: Other Activities***

In 2011, Brazil registered through PROBORDO the release of 4 alive and the discards of two dead silky sharks (*Carcharhinus falciformis*), 7 releases alive and 6 discards of dead hammerhead sharks, and 7 releases alive and 2 discards of dead oceanic whitetip shark (*Carcharhinus longimanus*).

Besides the cruises that were monitored, the PROBORDO has registered the release (alive) of 316 seabirds, 849 turtles, and 3 mammals; the number of dead discard was 22 seabirds, 34 turtles and 1 mammal.

**Table 1.** Total catch (kg) by species and fishing gear, by Brazilian tuna fishing vessels, in 2011.

<i>Species</i>	<i>BB</i>	<i>GILL</i>	<i>GN</i>	<i>HAND</i>	<i>LL</i>	<i>PS</i>	<i>UN</i>	<i>UNCL</i>	<i>Total</i>
ALB	197.64		41.27	103.65	920.21	1.70		4.60	1,269.06
ASK			369.76		5.21				374.96
BET	174.28			168.22	1,436.45	4.61		15.66	1,799.22
BFT					0.00				0.00
BIL	0.04	0.12		21.14	53.33	1.15		39.82	115.59
BLF	40.40			4.70	0.56				45.66
BON								170.58	170.58
BRS					0.00				0.00
BSH	0.10	0.15		0.55	1,912.60		66.15		1,979.53
BTH					22.28				22.28
BUM				0.61	62.03			0.70	63.35
CCE								8.24	8.24
CCT			3.93						3.93
CVJ						20.56			20.56
CVX	0.24	13.22	11.77	5.07	305.71	1.11	344.36		681.47
DGX			19.36		2.85				22.21
DOL	128.13	6.07		679.78	1,401.38	21.39	2,142.49		4,379.23
FRI	277.68		2.05		0.00	67.63			347.36
GBA								0.40	0.40
KGM					0.57				0.57
KGX				0.11	2.77				2.88
LTA						22.00			22.00
MAK	0.08			1.24	99.37			6.56	107.25
OCS					0.00				0.00
OFH					55.18				55.18
OIL				0.12	47.93			4.05	52.10
OTF			10.23		8.22	22.46			40.92
POR					1.92				1.92
RSK	0.18	13.36	2.05	3.41	215.97	0.22	17.62		252.81
SAI		0.41		0.95	135.47			0.22	137.05
SDV			519.20						519.20
SKJ	29,322.07	67.75	147.41	151.98	11.45	551.56		311.12	30,563.34
SMA	0.09	0.16	4.78	0.11	79.24				84.38
SPF					24.37				24.37
SPN	0.03	5.60	43.75	0.09	83.06				132.52
SPY				1.17	11.40	0.20		0.03	12.80
SWO		0.34	44.80	3.82	2,800.15	0.07		183.85	3,033.03
TIG				0.09	8.81		0.24		9.13
TUN	306.13	0.97		652.74	64.79	1.78		691.58	1,718.00
WAH	1.53	2.79		91.67	48.01	83.62		129.86	357.48
WHM	0.03			0.85	58.59			0.20	59.66
YFT	1,243.24			298.91	1,793.82	2.80		160.05	3,498.83
YTC	0.03					25.87			25.90
<b>TOTAL</b>	<b>31,691.92</b>	<b>110.92</b>	<b>1,220.36</b>	<b>2,190.96</b>	<b>11,673.72</b>	<b>828.71</b>	<b>2,570.86</b>	<b>1,727.54</b>	<b>52,014.97</b>

**ANNUAL REPORT OF CANADA  
RAPPORT ANNUEL DU CANADA  
INFORME ANUAL DE CANADÁ**

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SUMMARY

*Bluefin tuna are harvested in Canadian waters from July through December over the Scotian Shelf, in the Gulf of St. Lawrence, in the Bay of Fundy, and off Newfoundland. The adjusted Canadian quota for 2011 was 488.9t which includes an 86.5t transfer from Mexico. A total of 673 licensed fishermen were active (i.e., licenses that had landings) in the directed bluefin fishery using rod and reel, handlines, tended lines, electric harpoon and trap nets to harvest 398.0t. An additional 76.0t was harvested as bycatch the pelagic longline fleet in the swordfish and other tunas fishery. There was also 6.3t from assumed mortalities in tagging studies and in the charter boat and catch and release fisheries. Each fish harvested in the directed fishery or as an incidental bycatch is individually tagged with a unique number and it is mandatory to have every fish weighed out at dockside. The swordfish fishery in Canadian waters takes place from April to December. Canada's adjusted swordfish quota for 2011 was 1,606.0t with landings reaching 1550.6t. The tonnage taken by longline was 1342.9t while 207.7t were taken by harpoon. Of the 77 licensed swordfish longline fishermen, 57 were active in 2011 with a number of these vessels (17) fishing with harpoon or harpoon and trolling gear only. Only 52 of 1,203 harpoon licenses reported swordfish landings in 2011. The other tunas (albacore, bigeye and yellowfin) are at the northern edge of their range in Canada and are harvested from May through October. Canadian catches of these other large pelagic species are an integral component of the Canadian fishery. In 2011, other tunas accounted for approximately 10% of the commercial large pelagic species landed. All commercial vessels fishing pelagic species are required to hail out their intention to fish prior to a trip and hail in harvests from sea. The Canadian Atlantic statistical systems provide real time monitoring of catch and effort for all fishing trips on pelagic species. At the completion of each fishing trip, independent and certified Dockside Monitors must be present for off-loading to weigh out the landing, and log record data must be submitted by each fisherman whether a fish is harvested on a trip or not. Canada continues to support and is active in research that improves the basic inputs and approaches of the Atlantic bluefin and swordfish and shark stock assessments. Canadian scientists have continued their studies on: age determination for bluefin tuna and their study on the origin of bluefin tuna caught in the southern Gulf of St. Lawrence using the otolith microchemistry. Canada has recently increased its long-term funding for large pelagics research, particularly for bluefin tuna and sharks. Areas of research have included bluefin tuna movement and migrations through Pop-off Sattelite Archival Tags (PSAT) (particularly in areas not covered by previous investigations), and post-capture survival and natal origin investigations. For swordfish, PSAT tagging studies have been conducted to augment those already completed off Georges Bank, targeting the foraging assemblage off the Grand Banks of Newfoundland. For sharks, research has focused on PSAT tagging, with identification of the first pupping ground for porbeagles and an overwintering ground for blue sharks.*

RESUME

*Le thon rouge est pêché dans les eaux canadiennes de juillet à décembre sur le plateau néo-écossais, dans le golfe du St Laurent, dans la baie de Fundy et au large de Terre-Neuve. Le quota ajusté du Canada au titre de 2011 s'élevait à 488,9 t, ce qui inclut un transfert de 86,5 t du Mexique. Au total, 673 pêcheurs titulaires de permis (à savoir de permis pour débarquer) ont participé à la pêche dirigée sur le thon rouge en utilisant la canne et moulinet, la ligne à*

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main, la ligne tendue, le harpon électrique et les filets de madrague, avec une capture de 398,0 t. Un volume supplémentaire de 76,0 t a été capturé en tant que prise accessoire par la flottille pélagique palangrière dans le cadre de la pêcherie ciblant l'espadon et d'autres pêcheries thonières. Un volume de 6,3 t correspondant à des mortalités postulées d'études de marquage, du navire affrété et de la pêche avec remise à l'eau a également été capturé. Chaque poisson, pêché dans la pêcherie dirigée ou comme prise accessoire, est marqué individuellement avec un numéro unique et chaque poisson est obligatoirement pesé sur le quai. La pêche d'espadon a lieu à partir du mois d'avril jusqu'à décembre dans les eaux canadiennes. Le quota ajusté d'espadon du Canada était de 1.606,0 t au titre de 2011, avec des débarquements atteignant 1.550,6 t. Le tonnage capturé à la palangre se chiffrait à 1.342,9 t, tandis qu'un volume de 207,7 t était capturé au harpon. Sur les 77 pêcheurs titulaires de permis de pêche d'espadon à la palangre, 57 étaient actifs en 2011 et 17 de ces navires opéraient avec des harpons ou des harpons et des lignes traînantes. Seuls 52 des 1.203 pêcheurs titulaires de permis de pêche au harpon ont déclaré des débarquements d'espadon en 2011. Les autres thonidés (germon, thon obèse et albacore) se trouvent à la limite septentrionale de leur aire de répartition au Canada et sont capturés de mai à octobre. Les prises canadiennes de ces autres espèces de grands pélagiques font partie intégrante de la pêcherie canadienne. En 2011, les autres thonidés constituaient près de 10% des débarquements commerciaux de grands pélagiques. Tous les navires commerciaux pêchant des espèces pélagiques sont tenus d'annoncer leur intention de pêcher avant une sortie et de communiquer les captures réalisées en mer. Les systèmes statistiques atlantiques du Canada fournissent un suivi en temps réel des données de prise et d'effort pour toutes les sorties de pêche visant les espèces pélagiques. À la fin de chaque sortie de pêche, des observateurs de quai indépendants et agréés doivent être présents lors du déchargement afin de peser le poisson débarqué, et chaque pêcheur doit soumettre les données des carnets de bord, qu'un poisson ait été ou non capturé lors d'une sortie. Le Canada continue à soutenir la recherche qui améliore les données de base et les stratégies d'évaluation des stocks de thon rouge, d'espadon et de requins de l'Atlantique. Les scientifiques canadiens ont poursuivi leurs études sur la détermination de l'âge du thon rouge et sur l'origine du thon rouge capturé au sud du golfe du St Laurent à l'aide de la microchimie des otolithes. Le Canada a récemment accru son financement à long terme en faveur de la recherche sur les grands pélagiques, notamment sur le thon rouge et les requins. Les domaines de recherche se sont portés sur les déplacements et les migrations du thon rouge par le biais de marques-archives pop-up reliées par satellite (PSAT) (surtout dans les zones n'ayant pas fait l'objet de recherches antérieures), et sur la survie suivant la capture et l'origine natale. Pour l'espadon, les études de marquage PSAT ont été réalisées en complément de celles déjà terminées au large de Georges Bank, en ciblant les concentrations de poissons à la recherche de nourriture au large des Grands Bancs de Newfoundland. En ce qui concerne les requins, la recherche s'est concentrée sur le marquage PSAT, et l'identification de premières zones de mise bas des requins-taupes communs et d'une zone d'hivernage des requins peau bleue.

#### RESUMEN

El atún rojo se captura en Canadá desde julio hasta diciembre en la plataforma Scotian, en el golfo de San Lorenzo, en la Bahía de Fundy y en aguas de Terranova. La cuota ajustada de Canadá para 2011 se estableció en 488,9 t, que incluye una transferencia de 86,5 t de México. Un total de 673 pescadores con licencia (a saber, licencias para desembarques) participaron en la pesquería dirigida al atún rojo con caña y carrete, barrilete, liña de mano, arpón eléctrico y almadrabas y capturaron 398,0 t. Además, la flota de palangre pelágico capturó 76,0 t adicionales de forma fortuita en la pesquería de pez espada y otros túnidos. También hubo 6,3 t debidas a mortalidades en estudios de marcado, en los buques fletados y en las pesquerías de captura y liberación. Cada pez capturado en la pesquería dirigida o de forma incidental se marca individualmente con un número único y se tiene que pesar cada ejemplar a pie de muelle. La pesquería de pez espada en aguas canadienses tiene lugar de abril a diciembre. La cuota ajustada de pez espada canadiense para 2011 fue de 1.606,0 t y los desembarques ascendieron a 1.550,6 t. Se capturaron 1.342,9 t con palangre y 207,7 t con arpón. De los 77 pescadores con licencia para pescar pez espada con palangre, 57 estuvieron activos en 2011, y parte de estos buques (17) pescaron con arpón o arpón y curricán únicamente. Sólo 52 de las 1.203 licencias de arpón comunicaron desembarques de pez espada

en 2011. El resto de túnidos (atún blanco, patudo y rabil) se encuentran en el límite septentrional de su rango de distribución en Canadá y se capturan de mayo a octubre. Las capturas canadienses de estas especies de grandes pelágicos forman parte de la pesquería canadiense. En 2011, los otros túnidos respondieron de casi el 10% de los desembarques de especies comerciales de grandes pelágicos. Todos los buques comerciales que pescan especies pelágicas deben notificar su intención de pescar antes de una marea y notificar cualquier captura desde el mar. Los sistemas estadísticos del Atlántico de Canadá proporcionan seguimiento en tiempo real de la captura y esfuerzo de todas las mareas de pesca dirigidas a las especies pelágicas. Al final de cada marea, durante el desembarque, deben estar presentes los controladores a pie de muelle, independientes y certificados, para pesar los desembarques y cada pescador debe presentar los datos consignados en sus cuadernos de pesca, con independencia de que se haya producido o no captura durante la marea. Canadá continúa respaldando y participa activamente en las investigaciones para mejorar las contribuciones básicas y los enfoques de las evaluaciones de los stocks de atún rojo, pez espada y tiburones del Atlántico. Los científicos canadienses han continuado con sus estudios sobre determinación de la edad del atún rojo y sus estudios sobre el origen del atún rojo capturado en la parte meridional del Golfo de San Lorenzo, utilizando microquímica de otolitos. Recientemente, Canadá ha incrementado su financiación a largo plazo de la investigación de grandes pelágicos, sobre todo tiburones y atún rojo. Los campos de investigación incluyen: migraciones y movimiento del atún rojo mediante campañas de marcado con marcas archivo satélite pop-up (PSAT) (sobre todo en zonas no cubiertas por investigaciones anteriores) y la supervivencia tras la captura y origen natal. Para el pez espada, se han realizado estudios de marcado PSAT para complementar los que ya han finalizado en las aguas del Georges Bank, centrados en la agrupación trófica de las aguas de los Grandes Bancos de Terranova. Para los tiburones, la investigación se ha centrado en el marcado PSAT, e incluye la identificación de la primera zona de cría de marrajo sardinero y de una zona de ivernada para la tintorera.

## Part I (Information on Fisheries, Research and Statistics)

### Section 1: Annual Fisheries Information

#### 1.1 Bluefin tuna

Directed bluefin tuna fisheries take place in Canadian waters from July through December over the Scotian Shelf, in the Gulf of St. Lawrence, in the Bay of Fundy, and traditionally off Newfoundland. The adjusted Canadian quota for the 2011 calendar year was 488.9t which includes an 86.5t transfer from Mexico. The Canadian nominal landings (directed and bycatch) of Atlantic bluefin tuna in 2011 were 474.1t (**Table 1**) made up of 398.0t in the directed fishery, 76.0t as an incidental bycatch by the pelagic longline fleet in the swordfish and other tunas fishery. There was also 6.3t from assumed mortalities in tagging studies/charter boat catch and release fisheries and 3t from observed dead discards. Total of landings plus assumed mortality was 483.3t in 2011. The 5.6t shortfall from the 2011 fishery will be carried over in deriving the 2012 Canadian quota.

All traditional bluefin tuna fishing areas produced catches of tuna in 2011 (**Table 2**). The tended line fishery in the area between Georges and Browns Bank off southwest Nova Scotia known as the Hell Hole continued to be an important fishing area. The Gulf of St. Lawrence rod and reel fishery produced the largest fraction of the total Canadian landings in 2011 (207t, or 44% of total quota caught). In 2011, the average size of bluefin in the Gulf of St. Lawrence fish weighed about 301 kg and in the southwest Nova Scotia fishery 217 kg. Additional catch breakdown is shown in **Table 2**.

In 2011, 537 licensed fishermen participated in the directed bluefin fishery with rod and reel or tended line, and three fish-trap licence holders in St. Margaret's Bay used 5 bluefin tuna trapnets. One offshore longline licence was authorized to direct for other tuna with a small bluefin bycatch provision (**Table 3**). Since 2006, the pelagic longline fleet has been permitted to retain bluefin tuna incidentally harvested in their swordfish and other tunas fishery resulting in significant reductions in dead discards to nearly zero in most years.

A new management approach was implemented beginning in the 2004 fishery season, which provides each of the seven inshore fleet sectors with a specific share of the Canadian quota based on catch history. This has

allowed fleets to operate independently of each other, adopting strategies to address when and how to harvest the resource. Some inshore bluefin tuna fleets have incorporated charter boat catch and release fisheries into their annual management plan. Assumed mortalities from the charter boat fishery are accounted for against a 10t quota allocated specifically to catch and release activities.

### *1.2 Swordfish*

Swordfish occur in Canadian waters from April to December, primarily on the edge of Georges Bank, the Scotian Shelf and the Grand Banks of Newfoundland. The Canadian ICCAT initial allocation for swordfish for 2011 was 1473 t. Canada's adjusted quota for 2011 was 1606.0 t which includes the annual transfer of 25t from the USA to Canada to replace the 25t reduction in the Canadian quota as a result of an allocation to accommodate Morocco into the fishery and a 100 t transfer from Senegal. Canadian nominal landings in 2011 were 1550.6 (**Table 1**), resulting in an underage of 55.4t. The 2011 dead discards were 7.8 t which will be deducted from the initial catch limit in 2013.

The Canadian tonnage taken by longline was 1325.4 t (or 86% of the catch), while 207.7 t were taken by harpoon (**Table 4**). The mean round weight of fish caught by longline and harpoon was 88 kg and 106 kg, respectively (**Table 4**). Only 57 of the 77 licensed swordfish longline fishermen were active in the 2011 fishery (**Table 4**) with a number of these vessels (17) fishing with harpoon or harpoon and trolling gear only. This number is lower than the mid-1990s when all, or nearly all, of the swordfish longline licenses were active (**Table 4**) annually given the greater quota available to Canada. Although a total of 1,203 fishermen are eligible for harpoon licences, only 184 are eligible to direct for swordfish (Harpoon Group A), based on their historic participation in this fishery in the 1990's and early 2000's, The remaining licence holders (Harpoon Group B) are limited to fishing opportunistically during other fisheries. This restriction on Group B is in place to limit effort in the fishery. In 2011, 52 licence holders, primarily Harpoon A licences, had reported landings of harpooned swordfish.

### *1.3 Other tunas*

The other tunas (albacore, bigeye and yellowfin) are at the northern edge of their range in Canada, and they are harvested along the edge of the Gulf Stream and Georges Bank, the Scotian Shelf and the Grand Banks (and beyond) from May through October. The other tunas (albacore, bigeye and yellowfin) are at the northern edge of their range in Canada and are harvested from May to October. Canadian catches of these other large pelagic species are an integral component of the Canadian fishery. In 2011, other tunas accounted for approximately 10% of the commercial large pelagic species landed.

Bigeye tuna (136.9t) was the most important other tuna species landed, followed by yellowfin tuna (49.7t) and albacore (28.0t). The mean round weight of albacore, bigeye and yellowfin tunas was 20.2 kg, 35.6 kg and 31.6 kg, respectively. Approximately 46 of 78 licensed other tuna fishermen were active in 2011.

One Canadian offshore longline vessel is authorized to direct for other tuna species with a bluefin tuna bycatch. The 77-vessel swordfish/other tunas longline fleet is also permitted to direct for other tunas and retain bluefin tuna bycatch under certain conditions in order to reduce dead discards. In addition, bluefin tuna vessels are authorized to catch and retain an incidental bycatch of other tuna while fishing for bluefin.

### *1.4 Sharks*

Porbeagle is the only shark species for which there is a directed longline fishery though landings in recent years have been minimal. Historically, blue shark and shortfin mako have been a bycatch of the Canadian swordfish and groundfish longline fisheries although small amounts are also landed from other fisheries. The bycatch of blue shark is much larger than reported due to the live release of most incidental harvests and some unreported dead discards. A Management Plan for all shark species was first implemented in 1995. The current management plan for porbeagle sharks has resulted in a significant allowable catch reduction for porbeagle (to 185t) and the closure of the porbeagle mating grounds in order to facilitate stock rebuilding. Total reported landings of porbeagle sharks in the directed fishery and as a bycatch were down significantly over the previous year to a level of 30.0t in 2011. Blue shark and shortfin mako landings in 2011, were 0.8t and 37.4t respectively (**Table 1**) mainly as a bycatch in other directed pelagic fisheries.

In 2011, 19<sup>\*\*</sup> exploratory shark fishing licences were authorized to fish porbeagle and/or blue shark, with all other sharks, including shortfin mako restricted to a bycatch (**Table 3**). White sharks can no longer be retained as by-catch by Canadian fishermen due to their listing under the Canadian *Species at Risk Act*. The swordfish fleet has adopted the practice of retaining only dead shortfin mako sharks, which has reduced landings in recent years. A reduction of porbeagle shark licences from a high of 55 licences in 2001 to less than 20 has been achieved mainly through the attrition of inactive licences. In addition, approximately 883 recreational shark licences were authorized in 2011 (**Table 3**). The recreational fishery is primarily catch-and-release; retention is only authorized where fishing takes place in the context of a federal government-authorized shark derby, which, has research-related protocols.

### **Section 2: Research and Statistics**

As the foundation for reliable research and stock assessments, the Canadian Atlantic statistical systems provide real time monitoring of catch and effort for all fishing trips. In 1994, an industry-funded Dockside Monitoring Program (DMP) was established in Atlantic Canada, according to Fisheries and Oceans Canada (DFO) standards, for the swordfish longline fleet and the majority of bluefin landings. Since 1996, this system has applied to all fleets (including sharks), and included monitoring of all trips even when no fish were caught. At the completion of each fishing trip, independent and certified Dockside Monitors must be present for off-loading, and log record data must be submitted by each fisherman to the Monitoring Company that inputs the data into a central computer system. Log records contain information on catch, effort, environmental conditions (e.g., water temperature) and bycatch. Log records from trips with catch must be received from fishermen before they can proceed with their next fishing trip (log records from zero catch trips can be mailed in at a later time). Ideally, this ensures 100% coverage of properly completed log records and individual fish weights. Prior to the implementation of the Dockside Monitoring Program, even though the submission of logbooks was compulsory, less than 50% of trips were represented by useable log records and information on individual sizes of fish (see **Table 4** for swordfish). The effectiveness of this system was thoroughly reviewed in 1998 and 1999, and appropriate changes implemented, as necessary. Problems are assessed through Observer Programs and at-sea surveillance on the domestic fleet. License holders who fail to comply with the domestic regulations and conditions of license are liable to prosecution that may include fines, and suspension of license privileges.

Canada has recently increased its long-term funding for large pelagics research, particularly for bluefin tuna and sharks. Areas of research have included bluefin tuna movement and migrations through PSAT tagging (particularly in areas not covered by previous investigations), and post-capture survival and natal origin investigations. For swordfish, PSAT tagging studies have been conducted to augment those already completed off Georges Bank, targeting the foraging assemblage off the Grand Banks of Newfoundland. For sharks, research has focused on PSAT tagging, with identification of the first pupping ground for porbeagles and an overwintering ground for blue sharks.

Canada's Sustainable Fisheries Framework forms a foundation for implementing an Ecosystem Based Management approach in the management of its fisheries. Of particular note for the ICCAT managed fisheries is the advancement of ecosystem objectives and policies related to biodiversity through a By-catch Management Project, and a workplan specifically aimed at addressing bycatch and discarding in Canadian large pelagic fisheries. The workplan includes projects aimed to both manage discards as well as control incidental mortality in large pelagics fisheries. As part of this workplan, Canada increased observer coverage on the swordfish/other tunas longline fleet in 2010 to gather additional information on incidentally caught species. A RAP (Fisheries and Oceans Canada Regional Advisory Process) meeting was held in July, 2011 to review progress towards the long term research goals in the bycatch workplan:

([http://www2.mar.dfo-mpo.gc.ca/science/rap/internet/SAR\\_2011\\_057\\_E.pdf](http://www2.mar.dfo-mpo.gc.ca/science/rap/internet/SAR_2011_057_E.pdf)).

Canada's process for listing of endangered species (Committee on the Status of Endangered Wildlife in Canada (COSEWIC) met in 2011, and concluded that western Atlantic bluefin tuna was endangered, relative to its criteria. In response, Fisheries and Oceans Canada held a Recovery Potential Analysis meeting ([http://www2.mar.dfo-mpo.gc.ca/science/rap/internet/SAR\\_2011\\_056\\_E.pdf](http://www2.mar.dfo-mpo.gc.ca/science/rap/internet/SAR_2011_056_E.pdf)). The process of public consultations and the formulation of the Departmental response to the COSEWIC recommendation is ongoing.

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\* The number excludes the two inactive blue shark-only licences in Maritimes Region.



## 2.1 Bluefin tuna research

Highlights of the 2011 scientific research program at the Biological Station (St. Andrews) included the following activities:

1. Research continues supporting the development of recreational fisheries in Canadian waters. A study of post-release mortality described in last year's National Report has been published in *Biological Conservation* (Stokesbury et al. 2011). That same research team has developed a proposal to investigate best handling practices and resuscitation techniques for bluefin tuna caught in recreational catch and release fisheries.
2. In 2011, there was considerable activity by groups deploying satellite archival tags on bluefin tuna. A team led by Dr. Molly Lutcavage (University of Massachusetts) applied 8 and 17 PSATs in the southern Gulf of St. Lawrence and off southwest Nova Scotia, respectively. Dr. Michael Stokesbury (Acadia University) deployed 46 PSATs in the southern Gulf of St. Lawrence (off Port Hood), between September 23 and November 1, 2011. Partner fishermen's organizations include the the Gulf Nova Scotia Fishermen's Association, the Southwest Nova Tuna Fishermen's Association, and the Prince Edward Island Fishermen's Association.
3. Canada continues to investigate possible environmental influences in its commercial fisheries. Catch statistics from the southern Gulf of St. Lawrence (sGSL) are being related to remote sensing data for the period of 2002 to 2011. The catch data are being used to define the ocean conditions favourable to bluefin catches while the remote sensing data will define the plausible spatial extent of bluefin habitat in the sGSL on a weekly basis. Indicators of productivity in the sGSL such as the duration, frequency, timing and extent of plankton blooms will be related to time trends in bluefin catch rates while oceanographic features such as temperature and chlorophyll-a fronts will be compared to the distribution of the catch.
4. As a contribution towards the ICCAT Atlantic-wide Research Program on Bluefin Tuna (GBYP), Canada has initiated a program of biological sampling of the catch. In 2011, 309 samples were obtained and are being processed for age determination and natal origin. Canada has also developed the capability to process the cores of otoliths using micromilling techniques, thus augmenting the resources available within the USA for this purpose. This work is continuing in 2012, and fishery sampling is well underway.
5. Canada continues to collaborate with U.S. colleagues on studies of otolith microchemistry that elucidate natal origin and stock mixing (see, for example, Secor et al 2013).
6. Canada continues to collaborate on bluefin tuna age and growth research, working closely with colleagues from EC-Spain and the USA.

## 2.2 Swordfish research

1. In collaboration with colleagues from NMFS (Miami) and the South Carolina Department of Natural Resources, Canada is participating in a study of swordfish migrations that pools PSAT data from those three sources. The analyses of the data are being undertaken by CLS-Argos, and the paper is being prepared for publication.
2. Canadian scientists prepared a review of various approaches for determining post-release mortality, as part of the RAP meeting described earlier (Neilson et al. 2012)
3. Canada is undertaking a study of loggerhead turtle (*Caretta caretta*) post-release mortality in its swordfish and tuna longline fishery using PSAT tags. The field deployments commenced in 2011 and are continuing this year.
4. Canada, along with swordfish scientists from a number of other countries and the ICCAT Secretariat, have prepared a paper describing the recovery of Atlantic swordfish stocks. This has been submitted to the journal *Reviews in Fisheries Science*.

5. A Ph.D. student at Memorial University of Newfoundland and Labrador has completed her thesis, examining patterns of bycatch in the Canadian pelagic longline fishery. An additional paper based on her thesis research appeared in 2011 (Carruthers et al. 2011).
6. Canada provides estimates of dead swordfish and bluefin discards based on Observer coverage of the domestic large pelagic longline fleet.

### 2.3 Sharks

An active research and stock assessment program on large pelagic sharks is underway at the Bedford Institute of Oceanography. The following projects were undertaken in 2011:

1. Improved bycatch, discard and discard mortality estimates for sharks were developed, including estimates from both large pelagic and groundfish fisheries (Campana et al. 2011).
2. A research program to apply pop-up archival satellite tags to shortfin makos was developed in conjunction with the commercial swordfish longliners. Satellite tags were applied to 8 makos in 2011, with another 32 planned for subsequent years. The research will not only provide a first look at mako movements and stock distribution in the NW Atlantic, but provide initial estimates of post-release mortality.
3. A Canadian shark tagging program was extended to further involve recreational shark derby participants in shark research and conservation. Tag recaptures will be used to estimate derby exploitation rates on an annual basis. Ongoing monitoring of shark derby catch rates will be used as an index of blue shark availability in Canadian waters, although it does not appear to be valid as an indicator of overall population abundance. Catch rate, size composition, sexual maturity, and stomach contents were also monitored at the derbies.
4. A pilot study to examine the use of rare earth metals to deter sharks from being caught on pelagic longlines was tested in September 2011 off Nova Scotia. The project was a collaboration between World Wildlife Fund -Canada, Dalhousie University, the Nova Scotia Swordfishermen's Association, Fisheries and Oceans Canada and Javitech Limited.

### 2.4 Precautionary Approach

Canada continues to strongly support the Precautionary Approach and assigns a high priority to its implementation in fisheries management domestically as well as in the context of ICCAT. Recognizing that ICCAT stocks are currently not information rich, Canada fully supports all new or enhanced research aimed at improving stock assessments. Furthermore, as we work to define the precautionary approach in a fisheries context, Canada continues to strongly promote the use of appropriate fisheries management and compliance measures to ensure the rebuilding and safeguarding of the resource. Canada is also a member of ICCAT Ad Hoc Working Group on Precautionary Approaches.

## Part II (Management Implementation)

### *Section 3: Implementation of ICCAT Conservation and Management Measures*

For bluefin, swordfish, sharks, and the other tunas (bigeye, yellowfin, and albacore) Canada undertakes annual stakeholder consultation and announces management measures prior to the opening of the respective fishing seasons. In most cases, details of management measures and their enforcement are provided on the Departmental website (<http://www.dfo-mpo.gc.ca/fm-gp/peches-fisheries/ifmp-gmp/index-eng.htm>). These plans are prepared in consultation with the fishing industry and incorporate all relevant ICCAT regulatory recommendations. They are implemented under the *Fisheries Act of Canada*. The necessary ICCAT regulatory recommendations are either specified in the *Atlantic Fishery Regulations* (1985) (made pursuant to the *Fisheries Act*) or are handled as written in fish harvester's Conditions of Licence (issued pursuant to the *Fishery (General) Regulations*), both of which are legally binding on fishermen.

### 3.1 *Catch limits and minimum sizes*

#### – Bluefin tuna

Canada has implemented the ICCAT regulatory recommendations that apply to bluefin tuna in the Canadian Atlantic Integrated Bluefin Management Plan. The 2011 quota was set at 488.9 t (see 1.1 above), and no person shall have in their possession any bluefin weighing less than 30 kg. In addition, Canada has limited entry into the fishery; and restrictions on the amount and type of gear used, vessel replacement, management fishing areas, and licence transfer requirements. A multi-year management plan for bluefin tuna was last published in 2007 and continues to be in force. A new Integrated Fisheries Management Plan is currently being written with a more integrated approach for the 2013 season

#### – *Swordfish*

Canada has implemented the ICCAT regulatory recommendations that apply to swordfish in the Canadian Atlantic Integrated Swordfish Management Plan. The 2011 adjusted quota was set at 1606.0 t (see 1.2 above), and there continued to be a prohibition on the taking and landing of swordfish less than 25 kg in round weight, and/or less than 125 cm LJFL (with 15% tolerance). In 2002, a restructuring of the fleet, through the implementation of individual transferable quotas gave more control in managing the quota. From 1998 - 2009, landings of fish <119 cm LJFL were reduced to as close to zero as possible. The IFMP is available upon request.

#### – *Other tunas*

In 1998-1999, the first Canadian Atlantic Integrated Fishery Management Plan was issued for bigeye, yellowfin and albacore. Measures adopted in that plan remained in effect through 2011. A multi-year management plan for both swordfish and other tunas is available upon request. Fishing effort is restricted by limiting entry into the directed fishery to vessels having a swordfish/other tunas longline licence and to one offshore vessel with an other tuna longline licence. No person shall have in their possession any bigeye or yellowfin weighing less than 3.2 kg.

### 3.2 *Closed seasons*

*Swordfish.* In addition to the ICCAT regulatory recommendations, Canada has limited entry into the fishery, strict bycatch provisions, time-area closures to minimize bycatch, and gear restrictions. In an effort to protect large (spawning stock) swordfish, the industry initiated a closure of a substantial portion of the Scotian Shelf to harpoon gear, for the past several years from early autumn to the end of the season.

### 3.3 *Observer programs*

Canada has had an excellent independent Observer Program in place since 1977. Independent third party observers collect biological data, and monitor compliance with fishing regulations. In 2011, as part of the Bycatch Management Project the observer coverage level was maintained at approximately 10% (by sea days fished) on the pelagic longline fleet fishing for swordfish and other tunas. Data from the Observer Program are used to estimate dead discards, and document incidental catch of non-target species.

### 3.4 *Vessel monitoring*

Currently the fishery is mainly prosecuted by vessels less than 20 metres. Most fishing is conducted within the 200 mile zone. In line with the recommendation adopted by ICCAT, all vessels greater than 20 metres are equipped with VMS systems. Canadian licensing measures permit these licenses to be used on smaller vessels and in most recent years very few vessels over 20 meters in length have actually operated in the Canadian fishery. All Canadian large pelagic vessels, regardless of length, are also required by condition of licence to use a vessel monitoring system when fishing with longline gear.

### 3.5 *Inspection schemes and activities*

Canada has a Port Inspection Scheme that is consistent with the ICCAT Regulatory Recommendation that entered into force on 13 June 1998 (see section 4).

### 3.6 Measures to ensure effectiveness of ICCAT Conservation and management measures and to prohibit Illegal, Unreported and Unregulated fisheries.

Canada participates in the Statistical and Catch Document Programs for bluefin tuna, swordfish and bigeye. Programs for swordfish and bigeye tuna were introduced in 2003 for all exports. In 2008, Canada introduced the new *Bluefin Tuna Catch Documentation Program* in accordance with ICCAT Rec. 07-10.

### 3.7 Other Recommendations.

Prior to the implementation of the ICCAT Bluefin Tuna Statistical Document Program, Canada developed a system of uniquely numbered tags to be attached to all bluefin tuna landed in Canada so that the origin of all Canadian harvested bluefin can be tracked right to the marketplace. Since 1995, it has tracked the utilization of these tags through a computerized system and can cross reference data from this system with the information on the Bluefin Tuna Catch Documents.

Statistical Document Programs for swordfish and bigeye use government accredited organizations to validate export documents.

## **Section 4: Inspection Schemes and Activities**

As noted above, Canada has a Port Inspection Scheme consistent with the ICCAT Regulatory Recommendation. Canada uses a comprehensive enforcement protocol that involves a combination of the Dockside Monitoring Program (see section 2), and shore and sea-based patrols of Fisheries and Oceans Canada Fisheries Officers to ensure compliance with domestic regulations (which include ICCAT regulatory recommendations; see section 3).

In addition to the Dockside Monitoring Program to ensure complete coverage of the catch and effort of the Canadian fleet (see Section 2. above), aerial and vessel surveillance are also used to monitor the fleet's at-sea. Shore-based patrols monitor routine landings, watch for illegal landings and conduct airport and border surveillance. There were no significant compliance issues in any of the Canadian fisheries covered by ICCAT in 2011. Observer coverage is used periodically to monitor specific important management questions in the commercial fishery. Test fisheries are also used to define areas and times to minimize the catch/bycatch of restricted species or undersized targeted species.

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**Table 1.** Canadian landings (tonnes round weight) of large pelagic fish species, 2001-2011.

<i>Species</i>	<i>2001</i>	<i>2002</i>	<i>2003</i>	<i>2004</i>	<i>2005</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>
Swordfish	967.8	1078.9	959.3	1284.9	1203.3	1557.9	1403.6	1334.0	1299.7	1345.6	1550.6
Bluefin tuna	549.1	523.7	603.7	556.6	536.9	599.7	732.9	574.8	530.2	505.4	474.1
Albacore tuna	121.7	51.0	112.7	55.7	27.1	52.1	27.3	33.4	10.7	14.3	28.0
Bigeye tuna	327.0	241.2	279.3	181.6	143.1	186.6	196.1	130.2	111.0	102.8	136.9
Yellowfin tuna	105.2	125.3	70.4	72.7	303.5	239.5	292.9	167.9	53.4	166.0	49.7
Unspec. tuna	0.5	0	.1	0.4	0.2	1.3	0.0	0.1	0.0	0.01	0.06
Blue shark	18.4	0.4	5.1	6.0	0.3	11.4	4.4	0.2	0.1	0.3	0.8
Shortfin mako	77.8	69.3	78.2	73.3	79.5	90.9	71.4	42.8	53.2	41.0	37.4
Porbeagle	902.3	498.6	236.6	142.4	231.5	202.2	192.2	123.9	62.4	83.4	30.1
Unspec. shar	10.7	19.7	21.1	13.4	11.3	14.7	8.3	5.8	4.6	8.4	5.2
Marlin	5.3	3.2	2.1	1.4	1.7	4.7	3.1	2.6	0.6	1.9	0.8

**Table 2.** Canadian bluefin tuna landings and discards (tonnes round weight) by fishing area, 2000-2011.

<i>Bluefin fishing area (west to east)</i>	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Southwest Nova Scotia	290	280	310	281	272	351	174	231	234	240	145
Northeast Nova Scotia <sup>1</sup>	25	35	7	11	21	45	60	65	13	17	26
Gulf of St. Lawrence	149	205	192	239	251	312	226	263	263	211	207
Newfoundland	51	68	33	5	26	11	14	0	9	35	21
Offshore	7	16	14	0.5	30	14	17	16	11	2	74
Year-end adj <sup>2</sup>	<1	<1	<1	-	<1	<1	<1			1.5	<1
<b>Total Landings</b>	<b>524.0</b>	<b>603.6</b>	<b>557.0</b>	<b>536.9</b>	<b>599.7</b>	<b>732.9</b>	<b>491.0</b>	<b>574.8</b>	<b>530.2</b>	<b>505.4</b>	<b>474.1</b>
Scientific tagging/catch and release mortality <sup>4</sup>	-	-	-	-	-	-	-	-	-	7.5	6.3
Dead discards <sup>3</sup>	13.2	36.9	14.0	14.6	0	2.0	0.72	1.2	2.9	1.3	3.0
Canadian quota	553.0	594.7	580.0	645.9	731.8	755.1	571.4	626.2	553.8	518.6	490.4

1 Fish caught in NAFO areas 4V and 4Wd.

2 e.g., seized, Bermuda fishery or tournaments.

3. Discarded dead estimates from swordfish longline fishery 2001-2008 estimate for entire fishery based on observer coverage (see SCRS/99/77), while 2009-2011 are observed discard values (not elevated to fishery level).

4 Includes estimated mortality from catch and release fisheries, as well as associated studies (e.g. Stokesbury et al. 2011).

**Table 3.** Distribution of tuna, swordfish longline and shark fishing licences by region and species<sup>1</sup> in 2011.

<i>Region</i>	<i>Number of licences<sup>1</sup></i>							
	<i>Bluefin</i>		<i>Swordfish (LL)</i>		<i>Other tuna (LL)<sup>4</sup></i>		<i>Sharks</i>	
	<i>Total</i>	<i>Active</i>	<i>Total</i>	<i>Active</i>	<i>Total</i>	<i>Active</i>	<i>Explor.</i>	<i>Rec.</i>
Gulf	602	574	-	-	-	-	8	31
Newfoundland	55 <sup>3</sup>	22	1	1	1	1	-	84
Scotia-Fundy	42	36	76	56	76	44	9	768
St. Margaret's Bay <sup>2</sup>	24	4	-	-	-	-	-	-
Offshore	=	=	=	=	<u>1</u>	<u>1</u>	=	=
Quebec	<u>54</u>	<u>37</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>2</u>	<u>-</u>
Total	<u>777</u>	<u>673</u>	<u>77</u>	<u>57</u>	<u>78</u>	<u>46</u>	<u>19</u>	<u>883</u>

1 Bluefin tuna, swordfish, other tunas, and sharks (exploratory longline licences) are regulated by limited entry. Recreational shark licences are restricted to hook and release only, and the number varies from year-to-year, depending on demand.

2 Three fish trap licence holders with 6 bluefin trapnet licences each. 1 licence holder with five trapnet licences and 1 licence holder with one trapnet licence.

3 38 of these licences are subject to a reduced level of fishing activity and restricted to NAFO Divisions 3LNOP.

4 Restricted to tunas other than bluefin (albacore, bigeye, yellowfin).

Note: Active fishermen are those that picked up their licences, licence conditions and tags, and submitted log records.

**Table 4.** Summary of 2001-2011 swordfish vessels landing fish, landings (tonnes round weight), discards<sup>1</sup>, average weight of fish (kg round) by gear, percentage of small fish by number<sup>2</sup>, and percentage of catch sampled for size.

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Number of vessels landing fish											
Longline	63	46	44	45	48	51	55	53	52	47	40
Harpoon	84	71	89	86	86	78	76	75	74	74	69
Landings (t)											
Longline	957.6	922	1138.3	1116	1365	1200.3	998.8	1076.1	1051.8	1166.0	1342.9
Harpoon <sup>1</sup>	121.3	38	147	87	192.9	203.3	267.4	257.9	247.7	176.1	207.7
Total	1078.9	959	1285	1203	1557.9	1403.6	1266.2	1334	1299.7	1342.5	1550.6
Discards (t) <sup>2</sup>	26.4	32.7	78.6	44.8	106.3	38	60.8	38.7	9.3	15.2	7.8
Average weight (kg)											
Longline	69	72	63	70	69	74	75	73	76	78	88
(# sampled)	(13611)	(12859)	(17298)	(15368)	(20333)	(15541)	(14246)	(11648)	(12473)	(12899)	(14755)
Harpoon	102	117	108	121	117	108	102	106	100	98	106
(# sampled)	(1287)	(413)	(1364)	(658)	(1646)	(2275)	(2327)	(2757)	(2074)	(1778)	(1937)
% small fish by number landed <sup>3</sup>											
<125 cm	2	<1	2	<<1	<<1	<<1	<<1	<<1	<<1	<<1	<<1
<119 cm	<1	<<1	<1	<<1	<<1	<<1	<<1	<<1	<<1	<<1	<<1
% of catch sampled	100	100	100	100	100	100	96	86	89	88	97

1 Harpoon landings include landings by the Pelagic Longline licence holders using harpoon gear.

2 Discarded dead from swordfish longline fishery: no estimates prior to 1997; 1997 actual tonnage observed by at-sea Observers; 1998-2008 estimate for entire fishery based on Observer coverage (Porter, et al 2000).

3 Minimum size under regulation: <25 kg round weight or <125 cm LJFL with 15% tolerance (by number) from 1991- 1995, and again in 2006 Regulation changed to <119 cm LJFL with no tolerance from 1996-2003.



**ANNUAL REPORT OF CAPE VERDE  
RAPPORT ANNUEL DU CAP-VERT  
INFORME ANUAL DE CABO VERDE**

Vanda Marques da Silva Monteiro

SUMMARY

*The total preliminary catch in 2011 amounted to 16.011 tons, taken mainly by purse seine in the industrial or semi-industrial fishery and by hand line in the artisanal fishery. The fishing resources are exploited by an artisanal fishery with 1,239 vessels and by an industrial or semi-industrial fleet with 91 larger size vessels (2011 survey). In the artisanal fishery, the proportion of sharks in the catch did not exceed 0.3% of the total landings at the national level. This indicates that there are by-catches in the fishery directed at other resources. As concerns the industrial fishery, no licenses were granted and there were no reported landings. Based on the reports of catches by EU vessels sent to the DGP, it seems that sharks represent the group that most occurs in the catches. Over time, the sport fishery has become an activity of greater importance for economic, social, cultural and political development, however, unfortunately, there is no monitoring of this fishery yet. Billfish are caught in Cape Verde waters, mainly by EU vessels and by sport fishing. The foreign fleet authorized, operates in the Cape Verde EEZ, in accordance with fishing agreements or contracts. These vessels pertain mostly to the European Union or Asian countries. Cape Verde is second in the North Atlantic as regards the reproduction of the turtle species (Caretta caretta), thus contributing to the third largest global population of the species, after Oman and Florida. This species is studied in Cape Verde in the islands where there are the greatest quantities. However, Cape Verde's biggest problem is when they reach the land to reproduce on the beaches, despite the annual catch prohibition. The catch of sea turtles by the nets of the national Cape Verde fleet is minor. Marine resources are one of Cape Verde's rare natural resources, thus they are strategic for the country, this is why the stocks covered are managed in conformity with the principles of sustainability and responsibility in accordance with the role that they play in food security, employment creation, balance of payments and poverty reduction. As regards the implementation of ICCAT's relevant conservation and management measures, the government of Cape Verde has adopted the management recommendations through the Fisheries Management Plan, updated in 2009, for the 2009-2010 period, limiting the region within three nautical miles, exclusively for artisanal fishing activities and prohibiting foreign fleets from all fishing activity within 12 nautical miles.*

RÉSUMÉ

*La capture totale préliminaire, en 2011, a été de 16.011 tonnes, pêchée principalement à la senne dans la pêche industrielle ou semi-industrielle et à la ligne à main, dans la pêche artisanale. Les ressources halieutiques sont exploitées par une flottille artisanale, avec 1.239 bateaux et par une flottille industrielle ou semi-industrielle, avec 91 embarcations plus grandes (recensement de 2011). Dans la pêche artisanale, la représentativité des requins dans la capture ne dépassent pas 0,3% du total des débarquements au niveau national, ce qui indique qu'il s'agit de captures accessoires de la pêche dirigée sur d'autres ressources. En ce qui concerne la pêche industrielle, aucune licence n'a été autorisée et il n'y a pas de registres de débarquements. Sur la base de la déclaration des captures par les navires de l'UE soumise à la DGP, il semble que les requins représentent le groupe le plus important des captures. La pêche sportive, au fil du temps, a été une activité très importante pour le développement économique, social, culturel et politique, mais malheureusement, il n'existe pas encore de suivi de cette pêcherie. Les istiophoridés sont capturés dans les eaux du Cap-Vert, principalement, par des navires de l'UE et de pêche sportive. La flotte étrangère autorisée opère dans la ZEE du Cap-Vert, dans le cadre d'accords ou de contrats de pêche. Les navires appartiennent surtout aux pays de l'Union européenne et aux pays asiatiques. Le Cap-Vert est le deuxième plus haut point de l'Atlantique Nord en ce qui concerne la reproduction de l'espèce de la tortue Caretta caretta, contribuant ainsi au pays à la troisième plus grande population de l'espèce dans le monde, derrière l'Oman et la Floride. Cette espèce est étudiée au Cap-Vert dans les îles où elle apparaît en plus grande quantité, mais notre plus gros problème est leur prise à terre, quand*

*elles viennent se reproduire sur nos plages, malgré l'interdiction annuelle de capture. La capture des tortues marines par les filets de notre flotte nationale est négligeable. Les ressources marines sont l'une des rares ressources naturelles que le Cap Vert possède, elles sont donc stratégiques pour le pays, raison suffisante pour que les stocks visés soient gérés en conformité avec les principes de la durabilité et de la responsabilité conformément au rôle qu'ils jouent dans la sécurité alimentaire, la création d'emplois, la balance des paiements et la réduction de la pauvreté. En ce qui concerne la mise en œuvre des mesures de conservation et de gestion pertinentes de l'ICCAT, le gouvernement du Cap-Vert a adopté les recommandations de gestion, à travers le Plan de Gestion des Pêches, actualisé en 2009, pour la période 2009-2010, en maintenant réserve de la région à l'intérieur des 3 milles nautiques, exclusivement pour l'activité de pêche artisanale et l'interdiction pour la flotte étrangère de toute activité de pêche à l'intérieur des 12 milles nautiques.*

## RESUMEN

*La captura total preliminar en 2011 ascendió a 16.011 t, pescadas sobre todo con cerco en el marco de la pesca industrial y semiindustrial y con liña de mano en la pesca artesanal. Los recursos pesqueros son explotados por una flota artesanal de 1.239 buques y por una flota industrial o semiindustrial, con 91 embarcaciones más grandes (recuento de 2011). En la pesca artesanal, la representatividad de los tiburones en la captura no supera el 0,3% del total de los desembarques a nivel nacional, lo que indica que se trata de capturas fortuitas en la pesca dirigida a otros recursos. En lo que concierne a la pesca industrial, no se ha concedido ninguna licencia y no hay registros de desembarques. Basándose en las declaraciones de capturas realizadas por los buques de la UE, enviadas a la DGP, parece que los tiburones son el grupo más común en las capturas. La pesca deportiva, a lo largo del tiempo, ha sido una actividad de gran importancia para el desarrollo económico, social, cultural y político, pero lamentablemente no existe aún un seguimiento de esta pesquería. Los istiofóridos son capturados en aguas de Cabo Verde principalmente por buques de la UE y en la pesquería deportiva. La flota extranjera con licencia opera en la ZEE de Cabo Verde en el marco de acuerdos o contratos de pesca. Los buques pertenecen sobre todo a países de la Unión Europea y a países asiáticos. Cabo Verde ocupa el segundo puesto del Atlántico norte en lo que concierne a la reproducción de la especie de la tortuga Caretta Caretta, por lo que el país contribuye a la tercera población más grande de la especie en el mundo, tras Omán y Florida. Esta especie se estudia en Cabo Verde en las islas en las que hay una mayor presencia, pero nuestro mayor problema es su captura en tierra, cuando las tortugas vienen a reproducirse en nuestras playas, a pesar de la prohibición anual de captura. Apenas se capturan tortugas marinas en las redes de la flota nacional. Los recursos marinos son unos de los pocos recursos naturales que posee Cabo Verde, por lo que tienen una importancia estratégica para el país, razón suficiente para que los stocks considerados sean gestionados de un modo conforme con los principios de sostenibilidad y responsabilidad acordes con el papel que desempeñan en la seguridad alimentaria, la creación de empleo, la balanza de pagos y la reducción de la pobreza. En lo que concierne a la implementación de las medidas de conservación y ordenación pertinentes de ICCAT, el Gobierno de Cabo Verde ha adoptado las recomendaciones de ordenación mediante el plan de ordenación de la pesca, actualizado en 2009 para el periodo 2009 y 2010, reservando la región en el interior de 3 millas náuticas exclusivamente a las actividades de pesca artesanal y prohibiendo a las flotas extranjeras cualquier actividad de pesca en el interior de 12 millas náuticas.*

## **I<sup>ère</sup> partie (Information sur les pêcheries, la recherche et les statistiques)**

Le Cap-Vert est un archipel d'origine volcanique, constitué par dix îles.

L'activité de la pêche, en dépit de son rôle social et dans l'économie du pays, contribue à l'emploi, à la balance des paiements et à la sécurité alimentaire.

La capture totale préliminaire en 2011 a été de 16.011 tonnes, pêchée principalement à la senne, dans la pêche industrielle ou semi-industrielle, et à la ligne à main, dans la pêche artisanale. Les ressources halieutiques sont exploitées par une flottille artisanale composée de 1.239 bateaux (recensement de 2011), dont 72% sont motorisés et le reste sont à rames, mesurant entre 3,5 et 6,5 mètres avec un déficit des moyens de sécurité. La flotte semi-industrielle se compose d'un ensemble hétérogène de navires, la majorité d'une longueur comprise entre 6 et 25 mètres, monté par 5-14 pêcheurs. En 2011, le nombre de navires industriels ou semi-industriels enregistrés par l'autorité maritime était de 91.

Dans les eaux du Cap-Vert, plusieurs espèces de requins sont présentes et l'archipel est un point important dans la voie de migration de plusieurs de ces espèces, tandis que d'autres sont typiques de nos eaux (Soares, 1999). Dans la pêche artisanale, la représentativité des requins dans la capture ne dépasse pas 0,3% du total des débarquements au niveau national, ce qui indique qu'il s'agit de captures accessoires à la pêche dirigée sur autres ressources. En ce qui concerne la pêche industrielle, aucun bateau n'a été autorisé et il n'y a pas de registres de débarquements. Le Cap-Vert n'a pas de moyen de contrôle des captures effectuées par les navires étrangers opérant dans la ZEE nationale, à savoir des observateurs à bord. Sur la base de la déclaration des captures par les navires de l'UE envoyés à DGP, il semble que les requins représentent le groupe le plus important dans les captures (70% dans quelques navires, surtout de *Prionace glauca*). Actuellement, des observateurs déployés à bord ont déjà été formés et ils seront prochainement à la disposition de la DGP du Cap Vert.

La pêche sportive, au fil du temps, a été une activité d'une grande importance pour le développement économique, social, culturel et politique, mais malheureusement il n'existe pas encore de suivi de cette pêcherie.

Le Cap-Vert est le deuxième plus haut point de l'Atlantique Nord en ce qui concerne la reproduction de l'espèce de la tortue *Caretta caretta*, contribuant ainsi au pays à la troisième plus grande population de l'espèce dans le monde, derrière l'Oman et de Floride (États-Unis). Cette espèce est étudiée au Cap-Vert, dans les îles où elle apparaît en plus grande quantité, mais notre plus gros problème est leur prise à terre, quand elles viennent se reproduire sur nos plages, malgré l'interdiction de leurs captures pendant toute l'année. La capture des tortues marines par les filets de notre flotte nationale est négligeable.

Un bulletin statistique des pêches devrait être publié tous les ans avec les données de l'année précédente.

## **Chapitre 1 : Information annuelle sur les pêcheries**

La pêche au thon est dirigée principalement sur l'albacore (*Thunnus albacares*), le listao (*Katsuwonus pelamis*), le thon obèse (*Thunnus obesus*), la thonine commune (*Euthynnus alleteratus*), l'auxide (*Auxis sp*) et le thazard bâtard (*Acanthocybium solandri*).

Ces ressources sont exploitées par la flotte industrielle ou semi-industrielle et par la flotte artisanale. Au Cap-Vert, les principales zones de pêche sont les monts sous-marins et les pentes sous-marines autour des îles.

### **1.1 Captures**

#### **1.1.1 Captures de la flotte du Cap Vert**

Les données de capture de thonidés et d'espèces apparentées au titre de 2011 sont provisoires et sont estimées à 16.011 tonnes (**Figure 1**).

#### **1.1.2 Captures de la flotte de l'Union européenne**

Les istiophoridés (11 tonnes en 2011), l'espadon (79 tonnes en 2011) et les requins font partie des captures déclarées par la flotte de l'UE. L'UE continue à pêcher une quantité raisonnable de ces espèces, comme prise accessoire (442 tonnes en 2011).

Au-delà du marché national, le produit de la pêche des thonidés est dirigé vers l'exportation à l'état frais, congelé et en conserve.

En ce qui concerne la fréquence des tailles, il y a une tendance stable au cours des années précédentes.

### *1.2 Flotte et engins*

La flotte du Cap-Vert, selon les données de 2011, est composée de :

- 892 barques avec des moteurs hors-bord,
- 337 barques sans moteur et une moyenne de 3 pêcheurs par bateau et
- environ 91 embarcations plus grandes avec un moteur intérieur et une moyenne de 12 pêcheurs/unité (2012).

Les ressources sont exploitées par la flotte artisanale, avec des barques, et la flotte industrielle et semi-industrielle, avec des plus grandes embarcations.

Les engins de pêche, les plus utilisés, sont : la seine, la ligne à main, l'hameçon, la canne et la palangre. Le nombre de pêcheurs enregistré en 2011 est d'environ 4.800 pêcheurs.

### *1.3 Flotte étrangère*

La flotte étrangère autorisée opère dans la ZEE du Cap-Vert dans le cadre d'accords ou de contrats de pêche. Les navires appartiennent surtout aux pays de l'Union européenne et des pays asiatiques. Les demandes de licence des navires étrangers indiquent généralement les thons comme espèces cibles. En tous cas, les principales espèces pêchées continuent à être les requins, l'espadon, les thonidés et les istiophoridés, selon les captures déclarées par quelques embarcations de l'Union européenne.

## **Chapitre 2 : Recherche et statistiques**

Les ressources marines constituent l'une des rares ressources naturelles que le Cap-Vert possède. Elles sont donc stratégiques pour le pays, raison suffisante pour que les stocks visés soient gérés en conformité avec les principes de la durabilité et de la responsabilité, en accord avec le rôle qu'elles jouent dans la sécurité alimentaire, la création d'emplois, la balance des paiements et la réduction de la pauvreté.

L'objectif de la recherche est de faire des recommandations pour l'exploitation optimale et durable des ressources aquatiques vivantes, en vue de la réalisation des objectifs économiques et sociaux établis dans la politique de développement, sans pour autant négliger la protection de l'environnement, la conservation des ressources et la préservation de la nature, notamment, en ce qui concerne le patrimoine marin biologique.

La responsabilité de toutes les questions relatives aux espèces de grands migrateurs au Cap-Vert est partagée entre la Direction générale de la pêche et l'Institut national de développement des pêches, les deux institutions appartenant au Ministère des infrastructures et de l'économie maritime (MIEM). La collecte de données statistiques est faite dans les ports de débarquement et sur les marchés par les enquêteurs de l'INDP, suivie de la digitalisation, du traitement et de l'analyse. Les prélèvements sont réalisés à la taille pour toutes les espèces de thonidés et autres, pêchés au Cap-Vert. Les données compilées, y compris les données de Tache I et de Tâche II, ainsi que le nombre de navires de pêche, ont été régulièrement soumises au Secrétariat de l'ICCAT, en contribuant ainsi à la mise à jour des statistiques et des évaluations des stocks de l'ICCAT.

La délivrance d'un Bulletin statistique est une activité annuelle.

## **IIe partie (Mise en œuvre de la gestion)**

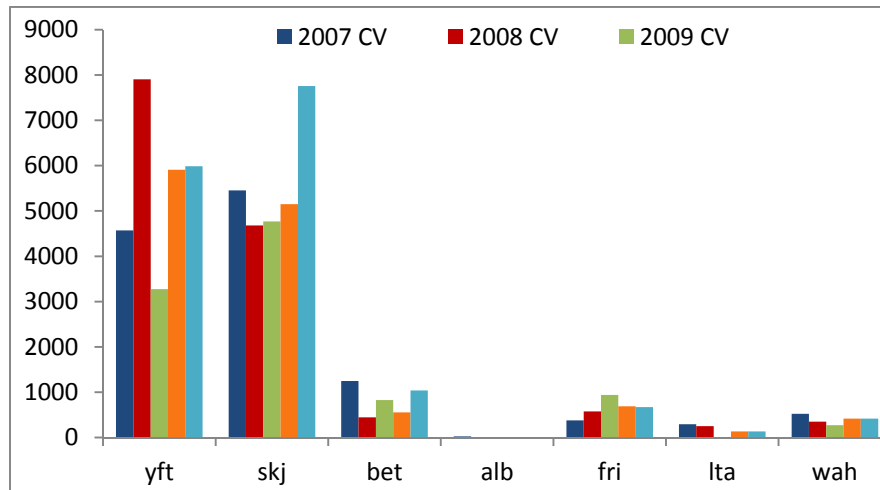
### ***Chapitre 3 : Mise en œuvre des mesures de gestion et de conservation de l'ICCAT***

En ce qui concerne la mise en œuvre des mesures de conservation et de gestion pertinentes de l'ICCAT, le gouvernement du Cap-Vert, par le biais du Plan de gestion des pêches, actualisé en 2009, pour la période 2009-2010, a maintenu la réservation de la région à l'intérieur des 3 milles nautiques, exclusive pour l'activité de pêche artisanale et l'interdiction à la flotte étrangère de toute activité de pêche à l'intérieur des 12 milles nautiques.

Les mesures de gestion adoptées pour le requin sont les suivantes :

- Interdiction de prélèvement des ailerons tout au long de la ZEE, où le pourcentage d'ailettes (en poids) ne doit pas dépasser 5% du poids total des requins à bord.

- Interdiction de la pêche *Rhincodon typus* (requin baleine) et *Carcharodon carcharias* (grand requin blanc). Définition du nombre maximal de licences de pêche accordées chaque année par le pays. Mise en œuvre des mécanismes de surveillance de la pêche.
- La législation prévoit que le permis de pêche pour l'exploitation des requins est réservé uniquement aux navires nationaux, étant obligatoire la demande de licence pour la pêche industrielle.



**Figure 1.** Données de capture provisoires de thonidés et d'espèces apparentées 2007-2011 (Source: INDP et Calvo Pesca).

**ANNUAL REPORT OF CHINA  
RAPPORT ANNUEL DE LA CHINE  
INFORME ANUAL DE CHINA**

Song Liming, Guan Wenjiang<sup>1</sup>

SUMMARY

*Longline is the only fishing gear used by the Chinese fishing fleet to fish tunas in the Atlantic Ocean. Thirty (30) Chinese tuna longliners operated in 2011, with a total catch of 4997.1 t including tuna, tuna-like species and sharks (in round weight), 1875.9 t lower than that of 2010 (6873 t). The target species were bigeye tuna and bluefin tuna, whose catches amounted to 3720.2 t and 35.9 t, in 2011, respectively. Bigeye tuna was still the major target species in the Chinese catch, accounting for 74.4% of the total. Yellowfin tuna, swordfish and albacore were taken as bycatch. The catch of yellowfin tuna, swordfish, and albacore was 346.4 t, 322.2 t, and 181.0 t, in 2011, respectively. The data compiled, including Task I and Task II as well as the number of fishing vessels, have been routinely reported to the ICCAT Secretariat by the Bureau of Fisheries (BOF), Ministry of Agriculture of PRC. Two observers have been dispatched on board two Chinese Atlantic tuna longline fishing vessels since October, 2011. Data on target species and non-target species were collected during the observation. In terms of implementation of the relevant ICCAT conservation and management measures, BOF requires all fishing companies operating in the Atlantic Ocean to report their fisheries data on a monthly basis to the China Overseas Fisheries Association and the Tuna Technical Working Group in order to comply with the catch limits. BOF has established a fishing vessel management system, including the issuance of licenses to all the approved Chinese fishing vessels operating on the high seas of world oceans. The Chinese high seas tuna fishing fleet has been required to be equipped with a VMS system since October 1, 2006. BOF has strictly followed the National Observer Program and the ICCAT Regional Observer Program for transshipment at sea.*

RESUME

*La palangre est le seul engin de pêche de la flottille chinoise ciblant les thonidés dans l'océan Atlantique. Le nombre total de palangriers thoniers chinois opérant en 2011 s'élevait à 30, avec une prise totale de 4.997,1 t comprenant des thonidés, des espèces apparentées et des requins (en poids vif), soit 1.875,9 t de moins qu'en 2010 (6.873 t). Le thon obèse et le thon rouge sont les espèces cibles, leurs prises ayant atteint respectivement 3.720,2 t et 35,9 t en 2011. Le thon obèse était encore la principale espèce cible de la prise chinoise, représentant 74,4 % du total. L'albacore, l'espadon et le germon ont été capturés en tant que prise accessoire. La prise d'albacore, d'espadon et de germon s'élevait à 346,4 t, 322,2 t et 181 t en 2011, respectivement. Les données compilées, y compris les données de Tâche I et de Tâche II, ainsi que le nombre de navires de pêche, ont été régulièrement soumises au Secrétariat de l'ICCAT par le Bureau des pêches (Bureau of Fisheries, BOF), du Ministère de l'agriculture de la République populaire de Chine. Depuis octobre 2011, deux observateurs sont déployés à bord de deux palangriers thoniers chinois opérant dans l'Atlantique. Pendant l'observation, des données sur les espèces cibles et les espèces non ciblées ont été recueillies. En ce qui concerne la mise en œuvre des mesures de conservation et de gestion pertinentes de l'ICCAT, le BOF demande à toutes les entreprises de pêche opérant dans l'océan Atlantique de déclarer leurs données sur les pêches, chaque mois, à la China Overseas Fisheries Association et au Groupe de travail technique sur les thonidés, aux fins de l'application des limites de capture. Le BOF a établi un système de gestion des navires de pêche incluant l'émission de licences à tous les navires de pêche chinois approuvés, opérant en haute mer dans les océans du monde. La flottille de pêche chinoise ciblant les thonidés en haute mer est tenue d'être équipée d'un système de VMS depuis le 1<sup>er</sup> octobre 2006. Le BOF effectue un suivi rigoureux du Programme national d'observateurs et du Programme régional d'observateurs ICCAT pour les transbordements en mer.*

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## RESUMEN

*El palangre es el único arte de pesca utilizado por la flota pesquera china para pescar túnidos en el océano Atlántico. En 2011 operaron treinta (30) palangreros atuneros chinos, con una captura total de 4.997,1 t, lo que incluye túnidos y especies afines y tiburones (en peso vivo), 1.875,9 t menos que en 2010 (6.873 t). Las especies objetivo fueron patudo y atún rojo, cuyas capturas ascendieron, respectivamente, a 3.720,2 t y 35,9 t, en 2011. El patudo sigue siendo la principal especie objetivo en la captura china, y responde del 74,4% del total. El rabil, pez espada y atún blanco se capturaron de forma fortuita. La captura de rabil, pez espada y atún blanco fue de 346,4 t, 322,2 t y 181,0 t en 2011, respectivamente. Los datos recopilados, lo que incluye los datos de Tarea I y Tarea II, así como el número de buques pesqueros, han sido comunicados a la Secretaría de ICCAT de forma regular por el Departamento de Pesca (Bureau of Fisheries - BOF), Ministerio de Agricultura de la República Popular China. Desde octubre de 2011 hay dos observadores embarcados en dos palangreros atuneros chinos en el Atlántico. Durante la observación se recopilaron datos de especies objetivo y no objetivo. En términos de implementación de las medidas pertinentes de conservación y ordenación de ICCAT, el BOF requiere que todas las empresas pesqueras que operan en el océano Atlántico comuniquen sus datos pesqueros mensualmente a la Asociación de pesca de altura y al Grupo de trabajo técnico sobre túnidos con el fin de que se cumplan los límites de captura. El BOF ha establecido un sistema de ordenación de buques pesqueros, que incluye la expedición de licencias de pesca a todos los buques pesqueros chinos aprobados que operan en alta mar en los océanos del mundo. Desde el 1 de octubre de 2006, la flota china de pesca de túnidos en aguas distantes tiene que estar equipada con VMS. El BOF ha cumplido estrictamente el programa nacional de observadores y el programa regional de observadores de ICCAT para el transbordo en el mar.*

## Part I (Information on Fisheries, Research and Statistics)

### Section 1: Annual Fisheries Information

#### 1.1 General overview

Longline is the only fishing gear used by the Chinese tuna fleet in the Atlantic Ocean. The Chinese tuna fishing fleet composed of thirty tuna longliners harvested 4997.11 t of tunas or tuna-like species in 2011, i.e., 1875.9 t lower than that of previous year. In 2011, the landing of all species except blue shark, which landings increased greatly compared with previous year, went down, and there was great decrease of the landings of bigeye tuna and yellowfin tuna (**Table 1**). Bigeye tuna and bluefin tuna were still considered to be the target species with yellowfin tuna and swordfish as the by-catch ones. The total fishing effort didn't have much change from the last year, but the landing of bigeye tuna decreased significantly compared with 2010 (32%). The monthly CUPE of bigeye tuna was almost the lowest for recent 6 years except January, February and March. The monthly CUPE of Yellowfin tuna was also the lowest for recent 6 years from January to May, but it increased from June, reached the highest point in September, then decreased in the 4th quarter (**Figures 1, 3**). The fishing efforts decreased from the 1st quarter to 4th quarter (**Figures 2, 4**). The fishing gear used was deep water longline, with 17-19 hooks per basket. The branch line was 49-53 m long. The length of the main line between the two branch lines was 46-51 m. **Table 1** showed the species composition of the catch of tunas or tuna-like species in Atlantic Ocean since 2003.

#### 1.2 Albacore

Albacore were caught as by-catch by the Chinese fleet in the Atlantic Ocean. The total albacore catch in 2011 was estimated to be about 181.0 t, which was down 24% in contrast to the previous year (239.6 t). The landing of North Atlantic albacore was 101.0 t in 2011. The rest landing was consisted of South Atlantic albacore with a landing of 80.1 t.

### *1.3 Bluefin tuna*

The total catch of bluefin tuna by the Chinese longline fleet was 35.9 t in the East Atlantic Ocean in 2011, with a decrease from the previous year (38.22 t in 2010).

### *1.4 Tropical tunas*

Tropical tuna in the statistics included bigeye tuna and yellowfin tuna in the Atlantic Ocean. The total catch of bigeye tuna in 2011 amounted to 3720.2 t, which was lower than that of 2010 (5489.3 t) by 32.2%, while the catch of yellowfin tuna was 346.4 t, lower than that of 2010 (426.9 t) by 18.9%.

### *1.5 Swordfish*

The total catch of swordfish in 2011 was 322.2 t with a decrease of 12.7 % from the previous year (369.1 t in 2010). Of this amount, 74.7 t were caught in the North Atlantic Ocean and 247.5 t were caught in the South Atlantic Ocean.

### *1.6 Sharks*

The total catch of blue shark in 2011 amounted to 239.6 t and increased greatly compared with 2010 (93.4 t). But the total catch of shortfin mako was 46.9 t, which was 23.3% lower than that of 2010 (61.1 t). The data were submitted to ICCAT for compliance with ICCAT resolution.

## ***Section 2: Research and Statistics***

The Tuna Technical Working Group (TTWG) in Shanghai Ocean University (SHOU) is authorized by the Bureau of Fisheries (BOF), Ministry of Agriculture in charge of the data collection and compilation of Atlantic tuna fishery statistics. The compiled data, including Task I and Task II as well as the number of fishing vessels and fishing fleet characteristics, have been routinely reported to the ICCAT Secretariat. Size frequency data of main tuna species were scheduled to submit to the ICCAT Secretariat.

The BOF required that all the fishing companies operating in the Atlantic Ocean must report their fisheries data on a monthly basis to China Overseas Fisheries Association (COFA) and the TTWG in SHOU in order to comply with the catch limits. BOF also required fishing companies to report incidental catch of sea turtles and sea birds if their fishing boats happened to catch them and encouraged scientists to conduct research on the mitigation methods to reduce the incidental catch of sea turtles, sea birds and sharks. A pilot logbook data submission system was initiated in IOTC waters five years ago. Detailed information of the catch and fishing effort has been collected. In 2011, BOF required that all fishing boats should fill in the logbook and take the implementation of a logbook system by the fishing vessels or company into consideration as one of the main conditions for renewing the fishing permits and licenses.

The BOF emphasized the improvement of the data report system, and the submission of fisheries statistics to regional tuna fisheries management organizations as required. During the east bluefin tuna fishing season in 2011, the vessels directly reported its position to ICCAT secretariat via VMS. The vessels also reported the catch data, and the tag recorded information of the east bluefin tuna to ICCAT secretariat, weekly.

## **Part II (Management Implementation)**

### ***Section 3: Implementation of ICCAT Conservation and Management Measures***

#### *3.1 Catch quota and minimum size limit*

In order to comply with the catch limits on bigeye tuna, eastern bluefin tuna, northern and southern swordfish, blue marlin and white marlin, adopted by ICCAT, the catch limits were allocated to the relevant fishing companies as well as the fishing vessels by COFA at the beginning of the year. BOF required that all the Chinese fishing companies operating in the Atlantic Ocean to report their catch data monthly to the COFA and the TTWG in SHOU. If the catch was over the catch limit allocated to this company based on their monthly catch report,



BOF would not issue the “Statistical Document” to this company unless this company submitted the amortization plan.

According to the statistics, the catch of Chinese tuna fleet in 2011 did not exceed the quota adopted by ICCAT. The Chinese tuna fleet had strictly followed the minimum size criteria established by ICCAT for conservation and protection of juvenile tunas.

### *3.2 Tuna Statistical Document Program*

Since July of 2002, all exported bluefin tuna and bigeye tuna caught by Chinese tuna fleet had been accompanied by a Bluefin Tuna Catch Document and a Bigeye Tuna Statistical Document, respectively. Tuna Statistical/Catch Documents were issued by the responsible officer of BOF as required by the resolution and recommendation adopted by ICCAT.

### *3.3 Fishing vessel management*

The BOF began to implement the license system of distant water fishery in 2003. Chinese fishing vessels intending to operate on the high seas must apply for a fishing license according to fishing license permit regulation since June 2003. As a responsible fisheries nation, China continually inputs more effort to strengthen tuna fisheries management.

The main measures taken include:

- Implementation of a fishing license system

The BOF has issued “High Seas Fishing Permit” to all the legal fishing boats operating on the high seas of world oceans. The “fishing permit” explicitly specifies the fishing area, main target species and quota as well as the fishing time permitted. The harbor nations can easily check these when the boats entered their harbor.

- Implementation of the VMS program

The BOF has implemented VMS program and all the large scale tuna longliners have installed the VMS equipments since October 1, 2006.

### *3.4 Transshipment*

In accordance with the recommendation by ICCAT establishing a program for transshipment at sea in 2006, Chinese LSTLVs operating in the ICCAT waters have financed the respective cost of implementing this ICCAT observer program based on their quota allocated by COFA. BOF has strictly followed ICCAT observer program. BOF ensured that the transshipped quantities were consistent with the reported catch in the ICCAT transshipment declaration and validated the Statistical Documents for the transshipped fish. After confirming, the transshipment was conducted in accordance with the recommendation. This confirmation was based on the information obtained by the ICCAT Observer Program.

### *3.5 National observer program and regional observer program*

In accordance with the commission’s resolution on the bigeye tuna national observer program adopted in 1997, China has annually carried out a national tuna observer program in the ICCAT waters since 2001 and began to implement the national tuna observer program in Pacific, Atlantic and Indian Oceans soon after. National observer program has been funded by the Chinese government.

The Tuna Technical Working Group (TTWG) in Shanghai Ocean University (SHOU) has been in charge of the national tuna scientific observer program which was authorized by BOF. So far, scientists, graduate and post graduate students of SHOU majoring in marine fisheries science and technology, and marine fisheries resources have been chosen as the candidates for the tuna scientific observers.

Two national scientific observers have been dispatched on board two Chinese tuna longline fishing vessels (undertook four observer trips) in Atlantic in 2011. Before scientific observers begin to work, strict training

sessions are conducted at SHOU. Training courses include management knowledge of tuna fisheries in ICCAT Convention Areas, species identification, biological information measurement, fishing gear terms, Catch Information Form filling, debriefing, etc. A set of materials such as rulers, forms for filling are taken by observers. After observers finish their tasks at sea and return China, an observer trip report should be submitted and all the data should be checked and input into database.

The area covered in 2011 observer trips were N48°24'~N54°26', W12°20'~W32°02' and N48°39'~N54°35', W15°28'~W32°06' (targeting bluefin tuna), N4°56'~N24°24', W27°13'~W38°38', and S4°35'~N15°10', W29°31'~W37°58' (targeting bigeye tuna). There are 100% observer coverage of fishing effort for Chinese tuna longline fishery targeting bluefin tuna and about 7% observer coverage for targeting bigeye tuna. The data of target species and non-target species (sharks, sea turtles, and sea birds, especially), size frequency data, and disposition status were collected during the observation. Fishing operation information was also recorded by observers.

National observer report and observer data, including shark size data, have been submitted to ICCAT secretariat.

#### ***Section 4: Inspection Schemes and Activities***

All Chinese longline fleet operated on the high seas of ICCAT and based on the oversea port. Chinese Fishery Administration required all the fishery company to abide by the domestic laws and regulations. Priorities should be given to logbook filling, minimum size limit, etc.

##### *4.1 Import and export trade monitoring*

Since July 1, 2010, General Administration of Customs of the People's Republic of China and Ministry of Agriculture jointly have monitored imported and exported catch of BFT, BET, and SWO, which has been an important trade measure for conservation and management of global tuna.

#### ***Section 5: Other bycatch related measures***

##### *5.1 Shark and bycatch mortality monitoring*

Scientific observers are in charge of collecting the incidental catch of sharks and other bycatch fishes, including catch by species and size data. In addition to observer records, all longline vessels are required to record catch by species for common shark species (or groups for those with very similar morphometrics) on board logbooks, e.g., blue shark, silky shark, oceanic whitetip shark, shortfin mako, longfin mako, hammerhead sharks, thresher sharks. Fish species with low economic values are also required to record if they are retained on board (partial or whole), e.g., dolphinfish, wahoo, escolar, etc. It should be noted that some logbook data for bycatch species are questionable due to inconsistency in the ability of species identification and hard workload for fishermen. The TTWG in SHOU are running the logbook training program which will help improve the quality of logbook data in the near future.

##### *5.2 Reports and information on silky sharks*

Silky shark data recorded by observers onboard are of high quality. In 2011, China conducted four LL observer trips (two for BFT program and two for BET program) in ICCAT waters. The observers recorded biological information and catch rate by set as well for silky sharks. Among the four trips, there was only one trip (in tropical water) in which silky sharks were captured and measured by observer. The total observed catch in number for this trip was 5 (see **Tables 2 and 3** for details). No catch was observed in other three trips. Since our observer monitored most (70-90%) of the total baskets hauled, we believe that total catch of silky sharks for all the four trips are very low.

##### *5.3 Sea turtles and sea birds mortality monitoring and mitigation measures*

Scientific observers are in charge of collecting the incidental catch of sea turtles and sea birds. In addition, all longline vessels are required to submit the data of sea turtle interactions with longline fisheries to China Overseas Fisheries Association (COFA).

China submitted data of sea turtle by-catch to the ICCAT Secretariat in 2011.

With the assistance of COFA, all the longliners have been equipped with de-hooker devices to mitigate sea-turtle mortality since 2009. Manuals for sea turtle mitigation are circulated among longline vessels and training sessions for longline crews are annually conducted. Scientific observers are sent on board to guide fishing vessel to use the de-hooker equipment correctly, in order to increase post-release survival rate if sea turtle captured.

Since all Chinese longline vessels operated in the tropical areas targeting BET except two vessels for BFT in North Atlantic Ocean, there are no sea bird interactions with longline fisheries according to scientific observer data. No sea bird mortality was observed during 2011.

Government and COFA have also required fishing companies to implement bycatch mitigation measures such as application of the circle hook and tori line. TTWG in SHOU is continuing to study and develop other mitigation measures, including avoiding marine mammal predation, circle hook efficiency, etc.

#### *5.4 Summary of access agreement carried out*

On Chinese flag vessel Fu Yuan Yu 559 under Access Agreement with the Ascension, conducted fishing activity in Ascension waters from Jan 19 to Feb 17, with total catch of 24.446 metric tons.(Alb:0.4; BET:18.106; YFT:0.411; SWO:4.12; Striped Marlin:0.092; Black Marlin:0.277; Blue Marlin:0.793;OT:0.247). All catches belonged to China and included in our catch effort. Copy of access agreement is attached to this email.

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**Table 1.** Catch of tunas and tuna-like species (in round weight, t), 2003-2011.

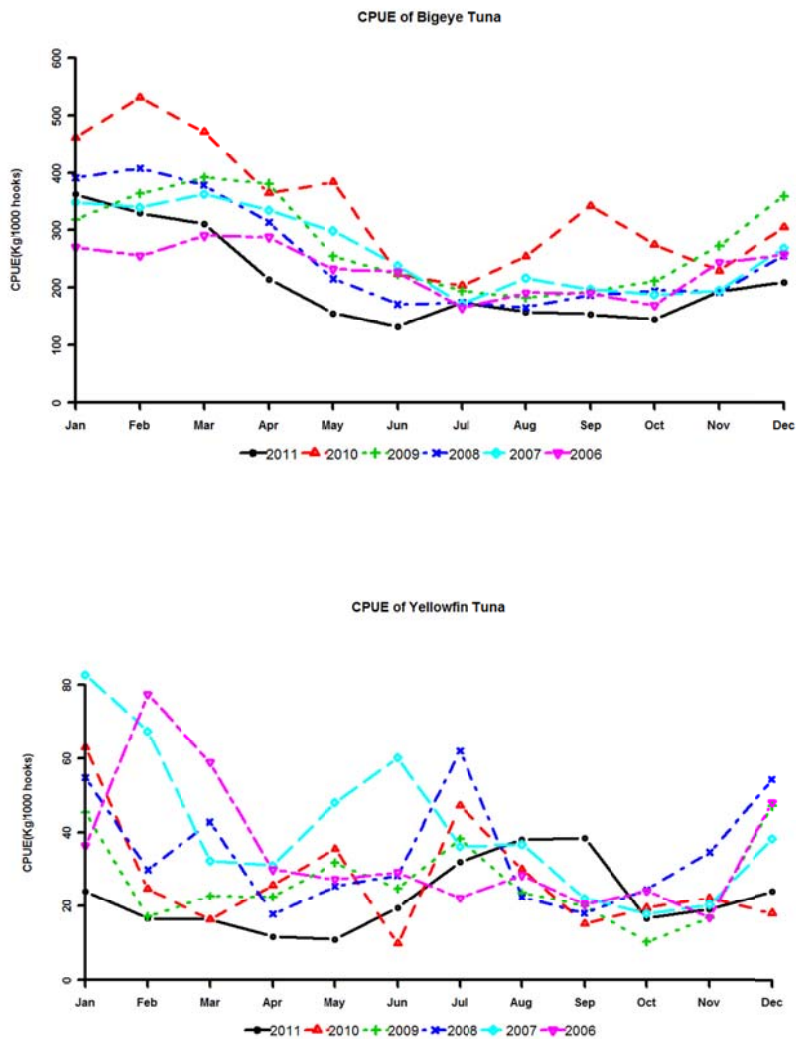
<i>Species</i>	2003	2004	2005	2006	2007	2008	2009	2010	2011
Bluefin tuna	19.3	41.0	23.7	42	72	119	41.7	38.22	35.9
Yellowfin tuna	1,049.7	1,305.2	1,185.5	1,085	1,124	649	462	426.9	346.4
Bigeye tuna	7,889.7	6,555.3	6,200.2	7,200	7,399	5,686	4973	5489	3720.2
Swordfish	669.1	333.6	199.2	372	558	562	383	369.1	322.2
Albacore	181.6	144.3	206.5	302	94	49	116	239.6	181.0
Blue shark	----	----	----	----	943	149	197	93.4	239.6
Short mako	----	----	----	----	157.3	21	43	61.1	46.9
Blue marlin	88.5	58.4	96.3	99	65	12.7	77	100.5	99.1
White marlin	7.6	6.5	8.6	5.6	9.9	4.5	8.5	8.1	2.7
Sailfish	4.7	4.5	7.8	16	8.1	1.5	6.3	5.6	3.0
Other	137.4	173.1	1040.9	785	406	42.6	50	41.7	-
Total	10,048	8,621.7	8,968.7	9,906.6	10,836.3	7,296.3	6,357.5	6,873	4997.1

**Table 2.** Biological information of silky shark, *Carcharhinus falciformis*, observed from a Chinese LL observer trip in tropical ICCAT waters in 2011-2012.

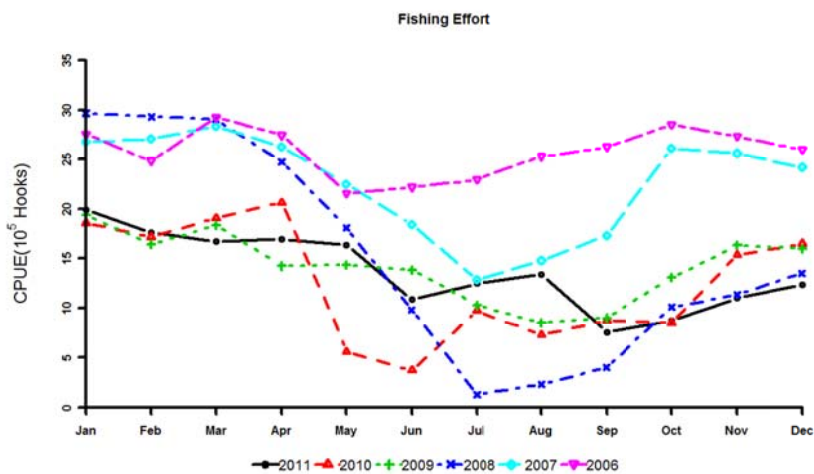
<i>Set date (M/D/Y)</i>	<i>Lat. (°)</i>	<i>Long. (°)</i>	<i>Capture status</i>	<i>Discard /retain</i>	<i>Fork length (cm)</i>	<i>Whole weight (kg)</i>	<i>Sex</i>	<i>Maturity stage</i>
12/04/2011	11.92	-35.52	alive	discard whole	221		male	mature
12/21/2011	8.02	-34.95	dead	discard whole	240		female	pregnant
01/06/2012	6.35	-27.30	dead	discard whole	74	4	female	juvenile
01/11/2012	8.25	-31.35	dead	discard whole	86	9	male	immature
02/09/2012	8.03	-27.27	alive	discard whole	156		male	immature

**Table 3.** Catch rate by set for silky shark, *Carcharhinus falciformis*, observed from a Chinese LL observer trip in tropical ICCAT waters in 2011-2012.

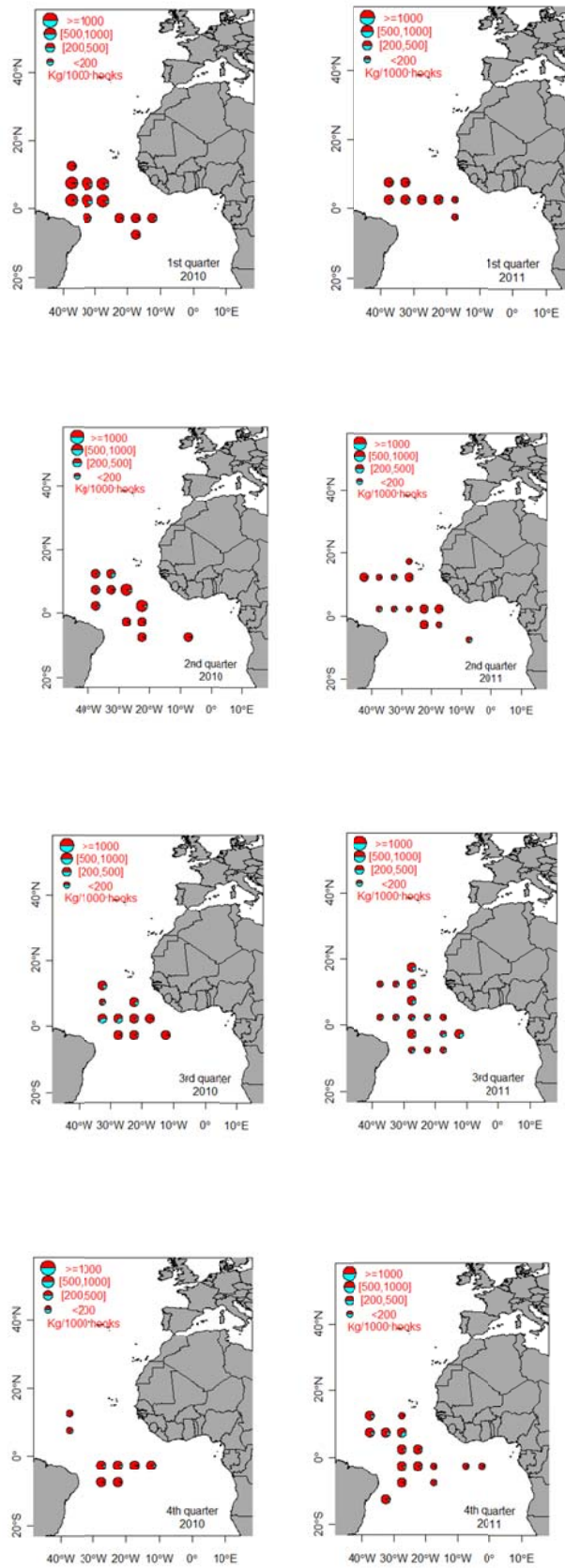
<i>Set date (M/D/Year)</i>	<i>Latitude (°)</i>	<i>Longitude (°)</i>	<i>Observed hooks</i>	<i>Observed catch (number)</i>	<i>CPUE (catch per 1000 hooks)</i>
12/04/2011	11.92	-35.52	3232	1	0.3094
12/21/2011	8.02	-34.95	2320	1	0.4310
01/06/2012	6.35	-27.30	3200	1	0.3125
01/11/2012	8.25	-31.35	1856	1	0.5388
02/09/2012	8.03	-27.27	1696	1	0.5896



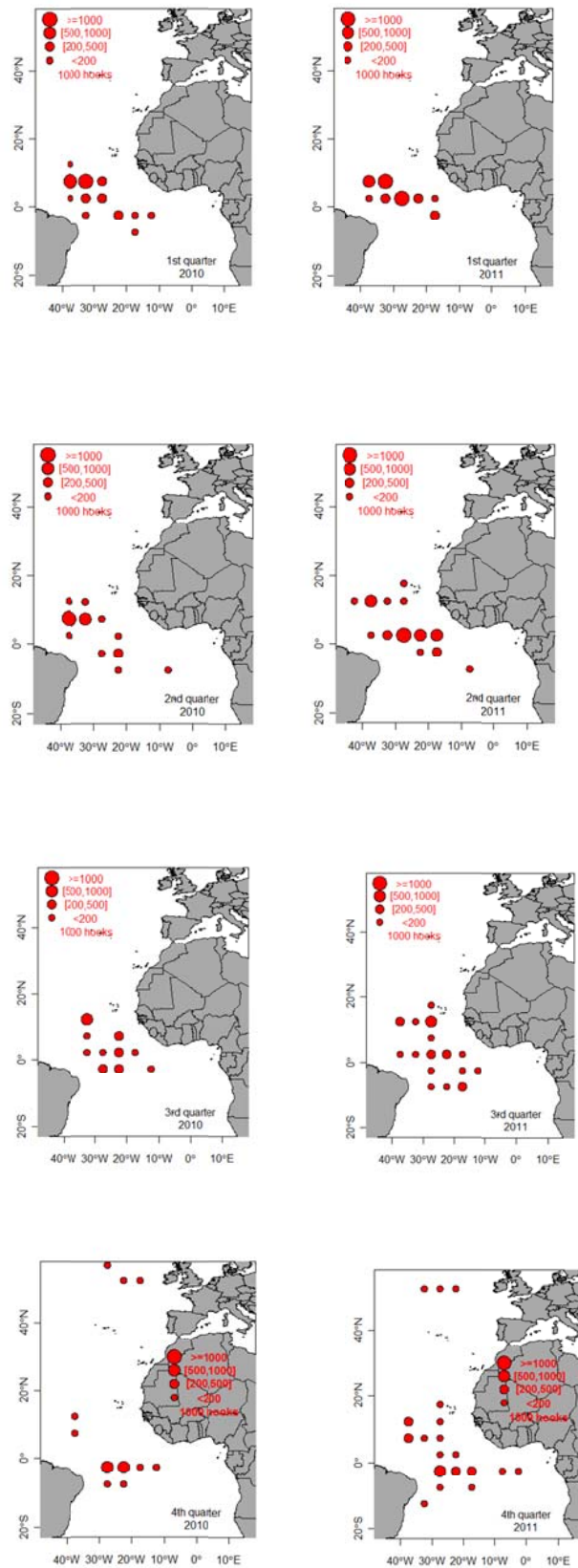
**Figure 1.** The monthly CPUE (kg /1000 hooks) distribution of bigeye tuna (up) and yellowfin tuna (down) caught by Chinese tuna longline fleet in the ICCAT waters in recent six years.



**Figure 2.** The monthly fishing effort (hooks 10<sup>5</sup>) of Chinese tuna longline fleet in the ICCAT waters in recent six years.



**Figure 3.** The quarterly CPUE distribution of bigeye tuna (red) and yellowfin tuna (in cyan) by 5°×5° in 2010 (left) and 2011 (right).



**Figure 4.** Fishing effort distribution by  $5^{\circ} \times 5^{\circ}$  and quarter in 2010 (left) and 2011 (right).

**ANNUAL REPORT OF CÔTE D'IVOIRE  
RAPPORT ANNUEL DE LA CÔTE D'IVOIRE  
INFORME ANUAL DE CÔTE D'IVOIRE**

Direction de l'Aquaculture et des pêches, Centre de recherches océanologiques  
Shep Helguile<sup>1</sup>, Fofana Bina<sup>2</sup>, Dr. Diaha n'Guessan Constance<sup>3</sup> et Dr Kouadio Justin Konan<sup>4</sup>

SUMMARY

*The fisheries and aquaculture sector hold an important place in the implementation of the policy of food self-sufficiency. This sector generates several jobs directly and indirectly, and this constitutes a real source of income for the coastal population. Tuna fishing remains the basis of this activity. Côte d'Ivoire's tuna resources are mainly exploited by an international fleet of large French and Spanish tuna vessels within the framework of a fishing agreement between Côte d'Ivoire and the European Union. The landings of these tuna vessels at the fishing port of Abidjan are regularly monitored by the IRD of France and the IEO of Spain, in collaboration with the Centre de Recherches Océanologiques-CRO (Center for Oceanographic Research). These resources are also exploited by other fleets, in particular a Korean vessel flying a Côte d'Ivoire flag since the end of 2011, which has been authorised chartering by Côte d'Ivoire and artisanal fishing canoes. These vessels (Côte d'Ivoire, Korea and artisanal canoes) targeting large tunas and tuna-like species, caught a total of 2,892,378 t fish. The majority of catches are tunas (87.77%), followed by tuna-like species (10.47 %) and sharks (1.74%). These catches were comprised of 2,538.88 t of tunas, broken down as follows: 2,106.72 t of Katsuwonus pelamis (skipjack tuna), 385.06 t of Thunnus albacares (yellowfin tuna) and 47,1t of Thunnus obesus (bigeye tuna). Sharks catches amount to 50,53 t and Sphyrna lewini (hammerhead) is the major species (34,63 t) followed by Prionace glauca (blue shark) 10,3 t and Isurus oxyrinchus (shortfin mako) 6,04 t. The associated species with 302,9 t, are essentially comprised of 145.44 t of Xiphias gladius (swordfish), 115.05 t of Istiophorus albicans (sailfish), 41.884 t of Makaira nigricans (blue marlin) and 0.52 t of Tetrapturus albidus (white marlin). Contrary to 2010, no North swordfish, South albacore and North albacore were caught. The collection of biological data on the major species, statistics on catches and fishing effort is carried out thanks to the collaboration between the CRO and the Direction de l'Aquaculture et des Pêches-DAP (Directorate of Aquaculture and Fishing).*

RÉSUMÉ

*Le secteur des pêches et de l'aquaculture occupe une place importante dans la mise en place de la politique de l'autosuffisance alimentaire. Ce secteur génère directement et indirectement plusieurs emplois et constitue de ce fait une véritable source de revenus de la population riveraine. La pêche thonière est et demeure le socle de cette activité. Les ressources thonières ivoiriennes sont majoritairement exploitées par une flottille internationale de grands thoniers français et espagnols dans le cadre d'un accord de pêche entre la Côte d'Ivoire et l'Union européenne. Les débarquements au port de pêche d'Abidjan de ces thoniers sont régulièrement suivis par l'IRD-France et l'IEO-Espagne en collaboration avec le Centre de Recherches Océanologiques. Ces ressources sont aussi exploitées par d'autre flottilles, notamment un navire battant pavillon ivoirien depuis fin 2011, le navire coréen dont la Côte d'Ivoire a autorisé l'affrètement et des pirogues de la pêche artisanale. Ces navires (ivoirien, coréens et pirogues artisanales) ciblant les thons majeurs et les espèces apparentées ont totalisé environ 2.892,378 t de poissons. Les thonidés sont les plus nombreux (87,77 %), suivis des espèces associées (10,47 %) et des requins (1,74%). Les thonidés représentant 2.538,88 t se composent de 2.106,72 t de Katsuwonus pelamis (listao), 385,06 t de Thunnus albacares (albacore) et de 47,1 t de Thunnus obesus (patudo). Les requins totalisent 50,53 t et Sphyrna lewini (marteau) est l'espèce majoritaire (34,63 t) suivie de Prionace glauca (peau bleue) 10,3 t et d'Isurus oxyrinchus (taupe bleue) 6,04 t. Les espèces associées qui représentent 302,9 t sont essentiellement composées de 145,44 t de Xiphias gladius (espadon du Sud), 115,05 t*

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*d'Istiophorus albicans (voilier), 41,884 t de Makaira nigricans (marlin bleu) et de 0,52 t de Tetrapturus albidus (marlin blanc). Contrairement à l'année 2010, l'espadon du Nord, le germon du Sud et celui du Nord n'ont pas été capturés. Les collectes de données biologiques des principales espèces, des statistiques de pêche et des efforts de pêche se font grâce à la collaboration entre le Centre de recherches océanologiques (CRO) et de la Direction de l'Aquaculture et des Pêches (DAP).*

## RESUMEN

*El sector de la pesca y acuicultura ocupa un lugar importante en la implementación de la política de autosuficiencia alimentaria. Este sector genera directa e indirectamente varios puestos de trabajo y, por tanto, constituye una fuente de ingresos real para la población de Côte d'Ivoire. La pesca atunera es y sigue siendo la base de esta actividad. Los recursos atuneros de Côte d'Ivoire son explotados sobre todo por una flota internacional de grandes atuneros franceses y españoles en el marco de un acuerdo de pesca entre Côte d'Ivoire y la Unión Europea. Los desembarques de estos atuneros en el puerto de pesca de Abiyán son objeto de seguimiento regular por parte del IRD-Francia y el IEO de España, en colaboración con el centro de investigaciones oceanográficas. Estos recursos son explotados también por otras flotas, sobre todo por un buque que enarbola pabellón de Côte d'Ivoire desde finales de 2011, por un buque coreano cuyo fletamento fue aprobado por Côte d'Ivoire y por piraguas de pesca artesanal. Estos buques (marfileños, coreanos y piraguas artesanales) que se dirigen a grandes túnidos y especies afines capturaron un total de aproximadamente 2.892,378 t de peces. Los túnidos son la especie más numerosa (87,77 %) seguidos por especies asociadas (10,47 %) y por los tiburones (1,74%). Las 2.538,88 t de capturas de túnidos están compuestas por 2.106,72 t de listado (Katsuwonus pelamis), 385,06 t de rabil (Thunnus albacares) y 47,1 t de patudo (Thunnus obesus). Las capturas de tiburones ascendieron a 50,53 t, y el pez martillo (Sphyrna lewini) fue la especie mayoritaria, con 34,63 t, seguido por la tintorera (Prionace glauca), con 10,3 t y por el marrajo dientuso (Isurus oxyrinchus) con 6,04 t. Las especies asociadas, que representan 302,9 t, están compuestas sobre todo de 145,44 t de pez espada (Xiphias gladius) del Sur; 115,05 t de pez vela (Istiophorus albicans); 41,884 t de aguja azul (Makaira nigricans) y 0,52 t de aguja blanca (Tetrapturus albidus). A diferencia de 2010, no se capturó pez espada del Norte ni atún blanco del norte y del sur. Las recopilaciones de datos biológicos de las especies principales y de estadísticas de pesca y esfuerzo pesquero se recopilan gracias al Centro de Investigación oceanográfica (Centre de Recherches océanologiques -CRO) y a la Dirección de Acuicultura y Pesca (Direction de l'Aquaculture et des Pêches -DAP).*

## Introduction

La Côte d'Ivoire est un État de l'Afrique occidentale de 322.000 km<sup>2</sup>, délimitée par les latitudes 4° et 6° Nord et les longitudes 3° et 8° Ouest et ayant une longueur de 550 km. Avec un plateau continental d'environ 12.000 km<sup>2</sup>, la Côte d'Ivoire se trouve dans la zone de golfe de Guinée la plus pauvre en ressources halieutiques.

## I<sup>ère</sup> partie (Information sur les pêcheries, la recherche et les statistiques)

### Chapitre 1 : Information annuelle sur les pêcheries

#### 1.1 Espèces exploitées

Les principales espèces de thonidés et espèces apparentées exploitées par les pêcheries ivoiriennes sont :

- a) Thonidés
  - Thonidés majeurs : le listao, l'albacore et le patudo.
  - Thonidés mineurs : la thonine, l'auxide, la bonite, le thazard- bâtard, le thazard blanc et le maquereau.
- b) Espèces associées
  - L'espadon et les marlins.
- c) Requins
  - Le marteau, peau bleue et taupe bleue.

## 1.2 Flotte ivoirienne et flotte affrétée

Les espèces gérées par l'ICCAT sont exploitées en Côte d'Ivoire par un armement diversifié, constitué d'un navire battant pavillon ivoirien, d'un navire affrété et d'embarcations de la pêche artisanale (**Tableau 1**). En 2011, le contrat d'affrètement a concerné un armement coréen et une société ivoirienne MABICO SARL. Une licence de pêche a été délivrée à cette société autorisant le navire affrété à pêcher l'espadon, le thon obèse, l'albacore, le germon et le marlin.

## 1.3 Captures annuelles

Une quantité de 2.892,378 t de poisson a été débarquée par les deux navires industriels (ivoirien et coréen) et la pêche artisanale. Les espèces concernées sont les thonidés tropicaux, les espèces apparentées et les requins.

### 1.3.1 Capture des thonidés tropicaux

Les quantités de thonidés tropicaux débarquées en 2010 et 2011 sont présentées dans le **Tableau 2** (en tonnes).

Les quantités enregistrées en 2011 connaissent dans l'ensemble une baisse par rapport à 2010. Cela pourrait s'expliquer par la crise qu'a connue la Côte d'Ivoire au cours de la première moitié de l'année 2011. Il faut également souligner la baisse de l'effort de pêche, le nombre des navires affrétés étant passé de quatre à un.

### 1.3.2 Espèces apparentées

La somme de leurs tonnages de 302,9 t représente 10,47% du total de poisson capturé (**Tableau 3**). L'espadon (*Xiphias gladius*) évalué à 145,44 t est totalement constitué du stock du Sud.

Les captures élevées au titre des années précédentes d'espadon du Nord attribuées en grande partie à la pêche artisanale relèvent d'une confusion entre le stock du Sud et celui du Nord. En effet, en tenant compte de la carte de répartition de l'espadon de l'Atlantique, les pirogues artisanales ne peuvent pas atteindre la zone de l'espadon du Nord. Cette espèce est donc essentiellement ciblée en Côte d'Ivoire par la pêche industrielle.

Le marlin bleu, avec 42,08 t, représente 98,77% des captures de marlins et le blanc, avec 0,52 t, 1,22%. Concernant la dernière espèce, la quantité reste largement en dessous de la limite qui s'élève à 2,31 t.

### 1.3.3 Requins

Les requins représentent 50,53 t, soit 1,74% du total. *Sphyrna lewini* (marteau) est l'espèce majoritaire (34,63 t) soit 68,53% suivie de *Prionace glauca* (peau bleue) 10,3 t, 20,38% et d'*Isurus oxyrinchus* (taupe bleue) 6,04 t, 11,95% (**Tableau 4**).

## 1.4 Flotte étrangère

La Côte d'Ivoire dispose de trois conserveries auxquelles sont destinés les débarquements de navires canneurs, senneurs et palangriers battant pavillon européen (15 espagnols et 10 français). Ces navires opèrent dans le cadre d'un accord de partenariat de pêche entre la Côte d'Ivoire et l'Union européenne. En plus de ces thoniers européens, des cargos battant divers pavillons débarquent des produits thoniers au port de pêche d'Abidjan.

NB : ces thoniers dans leur ensemble alimentent le marché local de fortes quantités de faux poissons connus sous l'appellation ivoirienne de « faux thons ». Les quantités de « faux thons » débarqués au titre de l'année 2011 sont énumérées comme suit :

- Bateaux européens : 12.810 tonnes
- Autres cargos : 14.720 tonnes

## 1.5 Pêche sportive

Cette pêche a connu un ralentissement voire une suspension de ses activités à l'issue de la crise socio-politique de 2002. Aujourd'hui, ces activités connaissent une reprise timide et les dispositions administratives sont en cours pour un suivi efficient.

## ***Chapitre 2 : Recherches des statistiques***

La recherche ivoirienne sur les thonidés et espèces apparentées est assurée par le CRO (Centre de Recherches Océanologiques). Ce centre est basé à Abidjan, mais fait le suivi halieutique des pêcheries de thonidés le long du littoral ivoirien.

Les débarquements au port de pêche d'Abidjan des thoniers sont régulièrement suivis par l'IRD-France et l'IEO-Espagne en collaboration avec le Centre de Recherches Océanologiques. Un chercheur du CRO a fait une étude sur les thonidés mineurs. Cette étude a été présentée à la réunion du SCRS en 2012. Un autre fait des recherches sur les requins.

Par ailleurs, ces deux chercheurs du CRO font les collectes de données biologiques des principales espèces, des statistiques de pêche et des efforts de pêche du navire *Solevant* en collaboration avec la Direction de l'Aquaculture et des Pêches (DAP).

Au niveau de la pêche artisanale, un programme de collecte participative de données a été initié en 2009 avec une forte implication des coopératives de pêcheurs artisans à Abidjan. Cet effort de collaboration entre l'administration des pêches et les pêcheurs artisans se poursuit.

À Abidjan, les enquêteurs rémunérés par les coopératives sont présents sur les sites de débarquement quatre jours par semaine ; ces jours sont mardi, mercredi, jeudi et vendredi. Des agents des administrations des pêches appuient les enquêteurs des coopératives. À cet effet, deux ateliers de formation du personnel administratif et des coopératives dont l'un sur la systématique des thonidés et des espèces associées et l'autre sur les méthodes de collecte des données statistiques ont été organisés en 2011.

## **II<sup>e</sup> Partie (Mise en œuvre de la gestion)**

### ***Chapitre 3 : Mise en œuvre des mesures de conservation et de gestion de l'ICCAT***

L'arrêté n°141 du 2 mars 1970 portant réglementation de la pêche au thon interdit la capture des poissons sous-taille et d'autres dispositions législatives et réglementaires, notamment un avant-projet de loi et un projet d'arrêté, sont en cours pour renforcer cet arrêté.

Conformément à la Recommandation 02-21, des observateurs ont été embarqués à bord du navire affrété et du navire battant pavillon ivoirien. D'importantes données ont été récoltées en 2012 (voir annexe). Par ailleurs les données de position du navire *Solevant* sont régulièrement transmises à la direction des pêches chaque 6 heures (**Tableau 5**).

### ***Chapitre 4 : Schémas et activités d'inspection***

Plusieurs administrations ivoiriennes interviennent dans le contrôle des activités de pêche. Il s'agit de la Direction de l'Aquaculture et des Pêches, du Service de contrôle et d'inspection vétérinaire en frontière, des Affaires maritimes et portuaires et de la Marine nationale. Ces structures effectuent, chacune en fonction de ses prérogatives, des contrôles des activités de pêche.

L'inspection de la direction des pêches se fait conformément aux dispositions prévues dans l'accord de la FAO portant sur les mesures du ressort de l'État du port. Ces inspections ont véritablement débuté en 2012 (voir fiche d'inspection à l'**Annexe 1**).

**Tableau 1.** Caractéristiques des navires.

<i>Numéros ICCAT</i>	<i>Partie affrèteuse</i>	<i>Nom des navires</i>	<i>Type de navire</i>	<i>Longueur(m)</i>	<i>Adresse armateur</i>
AT000KOR00221	Côte d'Ivoire	Premier	Senneur	70,66	275 Yang Jae-Dong, Secho-Gu, Seoul, Korea

**Tableau 2.** Quantités en tonne de thonidés capturées par la flottille ivoirienne

	<i>2010</i>	<i>2011</i>
Albacore	677,1	385,060
Patudo	659,704	41,17
Listao	2840	2107,72

<i>Numéro de Série ICCAT</i>	<i>N° Registre (NRN)</i>	<i>Nom du navire</i>	<i>Type de navire</i>	<i>Longueur (m)</i>	<i>Adresse armateur</i>
AT000CIV00002	LPCI 032/2011	Solevant	senneur	55,43	Solevant Pêcheries 18 BP 2096 Abidjan 18

**Tableau 3.** Quantités en tonne d'espèces apparentées capturées par la flottille ivoirienne.

	<i>Espèce</i>	<i>2010</i>	<i>2011</i>
Espadon	Espadon du Sud	163,71	145,44
	Espadon du Nord	29,94	0
Voilier		13,49	108,05
Marlin	Marlin blanc	7,17	0,52
	Marlin bleu	42,67	42,08

**Tableau 4.** Quantités en tonne de requins capturées par la flottille ivoirienne.

	<i>Espèce</i>	<i>2010</i>	<i>2011</i>
Requin	Marteau	17,63	34,63
	Peau bleue	13,9	10,3
	Taupe bleue	12,71	6,04

**Tableau 5.** Un extrait des positions du navire *Solevant* en 2011.

	Dates	Positions	Heures
Sept-11	27/09/2011	04°12'N-03°53'W	18h
	28/09/2011	03°37'N-03°06'W	00h
	28/09/2011	03°02'N-02°10'W	06h
	28/09/2011	02°20'N-01°40'W	12h
	28/09/2011	01°40'N-01°45'W	18h
	29/09/2011	01°10'N-01°32'W	00h
	29/09/2011	01°07'N-01°22'W	06h
	29/09/2011	01°11'N-01°31'W	12h
	29/09/2011	01°01'N-01°20'W	18h
Décembre 2011	13/12/2011	03°52' S-04°28'W	00h
	13/12/2011	02°13' S-05°59'W	12h
	13/12/2011	03°12' S-05°18'S	18h
	15/12/2011	06°21'S-01°59'W	00h
	15/12/2011	06°30'S-02°11'W	6h
	15/12/2011	05°57' S-01°25'W	12h
	15/12/2011	05°24'S-01°21'W	18h
	16/12/2011	05.18S 001.23W	00h
	16/12/2011	05.16S 001.30W	06h
	16/12/2011	05.20S 000.54W	12h
	16/12/2011	05.09S 000.21W	18h
	17/12/2011	04.31S 000.28E	00h
	17/12/2011	03.56S 001.26E	06h
	17/12/2011	03°45'S-01°54'E	12h
	17/12/2011	03°51'S-02°05'E	18h
	18/12/2011	04°25'S-02°58'E	00h
	18/12/2011	05°01'S-03°49'E	06h
	18/12/2011	05°20'S-00°54'W	12h
	18/12/2011	05°40'S-05°48'S	18h
	18/12/2011	05°28'S-04°25'S	12h
	19/12/2011	06°09'S-06°32'S	00h
	19/12/2011	06°08'S-06°35'S	06h
	19/12/2011	05°36'S-07°02'E	12h
	19/12/2011	05°12'S-07°07'E	18h
	20/12/2011	05°05'S-06°17'E	00h
	20/12/2011	05°03'S-05°27'E	06h
	20/12/2011	05°04'S-04°57'E	12h
	20/12/2011	05°02'S-03°51'E	18h
	21/12/2011	05°07'S-04°59'E	00h
	21/12/2011	04°10'S-02°47'E	06h
	21/12/2011	03°19'S-02°20'E	12h
	21/12/2011	02°24'S-01°40'E	18h
	22/12/2011	01°18'S-01°42'E	00h
	22/12/2011	00°02'N-02°03'E	06h
	22/12/2011	00°56'N-02°04'E	12h
	22/12/2011	00°06'N-01°27'E	18h
	23/12/2011	00°16'N-00°35'E	00h
	23/12/2011	00°39'N-00°42'W	06h
	23/12/2011	00°39'N-01°39'W	12h
	23/12/2011	01°10'N-02°49'W	18h
24/12/2011	01°18'N-03°42'W	00h	
24/12/2011	02°01'N-04°56'W	06h	
24/12/2011	02°35'N-06°05'W	12h	
24/12/2011	02°42'N-06°17'W	18h	

25/12/2011	03°35'N-06°11'W	00h
25/12/2011	04°16'N-06°04'W	06h
25/12/2011	04°04'N-05°46'W	12h
25/12/2011	03°32'N-05°17'W	18h
26/12/2011	03°17'N-04°58'W	00h
26/12/2011	03°14'N-04°57'W	06h
26/12/2011	03°28'N-05°27'W	12h
26/12/2011	03°53'N-06°14'W	18h
27/12/2011	03°52'N-06°09'W	00h
27/12/2011	03°59'N-06°06'W	06h
27/12/2011	03°56'N-06°24'W	12h
27/12/2011	03°49'N-07°20'W	18h
28/12/2011	03°27'N-06°49'W	00h
28/12/2011	02°56'N-06°20'W	06h
28/12/2011	02°33'N-06°05'W	12h
29/12/2011	02°28'N-05°27'W	00h
29/12/2011	03°47'N-04°59'W	06h
29/12/2011	04°27'N-04°28'W	12h
29/12/2011	04°50'N-04°18'W	18h

**Tableau 6.** Captures (t) du navire *Premier* pendant neuf marées par zone de pêche.

Marées	Open sea				Cote d'Ivoire EEZ				Total
	Skipjack	Yellow pin	Bigeye	Sub-total	Skipjack	Yellowfin	Bigeye	Sub-total	
1 (08/07/ au 10/08 2011)	285	50	10	345	0	0	0	0	<b>345</b>
2 (11/09 ~ 23/10/2011)	570	95	10	675	25	0	0	25	<b>700</b>
3 (31/10 ~ 21/12/2011)	120	960	25	1105	30	15	0	45	<b>1150</b>
4 (03/01~ 21/01/2012)	264	42	24	330	5	5	5	15	<b>345</b>
5 (02/02 ~ 19/03/2012)	575	115		690	0	0	0	0	<b>690</b>
6 (03/04 ~ 16/05/2012)	26	252	30	308	500	32	10	542	<b>850</b>
7 (24/05 ~ 13/06/132012)	25	145	10	180	0	0	0	0	<b>180</b>
8 (21/06 ~ 30/07/2012)	760	190	40	990	30	0	0	30	<b>1020</b>
9 (07/08 ~ 28/09/2012)	669	168	73	910	0	0	0	0	<b>910</b>
<b>TOTAL</b>	<b>3294</b>	<b>2017</b>	<b>222</b>	<b>5533</b>	<b>590</b>	<b>52</b>	<b>15</b>	<b>657</b>	<b>6190</b>

**Tableau 7.** Captures (t) du navire *Solevant* pendant neuf marées par zone de pêche.

Voyage	Open sea				Cote d'Ivoire EEZ				Total
	Skip jack	Yellowfin	Bigeye	Sub-total	Skipjack	Yellowfin	Bigeye	Sub-total	
1(29/11 ~30/12/2011)	154	1		155	75			75	<b>230</b>
2(13 /02~11/03/2012)	244	30	6	280	65	5		70	<b>350</b>
3(07 /04~16/04/2012)	20			20	25			25	<b>45</b>
4(09/06~28/07/2012)	399	32	15	446	40			40	<b>486</b>
5 (11/08~11/09/2012)	383	72	30	485	52	10	3	65	<b>550</b>
<b>TOTAL</b>	<b>1200</b>	<b>135</b>	<b>51</b>	<b>1386</b>	<b>257</b>	<b>15</b>	<b>3</b>	<b>275</b>	<b>1661</b>

**Tableau 8.** Récapitulatif des positions de pêche sur DCP du navire *Solevant* du 18/02/2012 au 23/03/2012.

<i>Date</i>	<i>Position de pêche sur DCP</i>	<i>Prise du jour (t)</i>
18/02/2012	00°14'S et 07°52'W	41,718
19/02/2012	02°28'N et 08°12'W	6,135
20/02/2012	02°27'N et 09°22'W	1,227
20/02/2012	02°15'N et 09°13'W	6,135
22/02/2012	01°41'N et 14°57'W	9,816
23/02/2012	02°31'N et 16° 29'W	14,724
24/02/2012	02°35'N et 18°57'W	14,724
25/02/2012	01°13'N et 19°35'W	30,675
25/02/2012	01°14'N et 18°52'W	7,362
26/02/2012	01°15'N et 16°23'W	4,908
27/02/2012	04°49'S et 15°53'W	39,264
29/02/2012	01°31'S et 09°01'W	60,123
01/03/2012	00° 13'S et 07°29'W	9,816
02/03/2012	01°15'S et 05°16'W	4,816
03/03/2012	01°28'S et 04°08'W	11,043
03/03/2012	01°18'S et 04°01'W	7,332
05/03/2012	01°28'S et 04°08'W	28,211
07/03/2012	00°17'S et 01°28'E	4,908
07/03/2012	00°17'S et 01°28'E	4,908
09/03/2012	02°30'N et 03°43'W	14,724
10/03/2012	00°53'N et 06°12'W	12,27
11/03/2012	01°52'N et 06°19'W	45,399
<b>Total des captures estimées de la marée</b>		<b>380,238</b>

## FICHE D'INSPECTION

Résultats de l'inspection 1. N° du rapport d'inspection		2. État du port				
3. Autorité chargée de l'inspection						
4. Nom de l'inspecteur principal			ID			
5. Lieu de l'inspection						
6. Début de l'inspection	Année	Mois	Jour	Heure		
7. Fin de l'inspection	Année	Mois	Jour	Heure		
8. Notification préalable reçue	Oui		Non			
9. Objet de l'accès au port	LAN	TRX	PRO	AUTRE (préciser)		
10. Nom du port et de l'État et date dernière escale	Année	Mois	Jour			
11. Nom du navire						
12. État du pavillon						
13. Type de navire						
14. IRCS (indicatif international d'appel radio)						
15. ID certificat d'immatriculation						
16. ID navire OMI, le cas échéant						
17. ID externe, le cas échéant						
18. Port d'attache						
19. Propriétaire(s) du navire						
20. Propriétaire(s) bénéficiaire(s) du navire, si connu(s) et différent(s) du propriétaire du navire						
21. Armateur(s), si différent(s) du propriétaire du navire						
22. Nom et nationalité du capitaine du navire						
23. Nom et nationalité du capitaine de pêche						
24. Agent du navire						
25. SSN/VMS	Non	Oui: national	Oui: ORGP	Type:		
26. Statut dans les zones ORGP où la pêche ou les activités liées à la pêche ont eu lieu, y compris toute inscription sur une liste INDNR						
Identificateur du navire	ORGP	Statut de l'État du pavillon	Navire sur liste autorisée	Navire sur liste INDNR		
27. Autorisations de pêche appropriées						
Identificateur	Délivrée par	Validité	Zone de pêche	Espèce	Engin	
28. Autorisations de transbordement appropriées						
Identificateur	Délivrée par			Période de validité		
Identificateur	Délivrée par			Période de validité		
29. Information sur le transbordement intéressant les navires donateurs						
Nom	État du pavillon	Numéro ID	Espèce	Produit	Zone(s) de pêche	Quantité
30. Évaluation des captures débarquées (quantité)						
Espèce	Produit	Zone(s) de pêche	Quantité déclarée	Quantité débarquée	Différence éventuelle entre quantité déclarée et quantité débarquée	



<b>31. Captures restées à bord (quantité)</b>					
<i>Espèce</i>	<i>Produit</i>	<i>Zone(s) de pêche</i>	<i>Quantité déclarée</i>	<i>Quantité restée à bord</i>	<i>Différence éventuelle entre quantité déclarée et quantité déterminée</i>
<b>32. Examen des livres de bord et d'autres documents</b>	<i>Oui</i>		<i>Non</i>		<i>Observations</i>
<b>33. Respect du/des système(s) de documentation des captures applicable(s)</b>	<i>Oui</i>		<i>Non</i>		<i>Observations</i>
<b>34. Respect du/des système(s) d'information commerciale applicable(s)</b>	<i>Oui</i>		<i>Non</i>		<i>Observations</i>
<b>35. Type d'engin utilisé</b>					
<b>36. Engin examiné conformément au paragraphe e) de l'Annexe B</b>	<i>Oui</i>		<i>Non</i>		<i>Observations</i>
<b>37. Conclusions de l'inspecteur</b>					
<b>38. Infraction(s) apparente(s) détectée(s), y compris renvoi aux instruments juridiques pertinents</b>					
<b>39. Observations du capitaine</b>					
<b>40. Mesures prises</b>					
<b>41. Signature du capitaine</b>					
<b>42. Signature de l'inspecteur</b>					

**ANNUAL REPORT OF CROATIA  
RAPPORT ANNUEL DE LA CROATIE  
INFORME ANNUAL DE CROACIA**

Fisheries Directorate, Ministry of agriculture, Croatia <sup>1</sup>

SUMMARY

*The total Croatian catch of bluefin tuna in 2011 was 375,03 metric tons (t). Of that amount, the total catch in the commercial fisheries was 371,99 t and in the sport/recreational fisheries was 3,04 tons. Of the total catch 4,45 t (1,20 %) was dead discard (mortality). Bluefin tuna catches in the commercial fisheries were mostly realized by purse seiners, 366,00 t (98,39 %), while the remainder (5,98 t; 1,61 %) was caught using hook and line gears. The total Croatian catch of Mediterranean (Adriatic) swordfish in 2011 amounted to 6.098 kg. Research was continued on the growth and reproductive biology of bluefin tuna. In order to improve the estimate of bluefin tuna biomass at the point of caging, a pilot programme on the use of stereoscopic system has been tested. A national sampling program targeting bluefin tuna harvested from aquaculture facilities has been carried out. Research activities are under way aiming to estimate the impact of increased abundance of small bluefin tuna in the Adriatic on small pelagic fishery. Croatia has transposed all the relevant ICCAT Recommendations into national legislation. All the measures have been fully implemented. Several services are involved in inspection securing total control of all the activities.*

RESUME

*En 2011, la prise totale croate de thon rouge s'est élevée à 375,03 t. Sur ce montant, la prise totale des pêcheries commerciales s'est élevée à 371,99 t et des pêcheries sportives et récréatives à 3,04 t. Un total de 4,45 t (soit 1,20%) de l'ensemble de la prise correspondait à des rejets morts (mortalité). L'essentiel des prises de thon rouge des pêcheries commerciales a été effectuée par des senneurs (366 t, 98,39 %), le reste (5,98 t, 1,61 %) étant capturé à la ligne et à l'hameçon. En 2011, la capture totale croate d'espadon de la Méditerranée (Adriatique) s'est élevée à 6.098 kg. Les travaux de recherche sur la croissance et la biologie reproductive du thon rouge se sont poursuivis. Dans le but d'améliorer les estimations de la biomasse du thon rouge à l'endroit de la mise en cage, un programme pilote sur l'emploi de caméras stéréoscopiques a été testé. Un programme d'échantillonnage national visant le thon rouge mis à mort dans les établissements d'aquaculture a été réalisé. Les activités de recherche sont en cours en vue d'estimer l'impact de l'abondance accrue des petits thons rouges dans l'Adriatique sur la pêcherie de petits pélagiques. La Croatie a transposé toutes les recommandations pertinentes de l'ICCAT dans sa législation nationale. Toutes les mesures ont été pleinement mises en œuvre. Plusieurs services participent aux inspections, ce qui garantit un contrôle complet de toutes les activités.*

RESUMEN

*La captura total de Croacia de atún rojo en 2011 ascendió a 375,03 t. De esta cantidad, la captura total en las pesquerías comerciales fue de 371,99 t y en las pesquerías deportivas y de recreo fue de 3,04 t. De la captura total, 4,45 t (1,20 %) fueron descartes muertos (mortalidad). Las capturas de atún rojo en las pesquerías comerciales fueron realizadas en su mayoría por cerqueros, 366,00 t (98,39 %), mientras que el resto (5,98 t, 1,61 %) fue capturado con artes de anzuelo y liña. La captura total de pez espada del Mediterráneo (Adriático) en 2011 ascendió a 6,098 kg. Se ha proseguido con la investigación sobre crecimiento y biología reproductiva del atún rojo. Con el fin de mejorar las estimaciones de la biomasa de atún rojo en el punto de introducción en jaula, se ha probado un programa piloto utilizando un sistema estereoscópico. Se ha desarrollado un programa nacional de muestreo dirigido al atún rojo sacrificado en instalaciones de acuicultura. Se están llevando a cabo actividades de investigación con el objetivo de estimar el impacto del incremento de la abundancia de atún rojo pequeño en el*

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*Adriático en la pesquería de pequeños pelágicos. Croacia ha incorporado todas las recomendaciones pertinentes de ICCAT a su legislación nacional. Todas las medidas se han implementado totalmente. Varios servicios participan en la inspección garantizando un control total de todas las actividades.*

## **Part I (Information on Fisheries, Research and Statistics)**

### ***Section 1: Annual Fisheries Information***

The total Croatian catch data of bluefin tuna in 2011 in commercial fisheries was 371,99 metric tons (t). Out of this figure, 98,39% was caught using purse seines (PS), amounting to 366,00 t. The remaining was caught using coastal artisanal long-lines (LL, 0,42 t or 0,11 %) and hand lines (HAND, 5,56 t or 1,49%). Dead discard (mortality) was 1,20% or 4,45 t.

There were a total of 33 vessels licensed for participation in the bluefin tuna fishery in 2011, of which 18 were purse seiners and 15 were hook and line vessels.

All hook and line vessels had 131 days at sea in total.

All 18 licensed purse seine vessels were active in fishing, with a total number of days at sea amounting to 257. Their catches were 366,00 t, with an average of 14,3 days at sea for each vessel. If the average catch per vessel was calculated, the figure would amount to 20,33 t per vessel, averaging to 1,42 t per day per vessel or 25,60 t per day per operational fleet.

Weight frequencies indicate that the majority of fish caught falls in the category of 9 to 10 kg (81,8%).

In 2011, fishermen targeting small pelagic fish reported higher abundance of bluefin tuna in the Adriatic Sea than in previous years, and its adverse effect on small pelagic fishery as well.

The total catch of bluefin tuna in 2011 in the sport and recreational fisheries was 3,04 t.

Catches of Mediterranean (Adriatic) swordfish amounted to 6.098 kg in 2011.

### ***Section 2: Research and Statistics***

National sampling program focussing on bluefin tuna has been carried out in accordance with Rec 06-07. Within framework of this sampling program, collection of Task II data has been done.

Croatia continues to support research activities related to bluefin tuna stock management. Interaction of bluefin tuna with purse seine fisheries has been studied through a national funded project. It was recognised that bluefin tuna continue to cause problems for the fishermen targeting small pelagic fish (sardine, anchovy), particularly after the bluefin tuna spawning season. The economic loss due to the disturbance on the small pelagic fishery by bluefin tuna has been studied, and the damage to fishing gears was estimated. Aiming to better estimate biomass of bluefin tuna at the point of caging, a pilot programme on the use of stereoscopic system was carried out by employing an AM100 stereoscopic camera with analytical software. The accuracy of camera system estimates has been tested. Exchange of experience and achievement in applying sizing and counting technology with other CPCs will be welcomed.

## **Part II (Management implementation)**

### ***Section 3: Implementation of ICCAT Conservation and Management Measures***

Croatia has adopted a Regulation on the catch, farming and trade of bluefin tuna (OG 60/10) in May 2010. This Regulation includes the provisions of the ICCAT Recommendations 06-07, 08-12 and 09-06 and transposes them into national legislation in full. The aforementioned Regulation replaced the Regulation on catch, farming and trade of bluefin tuna adopted in 2009. Following the adoption of the new Marine Fisheries Law (OG 56/10), an integral version of the Regulation was published (OG 60/10), containing all the relevant provisions. In order

to implement a more stringent regime, and fully comply with the relevant provisions of the Multi-annual Bluefin Tuna Recovery Plan, Croatia has continued to implement all adopted measures during 2010. In 2011 and 2012, Croatia adopted the new and revised Regulation (Regulation on catch, farming and sales of bluefin tuna (*Thunnus thynnus*) OG 26/11, 029/11, 031/11, 53/11, 19/12, 33/12), including all relevant elements from the Rec. 10-04, 09-11 and 06-07. Info on the implementation of ICCAT Recommendation above has been provided in accordance with the requirements.

In September 2009 Croatia limited its farming capacity and adopted the Ministerial Decree on allocation criteria for setting up the limit of input of wild caught bluefin tuna into farms for 2010, which then was replaced by the new Decree regulating the same issues in 2011. The Decree also contains the criteria and the allocation of individual maximum inputs for Croatian farms.

In 2011 Croatia participated in the ROP program on farms and on purse seine vessels in full compliance with ICCAT Recommendation 10-04. The placing of the observers was regulated by a specific Decree that allocated observers to different vessels. Croatia implemented the national observer program in 2011 in accordance with Recommendation 10-04.

In 2011 Croatia continued to implement the measures on reduction of the overcapacity and discontinuation of the bad weather clause. The purse seine season was limited to the period 15 May to 15 June and a total of 18 purse seine vessels participated in the fishery. Thirteen (13) vessels were over 24 meters, and participated in the ICCAT Regional Observer Programme. Five (5) vessels were smaller and were covered by national observers and by national inspection. Quota was allocated individually per vessel and the ITQ system was implemented (quotas were transferrable between vessels). The list of vessels and their individual quotas were communicated to the Secretariat. All Croatian bluefin tuna purse seine vessels are multipurpose, and operate in other fisheries as well, so capacity reduction in the bluefin tuna fishery meant withdrawal from this fishery and transfer to other activities.

The Regulation on catch, farming and trade of bluefin tuna stipulates that it is forbidden to trade with bluefin tuna caught by vessels flying the Croatian flag which is not followed by the ICCAT Bluefin Catch Document (BCD) validated by the Ministry of Agriculture. In order to validate BCD, a copy of the logbook must be submitted. All BCDs are validated by civil servants employed within the Directorate of Fisheries, whose names and signatures have been reported to the Secretariat.

The Croatian authorities have developed a very sophisticated information system with web-based application containing data on vessels licensed for bluefin tuna fisheries indicating the vessels authorized to fish in the 2011 fishing season and their individual quotas in order to secure cross-checks of verification, validation and inspection reports with the catch and transfer data. In order to be authorized to participate in the fishing season, all vessels had to be registered in the ICCAT register and had to have a functional VMS and electronic logbook in 2011. VMS data are constantly monitored and cross-checked with the positions of the catches as listed in logbooks and electronic logbooks. In 2011 the option to use both paper and electronic logbook was allowed. When the catch was made by a vessel, the logbook had to be filled and submitted. These data were entered into the database and deducted from the individual quota. The vessel then had to apply for a transfer authorization. The authorization was done for the catches reported by vessels authorized and equipped with the VMS. The transfer had to be filmed. The tug transported the fish to the farm site, and before the transfer from the tug to farm, the tug had to obtain the authorization. In order to obtain the authorization, the tug had to provide information on all relevant steps. Previous authorization to transfer the fish to the tug cage was available to the person in charge of authorization. Authorization for transfer of fish from tug to farm was undertaken by personnel from Aquaculture Unit. During the transfer to farm, 100% inspection and observer coverage was secured. Underwater cameras and filming was obligatory. Caging declarations had to be produced upon the operation as well. When the fish are taken out of the cages, observer and inspection coverage is also secured, and the fish have to be traced by cage and by origin.

The Ordinance on closure of fishery on swordfish (OG 118/2009 and 114/2010) stipulates the closure of the fishery on swordfish in the period from 1 October until 30 November, thus transposing the relevant provisions of the ICCAT Recommendations.

The Ordinances on closure of fishery on swordfish mentioned above have been transferred into the Order on the protection of fish and other marine organisms (OG 63/10, 68/10, 145/10 and 18/12). Amendment 18/12 establishes the closure of fishery season on swordfish during 1 October to 30 November and during 1 March to 31 March in accordance with the provisions of ICCAT.

In 2011 fishing season particular importance was placed on pilot program on stereoscopic camera implementation in order to assess the size of fish placed in cages.

***Section 4: Inspection Schemes and Activities***

Memorandums of Understanding have been signed by all services authorized for inspection, as pursuant to the Marine Fisheries Act adopted in 2010 several services are involved in inspection and control activities. Croatia has developed a web-based password-protected system that enables reporting and cross-checking and verification. Infringements have been uniformly classified in 3 categories (serious, significant and mild). In case of bluefin tuna fishery, serious infringements include lack or non-functioning of VMS, exceeding quota, continuation of fishing activities after closure, failure to take the observers on board or failure to request authorization for transfer and arrival of observers as well as landings of undersized fish. Minimum landing size in Croatia is 30 kg. Fish of 8 kg and more may be caught for farming purposes only.

Additionally, no import of live fish took place in 2011, meaning that tugs flying flags of other CPCs have not entered Croatian waters or ports in 2011. In cases of possible infringements, submissions are made to court and procedures may be initiated.

***Section 5: Other Activities***

Croatia has nothing to report at this time.

**ANNUAL REPORT OF EGYPT  
RAPPORT ANNUEL D'EGYPTE  
INFORME ANUAL DE EGIPTO**

**Part I (Information on Fisheries, Research and Statistics)**

No information received.

**Part II (Management Implementation)**

***Section 3: Implementation of ICCAT Conservation and Management Measures***

*3.1 Data and Minimum size*

Referring to Rec. [96-14] the Egyptian fishing vessel has fished the allocated quota. The catch was 64,246 kg while the allocated quota (64,58 kg). There is no any overharvest recorded during the fishing season 2012.

With reference to Rec. [97-01] concerning the minimum size regulations, the General Authority For Fish Recourses Development (GAFRD) issued Decree No. 827 /2011 that prohibited the fishing of bluefin tuna less than 30 kg , and this regulation enforced and implemented as all the catch was over the minimum size (30 kg).

The GAFRD has issued domestic regulations to avoid any further overharvest:

- 1) Decree No.827 /2011 that prohibited the fishing of bluefin tuna less than 30 kgs.
- 2) A formal resolution circulated to the Egyptian fishing vessels as announcement for stopping and closing the bluefin tuna fisheries for 2012 and the vessel was obliged to dock at the port by 21 May 2012.
- 3) Decree No. 827/2011 which prohibited the fishing activities along the period from 15 of June to 15 of May of the next year with any fishing gear.
- 4) GAFRD issued decree No. 829/2011 that prohibited the vessel to fish without an observer on board.
- 5) Decree No. 829/2011 that prohibited the landing and exporting of bluefin tuna or its product unless from El Meadia port and Alexandria port.
- 6) GAFRD sent observers to ports to guarantee the compliance with these domestic regulations.

*3.2 Measures relating to individual species*

Referring to Rec. [11-08] by ICCAT concerning the conservation of sharks, GAFRD issued Decree No. 444/2012 that prohibited the fishing of any species of sharks in the Mediterranean and prohibited the trading of sharks in markets as parts or complete.

Recommendation [10-09] by ICCAT on the by-catch of sea turtles in ICCAT fisheries, GAFRD has issued and circulated Decree No. 151/2012 that prohibited any fishing for sea turtles, and if there is any accidental by catch of sea turtles it should be returned alive to the sea and reported to the concerned fisheries management office at the port, including the date and location of this accidental fishing.

*3.3 General*

Referring to Rec. [06-11], there are no transshipment activities allowed in Egypt according to GAFRD Decree No. 827/2011 that prohibited the transfer of fishing bluefin tuna in water without a prior authorization from GAFRD.

Referring to Rec. [10-10] by ICCAT to establish minimum standards for fishing vessel scientific observer programs (paragraph 5), Egypt has no scientific observer programs, but only national observers who go on board the vessel to monitor and record the bluefin tuna fishing process. A scientific observer from the national institute for fisheries was voluntarily engaged in the fishing operation at sea, but this observer needs some technical support to be qualified for the observation process and to prepare his scientific report in a correct manner.

#### ***Section 4: Implementation Report (for Egypt's 2012 bluefin tuna fishing season)***

In April 2012, the National Tuna Management Committee for tuna fisheries, which was established by the GAFRD in November 2010 with the aim of the conservation of bluefin tuna, was held to revise all the procedures for the 2012 bluefin tuna fishing season to guarantee that the fishing process will be implemented in accordance with the following ICCAT recommendations.

Recommendation [08-05] which deals with the multi annual recovery plan for bluefin tuna in the eastern Atlantic and Mediterranean, the measures concerning the reduction of fishing capacity taken in 2009 in Recommendation [09-06], and the provisions of Recommendation [10-04] on the rebuilding plan of the East Atlantic and Mediterranean Blue Fin Tuna fishery, were translated regulations and decrees as management decisions according to the approved minute in April 2012 by the Committee.

##### *4.1 Management measures*

Egypt submitted its fishing plan for 2012 bluefin tuna fishing season on 9 November 2011 during the annual ICCAT meeting, in compliance with management measures adopted in Recommendation [10-04] paragraphs 11-13 and other conservation measures that were fully implemented during the fishing process.

##### *– Quota management*

According to ICCAT, Egypt has annual quota of 64.58 tons of bluefin tuna from the Mediterranean Sea during the 2012 fishing season. This quota was allocated to one fishing vessel which is “Seven Seas” that is listed on ICCAT list under number “AT000EG00003”. According to the approved plan, no joint fishing operations were allowed and the fishing process took place in the authorized period (from 16 May to 14 June) along the Egyptian territorial and EZZ waters, Mediterranean Sea (26°-32°E).

##### *– Minimum sizes*

In accordance with ICCAT Recommendation [10-04], Egypt has issued Decree No. 828/2011 that prohibited the fishing of bluefin tuna less than 30 kgs.

##### *– Time closure of fishing*

After reaching the adjusted quota and implementing ICCAT Recommendation [10-04], paragraph 73, Egypt immediately issued a formal resolution and circulated it in the Egyptian fisheries regions, fishing companies and cooperatives for stopping and closing the bluefin tuna fisheries for 2012 and according to this resolution the bluefin tuna fishing vessel has to dock at the fishing port on 21 May 2012.

Moreover, GAFRD has issued Decree No. 827/2011 that prohibited bluefin tuna fishing activities for the period from 15 May to 15 June of the next year with any fishing gear.

##### *4.2 Reduction of fishing capacity*

Referring to the implementation of Rec. [09-06] that concerns the reduction of fishing capacity, it should be noted that there is no overcapacity in the case of Egypt as it has only one Egyptian vessel that is authorized for bluefin tuna fishing.

##### *4.3 Monitoring measures*

##### *– Registration of the authorized fishing vessel to fish bluefin tuna at ICCAT*

Referring to ICCAT Rec. [08-09], paragraph 1, concerning the submission of data of non-compliance, Egypt notified ICCAT in response to Circular #2927/2012 that there is no suspected non-compliance of ICCAT measures and it attached the logbook.

In accordance with the Rec. [11-12], paragraphs 2 and 3, and Rec. [10-04] and paragraph 68 of the same Recommendation, Egypt submitted the data on the vessel that is authorized to fish bluefin tuna, the names of the authorized persons and signatures for BCD validation, and the names of the authorized ports according to the ICCAT format.

– Requirements of the authorized bluefin tuna fishing vessel

GAFRD notified the authorized vessel with the following compliances:

- 1) The transmittal of the VMS signals every six hours in compliance with the ICCAT Recommendations [07-08] and [10-04].
- 2) Submit the weekly catch report every week in compliance with ICCAT Recommendation [10-04] even though the reports of null catches, the date and location of the catches and the latitude and longitude.

These weekly reports were submitted to ICCAT every Monday during the fishing season and the monthly report was sent on the last day of the month in compliance with Recs. [10-04] and [10-03].

– Transfer operations

The GAFRD issued Decree No. 828/ 2011 whereby the transfer of bluefin tuna from the fishing vessel to the towing vessels must be monitored by underwater camera and the video record must show the date and the time of transfer.

Moreover, the GAFRD issued Decree No. 827/2011 that prohibited the transfer of any dead bluefin tuna at sea and in case of any transfer of live bluefin tuna from a purse seiner to a towing cage, the purse seiner should have a prior transfer authorization from the GAFRD (a copy of the Egyptian vessel authorization was sent to ICCAT).

Six pieces of 546 kgs. were killed for sampling purposes in compliance with ICCAT Rec. [10-04], paragraph 87, and the declaration was submitted on time.

No transshipment activities at sea were allowed as required in paragraph 62 of Rec. [10-04].

There was no need to use the authorized ports (El Meadia and Alexandria) for landing as there were no dead tuna.

– Caging operations

Until now, Egypt has no bluefin tuna farming facilities in its waters, so no decisions have been taken concerning this matter.

– Observers on board Egyptian vessel during the fishing activities

In accordance with Rec. [10-04] concerning regional observers on 100% of purse seine vessels over 20 meters during the 2012 fishing season, Egypt has submitted a request for deployment of a regional observer.

Moreover, Egypt has deployed five national observers according to paragraph 90 of Rec. [10-04] where three observers of fisheries specialists represented GAFRD on abroad during the fishing operations to monitor the catch, record the required data and insure compliance of the fishing vessel with the ICCAT recommendations. Moreover, the other two observers worked at ports in case of landing of any catch and to review the on-board observers' reports, but there were no dead tuna fish landed recorded in the authorized ports. The report of the national observers was sent to ICCAT.

#### *4.4 Sharks and sea turtles*

GAFRD issued Decree No. 444/2012 that prohibited fishing of all the species of sharks in the Mediterranean and also prohibited the trading of sharks as complete or parts in markets in accordance with Rec. [11-08], paragraph 4, that concerns the notification of the necessary measures to ensure that silky sharks taken by developing coastal CPCs will not enter international trade.

In accordance with ICCAT Rec. [10-09], paragraph 1, on the by-catch of sea turtles in ICCAT fisheries, GAFRD has adopted, issued, and circulated a restricted decision that prohibited any fishing for sea turtles. In addition, if there is any accidental bycatch of sea turtles they should be returned alive to the sea and reported to the concerned fisheries management office at the port, including the date and the location of this accidental fishing.



**ANNUAL REPORT OF ECUATORIAL GUINEA  
RAPPORT ANNUEL DE LA GUINÉE ÉQUATORIALE  
INFORME ANUAL DE GUINEA ECUATORIAL**

Dámaso Mba Nsuga<sup>1</sup>

SUMMARY

*Marine fishing in Equatorial Guinea, like its neighboring countries of the Gulf of Guinea, is directed at catches of the major resources available in the area, these being coastal, large oceanic pelagic species and coastal and deep water demersal species. In accordance with Law No. 15/1984 concerning territorial waters and the Exclusive Economic Zone, Equatorial Guinea's EEZ is 314,000 km<sup>2</sup>. Artisanal fishermen from Equatorial Guinea mainly exploit demersal resources and coastal pelagic species, except for the Island of Annobon, where oceanic pelagic species are artisanally caught. The majority of the fishermen use "cayuco" vessels with an overall length of 4 to 10m. The fishing gears used by artisanal fishermen in our country vary in different areas of the country, depending on the dominant species, characteristics of the sea bed, and also on the availability of materials. The island of Annobon, allows the exploitation of its productive oceanic waters near the coast, with the subsequent development of a particular artisanal fishing in Equatorial Guinea, especially directed at the catch of large oceanic pelagic species such as flyfish (Exocoetus volitans), wahoo (Acanthocybium solandris), yellowfin (Thunnus albacares), sailfish (Istiophorus albicans), skipjack (Katsuwonus pelamis) and bigeye (Thunnus obesus), among others. Industrial maritime fishing in Equatorial Guinean waters is carried out by foreign fleets. These fleets, exploit both coastal and deep-water demersal resources (industrial trawl fishing) as well as oceanic pelagic species (industrial purse seine fishing). The two types of industrial fishing currently carried out in Equatorial Guinean waters are: (a) "mixed" trawl fishing, carried out by stern and beam trawlers, and (b) purse seine tuna fishing, carried out by purse seiners. Currently industrial purse seine fishing in Equatorial Guinean waters is carried out by a Spanish fleet, including twenty-three (23) large freezer purse seiners of the National Association of Masters of Freezer Tuna Vessels (Asociación Nacional de Armadores de Buques Atuneros Congeladores, S.A., A.N.A.B.A.C), and the Association of Large Freezer Tuna Vessels (Asociación de Grandes Atuneros Congeladores, S.A., A.G.A.C.). The predominant species caught by large freezer tuna purse seiners is skipjack tuna (2,354 t). (SKJ, Katsuwonus pelamis), followed by yellowfin 672 t. (YFT, Thunnus albacares), bigeye 105 t. (BET, Thunnus obesus), frigate tuna 57 t. (FRI, Auxis thazard euthynnus) and lastly albacore 0,19 t. (ALB, Thunnus alalunga). There are no updated studies on fishery resources in the maritime waters of Equatorial Guinea. In the 1980s, some research campaigns (FAO) were carried out which enabled having an idea of the situation of these resources at the time. It was concluded that 74,150 t of fish and fishing products can be caught each year in Equatorial Guinea's fishing grounds and of this amount, 55,000 t of tuna and tuna-like species per year. The Masters of fishing vessels that operate with industrial maritime fishing licenses Equatorial Guinea's jurisdictional waters, report their corresponding catches by species on a timely basis to this General Directorate of Fishery Resources, following each trip. Trawler vessels report this information through the Observers that are deployed onboard these vessels by this Ministry of Fisheries and the Environment. Purse seiners however report their catches of tuna and tuna-like species via the Internet, simply because the fishing companies, ANABAC and AGAC do not have national observers on board their purse seiners. For monitoring purposes, in the waters under our jurisdiction, there is currently a VMS system installed in the Directorate General of Fishery Resources (Argos), which is dependent on the Ministry of Fisheries and the Environment. The vessels of Spanish tuna companies who fish tuna and tuna-like species in our EEZ, ANABAC and AGAC, do not provide their object numbers to monitor their activities in our maritime waters. There are currently twenty-one (21) purse seine vessels of the National Association of Masters of Freezer Tuna Vessels (ANABAC) and the Association of Large Freezer Tuna Vessels (AGAC) fishing tuna and tuna species in our EEZ. The Ministry of Fisheries and the Environment of the Republic of Equatorial Guinea is highly concerned with the lack of implementation of activities and inspection programmes. This has not been achieved*

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*due to the complete refusal by ANABAC and AGAC to carry national observers on board their fishing vessels which operate in waters under Equatorial Guinean jurisdiction.*

### RÉSUMÉ

*La pêche maritime de la Guinée équatoriale, à l'instar des pays voisins du golfe de Guinée, cible les principales ressources présentes dans la région, à savoir les espèces pélagiques côtières, les grands pélagiques océaniques, les espèces démersales côtières et les espèces démersales profondes. Selon la loi n°15/1984 sur la mer territoriale et la zone économique exclusive (ZEE), il est déterminé que la ZEE de Guinée équatoriale s'étend sur 314.000 km<sup>2</sup>. Les pêcheurs artisanaux de la Guinée équatoriale exploitent surtout les ressources démersales et pélagiques côtières, à l'exception de celles de l'île d'Annobon, où ils exploitent de manière artisanale les pélagiques océaniques. La plupart des pêcheurs utilisent des embarcations dénommées « cayucos » d'une longueur de 4 à 10 m. Les engins de pêche utilisés par les pêcheurs artisanaux de notre pays varient d'une zone à l'autre du pays, en fonction des espèces dominantes, des caractéristiques des fonds et également de la disponibilité des matériaux. L'île d'Annobon permet d'exploiter ses eaux océaniques productives proches de la côte, ce qui se traduit par le développement d'une pêcherie artisanale particulière dans le pays, ciblant surtout les grands pélagiques océaniques : poisson volant (*Exocoetus volitans*), thazard-bâtard (*Acanthocybium solandris*), albacore (*Thunnus albacares*), voilier (*Isthiophorus albicans*), listao (*Katsuwonus pelamis*) et thon obèse (*Thunnus obesus*), entre autres. La pêche industrielle maritime dans les eaux de la Guinée équatoriale est réalisée par des flottilles étrangères. Ces flottilles exploitent les ressources démersales côtières et profondes (pêche industrielle au chalut) ainsi que les ressources pélagiques océaniques (pêche industrielle à la senne). Les deux types de pêcherie industrielle réalisée actuellement dans les eaux de la Guinée équatoriale sont: a) pêche au chalut « mixte » réalisée par des chalutiers de pêche arrière et chalutiers à perche et b) pêche thonière à la senne, réalisée par des senneurs. À l'heure actuelle, la pêcherie industrielle à la senne dans les eaux de la Guinée équatoriale est réalisée par une flottille espagnole composée de vingt-trois (23) grands senneurs thoniers congélateurs appartenant à l'Association espagnole des armateurs de navires thoniers congélateurs (ANABAC) et l'Association espagnole de grands thoniers congélateurs (AGAC). L'espèce prédominante des captures des grands senneurs congélateurs thoniers est le listao (SKJ, *Katsuwonus pelamis*) à hauteur de 2.354 t, suivi de l'albacore (YFT, *Thunnus albacares*) à hauteur de 672 t, du thon obèse (BET, *Thunnus obesus*) à hauteur de 105 t, de l'auxide (FRI, *Auxis thazard euthynnus*) 57 t et finalement du germon (ALB, *Thunnus alalunga*) à hauteur de 0,19 t. Il n'y a pas d'études actualisées sur les ressources halieutiques dans les eaux maritimes de la Guinée équatoriale. Dans les années 80, quelques campagnes de recherche (FAO) ont été réalisées et ont permis de se faire une idée de la situation de ceux-ci à ce moment-là et ont conclu qu'il est possible de capturer dans nos zones de pêche un volume de 74.150 t/année de poissons et de produits halieutiques, dont 55.000 t/année de thonidés et d'espèces apparentées. Les capitaines des embarcations de pêche, qui opèrent avec des licences de pêche industrielle maritime dans les eaux sous notre juridiction, communiquent ponctuellement à cette Direction générale des ressources halieutiques leurs prises correspondantes par espèce après chaque sortie. Les chalutiers le font par le biais des observateurs que le Ministère de la Pêche et de l'Environnement déploie à bord de ses navires, alors que les informations sur les prises des senneurs qui capturent des thonidés et des espèces apparentées nous parviennent par internet simplement car ces sociétés de pêche, ANABAC et AGAC, n'ont pas d'observateurs nationaux à bord de leurs senneurs. Actuellement, un système VMS-Argos est installé à la Direction Générale des Ressources Halieutiques, dépendant du Ministère de la Pêche et de l'Environnement, dans le but de faire un suivi à l'intérieur des eaux sous notre juridiction. ANABAC et AGAC ne nous fournissent pas les numéros de balises des navires des sociétés thonières espagnoles qui pêchent des thonidés et des espèces apparentées dans notre ZEE, aux fins du suivi de leurs activités de pêche dans nos eaux maritimes. Un total de vingt et un (21) senneurs appartenant à l'Association espagnole des armateurs de navires thoniers congélateurs (ANABAC) et à l'Association espagnole de grands thoniers congélateurs (AGAC) pêche actuellement des thonidés et des espèces apparentées dans notre ZEE. Le Ministère de la Pêche et de l'Environnement de la République de Guinée équatoriale exprime une préoccupation alarmante en ce qui concerne la non-exécution des activités et des programmes d'inspection en raison du refus catégorique des navires d'ANABAC et d'AGAC d'avoir des observateurs nationaux à bord de leurs navires de pêche qui opèrent dans nos eaux juridictionnelles.*

## RESUMEN

*La pesca marítima en Guinea Ecuatorial, al igual que la de sus países vecinos del Golfo de Guinea, está dirigida a la captura de los principales recursos disponibles en el área, siendo éstos especies de pelágicos costeros, grandes pelágicos oceánicos, especies demersales costeras y especies demersales profundas. Según lo establecido en la Ley N° 15/1984 sobre el mar territorial y la zona económica exclusiva, se ha quedado determinado que la ZEE de Guinea Ecuatorial es de 314.000 km<sup>2</sup>. Los pescadores artesanales de Guinea Ecuatorial, explotan principalmente los recursos demersales y pelágicos costeros, salvo los de la Isla de Annobon, donde explotan artesanalmente los pelágicos oceánicos. La mayoría de los pescadores utilizan embarcaciones, “cayucos”, con una eslora de 4 a 10 m. Las artes de pesca empleadas por los pescadores artesanales de nuestro país, varían en las diferentes zonas del país, en función de las especies dominantes, características de los fondos, pero también de la disponibilidad de materiales. La Isla de Annobon, permite la explotación de sus productivas aguas oceánicas cerca de la costa, con el consecuente desarrollo de una pesquería artesanal particular en el país, especialmente dirigida a la captura de grandes pelágicos oceánicos como voladores (Exocoetus volitans), petos (Acanthocybium solandris), rabiles (Thunnus albacares), peces vela (Isthiophorus albicans), listado (Katsuwonus pelamis) y patudos (Thunnus obesus), entre otras. La pesca industrial marítima en aguas ecuatoguineanas es desarrollada por flotas extranjeras. Estas flotas, explotan tanto recursos demersales costeros y profundos (pesca industrial de arrastre), como pelágicos oceánicos (pesca industrial de cerco). Los dos tipos de pesquería industrial desarrolladas en la actualidad en aguas ecuatoguineanas son: a) pesca de arrastre “mixta”, desarrollada por barcos arrastreros de popa y tangoneros y b) pesca atunera de cerco, desarrollada por barcos cerqueros. En la actualidad la pesquería industrial de cerco en aguas de Guinea Ecuatorial es llevada a cabo por una flota española de veintitrés (23) grandes atuneros cerqueros congeladores pertenecientes a la Asociación Nacional de Armadores de Buques Atuneros Congeladores (A.N.A.B.A.C.), S. A. y Asociación de Grandes Atuneros Congeladores (A.G.A.C.), S. A. La especie predominante en las capturas de los grandes atuneros cerqueros congeladores es el listado 2.354 t (SKJ, Katsuwonus pelamis), seguido del rabil 672 t (YFT, Thunnus albacares), patudo 105 t (BET, Thunnus obesus), melva 57 t (FRI, Auxis thazard euthynnus) y finalmente el atún blanco 0,19 t (ALB, Thunnus alalunga). No existe estudios actualizados sobre los recursos pesqueros en aguas marinas de Guinea Ecuatorial, En los años 80 se llevaron a cabo algunas campañas de investigación (FAO) que permitieron hacerse una idea de la situación de los mismos en ese momento, en la conclusión de que se puede capturar en nuestros caladeros la cantidad de 74.150 t/año de pescado y productos pesqueros, entre ellos 55.000 t/año de túnidos y especies afines. Los capitanes de las embarcaciones de pesca que faenan con licencias de pesca industrial marítima en nuestras aguas jurisdiccionales, comunican puntualmente a esta Dirección General de Recursos Pesqueros sus correspondientes capturas por especies después de cada mareas, los barcos arrastreros lo hacen a través de los Observadores que este Ministerio de Pesca y Medio Ambiente embarca en sus barcos, mientras que, los barcos cerqueros que capturan los túnidos y especies afines, la información de sus capturas, nos llega por internet, por la sencilla razón de que dichas empresas de pesca, ANABAC y AGAC, no llevan a bordo de sus cerqueros los observadores nacionales. Actualmente en la Dirección General de Recursos Pesqueros, dependiente del Ministerio de Pesca y Medio Ambiente, se encuentra instalado el sistema VMS – Argos con el objetivo de hacer seguimiento dentro de nuestras aguas jurisdiccionales. Los barcos de las empresas atuneras españolas que pescan túnidos y especies afines en nuestra ZEE, ANABAC y AGAC, no nos facilitan sus números de balizas para su seguimiento de sus actividades en nuestras aguas marítimas. Se encuentran actualmente pescando los túnidos y especies afines en nuestra ZEE, unos un veintiún (21) barcos cerqueros pertenecientes a la Asociación Nacional de Armadores de Buques Atuneros Congeladores (ANABAC) y de la Asociación de Grandes Atuneros Congeladores, (AGAC). Existe una preocupación alarmante por parte del Ministerio de Pesca y Medio Ambiente de la República de Guinea Ecuatorial, por falta de ejecución de las actividades y programas de inspección, los motivos son por la rotunda negatividad de los barcos de ANABAC y AGAC sobre la presencia y embarque de los Observadores Nacionales a bordo de sus embarcaciones de pesca que faenan en nuestras aguas jurisdiccionales.*

## Parte I (Información sobre pesquería, investigación y estadísticas)

### *Sección 1: Información anual sobre pesquerías*

La pesca marítima en Guinea Ecuatorial, al igual que la de sus países vecinos del Golfo de Guinea, está dirigida a la captura de los principales recursos disponibles en el área, siendo éstos especies de pelágicos costeros, grandes pelágicos oceánicos, especies demersales costeras y especies demersales profundas.

Las aguas jurisdiccionales del país, se dividen en dos zonas de pesca, siendo estas:

- Zona insular, a su vez dividida en Hemisferio Norte (aguas jurisdiccionales de la Isla de Bioco) y Hemisferio Sur (aguas jurisdiccionales de la Isla de Annobon),
- Zona continental, que comprende las aguas jurisdiccionales de la Provincia de Litoral, incluyendo las Islas de Corisco, Elobeyes Grande y Chico e islotes adyacentes.

La República de Guinea Ecuatorial, tiene derecho de soberanía con fines de explotación, exploración, conservación y ordenación de los recursos naturales, tanto en su mar territorial como en su ZEE, según lo establecido en la Ley N° 15/1984 sobre el mar territorial y la zona económica exclusiva. En esta Ley, se establece la anchura del mar territorial en 12 millas marinas a partir de la línea de bajamar y se define la zona económica exclusiva (ZEE) como el área que se extiende desde el límite exterior del mar territorial hasta una distancia de 200 millas marinas de la línea de bajamar. Se ha quedado determinado que la ZEE de Guinea Ecuatorial es de 314.000 km<sup>2</sup>.

Los dos subsectores del sector pesquero que explotan los recursos en las zonas de pesca de Guinea Ecuatorial, son el de la pesca artesanal y la pesca industrial. Mientras la pesca artesanal es una actividad tradicionalmente llevada a cabo por la población local de los principales enclavamientos marítimos, la pesca industrial en la actualidad es desarrollada por flotas extranjeras que faenan en aguas jurisdiccionales de Guinea Ecuatorial mediante acuerdos o contratos de pesca marítima.

Las empresas extranjeras, abonan al Estado de nuestro país, en concepto de pago de los cánones o licencias para efectuar la pesca industrial marítima en su ZEE, según lo establecido por la Ley N° 10/2003, de fecha 17 de noviembre Reguladora de la Actividad Pesquera y su Reglamento de Aplicación en la República de Guinea Ecuatorial. Por su parte, la producción anual de la pesca artesanal está muy por debajo de los valores de importaciones anuales de pescado.

#### *1.1 La pesca artesanal marítima*

A pesar de la extensión marítima de Guinea Ecuatorial, la pesca artesanal esta poco desarrollada en nuestro país, debido a la escasez de medios y equipos adecuados para su ejercicio, lo que obliga a que el abastecimiento de los mercados nacionales provenga en su mayor parte de pescado importado.

Los pescadores artesanales de Guinea Ecuatorial, explotan principalmente los recursos demersales y pelágicos costeros, salvo los de la Isla de Annobon, donde explotan artesanalmente los pelágicos oceánicos.

La inmensa mayoría de los pescadores artesanales ecuatoguineanos siguen empleando embarcaciones tradicionales, tipo canoa, denominadas “cayucos”, construidos en una sola pieza sobre el tronco de un árbol ahuecado, normalmente del okume (*Aucoumea klaineana*). Estos cayucos son de eslora variable, desde 4 hasta 10 m, pudiendo ser empleados por una o dos personas (cayucos individuales) hasta 4 personas. Pocas veces los cayucos están dotados de motor, lo que reduce mucho su capacidad de pesca en zonas alejadas de la población de origen, limitando la pesca a zonas costeras. En aquellos lugares donde la pesca está más desarrollada, algunos pescadores disponen de botes de fibra de vidrio, de entre 7 y 12 m de eslora, dotados de motores de 15 a 25 CV. Los botes más grandes pueden embarcar hasta 8 y 10 pescadores, realizan una pesca menos costera, desplazarse a áreas alejadas del puerto de origen y realizar mareas de mayor duración.

Las artes de pesca empleadas por los pescadores artesanales de Guinea Ecuatorial, varían en las diferentes zonas del país, en función de las especies dominantes, características de los fondos, pero también de la disponibilidad de materiales. Los artes de pesca empleados pueden clasificarse en dos grandes grupos:

- Aparejos de anzuelo: líneas de mano, palangres y curricán (con ello se capturan tunidos y especies afines en la Isla de Annobon),

- Artes de red: Atarrayas o “redes de lanzar”, redes de enmalle, red de arrastre de playa o chinchorro de playa, redes de cerco y red de trasmallo.

Es destacable el ejercicio de la pesca submarina, sobre todo en las Islas de Bioko y Annobon, realizado a pulmón y con ayuda de fusiles o arpones, algunos de fabricación casera.

La Isla de Annobon, permite la explotación de sus productivas aguas oceánicas cerca de la costa, con el consecuente desarrollo de una pesquería artesanal particular en el país, especialmente dirigida a la captura de grandes pelágicos oceánicos como voladores (*Exocoetus volitans*), petos (*Acanthocybium solandris*), rabiles (*Thunnus albacares*), peces vela (*Isthiophorus albicans*), listado (*Katsuwonus pelamis*) y patudos (*Thunnus obesus*), entre otras.

## 1.2 La pesca industrial marítima

La pesca industrial marítima en aguas ecuatoguineanas es desarrollada por flotas extranjeras, principalmente mediante acuerdos o contratos en materia de pesca industrial entre el Ministerio de Pesca y Medio Ambiente de la República de Guinea Ecuatorial y las distintas sociedades o empresas extranjeras implicadas.

Estas flotas, explotan tanto recursos demersales costeros y profundos (pesca industrial de arrastre), como pelágicos oceánicos (pesca industrial de cerco), siendo sus especies objetivo, respectivamente, pescado variado, cefalópodos, moluscos y tunidos y especies afines. Los dos tipos de pesquería industrial desarrolladas en la actualidad en aguas ecuatoguineanas son: a) pesca de arrastre “mixta”, desarrollada por barcos arrastreros de popa y tangoneros y b) pesca atunera de cerco, desarrollada por barcos cerqueros.

### 1.2.1 Pesca de arrastre “mixta”

La pesca industrial de arrastre está especialmente dirigida a la captura de especies de pescado variado, cefalópodos y moluscos. Esta pesquería se empieza a desarrollar en Guinea Ecuatorial a finales de la década del año 60.

En la actualidad hay un total de ocho (8) barcos arrastreros, entre ellos dos (2) tangoneros y seis (6) arrastreros de popa, faenando en aguas de Guinea Ecuatorial, bajo la modalidad de contratos realizados entre las empresas armadoras y el ministerio de pesca y medio ambiente. Se trata de dos (2) barcos tangoneros camerunés, un (1) barco español de arrastre de popa, cuatro (4) barcos arrastreros de popa chino y un (1) barco de arrastre de popa ecuatoguineano.

La especie principal de las capturas es el langostino (*Penaeus notialis*), especialmente en zonas más costeras y cercanas a la desembocadura de los ríos. Son también importantes las capturas de gambas (*Parapendeus longirostris*) y crustáceos de aguas profundas como el alistado (*Aristeus varidens*), el brillante o carabinero *Aristaeopsis (Plesiopenaeus) edwardsiana* y cangrejo (*Chaceon maritae*). Además en estas pesquerías se capturan importantes especies accesorias de peces y cefalópodos demersales.

### 1.2.2 Pesca atunera de cerco

Desde el año 1.984 al 2.001, han existido acuerdos de pesca entre la UE y la República de Guinea Ecuatorial, que permitía la pesca de una importante flota atunera comunitaria en la Z.E.E. de nuestro país.

En la actualidad la pesquería industrial de cerco en aguas de Guinea Ecuatorial, es llevada a cabo por una flota española de veintitrés (23) grandes atuneros cerqueros congelador pertenecientes a la Asociación Nacional de Armadores de Buques Atuneros Congeladores (A.N.A.B.A.C.), S. A. y Asociación de Grandes Atuneros Congeladores (A.G.A.C.), S. A., con las siguientes características técnicas: TRB entre 1.000 y 1.897 y de 49 a 77 m de eslora.

Estos buques, faenan con licencias de pesca industrial obtenidas bajo la modalidad de contrato en materia de pesca industrial marítima entre el Ministerio de Pesca y Medio Ambiente y dichas empresas. Estos buques, tiene diferentes nacionalidades, entre ellos, panameña, holandesa, caboverdiana o guatemalteca.

La especie predominante en las capturas de los grandes atuneros cerqueros congeladores es el listado (SKJ, *Katsuwonus pelamis*), seguido del rabil (YFT, *Thunnus albacares*), patudo (BET, *Thunnus obesus*), melva (FRI, *Auxis thazard euthynnus*) y finalmente el atún blanco (ALB, *Thunnus alalunga*).

## ***Sección 2: Investigación y Estadísticas***

No existe estudios actualizados sobre los recursos pesqueros en aguas marinas de Guinea Ecuatorial, En las décadas de los años 60, 70 y 80 se llevaron a cabo algunas campañas de investigación (FAO) que permitieron hacerse una idea de la situación de los mismos en ese momento, en la conclusión de que se puede capturar en nuestros caladeros la cantidad de 74.150 t/ año de pescado y productos pesqueros, entre ellos 55.000 t/año de tunidos y especies afines. Según el Artículo 26, del Decreto N° 39/2003, de fecha 28 de abril, por el que se aprueba el Reglamento Orgánico y Funcional del Ministerio de Pesca y Medio Ambiente, la Dirección General de Recursos Pesqueros (Pesca Industrial), para el ejercicio de su cometido está integrada la unidad administrativa de Planificación, Investigación y Estadística, donde actualmente estamos llevando los trabajos de identificación de algunas especies marinas que se capturan en los barcos arrastreros de faenan en nuestras aguas jurisdiccionales, utilizando métodos indirectos de investigación pesquera.

En cuanto la estadística, la Dirección General de Recursos Pesqueros, dependiente del Ministerio de Pesca y Medio Ambiente de nuestro país, desde el año 2009, ha elaborado un borrador de ante proyecto el Establecimiento de un Control Estadístico Pesqueros Nacional, cuyo el Gobierno de Guinea Ecuatorial está financiando, en la primera fase de dicho proyecto era elegir los Agentes de Pesca Artesanal en cada poblado costero del océano atlántico que está suministrando la información de captura tal como lo exige la Ley N° 10/2003, de fecha 17 de noviembre Reguladora de la Actividad Pesquera y su Reglamento de Aplicación en la República de Guinea Ecuatorial.

Los Capitanes de las embarcaciones de pesca que faenan con licencias de pesca industrial marítima en nuestras aguas jurisdiccionales, comunican puntualmente a esta Dirección General de Recursos Pesqueros sus correspondientes capturas por especies después de cada mareas, los barcos arrastreros lo hacen a través de los Observadores que este Ministerio de Pesca y Medio Ambiente embarca en sus barcos, mientras que, los barcos cerqueros que capturan los tunidos y especies afines, la información de sus capturas, nos llega por internet, por la sencilla razón de que dichas empresas de pesca, ANABAC y AGAC, no llevan a bordo de sus cerqueros los observadores nacionales, mirar la **Tabla 1** de este informe.

## **Parte II (Implementación de la ordenación)**

### ***Sección 3: Implementación de las medidas de conservación y ordenación de ICCAT***

Actualmente en la Dirección General de Recursos Pesqueros, dependiente del Ministerio de Pesca y Medio Ambiente, se encuentra instalado el sistema VMS – Argos con el objetivo de hacer seguimiento dentro de nuestras aguas jurisdiccionales, de todas las embarcaciones de pesca industrial que faenan con las licencias de pesca industrial, otorgadas por este Departamento Ministerial, esta instalación solo puede detectar a los barcos palangreros de la Asociación de Cooperativas de Armadores Atuneros Japones, que son los que instaló dicho sistema, y que desde el año 2.009 hasta la fecha, los Japones desactivaron sus balizas con el sistema que ellos mismos instalaron.

Los barcos de las empresas atuneras españolas que pescan tunidos y especies afines en nuestra ZEE, ANABAC y AGAC, no nos facilitan sus números de balizas a fin de introducirlos en nuestro sistema VMS para poder seguir y controlar mejor sus actividades de pesca en nuestras aguas jurisdiccionales.

Queda pendiente para implementar el Proyecto UTF/EQG/005/EQG de la FAO, sobre la Evaluación de Recursos Pesqueros Marinos en Guinea Ecuatorial, razones por la cual nos es difícil llevar una buena conservación y ordenación pesquera en nuestro país. Se encuentran actualmente pescando los tunidos y especies afines en nuestra ZEE, unos veintiún (21) barcos cerqueros pertenecientes a la Asociación Nacional de Armadores de Buques Atuneros Congeladores (ANABAC) y de la Asociación de Grandes Atuneros Congeladores, (AGAC).

### ***Sección 4: Actividades y Programas de Inspección***

Existe una preocupación alarmante por parte del Ministerio de Pesca y Medio Ambiente de la República de Guinea Ecuatorial, por falta de ejecución de las actividades y programas de inspección, los motivos son por la rotunda negatividad de los barcos de ANABAC y AGAC sobre la presencia y embarque de los Observadores Nacionales a bordo de sus embarcaciones de pesca que faenan en nuestras aguas jurisdiccionales, tampoco aceptan acercarse a los Puertos Nacionales, lugar donde los Inspectores de pesca de la Dirección General de

Recursos Pesqueros, puedan realizar sus actividades inspectoras. Por lo tanto, estas actividades y programas de inspección recomendadas por ICCAT, en el caso de Guinea Ecuatorial, no se puedan cumplirse.

Las actividades de inspección pesquera, se realiza en los barcos arrastreros que faenan en nuestro mar territorial con licencias de pesca industrial.

**Sección 5: Otras actividades**

Según el decreto numero 50/2.005, de fecha 7 de marzo, por el que se crea la Sociedad Nacional de Pesca Marítima de Guinea Ecuatorial, en anagrama SONAPESCA, el Gobierno de nuestro país, esta derrochando esfuerzos en dotar a dicha empresa de las embarcaciones de pesca, tanto para la pesca costera, pesca de bajura, así como de la pesca de altura y ponerles medios logísticos necesarios para que la empresa pueda ser operativa.

**Tabla 1.** Producción de capturas, durante el año 2.011, de los buques cerqueros congeladores españolas con licencias de pesca atunera en aguas marítimas de Guinea Ecuatorial.

<i>Código</i>	<i>Nombre científico</i>	<i>Nombre español</i>	<i>t</i>
SKJ	<i>Katsuwonus pelamis</i>	Listado	2.354
YFT	<i>Thunnus albacares</i>	Rabil	672
BET	<i>Thunnus obesus</i>	Patudo	105
FRI	<i>Auxis thazard, Euthynnus</i>	Melva	57
ALB	<i>Thunnus alalunga</i>	Atún blanco	0,186
<b>TOTAL</b>			<b>3.188'186</b>

**ANNUAL REPORT OF THE EUROPEAN UNION  
RAPPORT ANNUEL DE L'UNION EUROPÉENNE  
INFORME ANUAL DE LA UNIÓN EUROPEA**

SUMMARY

*The various fleets of the European Union fish all the principal species which are regulated by ICCAT in the Atlantic Ocean and the Mediterranean Sea. The total catch of tunas and related species carried out by these various fleets in 2011 was around 216.000 tonnes (Annex I)<sup>1</sup>, which represents a decrease of around 4% from 2010 catches (225.000 tonnes).*

**Research and statistics.** *All Member States of the European Union have national research institutes or regional research laboratories. Several studies and research programme are implemented at the EU and/or national level. The European Union also implemented a Framework Programme for Data Collection<sup>2</sup> in order to ensure the systematic gathering of the basic data being used for the scientific advice and stock assessments. Such regulation allows the European Union to comply with Task I and II data requirements, is binding in its entirety for all Member States and is applicable to all tuna and tuna like fleets and areas.*

**Implementation.** *Pursuant to Article 216(2) of the Treaty on the Functioning of the European Union, international agreements concluded by the Union are binding upon the institutions of the Union and on its Member States. In these circumstances, Member States are bound to take necessary direct measures designed to ensure compliance with ICCAT Recommendations in issue by their vessels and, as appropriate, their nationals. Besides, ICCAT Recommendations are also implemented through EU Regulations, in particular:*

*\* The technical conservation measures for the highly migratory species are consolidated in the Council Regulation (EC) No. 520/2007 laying down technical conservation measures for certain highly migratory fish stocks. The control measures adopted by ICCAT are also transposed into the European Union law by Council Regulation (EC) No. 1936/01 establishing certain control measures applicable to the fishing activities for certain highly migratory fish stocks (OJ L 236/1 of 03.10.2001), and modified by Council Regulation (EC) No. 869/2004 of 26 April 2004.*

*\* The catch limits adopted at the 2010 ICCAT Annual Meeting for bluefin tuna, southern and northern swordfish, southern and northern albacore, bigeye tuna, and white and blue marlin were transposed into EU legislation by the Council Regulation (EU) No. 57/20113.*

*\* The catch limits adopted at the 2011 ICCAT Annual Meeting for bluefin tuna, southern and northern swordfish, southern and northern albacore, bigeye tuna, and white and blue marlin were transposed into EU legislation by the Council Regulation (EU) No. 44/20124.*

*\* The Bluefin tuna Recovery Plan was transposed in European Union law by the Council Regulation (EC) No. 302/20095. This Regulation was subsequently amended to introduce the modifications adopted at the 2010 Annual meeting<sup>6</sup>.*

**Control and Inspection.** *Controls undertaken by the Member States are generally carried out in the landing ports and/or at the time of sale, when this is at auction. They can also intervene at*

<sup>1</sup> The Annexes are available at the Secretariat. / Les Annexes son disponibles auprès du Secrétariat. / Los Anexos están disponibles en la Secretaría.

<sup>2</sup> Council Regulation (EC) No 199/2008 dated 25 February 2008 concerning the establishment of a Community framework for the collection, management and use of data in the fisheries sector and support for scientific advice regarding the Common Fisheries Policy.

<sup>3</sup> Council Regulation (EU) No 57/2011 of 18 January 2011 fixing for 2011 the fishing opportunities available in EU waters and, for EU vessels, in certain non-EU waters ( OJ L24, 27.01.2012, p.88).

<sup>4</sup> Council Regulation (EU) No 44/2012 of 17 January 2012 fixing for 2012 the fishing opportunities available in EU waters and, to EU vessels, in certain non- EU waters for certain fish stocks and groups of fish stocks which are subject to international negotiations or agreements ( OJ L25, 27.01.2012, p.55).

<sup>5</sup> Council Regulation (EU) No 302/2009 of 6 April 2009 concerning a multiannual recovery plan for bluefin tuna in the eastern Atlantic and Mediterranean, amending Regulation (EC) No 43/2009 and repealing Regulation (EC) No 1559/2007.

<sup>6</sup> Regulation (EU) No 500/2012 of the European Parliament and of the Council of 13 June 2012 amending Council Regulation (EC) No 302/2009 concerning a multiannual recovery plan for bluefin tuna in the eastern Atlantic and Mediterranean



any time during the transport or at the central markets. Vessels are also permanently monitored via their flag Member State Fisheries Monitoring Centres. These controls primarily cover the quantities landed and marketed, the sizes, the age and weight of the fish, and the respect of closed fishing periods. Member States of the EU have established an information network between the various landing ports to improve the monitoring of vessel movements. Vessels are required to report catches through electronic logbooks<sup>7</sup>. Routine inspections are also carried out by third country inspectors and scientific institute observers at the time of landing of tropical tuna by Union vessels in ports outside the EU. The same controls that are applied during port inspections are carried out on transshipments of tunas, including those made by foreign vessels, whether they are flagged to a Contracting Party to ICCAT or not. Human, naval, and aerial resources were deployed by Member States and administrative penalties and fines were applied when infractions were detected. The special rules applying to the bluefin tuna fishery are reflected in an independent and separated annual report.

## RÉSUMÉ

Les diverses flottilles de l'Union européenne pêchent toutes les principales espèces réglementées par l'ICCAT dans l'Atlantique et la Méditerranée. En 2011, les captures totales de thonidés et d'espèces apparentées effectuées par ces diverses flottilles de l'Union européenne se sont élevées à 216.000 t (**Annexe 1**), ce qui représente une diminution d'environ 4% par rapport aux captures de 2010 (se chiffrant à 225.000 t).

**Recherche et statistiques.** Tous les États membres de l'Union européenne disposent d'instituts de recherche nationaux ou de laboratoires de recherche régionaux. Plusieurs études et programmes de recherche sont mis en œuvre au niveau national et/ou de l'Union européenne. L'Union européenne a également mis en œuvre un programme cadre pour la collecte des données<sup>1</sup> afin de garantir la collecte systématique des données de base utilisées pour l'avis scientifique et l'évaluation des stocks. Ce règlement permet à l'Union européenne de répondre aux exigences de la Tâche I et de la Tâche II, et ses dispositions sont contraignantes pour tous les États membres et applicables à toutes les flottilles de pêche des thonidés et espèces apparentées et à toutes les zones.

**Mise en œuvre.** Conformément à l'Article 216(2) du Traité sur le fonctionnement de l'Union européenne, les accords internationaux conclus par l'Union sont contraignants pour les institutions de l'Union et de ses États membres. C'est pourquoi les États membres sont tenus de prendre les mesures nécessaires pour garantir que leurs navires et, le cas échéant, leurs ressortissants, respectent les recommandations de l'ICCAT. De plus, les Recommandations de l'ICCAT sont également mises en œuvre au moyen de Règlements de l'UE, notamment :

\* Les mesures techniques de conservation en vigueur pour les grands migrateurs ont été rassemblées dans le Règlement (CE) n° 520/2007 du Conseil prévoyant des mesures techniques de conservation pour certains stocks de grands migrateurs. Les mesures de contrôle adoptées par l'ICCAT ont également été transposées dans le droit communautaire par le Règlement (CE) n° 1936/01 du Conseil établissant certaines mesures de contrôle applicables aux activités de pêche visant certains stocks de poissons grands migrateurs (JO L 236/1 du 03.10.2001), et modifiées par le Règlement (CE) n° 869/2004 du Conseil du 26 avril 2004.

\* Les limites de capture adoptées à la réunion annuelle de l'ICCAT, en 2010, pour le thon rouge, l'espadon du Sud et du Nord, le germon du Sud et du Nord, le thon obèse, le makaire bleu et le makaire blanc ont été transposées dans le droit communautaire par le Règlement (UE) N° 57/2011<sup>2</sup> du Conseil.

\* Les limites de capture adoptées à la réunion annuelle de l'ICCAT, en 2011, pour le thon rouge, l'espadon du Sud et du Nord, le germon du Sud et du Nord, le thon obèse, le makaire bleu et le makaire blanc ont été transposées dans le droit communautaire par le Règlement (UE) N° 44/2012<sup>3</sup> du Conseil.

\* Le Programme de rétablissement pour le thon rouge a été transposé dans le droit communautaire par le Règlement (UE) N° 302/2009<sup>4</sup> du Conseil. Ce Règlement a été

<sup>7</sup> As required by Council Regulation (EC) No 1224/2009 of 20 November 2009 establishing a Community control system for ensuring compliance with the rules of the common fisheries policy.

ultérieurement amendé afin d'y introduire les modifications adoptées à la réunion annuelle de 2010<sup>5</sup>.

**Contrôle et inspection.** Les contrôles menés par les États membres sont généralement effectués au port de débarquement et/ou au moment de la vente, lorsqu'elle est faite à la criée. Ils peuvent également intervenir lors du transport ou au niveau des marchés centraux. Les navires font également l'objet d'un suivi permanent au moyen des centres de contrôle des pêches (FMC) de leurs États de pavillon. Ces contrôles portent essentiellement sur les quantités débarquées et commercialisées, les tailles, l'âge et le poids des poissons, et le respect des périodes d'arrêt de pêche. Des États membres de l'UE ont établi un réseau d'information entre les différents ports de débarquement, afin de mieux superviser les mouvements des navires. Les navires sont tenus de déclarer leurs captures par le biais de livres de bord électroniques<sup>6</sup>. Des contrôles systématiques sont également menés par des inspecteurs de pays tiers et par des observateurs rattachés à des instituts scientifiques, lors des débarquements de thon tropical par les navires de l'Union dans des ports situés en dehors de l'UE. Les mêmes contrôles qui s'appliquent aux inspections dans les ports sont effectués en cas de transbordement des thonidés, y compris pour les navires étrangers, qu'ils arborent le pavillon d'une Partie contractante de l'ICCAT ou non. Des moyens humains, navals et aériens sont déployés par les États membres et des sanctions administratives et des amendes sont appliquées au cas où une infraction est détectée. Les normes spéciales qui s'appliquent à la pêche de thon rouge font l'objet d'un rapport annuel indépendant et distinct.

#### RESUMEN

Las diversas flotas de la Unión Europea pescan todas las especies principales reguladas por ICCAT en el océano Atlántico y mar Mediterráneo. En 2011, las capturas totales de túnidos y especies afines realizadas por estas diferentes flotas se situaron en torno a las 216,000 t (**Anexo I**) lo que representa un descenso de aproximadamente el 4% con respecto a las capturas de 2010 (225,000 t).

**Investigación y estadísticas.** Todos los Estados miembros de la Unión Europea cuentan con Institutos de investigación nacionales o con laboratorios regionales de investigación. Se han desarrollado varios estudios y programas de investigación a nivel de la UE y/o a nivel nacional.

La Unión Europea ha implementado también un programa marco de recopilación de datos<sup>1</sup> con el fin de garantizar la recopilación sistemática de los datos básicos que se utilizan para el asesoramiento científico y las evaluaciones de stock. Dicho reglamento permite a la Unión Europea cumplir los requisitos de datos de Tarea I y Tarea II, es vinculante en su totalidad para todos los Estados miembros y es aplicable a todas las zonas y flotas de túnidos y especies afines.

**Implementación.** De conformidad con el Artículo 216 (2) del Tratado de funcionamiento de la Unión Europea, los acuerdos internacionales firmados por la Unión Europea son vinculantes para las instituciones de la UE y para sus Estados miembros. En estas circunstancias, los Estados miembros tienen la obligación de tomar las medidas directas necesarias para garantizar el cumplimiento de las Recomendaciones de ICCAT, en lo que concierne a sus buques y, cuando proceda, sus nacionales. Además, las Recomendaciones de ICCAT se implementan también mediante los Reglamentos de la UE, en particular:

\* Las medidas de conservación técnicas para las especies altamente migratorias están consolidadas en el Reglamento del Consejo (CE) n° 520/2007 que establece medidas técnicas de conservación para ciertos stocks de peces altamente migratorios. Las medidas de control adoptadas por ICCAT también se han incorporado al derecho de la UE en el Reglamento (CE) n° 1936/2001 del Consejo, por el que se establecen ciertas medidas de control aplicables a las actividades de pesca de determinadas poblaciones de peces altamente migratorias (D.O. L236/1 de 03.10.2001), que fue modificado por el Reglamento (CE) n° 869/2004 del Consejo del 26 de abril de 2004.

\* Los límites de captura adoptados en la reunión anual de ICCAT de 2010 para el atún rojo, pez espada del Sur y del Norte, atún blanco del Sur y del Norte, patudo, aguja blanca y aguja

*azul se han incorporado en la legislación de la UE mediante el Reglamento (UE) n° 57/20112 del Consejo.*

*\* Los límites de captura adoptados en la reunión anual de ICCAT de 2011 para el atún rojo, pez espada del Sur y del Norte, atún blanco del Sur y del Norte, patudo, aguja blanca y aguja azul se han incorporado en la legislación de la UE mediante el Reglamento (UE) n° 44/20123 del Consejo.*

*\* El Plan de recuperación del atún rojo se traspuso en la legislación de la Unión Europea mediante el Reglamento (UE) n° 302/20094 del Consejo. Este Reglamento se modificó posteriormente para introducir las modificaciones adoptadas en la reunión anual de 20105.*

**Control e inspección.** *Los controles que llevan a cabo los Estados miembros se realizan generalmente en el puerto de desembarque y/o en el momento de la venta, cuando es una subasta. También pueden intervenir en cualquier momento durante el transporte o en los mercados centrales. Los buques son también objeto de un seguimiento permanente a través del Centro de seguimiento de pesquerías del Estado miembro del pabellón. Estos controles cubren principalmente las cantidades desembarcadas y comercializadas, las tallas, la edad y el peso de los peces, así como el respeto de los periodos de vedas de pesca. Los Estados miembros de la UE han establecido una red de información entre los diversos puertos de desembarque para mejorar el seguimiento de los movimientos de los buques. Los buques tienen que comunicar capturas mediante cuadernos de pesca electrónicos<sup>6</sup>. También se llevan a cabo inspecciones rutinarias por parte de inspectores de terceros países y de observadores de institutos científicos en el momento en que los buques de la Unión Europea desembarcan túnidos tropicales fuera de la UE. Los mismos controles que se aplican durante las inspecciones en puerto se llevan a cabo en los transbordos de túnidos, lo que incluye los realizados por buques extranjeros, independientemente de si enarbolan pabellón de una Parte contratante de ICCAT o no. Los Estados miembros desplegaron sus recursos humanos, navales y aéreos y se aplicaron penalizaciones y multas administrativas cuando se detectaron infracciones. Las normas especiales que se aplican a la pesquería de atún rojo se reflejan en un informe anual independiente y separado.*

## **Part I (Information on Fisheries, Research and Statistics)**

### ***Section 1: Information on the Fisheries***

The various fleets of the European Union fish all the principal species which are regulated by ICCAT in the Atlantic Ocean and the Mediterranean Sea.

The total catch of tunas and related species carried out by these various fleets in 2011 was around 216.000 tonnes (Annex 1), which represents a decrease of around 4% from 2010 catches (225.000 tonnes).

Chapter 1 of the European Union Annual Report including reports of the various Member States of the European Union providing the details and technical information pertaining to the various fisheries, both by species and by fishing gear, as well as Chapter 2 concerning Research and Statistics were previously transmitted to ICCAT on 23<sup>rd</sup> September for analysis by the Scientific Committee.

## **Part II (Management Implementation)**

### ***Section 2: Implementation of ICCAT Conservation and Management Measures***

#### *At regulatory level*

Pursuant to Article 216(2) of the Treaty on the Functioning of the European Union, international agreements concluded by the Union are binding upon the institutions of the Union and on its Member States. In these circumstances, Member States are bound to take necessary direct measures designed to ensure compliance with

ICCAT Recommendations in issue by their vessels and, as appropriate, their nationals. Besides, ICCAT Recommendations are also implemented through EU Regulations, in particular:

- The technical conservation measures for the highly migratory species are consolidated in the Council Regulation (EC) No. 520/2007 laying down technical conservation measures for certain highly migratory fish stocks. The control measures adopted by ICCAT are also transposed into the European Union law by Council Regulation (EC) No. 1936/01 establishing certain control measures applicable to the fishing activities for certain highly migratory fish stocks (OJ L 236/1 of 03.10.2001), and modified by Council Regulation (EC) No. 869/2004 of 26 April 2004.
- The catch limits adopted at the 2010 ICCAT Annual Meeting for bluefin tuna, southern and northern swordfish, southern and northern albacore, bigeye tuna, and white and blue marlin were transposed into EU legislation by the Council Regulation (EU) No. 57/2011.
- The catch limits adopted at the 2011 ICCAT Annual Meeting for bluefin tuna, southern and northern swordfish, southern and northern albacore, bigeye tuna, and white and blue marlin were transposed into EU legislation by the Council Regulation (EU) No. 44/2012.
- The Bluefin tuna Recovery Plan was transposed in European Union law by the Council Regulation (EC) No. 302/2009<sup>8</sup>. This Regulation was subsequently amended to introduce the modifications adopted at the 2010 Annual Meeting<sup>9</sup>.

The ICCAT Recommendation on a Bluefin tuna catch documentation programme was transposed in Regulation (EU) No. 640/2010 of the European Parliament and of the Council of 7 July 2010 establishing a catch documentation programme for bluefin tuna *Thunnus thynnus* and amending Council Regulation (EC) No 1984/2003.

#### – *Compliance*

##### Catch limits:

In 2011, the European Union has respected all catch limits adopted by ICCAT and therefore has not had any overage. On the contrary, in 2011 the European Union has not fully utilized its quotas of northern albacore, North and South swordfish and bigeye tuna and has therefore submitted a request for carry-over through the compliance tables sent on 14 September.

##### Minimum size:

The European Union overall respects the minimum size measures. With regard to swordfish, the European Union is currently financing studies on gear selectivity (hooks) in order to reduce juvenile catches.

##### Vessels Lists:

The European Union transmitted regularly and in due time, the vessels lists and updates respecting the formats required by ICCAT. As regards Northern albacore, the list of vessels has also been sent to ICCAT. In 2011 there were 1159 EU vessels authorised to fish for Northern Albacore (**Annex 2**).

##### Large scale long line vessels:

The European Union took the necessary measures to control the activities of its large scale long line vessels (**Annex 3**) and to ensure that tuna vessels on the ICCAT Record of vessels over 24 meters are fishing in accordance with ICCAT Management and conservation measures (**Annex 4**).

<sup>8</sup> Council Regulation (EU) No 302/2009 of 6 April 2009 concerning a multiannual recovery plan for bluefin tuna in the eastern Atlantic and Mediterranean, amending Regulation (EC) No 43/2009 and repealing Regulation (EC) No 1559/2007.

<sup>9</sup> Regulation (EU) No 500/2012 of the European Parliament and of the Council of 13 June 2012 amending Council Regulation (EC) No 302/2009 concerning a multiannual recovery plan for bluefin tuna in the eastern Atlantic and Mediterranean.

Area/Season closure for bigeye tuna:

In 2011, the European Union respected points 8 to 12 of Recommendation 04-01 establishing a Multi-year conservation and management programme for bigeye tuna. The report on the implementation of internal sanctions required under point 11 is included in **Annex 5**.

Chartering arrangements:

Chartering arrangements have been regularly communicated to ICCAT. A Vessel chartering summary report of Community vessels chartered in 2011 to other Contracting Parties is included in **Annex 6**. The European Union has not chartered any vessels from other Contracting parties.

Bluefin Tuna Report:

In 2011, the European Union implemented the Recommendations by ICCAT on bluefin tuna. The European Union report and forms related to bluefin tuna Recommendations were already transmitted to ICCAT.

Access agreements:

The EU has concluded a certain number of Fisheries Partnership Agreements (FPA) which, under certain conditions, grant access to third country waters. FPAs are negotiated and concluded by the Commission, on behalf of the European Union. Through FPAs, the European fleet has access to surplus resources which its partners cannot or do not wish to fish, in accordance with UN principles. In return, the EU provides a financial contribution based on two elements: the economic evaluation of the access by Community vessels to third country waters and fisheries resources, and the needs expressed by the partner country for supporting the implementation of a sustainable fisheries policy in its waters. Each FPA is an 'exclusive' agreement: once it is in place, EU vessels can only fish under the FPA, and cannot enter into private agreements with the partner country except under certain conditions.

On 31 December 2011, there were 11 FPAs in force that can be divided into two categories: 8 bilateral tuna agreements (with Cape Verde, Ivory Coast, São Tomé and Príncipe, Madagascar, Comoros, Seychelles, Kiribati and the Solomon Islands) and 3 multi-species agreements with Greenland, Mauritania and Guinea Bissau. A protocol with Morocco was negotiated in February 2011 and provisionally applied until December 2011, when the European Parliament decided not to consent to its conclusion. In 2011, a new protocol was initialled with Mauritius - it should enter into force in coming months. Negotiations on the renewal of the protocol with Gabon are on-going.

All in all, during the last few years, an average of 300 vessels fished under the FPAs, half of them fishing tuna. Further details and data for the FPAs currently in force are attached under Annex 7.

- *At the Member State level*

Member States comply at national level with ICCAT recommendation and resolutions, in terms of fishing effort limitation (capacity/number of ships), catch limits (management of quotas), and landing controls from third countries vessels and, in particular, those from vessels with a flag of convenience.

### ***Section 3: Complementary Conservation and Management Measures***

In 2009 the European Union adopted the Council Regulation (EC) No. 1224/2009, of 20 November 2009, establishing a Community control system for ensuring compliance with the rules of the common fisheries policy.

That Regulation introduced for all EU vessels, including vessels fishing for ICCAT species on commercial and recreational fisheries, a new approach to control that includes comprehensive monitoring and surveillance of fleets, catches and fishing activities, including transshipments, and enforcement measures against the Member States to ensure compliance.

In addition to these obligatory provisions, Member States must adopt more restrictive provisions for certain species than those imposed at the European Union level or by ICCAT. These provisions, adapted to national requirements, target rational management and more accurate monitoring of the fisheries, up to the retail point of the catch. Depending on the Member States and the fisheries concerned, the following elements, in particular,

are to be noted: the obligation to establish annual fishing plans, the implementation of a system of compulsory specific license to be issued annually (special fishing permit), limit to the number of licenses issued, withdrawal of the license in the event of infringement, detailed record of fishing activities, on-board scientific observers, notification by vessels of entry and departure from port and fishing areas, by-catch limits, vessel catch quotas, seasonal closures, and, minimum sizes.

These measures should in particular strengthen the supervision of the fishing sector and monitoring of the fish from catch to retail.

The European Union also has:

- compulsory monthly transmission of catch data for all species subject to TAC and quotas and quarterly transmission for other species;
- compulsory satellite tracking (VMS) for vessels greater than 15 meters;
- Adopted Council Regulation (EC) No. 1966/2006 on electronic recording of fishing activities and on means of remote sensing (Electronic logbook), (obligation to transmit information on fishing activities electronically, including landings, transshipments and sales notes as well as on the obligation on authorities to put in place means of remote sensing);
- Adopted a Council Regulation on 29 September 2008 concerning authorisations for fishing activities of Community fishing vessels outside Community waters and the access of third country vessels to Community waters; and
- Adopted a Council Regulation 1005/2008 on 29 September 2008 to prevent, deter and eliminate IUU fishing.

– *Inspection schemes*

### **Member States**

Ashore inspections:

Controls undertaken by the Member States are generally carried out in the landing port and/or at the time of sale, when this is at auction. They can also intervene at any time during the transport or at the central markets. Vessels are also permanently monitored via their flag Member State FMC. These controls primarily cover the quantities landed and marketed, the sizes, the age and weight of the fish, and the respect of closed fishing periods.

Member States of the EU have established an information network between the various landing ports to improve the monitoring of vessel movements. Vessels are submitted to report catch through electronic logbooks.

Routine inspections are also carried out, by third country inspectors and scientific institute observers at the time of landing of tropical tuna by European Union vessels outside EU.

The same controls that are applied to port inspections are carried out on transshipments of tunas, including foreign vessels, whether Contracting Party or non-Contracting Party to ICCAT.

Air and Sea Inspections:

In addition to the terrestrial methods, Member States have maritime and aerial means to monitor fishing activities and the respect by European Union vessels of the technical and administrative requirements imposed on each fishery. Air and sea control exercises, whether routine or specific, are organised throughout the fishing seasons.

This mechanism does not ignore, however, the great practical difficulties faced by the competent Administrations of some Member States in achieving the same level of effectiveness when dealing with a very high number of landing points located on their territory.

The mandatory satellite tracking of vessels greater than 15 meters has improved the monitoring at sea.

*More information on the individual actions taken by Member States in this and other field are included in the individual reports which are attached as Annexes 8 to 15.*

### **European Commission**

In addition to the Member States, the European Commission has fisheries inspectors whose function is to supervise the inspection and control activities undertaken by the national services of the Member States. During 2011 they have carried out missions directly concerned with the fishing activities of highly migratory species, with the priority being placed on the bluefin tuna fisheries.

The main goals of the missions were:

- The verification of the respect of the European Union regulation regarding driftnet fishing in the Mediterranean;
- Verifying that Member States have taken the necessary measures to ensure the respect of the technical measures concerning bluefin tuna, and in particular the ICCAT recommendations;
- Verifying the compliance with European Union legislation on catch and landing declarations;
- Assess the control measures implemented by the Member States.

The work of the European Commission inspectors involves the inspectors accompanying the national inspectors in all aspects of their activities, both at sea and land based notably the farming activity, to evaluate the compliance with the binding provisions of European Union legislation, which includes, in particular, the ICCAT recommendations.

In 2011, the bluefin tuna was again a top priority. The control of the bluefin tuna activity is reported in the bluefin tuna recovery plan annual report.

The data concerning the tropical tuna is supervised by scientific institutes in the European Union pursuant to the provisions of the fishing agreements concluded by the European Union with the third countries concerned.

**ANNUAL REPORT OF FRANCE (ST. PIERRE & MIQUELON)**  
**RAPPORT ANNUEL DE LA FRANCE (SAINT-PIERRE ET MIQUELON)**  
**INFORME ANUAL DE FRANCIA (SAN PEDRO Y MIQUELÓN)**

SUMMARY

*The total amount of catches made under the ICCAT quotas allocated to France (on behalf of St. Pierre and Miquelon-SPM) amounted to 1.03 t of tuna and tuna-like species in 2011. It should be noted that 2011 was marked by important problems (technical problems and crew injury), which hindered the correct development of the tuna fishing campaign; tuna catches for 2011 only amounted to: 0.6 t of North swordfish and 0.43 t of western bluefin tuna. The quotas allocated to France (on behalf of St. Pierre and Miquelon) only permitted a local boat owner to operate one vessel. The French catch of tuna and tuna-like species are made by a 28 m longliner fishing vessel. This vessel, purchased by a boat owner from Saint Pierre, sails under French flag since March 9, 2011 to exploit the French tuna quotas (mainly North swordfish). Fishing is regulated by means of granting licences. Vessels are required to report their catches and occasionally have a controller on board. All the landings are monitored, as are all the products exported. France (SPM) has control measures through several administrations (maritime affairs, police, national navy, etc.). Fishing control campaigns, both at sea and on land, are carried out regularly. No infractions were detected in 2011 in the framework of these fisheries.*

RÉSUMÉ

*Le montant total des captures réalisées sur les quotas de la CICTA attribués à la France (au titre de Saint-Pierre-et-Miquelon-SPM) s'élève à 1,03 tonne de thonidés et espèces apparentées pour l'année 2011. Il convient de noter que l'année 2011 a été marquée par des problèmes importants (avarie technique, blessure dans l'équipage) ayant empêché le bon déroulement de la campagne de pêche aux thonidés ; les prises de thonidés pour l'année 2011 ayant été seulement de: 0,6 t d'espadon du Nord et de 0,43 t de thon rouge de l'Ouest. Les quotas attribués à la France (au titre de SPM) ne permettant à un armement local d'exploiter qu'une unité, les captures françaises de thonidés et espèces apparentées sont réalisées par un navire de pêche de type palangrier de 28 mètres. Ce navire, acquis par un armement de Saint-Pierre, navigue sous pavillon français depuis le 9 mars 2011 pour exploiter les quotas français de thonidés (espadon du Nord principalement). La pêche est réglementée par le biais de l'attribution de licences. Les navires sont soumis à obligation de déclaration des captures et peuvent également embarquer ponctuellement un contrôleur. Tous les débarquements font l'objet d'un contrôle, de même que la totalité des produits exportés. La France (au titre de SPM) dispose de moyens de contrôle de plusieurs administrations (affaires maritimes, gendarmerie, marine nationale, etc.). Des campagnes de contrôle des pêches, tant en mer qu'à terre, sont régulièrement effectuées. Aucune infraction n'a été relevée en 2011 dans le cadre de ces pêcheries.*

RESUMEN

*El total de capturas realizadas con respecto a la cuota de ICCAT atribuida a Francia (por San Pedro y Miquelón-SPM) asciende a 1,03 t de túnidos y especies afines para el año 2011. Cabe señalar que el año 2011 estuvo marcado por importantes problemas (avería técnica, heridos entre la tripulación) que impidieron el buen desarrollo de la campaña de pesca de túnidos, por lo que las capturas de túnidos de 2011 se limitaron a: 0,6 t de pez espada del norte y 0,43 t de atún rojo del Oeste. Las cuotas atribuidas a Francia (por SPM) permiten a los armadores locales explotar tan solo una unidad, por lo que las capturas francesas de túnidos y especies afines las realiza un palangrero de 28 m. Este buque, adquirido por un armador de San Pedro, navega bajo pabellón francés desde el 9 de marzo de 2011 para explotar la cuota francesa de túnidos (sobre todo pez espada del norte). La pesca se reglamenta mediante la concesión de licencias. Los buques están obligados a declarar las capturas y pueden embarcar puntualmente controladores. Todos los desembarques son objeto de control, y lo mismo ocurre con todos los productos exportados. Francia (por SPM) dispone de medios de control en varias administraciones (asuntos marítimos, gendarmería, marina nacional, etc.). De forma regular, se realizan, tanto en mar como en tierra, campañas de control de la pesca. En el marco de estas pesquerías no se ha detectado ninguna infracción en 2011.*



## **Ère partie (Information sur les pêcheries nationales, la recherche et les statistiques)**

### ***Chapitre 1 : Information annuelle sur les pêcheries***

Tout d'abord, il convient de souligner que l'année 2011 a été marquée par des problèmes importants (avarie technique, blessure dans l'équipage) ayant empêché le bon déroulement de la campagne de pêche aux thonidés et espèces apparentées ; ainsi, les captures de ces espèces pour la campagne 2011 ont été de seulement 1,03 tonne (t).

Pour mémoire, les captures totales de thonidés et espèces apparentées pour la France (au titre de Saint-Pierre et Miquelon) avaient été de : 100,5 t en 2010 ; 23,5 t en 2009 ; 23,5 t en 2008 ; 110,8 t en 2007 ; nulles en 2006 ; 64 t en 2005 et 87 t en 2004 (nb : aucune activité en 2006).

En 2009 une société de Saint-Pierre et Miquelon (SPM) a acquis un palangrier en vue notamment d'exploiter les quotas de thonidés de la France (au titre de SPM). Ce navire, l'*Atlantic Odyssey*, antérieurement sous pavillon canadien et affrété par la France, est passé sous pavillon français le 9 mars 2011 et s'est vu attribuer en 2011 la totalité des quotas détenus par la France (au titre de SPM), dans le cadre de la CICTA, soit :

- thon rouge de l'Ouest: 8 t,
- espadon du Nord : 80 t,
- germon du Nord : 250 t.

Pour mémoire, les licences attribuées à deux navires de la flottille artisanale mentionnaient la possibilité de prises de thon rouge (à imputer sur le quota disponible de la France (au titre de SPM)), mais uniquement pour couvrir de très éventuelles captures accidentelles. En pratique, en 2011 comme en 2010, les navires artisanaux de moins de 12 mètres n'ont pêché aucun poisson relevant des stocks gérés dans le cadre de la CICTA.

#### *1.1 Espadon de l'océan Atlantique Nord*

Le quota initial octroyé à la France (au titre de SPM) était de 40 tonnes en 2011, ajusté à 80 tonnes par report de quotas sous-consommés antérieurement (conformément aux règles de la CICTA).

L'espadon du Nord est l'espèce cible recherchée par l'*Atlantic Odyssey*.

Les captures se sont élevées à 0,6 t en 2011 (89,8 t en 2010 ; 20,12 t en 2009 ; 47,6 t en 2008 ; 82 t en 2007 ; 48,4 t en 2005 et 35,65 t en 2004).

#### *1.2 Thon rouge de l'océan Atlantique Ouest*

Le quota initial octroyé à la France (au titre de SPM) était de 4 t en 2011, ajusté à 8 t par report de quotas sous-consommés antérieurement (conformément aux règles de la CICTA).

Les prises par le navire susmentionné ont été de 0,43 t en 2011.

#### *1.3 Germon de l'océan Atlantique Nord*

Le quota ajusté français (au titre de SPM) en 2011 était de 250 t.

Ce quota permet au navire de réaliser des captures accessoires, généralement faibles : elles ont été nulles en 2011 (pour mémoire : 27 kg en 2010 ; nulles en 2009 ; 0,2 t en 2008 ; 3,2 t en 2007 ; 2,12 t en 2005 et 7,06 t en 2004).

#### *1.4 Autres espèces*

Les autres espèces généralement capturées à la palangre sont :

- le thon obèse : les captures ont été nulles en 2011 (pour mémoire : 2,5 t en 2010, nulles en 2009 ; 2,6 t en 2008 ; 2,2 t en 2007 ; 5,8 t en 2005 et 28,3 t en 2004) ;
- les requins : 0,2 t en 2011 (pour mémoire : 3,8 tonnes en 2010 ; 1 t en 2009 ; 0,9 t en 2008 ; 2,6 t en 2005 et 7,01 t en 2004).

## **Chapitre 2 : Recherche et statistiques**

Un délégué de l'IFREMER (Institut Français de Recherche pour l'Exploitation de la Mer) est présent à SPM ; toutefois, ce scientifique travaille sur des espèces autres que les thonidés. La recherche sur ces espèces est en effet assurée par divers centres situés en métropole.

## **IIe partie (Mise en œuvre de la gestion)**

### **Chapitre 3 : Mise en place des mesures de conservation et de gestion de la CICTA**

Comme indiqué plus haut, l'activité de pêche des thonidés sur les droits ouverts à l'archipel dans les eaux internationales est réalisée par le navire *Atlantic Odyssey*, antérieurement sous pavillon canadien et affrété par la France, puis passé sous pavillon français le 9 mars 2011.

Les autorités françaises (préfecture de SPM) ont émis une licence de pêche valable du 1<sup>er</sup> juillet au 30 décembre 2011, autorisant ce navire à effectuer une pêche dirigée d'espadon, de thon rouge, de germon, avec possibilité de capture accessoire de thon obèse / patudo.

Pour rappel, le représentant de l'État sur l'archipel (Préfet) attribue des licences aux navires de pêche qui en font la demande. L'attribution des licences est faite sur la base des textes français et internationaux suivants :

- livre 9 du code rural et de la pêche maritime,
- loi 76-655 du 16 juillet 1976 relative aux zones économiques exclusives au large des côtes de la République,
- décret 72-692 du 22 juillet 1972 portant publication de l'accord relatif aux relations réciproques entre la France et le Canada en matière de pêche signé le 27 mars 1972,
- décret 87-182 du 19 mars 1987 modifié et arrêté du 20 mars 1987 modifié fixant les mesures de gestion et de conservation des ressources halieutiques dans les eaux territoriales et la zone économique exclusive au large des côtes de Saint-Pierre-et-Miquelon et
- décret n° 2010-1582 du 17 décembre 2010 relatif à l'organisation et aux missions des services de l'État dans les départements et les régions d'outre-mer, à Mayotte et à Saint-Pierre-et-Miquelon.

Les captures doivent être débarquées à SPM, avec possibilité de dérogation pour débarquer dans un port autre que français si le traitement du poisson sur place n'est pas possible.

Les services de la Préfecture (Pôle maritime) de SPM veillent à la mise en œuvre des dispositions de la CICTA applicables aux pêcheries de l'archipel, tel que récapitulé dans le tableau compilant les obligations déclaratives pertinentes (cf. réponse de la France (au titre de SPM) à la circulaire CICTA n° 0052/2012).

#### *Mise en œuvre de mesures particulières*

- *Concernant l'application du paragraphe 1 de la Recommandation 11-15* : le Pôle maritime veille au respect des obligations déclaratives qui incombent à la France (au titre de SPM), concernant notamment les données de tâches I et II. Concernant les prises accessoires de requins, les pêcheurs ont été sensibilisés à cette question, à travers des plaquettes informatives qui leur ont été remises.
- *Concernant l'application du para. 7 de la Recommandation 11-08* : cf. paragraphe précédent – il convient de noter qu'aucun requin soyeux n'a été capturé par l'*Atlantic Odyssey* en 2011.

### **Chapitre 4 : Schémas et activité d'inspection**

Trois administrations sont présentes à SPM (affaires maritimes, gendarmerie nationale et marine nationale), disposant de moyens de contrôle pouvant être affectés à des opérations de contrôle des pêches, tant en mer qu'à terre.

Un accent est particulièrement mis sur le débarquement des thonidés sur le port de Saint-Pierre. Tous les débarquements font ainsi l'objet d'un contrôle, de même que la totalité des produits exportés.

En 2011 toutes les captures de thonidés ont été débarquées à SPM. Plus précisément, compte tenu du caractère très limité des activités de pêche aux thonidés en 2011 (cf. supra), seules deux opérations de débarquement ont été enregistrées à SPM en 2011 (respectivement pour de l'espadon et du requin, puis pour du thon rouge). Elles ont été réalisées sous le contrôle du Pôle maritime.

Un contrôleur peut également être embarqué, de façon ponctuelle, sur L'*Atlantic Odyssey*.

Enfin, il convient de rappeler que l'*Atlantic Odyssey* est équipé d'une balise VMS et est soumis à obligation de déclaration des captures.

Aucune infraction à la réglementation n'a été constatée en 2011. Par ailleurs, aucune activité de pêche INN n'a été signalée (cf. Rec. 11-18, para. 3).

**ANNUAL REPORT GHANA  
RAPPORT ANNUEL DU GHANA  
INFORME ANNUAL DE GHANA**

Paul Bannerman

SUMMARY

*The tuna industry in Ghana comprises both baitboats and purse seiners exploiting mainly the skipjack (Katsuwonus pelamis), yellowfin (Thunnus albacares) and bigeye tuna (Thunnus obesus) species. Twenty two (22) baitboats and 17 purse seiners operated during the year under review fishing mainly within the EEZ of Ghanaian territorial waters. A total catch of 70,578 metric tons (t) of tunas was caught in 2011. Skipjack catches were the highest (72%) followed by yellowfin (15%), bigeye (6%) and other minor tunas (7%) respectively. Over 80% of catches were off FADs and both fleets continued to collaborate sharing their catch. Statistical data (Task I, II, III, including 11,111 logbook recoveries) for the year 2011 were sent to the ICCAT Secretariat via the AVDTH 3.2 software programme. Recent inter-sessional meetings organized by ICCAT on improvements in Ghanaian statistics have contributed to a better understanding of the spacio-temporal distribution of the species. It is envisaged that further synthesis of the database since the re-introduction of the purse seine fleet in 1996, would improve the overall catch and species composition of the catch in relation to improved stock assessments. An observer programme onboard the purse seine fleet was carried out in 2011. Monitoring of artisanal driftnet operators for billfishes continued off the western coastline of Ghana. Catches for the sailfish remained relatively stable whilst that of the swordfish dropped to 60 t in 2011 from 130mt in 2010.*

RESUME

*L'industrie thonière au Ghana concerne principalement le listao (Katsuwonus pelamis), l'albacore (Thunnus albacares) et le thon obèse (Thunnus obesus) capturés par des canneurs et des senneurs. Un total de 22 canneurs et de 17 senneurs a opéré au cours de l'année à l'étude, principalement dans la ZEE des eaux territoriales ghanéennes. Un total de 70.578 t de thonidés a été capturé en 2011. Les captures de listao étaient les plus importantes (72%), suivies de celles de l'albacore (15%), du thon obèse (6%) et d'autres thonidés mineurs (7%), respectivement. Plus de 80% des prises ont été réalisées sous DCP et les deux flottilles poursuivent leur collaboration en mettant en commun leurs prises. Les données statistiques (de la Tâche I, incluant 11.111 récupérations des livres de bord) au titre de 2011 ont été soumises au Secrétariat de l'ICCAT par le biais du programme AVDTH 3.2. Les récentes réunions intersessions organisées par l'ICCAT sur les améliorations des statistiques ghanéennes ont contribué à améliorer la compréhension de la distribution spatiotemporelle des espèces. Il est envisagé qu'une synthèse plus approfondie de la base de données depuis la réintroduction de la flottille de senneurs en 1996 permettrait d'améliorer la prise totale et la composition spécifique de la capture par rapport à l'amélioration des évaluations de stocks. Un programme d'observateurs déployés à bord de la flottille de senneurs a été mis en œuvre en 2011. Le suivi de la pêche artisanale de filet maillant ciblant les istiophoridés s'est poursuivi au large du littoral occidental du Ghana. Les prises de voiliers sont restées relativement stables tandis que les prises d'espadon ont connu une forte chute, descendant jusqu'à 60 t en 2011, par rapport au total de 130 t de 2010.*

RESUMEN

*La industria atunera en Ghana se compone tanto de barcos de cebo vivo como de cerqueros que explotan principalmente el listado (Katsuwonus pelamis), el rabil (Thunnus albacares) y el patudo (Thunnus obesus). Veintidós (22) barcos de cebo vivo y diecisiete (17) cerqueros operaron durante el año objeto de revisión pescando principalmente dentro de la ZEE de las aguas territoriales de Ghana. En 2011 se realizó una captura total de 70.578 t de túnidos. Las capturas de listado fueron las más elevadas (72%), seguidas de las de rabil (15%), las de patudo (6%), y de las de otros túnidos pequeños (7%). Más del 80% de las capturas se realizó*

sobre DCP y ambas flotas han continuado colaborando y compartiendo sus capturas. Los datos estadísticos (Tarea I, con la inclusión de 11.111 recuperaciones de cuadernos de pesca) para el año 2011 se enviaron a la Secretaría de ICCAT mediante el programa AVDTH 3.2. Las recientes reuniones intersesiones organizadas por ICCAT sobre mejoras en las estadísticas de Ghana han contribuido a una mejor comprensión de la distribución espaciotemporal de las especies. Está previsto que una mejor síntesis de la base de datos, desde la reintroducción de la flota de cerco en 1996, mejorará los datos de captura global y de composición por especies de la capturas para mejorar las evaluaciones de stock. En 2011 se llevó a cabo un programa de observadores a bordo de la flota de cerco. El seguimiento de los operadores artesanales de redes de enmalle para los istiofóridos continuará en aguas de la costa occidental de Ghana. Las capturas de pez vela permanecieron relativamente estables mientras que las de pez espada descendieron hasta 60 t en 2011 respecto a las 130 t de 2010.

## Part I (Information on Fisheries, Research and Statistics)

### Section 1: Annual Fisheries Information

The tuna industry in Ghana comprises the skipjack (*Katsuwonus pelamis*), yellowfin (*Thunnus albacares*) and bigeye tuna (*Thunnus obesus*). Twenty-two (22) baitboats and 17 purse seiners currently fishing within the EEZ of Ghanaian coastal waters and beyond exploit these tuna species among other tuna-like species such as black skipjack (*Euthynnus alletteratus*). The Marine Fisheries Research Division (MFRD) of the Ministry of Food and Agriculture based in Tema is the Government Agency responsible for tuna research and statistics in Ghana.

### Section 2: Research and Statistics

During the year under review, skipjack catches 50363 t (72%) were the most abundant followed by yellowfin 10754 t (15%), bigeye 4439.5 mt (6%) and other tuna-like species 7% respectively. A total catch of 70578 t were landed in 2011 a slight decrement of approximately 7000 t over the year 2010. Tuna baitboats use mainly anchovy (*Engraulis encrasicolus*) as bait for their operations. Both fleets also employ over 1,500 fish aggregating devices (FADs) in capturing the resources and collaborate extensively with each other sharing their catch during fishing operations. This sharing act (collaborative fishing) has been a typical pattern in the industry with over 85% of catches on FADs. Port sampling of the three major species of tuna using the AVDTH programme were carried out from Tema to determine, among others, length frequency distribution to be used for stock assessment purposes during the year under review. The majority of fishing occurred within the major spawning grounds off the Gulf of Guinea.

Task I, II and III (i.e., catch/effort) data for 2011 were duly forwarded to ICCAT via the AVDTH 3.2 software programme adopted from the French purse seine fleet.

In conformity with the objectives of the Data Fund, Ghanaian statistics for the principal tunas, most especially bigeye have been monitored since their revision during the bigeye stock assessment meeting held in June 2006. In relation to the above, and for Quality Assurance [Res. 03-21], statistics from Ghana continue to be evaluated based on improved sampling, provision of logbook data (Task II) spanning the past 15 years, observer data (2006-20010), independent information from international observers sponsored by ICCAT. Further synthesis of the database on Ghana since 1980-2010 was carried out during recent ICCAT working groups on Ghanaian statistics to get a clear picture on the catch and species composition of the entire catch in relation to the collaborative fishing strategies and innovations and factors influencing catchability of the species. Logbook recovery rates have been improved with over 90% and incorporated into the AVDTH database. These have also been forwarded to the ICCAT Secretariat and analysis carried out.

Beach sampling of the billfishes continued off the western coastline of Ghana. Catch and effort data for the year 2011 were submitted accordingly (**Table 3**). Swordfish landings dropped in the year 2011 to 60.14 t from 132 t in 2010. Catches of sailfish remained relatively stable for the years 2010 and 2011 whilst slight reductions were observed for blue marlin. Only 1.006 t of white marlin were observed in 2011. Overall, a reduction in effort was noted in 2011. High catches of all billfishes was noted to occur in the fourth quarters of each year.

## **Part II (Management Implementation)**

### ***Section 3: Implementation of ICCAT conservation and management measures***

3.1 The ICCAT list of vessels over 24 m has not changed remarkably in 2011 with 17 purse seiners, 22 baitboats and 2 carriers. The Monitoring, Surveillance and Control Division (MCSO) of the Commission regularly inspects vessels before they embark on fishing expeditions ensuring that their licences, equipment etc. are in conformity to national and international laws.

3.2. An action plan in relation to the recommendation by ICCAT on the Multi-Year Conservation and Management Programme for Bigeye Tuna was submitted to ICCAT in March 2010 and discussed during the 2011 Commission meeting. This plan aims to strengthen the collection of statistical data and control measures to ensure the full implementation of conservation and management measures and reduction in effort especially the purse seine fleet.

### ***Section 4: Inspection schemes and activities***

4.1 Internal arrangements to monitor bigeye and swordfish catches in relation to Recommendations 04-01 and 02-22, respectively, by regular visits to port and especially the canneries to crosscheck tonnages continued in 2011. Catch certifications in accordance with EU regulations have been carried out during the year under review for exports of the bigeye and swordfish catches and submitted to the Secretariat.

#### ***4.2 National observer programmes (Recs. 08-05 and 10-04)***

An observer programme was organized in April-June 2011 sponsored by ICCAT/JDMIP. The main objective of the programme was to refresh officers on board in methodologies used to attain proper estimates of the catches and species composition of each set. Secondly the proper filling of records into logbooks was also taught. The training has enabled these officers appreciate the need for accurate reliable datasets to be used for stock assessment purposes. Five (5) purse seine vessels were covered in the programme. In the recommendation, among others, it was mentioned that due to the massive use of FADs and its attendant effect on juvenile mortality, precautionary steps should be carried out to safeguard the fishery. The Ghana Fisheries Act 625 provides for co-operation by operators in ensuring that fishing is done in conformity with laid down rules and regulations and any breach of the law would lead to cancellation or suspension of fishing licenses. Observer reports for 2011 have been duly reported under the MFRD/ICCAT/JDIP protocol.

#### ***4.3 History of SWO Fishery and Development/Management Plan (Rec. 10-02)***

The artisanal drift gillnet fishery in Ghana started in the mid-1970s targeting large pelagic, including swordfish among others. This fishery that operates from dugout canoes employs between 10-12 people using small drift nets with meshes between 45-60mm. Catch and effort data from sampling and catch assessment surveys after Banerji S. 1972 and following the FAO ARTFISH software are reported. As part of the ICCAT Enhanced Research Program for Billfish, size sampling among other statistical and biological parameters of the 4 major landing sites namely Apam, Shama, Dixcove and Axim are obtained on monthly basis. The fishery has developed from a daily fishing trip in the 1970s without ice onboard to a trip lasting approximately 3 days with insulated containers for icing. CPUE trends have generally declined over the past decade due to varying factors including changes in climatic regimes. Management plans in conformity to ICCAT regulations prohibit landing of juvenile fishes less than 115cm LJFL. The community based fisheries management units in collaboration with field recorders monitor landings from these operators and report and advice on best fishing practices and seasons.

#### ***4.4 Internal Action Report (Rec. 09-08)***

Document cp10-intac20 has been duly filled and submitted 21<sup>st</sup> July 2012

Regular general meetings with members of the Ghana Tuna Association (GTA) and the Ministry of Food and Agriculture (Fisheries Directorate) have been helpful in creating more awareness on the need for more responsible fishing practices, harmonizing tuna prices in Tema, easing port (berthing) facilities including bunkering and also ensuring that policies of the Government in relation to fisheries are fully understood and implemented. Several meetings have been held between the GTA and the fisheries Commission in the year under review.

#### ***4.5 Alternative scientific monitoring approach (Rec. 10-10)***

The Fisheries Commission through its Research Division has been collaborating with her colleagues in Cote d'Ivoire in obtaining needed information and missing gaps especially with Ghanaian vessels landing there. Under a protocol supported by ICCAT financially, logbook records are obtained from captains and forwarded to MFRD where not officially submitted. Sampling of our vessels and data is submitted for verification as in some cases there may be double counting since vessels land and discharge part of their catch in Ghana then in Abidjan. During the recent CECAF scientific meeting held in Accra from the 7-9 September 2011, further internal discussions (non-formal) with colleagues from the sub-region especially Liberia and Sierra-Leone were conducted as to the possibility of the formation of a sub-regional observer programme for tuna purse seine fishing.

#### ***4.6 ICCAT Statistical Documents (Recs. 01-21 and 01-22)***

Data from the SWO and BET statistical documents have been sent to the Secretariat on the 21<sup>st</sup> July 2012

#### ***4.7 Fishing, Inspection and Capacity Reduction Plan For 2012***

Ghana has submitted an action plan in 2011 accepted by the commission. In furtherance to this, Ghana will continue to ensure constant inspection of her fleet by the relevant authorities to ensure that fishing is done in conformity with laid down rule and regulations. A formal response as to Capacity reduction plans for 2012 and beyond will be addressed by the deadline for the Commission reporting period.

#### ***4.8 Internal procedures for compliance with closed area/season in the Gulf of Guinea (Rec. 04-01)***

Ghana is willing to abide by the recommendation and would place observers on all vessels to monitor their activities. Further steps to comply fully would be addressed during the period.

#### ***4.9 FAD management schemes***

FADs have been used in the Ghanaian fishery since 1991 and there has been massive influx of these aggregating devices since. Today 2011, there are over 1500 bamboo woven fads employed mainly in the narrow strip off Tema in the Gulf of Guinea. ICCATs' moratorium to be effective in January –February 2013 adheres to the non-use of these devices to curb the destructive nature of them in attracting more juveniles. Each vessel on average employs approximately 30-40 payaols attached to radio beacons and are often changed when left for over 4-6 months at sea. Monitoring of types and numbers are on-going at sea and quayside where officers note their construction at port. The Forestry Commission is also actively involved in the indiscriminate felling of tree including the bamboo which is manly use in the construction of FADs.

**Table 1a.** Landings (t) of the principal tunas, 2010 and 2011.

<i>Vessel/Species</i>	<i>Yellowfin</i>		<i>Skipjack</i>		<i>Bigeye</i>	
	<i>2010</i>	<i>2011</i>	<i>2010</i>	<i>2011</i>	<i>2010</i>	<i>2011</i>
Bait-boats	4855	3227.5	12534	10423	2121	311.5
Purse seine	7657	7526.5	41279	39940	4648	4128
<b>Total</b>	<b>12512</b>	<b>10754</b>	<b>53813</b>	<b>50363</b>	<b>6769</b>	<b>4439.5</b>

**Table 1b.** Total monthly catches by species and gear, 2011.

<i>Month</i>	<i>Yellowfin</i>		<i>Skipjack</i>		<i>Bigeye</i>		<i>Others</i>	
	<i>BB</i>	<i>PS</i>	<i>BB</i>	<i>PS</i>	<i>BB</i>	<i>PS</i>	<i>BB</i>	<i>PS</i>
<b>Jan</b>	383	279.5	1124.5	3416	98	213	867.5	22.5
<b>Feb</b>	713	1127.5	763.5	5869	63	482	129.5	78.5
<b>Mar</b>	256.5	828	1116	4126	15.5	685	297	89
<b>Apr</b>	123.5	354	1172.5	3222.5	16	245	93	150.5
<b>May</b>	147	401	942.5	2712.5	14	159.5	131.5	51
<b>Jun</b>	225.5	888	1192	4055.5	5.5	329.5	398.5	155
<b>Jul</b>	314.5	569	741.5	2217	31	401.5	300	90.5
<b>Aug</b>	55	357.5	299	2255.5	0	306	234	122
<b>Sep</b>	242	1007.5	615.5	3800.5	20	479.5	360	177.5
<b>Oct</b>	181	647	828	3652	18.5	356	613	233.5
<b>Nov</b>	374	518.5	1071	2529.5	24.5	387	51	39.5
<b>Dec</b>	212.5	549	557	2084	5.5	84	134	203
<b>TOTAL</b>	<b>3227.5</b>	<b>7526.5</b>	<b>10423</b>	<b>39940</b>	<b>311.5</b>	<b>4128</b>	<b>3609</b>	<b>1412.5</b>
	<b>10754</b>		<b>50363</b>		<b>4439.5</b>		<b>5021.5</b>	



**Table 2.** Size (cm) ranges of tunas, 2011.

	<i>Skipjack</i>	<i>Yellow fin</i>	<i>Big eye</i>
Bait boats	31-65 cm	33-69 cm	34-85 cm
Purse seine	35-65 cm	35-145 cm	36-151 cm

**Table 3.** Billfish catches (t), 2010 and 2011.

		<i>JAN</i>	<i>FEB</i>	<i>MAR</i>	<i>APR</i>	<i>MAY</i>	<i>JUN</i>	<i>JUL</i>	<i>AUG</i>	<i>SEP</i>	<i>OCT</i>	<i>NOV</i>	<i>DEC</i>	<i>TOTAL</i>
2010	SWO	4.59	2.78	19.95	27.30	19.16	29.63	1.06	1.99	0.00	0.76	1.02	7.78	116.01
2011	SWO	17.95	8.14	7.26	4.92	2.42	3.10	7.16	0.61	2.60	2.83	1.23	1.91	60.14
2010	SAI	46.67	56.10	35.38	3.03	61.75	48.98	1.03	32.75	0.49	7.33	10.25	112.92	416.67
2011	SAI	0.00	13.69	5.46	32.90	15.63	14.70	33.39	0.71	3.86	0.57	0.003	28.63	298.93
2010	BUM	1.50	15.23	15.92	8.85	12.84	12.41	0.95	26.78	3.02	1.19	1.62	15.34	115.65
2011	BUM	19.54	31.24	26.40	53.01	18.25	61.01	30.29	15.79	31.02	2.80	1.10	41.56	332.14

**ANNUAL REPORT OF GUATEMALA  
RAPPORT ANNUEL DU GUATEMALA  
INFORME ANUAL DE GUATEMALA**

**Parte I (Información sobre pesquerías, investigación y estadísticas)**

**Sección 1: Información anual sobre pesquerías**

*1.1 Pesquerías nacionales*

La flota atunera guatemalteca que opera en la zona del Convenio está compuesta por dos embarcaciones autorizadas, de las cuales solo una se encuentra activa. Las principales especies objetivo son rabil: *Thunnus albacares* y listado: *Katsuwonus pelamis*, y capturas menores de patudo: *Thunnus obesus*. Como lo indica la **Tabla 1**.

La zona costera de Guatemala en el Atlántico está delimitada en el área del Caribe, la principal pesquería es la artesanal y se realiza por embarcaciones menores de diez metros de eslora.

**Sección 2: Investigación y estadísticas**

Desde la implementación de la revisión de la bitácora de pesca, se ha logrado mejorar los procedimientos de recopilación de información. Así también, se tiene cooperación con el Centro Oceanográfico de Canarias para comparar la información compilada.

**Parte II (Implementación de la ordenación)**

**Sección 3: Implementación de medidas de conservación y ordenación de CICAA**

Guatemala como país parte de la CICAA ha orientado esfuerzos para cumplir todas las disposiciones aplicables según la pesquería que practica.

*3.1 Captura fortuita de tortugas marinas*

A la fecha no se ha tenido registros que la embarcación atunera guatemalteca haya tenido interacción con tortugas marinas durante sus faenas de pesca. Además, se ha informado al armador sobre las Directrices de FAO para reducir la mortalidad de tortugas marinas en las operaciones pesqueras.

*3.2 Medidas adicionales contra la pesca ilegal, no declarada y no reglamentada*

Se ha fortalecido la comunicación con los armadores para evitar la implicación de sus actividades pesqueras en prácticas de acciones ilegales. Ningún Estado costero en el área del Convenio ha notificado oficialmente sobre posibles infracciones cometidas por el buque de bandera nacional que operan en la zona de CICAA, ni de que pesque sin autorización en aguas bajo soberanía o jurisdicción de otros Estados costeros. Sin embargo, si existiera algún indicio se investigaría y sancionaría, de ser el caso, conforme a la normativa pesquera vigente la Ley General de Pesca y Acuicultura y su Reglamento.

*3.3 Cumplimiento a los deberes como país Parte de CICAA*

Con la obligación del Estado de Guatemala de aprovechar los recursos de forma racional y sostenida, se han iniciado acciones para el cumplimiento de la normativa pesquera nacional, así como otras disposiciones de organizaciones internacionales aplicables a Guatemala. Entre ellas el ordenamiento de las concesiones vigentes, actualización de embarcaciones pesqueras activas y autorizadas, y mejora en el registro de desembarques y seguimiento de actividades pesqueras.

Así también, se ha comunicado a los armadores la obligación de llevar a bordo bitácora de pesca, ficha técnica y otros documentos necesarios para comprobar la legalidad de la actividad pesquera.

### 3.4 Seguimiento satelital de embarcaciones pesqueras

Con la habilitación del Centro de Seguimiento y Control Satelital (CSCS) para embarcaciones pesqueras nacionales en las oficinas centrales de la Autoridad Pesquera, se ha logrado fortalecer las actividades de seguimiento y control sobre las embarcaciones de bandera nacional que pescan dentro y fuera de la zona económica exclusiva de Guatemala. Así también se inició una revisión a la legislación nacional en materia de seguimiento satelital para actualizar la norma la vigente.

### 3.5 General

Guatemala no tiene puertos en el Atlántico que reciban desembarques o donde se hagan transbordos de especies bajo el manejo de CICAA. Hasta la fecha, no se han autorizado transbordos en puerto ni realizado arreglos con otros Estados en cuyos puertos descarguen buques guatemaltecos para enviar inspectores de pesca nacionales.

#### **Sección 4: Actividades y esquemas de inspección**

En coordinación con Dirección de Asuntos Marítimos del Ministerio de la Defensa Nacional; la Dirección de Inocuidad y la Dirección de Normatividad de la Pesca y Acuicultura del Ministerio de Agricultura, Ganadería y Alimentación, se realizó una visita de inspección a la embarcación atunera que actualmente está operando en la zona del Convenio; se aprovechó la llegada al puerto para mantenimiento de la embarcación para la revisión del buque, los documentos oficiales que lleva a bordo y el funcionamiento dispositivo de seguimiento satelital.

#### **Sección 5: Otras actividades**

Implementación de mecanismos para fortalecer el intercambio de información relativa al registro de desembarques a través de la comunicación constante con los armadores; así también, la emisión de certificados de captura a buques de pabellón guatemalteco para desalentar la pesca ilegal, no declarada y no reglamentada.

**Tabla 1.** Comparación de capturas de túnidos tropicales en el área de CICAA por la embarcación Sant Yago Uno, valores expresados en toneladas métricas.

<i>Especie</i>	<i>Captura TM</i>	
	<i>2010</i>	<i>2011</i>
YFT	3,124.0	2,802.9
SKJ	2,951.0	2,828.9
BET	1,011.0	281.9
OTR	-	47.8

**Tabla 2.** Códigos de especies utilizadas.

YFT	<i>Thunnus albacares</i>
SKJ	<i>Katsuwonus pelamis</i>
BET	<i>Thunnus obesus</i>
OTR	<i>Otras capturas incidentales</i>

**ANNUAL REPORT OF THE REPUBLIC OF GUINEA  
RAPPORT ANNUEL DE LA RÉPUBLIQUE DE GUINÉE  
INFORME ANUAL DE LA REPUBLICA DE GUINEA**

Hassimiou TALL<sup>1</sup>

*SUMMARY*

*Tuna fishing, as all the other segments of industrial fishing in the Republic of Guinea (pelagic, demersal, shrimp and cephalopod fishing), is totally dominated by foreign fishing vessels. The Republic of Guinea is signatory of a Fishing Agreement Protocol which concerns tuna fishing and which covers the 2009-2012 period. This agreement was suspended at the end of 2009 due to socio-political issues and unrest that the suffered country since December 2009. There are three tuna vessels flying Guinean flags in the ICCAT area. These are AVRA, BELOUGA and MERVENT. They are all purse seiners. The total catches carried out in 2011 amount to 5.964 t, mainly including two species: mainly Katsuwonus pelamis (skipjack) and Thunnus albacares (yellowfin tuna) representing 15 to 20% of the total catches taken. The authorities of the Ministry of Fisheries and Aquaculture take measures to report statistics to ICCAT regularly.*

*RÉSUMÉ*

*La pêche thonière, tout comme les autres segments de la pêche industrielle opérant en Guinée (pêche pélagique poissonnière, pêche démersale poissonnière, crevettière et céphalopodière), est totalement dominée par les bateaux de pêche étrangère. La Guinée est signataire d'un Protocole d'Accord de pêche qui porte sur la pêche thonière et qui couvre la période de 2009 à 2012. Cet accord a été suspendu en fin 2009 à cause des troubles sociopolitiques et de l'instabilité qui ont secoué le pays à partir de décembre 2009. Le nombre total de thoniers battants pavillons guinéens évoluant dans la zone de l'ICCAT est de trois et qui sont AVRA, BELOUGA et MERVENT. Tous sont des navires senneurs. Les captures totales réalisées en 2011 sont de 5.964 tonnes composées essentiellement de deux espèces : Katsuwonus pelamis (Skipjack) majoritairement et Thunnus albacares (Yellowfin tuna) représentant 15 à 20% de la prise totale réalisée. Les mesures sont prises par les autorités du Ministère de la Pêche et de l'Aquaculture pour la fourniture régulière des statistiques à l'ICCAT.*

*RESUMEN*

*La pesca atunera, al igual que otros segmentos de la pesca industrial de Guinea (pesca pelágica de peces, pesca demersal de peces, pesca de gambas y de cefalópodos) está totalmente dominada por buques de pesca extranjeros. Guinea ha firmado un Protocolo de acuerdo de pesca para la pesca atunera que cubre el periodo 2009 a 2012. Este acuerdo se suspendió a finales de 2009 debido a los problemas sociopolíticos y a la inestabilidad que sufre el país desde diciembre de 2009. El número total de buques que enarbolan pabellón guineano y que operan en la zona ICCAT asciende a tres unidades y son los siguientes buques: AVRA, BELOUGA y MERVENT, todos ellos cerqueros. Las capturas totales realizadas en 2011 ascendieron a 5.964 t, compuestas sobre todo de dos especies: listado (Katsuwonus pelamis) sobre todo, y rabil (Thunnus albacares) que responden del 15 al 20% de las capturas realizadas. Las autoridades del Ministerio de Pesca y Acuicultura toman medidas para la transmisión regular de estadísticas a ICCAT.*

**I<sup>ère</sup> partie (Information sur les pêcheries, la recherche et les statistiques)**

**Chapitre 1 : Information sur les pêcheries**

L'Accord de pêche Guinée-UE prévoyait 40 thoniers dont 28 senneurs congélateurs et 12 canneurs, qui jusqu'à date est suspendu et des démarches sont en cours pour sa relance.

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<sup>1</sup> Délégué de la République de Guinée auprès de l'ICCAT.

Il faut signaler que le Ministère de la Pêche et de l'Aquaculture a signé un protocole d'entente avec l'Organisation des Producteurs de Thons Congelés (ORTHOGE) français, qui a aligné neuf thoniers senneurs en 2012.

Les trois navires battant pavillon guinéen alignés dans le cadre de l'ICCAT ciblent principalement deux espèces de thons qui sont : le *Skipjacks* et le *Yellowfin tuna*.

Il faut signaler que les navires *Belouga* et *Mervent* ont interrompu leurs activités de pêche au second semestre de l'année 2011 à cause des pannes techniques enregistrées. Depuis cette date, le thonier *Belouga* est amarré au Port de Tema au Ghana, auquel s'ajoute également l'inactivité du navire *Avra* du 24 mai au 8 septembre 2011.

## **Chapitre 2 : Recherche et statistiques**

### *2.1 Statistiques*

Avec l'engagement des autorités du Ministère de la Pêche et de l'Aquaculture, le suivi et la mise à disposition régulière des données sur les activités des thoniers battants pavillons guinéens connaissent une amélioration sensible. Des dispositions ont été prises pour la transmission à l'ICCAT dans les délais impartis, les statistiques de la pêche thonière.

Cependant, au niveau de la pêche artisanale qui débarque sporadiquement les thonidés, les espèces voisines de thon et requins, les captures ne sont pas maîtrisées.

En 2011, pour 274 jours de pêche les captures totales des thoniers guinéens ont atteint 5.964.000 kg toutes espèces confondues avec une nette abondance de la première espèce (**Tableau 1**).

Les captures ainsi réalisées ont été débarquées aux ports d'Abidjan en Côte d'Ivoire et de Tema au Ghana.

### *2.2 Recherche*

Par manque de moyens logistiques, financiers et humains, aucune opération de recherche sur le thon n'a été menée au cours de ces dernières années par le Centre National des Sciences Halieutiques de Boussouira (CNSHB).

Il convient de signaler que des mesures de suivi des activités de pêche aux requins sont mises en place grâce à un projet sous-régional initié par la Commission Sou-Régionale des Pêches.

À cet effet, un plan national de protection des requins a été élaboré et adopté par le gouvernement.

Dans le cadre du renforcement des capacités et de la dynamisation de la coopération régionale, un atelier a été organisé par l'ICCAT en collaboration avec le Ministère de la Pêche et de l'Aquaculture du 07 au 11 mai 2012. Cet atelier avait pour objectif de sensibiliser sur la problématique de statistiques de pêche et d'améliorer les capacités régionales en matière de suivi, de collecte et de transmission des données statistiques à l'ICCAT.

**Tableau 1.** Répartition des captures totales déclarées par les thoniers guinéens

	<i>Navires</i>	<i>J de mer</i>	<i>J de pêche</i>	<i>Total (Kg)</i>
1	Avra	209	138	2 881 505
2	Belouga	97	56	1 183 500
3	Mervent	182	80	1 899 000
	<b>TOTAL</b>	<b>488</b>	<b>274</b>	<b>5 964 005</b>

**ANNUAL REPORT OF ICELAND  
RAPPORT ANNUEL DE L'ISLANDE  
INFORME ANUAL DE ISLANDIA**

Brynhildur Benediktsdottir<sup>1</sup>

SUMMARY

*The Ministry of Industries and Innovation in Iceland allocates its bluefin tuna quota for one year at a time. In 2011 there were no targeted bluefin tuna fisheries. One longline vessel was allocated quota, but did not fish. Incidental bycatches of bluefin tuna by Icelandic vessels in the Icelandic EEZ amounted to 2.4 t. In 2012 the allowed fishing method is longline in the area south of Iceland and the fishing season starting 1 August. In 2012 the Icelandic quota was in total 29.82 tonnes (t). One longline vessel was allocated 25 t of IQ and the remaining tonnes of the quota reserved for incidental bycatches of bluefin tuna by Icelandic vessels or recreational fisheries. The vessel has not utilized its fishing permit as of September 13th 2012. Icelandic vessels, fishing for small pelagics within the Icelandic EEZ have reported by-catches of bluefin tuna in 2012. The Ministry will adjust the quota allocated to the longline vessel if needed to account for bycatches. There are no direct fisheries for any other fish species under ICCAT management, but porbeagle, spotted dogfish and Greenland shark are by-catches within the Icelandic EEZ in other commercial fisheries and are reported to the ICCAT SCRS. As discarding of fish is prohibited by law by Icelandic vessels, ICCAT recommendations banning retention, storing, landing and selling of shark species are implemented by Iceland requiring vessels to release alive these species or if not possible storing them separately and submitting them to the Marine Research Institute in Iceland for scientific purposes. All sales of these species is forbidden.*

RÉSUMÉ

*Le ministère des industries et de l'innovation islandais alloue son quota de thon rouge chaque année. Aucune pêcherie n'a ciblé le thon rouge en 2011. Un quota a été alloué à un palangrier mais celui-ci n'a pas pêché. Les prises accessoires de thon rouge réalisées par les navires islandais dans la ZEE islandaise se sont élevées à 2,4 t. En 2012, la méthode de pêche autorisée était la palangre dans la zone du Sud de l'Islande et la saison de pêche a commencé le 1er août. En 2012, le quota islandais s'élevait à 29,82 t. Un total de 25 t de quota individuel a été alloué à un palangrier et le reste du quota a été réservé aux prises accessoires de thon rouge réalisées par les navires islandais et aux prises des pêcheries récréatives. En date du 13 septembre 2012, le navire n'a pas utilisé son permis de pêche. Les navires islandais, ciblant les petits pélagiques au sein de la ZEE islandaise, ont déclaré des prises accessoires de thon rouge en 2012. Le ministère va ajuster le quota alloué au palangrier si cela s'avère nécessaire pour prendre en compte les prises accessoires. Il n'existe pas d'autres pêcheries ciblant directement toute autre espèce de poisson relevant de la gestion de l'ICCAT, mais le requin-taupe commun, la grande roussette et la laimargue sont capturés accessoirement dans la ZEE islandaise au sein d'autres pêcheries commerciales et sont déclarés au SCRS de l'ICCAT. Étant donné que la loi interdit aux navires islandais de rejeter des poissons, l'Islande met en œuvre les recommandations de l'ICCAT interdisant de retenir à bord, de stocker, de débarquer et de vendre des espèces de requins, imposant aux navires de remettre ces espèces à l'eau à l'état vivant, ou si cela n'est pas possible, de les stocker séparément et de les soumettre à l'Institut de recherche marine d'Islande à des fins scientifiques. La vente de ces espèces est interdite.*

RESUMEN

*El Ministerio de Industria e Innovación en Islandia asigna su cuota de atún rojo para un año cada vez. En 2011, no hubo pesquerías dirigidas al atún rojo. Se asignó cuota a un palangrero, pero éste no faenó. Las capturas incidentales de atún rojo realizadas por buques islandeses en la ZEE de Islandia ascendieron a 2,4 t. En 2012, el método autorizado para la pesca fue el*

<sup>1</sup> Effective from 1. September 2012 the Ministry of Fisheries and Agriculture is integrated with the Ministry of Industries and Ministry of Ministry of Industries and Innovation.

*palangre en la zona meridional de Islandia y la temporada de pesca comenzó el 1 de agosto. En 2012, la cuota islandesa se estableció en 29,82 t. Se asignaron 25 t de cuota individual a un palangrero, y el resto de la cuota se reservó para capturas fortuitas incidentales de atún rojo realizadas por buques islandeses o pesquerías de recreo. A 13 de septiembre de 2012, el buque no ha utilizado aún su permiso. Los buques islandeses que pescan pequeños pelágicos dentro de la ZEE islandesa han comunicado capturas fortuitas de atún rojo en 2012. Si es necesario, el Ministerio ajustará la cuota asignada al palangrero para tener en cuenta las capturas fortuitas. No hay ninguna pesquería dirigida a otras especies gestionadas por ICCAT, pero el marrajo sardinero, la pintarroja y el tollo de Groenlandia son capturas fortuitas en la ZEE de Islandia en otras pesquerías comerciales y se comunican al SCRS de ICCAT. Dado que la legislación prohíbe el descarte de peces a los buques islandeses, las Recomendaciones de ICCAT que prohíben la retención, almacenaje, desembarque y venta de tiburones fueron implementadas por Islandia que ha requerido a los buques que liberen vivas estas especies y que, cuando esto no sea posible, las almacenen en un lugar separado, y las presenten al Instituto de Investigaciones Marinas de Islandia para fines científicos. Está prohibida la venta de estas especies.*

## **Part I (Information on Fisheries, Research and Statistics)**

### ***Section 1: Annual Fishing Information***

In 2011 one longline vessel was allocated an IQ, it did not partake in directed fisheries, but incidental bycatches of Icelandic vessels, within the Icelandic EEZ amounted to 2.4 tonnes in 2011. The catches were sold on domestic market.

In 2012 the Icelandic Bluefin tuna quota was 29.82 t. The fishing season started 1 August 2012. Fishing is only allowed in the area South of Iceland, by longline. One Icelandic vessel has been issued a quota of 25 t, the remaining quota is reserved for incidental by-catches by Icelandic vessels or recreational fishing. As of September 13<sup>th</sup> the vessel has utilize its fishing license for Bluefin tuna.

By-catches have been reported in 2012 by Icelandic vessels fishing for small pelagics within the Icelandic EEZ.. The Ministry will adjust the IQ vessel allocation if bycatches exceed the quota reserved.

There are no direct fisheries for any other fish species under ICCAT management, but porbeagle, spotted dogfish and Greenland shark are by-catches within the Icelandic EEZ in other commercial fisheries and are reported to the ICCAT SCRS.

There are no recreational or sports fisheries in Iceland for species under ICCAT management

### ***Section 2: Research and Statistics***

The Marine Research Institute in Iceland receives statistics on location, size and weight of the incidental by-catches of bluefin tuna in the Icelandic EEZ from logbooks. Most Icelandic vessels are required to carry electronic logbooks and all are equipped with VMS. The Marine Research Institute will also oversee any scientific data sampling needed.

All landings are registered and weighed at landing in Iceland and compiled in a centralized database by the Directorate of Iceland. Icelandic vessels also have to submit copies of logbooks to the Directorate. The bluefin tuna longline vessel is obliged to report through an electronic logbook.

Discards are banned on the Icelandic fleet; by-catch is to be landed and registered. Icelandic authorities have submitted data to the scientific committee of ICCAT on by-catches of three shark and shark-like species by Icelandic vessels, Greenland shark, porbeagle and picked dogfish, all catches within the Icelandic EEZ. Since there are no direct fisheries for these species, detailed information on fishing area and effort are not available.

## **Part II (Management Implementation)**

### ***Section 3: Implementation of ICCAT Conservation and Management Measures***

For bluefin tuna fisheries the Icelandic Fisheries Act, as well as regulations governing fishing by Icelandic vessels in international waters beyond national jurisdictions, are supplemented with regulations that are reviewed each year as needed. A new regulation was issued in 2012.

Licenses to fish bluefin tuna are issued by the Directorate of Fisheries each year and for a determined quota for each vessel (IQ). The licenses are only valid for one year. In the license it is also stipulated that the holder of the license is bound by the relevant ICCAT recommendations which are attached to the license. When the individual quota of the vessels is fished, the license expires.

The Ministry can adjust the IQ of vessel/s to account for incidental by-catches in 2012 if they exceed the amount reserved each year.

Violations against fisheries laws and regulations in Iceland are punishable and can result in fines or in cases of serious or repeated deliberate violation imprisonment.

Relevant authorities have been notified of the bluefin tuna documentation scheme. Up to date there have been no imports or re-exports of bluefin tuna in Iceland. All bycatches of bluefin tuna have been sold on domestic market.

ICCAT recommendations on several shark species that stipulated that retention, landing, storing and selling of these species are prohibited were implemented by Iceland in 2011 in the following manner. Since the Icelandic Fisheries Act forbids discards, all catches of these species are to be released if alive. If this is not possible the catches are to be kept separate, and delivered to the Icelandic Marine Research Institute for scientific purposes. All other landing and storing is prohibited. All sales are prohibited.

### ***Section 4: Inspection Schemes and Activities***

All landings of Icelandic vessels are registered and weighed at landing in Iceland and compiled in a centralized database by the Directorate of Iceland. The Directorate also monitors landings by foreign vessels in Icelandic ports.

The Icelandic bluefin tuna vessel will carry an observer onboard at least 20% of the fishing operation. Observers are employed by the Directorate and are required to have extensive work experience on sea and relevant education as captains and/or in the fishing industry.

Landings will be monitored by the Directorate of Fisheries. The Marine Research institute will be monitoring information on bluefin tuna fisheries and by-catches and oversee any scientific information sampling needed.



**ANNUAL REPORT OF JAPAN<sup>1</sup>**  
**RAPPORT ANNUEL DU JAPON**  
**INFORME ANUAL DE JAPÓN**

SUMMARY

*Longline is the only tuna-fishing gear deployed by Japan at present in the Atlantic Ocean. The final coverage of the logbook from the Japanese longline fleet has been 90-100 % before 2010. The current coverage for 2011 is estimated to be about 85%. In 2011, fishing days was 19,700 days, which was 73 % of average value in recent ten years. The catch of tunas and tuna-like fishes (excluding sharks) is estimated to be about 24,000 t, which are about 80 % of the past ten years average catch. The most important species was bigeye representing 56% of the total tuna and tuna-like fish catch in 2011. The next dominant species was yellowfin occupied 17% in weight and third species was swordfish (9%). Observer trips on longline boats in the Atlantic were conducted and total of about 600 fishing days were monitored. In addition to the logbook submission mentioned above, Fisheries Agency of Japan (FAJ) has set catch quotas for western and eastern Atlantic bluefin as well as for northern, southern Atlantic swordfish, blue marlin, white marlin and bigeye tuna, and has required all tuna vessels operating in the Atlantic Ocean to submit catch information every day (bluefin tuna) by radio or facsimile. All Japanese longline vessels operating in the Convention Area has been equipped with satellite tracking devices (VMS) onboard. In accordance with ICCAT recommendations, FAJ has taken necessary measures to comply with its minimum size regulations, time area closures and so on by the Ministerial Order. Each species statistical or catch document programs have been conducted. Records of fishing vessels larger than 20meters in length overall (LSFVVs) have been established. In 2011, FAJ has not dispatched patrol vessels to the North Atlantic to monitor and inspect Japanese tuna vessels and also observe fishing activities of other nations' fishing vessels, because of the Tohoku earthquake. FAJ has inspected landings at Japanese port to enforce the catch quotas and minimum size limit. A prior permission from FAJ has been required in the case that Japanese tuna longline vessels transship tuna or tuna products to reefs at foreign ports or at sea.*

RÉSUMÉ

*La palangre est le seul engin déployé actuellement par le Japon pour cibler les thonidés dans l'océan Atlantique. La couverture finale par les livres de bord de la flottille palangrière japonaise était de 90-100 % avant 2010. La couverture actuelle pour 2011 est estimée à près de 85%. En 2011, il y a eu 19.700 jours de pêche, ce qui représentait 73 % de la valeur moyenne de ces dix dernières années. La prise de thonidés et d'espèces apparentées (à l'exclusion des requins) est estimée s'élever à 24.000 t, soit environ 80 % de la prise moyenne de ces dix dernières années. L'espèce la plus importante était le thon obèse qui représentait 56% du total de la prise de thonidés et d'espèces apparentées en 2011. L'espèce dominante suivante était l'albacore, qui représentait 17% en poids, et la troisième espèce était l'espadon (9%). Les observateurs embarqués à bord de palangriers ont réalisé des sorties dans l'Atlantique et près de 600 jours de pêche ont fait l'objet d'un suivi. Outre la soumission des carnets de pêche susmentionnée, l'Agence des pêches du Japon (Fisheries Agency of Japan, FAJ) a établi des quotas de capture pour le thon rouge de l'Atlantique Ouest et Est, ainsi que pour l'espadon de l'Atlantique Nord et de l'Atlantique Sud, le makaire bleu, le makaire blanc et le thon obèse, et a demandé à tous les thoniers opérant dans l'océan Atlantique de soumettre des informations tous les jours sur les prises de thon rouge par radio ou fax. Tous les palangriers japonais opérant dans la zone de la Convention sont pourvus à bord de systèmes de surveillance des navires par satellite (VMS). Conformément aux recommandations de l'ICCAT, la FAJ a pris les mesures nécessaires, par arrêté ministériel, en vue du respect de ses réglementations de taille minimum, des fermetures spatio-temporelles, etc. Les Programmes de documents statistiques ou de capture sont réalisés pour chaque espèce. Des registres de navires de pêche de plus de 20 m de longueur hors tout (LSTLV) ont été établis. En 2011, la FAJ n'a pas détaché de patrouilleurs dans l'Atlantique Nord afin de suivre et d'inspecter les thoniers japonais et d'observer les*

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*activités de pêche de navires de pêche d'autres nations, en raison du tremblement de terre de Tohoku. La FAJ a procédé à des inspections des débarquements dans les ports japonais afin d'appliquer les quotas de capture et la limite de taille minimale. La permission préalable de la FAJ a été requise pour tout palangrier thonier japonais qui vise à transborder des thonidés ou des produits de thonidés sur des cargos frigorifiques dans des ports étrangers ou en mer.*

## RESUMEN

*El palangre es el único arte pesquero que utiliza Japón actualmente en el océano Atlántico para pescar túnidos. La cobertura final de los cuadernos de pesca de la flota palangrera japonesa fue del 90-100 % antes de 2010. La cobertura actual para 2011 se estima en aproximadamente el 85%. En 2011 hubo 19.700 días de pesca, lo que se sitúa en aproximadamente el 73 % del valor medio de los últimos diez años. La captura de túnidos y especies afines (excluyendo tiburones) se estima en aproximadamente 24.000 t, lo que supone en torno al 80% de la captura media de los últimos diez años. La especie más importante fue el patudo, que respondió de aproximadamente el 56% de la captura total de túnidos y especies afines en 2011. La segunda especie predominante fue el rabil, que respondió del 17% en peso, seguida por el pez espada que ocupa el tercer lugar con un 9%. Se llevaron a cabo mareas con observadores en palangreros en el Atlántico y se hizo el seguimiento de en torno a 600 días de pesca. Además de la presentación de los cuadernos de pesca mencionada antes, la Agencia de Pesca de Japón (FAJ) ha establecido cuotas de captura para el atún rojo del Atlántico oriental y occidental, para el pez espada del Atlántico norte y sur, para la aguja azul, la aguja blanca y el patudo, y requiere que todos los buques atuneros que operan en el océano Atlántico presenten información sobre capturas cada día (atún rojo) por radio o fax. Todos los palangreros japoneses que operan en la zona del Convenio están equipados con dispositivos de seguimiento por satélite a bordo (VMS). De acuerdo con las recomendaciones de ICCAT, la FAJ ha tomado medidas para prohibir la captura de ejemplares de talla inferior a la regulada, para establecer las vedas espaciotemporales, etc., mediante una orden ministerial. Se ha llevado a cabo el programa de documento estadístico o de documentación de capturas de cada especie. Se han establecido registros de los buques pesqueros de más de 20 m de eslora total (grandes buques pesqueros). En 2011, la FAJ no ha enviado buques patrulla al Atlántico norte para inspeccionar y hacer un seguimiento de los atuneros japoneses y para observar las actividades pesqueras de los buques pesqueros de otras naciones, a causa del terremoto de Tohoku. La FAJ ha inspeccionado los desembarques en los puertos japoneses para verificar las cuotas de captura y el límite de talla mínima. Es necesario el permiso previo de la FAJ para que cualquier palangrero atunero japonés pueda transbordar túnidos o productos de túnidos a buques frigoríficos en puertos extranjeros o en el mar.*

## Part I (Information on Fisheries, Research and Statistics)

### Section 1: Annual Fisheries Information

#### 1.1 Type of fisheries

Longline is the only tuna-fishing gear deployed by Japan at present in the Atlantic Ocean. Other two types of fishery, baitboat and purse seine fisheries, stopped fishing in the Atlantic in 1984 and 1992, respectively. Therefore, the longline fishery is discussed further.

#### 1.2 Statistical coverage

The National Research Institute of Far Seas Fisheries (NRIFSF) has been in charge of compiling fishery statistics from logbooks submitted by commercial tuna fishermen as well as biological data. The final coverage of the logbook from the Japanese longline fleet operating in the Atlantic has been very good (90-100%) before 2010. The current coverage for 2011 is estimated to be about 84%.

With regard to the implementation of conservation measures on north Atlantic swordfish, the Fisheries Agency of Japan (FAJ) instructed its fishermen to submit the information of released alive swordfish as well as blue marlin, white marlin and other marlins in a designated format.

### *1.3 Fishing effort trend*

The number and fishing days of the Japanese longliners, which operated in the Atlantic in the 2011 calendar year, was estimated to be 103 and 19,700 days (**Table 1** and **Figure 1**). Fishing effort showed a decreasing trend as to entire Atlantic; however, in the tropical Atlantic (20N-equatorial-20S) fishing effort demonstrated an upward trend from 2002 to 2007 and stability after 2008, and in the north area it showed a remarkable decreasing tendency since 2005. The hook number in the North Atlantic area (> 20N) decreased to 3500 (x 1000 hooks) in 2011, which was 10% of the hook number in 2005.

Annual geographical distribution of the longline fishing effort in 2010 and 2011 (**Figure 2**) showed that fishing effort was exerted in a wide area of the north Atlantic from the south of Iceland to the central tropical waters between Africa and South America as well as in the waters along the African coast in the south Atlantic. There was also a tendency of higher concentration of fishing effort in the temperate north Atlantic between 25°N and 35°N. In 2010 and 2011, fishing effort was observed in the waters off Uruguay. Seasonal distribution (**Figure 3**) clearly indicated a high concentration of fishing effort in areas such as the south of Iceland, off east coast of North America as well as inter-subtropical areas between 20°N and 20°S. In the previous two areas, fishing takes place from the 3rd quarter to the 1st quarter, while the tropical fishing grounds are fished for all year round.

### *1.4 Catch trend*

The 2011 of calendar year catches of tunas and tuna-like fishes (excluding sharks) in the Atlantic Ocean and the Mediterranean Sea by the Japanese fishery is estimated to be about 24,000 t (**Table 2**). Although the total amount of fishing efforts in 2011 was 73% (**Table 1**) of the past average for the last ten years (2001-2010), the total catches excluding discards and sharks in 2011 were as about 81% of the average catch for the same years (**Table 2**). The total catch represented stable since 2001 with some yearly fluctuation. The most important species in 2011 was bigeye representing 56% of the total tuna and tuna-like fish catch in 2011. The next dominant species was yellowfin occupied 17% in weight and third species was swordfish (9%). The catches of bigeye and yellowfin in 2011 represented 74% and 108% of average catch of recent ten years, respectively. The remaining species were mainly composed of swordfish, blue marlin, albacore and southern bluefin tuna. Swordfish catch did not occur in the north Atlantic between February 2000 and 2003 as all catches of this species were discarded. Stock or management unit area breakdown of catch by species was also shown in **Table 3** for recent two years (2010-2011).

Geographical distributions of catch by species are shown in **Figure 4** (bluefin tuna), **Figure 5** (bigeye tuna), **Figure 6** (yellowfin tuna), **Figure 7** (swordfish) and **Figure 8** (blue marlin). In general, those distributions for bigeye tuna coincides with the geographical pattern of fishing effort between 40°N and 40°S. In contrast, the catches of bluefin tuna and blue marlin were limited to north of 40°N and inter-tropical area between 30°N and 20°S, respectively. Large catches of yellowfin tuna and swordfish were recorded in tropical waters. These patterns were shown more clearly in **Figure 9** that indicated geographical distribution of catch composition by species.

### *1.5 New developments or shifts in the fishery*

No new development or drastic change of the trend was observed in recent years. The declining trend in the number of boat was observed since 1995. The total amount of hooks also decreased, however the degree of reduction was relatively calm from 2002 in the Atlantic (**Figure 1**).

## **Section 2: Research and Statistics**

The NRIFSF has been in charge of data collection and compilation of Atlantic tuna fishery necessary for the scientific researches on Atlantic tuna and billfish stocks. Required statistical data have been routinely reported to the ICCAT Secretariat and results of scientific research have also been presented at the regular meetings and intercessional meetings of the Standing Committee on Research and Statistics (SCRS).

### *2.1 Fishery data*

The NRIFSF provided near final from 2009 to 2011 catch and effort and size frequency data (Task I, II and biological sampling) of the longline fishery to the ICCAT Secretariat. In accordance with the relevant ICCAT

recommendations on bluefin tuna, bigeye tuna and swordfish stocks, eleven observer trips on longline boats in the Atlantic were conducted between August 2011 and January 2012. Total of about 600 fishing days were monitored. This year's activities, that have already started, will be conducted in 12 trips between July 2012 and December 2012.

## *2.2 Tuna biology and stock assessment*

The biological and stock assessment studies carried out by the NRIFSF on Atlantic tunas and billfishes have been continued.

This year the NRIFSF participated the following ICCAT related meetings in addition to the regular SCRS meetings; Inter-sessional meeting of tropical tuna species group (Madrid, Spain – April 16 to 20, 2012), sharks meeting to apply ecological risk analysis and shortfin mako assessment (Olhão, Portugal, June 11 to 18, 2012), the sub-committee on ecosystems (Sète, France, July 2 to 6, 2012) and bluefin Tuna stock assessment session (Madrid, Spain, September 4 to 11, 2012).

## **Part II (Management Implementation)**

### *Section 3: Implementation of ICCAT Conservation and Management Measures*

#### *3.1 Catch quota and management system on the number of Bigeye tuna and Bluefin tuna vessels*

##### 3.1.1 Catch reporting by radio

FAJ requires all tuna vessels operating in the Atlantic Ocean to submit the logbook information every ten-day period (early-, middle- and late-period of a month) to FAJ. In addition, all tuna vessels to fish for Atlantic bluefin tuna are required to report catch weight of bluefin tuna for individual fish with its tag number (Ministerial Order on April 2, 1975 and amended on July 25, 2008), the name of vessel and location of catch every day by radio or facsimile.

##### 3.1.2 Implementation of the Vessel Monitoring System (VMS)

All Japanese longline vessels operating in the Convention area have to be equipped with satellite tracking devices (VMS) onboard since 1992. The vessels are required to report their positions through VMS in accordance with relevant ICCAT Recommendation.

##### 3.1.3 Catch quotas management

###### i) Catch quotas

The FAJ has set catch quotas for western and eastern Atlantic bluefin tuna as well as for northern, southern Atlantic swordfish, blue marlin, white marlin and bigeye tuna, respectively by a Ministerial Order in accordance with the relevant ICCAT recommendations. For Atlantic bluefin tuna, the quota has been allocated individually to a limited number of vessels authorized to fish for bluefin tuna, and all catches are required to be tagged with the designated plastic band distributed to the vessels. These vessels are also required to prepare ICCAT bluefin tuna catch documents (BCDs) provided by the FAJ for landing and transshipping in the designated ports.

###### ii) Fishing year

FAJ has set the "Fishing Year (August to July)" for the of proper quota management of bluefin tuna, swordfish, blue marlin, white marlin and bigeye tuna. The 2012 quotas for these tunas are applied to the 2012 Fishing Year which starts on August 1, 2012 and ends on July 31, 2013.

##### 3.1.4 The number of fishing vessels

The FAJ has submitted the list of all the tuna fishing vessels which have been licensed to fish under the ICCAT Convention according to its relevant recommendations.

Since 1998, the FAJ has limited the number of vessels actually fishing for bigeye tuna in the Convention area to 245, by means of the mandatory check in/out reporting system via radio as well as the VMS based on the 2004 recommendation on the bigeye tuna conservation measures for fishing vessels larger than 24 meters length overall. Since 2005, the limit of the number of vessels has been reduced to 235 in accordance with Resolution 05-03. Since 2012, FAJ has issued specific authorization to 245 vessels 20 meters length overall (LOA) or greater allowed to fish bigeye and/or yellowfin tunas in the Convention area in accordance with Recommendation 11-01.

Furthermore, since the TAC and allocations for eastern Atlantic bluefin tuna have been reduced in accordance with Recommendations 08-05 and 09-06, the government of Japan appropriated 4.2 million dollars for further reduction of the capacity of its longline fishing vessels authorized to fish for eastern Atlantic bluefin tuna. As a result, the number and the GRT of authorized vessels in 2011 fishing year have been reduced to 22 and 9,940 respectively.

### *3.2 Minimum size limits*

In accordance with ICCAT Recommendations, the FAJ has prohibited the catch of undersized fish with an exemption of a certain percentage of tolerance, by Ministerial Order. The catch prohibition of undersized bluefin tuna was established by a Ministerial Order on April 2, 1975 and the FAJ amended this Ministerial Order several times to implement the ICCAT Recommendations such as the size limits for bigeye, swordfish, etc. The latest amendment of this order was in August of 2011 to implement the 2010 Recommendations on bluefin size limits.

### *3.3 Time and area closure*

The FAJ has prohibited Japanese longline vessels from operating in the Mediterranean from June 1 to December 31 by the Ministerial Order in accordance with the ICCAT Recommendation. This closure for bluefin tuna fishery has been extended to the east Atlantic Ocean with the exception of the area delimited by west of 10°W and north of 42°N, where such fishing has been prohibited from 1 February to 31 July, in accordance with Recommendations 10-04.

### *3.4 National Observer Program*

Based on the relevant ICCAT Recommendations, the FAJ implemented a national observer program of vessels operating in the North Atlantic. For 2010, the national observer program covered 45.5% of the total number of fishing vessels fishing for bluefin tuna in the North Atlantic Ocean in accordance with the 2010 East Atlantic and Mediterranean bluefin tuna Recommendation. Similarly, the program covered about 11.3% of the total number of fishing vessels operating in the entire Atlantic Ocean in accordance with the Recommendation 04-01 on a multi-year conservation and management program for bigeye tuna and with the Recommendation 10-10 regarding Observer program.

### *3.5 Prohibition of import of Atlantic bluefin tuna, swordfish and bigeye tuna*

Japan has prohibited the import of Atlantic bigeye tuna and its products in any form from Bolivia and Georgia since July 10, 2003 and July 28, 2004, respectively, in accordance with the relevant ICCAT Recommendations.

Japan has lifted prohibition the import of Atlantic bigeye tuna and its products in any form from Bolivia and Georgia in 2012 based on the Recommendations 11-19.

### *3.6 Implementation of the ICCAT Bluefin Tuna Statistical Document (BTSD) Program and Catch Document Scheme (CDS)*

From September 1, 1993, the Japanese government started collecting BTSDs for frozen product in accordance with the 1992 Recommendation. In addition, from June 1, 1994, the Japanese government started collecting BTSDs for fresh product in accordance with the 1993 Recommendation.

From July 28, 2004, the Japanese government started collecting information on farmed bluefin tuna product in accordance with the 2003 Recommendation.

From June 4, 2008, the Japanese government started collecting Bluefin Tuna Catch Documents (BCDs) for all bluefin tuna products in accordance with the 2007 Recommendation.

The FAJ has annually reported the data collected under the program to the ICCAT Secretariat.

### *3.7 Implementation of the ICCAT Bigeye Tuna Statistical Document (BETSD) Program*

From July 1, 2002, the Japanese government started collecting BETSDs for frozen product in accordance with the 2001 Recommendation.

The FAJ has bi-annually reported the data collected under the program to the ICCAT Secretariat.

### *3.8 Implementation of the ICCAT Swordfish Statistical Document (SWOSD) Program*

From January 1, 2003, the Japanese government started collecting SWOSDs for fresh and frozen product in accordance with the 2001 Recommendation.

The FAJ has reported the data collected by the program to the Executive Secretary on a biannual basis.

### *3.9 Implementation of the Positive Listing Measure*

Based on the 2002 Recommendation to establish an ICCAT record of fishing vessels larger than 24 meters in length overall (LSFVs) authorized to operate in the Convention area, the Japanese government started the Positive Listing Measure from November 14, 2003. Based on the 2009 Recommendation, the list was amended to cover vessels larger than 20 m from June 1, 2010. The species and product type currently covered by the measure are frozen bluefin tuna, frozen bigeye tuna and frozen swordfish. If there were tunas caught by LSFVs not entered into the record, the import is not permitted by the Japanese government.

The Japanese government has implemented the Positive Listing Measures on Farming Facilities based on the 2003 Recommendation since November 22, 2004. For East Atlantic and Mediterranean bluefin tuna, the Japanese government has submitted a list of vessels authorized to fish for bluefin tuna based on the Recommendation 10-04.

### *3.10 Conservation of silky sharks*

Based on the Recommendation 11-08, JAPAN has prohibited Japanese longline vessels from retaining on board transshipping or landing any part or whole carcass of silky shark by Ministerial order. And JFA has implemented landing inspection for sharks.

## ***Section 4: Inspection Schemes and Actives***

### *4.1 Assignment of patrol vessels*

Since 1976, Japan has dispatched patrol vessels to the North Atlantic and/or the Mediterranean every year for a certain period of time to monitor and inspect tuna fishing vessels. However, in last year JAPAN could not dispatched patrol vessels because of the Tohoku earthquake. In 2012, JFA would resume patrol.

### *4.2 Inspection of landing at Japanese ports*

All Japanese tuna fishing vessels which land their catch at any Japanese port must report their landing plans in advance. The FAJ randomly inspects landings of those Japanese longline vessels to enforce the catch quotas and minimum size limit. For Atlantic bluefin tuna, 100% inspection of landings is implemented.

### *4.3 Management of transshipment*

A prior permission from the AJ is required for Japanese tuna longline vessels to transship tuna or tuna products to reefers at foreign ports and at sea. Transshipment at sea is allowed only to the carriers with an observer placed

on board by the Regional Observer Programs. Transshipment at sea of Atlantic bluefin tuna has been prohibited by Ministerial order, upon entry into force of Resolution 10-04 on June 17, 2009. The FAJ monitors the weight by species, the time and place of transshipments, and conducts random inspection of landing at Japanese ports when longline vessels or reefers return to Japanese ports.

## ***Section 5: Other Activities***

### *5.1 Annual catch statistics*

Each longline vessel flying the Japanese flag and licensed to engage in tuna fisheries by the Minister for Agriculture, Forestry and Fisheries is legally required to submit a catch report to the Minister every ten-day period to the FAJ. Submission of this report is established by a Ministerial Order of January 22, 1963 and as amended on July 25, 2008. The above-mentioned catch report includes the daily information of the vessel's noon position, the number and weight of the catch by species, the quantities of gear used, surface water temperature, etc. The information on the catch report submitted is examined and compiled into the database by NRIFSF.

### *5.2 Collection of biological data collected on board longline vessels*

The information necessary for stock analyses, such as length, weight and sex of fish caught, is collected by fishermen as a voluntary measure.

### *5.3 Measures to reduce incidental catch of sea turtle, seabirds and sharks*

The FAJ issued an administrative guidance and conducted educational programs for fishermen to use fishing gears and other tools to reduce incidental catch of sea turtle, seabirds and sharks.

For sea turtles, the FAJ is conducting a pilot program to use circle hooks to reduce the incidental catch of sea turtles by Japanese longline vessels. When Japanese longline fishing vessels are operating in the high latitudes of the southern hemisphere where interactions between seabirds often occur, it is required to use a tori-pole and other devices to avoid seabirds from approaching the hooks and bait in accordance with the relevant measures adopted by regional tuna fisheries management organizations. In other areas, fishermen are also encouraged to use the device. In 2001, Japan established the National Plan of Action (NPOA) for the Conservation and Management of Sharks and for Reducing Incidental Catch of Seabirds in Longline Fisheries.

### *5.4 Collection of the trade data*

The Ministry of Finance collects trade data, such as quantity, value and export country, etc. of imported tuna products. Such tuna trade data is collected by 31 items including species, fresh/frozen and type of product.

### *5.5 Effort limitation*

The numbers of Japanese tuna longline vessels authorized to fish for bluefin tuna in the western Atlantic and in the eastern Atlantic including the Mediterranean have been limited to 5 and 22 vessels, respectively, in 2011 fishing year 5 and 20 vessels in 2012 fishing year. Furthermore, FAJ requires all the longline vessels operating in the northern part of the East Atlantic Ocean to submit to FAJ an advance notice of their planned operations, which enables FAJ to instruct the relevant fishing vessels to shift fishing ground, if necessary. The number of longline vessels fishing for bigeye and/or yellowfin tunas has been limited 245 in 2012 in accordance with Recommendation on a multi-year conservation and management program for bigeye and yellowfin tunas.

### *5.6 Restriction of re-flagging of vessels*

No Japanese large-scale tuna longline vessel has been authorized to operate on the high seas unless the government of Japan issues a license. No Japanese vessel can escape from the FAJ's control even when a vessel is conducting fishing operation in waters far distant from Japan, since a Japanese port is designated as its operational base and all the products are brought into Japan. The export and lease of Japanese longliners and purse seiners are strictly and closely controlled by the FAJ to avoid their use for operations which may diminish the effectiveness of international conservation measures.

### *5.7 Legislation for the enhancement of the conservation and management of tuna stocks*

A new law was enacted in June 1996 with the objective of implementing measures necessary to enhance the conservation and management of tuna stocks and to develop international cooperation for the conservation and management of tuna stocks. This law establishes that the government of Japan may restrict the imports of tuna and tuna products from the foreign country that is recognized by the relevant international organization not to rectify its fishermen's activity and thus is diminishing the effectiveness of the conservation and management measures adopted by the international organizations.

The objective of this law is to support and reinforce ICCAT activities, ensuring the strength of tuna resource conservation and the stability of tuna supply.

Since November 1999, the FAJ has implemented a mandatory reporting system, based on this law, to obtain more information on activities of IUU vessels whose products enter the Japanese market. All importers and persons in charge of carrier vessels are required to report detailed information on the fishing vessels that caught and transport their tuna.

### *5.8 Scrapping of IUU vessels*

Implementing the Japan-Chinese Taipei Action Programs to eliminate the IUU fishing vessels, the Japanese government budgeted for scrapping the IUU tuna longline vessels of Japanese origin during 2001-2003. The total amount of the budget for this three-year program was about US\$ 28 million (3.3 billion Japanese yen). Forty-three (43) IUU vessels were scrapped by the end of 2003.

### *5.9 Legalization of IUU vessels*

In accordance with the 2002 ICCAT Resolution concerning cooperative actions to eliminate illegal, unreported and unregulated fishing activities by large-scale tuna longline vessels (LSTLVs), Japan consulted with Vanuatu and Seychelles, as well as Chinese Taipei and established the following new measures in order to dispose the remaining IUU tuna longline fishing vessels, and 69 IUU LSTLVs have been committed to comply with the following cooperative management schemes:

- Cooperative management schemes to legalize these vessels have been concluded between the fisheries authorities of the flag States (Seychelles and Vanuatu) and Japan, and the vessels participating in the scheme were placed under proper management.
- Measures to have the fishing vessels in question obtain Japan's licenses for large-scale longline vessels and freeze those licenses, was taken for the purpose of reinforcing and complementing the cooperative management scheme mentioned above as well as preventing the increase of overall fishing capacity.

Those 69 vessels no longer operate in the Atlantic.

### *5.10 Establishment of OPRT*

The Organization for Promotion of Responsible Tuna Fisheries (OPRT) was established in December 2000 in Tokyo, Japan. The organization consists of the representatives from fishermen, importers, distributors, processors and consumers. One of the main tasks of OPRT is to compile and analyzes the import data of tunas and provide them to OPRT member flag states as feedback for their verification of the reported catch data. The OPRT's other task is to inform Japanese retailers and consumers of the products caught by IUU fishing vessels. The representatives from the fishermen of Japan and Chinese Taipei are the founding members of OPRT. Fishermen of Korea, Philippines, Indonesia, China, Ecuador, Seychelles, Fiji, Micronesia Malaysia, Tuvalu, Kiribati, Marshall Islands and Vanuatu have joined the OPRT.

### *5.11 Access Agreement*

There is no intergovernmental access agreement regarding Japanese fishing vessels operation in ICCAT convention area without chartering arrangement and some Japanese fishing vessels has been operating in EEZ of coastal CPCs with civilian pact. However, to disclose operating information with civilian pact is not consistent with Japanese domestic law, JFA could not provide that information.



**Table 1.** Annual number of Japanese tuna boats operated in the Atlantic and Mediterranean, 1981-2011.

Year	Longline		Purse seine	Pole-and-line	
	Number of boats	Fishing days (sets in 100)	Fishing days per boat	Number of boats	
1981	320	297	93	-	10
1982	269	307	114	1	7
1983	182	175	96	1	4
1984	212	252	119	1	2
1985	205	279	136	2	-
1986	190	208	109	2	-
1987	146	172	118	2	-
1988	183	260	142	2	-
1989	239	345	144	1	-
1990	235	359	153	1	-
1991	242	339	140	2	-
1992	248	292	118	2	-
1993	307	399	130	-	-
1994	232	380	164	-	-
1995	253	385	152	-	-
1996	291	471	162	-	-
1997	276	414	150	-	-
1998	250	403	161	-	-
1999	229	339	148	-	-
2000	208	355	171	-	-
2001	199	276	139	-	-
2002	185	243	131	-	-
2003	198	319	161	-	-
2004	199	323	163	-	-
2005	193	290	150	-	-
2006	173	252	145	-	-
2007	127	254	200	-	-
2008	154	283	184	-	-
2009	123	222	180	-	-
2010	111	220	198	-	-
2011*	103	197	191	-	-
average (2001 - 2010)	166	268	165	-	-
2011 / average	62%	73%	116%	-	-

\* 2011 values are preliminary.

**Table 2.** Catches (t) of tuna and tuna-like fishes taken by the Japanese longline fishery, 1981-2011. Grand total includes sharks but excludes discards.

Year	Bluefin	Southern bluefin	Albacore	Bigeye	Yellowfin	Swordfish	White marlin	Blue marlin *1	Black marlin	Sailfish *2	Spearfish	Others	Sub-total	Sharks *4	Bluefin discards	Swordfish discards	Grand Total (including sharks but excluding discards)
1981	4,386	2,506	2,298	21,044	4,145	2,233	143	468		94		319	37,636				
1982	3,826	1,135	1,350	32,867	6,062	3,728	111	1,132		173		410	50,794				
1983	3,997	505	1,318	15,141	2,069	1,899	44	440		69		114	25,596				
1984	3,246	1,636	800	24,310	3,967	3,789	76	833		97		342	39,096				
1985	2,523	1,468	1,467	31,602	5,308	4,323	126	1,090		122		468	48,497				
1986	1,664	389	1,209	22,801	3,404	2,660	129	508		99		378	33,241				
1987	2,140	1,120	851	18,575	3,364	2,294	134	438		43		341	29,300				
1988	2,536	548	1,128	31,664	5,982	4,055	144	823		79		366	47,325				
1989	2,523	625	1,214	39,419	6,971	5,593	146	1,555		78		390	58,514				
1990	2,186	1,202	1,324	35,024	5,919	7,307	126	1,216		88		538	54,930				
1991	3,754	1,331	1,346	29,489	4,718	4,688	121	905		88		443	46,883				
1992	3,985	525	1,048	34,128	3,715	3,541	248	1,017		43		265	48,515				
1993	3,858	1,688	951	35,053	3,096	6,386	82	928		60		815	52,917				
1994	3,038	595	1,157	38,502	4,782	4,763	92	1,524	6	53	38	513	55,063	3,221			58,284
1995	5,171	1,409	758	34,223	5,046	3,563	55	1,366	1	52	28	826	52,498	2,149			54,647
1996	4,542	1,219	901	33,171	5,251	3,795	112	1,679	2	50	29	783	51,534	1,364			52,898
1997	3,498	301	838	26,489	3,538	2,765	58	1,349	1	36	31	415	39,319	1,304	8		40,631
1998	4,276	926	884	25,601	5,413	2,518	50	1,067	2	50	40	801	41,628	1,524	-	-	43,152
1999	3,436	946	1,027	21,833	3,405	1,869	40	790	0	26	44	685	34,101	1,001	-	-	35,102
2000	3,523	1,205	1,241	24,605	4,061	954	83	883	2	39	40	734	37,370	696	-	598	38,066
2001	3,083	376	1,467	18,087	2,692	686	56	335	1	9	23	313	27,128	675	-	567	27,803
2002	3,501	1,152	942	15,306	2,105	833	16	267	2	23	28	825	25,000	898	-	319	25,897
2003	3,068	1,952	1,002	20,528	3,049	956	33	459	1	32	65	794	31,938	1,089	-	263	33,027
2004	3,123	92	1,402	18,509	6,260	1,263	36	539	2	75	77	415	31,794	1,464	-	0	33,258
2005	3,241	354	1,648	14,026	4,247	1,189	34	442	1	72	98	801	26,153	1,692	-	0	27,845
2006	2,828	303	1,097	15,735	4,643	1,746	39	490	2	67	74	685	27,708	2,166	-	0	29,875
2007	2,355	25	527	17,993	9,037	3,046	21	920	3	145	61	735	34,867	3,093	-	0	37,961
2008	2,922	915	1,772	16,782	6,276	2,545	34	1,028	1	232	99	312	32,916	4,757	-	0	37,674
2009	2,085	228	1,210	16,395	4,994	2,118	43	822	3	137	85	531	28,649	3,312	-	0	31,962
2010	1,508	126	1,498	15,205	4,580	2,376	41	731	2	151	106	958	27,283	3,265	-	0	30,548
2011*3	1,666	172	1,688	12,524	5,169	1,636	35	436	3	134	48	336	23,848	3,394	-	-	27,241
average (2001 - 2010)	2,771	552	1,256	16,857	4,788	1,676	35	603	2	94	72	637	29,344	2,241	-	-	31,585
2011*3 / average	60%	31%	134%	74%	108%	98%	100%	72%	146%	142%	67%	53%	81%	151%			86%

\*1 Blue marlin and black marlin were not separated until 1993.  
 \*2 Sailfish and spearfish were not separated until 1993.  
 \*3 2011 values are preliminary.  
 \*4 Sharks included porbeagle, blue shark, shortfin mako and other sharks

**Table 3.** Stock or management unit area breakdown of Task I catches (t) taken by the Japanese longline fishery for 2010 and 2011.

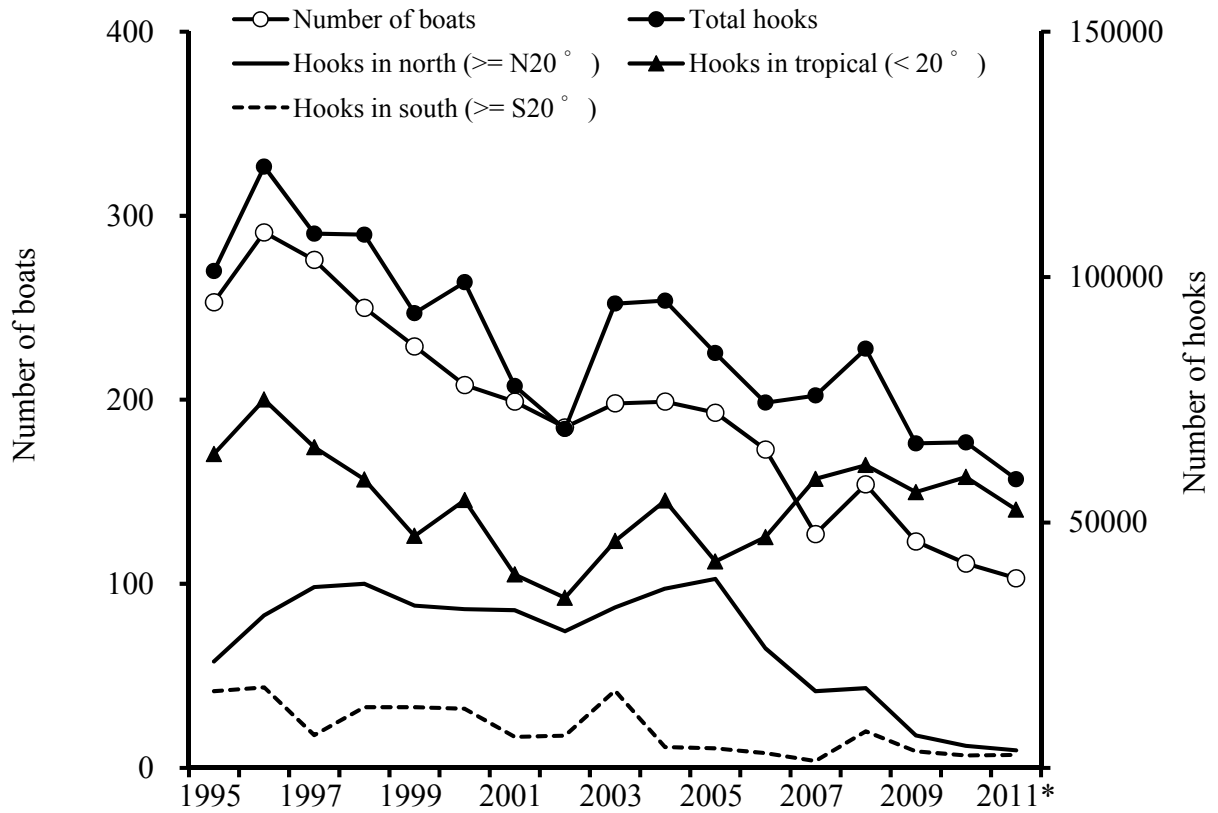
2010											
SPECIES	WEST	EAST	NORT	SOUTH	NE	NW	SE	SW	MEDI	ALL	TOTAL
bluefin	353	1,155							0		1,508
southern bluefin					0	0	125	1			126
albacore			525	973							1,498
bigeye										15,205	15,205
yellowfin	1,539	3,041									4,580
swordfish *1			1,062	1,314							2,376
blue marlin			31	10							41
back marlin			460	272							731
white marlin					0	0	1	0			2
sailfish	36	115									151
spearfish	57	49									106
skipjack	0	1									1
porbeagle					2	11	6	2			21
blue shark					1,480	283	968	192			2,924
shortfin mako					72	44	88	15			220

\*1 Discards were not included

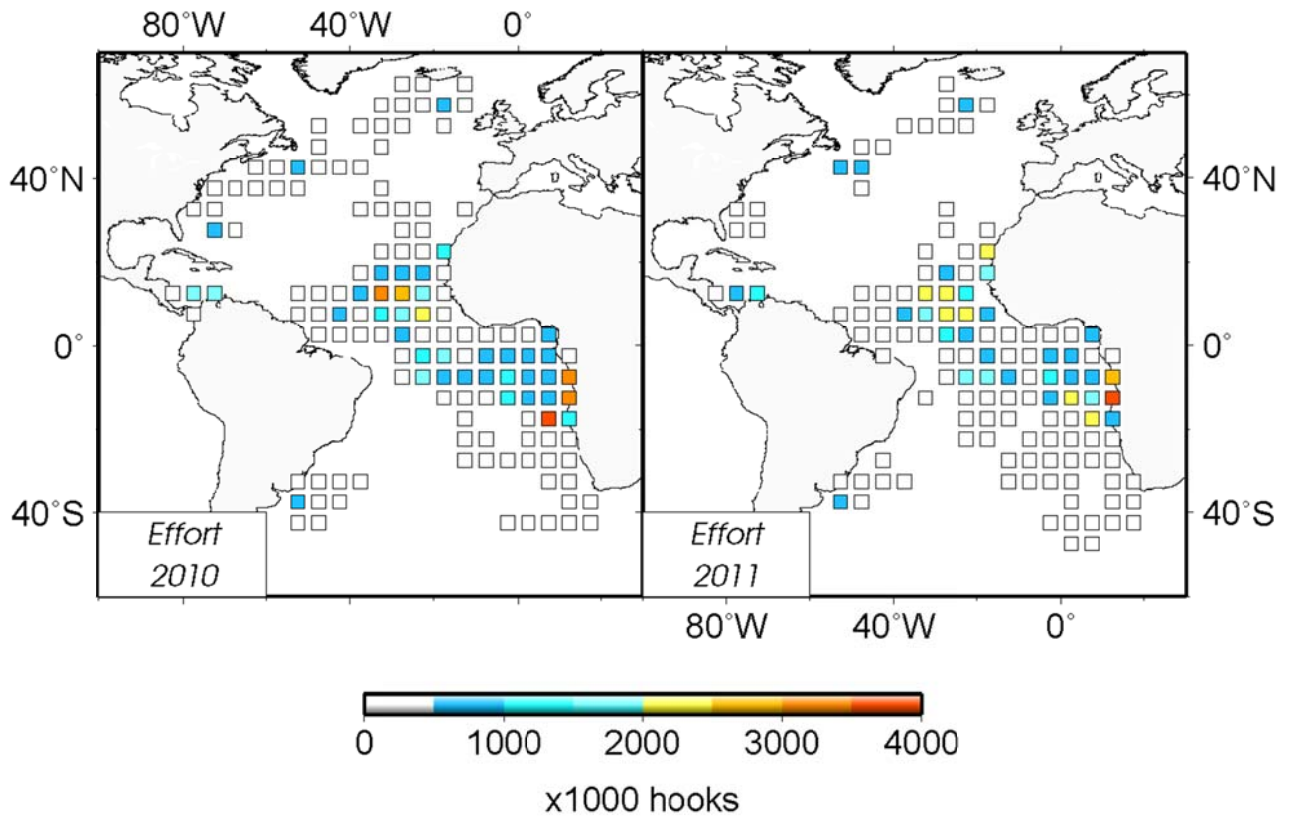
2011 <sup>*2</sup>											
SPECIES	WEST	EAST	NORT	SOUTH	NE	NW	SE	SW	MEDI	ALL	TOTAL
bluefin	578	1,089							0		1,666
southern bluefin					0	0	172	0	0		172
albacore			494	1,194					0		1,688
bigeye									0	12,524	12,524
yellowfin	1,421	3,748							0		5,169
swordfish *1			723	912					0		1,636
blue marlin			24	12					0		35
back marlin			259	177					0		436
white marlin					0	0	2	0	0		3
sailfish	13	120							0		134
spearfish	10	38							0		48
skipjack	0	1							0		1
porbeagle					1	17	7	0	0		25
blue shark					1,236	471	1,288	136	0		3,130
shortfin mako					54	31	105	16	0		206

\*1 Discards were not included

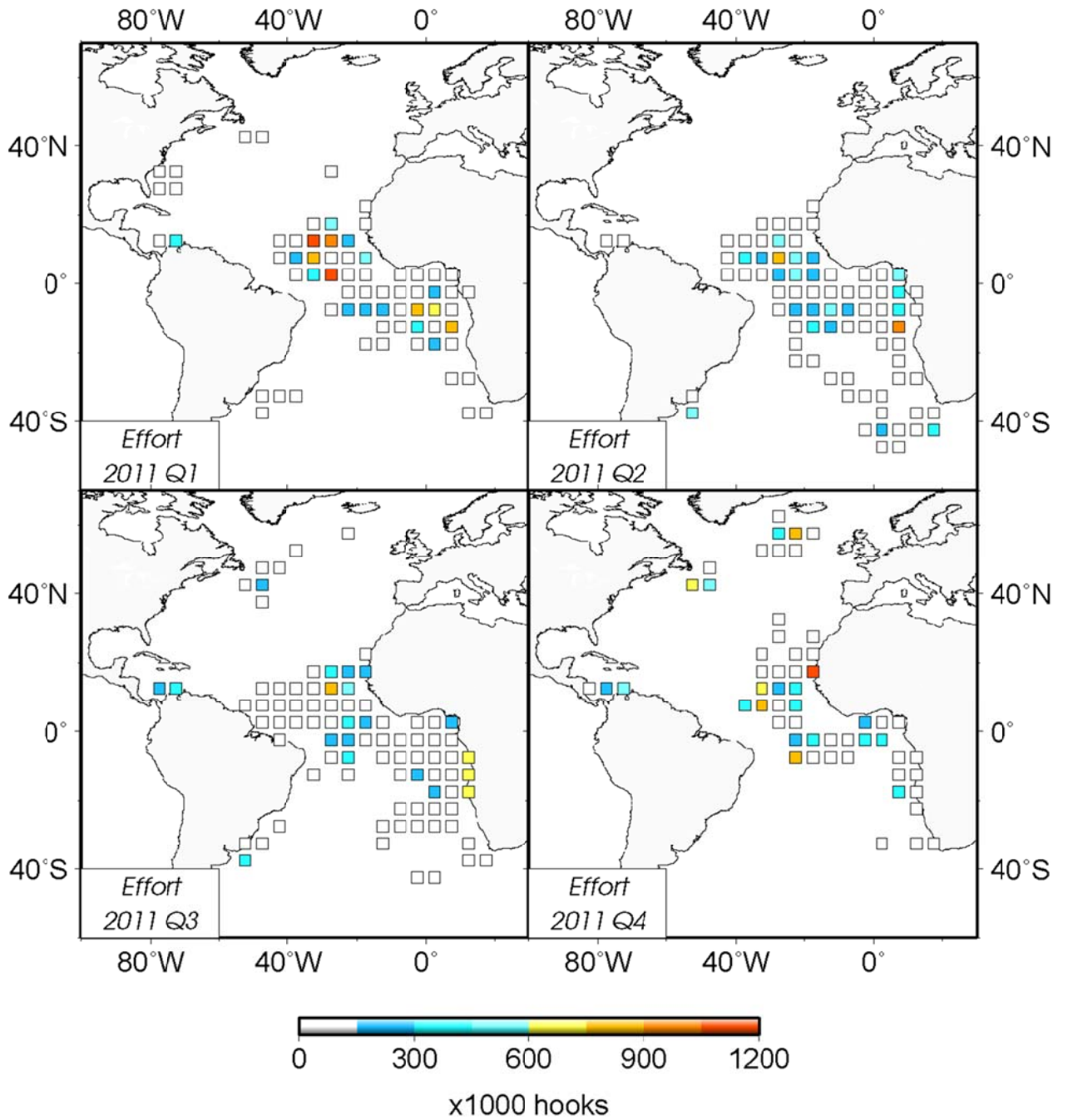
\*2 2011 values are preliminary



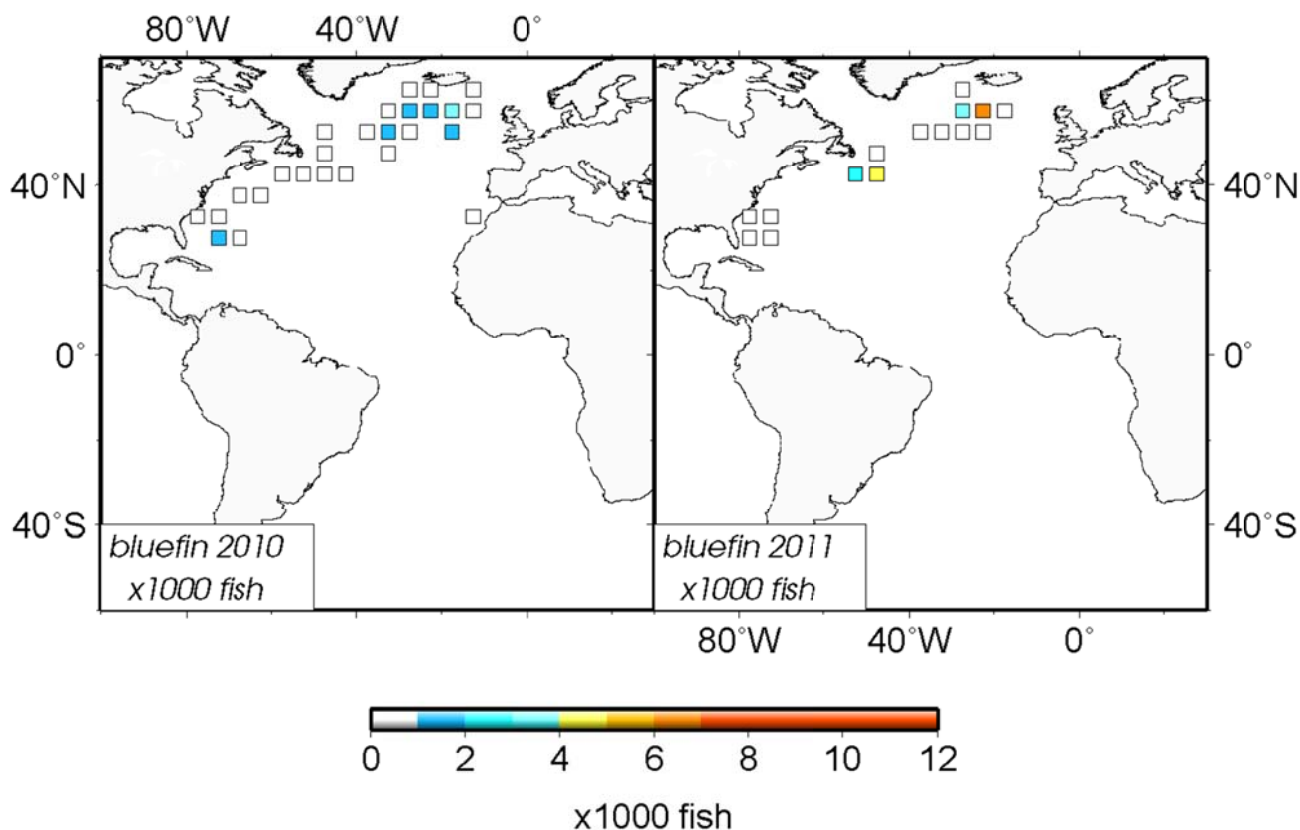
**Figure 1.** Trends in fishing effort (in number of boats operated and number of hooks used) exerted by the Japanese longline fishery, 1995-2011. Number of hooks are also presented by area (north ( $\geq 20^\circ$ N), tropical ( $20^\circ$ N- equatorial -  $20^\circ$ S) and south ( $\geq 20^\circ$  S)).



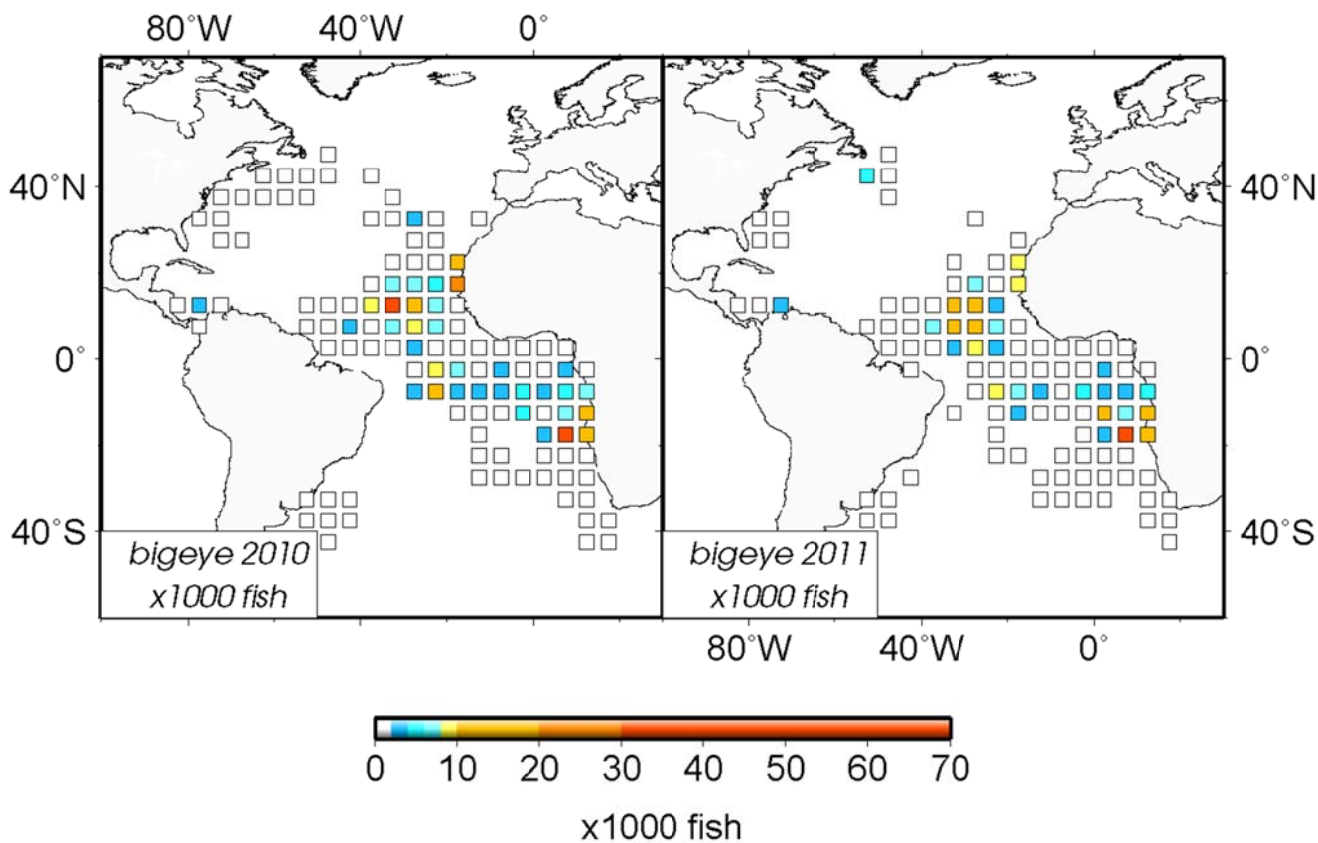
**Figure 2.** Geographic distribution of Japanese longline effort (in number of hooks) in the Atlantic, for 2010 (left) and 2011 (right).



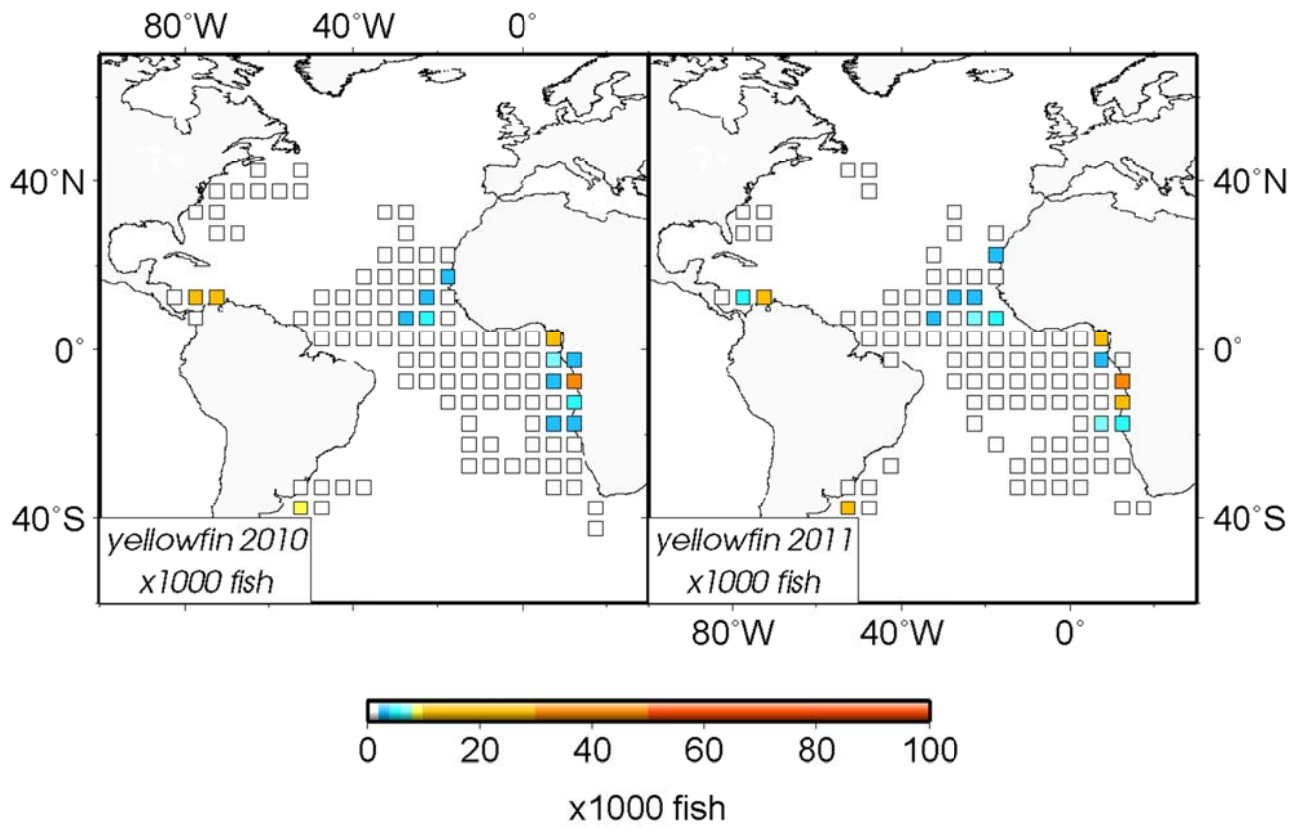
**Figure 3.** Quarterly distribution of Japanese longline effort (in number of hooks) in the Atlantic for 2011.



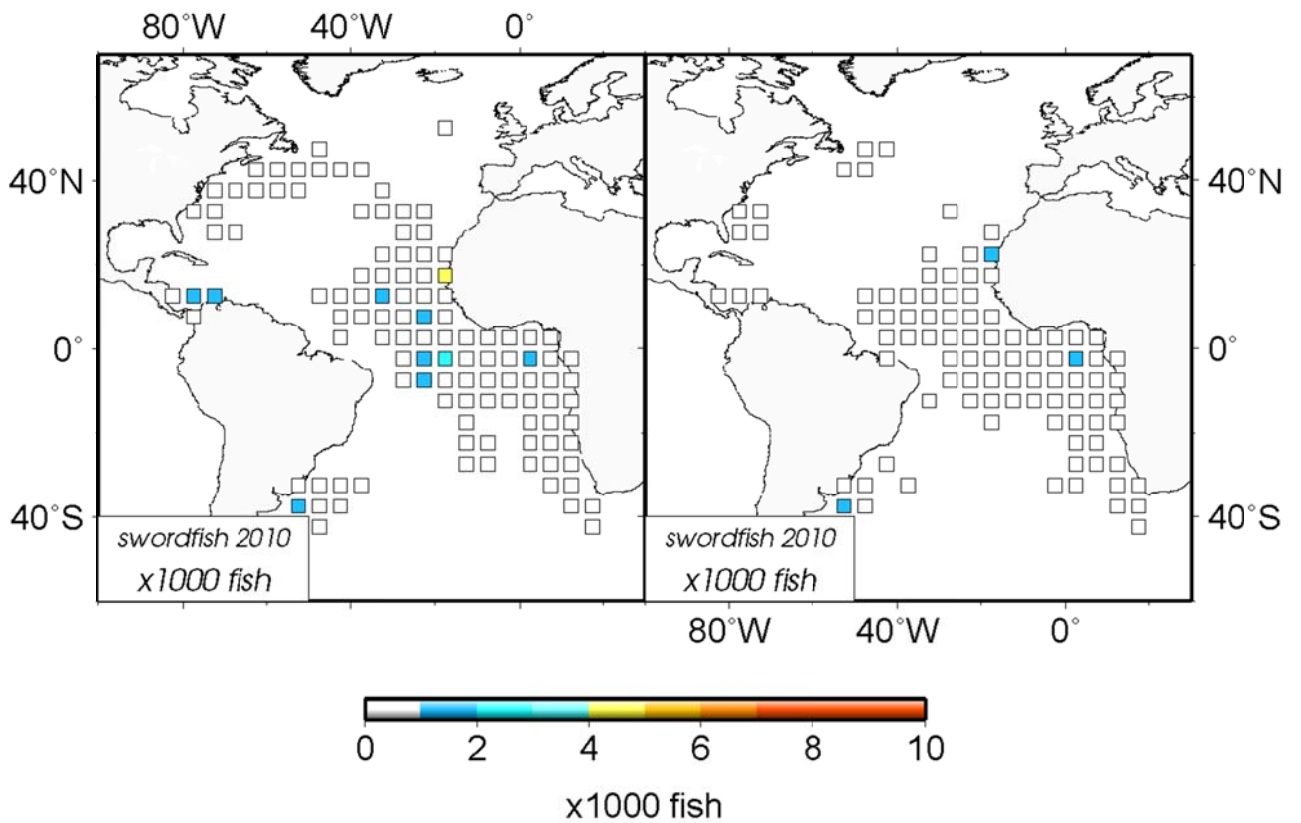
**Figure 4.** Geographic distribution of the bluefin tuna catch (number) in the Atlantic for 2010 (left) and 2011 (right).



**Figure 5.** Geographic distribution of the bigeye tuna catch in number in the Atlantic for 2010 (left) and 2011 (right).

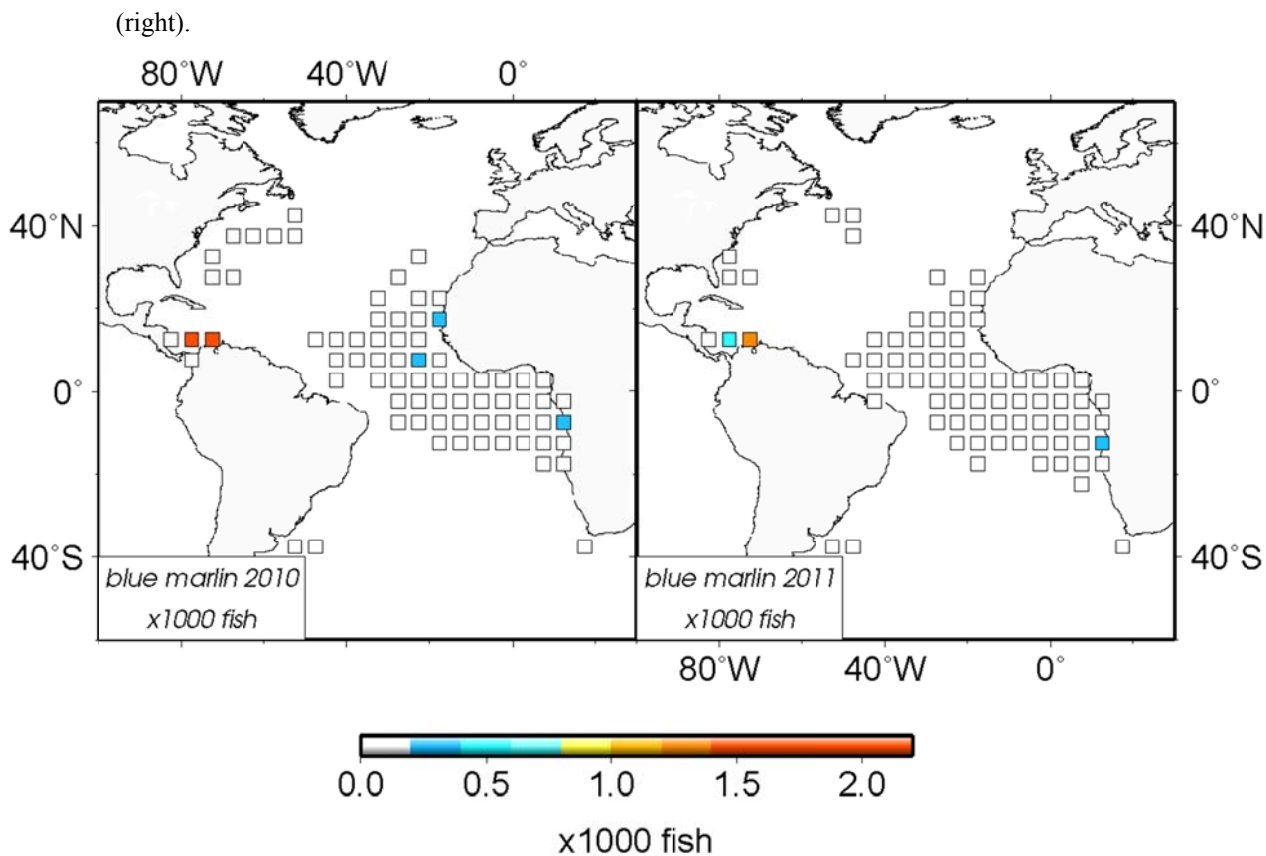


**Figure 6.** Geographic distribution of the yellowfin tuna catch (number) in the Atlantic for 2010 (left) and 2011 (right).

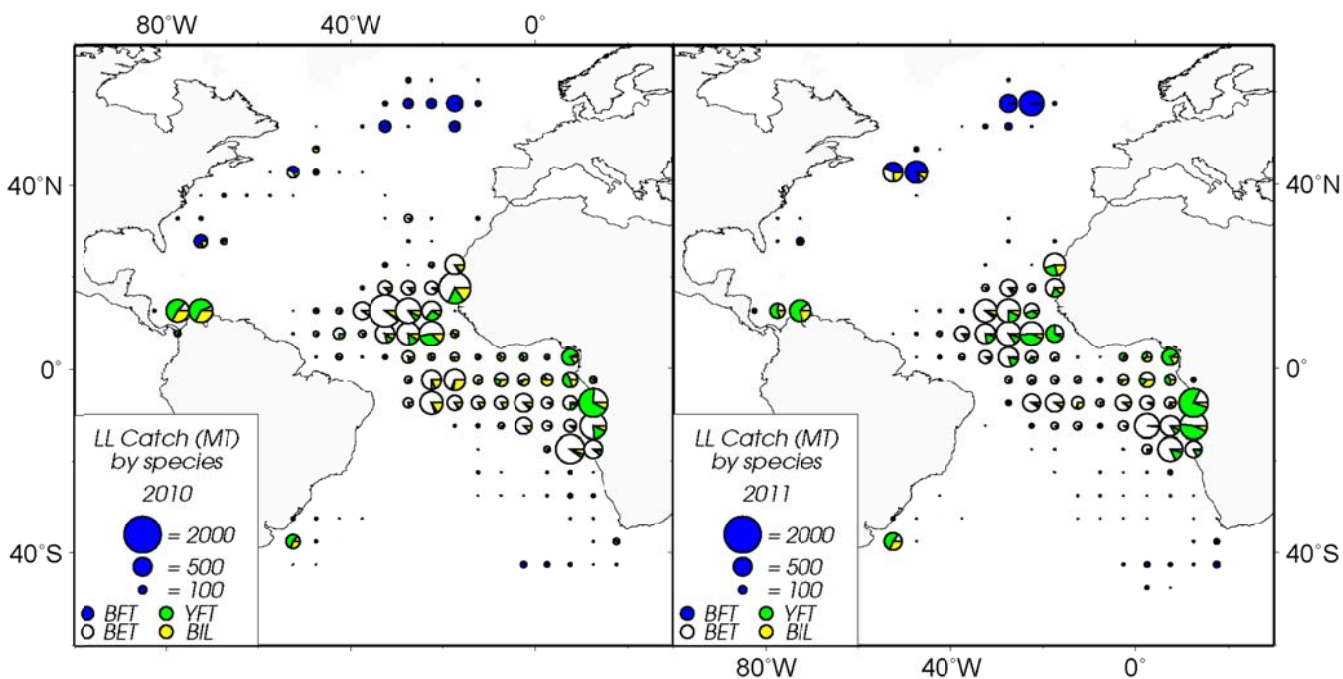


**Figure 7.** Geographic distribution of the swordfish catch (number) in the Atlantic for 2010 (left) and 2011 (right).





**Figure 8.** Geographic distribution of the blue marlin catch (number) in the Atlantic for 2010 (left) and 2011 (right).



**Figure 9.** Species composition in the Japanese longline catch in weight for 2010 (left) and 2011 (right). Species are categorized into five groups: BFT (bluefin tuna), BET (bigeye tuna), YFT (yellowfin tuna) and BIL (swordfish and all billfishes).

**ANNUAL REPORT OF KOREA  
RAPPORT ANNUEL DE LA CORÉE  
INFORME ANNUAL DE COREA**

SUMMARY

*The annual catch of tuna and tuna-like species by the Korean large-scale tuna longline vessels and its one purse seiner in the ICCAT area has increased and ranged from 3,589 to 4,870 metric tons (t) with an average of 4,116t from 2007 to 2011. The major species are bigeye tuna (59.65%), yellowfin tuna (13.95%), albacore (5.07%) and bluefin tuna (3.47%) during the recent five years. In 2011, 16 Korean longliners and one purse seiner (home based in Malta) operated in the ICCAT area and caught a total of 4,614 t, which slightly increased compared to the amount of catch of the previous year. One purse seiner targeting bluefin tuna had no catch in 2011. Usually a fishing trip of longline vessels last more than 20 months so that the exact catch statistical data would be completed later than we had expected. Therefore, the reported Korean catch data for 2011 is somewhat provisional. However, since 2010 the logsheet containing much information has been reported by electronic format submission partially as soon as fishing operation ended. Also information on bycatch in detail such as each shark species since 2010 would be submitted because the Korean government reinforced the data collection system through training and education on distant sea fishermen and national scientific observers. With this effort, the Korean government made its Notice which is compulsory for fishermen to report their catch of main target species with incidental species as well as discard data (dead and alive) since July 2012. With regard to the management implementation on conservation and management measures adopted by the ICCAT, the Korean government had initiated a set of quota management mechanism on 9 March 2009 and 9 December 2009. In particular, all Korean longline vessels operating in the ICCAT areas had been prohibited from retention on board of swordfish regardless of dead or alive until 2011 fishing season. In case of bigeye tuna, the Korean government has allocated bigeye tuna to each fishing company not to exceed its catch limit. To improve ICCAT data collections for direct and incidental catch species, the Korean government reinforced its data reporting regulation though revising the format of logsheet and introduction of electronic reporting system. The Korean Government established its domestic legislation called "Distant Sea Fisheries Act"(DSFA) in March 2008 to implement all compulsory recommendations and resolutions adopted by International Fisheries Management Organizations such as ICCAT, IOTC, CCSBT, etc. Through this Act, fishermen who do not comply with recommendations adopted ICCAT, they are forced to be punished either fine or administrative sanctions like withdraw of their fishing license depending on the level of noncompliance.*

RÉSUMÉ

*Les prises annuelles de thonidés et d'espèces apparentées des grands palangriers thoniers et du senneur sous pavillon coréen dans la zone relevant de l'ICCAT ont augmenté, passant de 3.589 à 4.870 t avec une moyenne de 4.116 t de 2007 à 2011. Au cours des cinq dernières années, les principales espèces capturées étaient le thon obèse (59,65%), l'albacore (13,95%), le germon (5,07%) et le thon rouge (3,47%). En 2011, 16 palangriers et un senneur sous pavillon coréen (basé à Malte) opéraient dans la zone ICCAT, capturant un total de 4.614 t, ce qui représente une légère augmentation par rapport aux prises de l'année antérieure. Un senneur ciblant le thon rouge n'a pas réalisé de capture en 2011. De manière générale, la sortie de pêche des palangriers dure plus de 20 mois, de sorte que d'autres données statistiques exactes de prise devraient être complétées plus tard que ce que nous escomptions. Les données de la prise déclarée coréenne au titre de 2011 revêtent dès lors un caractère provisoire. Toutefois, depuis 2010, les carnets de pêche contenant un grand nombre d'informations ont été présentés partiellement en format électronique dès la fin de l'opération de pêche. De même, des informations détaillées sur les prises accessoires, dont celles sur chaque espèce de requin depuis 2010, devraient être soumises étant donné que le gouvernement coréen a renforcé le système de collecte de données par le biais de formations et de cours impartis aux pêcheurs hauturiers et aux observateurs nationaux scientifiques. Avec cet effort, le gouvernement coréen a publié un avis selon lequel les pêcheurs sont tenus de déclarer leurs données de capture d'espèces ciblées, de prises accessoires et de rejets (morts et vivants) depuis juillet 2012. En ce*

*qui concerne la mise en œuvre des mesures de conservation et de gestion adoptées par l'ICCAT, le gouvernement coréen a mis en place un ensemble de mécanismes de gestion des quotas le 9 mars 2009 et le 9 décembre 2009. Il a notamment été interdit à tous les palangriers coréens opérant dans les zones relevant de l'ICCAT de retenir à bord de l'espadon, qu'il soit mort ou vivant, jusqu'à la saison de pêche 2011. En ce qui concerne le thon obèse, le gouvernement coréen a alloué des quotas de pêche de thon obèse à chaque société de pêche ne pouvant pas dépasser leur limite de capture. Afin d'améliorer les collectes de données des prises d'espèces ciblées et des prises accessoires, le gouvernement coréen a renforcé sa réglementation en matière de déclaration des données en révisant le format des carnets de pêche et en introduisant un système de déclaration électronique. En mars 2008, le gouvernement coréen a adopté une législation nationale (la loi coréenne sur la pêche hauturière) afin de mettre en œuvre toutes les recommandations et résolutions contraignantes adoptées par des organisations internationales de gestion des pêcheries telles que l'ICCAT, la CTOI, la CCSBT, etc. En vertu de cette loi, les pêcheurs qui ne respectent pas les recommandations adoptées par l'ICCAT seront sanctionnés soit par une amende ou une sanction administrative, telle que le retrait de leur permis de pêche, en fonction du niveau de non-application.*

#### RESUMEN

*La captura anual de túnidos y especies afines de los grandes palangreros atuneros coreanos y de su único cerquero en la zona ICCAT se ha incrementado y osciló entre 3.589 y 4.870 t, con un promedio de 4.116 t desde 2007 hasta 2011. Durante los cinco últimos años las principales especies capturadas han sido patudo (59,65%), rabil (13,95%), atún blanco (5,07%) y atún rojo (3,47%). En 2011, 16 palangreros y un cerquero (con base en Malta) coreanos operaron en la zona de ICCAT y capturaron un total de 4.614 t, lo que supone un ligero aumento en comparación con la captura del año anterior. El cerquero que se dirige al atún rojo no obtuvo capturas en 2011. Generalmente, una marea de los palangreros dura más de 20 meses, de tal modo que los datos estadísticos de captura se completarán más tarde de lo que habíamos previsto. Por tanto, los datos de captura comunicados de Corea para 2011 son provisionales. Sin embargo, desde 2010, las hojas de los cuadernos de pesca que contienen mucha información se comunican parcialmente en formato electrónico nada más terminar las operaciones de pesca. Además, a partir de 2010 se presentará información detallada sobre captura fortuita, como por ejemplo para cada especie de tiburón, ya que el Gobierno coreano ha reforzado el sistema de recopilación de datos mediante la formación y capacitación de los pescadores en aguas distantes y de los observadores científicos nacionales. Con este esfuerzo, el gobierno de Corea elaboró su Notificación que establece que es obligatorio para los pescadores comunicar sus capturas de las principales especies objetivo junto con las capturas incidentales así como los datos de descartes (vivos y muertos) desde julio de 2012. En lo que concierne a la implementación de las medidas de conservación y ordenación adoptadas por ICCAT, el Gobierno de Corea implementó una serie de mecanismos de gestión de la cuota el 9 de marzo de 2009 y el 9 de diciembre de 2009. En particular, se ha prohibido a todos los palangreros coreanos que operan en las zonas de ICCAT que retengan a bordo peces espada, vivos o muertos, antes del comienzo de la temporada de pesca de 2011. En el caso del patudo, el Gobierno de Corea ha asignado una cuota de patudo a cada empresa pesquera con el fin de no superar su límite de captura. Para mejorar la recopilación de datos ICCAT para especies de captura objetivo y de captura fortuita, el Gobierno de Corea reforzó su reglamentación de comunicación de datos mediante una revisión del formato de los cuadernos de pesca y la introducción de sistemas electrónicos de comunicación. El Gobierno de Corea estableció su legislación nacional, denominada "Ley de Pesquerías en aguas distantes" (DSFA) en marzo de 2008 para implementar todas las recomendaciones y resoluciones vinculantes adoptadas por las Organizaciones Regionales de Ordenación Pesquera, como ICCAT, IOTC, CCSBT, etc. Mediante esta Ley, los pescadores que no cumplen las recomendaciones adoptadas por ICCAT tienen que ser sancionados mediante multas o sanciones administrativas como la retirada de la licencia de pesca en función de la gravedad de la infracción.*

## **Part I (Information on Fisheries, Research and Statistics)**

### ***Section 1: Annual Fisheries Information***

Korean distant water tuna longline fishery commenced in 1957 in the Indian Ocean and expanded to the Pacific Ocean in 1958 and the Atlantic Ocean in early 1960s. Since then, it has become one of the most important fisheries in Korea together with the domestic fisheries. By early 1970, the tuna catch of the Atlantic Ocean was the highest among other Korean distant water tuna fisheries but has become minor since 1990s. There were two types of Korean gears to fish for tuna and tuna-like species in the Atlantic Ocean which were longline and purse seine. The number of longliners decreased from 29 in 1987 to a few in 2002 but reverted back to 24 with one purse seiner in 2008. From 2010, the number of longliners and their catches have been subject to the ICCAT conservation measures. In recent years, annual catch of tuna and tuna-like species by Korean tuna longliners in ICCAT areas increased from 2,785 in 2006 to 4,614 MT in 2011 (**Table 1**). The major species were bigeye tuna (61.8%), yellowfin tuna (14.4%), and albacore tuna (5.2%).

#### *1.1 Annual trend of catches and number of vessels*

In 2011, 16 Korean longliners were engaged in fishing for tuna and tuna-like species in the Atlantic Ocean (Table 1). The total catches were 4,614 MT, which was an increase by 20.4% compared to the previous year. Of the catches, bigeye tuna, yellowfin tuna and albacore were 60%, 11% and 3%, respectively. Shark species were relatively high of 10% and identified in species (**Table 2**).

#### *1.2 Distribution of fishing grounds*

Korean longliners have mainly operated in the tropical area of the Atlantic Ocean (20°N ~20°S, 10°E~60°W) throughout the year from January to December, mainly targeting bigeye tuna species. In 2011, fishing area was slightly shifted westward, compared to the previous year (**Figure 1**).

### ***Section 2: Research and Statistics***

#### *2.1 Statistical data collection*

Tuna catch statistics of Korea are obtained from two sources of data reports. Korea Overseas Fishing Association (KOSFA) collects total catches by gear types from the Korean tuna industries, which are used as Korea's official total catch. National Fisheries Research and Development Institute (NFRDI) collects logsheet sampling data from vessels. To address the past shortcomings and the ever-increasing data requirement by the RFMOs, necessary improvements have recently made in terms of the types of mandatory data, the area of coverage, submission timeframes and formats, and NFRDI and KOSFA cooperate with each other to provide the data to the government. Also, NFRDI has improved fisheries database systems and data crosschecking systems. With the above improvement, the Distant Water Fisheries Act obliges fishermen to report the catch statistics to NFRDI to improve ICCAT TASK I and TASK II data collection for direct and incidental catches every month in the electronic format. This measure was taken by revision of the Act put into effect from July 2012.

#### *2.2 Observer program*

One observer was deployed on board the Korean tuna longline vessel in the ICCAT area of competence from October 2011 to February 2012 (**Table 3**). Observer coverage was about 4% in terms of efforts. Korean national observer program was started with a responsibility of the National Fisheries Research and Development Institute (NFRDI) in 2002 and has had some difficulties which are the limited number of national scientific observers and qualification to do their duties. To improve the situation, the observer program is in progress to incorporate into the Distant Water Fisheries Act and will be administered by the Ministry with the advice by the NFRDI on the design of coverage and the education and training for biological sampling and other skills required from ICCAT.

## **Part II (Management Implementation)**

### ***Section 3: Implementation of ICCAT Conservation and Management Measures***

The Korean government established its domestic legislation called "Distant Sea Fisheries Act"(DSFA) in March 2008 to implement all compulsory recommendations and resolutions adopted by International Fisheries

Management Organizations such as ICCAT, IOTC, CCSBT, etc. This Act consists of five Sections and 36 Articles which stipulate provisions all Korean distant fishing vessels shall comply with such as Authorization to Fish, Port Inspection, and Installation of VMS etc. This Act comes from the environment where many regional fisheries management organizations and international fisheries organizations have been adopting a wide range of conservation and management measures each year. However, if new and urgent measures such as Statistical Document Programs or Bluefin Tuna Catch Scheme are adopted, the Korean government shall establish a separate Notice of the Ministry for Food, Agriculture, Forestry and Fisheries even though the DSFA contains some relevant provisions. Especially, Article 13 (Observation of Distant Sea Fishermen) of the Act states that distant sea fishermen shall conduct their fishing activities with their legitimate fishing licenses and comply with conservation and management measures and other obligatory regulations adopted by international fisheries organizations. In addition, in accordance with Article 11 (Cancellation of Fishing License) and Article 36 (Fine) of the Act, in case of its failure of compliance with those measures and regulations, their fishing licenses could be suspended with maximum six months or cancelled, or the fishermen should be fined approximately US\$4,500 depending on the degree of noncompliance. Furthermore, the DSFA are being reviewed for its revision to strengthen punishment for noncompliance up to US\$17,500 fine.

Regarding steps taken to implement Recommendation 11-01, the Korean government limited the number of large scale tuna longline vessel to 14 and allocated the Korean quota of bigeye tuna to each fishing company which engages in this fishery to keep its catch limit. In particular, the fishing company should be given severe penalty under the DSFA if they repeat any violations of overcatch of bigeye tuna since the year of 2010.

When it comes to the conservation and management measures for the southern and northern swordfish, the Korean government has taken measures that the fishing vessels shall not retain the southern swordfish on board until 2011 in order to pay back the overharvest for a few past years. In addition, it is compulsory for fishermen to report their discard (alive/dead) information to the NFRDI.

Animal, Plant and Fisheries Quarantine and Inspection Agency (QIA), the former National Fisheries Products Quality Inspection Service (NFIS), has not issued statistical documents for export for swordfish because of the domestic measures taken above. When this Agency identifies any insufficient information on those documents, it should report back to our Ministry and then review and resolve through consultation with the other countries concerned. In addition, QIA takes charge of the issuances and validation of BCD for the Korean purse seine vessel targeting bluefin tuna in the Mediterranean, and it validated and issued two BCDs for export after checking the legitimate quota of bluefin tuna 2012.

#### ***Section 4: Inspection schemes and activities***

In the event of fish products imported to Korea and landed at its ports, the person willing to import those products should declare it with relevant certificate to the relevant branch of QIA. The inspectors of QIA have a duty to review all available information in the documents concerned and then decide whether those products are allowed to be landed or not. However, when the documents concerned have some missing or false information, inspectors should instantly report to our Ministry and relevant countries concerned in order to resolve it and prevent any flow of illegal fish products. The Korean government also reviews amount of fish transshipped in ports and at sea and activities by the Korean large scale tuna vessels and reports to the ICCAT Secretariat the details on the transshipments annually. In addition, QIA has been instructed to scrutinize very strictly the documents of swordfish, bigeye tuna especially northern bluefin tuna to be imported or re-exported to Korea through a proper identification on whether any CPC has legitimate quotas.

#### ***Section 5: Other activities***

The Korean government has recently reinforced its domestic regulations concerning how to confirm or validate all data as well as documents in order to prevent any illegal fish products to be exported to other countries.

First, when an exporter from a fishing company wants to sell his or her fish products (i.e., bigeye tuna), it is required to submit its Catch Verification Document (CVD) issued by its master of the vessel to QIA as well as necessary information. CVD includes vessel name, fishing period, fishing ocean and fishing position as well as species. Second, inspectors confirm on whether the fishing vessel has its fishing license and the vessel has been registered in a RFMO concerned. If there is no problem, inspectors validate relevant documents (BCD or statistical document) with its seal. Especially, considering its importance, with regard to the bluefin tuna catch document, they ask our Ministry once again whether the vessel has a right to catch and export within its quota. Documents with its seal and signature mean that all data have been verified.

**Table 1.** Nominal catch (metric tons) of tuna and tuna-like species by Korean longliners and purse seiners in the Atlantic Ocean, 1986-2011.

Year	No. of vessels	BFT	YFT	ALB	BET	SBF	SKJ	SWO	BUM	WHM	SAI	OTH	Total
1986	28	156	1,818	694	6,084	-	11	437	96	71	11	674	10,052
1987	29	1	1,457	401	4,438	-	6	726	152	27	8	370	7,586
1988	29	12	1,368	196	4,919	-	3	1,042	375	19	12	6	7,952
1989	33	45	2,535	107	7,896	-	6	1,096	689	135	24	531	13,064
1990	17	20	808	53	2,690	-	-	101	324	81	28	183	4,288
1991	9	229	260	32	802	-	-	150	537	57	23	17	2,107
1992	8	101	219	5	866	-	-	150	24	10	4	4	1,383
1993	4	573	180	28	377	-	-	217	13	8	5	8	1,409
1994	4	688	436	3	386	-	-	180	56	43	10	31	1,833
1995	4	663	453	5	423	-	-	180	56	23	10	118	1,931
1996	16	683	381	20	1,250	-	-	26	144	59	23	172	2,758
1997	12	613	257	5	796	10	-	33	56	23	9	122	1,924
1998	5	-	23	7	163	10	-	7	2	-	-	7	285
1999	9	-	94	14	124	28	-	5	3	-	-	31	299
2000	9	-	142	18	43	61	-	10	1	-	-	3	284
2001	5	1	3	1	1	158	-	-	1	-	-	15	180
2002	-	-	8	-	87	-	-	2	-	-	-	-	97
2003	3	-	209	5	143	-	-	24	-	11	-	10	402
2004	11	703	984	37	629	-	-	70	1	40	-	2	2,466
2005	8	1,146	675	101	770	-	-	87	6	7	-	72	2,864
2006	8	79	283	111	2,067	-	-	159	33	-	-	53	2,785
2007	21	276	573	68	2,136	48	-	351	64	113	-	49	3,678
2008	25	335	993	147	2,599	229	-	380	91	96	-	-	4,870
2009	25	102	433	458	2,134	277	-	14	8	78	1	84	3,589
2010	15	-	380	240	2,646	1	-	147	55	2	-	361	3,832
2011	17	-	491	130	2,762	7	-	-	57	-	-	1,167	4,614

Data source : Korea Overseas Fisheries Association (KOSFA, 2011).

Note : In 2011, 16 vessels are longliner mainly targeting bigeye tuna and one vessel is purse seiner targeting bluefin tuna

**Table 2.** Nominal catch (metric tons) of key shark species by Korean longline fisheries in the Atlantic Ocean, 2011.

Year	BSH		OCS		POR		SMA		SPZ		Others	
	R	D	R	D	R	D	R	D	R	D	R	D
2011	663	-	-	1	-	<0.1	39	-	-	4	22	-

\* R : retained, D : discards.

\*\* BSH : blue shark, OCS : oceanic whitetip shark, POR : porbeagle, SMA : shortfin mako shark, SPZ : smooth hammerhead shark.

**Table 3.** Summary of results for 2011 scientific observer programs.

Duration	Sea days	Set observed	Effort observed (hooks)	Effort observed (%)	Catch observed (ton)
2011.8	178	118	392,300	4	201
2012.2					

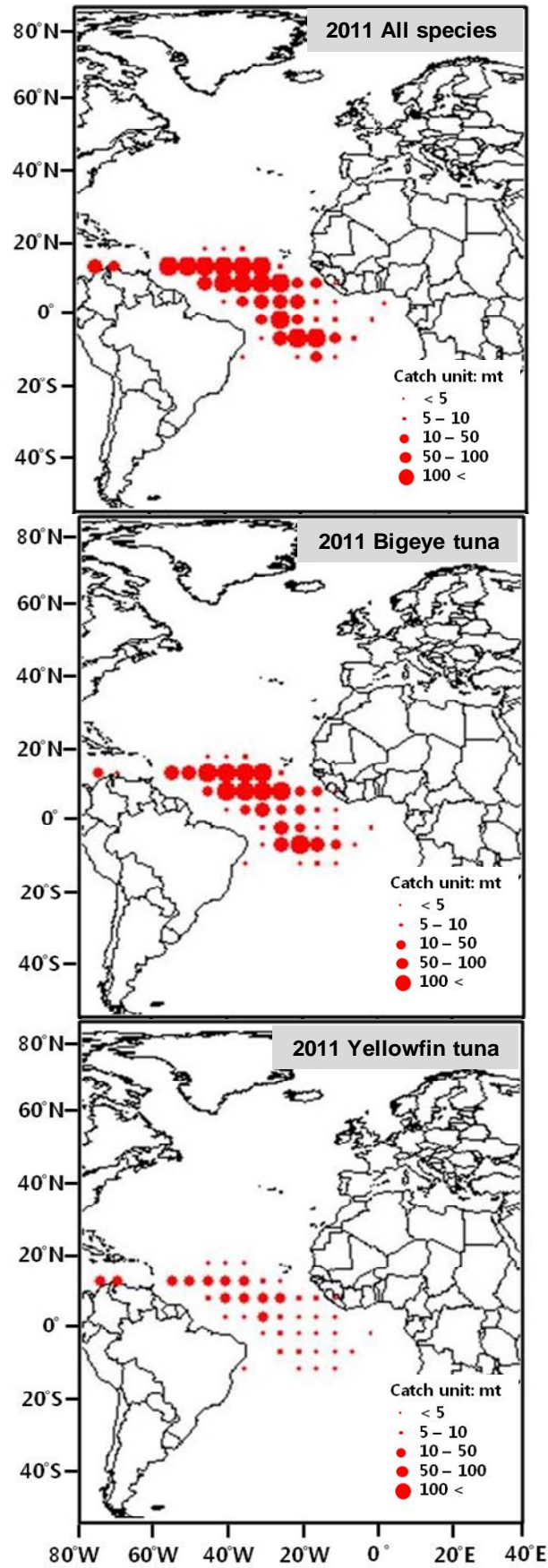


Figure 1. Distribution of catches by Korean tuna longliners in 2011.

**ANNUAL REPORT OF LIBYA  
RAPPORT ANNUEL DE LA LIBYE  
INFORME ANUAL DE LIBIA**

General Authority of Marine Wealth

SUMMARY

*In the 2012 fishing season, bluefin tuna was targeted by the Libyan fishing fleet in the Mediterranean Sea using only one type of fishing gear, purse seine. The total number of vessels engaged in the operation was 13 purse seiners. In 2011, Libya had no bluefin tuna fishing activity because of the exceptional circumstances, while the total number of vessels that operated in the 2010 season was 16 purse seiners. No traps or fattening farms operated and no other tuna species were targeted by the Libyan fishing fleet in 2012. The total catch of bluefin tuna was 762,948 tons. The fishing operations for bluefin tuna took place in Libyan waters. ICCAT conservation measures were respected and VMS data were transmitted to ICCAT. National observers and ROPs were appointed on board each licensed fishing vessel to monitor and control the fishing activity.*

RÉSUMÉ

*Au cours de la saison de pêche de 2012, le thon rouge était ciblé par la flottille de pêche libyenne en Méditerranée utilisant un seul type d'engin, à savoir la senne. Le nombre total de navires prenant part aux opérations s'élevait à 13 senneurs. En 2011, la Libye ne s'est livrée à aucune activité de pêche de thon rouge compte tenu des circonstances exceptionnelles, alors que le nombre total de navires ayant opéré pendant la saison de 2010 s'élevait à 16 senneurs. En 2012, aucune madrague et aucune ferme n'était en opération et la flottille de pêche libyenne n'a ciblé aucune autre espèce de thonidés. La prise totale de thon rouge s'est chiffrée à 762,948 t. Les opérations de pêche ciblant le thon rouge ont eu lieu dans les eaux libyennes. Les mesures de conservation de l'ICCAT ont été respectées et les données VMS ont été transmises à l'ICCAT. Des observateurs nationaux et du ROP ont été embarqués à bord de chaque navire de pêche muni d'une licence afin d'effectuer un suivi et un contrôle des activités de pêche.*

RESUMEN

*En la temporada de pesca de 2012, el atún rojo fue objetivo de la flota pesquera libia en el Mediterráneo utilizando únicamente un tipo de arte, el cerco. El número total de buques que participaron en las operaciones fue de 13 cerqueros. En 2011, Libia no realizó actividades pesqueras dirigidas al atún rojo debido a sus excepcionales circunstancias, y el número total de buques que operó en 2010 fue de 16 cerqueros. En 2012, no hubo almadrabas o granjas operativas y la flota pesquera libia no se dirigió a otras especies de túnidos. La captura total de atún rojo ascendió a 762,948 t. Las operaciones de pesca de atún rojo tuvieron lugar en aguas libias. Se cumplieron las medidas de conservación de ICCAT y se transmitieron los datos de VMS a ICCAT. Se asignaron observadores nacionales y del ROP a bordo de cada buque pesquero con licencia para que realizaran un seguimiento y control de la actividad pesquera.*

**Part I (Information on Fisheries, Research and Statistics)**

**Section 1: Annual Fisheries Information**

**1.1 Types of fisheries**

During the 2012 bluefin tuna fishing season, purse seine was the only gear authorized and there was no trap activity. Bluefin tuna is a highly migratory species along the Libyan coast and fishing activity took place in accordance with the ICCAT measures (Rec. 08-05 and Rec.10-04).



### *1.2 Fishing effort trends*

The total number of active fishing vessels during the 2012 season was 13 purse seiners (11 PS were particularly participated), while in the previous year (2010) there were 16 purse seiners.

No BFT fishing activity during 2011.

### *1.3 Catch trends*

The total catch of bluefin tuna in Libyan waters in 2012 was 762.948 tons. The catch quantity has increased remarkably from 2010 to 2012. Data on bluefin tuna catch during the period 2003-2012 has been submitted accordingly (**Table 1**).

## **Section 2: Research and Statistics**

The collection of data from the bluefin tuna fishery is necessary for scientific research. However, during the 2012 fishing season, daily bluefin tuna data were collected by the scientific observers and assessed in marine research centre to determine and pre-announce the closure time to the fishing vessels

### *2.1 Fishery data*

Some fishery data were collected (Task I& Task II) from the purse seine fishing vessels to be sent regularly to the Secretariat (some data analyzed and shown in **Figures 1, 2 and 3**).

## **Part II (Management Implementation)**

### **Section 3: Implementation of ICCAT Conservation and Management Measures**

Bluefin tuna is the only species targeted by Libyan purse seine fishing vessels and their fishing activity is concentrated in Libyan waters. In order to ensure a sustainable fishing activity for bluefin tuna, the Minister of Agriculture, Husbandry and Marine Wealth issued Decision #61/2010 which regulates licensing, monitoring, control and inspection of bluefin tuna fishing activity. The control measures adopted by ICCAT (Recs. 08-05, 09-06 and 10-04) were fully observed and applied in the 2012 fishing season.

#### *3.1 closed season and catch limits*

The authorized fishing period for bluefin tuna by the purse seiners has been set from 16-5-2012 to 14-6-2012.

In case of determining bluefin tuna which have been caught by the fishing vessels without fishing permission or adequate individual quota or determining bluefin tuna which have been misstated, the fish shall be seized and released.

#### *3.2 Prohibitions of length and weight*

No catch of bluefin tuna weighing less than 30 kg, an incidental catch of less than 5% of blue fin tuna weighing (10-30kg) is authorized.

#### *3.3 Vessel monitoring system*

It is obligatory to all bluefin tuna fishing and towing vessels with an operational VMS, for any defect in devices should be notified to the Authority and to submit regular position data to the same Authority.

#### *3.4 Licensing and fishing method*

It is Mandatory for bluefin tuna fishing vessels and bluefin tuna tug boats to obtain a bluefin tuna fishing license and bluefin tuna tug vessels license from the related provincial in addition to these vessels which tug BFT cage(s) for farming purposes are obliged to have a bluefin tuna transfer license and to notify the General Authority of Marine wealth about their location, final destination, planned arrival time, and the amount of product in the cage(s).

Every vessels have permission to fish bluefin tuna shall be obliged to record data required by the Authority with regard to amount of bluefin tuna caught and sold and shall be obliged to comply with the rules regard to implementation.

### 3.5 Observers

It is obligatory to accommodate ICCAT Regional Observers for all fishing/towing vessels participating during entire fishing period. Furthermore, National Observers are also accommodated although there is obligation in this season for purse seine. Those will collect scientific data as much as possible in order to provide SCRS.

Observers had reported on fishing, transfer, and towing operations.

### **Steps taken By Libyan Authority to Implement Rec. 11-08 through domestic Law for silky shark According to para. 7**

Bluefin tuna is the only species targeted by Libyan vessels.

Libyan has taken the following main steps to implementing (Rec. 11.08).

- Acknowledge the fishermen about the (Rec. 11.08) and gives full explanation
- Including the condition of (Rec. 11.08) in training program of local observers.
- Putting a main condition to follow the (Rec. 11.08)as pending of granting licenses to fishing BFT at Libyan water for season 2012.

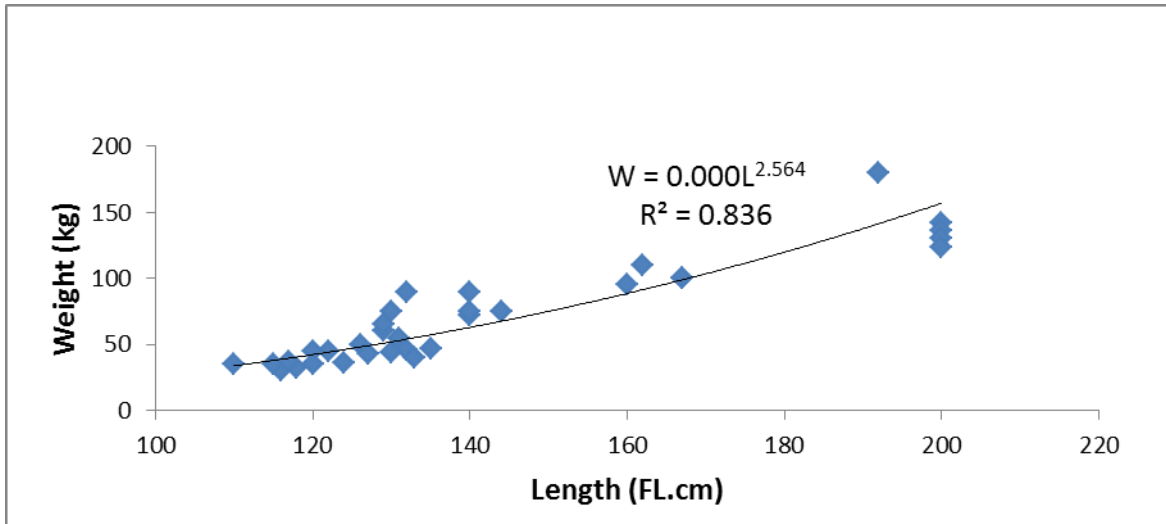
### **Section 4: Inspection Schemes and Activities**

All licensed Libyan fishing vessels operating in the 2012 fishing season had to have a national and a ROP observer on board to monitor and ensure that all fishing activities were conducted in line with pertinent ICCAT Recommendations.

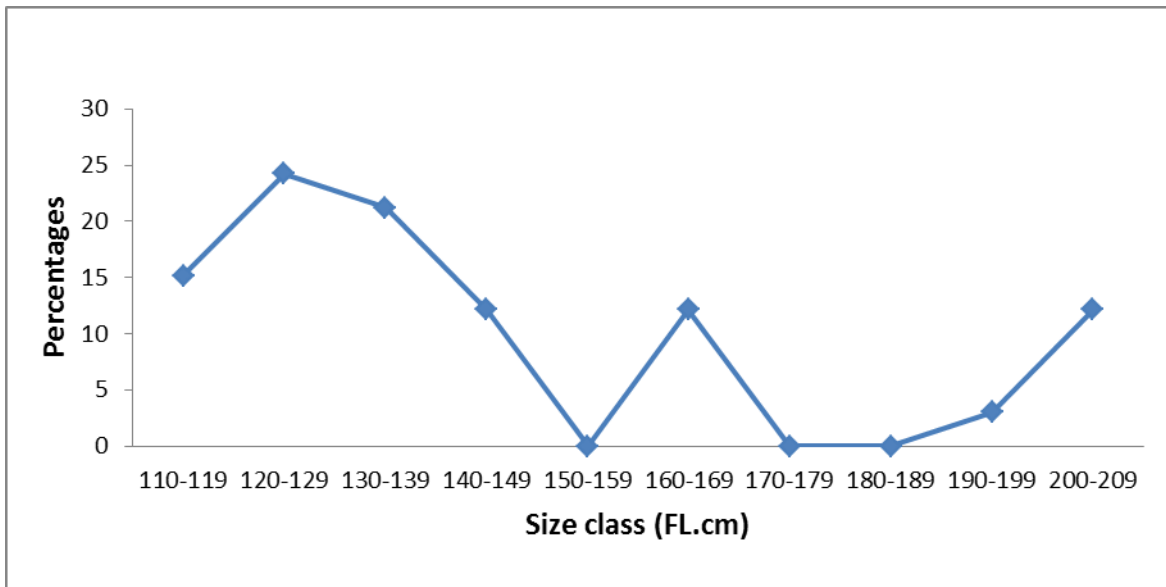
Libya did not participate in the inspection scheme with other regional inspectors for bluefin tuna in Mediterranean. However, there is an inspection program for its landing harbours.

**Table 1.** Libyan bluefin tuna catches during the period 2003-2012.

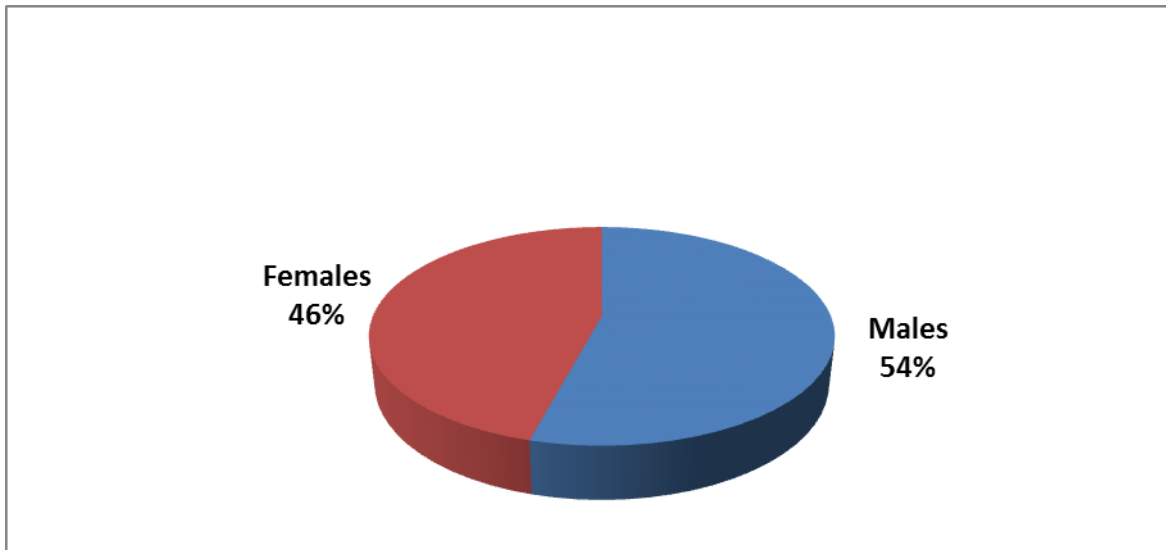
<i>Year</i>	<i>Initial quota (t)</i>	<i>Current catch (t)</i>
2003	1286	752.2
2004	1300	1299.6
2005	1400	1090.7
2006	1440	1254
2007	1280.14	1359
2008	1236.99	1317.8
2009	946.52	1081.64
2010	725.150	645.303
2011	902	ZERO
2012	902	762.948



**Figure 1.** Length-weight relationship of Bluefin tuna caught by purse seine in Libyan waters in 2012.



**Figure 2.** Percentages of frequency distribution of Bluefin tuna caught by purse seine in Libyan waters in 2012.



**Figure 3.** Sex ratio of male and female Bluefin tuna caught by purse seine in Libyan waters in 2012.

**Implementation of Reporting Obligations for ICCAT Fisheries  
Including Shark Species -- Libya - 2012**

- 1- A provisional BFT fishing plan was prepared and transmitted to ICCAT at the beginning of 2012 BFT fishing season.
- 2- A final list of active vessels authorized to fish for BFT in the med-sea, with their individual quota was sent to ICCAT later after finalization.
- 3- The total number of catching vessels actually engaged in fishing activities involving BFT in Mediterranean was 13 PS (No LL vessels operated in 2012).
- 4- The total catches of each vessel, date of entry to fishing and date of ending fishing season for each Vessel are shown in the attached table.
- 5- Only one JFO authorized and consented with Korea and all relevant documents sent to ICCAT 10 days before starting fishing.
- 6- No Traps activity authorized during 2012 fishing season.
- 7- No Fattening farms operated in 2012.
- 8- Measures to respect individual quota was implemented by coordination between national and ROP observers on board of fishing vessels, two vessels Could not caught their quota did not leave the port because of Government decision. All vessels stop the fishing activity on time required by Rec. 10 – 04 measures, (14<sup>th</sup> of June). The total BFT catch in 2012 fishing season was (84.8%) of total adjusted quota for 2012 season.
- 9- Only BFT species was caught by Libyan vessels, no other species included in BFT fisheries.

**Catch vessels actually engaged in bluefin tuna fishing in the 2012 season.**

No.	Vessel name	ICCAT NO.	Vessel type	Quota	Total Catch	Start Date	End date
1	Morina	AT000LBY00028	PS, 24-40m	60.250	60.243	1/6/2012	2/6/2012
2	Khaleej Eltahadi	AT000LBY00010	PS, 24-40m	60.250	60.243	1/6/2012	2/6/2012
3	Tagreft	AT000LBY00013	PS,24-40m	60.250	60.243	1/6/2012	2/6/2012
4	KHANDEEL II	AT000LBY00038	PS,24-40m	60.250	60.243	1/6/2012	2/6/2012
5	El-Aghile	AT000LBY00011	PS, 24-40m	65.00	64.950	2/6/2012	2/6/2012
6	AL-Rabta	AT000LBY00012	PS,24-40m	65.00	64.950	2/6/2012	2/6/2012
7	OZU 2	AT000LBY00009	PS,24-40m	78.00	78.000	30/5/2012	31/5/2012
8	ELHARES 2	AT000LBY00074	PS,24-40m	69.00	68.562	26/5/2012	26/5/2012
9	ELHADER II	AT000LBY00037	PS,24-40m	38.50	38.257	26/5/2012	26/5/2012
10	ELHADER III	AT000LBY00072	PS,24-40m	38.50	38.257	26/5/2012	26/5/2012
11	AL SSAFA II	AT000LBY00018	PS,24-40m	169.00	169.000	26/5/2012	1/6/2012
12	AOEA	AT000LBY00026	PS,24-40m	68.00	n.a	n.a	n.a
13	Jarjaruma	AT000LBY00023	PS,24-40m	68.00	n.a	n.a	n.a

**ANNUAL REPORT OF MAURITANIA  
RAPPORT ANNUEL DE LA MAURITANIE  
INFORME ANUAL DE MAURITANIA**

Mahfoudh Ould Taleb Sidi, Deddah Ould Bamba et Ely Ould Beibou

*SUMMARY*

*In Mauritania, tuna species are only targeted by the foreign fleets (Spanish, Senegalese and Japanese), fishing under a free license regime, which allows them to land their production outside Mauritania. The tuna species are also caught as by-catch by the industrial pelagic vessels, one hundred percent foreign. The reported catches of these species by these fisheries are strongly related with the sardine catches (preferential prey) that are targeted by these fleets. These catches show that incidental catches of small tunas (and not offshore tuna) in industrial fisheries (as well as small pelagics) reached, in 2011, 15.828 t (i.e. an increase of nearly 300% compared to 2009) including mainly *Sarda sarda* with a 70% contribution compared to 12% for *Auxis* sp and 18% for *Euthynnus* sp. The reported catches by artisanal and coastal fishing is continuously reducing and are very weak. The total catch in 2011 recorded a volume of 114 t mainly including *Scomberomorus tritor* representing mainly around 98%.*

*RÉSUMÉ*

*En Mauritanie, les espèces de thon sont ciblées uniquement par des flottilles étrangères (espagnole, sénégalaise et japonaise), opérant sous le régime de licence libre, ce qui leur permet de débarquer leur production en dehors de la Mauritanie. Ces espèces sont également pêchées accessoirement par les unités industrielles pélagiques, étrangères à cent pour cent. Les captures de ces espèces déclarées par ces pêcheries sont étroitement corrélées avec celles des sardinelles (proie préférentielle) qui sont ciblées par ces flottilles. Ces captures montrent que la capture accessoire des thons mineurs (et non du thon hauturier) de la pêche industrielle (ajoutée de petits pélagiques) a atteint, en 2011, 15.828 tonnes (soit un accroissement de presque 300 % par rapport à 2009) composée essentiellement de *Sarda sarda* avec une contribution de 70% contre 12% pour l'*Auxis* sp et 18 % pour *Euthynnus* sp. Les captures déclarées par la pêche artisanale et côtière sont en décroissance continue et sont assez faibles, la capture totale en 2011 a enregistré un volume de 114 tonnes composée essentiellement de *Scomberomorus tritor* représentant une contribution de l'ordre de 98%.*

*RESUMEN*

*En Mauritania, solo las flotas extranjeras se dirigen a los túnidos (española, senegalesa y japonesa) y operan en régimen de licencia libre. Esto les permite desembarcar su producción fuera de Mauritania. Asimismo, también pescan estas especies de forma accesoria las unidades industriales pelágicas, extranjeras al cien por cien. Las capturas de estas especies declaradas por las pesquerías están muy relacionadas con las de sardina (presa preferencial) especie a la que se dirigen estas flotas. Estas capturas muestran que la captura fortuita de pequeños túnidos (y no de los túnidos de altura) de la pesca industrial (pequeños pelágicos incluidos) ascendió en 2011 a 15.828 t (es decir, un incremento de casi el 300% con respecto a 2009). Esta captura está compuesta sobre todo de bonito (*Sarda sarda*), con una contribución del 70% frente al 12% de *Auxis* spp y del 18% de *Euthynnus* spp. Las capturas declaradas de la pesca artesanal y costera muestran un descenso continuo y son bastante bajas, la captura total en 2011 registró un valor de 114 t, y estuvo compuesta básicamente de carite lusitánico (*Scomberomorus tritor*), con una contribución de aproximadamente el 98%.*

## **1<sup>ère</sup> Partie (Informations sur les pêcheries, la recherche et les statistiques)**

En Mauritanie, la pêche est pratiquée par des flottilles industrielles et artisanales, nationales et étrangères. La gestion des pêches relève du Ministère des Pêches et de l'Économie Maritime. L'accès à la ressource est régi par un système de licences (22 licences) qui sont délivrées par ce dernier. On distingue 3 régimes d'accès qui sont le régime d'acquisition réservé aux flottilles nationales, le régime d'affrètement qui concerne les unités étrangères affrêtées par les opérateurs nationaux et opérant comme des bateaux mauritaniens et enfin le régime de licence libre qui sont accordées aux navires étrangers opérant dans le cadre des accords bilatéraux de pêche. La pêche industrielle est pratiquée par des congélateurs et des glaciers.

La recherche est la mission principale de l'Institut Mauritanien des Recherches Océanographiques et des Pêches (IMROP) qui joue à ce titre le rôle d'outil d'aide à la décision pour le Ministère de Tutelle qui est le Ministère des Pêches et de l'Économie Maritime. Les pêcheries industrielles prélèvent 85 pour cent de la production annuelle qui dépassait le million de tonnes en 2011.

### ***Chapitre 1 : Information annuelle sur les pêcheries***

Ce rapport porte exclusivement sur la pêche accessoire des thons par les flottilles étrangères industrielles de petits pélagiques autorisées à opérer dans la ZEE mauritanienne et celle de la pêche artisanale et côtière

### ***Chapitre 2 : Recherche et statistiques***

La recherche dans le domaine des pêches est confiée à l'Institut Mauritanien des Recherches Océanographiques et des Pêches (IMROP). L'IMROP compte environ 150 scientifiques (chercheurs, ingénieurs et techniciens) répartis sur plusieurs laboratoires et services couvrant toutes les thématiques de recherche nécessaires à la bonne conduite des ses programmes de recherche (évaluation des stocks, biologie et écologie des espèces, milieux marin et environnement, sciences sociales, statistique et informatique).

L'IMROP dispose de deux navires de recherche (un bateau hauturier de 36 m et un bateau côtier de 17 m) qui lui permettent de prospecter l'ensemble de la ZEE mauritanienne. Il conduit chaque année quatre campagnes de prospection (2 démersales et 2 pélagiques) en vue de suivre l'état de la ressource. Il mène également des missions mensuelles de suivi des paramètres hydro chimiques pour suivre l'état de l'environnement marin qui abrite ces ressources.

Ces campagnes se limitent pour le moment aux profondeurs en deçà de 500 mètres. Elles ne couvrent que partiellement la zone de distribution des thons hauturiers.

Du fait que la Mauritanie n'a adhéré à l'ICCAT que récemment, l'IMROP n'a pas développé de programme de recherche spécialisé dans ce domaine dans son plan quinquennal 2008-2012. Par conséquent les études sur les thons y font encore défaut. Actuellement, l'Institut cherche à combler ce manque par la mise en place des programmes de recherche orientés sur cette ressource. Conformément à cette orientation, un projet de marquage des espèces de thons a été élaboré et soumis à l'ICCAT pour financement.

Pour ses besoins scientifiques et conformément à sa mission, l'IMROP met en œuvre un certain nombre de système de collecte de données et de suivi des pêcheries.

Les statistiques sur l'effort et les captures de la pêche industrielle sont obtenues à l'aide des données collectées dans le cadre des journaux de pêche qui sont obligatoires depuis 1990 en Mauritanie. Ces données sont collectées et introduites dans une base de données gérée par la Délégation à la Surveillance des Pêches et au Contrôle en Mer (DSPCM). Elles sont ensuite transmises à l'IMROP qui les intègre à sa base de données puis les compile et en produit les statistiques de l'effort et des captures de la pêche industrielle.

L'IMROP conduit à son niveau d'autres systèmes de collecte des données complémentaires. Il est doté d'un corps d'observateurs scientifiques (35 hommes et femmes), de niveau Master 2 en biologie marine, qu'il déploie régulièrement sur les flottilles actives en Mauritanie. Une base de données créée à cet effet est gérée par les services de l'IMROP. Il est à noter que les flottilles thonnières ne font pas encore l'objet de suivi par le programme d'observation en mer de l'IMROP.

L'IMROP suit aussi les débarquements de la pêche industrielle qui se font en Mauritanie (à Nouadhibou) de manière exhaustive. Il détient une base de données réservée à cette fin.

Pour ce qui est de la pêche artisanale, l'IMROP conduit depuis les années 80 un système de suivi des activités de la pêche artisanale. Ce système a connu deux temps importants. Un premier système basé sur le comptage matin et soir des embarcations visualisées dans les points de débarquement pour estimer l'effort de pêche du jour a été mis en œuvre jusqu'en 2005. À partir de cette année, il a été remplacé par un second système qui tient compte de la nouvelle réalité de la pêche artisanale et côtière qui commence à prendre de l'importance vu le caractère dynamique et opportuniste des pêcheurs artisans mauritaniens. Cinq enquêtes sont réalisées dans le cadre de ce système qui sont :

- Enquête au retour de mer durant laquelle, tous les jours ouvrables dans les centres urbains et tous les jours dans les points de débarquements éloignés, l'enquêteur collecte les données sur les caractéristiques de l'embarcation qui débarque, sur celles de la sortie en mer réalisée par cette embarcation, sur l'origine du produit débarqué, sur les caractéristiques des actions durant la sortie, celles des lots débarqués et réalise des mensurations d'échantillons dans les lots.
- Recensement mensuel du parc actif catégorisé durant laquelle, chaque mois et dans chaque site de pêche.
- Enquêtes sur le lot auprès des usines où les enquêteurs, pour chaque lot enquêté, prélèvent le nom scientifique de l'espèce, sa catégorie ou taille, son poids total, le nombre d'individus de cette espèce, les fréquences de taille de l'échantillon.
- Récupération des registres des usines où pour chaque usine et par mois, les enquêteurs prélèvent la catégorie d'achat (espèces/catégories), l'origine (PA/PI) et le poids total.

### 2.1 La pêche industrielle de petits pélagiques

Résultats obtenus de ces systèmes de suivi

Cinq espèces de la famille des Scombridés sont pêchées de façon accessoire par les flottilles industrielle de petits pélagiques. Il s'agit de la sarde (*Sarda sarda*), de l'auxide (*Auxis rochei* et *Auxis thazard*), de la palomette (*Orcynopsis unicolor*) et de la thonine (*Euthynnus alletteratus*).

Dans les statistiques de ces flottilles, ces espèces sont déclarées sous la rubrique « divers-thons » et ne sont donc pas ventilées par espèce. Les prises réalisées par ce segment sont présentées pour la période 1990 à 2011 (**Tableau 1**). En début de période considérée, c'est-à-dire de 1990 à 1994, les captures de ces espèces chutent rapidement puisqu'elles passent d'environ 1.000 tonnes en 1990 à 60 tonnes en 1994. Cette évolution traduit assez fidèlement le déclin de la flottille de l'ex-Union soviétique dans la zone, le principal pavillon à l'époque dans la ZEE mauritanienne. Avec la forte reprise de l'activité de pêche industrielle, les captures ont fortement augmenté pour atteindre 4000 tonnes en 1998 avant de diminuer à nouveau entre 1999 et 2001 aux alentours de 3000 tonnes. En 2002, la pêche de ces espèces a enregistré un record avec presque 6.000 tonnes. Par la suite l'évolution présente une tendance à la baisse jusqu'à un niveau relativement bas en 2007 (1.400 tonnes). Au cours des dernières années, l'accroissement des prises a été très rapide depuis 2009.

Sur la base des données des observateurs embarqués à bord de ces navires, la ventilation de cette rubrique « divers thons » a été conduite afin d'affiner les résultats par espèce. De 2005 à 2011, la répartition de cette rubrique a été obtenue en moyennant les valeurs disponibles pour les années les plus proches. Sept espèces ont été répertoriées dont trois espèces de thons majeurs (*Thunnus albacares*, *Thunnus obesus* et *Xiphias gladius*). Mis à part la première espèce des thons majeurs qui a été présentée uniquement dans les captures de 1996 à 1999 avec des niveaux de prises variant entre 1 tonne en 1996 à 752 tonnes en 1998 (les autres espèces ont été pêchées de façon très marginale).

La sarde (*Sarda sarda*) domine largement les captures (70 % en moyenne) sur la série 2006-2011, mais la contribution des autres espèces de thons mineurs varient de 12 pour l'*Auxis sp* à 18 % pour *Euthynnus sp*.

### 2.2 La pêche artisanale et côtière

C'est le seul segment qui peut être considéré comme une pêcherie domestique. Dans cette flottille, les thons sont presque exclusivement des thons côtiers. Elles passent de presque 600 tonnes en 2007 à 114 tonnes en 2011 (**Tableau 2**). Cette importante baisse s'explique surtout par la chute de la capture de la principale espèce (*Scomberomorus tritor*) qui est capturée en accessoire (**Tableau 2**). Avec l'amélioration des rendements en poulpe depuis 2008 et l'apparition de nouvelles pêcheries (cymbium, concombre, etc.), l'intérêt pour la pêche de cette espèce a probablement beaucoup diminué.



## II<sup>ème</sup> Partie (Mise en œuvre de la gestion)

### Chapitre 3 : Mise en œuvre des mesures de conservation et de gestion de l'ICCAT

En Mauritanie, la surveillance et le contrôle en mer constituent la tâche de la délégation de surveillance et de contrôle en mer (DSPCM) qui veille au respect de la réglementation (nationale et internationale) en vigueur en Mauritanie par les unités autorisées à opérer dans les eaux sous juridiction mauritanienne.

Étant donné que la Mauritanie n'a pas encore de flotte thonière nationale, l'inspection des unités de pêche, ne pouvant pas s'assurer du respect des quotas des flottilles thonières, se limite à vérifier la présence des espèces de thons dans les cargaisons de ces unités, en conformité avec les licences détenues par ces unités et les règles de gestion de l'ICCAT. C'est ainsi que la délégation à la surveillance des pêches et au contrôle en mer a souvent relevé la présence d'espèces de thons dans les cargaisons des chalutiers pélagiques.

### Chapitre 4 : Schéma et activités d'inspection

Toutes les unités de thons qui opèrent en Mauritanie débarquent à l'étranger.

La Mauritanie ne dispose pas de capacité propre de captures de thons côtiers ou hauturiers. Nous avons des flottilles qui opèrent dans notre zone et les zones adjacentes dans le cadre d'accords bilatéraux (Sénégal, Japon, Union européenne). Ces flottilles proviennent de toutes des Parties contractantes qui déclarent les statistiques de pêche effectuées dans notre zone à l'ICCAT. Nous avons présenté ici les captures accessoires réalisées par la flottille artisanale et côtière domestique. Les captures en thons de ce segment restent très faibles (environ 100 tonnes en 2011).

En revanche, les prises, déclarées des flottilles des petits pélagiques industrielles étrangers qui opèrent dans notre zone dans le cadre d'accord bilatéraux, s'élèvent à presque 16 000 tonnes en 2011 soit un accroissement de presque 300 % par rapport à 2009.

Étant donné que ces pêcheries de petits pélagiques ne sont pas couvertes par le mandat de l'ICCAT et par conséquent aucune mesure y compris la déclaration n'est actuellement appliquée, nous avons jugé important de procéder à la communication de ces informations en lieu et place des pays pêcheurs pour éviter toute perte d'informations.

**Tableau 1.** Évolution des captures accessoires des thons côtiers réalisées par la pêche industrielle de petits pélagique (ventilées par espèce selon les données des observateurs scientifiques embarqués de l'IMROP).

	2006	2007	2008	2009	2010	2011
<i>Auxis thazard</i>	246	140	377	307	1842	1899
<i>Euthynnus sp</i>	849	574	1100	1803	2418	0
<i>Sarda sarda</i>	1139	686	1666	1688	7253	13929
<b>Total (tonnes)</b>	<b>2234</b>	<b>1400</b>	<b>3144</b>	<b>3798</b>	<b>11513</b>	<b>15828</b>

**Tableau 2.** Évolution des captures accessoires des thons côtiers de la pêche artisanale et côtière (ventilées par espèce suivant les données des enquêtes de l'IMROP).

	2006	2007	2008	2009	2010	2011
<i>Auxis thazard</i>	1,4	0,0	0,0	2,8	3,6	0,0
<i>Katsuwonus pelamis</i>	1,4	2,5	0,2	0,1	9,7	0,0
<i>Orcynopsis unicolor</i>	67,0	98,1	7,2	9,1	0,2	0,3
<i>Sarda sarda</i>	0,1	1,6	21,3	6,6	0,3	1,3
<i>Scomberomorus tritor</i>	437,7	488,7	461,6	204,4	187,2	111,9
<i>Thunnus obesus</i>	0,1	0,0	0,0	0,0	0,0	0,0
<b>Total (tonnes)</b>	<b>508</b>	<b>591</b>	<b>490</b>	<b>223</b>	<b>201</b>	<b>114</b>

**ANNUAL REPORT OF MEXICO  
RAPPORT ANNUEL DU MEXIQUE  
INFORME ANUAL DE MÉXICO**

José G. Trujillo<sup>1</sup>, Luis F. Beléndez<sup>2</sup>

*SUMMARY*

*The characteristics for longline tuna fishing in the Gulf of Mexico are described, emphasizing their behavior as regard regulations (national and international). Yellowfin tuna (Thunnus albacares) catches and incidental catches are presented, as well as the fishing effort carried out in 2011. The application and compliance of the recommendations and resolutions adopted by the Commission are also described.*

*RÉSUMÉ*

*Le présent document décrit les caractéristiques de la pêche thonière à la palangre dans le golfe du Mexique, en mettant l'accent sur son comportement eu égard aux réglementations (nationales et internationales). La capture de l'albacore (Thunnus albacares), sa capture accessoire et l'effort de pêche de l'année 2011 sont présentés. L'application et le respect des recommandations et des résolutions adoptées par la Commission sont également décrits.*

*RESUMEN*

*Se describen las características de la pesca del atún con palangre en el Golfo de México, enfatizando su comportamiento con respecto a las regulaciones (nacionales e internacionales). Se presenta la captura del atún aleta amarilla o rabil (Thunnus albacares) y su captura incidental, así como el esfuerzo pesquero aplicado durante 2011. Además se describe la aplicación y cumplimiento de las recomendaciones y resoluciones adoptadas por la Comisión.*

## **Introducción**

En el Golfo de México, la pesquería mexicana del atún presenta actividad durante todo el año por una flota palangrera de mediana altura. El esfuerzo pesquero de esta flota está dirigido a la captura de atún aleta amarilla o rabil (*Thunnus albacares*), cuyo aprovechamiento en aguas de jurisdicción federal ha requerido un régimen de pesca que garantice el desarrollo ordenado y sostenible de la pesquería dirigida y su captura incidental.

El marco normativo incluye la Ley General de Pesca y Acuicultura Sustentable y la Norma Oficial Mexicana que regula el aprovechamiento de las especies de túnidos con embarcaciones palangreras en aguas de Jurisdicción Federal del Golfo de México y Mar Caribe (NOM-023-PESC-1996), publicada en el Diario Oficial de la Federación (DOF), el 4 de agosto de 1997, son los principales instrumentos normativos para regular la pesquería.

De igual manera, se aplican las resoluciones y recomendaciones de la CICAA, particularmente aquellas relacionadas con el manejo del atún aleta amarilla, pez espada, atún aleta azul, tiburones y otras especies competencia de la Comisión, así como la recopilación de información estadística, relacionada con la captura y esfuerzo pesquero, entre otros.

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## **Parte I (Información sobre pesquerías, investigación y estadísticas)**

### ***Sección 1: Información anual sobre pesquerías***

La pesca de altura con palangre en el Golfo de México tiene como especie objetivo el atún aleta amarilla, sin embargo, se observa una captura incidental de otras especies altamente migratorias, como son otros atunes, picudos, tiburones, entre otros. La pesca se realiza durante todo el año a bordo de embarcaciones con eslora total máxima de 25 m, con un palangre atunero de monofilamento tipo americano de superficie a la deriva, con una longitud de 50 a 60 km y 614 anzuelos/lance en promedio, con una autonomía máxima de 35 días.

Con base a la información procedente del Programa de Observadores a bordo el cual tiene una cobertura del 100% de los viajes, durante 2011 se utilizaron 27 barcos, los cuales realizaron 326 viajes de pesca, ejecutando 2,883 lances en los que se utilizaron 1,771,514 anzuelos. El mayor esfuerzo pesquero se lleva a cabo durante mayo y agosto, mientras que el menor se realiza en los meses de enero, febrero y marzo.

Espacialmente, se ha registrado que durante el primer trimestre el patrón de distribución del esfuerzo pesquero es más amplio, mientras que para el segundo y tercer trimestre la mayoría se concentra frente el litoral del Estado de Veracruz.

#### *Atún aleta amarilla*

Durante el año 2011, se registró una captura total de 1,174 t de atún aleta amarilla, de los cuales el 98.18% corresponde a captura embodegada, el 0.73% a captura descartada muerta y el 1.09% a captura liberada viva.

#### *Captura incidental*

La captura incidental se integra por: a) grupo de atunes, integrado por atún aleta azul o atún rojo del Atlántico (*Thunnus thynnus*), barrilete o listado (*Katsuwonus pelamis*), patudo (*Thunnus obesus*), atún aleta negra (*Thunnus atlanticus*), entre otras que registraron 33 t; b) grupo de marlines y especies afines, integrado por el marlín blanco o aguja blanca (*Tetrapturus albidus*), marlín azul o aguja azul (*Makaira nigricans*), pez espada (*Xiphias gladius*), pez vela (*Istiophorus albicans*), entre otros, que registraron 171 t; c) grupo de tiburones, integrado por tiburón puntas negras (*Carcharhinus limbatus*), tiburón mako o marrajo (*Isurus oxyrinchus*), tiburón zorro (*Alopias* spp), entre otros que registraron 33 t; y d) grupo de otros peces que registraron 52 t.

### ***Sección 2: Investigación y estadísticas***

Durante 2011, se llevó a cabo el proyecto “Análisis espacial y temporal de la captura y esfuerzo de la flota palangrera mexicana de altura en el Golfo de México y su operación económica”, cuyos resultados han fortalecido la toma de decisiones en el manejo y administración de la pesquería. El proyecto ha incluido referencia al análisis de los aspectos sociales y económicos de la flota palangrera, en el que además se han desarrollado aspectos del diagnóstico de la pesquería, condiciones de operación y eficiencia operativa. Este proyecto ha promovido la generación de las bases científicas y técnicas para llevar a cabo los planes de manejo y ordenamiento de la pesquería del atún con palangre en el Golfo de México durante el año 2012 para continuar con el manejo sustentable de la pesca bajo un estricto esquema de ordenamiento, no sólo a nivel nacional sino también a nivel internacional.

Por otra parte, se han continuado las investigaciones pesqueras en colaboración con los Estados Unidos, en el marco del proyecto denominado MexUS Golfo, llevando a cabo la tercera campaña de muestreo de huevos y larvas del atún aleta azul en el Golfo de México y Mar Caribe para contribuir a la investigación científica de la especie y proporcionar resultados para la administración y manejo en el Océano Atlántico, tal y como lo establece el Comité de Investigación y Estadísticas (SCRS) de la Comisión.

Se ha contribuido a la actualización de la información necesaria del diagnóstico y evaluación integral de la actividad pesquera, así como de los indicadores sobre la disponibilidad y conservación de los recursos pesqueros y en aguas de jurisdicción federal, particularmente en la información de la flota palangrera dedicada a la pesca del atún aleta amarilla en el Golfo de México en la Carta Nacional Pesquera (CNP) del Instituto Nacional de la Pesca (INAPESCA).

Asimismo, se ha realizado análisis para determinar las tasas de captura de los grupos de especies que integran la captura incidental de la pesca del atún con palangre en el Golfo de México, a efecto de mejorar las bases

científicas y técnicas para el establecimiento de medidas tendientes a la protección, particularmente para el grupo de Marlines.

Se han llevado a cabo reuniones con el sector industrial, en las que se han analizado y establecido las líneas de investigación prioritarias, haciendo referencia a las medidas de administración de la pesca del atún, tanto a nivel nacional como internacional.

De igual manera, durante 2011, se llevó a cabo la actualización del Sistema de Información de Atún (SIA) que integra la base de datos proveniente del Programa de Observadores a bordo, a través del tratamiento y evaluación de la calidad de datos del periodo 1993-2011.

## **Parte II (Implementación de la ordenación)**

### ***Sección 3: Implementación de Medidas de conservación y ordenación de ICCAT***

#### *Datos talla minima*

96-14 Recomendación sobre el cumplimiento en las pesquerías de atún rojo y pesquerías de pez espada del Atlántico norte (Párrafo 1).

No se excedieron los límites de captura en 2011 en las pesquerías de atún rojo y pesquerías de pez espada del Atlántico norte, esto ha sido reportado debidamente en los datos presentados por México en la Tarea I.

97-01 Recomendación para incrementar el cumplimiento de las regulaciones de talla mínima (Párrafo 2).

Se mantiene vigente la normatividad que establece que las capturas incidentales de atún aleta azul o rojo únicamente podrán retenerse si los organismos tienen, como mínimo, un peso de 30 kg o bien, una longitud furcal de 115 cm.

Los ejemplares con peso o talla inferior a la establecida deben ser liberados en buenas condiciones de sobrevivencia. Asimismo, se establece que ésta no debe ser mayor al 20% (incluye atún rojo, pez espada, pez vela, marlín, entre otras) de su captura nominal obtenida durante un año calendario.

#### *Documentos estadísticos*

01-21 Recomendación respecto a establecer un Programa de Documento Estadístico ICCAT para el patudo (Párrafo 6).

México no realiza capturas dirigidas de patudo en el área.

01-22 Recomendación respecto a establecer un Programa de Documento Estadístico ICCAT para el pez espada (Párrafo 6).

Los datos estadísticos se presentan en Tarea I y Tarea II.

#### *Medidas relacionadas con especies individuales*

06-09 Recomendación para un mayor reforzamiento del plan de recuperación de las poblaciones de aguja azul y aguja blanca (Párrafos 12 y 18).

En México no está permitida una pesquería comercial dirigida a la captura de ambas especies, sus capturas son exclusivamente incidentales derivadas de la utilización del palangre arte de pesca que se utiliza en la pesquería del atún aleta amarilla y cuya regulación establece límites a la captura incidental de otras especies, entre ellas las agujas o marlines, a través de la Norma Oficial Mexicana NOM-023-PESC-1996.

Esta disposición también establece que durante las operaciones de pesca de túnidos, las especies que sean capturadas de manera fortuita, deben ser liberadas en buenas condiciones de sobrevivencia. Única y exclusivamente podrán retenerse los ejemplares de dichas especies que al traerlos al costado del barco, ya se encuentren muertos.

Adicionalmente es de subrayar que México mantiene la cobertura del 100% de los viajes de pesca de la flota palangrera dedicada a la pesca del atún aleta amarilla o rabil (*Thunnus albacares*) en el área, lo cual permite contar con información fidedigna sobre las operaciones que realizan estas embarcaciones.

Por otra parte, de acuerdo con la legislación nacional vigente el marlín además del pez vela, pez espada, sábalo, pez gallo y dorado, en todas sus variedades biológicas, quedan destinadas de manera exclusiva a la pesca deportiva-recreativa, la cual sólo se puede realizar en dentro de la franja que abarca hasta las 50 millas marinas.

Esta misma Ley establece que se procederá a la revocación de la concesión o permiso, cuando los titulares, comercialicen, bajo cualquier título jurídico las capturas de la pesca deportivo-recreativa.

03-04 Recomendación sobre el pez espada del Mediterráneo.

México no realiza esta pesquería en dicha área.

11-02 Recomendación de ICCAT para la conservación del pez espada del Atlántico norte (Párrafo 11).

Bajo esta recomendación, a México se le asignó un límite de captura anual de 200t para los años 2012-2013. Esta cifra no ha sido superada y la pesquería se norma para las disposiciones de la Ley General de Pesca y Acuicultura Sustentables y la NOM-023, la cual establece tallas mínimas en consonancia con las deposiciones de la CICAA.

06-08 Resolución sobre la pesca de atún rojo en el Océano Atlántico (Párrafo 1).

México no realiza esta pesquería en dicha área.

05-05 Recomendación para enmendar la recomendación [Rec. 04-10] sobre la conservación de tiburones capturados en asociación con las pesquerías que son competencia de ICCAT.

México comunica anualmente información sobre su implementación y ha realizado seguimiento de la captura incidental del tiburón mako (*Isurus oxyrinchus*) del Atlántico norte en la pesca del atún aleta amarilla con palangre en el Golfo de México, tal y como lo establece la normatividad nacional.

07-06 Recomendación suplementaria sobre tiburones (Párrafo 4).

México establece en su normatividad nacional el manejo y conservación de tiburones a través de la NOM-029- que establece disposiciones para la captura de tiburones en aguas de jurisdicción nacional.

Esta norma tiene el propósito de inducir el aprovechamiento sostenible de los tiburones y rayas, así como contribuir a la conservación y protección de elasmobranquios.

En el área del Golfo de México y mar Caribe, en México no se cuenta con una flota industrial o semi-industrializada para la pesca de tiburón. Sin embargo, desde 1994 se realiza el monitoreo de la pesquería de atún con palangre, en el cual los tiburones forman parte de la captura incidental. El monitoreo se realiza a través de un programa de observadores que cubre el 100% de los viajes de pesca.

En la última actualización de la Carta Nacional Pesquera, publicada el día 2 de diciembre de 2010, se establece como medidas de manejo adicionales, que desde 1993, no se expiden nuevos permisos para captura de tiburón, excepto en el caso de que se sustituyan embarcaciones descartadas o renueven permisos para no incrementar el esfuerzo de pesca existente, aun así, se considera que el estatus de la pesquería aprovechada se encuentra al máximo sustentable.

Aunque no estuvo en vigor en 2011, a partir de 2012 se estableció en el Golfo de México y Mar Caribe una veda a la captura de tiburones que entró en vigor el 12 de junio del 2012 hasta el 30 de junio; en los años subsiguientes se establecerá durante el periodo del 1ro de mayo al 30 de junio de cada año. En el Banco de Campeche, del 1ro al 31 de agosto de cada año.

Este Acuerdo de Veda es una medida que contribuirá significativamente a reducir la presión de pesca ejercida en las poblaciones de las especies motivo de preocupación y que constituye un precedente importante en el contexto nacional e internacional.

- 09-07 Recomendación de ICCAT sobre la conservación de los tiburones zorro capturados en asociación con las pesquerías en la zona del Convenio de ICCAT.

México ha cumplido con las recomendaciones del SCRS de ICCAT, referentes a la conservación del tiburón zorro ojón (*Alopias superciliosus*), mediante la instrumentación de los programas de investigación que ha llevado a cabo en Instituto Nacional de Pesca, así como la información obtenida del programa de observadores a bordo y de los reportes de las bitácoras de los propios productores se tienen avances en establecer la línea base respecto al estado de distribución y abundancia de estas especies con objeto de valorar la viabilidad de establecer medidas administrativas complementarias para la protección de estas especies como pueden ser evitar zonas y temporadas determinadas de pesca en las que se encuentre este recurso más vulnerable a ser capturado de forma incidental.

- 10-06 Recomendación de ICCAT sobre marrajo dientuso del Atlántico capturado en asociación con pesquerías de ICCAT (Párrafo 1).

México comunica anualmente información sobre su implementación y ha realizado seguimiento de la captura incidental del tiburón mako (*Isurus oxyrinchus*) del Atlántico norte en la pesca del atún aleta amarilla con palangre en el Golfo de México, tal y como lo establece la normatividad nacional.

- 10-08 Recomendación de ICCAT sobre peces martillo (familia Sphyrnidae) capturados en asociación con pesquerías de ICCAT (Párrafo 3, 5, 6).

México establece en su normatividad nacional el manejo y conservación de tiburones a través de la NOM-029- que establece disposiciones para la captura de estas especies en aguas de jurisdicción nacional.

- 10-09 Recomendación de ICCAT sobre captura fortuita de tortugas marinas en las pesquerías de ICCAT (Párrafo 8).

Se ha promovido mediante talleres de capacitación, el uso de instrumentos y mecanismos para mitigar la captura incidental de tortugas marinas en las pesquerías de atún y otras. De igual manera, se trabaja en fomentar la liberación de las tortugas marinas que sean capturadas vivas de forma fortuita, así como procedimientos técnicos para reducir la captura fortuita de tortugas y garantizar una cuidadosa manipulación de todas las tortugas que sean liberadas, con el fin de contribuir a su supervivencia.

- 11-08 Recomendación de ICCAT sobre la conservación del tiburón jaquetón capturado en asociación con pesquerías de ICCAT (Párrafo 7).

México establece en su normatividad nacional el manejo y conservación de tiburones a través de la NOM-029-PESC-1996.

- 11-09 Recomendación de ICCAT para reducir la captura fortuita incidental de aves marinas en la pesquería de palangre de ICCAT (Párrafo 7).

Dentro de los registros del Programa de observadores a bordo de México no se ha observado y registrado la presencia de aves marinas en las maniobras de pesca del atún aleta amarilla con palangre en el Golfo de México.

#### *Otros*

- 05-11 Resolución de ICCAT sobre *Sagassum* pelágico (Párrafo 1).

No aplica.

#### *General*

- 97-10 Recomendación esquema revisado de inspección (Párrafo 7).

México no tiene embarcaciones que entren, desembarquen o transborden sus capturas en puertos que no sean los propios en el área regulada por esta Comisión.

En este sentido, en lo que respecta al producto capturado en la Zona de Convenio regulada por ICCAT, que es desembarcado en los puertos del país, las autoridades competentes, vigila que se cumplan las normas vigentes en

las operaciones de carga y descarga, así como de cambio de tripulantes en las embarcaciones pesqueras de bandera mexicana, entre las que se encuentran las embarcaciones atuneras del Golfo de México y mar Caribe.

99-07 Resolución sobre la mejora de estadísticas de las pesquerías de recreo. (Párrafo 2).

En México se destina exclusivamente 9 especies a la pesca deportiva: 6 de ellas pertenecen a los denominados "Picudos" (contándose 4 especies distintas de Marlín; Pez Vela y Pez Espada) y 3 especies afines (sábalo o chiro; pez gallo y dorado), dentro de una franja de 50 millas náuticas contadas a partir de la línea de base desde la cual se mide el mar territorial.

Se ha trabajado en la modernización, actualización y ampliación del Prontuario Estadístico de Pesca Deportiva que se publica en la página de internet de la CONAPESCA, donde se puede encontrar información sobre número de permisos por entidad federativa, por embarcación, el valor de los permisos, permisos por periodo de tiempo y categoría de embarcación, entre otros datos.

Por otra parte, se han tenido avances importantes en el fomento y regulación de la pesca deportivo-recreativa, actualmente la totalidad de los trámites para obtener un permiso de pesca se realiza totalmente por medios electrónicos. Los prestadores de servicios turísticos de pesca deportivo recreativa están obligados a presentar bitácoras de pesca donde informen las incidencias de la operación, así como el número de ejemplares capturados.

Asimismo, mediante el programa de observadores a bordo se está haciendo el esfuerzo de hacer el seguimiento de una parte representativa de esta actividad, con la cual dar seguimiento y contar con elementos para la toma de decisiones administrativas y regulatorias.

05-08 Resolución sobre anzuelos circulares (párrafo 1-2).

México lleva a cabo la promoción e investigación para el uso de anzuelos circulares (16/0), con objeto de que sean utilizados en los lances que se efectúan con palangres pelágicos, considerando su adecuada selectividad y la reducción en la captura incidental.

Cabe destacar, que en el caso de la Norma Oficial Mexicana NOM-029-PESC-2007 que regula la pesca responsable de tiburones y rayas en aguas marinas de jurisdicción nacional de ambos litorales, se incluye la obligación de usar anzuelo circular en los palangres siempre que sean colocados a una profundidad menor a 40 metros, considerando que es la zona donde existe mayor probabilidad de que una tortuga marina pudieran ser enganchada. A nivel nacional el uso de anzuelos circulares en pesquerías de palangre pelágico ha sido propuesto como un método para reducir la captura incidental de tortugas marinas y otras especies prioritarias para la conservación.

01-18 Resolución acerca del alcance de la pesca IUU.

A nivel nacional existen diversas disposiciones encaminadas a combatir tanto la pesca ilegal como la pesca IUU.

De manera permanente existe la disposición de utilizar la guía de pesca para regular la movilización de los productos pesqueros, así como el incremento de las operaciones de inspección y vigilancia en aguas de jurisdicción nacional, a través de las unidades de superficie de la CONAPESCA y la Secretaría de Marina-Armada de México.

El Programa Nacional de Pesca y Acuicultura, contempla como uno de sus aspectos fundamentales la operación del Programa Integral de Inspección y Vigilancia para el Combate a la Pesca Ilegal (PIIVPCPI), especialmente en las zonas sobreexplotadas y de repoblación, para enfrentarla con diversas acciones, así como para prevenir actos sancionados por la LGPAS y su Reglamento y las Normas Oficiales Mexicanas en materia pesquera, a través de la realización de actos de inspección y vigilancia en la materia, llevados a cabo por conducto de su personal debidamente autorizado.

Entre las acciones que se realizan se incluyen los recorridos marítimos a bordo de unidades de superficie. Estas operaciones permiten controlar y verificar las pesquerías que se desarrollan en las aguas marinas de jurisdicción federal, que es en donde la flota atunera palangrera doméstica del Golfo de México concentra sus actividades. De esta forma además, es posible detectar las incursiones de buques extranjeros sin autorización para pescar dentro de la ZEE de nuestro país.

La ventaja de las fiscalizaciones en el mar, en comparación con las que se realizan en puerto, es que permiten supervisar las características de los equipos de pesca y su manipulación, la revisión de la documentación requerida para la actividad (permiso o concesión, bitácora de pesca, certificado de matrícula), la inspección ocular del producto pesquero almacenado a bordo y la verificación de los sistemas utilizados para el manejo del producto pesquero desechado.

Otras actividades que se llevan a cabo dentro del cumplimiento del PIIVPCPI son la verificación documental y de producto en los puertos de descarga, la constatación del registro de su producción, a través de los avisos de arribo, las inspecciones en los centros de acopio, la revisión de las guías de pesca y demás documentos con los que se acredite la legal procedencia de los embarques de producto en tránsito y tratándose de embarques de atún aleta azul o rojo (*Thunnus thynnus*) que se realicen con destino a la exportación, la comprobación del "Certificado de Participación en el Programa Estadístico para el Atún Aleta Azul o Rojo".

03-16 Recomendación para adoptar medidas adicionales contra la pesca ilegal, no declarada y no reglamentada.

Se ha publicado la Norma Oficial Mexicana NOM-062-PESC-2007, para reglamentar la utilización del Sistema Satelital de Monitoreo de Embarcaciones Pesqueras, la cual es de observancia obligatoria para quienes realicen actividades de captura en embarcaciones pesqueras con motor estacionario (intraborda), potencia nominal superior a 80 Hp, con cubierta corrida y eslora superior a 10 m, que operen en aguas de jurisdicción federal del Océano Pacífico, Golfo de México y Mar Caribe, dentro de la Zona Económica Exclusiva, así como para aquellas embarcaciones de bandera mexicana que realicen actividades de pesca en la Alta Mar.

03-12 Recomendación respecto a los deberes de las Partes contratantes y partes, entidades o entidades pesqueras no contratantes colaboradoras en relación con sus barcos que pescan en la zona del Convenio ICCAT.

México mantiene su compromiso porque los barcos bajo su bandera cumplan y no minen las medidas de conservación y ordenación de la Comisión, para lo cual ha establecido medidas como la expedición de permisos de pesca para pescar únicamente las especies autorizadas; ejercer de una forma efectiva sus responsabilidades con respecto a tales barcos, incluyendo el seguimiento y control de sus actividades pesqueras; garantizar que sus barcos no pescan sin autorización en zonas que son jurisdicción nacional de otros Países, mediante la colaboración adecuada con los Estados costeros afectados, y otros medios pertinentes disponibles para la CPC abanderante; solicitar a sus barcos que pescan en alta mar que lleven siempre a bordo la licencia, autorización o permiso, y que la presenten para inspección cuando una persona debidamente autorizada lo solicite; investigar y realizar un seguimiento de la presunta infracción de un barco, y comunicar los resultados de la investigación así como las acciones emprendidas cuando tal infracción haya sido confirmada.

De igual manera tiene establecido y mantiene actualizado un registro de barcos de pesca autorizados a enarbolar su bandera y autorizados a pescar las especies reguladas por ICCAT en la zona del Convenio. Las embarcaciones de bandera mexicana están matriculados y abanderados de tal modo que pueden ser fácilmente identificados conforme a los criterios generalmente aceptados, como la especificación de criterios de la FAO para el marcado e identificación de barcos pesqueros.

05-09 Recomendación de ICCAT sobre el cumplimiento de las obligaciones de comunicar las estadísticas (Párrafo 3).

México facilita las estadísticas de captura y esfuerzo con las observaciones relativas a la fuente de información y trabaja continuamente para la aplicación de medidas correctivas a través del trabajo directo con el Programa de observadores a bordo, el sector productivo y el sector gubernamental.

06-11 Recomendación sobre el establecimiento de un programa para el transbordo. (ANEXO 3 Párrafo 6).

De acuerdo a la legislación nacional, pertinente en la materia, particularmente la Ley General de Pesca y Acuicultura Sustentables vigente en México, en su artículo No. 41, inciso XIV, plantea claramente las disposiciones para regular los transbordos, así como para la descarga en puertos mexicanos.

Dicha Ley establece que se debe contar con un permiso para la descarga en puertos extranjeros o el transbordo de especies capturadas por embarcaciones pesqueras de bandera mexicana, el cual será otorgado por la autoridad nacional (CONAPESCA), previo cumplimiento de ciertos requisitos como el número y fecha de la concesión,



permiso al amparo del cual se realizó la captura; las especies y su volumen a descargar o transbordar; la fecha y lugar de traslado o transbordo; los datos que identifiquen la embarcación a la que se transbordarán los productos, y el puerto de destino final. Cabe mencionar, que, a pesar de que dicho supuesto está contemplado en la ley, a la fecha es obligatorio para todo titular de un permiso o concesión el realizar el arribo de la captura en puerto.

10-10 Recomendación de ICCAT para establecer normas mínimas para los programas de observadores científicos de buques pesqueros (Párrafo 5).

México ha proporcionado a la Comisión en tiempo y forma los informes sobre el programa nacional de observadores a bordo, describiendo cada uno de los apartados solicitados, así como la proporción de material adjunto (manual, fichas, guías de identificación, etc.)

11-10 Recomendación de ICCAT sobre recopilación de información y armonización de datos sobre captura fortuita en las pesquerías de ICCAT (Párrafo 1 C y 1 E).

México llevará acciones al respecto a partir de la entrada en vigor de esta disposición

11-15 Recomendación de ICCAT sobre penalizaciones aplicables en caso de incumplimiento de las obligaciones en materia de comunicación (Párrafo 1).

México ha mantenido mejora continua sobre los procedimientos en materia de comunicación para las especies capturadas incidentalmente, particularmente sobre tiburones.

11-16 Recomendación de ICCAT sobre acuerdos de acceso (Párrafo 5).

No se ha registrado ninguna actividad al respecto.

**ANNUAL REPORT OF MOROCCO<sup>1</sup>**  
**RAPPORT ANNUEL DU MAROC**  
**INFORME ANUAL DE MARRUECOS**

SUMMARY

*Catches of tunas and tuna-like species amounted to 8.584 t in 2011, compared to 10.722 t during 2010, i.e., in general, a decrease of about 20% as regards to volume. The major species exploited in waters off the Moroccan coasts are bluefin tuna, swordfish, bigeye, yellowfin, albacore, small tunas, other tuna and some shark species. The collection of statistical data on catch and effort is carried out in a thorough manner through the administrative structures on fishing: Département des Pêches (Department of Fisheries) and the Office National des Pêches (National Office on Fishing) located all along the Atlantic and Mediterranean coasts of Morocco. The Office des Changes (Currency Exchange Office) also carries out a control of the export of the fishing products. As concerns the scientific plan, the Institut National de Recherche Halieutique-INRH (National Institute of Fisheries Research), through its Regional Centers (5 centers) covering the entire Moroccan coast, reinforces the collection of biological data on the major species (bluefin tuna and swordfish). The Regional Center of the INRH in Tangier serves as coordinator for the collection of all these data. In recent years, monitoring of other species has started, in particular, tropical species (bigeye, among others), with an extension of the research work towards areas located in the south of Morocco. Consequently, important progress has been made in the collection of biological data, as demonstrated by the series of scientific documents, as well as the Task II data presented by the Moroccan researchers at the various SCRS sessions, aimed at tuna stock assessment.*

RÉSUMÉ

*La pêche des espèces de thonidés et des espèces apparentées a atteint une production de 8.584 tm au cours de l'année 2011 contre 10.722 tm au cours de l'année 2010 soit une baisse d'environ 20 % en termes de volume. Les principales espèces exploitées le long des côtes marocaines sont le thon rouge, l'espadon, le thon obèse, l'albacore, le germon, les thonidés mineurs, autres thonidés et des requins et squalos. La collecte de données statistiques de pêche et d'effort, se fait pratiquement d'une manière exhaustive, à travers les structures administratives des pêches (Département des Pêches et l'Office National des Pêches), implantées tout au long des côtes atlantique et méditerranéenne du Maroc. Un contrôle se fait également en aval par l'Office des Changes, en ce qui concerne les exportations des produits de la pêche. Sur le plan scientifique, l'Institut National de Recherche Halieutique -INRH-, à travers ses Centres régionaux (au nombre de cinq), couvrant tout le littoral marocain, a renforcé la collecte de données biologiques des principales espèces (thon rouge et espadon). Le Centre régional de l'INRH à Tanger sert de coordinateur de collecte de toutes ces données. Au cours de ces dernières années, d'autres espèces ont commencé à être suivies, notamment celles des thonidés tropicaux (thon obèse entre autres), avec une extension des travaux de recherche vers les zones situées au Sud du Maroc. Un grand progrès a été ainsi enregistré en matière de collecte de données biologiques, tel qu'en témoignent la série de documents scientifiques, ainsi que des bases de données de la Tâche II, soumises par les chercheurs marocains aux différentes sessions SCRS, à des fins d'évaluation de stocks de thonidés.*

RESUMEN

*La pesca de túnidos y especies afines ha alcanzado una producción de 8.584 t durante 2011, frente a las 10.722 t de 2010, es decir, un descenso del 20% en términos de volumen. Las principales especies explotadas en aguas frente a las costas marroquíes son atún rojo, pez espada, patudo, rabil, atún blanco, pequeños túnidos, así como otras especies de túnidos, tiburones y escualos. La recopilación de datos estadísticos de pesca y de esfuerzo se realiza prácticamente de un modo exhaustivo, a través de las estructuras administrativas de pesca (Departamento de Pesca y Oficina Nacional de Pesca) situadas a lo largo de toda la costa atlántica y mediterránea de Marruecos. Además, la Oficina de Cambio realiza también un*

<sup>1</sup> Département de la Pêche Maritime (DPMA/DPRH) et Institut National de Recherche Halieutique.

*control de las exportaciones de los productos de la pesca. En el plano científico, el Instituto Nacional de Investigación Pesquera (Institut National de Recherche Halieutique INRH), a través de sus centros regionales (cinco), que cubren todo el litoral marroquí, ha reforzado la recopilación de datos biológicos de las principales especies (atún rojo y pez espada). El Centro regional del INRH en Tánger ejerce las funciones de coordinador de la recopilación de todos estos datos. Durante los últimos años, se ha comenzado a realizar un seguimiento de otras especies, sobre todo de túnidos tropicales (patudo, entre otras), con una ampliación de los trabajos de investigación hacia las zonas situadas al Sur de Marruecos. Por tanto, se han constatado importantes progresos en materia de recopilación de datos biológicos, tal y como atestiguan la serie de documentos científicos, así como los datos de la Tarea II, presentados por los investigadores marroquíes en las diferentes sesiones de evaluación de los stocks de túnidos del SCRS.*

## **Ère partie (Information sur les pêcheries, la recherche et les statistiques)**

### ***Chapitre 1 : Information annuelle sur les pêcheries***

#### *1.1 Exploitation des thonidés*

Les principales espèces de thonidés exploitées par les pêcheurs marocains sont :

- le thon rouge,
- le thon obèse,
- l'espadon,
- l'albacore,
- le germon,
- les thonidés mineurs (listao, bonite, melva, etc.) ainsi que bien d'autres espèces.

Ces espèces sont exploitées par un armement national diversifié, constitué de navires de pêche armés à la senne, à la palangre et à la ligne à main. Des madragues sont également mises en service pour l'exploitation du thon rouge. Les débarquements sont effectués au niveau des ports, des villages de pêcheurs et des points de débarquement aménagés le long des côtes marocaines. Les espèces débarquées sont diversifiées.

#### *1.2 Zones de pêche*

Le thon rouge, le thon obèse et les thonidés mineurs (bonite, melva, listao, etc..) sont pêchés habituellement sur la côte atlantique marocaine. Quelques unités artisanales capturent le thon rouge en Méditerranée marocaine durant les mois de Juin à Septembre. Des espèces de thons mineurs sont capturées en Méditerranée marocaine.

L'espadon est capturé essentiellement en Méditerranée et au Sud de la côte Atlantique marocaine, entre Tan-Tan jusqu'au sud de Dakhla.

Quant au germon et à l'albacore, ils sont également pêchés en Atlantique, mais en faibles quantités, au moyen de navires côtiers, dans les eaux de la ZEE marocaine.

Pour ce qui est des requins, les principales zones de pêche se situent principalement dans les côtes atlantiques.

#### *1.3 Techniques de pêche*

Les thonidés et espèces voisines sont pêchées essentiellement par quatre (4) techniques de pêche :

– Madrague

Cet engin cible principalement le thon rouge et les thonidés mineurs. En 2011, 10 madragues ont été calées, dans les eaux nationales de la façade Atlantique. Leur période d'activité est la même depuis plusieurs années et se situe entre les mois d'avril et juillet. Parmi les espèces capturées accessoirement, il y a lieu de citer : la melva, la bonite à dos rayé et la bacorette en quantités très faibles.

Il est à noter que plus de 3.000 individus de thon rouge ont été relâchés par les madragues après épuisement du quota national alloué à ce segment.

– Ligne à main et palangre

Elle est utilisée principalement par une importante communauté de pêcheurs artisanaux qui comptent dans leur flottille des centaines de barques artisanales (petits métiers) opérant au niveau du détroit de Gibraltar et le long des côtes méditerranéennes et atlantiques, de longueur inférieure à 7m et de tjb < 2 tnx.

Cette activité de pêche, utilisant cet engin de pêche, capture les grandes tailles de thon rouge et parfois même le thon obèse dans les régions sud du Maroc. Elle est presque continue durant toute l'année, avec un arrêt d'activité de 2 à 3 mois par an.

Quelques individus d'espadon sont capturés, mais de manière occasionnelle, d'autres espèces sont également capturées par cet engin, notamment la bonite.

– Senne tournante

Cette technique de pêche est utilisée par les senneurs (dits sardiniers) qui ne pratiquent la pêche aux thonidés que de manière occasionnelle et accidentelle. L'activité se pratique essentiellement en Atlantique durant les périodes autorisées, et les espèces capturées, notamment des thonidés majeurs, sont d'un poids et d'une taille inférieurs aux individus capturés par les autres techniques de pêche comme la madrague lorsqu'il s'agit du thon rouge. Généralement, leur poids s'est situé, en 2011, au-delà de 80 kg/pièce ou individu (autres techniques que la madrague).

Il est à noter que cette technique réalise des quantités importantes de prises accessoires constituées essentiellement de thonidés mineurs et de pélamides.

Elle est également pratiquée par un seul navire de type thonier, spécialisé dans la capture du thon rouge vivant dans les eaux internationales en Méditerranée, dans le cadre d'opérations de pêche conjointes.

#### *1.4 Engraissement des thonidés*

Le Maroc ne dispose plus de ferme de thon rouge. Il disposait d'une seule unité qui n'a jamais été opérationnelle pour des raisons liées à la gestion de l'entreprise qui en avait fait la demande.

## ***Chapitre 2 : Statistiques et recherche***

Les statistiques générales (tonnes métriques) sont détaillées dans le **Tableau 1**.

### *2.1 Pêcherie du thon rouge et de l'espadon*

Les données statistiques de la pêcherie de thon rouge Est (BFT-E) et de l'espadon (SWO) sont mentionnées au **Tableau 2**.

### *2.2 Pêcherie des petits thonidés*

Les données de la pêcherie des petits thonidés sont illustrées dans le **Tableau 3**.

### *2.3 Autres espèces*

Les captures du voilier, du makaire bleu, de l'albacore, du germon, du thon obèse, des squales et requins sont ventilées dans les **Tableaux 4 et 5**.

### *2.4 Captures par zones et par espèces (t)*

Le Tableau récapitulatif des données générales de capture par zones et par espèces (t) est présenté en tant que **Tableau 6**.

## *2.5 Données de la Tâche II*

Les données de Tâche II des thonidés et espèces apparentées exploités dans les eaux marocaines pour l'année 2011 sont résumées dans le **Tableau 7**. Des données historiques de Tâche II relatives aux thonidés mineurs, collectées au cours de l'année 2011, sont également communiquées pour la première fois au Secrétariat de l'ICCAT.

## *2.6 Prises accidentelles d'oiseaux de mer et taux de capture accidentelle des tortues de mer*

Il ressort des enquêtes menées sur le terrain en 2011 auprès des marins pêcheurs des palangriers spécialisés, ce qui suit :

- le nombre moyen d'oiseaux qui sont observés dans le ciel par les marins de ces navires, lors d'une journée de pêche, est d'environ 170 individus (Albatros). Il est à préciser que ces individus ne sont pas capturés ou pris accidentellement dans les filets ou les lignes; il s'agit uniquement d'individus qui gravitent autour du navire au moment de la remontée des filets ou de la manipulation du poisson pêché;
- la fréquence de rencontre des tortues marines lors d'une opération de pêche par ces navires est d'une pièce par 100 jours de pêche (en moyenne, une marée varie d'une à trois journées, mais en général, et au vu des caractéristiques techniques de ces navires de pêche, la marée ne dépasse pas les 24 heures);
- Sur un échantillon de 100 navires spécialisés dans la pêche exclusive des thonidés et espèces apparentés dans la zone située au sud d'Agadir, à l'intérieur de la ZEE marocaine, il a été constaté qu'un navire sur onze, ne rencontre pas d'oiseaux de mer ou de tortues marines lors des opérations de pêche ;
- les navires qui procèdent à des opérations de traitement du poisson à bord, notamment l'éviscération, rencontrent quant à eux des oiseaux de mer le plus souvent; dans ces cas, les prises accidentelles d'oiseaux de mer sont de l'ordre d'un oiseau par 42 jours de pêche.

Dans cette zone, des techniques pratiques et astuces sont adoptées pour éviter les prises accidentelles de ces espèces

## *2.7 Données de capture de la pêche sportive et récréative en Méditerranée*

Aucune capture d'espèces thonières n'a été enregistrée en 2011.

Le **Tableau 8** illustre l'échantillon de taille du thon rouge prélevé pendant le transport (échantillonnage de l'Azrou-1 réalisé pendant la capture le 9 juin 2011).

### ***Observation importante***

Il s'agit des données recueillies lors de la pêche individuelle du navire Azrou-1 en Méditerranée orientale le 9 juin 2011, hors pêche conjointe.

Il est à signaler que le navire marocain Azrou-1 a opéré durant 2011 une JFO (n°2011-002).

Par conséquent, les données des échantillons de taille qui seront communiquées par l'État de pavillon (Turquie) des navires ayant pêché conjointement avec Azrou-1 pour cette saison sont valables pour la Partie marocaine.

## *2.8 Échantillons de taille de thon rouge prélevés pendant les transferts dans les cages associées aux déclarations de report des fermes*

Voir les données qui seront déclarées par la Turquie car le seul navire marocain de type « thonier-senseur » ayant ciblé le thon rouge vivant, en 2011, a opéré dans le cadre de la JFO 2011-022 et sa production a été destinée à des fermes d'engraissement battant pavillon turque.

## *2.9 Activités de recherche*

En 2011, l'Institut National de Recherche halieutique (INRH) a contribué continuellement aux efforts de la communauté scientifique visant une amélioration des connaissances biologiques et de l'état des stocks des thonidés et espèces apparentées. En témoignent notamment les documents scientifiques présentés par l'équipe scientifique marocaine au symposium international ICCAT sur les madragues thonières (mai 2011) ainsi qu'aux réunions des groupes d'espèces du SCRS.

Concernant les données de Tâche II, une attention particulière a été accordée aux thonidés mineurs exploités dans la zone atlantique sud marocaine, ce qui a permis la récupération des données historiques relatives à ces espèces pour la période 2004-2009. La poursuite de la collecte de ces données permettrait à court ou à moyen terme d'améliorer notre connaissance de l'état de ces stocks dans le cadre de l'ICCAT.

L'année 2011 a été particulièrement marquée par la participation active de l'INRH, à travers son centre régional de l'INRH-Tanger, dans le Projet de recherche ICCAT sur le thon rouge englobant tout l'Atlantique (GBYP), et ce à travers les actions suivantes :

- i) Récupération et l'analyse des données historiques des captures des madragues marocaines et celles de la pêche artisanale ciblant le thon rouge,
- ii) Élaboration d'un schéma d'échantillonnage biologique du thon rouge à l'échelle de tout l'Atlantique et la Méditerranée pour le compte du projet ICCAT- GBYP,
- iii) Renforcement de la collecte des données de tailles (1.200 individus échantillonnés en 2011) et d'échantillons biologiques nécessaires pour l'étude de la croissance et la structure des stocks de thon rouge (otolithes, muscle, etc.),
- iv) Participation à l'opération ICCAT de marquage électronique du thon rouge à bord de la madrague marocaine « Essahel » (Programme GBYP).

Afin de jouer pleinement son rôle en tant que laboratoire de référence en matière d'études biologiques des thonidés, le laboratoire des ressources halieutiques chargé des grands pélagiques du centre régional de l'INRH à Tanger devrait être équipé de moyens et d'équipements scientifiques nécessaires pour accomplir ses missions. Des objectifs que l'on pourrait atteindre en partie à travers nos implications dans des projets et programmes de recherche internationaux tel que le GBYP, d'une part, et par le renforcement des capacités des chercheurs marocains, à travers des formations pointues en matière de biologie et de nouvelles méthodes d'évaluation, d'autre part.

## **IIe partie (Mise en œuvre de la gestion)**

### ***Chapitre 3 : Mise en œuvre des mesures de conservation et de gestion de l'ICCAT***

#### *3.1 Limites de taille minimale*

Conformément aux Recommandations de l'ICCAT, le Département des Pêches maritimes interdit la capture des poissons sous-taille et ce, aux termes d'un arrêté ministériel, modifiant et complétant l'arrêté du 3 octobre 1988 fixant la taille marchande minimale des espèces pêchées dans les eaux marocaines. Ce projet est en cours d'amendement pour y inclure la nouvelle taille commerciale minimale de thon rouge (Rec ICCAT 06-05) qui a été notifiée aux opérateurs par lettre circulaire.

#### *3.2 Limitation de l'effort de pêche*

En application de la note circulaire 3887 du 18 août 1992, les investissements en matière de construction navale ont été suspendus depuis cette date afin d'assurer une compatibilité entre effort de pêche et niveau de l'état des stocks. Par ailleurs, la circulaire n° 001 du 01/02/2005, fixant les conditions d'octroi et de prorogation des autorisations de reconversion, de refonte et de remplacement des navires de pêche permet, d'apporter certaines modifications techniques aux navires de pêche actifs.

Pour la pêche du thon rouge, le Maroc souscrit pleinement aux dispositions de la Recommandation ICCAT [08-05] en matière de limite de la capacité à celle des madragues, des fermes et des navires autorisés au 1<sup>er</sup> juillet 2008.

#### *3.3 Contrôle des activités de pêche*

Le contrôle des activités de pêche a pour principaux objectifs de veiller à la stricte application de la réglementation en vigueur, de sanctionner les contrevenants et permet par la même occasion de contribuer à la gestion de la ressource, en complément aux instruments déjà mis en place tels que les mesures techniques, les limitations de captures et d'effort de pêche.

Un contrôle strict s'étend à l'ensemble de la filière pêche et notamment à l'exercice de la pêche, les activités de transbordement, de débarquement, de commercialisation, de transport et de stockage des produits de la pêche ainsi que l'enregistrement des débarquements et des ventes.

Le contrôle en mer consiste à vérifier les caractéristiques de l'engin de pêche (contrôle de la conformité de l'engin et du maillage par rapport à l'espèce cible et la zone géographique), à inspecter l'activité de pêche elle-même (journal de bord, légalité de l'activité de pêche par rapport à la période de pêche et au quota), et la cargaison (taille minimale, quantités par espèces).

Les informations statistiques recueillies lors des contrôles permettent aussi de suivre les niveaux de capture.

L'organisation du contrôle est faite de la manière suivante :

#### *Contrôles en mer*

- Il est effectué par les autorités maritimes de contrôle et par les membres du corps des observateurs scientifiques.
- Les moyens mis à la disposition des contrôleurs sont : les navires de surveillance, les avions et le suivi par satellite (GPS).
- Le contrôle est effectué à bord des navires et à la capture. Les indications reportées dans le journal de bord sont contrôlées ainsi que le respect des mesures techniques et réglementaires en vigueur.
- Au niveau des madragues, il faudrait rappeler la présence permanente des observateurs scientifiques dont la mission est le contrôle des tailles, espèces, le tonnage et la collecte des données biologiques. Ainsi, 100% des madragues sont couvertes par des observateurs scientifiques du Département des Pêches Maritimes. À la fin de la saison de pêche, après la levée de la madrague, l'observateur présente un rapport détaillé sur l'activité de celle-ci.

#### *Contrôles à terre*

- Ils sont effectués par les délégués du Département des Pêches Maritimes, les délégués de l'Office National des Pêches et par les représentants du corps des Observateurs Scientifiques qui forment les Commissions de Contrôle.
- Ces inspections sont soit ciblées, soit aléatoires. Elles sont réalisées au débarquement, lors du transport du produit, à la transformation et lors de la commercialisation.

Les documents pouvant servir au contrôle sont : les déclarations de débarquement, les documents de transport qui sont également vérifiés par les autorités de contrôle de la circulation routière et les notes de ventes.

Parallèlement à ces procédures, le Département des pêches maritimes a mis en place, depuis le mois de juin 2004, un schéma pratique permettant de déterminer l'origine des individus d'espadon capturés en Atlantique nord et en Méditerranée. Ce schéma, intitulé « Schéma de contrôle et d'identification de l'origine des captures de l'espadon dans les prises des flottilles marocaines », a permis de mieux affiner les données de prises de cette espèce notamment celles réalisées par les navires pratiquant la pêche dans ses zones d'une part, et les lieux de sa capture d'autre part.

Dans le cas de ce schéma, il ne s'agit pas particulièrement de revoir le système actuel de contrôle de l'activité de pêche de l'espadon, du moment qu'il se fait de manière efficace, mais de l'élargir par des méthodes qui permettront de déterminer principalement avec exactitude l'origine de capture de l'espadon.

Ces mesures s'intègrent, également, dans le cadre de l'application des dispositions du plan d'action national pour l'abandon du filet maillant dérivant et la reconversion des flottes qui l'utilisent.

Tous ces dispositifs seront renforcés par l'entrée en vigueur, au 1<sup>er</sup> janvier 2010, de la nouvelle procédure réglementaire de lutte contre les formes de pêche INN.

### 3.4 Système de repérage et de suivi par satellite des navires de pêche (DRS/GPS)

Dans le cadre d'une gestion rationnelle des ressources halieutiques et dans le but d'assurer un meilleur suivi de l'activité de la flotte sur un grand espace géographique, le Département des Pêches Maritimes a mis en place toute une structure pour l'utilisation des systèmes de suivi et de transmission de données par satellite.

Aussi, et dans le but de contribuer efficacement à contrecarrer la pêche illégale, non réglementée et non déclarée (IUU) dans la zone de Convention de l'ICCAT, des outils de contrôle supplémentaires ont été mis en place pour compléter les systèmes électroniques déjà mis en place par les autorités chargées du contrôle des activités de pêche.

Enfin, il faudrait rappeler que le Département des Pêches Maritimes abrite et coordonne les activités du Centre de Contrôle National des Pêches.

### 3.5 Données commerciales

Au niveau des exportations, des recoupements sont effectués avec les services de l'Office des changes, organisme étatique chargé d'édicter les mesures relatives à la réglementation des opérations de change en autorisant à titre général ou particulier les transferts à destination de l'étranger et en veillant au rapatriement des avoirs obligatoirement cessibles (recettes d'exportations de biens et services), et de l'administration des douanes qui sont sous la tutelle du Ministère de l'Économie et des Finances afin de vérifier l'authenticité des quantités déclarées à l'exportation et les croiser avec le montant des devises rapatriées.

Toutes ces procédures ont été mises en place pour renforcer davantage les dispositifs de contrôle des opérations commerciales des espèces thonières.

**Tableau 1.** Statistiques générales.

<i>Espèces (code ICCAT)</i>	<i>TOTAL (TM)</i>	
	<i>Atlantique</i>	<i>Méditerranée</i>
<i>Espèce/Zone</i>		
Albacore (YFT)	272	0,4
Germon (ALB)	0,2	0
Thon obèse (BET)	300	0
Thon rouge (BFT)	1055	182
Thonine (LTA)	57	0
Listao (SKJ)	2147	4
Bonite à dos rayé (BON)	145	12
Melva (FRI)	862	237
Palomette (BOP)	213	30
Espadon (SWO)	782	1027
Makaire blanc (WHM)	0	0
Makaire Bleu (BUM)	0	0
Makaire noir	0	0
Voilier de l'Atlantique (SAI)	0	0
Grand requin blanc (WSH)	92	0
Grand requin marteau (SPK)	0	0
Requin gris (SBL)	16	0
Requin HÃ(GAG)		
	19	6
Requin marteau commun (SPZ)	143	0
Requin marteau Halicorne (SPL)	1	0
Requin perlon (HXT)	0	0
Requin sombre ou de sable (DUS)	6	0
Taupe bleue (SMA)	420	0
Taupe commune (POR)	0	0
Autres squalidés et requins (SHK)	409	60
Autres	75	11
<b>TOTAL (TM)</b>	<b>7014,2</b>	<b>1569,4</b>
<b>Total général (TM)</b>		<b>8583,6</b>



**Tableau 2.** Données statistiques de la pêche thon rouge Est (BFT-E) et espadon (SWO).

<i>BFT</i>	<i>Engin</i>	<i>Volume</i>	<i>SWO</i>	<i>Engin</i>	<i>Volume</i>
Atl	Trap	1055	Atl	Trap	2
Atl	PS	00	Atl	PS	
Atl	LL	00	Atl	Gill	80
Atl	Gill	00	Atl	LL	700
Méd	Hand (HL)	78	Méd	LL	640
Méd	Gill	00	Méd	Gill	387
Méd	PS	103	Méd	PS	00
Méd	LL	01	Méd	Hand	00
Méd	Trap	00	Méd	Trap	00
Tot-Atl		1055	Tot-Atl		782
Tot-Méd		182	Tot-Méd		1027
Tot		1237	Tot		1809

**Tableau 3.** Données de la pêche des petits thonidés.

<i>Espèces</i>		<i>Bacorette (LTA)</i>	<i>B. (BON)</i>	<i>Sarda (SKJ)</i>	<i>Melva (FRI)</i>	<i>Palomette (BOP)</i>	<i>Total</i>
Atl	Trap	00	29	00	33	00	62
Atl	Hand	9	16	279	249	59	612
Atl	Gill	00	00	00	00	00	00
Atl	LL	28	88	808	278	114	1316
Atl	PS	20	12	1060	302	40	1434
Méd	Trap	00	00	00	00	00	00
Méd	Hand	00	06	01	04	09	20
Méd	Gill	00	00	00	00	00	00
Méd	LL	00	05	02	143	10	160
Méd	PS	00	01	01	90	11	103
Tot-Atl		57	145	2147	862	213	3424
Tot-Méd		0	12	4	237	30	283
<b>Total</b>		<b>57</b>	<b>157</b>	<b>2151</b>	<b>1099</b>	<b>243</b>	<b>3707</b>

**Tableau 4.** Autres espèces.

	<i>Engin</i>	<i>Voilier (SAI)</i>	<i>Makaire bleu (BUM)</i>	<i>Albacore (YFT)</i>	<i>Germon (ALB)</i>	<i>Thon obèse (BET)</i>	<b>TOTAL</b>
Atl	Trap	00	00	00	00	00	00
Atl	PS	00	00	09	00	00	09
Atl	Gill	00	00	00	00	00	00
Atl	Hand	00	00	00	00	201	201
Atl	LL	00	00	263	0.2	99	362.2
Méd	LL	00	00	0.4	00	00	0.4
Méd	Gill	00	00	00	00	00	00
Méd	PS	00	00	00	00	00	00
Méd	Hand	00	00	00	00	00	00
Méd	Trap	00	00	00	00	00	00
Tot-Atl		00	00	272	0.2	300	572.2
Tot-Méd		00	00	0.4	00	00	0.4
<b>Total</b>		<b>00</b>	<b>00</b>	<b>272.4</b>	<b>0.2</b>	<b>300</b>	<b>572.6</b>

**Tableau 5.** Requins et squalidés débarqués en 2011.

	<i>Engin</i>	<i>Grand requin blanc (WSH)</i>	<i>Grand requin marteau (SPK)</i>	<i>Requin gris (SBL)</i>	<i>Requin HÄ (GAG)</i>	<i>Requin marteau commun (SPZ)</i>	<i>Requin marteau Halicorne (SPL)</i>	<i>Requin perlon (HXT)</i>	<i>Requin sombre (DUS)</i>	<i>Taupe bleue (SMA)</i>	<i>Taupe commune (POR)</i>	<i>Squales &amp; Requins*</i>
Atl	Trap	00	00	00	00	00	00	00	00	00	00	00
Atl	PS	29	00	5	6	54	00	00	02	30	00	127
Atl	Gill	00	00	00	00	00	00	00	00	00	00	00
Atl	LL & Hand	63	00	11	13	99	01	00	04	390	00	282
Méd	LL	00	00	00	03	00	00	00	00	00	00	33
Méd	Gill	00	00	00	00	00	00	00	00	00	00	00
Méd	PS	00	00	00	02	00	00	00	00	00	00	24
Méd	Hand	00	00	00	01	00	00	00	00	00	00	3
Méd	Trap	00	00	00	00	00	00	00	00	00	00	00
Tot-Atl		92	00	16	19	143	01	00	06	420	00	409
Tot-Méd		00	00	00	06	00	00	00	00	00	00	60
<b>Tot</b>		<b>92</b>	<b>00</b>	<b>16</b>	<b>25</b>	<b>143</b>	<b>01</b>	<b>00</b>	<b>06</b>	<b>420</b>	<b>00</b>	<b>469</b>

**Tableau 6.** Récapitulatif des données générales de captures par zones et par espèces (TM)

	<i>Atl</i>	<i>Méd</i>	<i>Total</i>
Thon rouge	1055	182	1237
Thon obèse	300	00	300
Thon germon	0.2	00	0.2
Thon albacore	272	0.4	272.4
Espadon	782	1027	1809
Petits thonidés	3424	283	3707
Autres thonidés	75	11	86
Squalidés & requins	1106	66	1172
<b>TOTAL</b>	<b>7014,2</b>	<b>1569,4</b>	8583.6

**Tableau 7.** Récapitulatif des séries de données Tâche II disponible pour l'année 2011 et pour les années antérieures (voir données détaillées sur support électronique en annexe à ce rapport).

<i>Espèce/stock</i>	<i>Type données</i>	<i>Engin</i>	<i>Série temporelle</i>
Thon rouge Atlantique Est+MED (BFT)	Données mensuelles d'échantillonnage de taille ;	Trap + HL	2011
	Données mensuelles de prises par taille ;	Trap + HL	2011
	Données mensuelles de capture/effort.	Trap + HL	2011
Espadon de la Méditerranée (SWO)	Données mensuelles d'échantillonnage de taille ;	Gill net	2011
	Données mensuelles de prises par taille ;	Gill net	2011
	Données mensuelles de capture/effort.	Gill net	2011
Espadon et germon de l'Atlantique (SWO+YFT)	Données mensuelles de capture/effort.	LL	2011
Espadon de l'Atlantique Nord (SWO)	Données mensuelles d'échantillonnage de taille ;	LL	2010
	Données mensuelles de prises par taille.	LL	2010
Bonite à dos rayé de l'Atlantique (BON)	Données mensuelles de capture/effort ;	Gill net	2004-
	Données mensuelles d'échantillonnage de	Gill net	2009
	taille.		2008

**Tableau 8.** Échantillon de taille du thon rouge prélevé pendant le transport (échantillonnage de l'Azrou-1 réalisé pendant la capture le 9 juin 2011).

<i>Poids (kg)</i>	<i>FL (cm)</i>	<i>LI (cm)</i>
230	236	66
63	149	43
39	129	39
37	127	38
31	115	33

**ANNUAL REPORT OF NAMIBIA  
RAPPORT ANNUEL DE LA NAMIBIE  
INFORME ANUAL DE NAMIBIA**

SUMMARY

*Namibia, as a member of ICCAT, strives to fully implement all ICCAT Conservation measures. Foreign fishing vessels entering Namibian ports are thoroughly inspected to ensure that they have not contravened national laws and regulations of Namibia or those of other states, as well as conservation and management measures developed by ICCAT and any other RFMO to which Namibia is a member. In addition, monitoring measures are in place to ensure that all products coming from licensed tuna fishing vessels, when entering or leaving the country, are accompanied by a duly completed and validated statistical document. It was observed that the catches of ALB and SMA have significantly increased in 2011, when compared to what was landed in 2010, while that of YFT has increased from 15 tons to 95 tons during the same period. The number of Pole and line boats operating in Namibia was also found to have increased significantly during the same period. During 2010, 12 Pole and line boats and 9 long line vessels operated in Namibia, while in 2011 there were 38 Pole and line boats and 7 long line vessels operating in the country. Namibia continued to undertake research in 2011 on all ICCAT species caught by boats operating in Namibia. Data obtained from log sheets supplied to fishing vessels, as well as data collected by observers onboard these fishing vessels were analysed and the preliminary results were submitted to ICCAT in July 2012. Fisheries observers were also tasked to observe the activities of fishing vessels at sea and report any violations for possible action to be taken against the culprits. Furthermore, Namibia had deployed Fisheries Inspectors both at sea and in the harbours to ensure strict compliance with the country's rules and regulations related to the exploitation of marine living resources, including those adopted by Namibia as part of its obligations to International Organisations, such as ICCAT.*

RÉSUMÉ

*La Namibie, en qualité de membre de l'ICCAT, s'efforce de mettre pleinement en œuvre toutes les mesures de conservation de l'ICCAT. Les navires sous pavillon étranger entrant dans les ports namibiens font l'objet d'une inspection exhaustive afin de veiller à ce qu'ils n'enfreignent pas la législation et les réglementations de la Namibie ou celles d'autres États, ainsi que les mesures de conservation et de gestion de l'ICCAT et de toute autre ORGP dont la Namibie est membre. En outre, des mesures de suivi sont en place afin de veiller à ce que tous les produits provenant des navires de pêche de thonidés autorisés, à leur entrée ou sortie du pays, soient accompagnés d'un document statistique dûment complété et validé. Il a été observé que les prises de germon et de requin-taube bleu ont augmenté considérablement en 2011, comparé au volume débarqué en 2010. Les prises d'albacore ont augmenté, passant de 15 à 95 tonnes pendant la même période. Le nombre de navires opérant à la canne et hameçon en Namibie a également augmenté de manière significative pendant cette période. En 2010, 12 navires à la canne et hameçon et 9 palangriers ont opéré en Namibie, alors qu'en 2011 un total de 38 navires à la canne et hameçon et 7 palangriers ont opéré dans le pays. En 2011, la Namibie a poursuivi ses recherches sur toutes les espèces ICCAT capturées par des navires opérant en Namibie. Les données extraites des carnets de pêche fournis par les navires de pêche, ainsi que les données recueillies par les observateurs déployés à bord de ces navires de pêche, ont été analysées et les résultats préliminaires ont été présentés à l'ICCAT en juillet 2012. Les observateurs des pêcheries ont également été chargés d'observer les activités de navires de pêche en mer et de signaler toute infraction pour prendre éventuellement des mesures à l'encontre des coupables. De plus, la Namibie a déployé des inspecteurs des pêches en mer et dans les ports afin de garantir le respect strict des normes et des réglementations du pays concernant l'exploitation des ressources marines vivantes, comprenant celles adoptées par la Namibie dans le cadre de ses obligations à l'égard d'organisations internationales telles que l'ICCAT.*

## RESUMEN

*Namibia, en su calidad de miembro de ICCAT, se esfuerza por implementar plenamente todas las medidas de conservación de ICCAT. Los buques pesqueros extranjeros que entran en los puertos namibios se someten a una exhaustiva inspección para garantizar que no infringen las legislaciones y reglamentos de Namibia o de otros Estados, así como las medidas de conservación y ordenación desarrolladas por ICCAT y por otras OROP de las que Namibia es miembro. Además, se han implementado medidas de seguimiento para garantizar que todos los productos procedentes de buques pesqueros atuneros con licencia, en el momento de entrar o salir del país, están acompañados de un documento estadístico debidamente cumplimentado y validado. Se ha observado que las capturas de atún blanco y marrajo dientuso se han incrementado notablemente en 2011, cuando se comparan con los desembarques de 2010. Las capturas de rabil también se han incrementado, pasando de 15 t a 95 t durante el mismo periodo. El número de barcos de caña y línea que opera en Namibia también se ha incrementado notablemente durante este mismo periodo. En 2010, operaron en Namibia 12 barcos de caña y línea y 9 palangreros, mientras que en 2011 había 38 buques de caña y línea y 7 palangreros que operaron en el país. Namibia continuó realizando investigaciones en 2011 de todas las especies de ICCAT capturadas por los buques que operan en Namibia. Se analizaron los datos obtenidos de los cuadernos de pesca presentados por los buques de pesca, así como los datos recopilados por los observadores embarcados en estos buques pesqueros, y los resultados preliminares de estos análisis se transmitieron a ICCAT en julio de 2012. Los observadores de las pesquerías también recibieron instrucciones para observar las actividades de los buques pesqueros en el mar y comunicar cualquier infracción, con el fin de que se puedan emprender acciones con respecto a los infractores. Además, Namibia ha desplegado inspectores pesqueros tanto en el mar como en los puertos para garantizar el estricto cumplimiento de las normas del país y de los reglamentos relacionados con la explotación de los recursos marinos vivos, lo que incluye los adoptados por Namibia como parte de sus obligaciones con respecto a organizaciones internacionales, como ICCAT.*

## **Part I (Information on Fisheries, Research and Statistics)**

### ***Section 1: Annual Fisheries Information***

Namibia charters Pole and line boats and long line vessels on a seasonal basis, mostly from South Africa, to catch mainly Tuna, Swordfish and sharks during the short fishing season (mainly from November to April). During 2010, 12 Pole and line boats and 9 long line vessels operated in Namibia, while in 2011 there were 38 Pole and line boats and 7 long line vessels operating in the country. A summary of catches landed by Pole and line boats and long line boats operating in Namibia since 2009 is shown in table 1 below. It is shown in the table that the catches of ALB and SMA have increased significantly, when compared to what was landed in 2010, while that of YFT has increased from 15 tons to 95 tons during the same period.

### ***Section 2: Research and Statistical Information***

Namibia collects statistical data from its Large Pelagic fishing fleet, through information gathered from the logsheets supplied to fishing vessels, landings data supplied by the fishing companies as well as data collected at sea by Fisheries Observers (RESDAT). This data is then worked-up into the ICCAT excel worksheets and submitted annually by the end of July.

#### ***2.1 Logsheets***

The following is noted in these sheets; Vessel License No, IRCS, Captain's name, Trip No, Year & Month, logsheet Serial No, the date of set/shoot & lat&long, date of haul/catch & lat&long, effort (hooks/poles) and the captains guess of the catch (in kg) for each species.

#### ***2.2 RESDAT Form 1A***

These forms are used for commercial vessels at sea. They are filled in by the Fisheries Observer on board in which he/she notes station- and catch information, biological data; for tunas, tuna-like species and swordfish 1)

species, 2) total catch (kg), No sampled, weight sampled (kg) and the form number (e.g., 2A) on which individual fish lengths are recorded (also Vessel ID, Trip No, Station No, Date and First Sampler No. For large pelagic sharks sex is also noted on Form 2C (Biological).

### *2.3 Observers*

Namibia has a 100% policy onboard coverage by fisheries observers on all Namibian licensed fishing vessels as well as foreign chartered fishing vessels operating within the Namibian EEZ and in International waters (Table 2). Their duties are to ensure compliance to fisheries legislations governing fishing operations and included but not limited to the following;

- Ensure correct and accurate logbook completion,
- Ensure accurate reporting of areas of operation, catches and quantities,
- Correct processing methods onboard fishing vessels and prevent/or limit the discarding of eatable and marketable fish species,
- Collecting scientific data such as species identification, length measurements, sexing and collection of otoliths.

## **Part II (Management Implementation)**

### ***Section 3: Implementation of ICCAT Conservation and Management Measures***

Statistical document programs which Namibia utilizes as established by ICCAT are those for swordfish and big eye tuna. All Namibian licensed tuna vessels ensure that all products of these species, when entering or leaving the country, are accompanied by a duly completed and validated statistical document. For vessels operating under a charter arrangement, Namibia validates the documents for those on the ICCAT record. Re-export certificates for foreign catches landed in Namibian ports are also issued.

Management measures in force in the large pelagic fishery are: the ICCAT Catch Documentation Scheme, TAC's for swordfish, catch limit on Big eye Tuna as by-catch and a sharing arrangement quota on Albacore, gear restrictions (longline & pole-and-line only), value-added processing is a license condition for pole-and-line vessels and limited entry (number of licences) for the longline fishery.

### ***Section 4: Details and Results of Inspection Schemes***

The Monitoring, Control and Surveillance (MCS) component of Namibia comprises an integrated programme of inspections and patrol at sea, and on land to ensure compliance to Namibian Marine legislation, through deploying fisheries patrol vessels, patrol aircrafts, harbour, factory and coastal patrols respectively. Fisheries Inspectors at the Ministry of Fisheries and Marine Resources are responsible to enforce fisheries legislation, to monitor and control fishing activities along the country's coastline, in harbours, onshore processing plants and at mid-water. In addition to this they also monitor all landings to ensure compliance with quota limits and conditions. Conditions attached to fishing licenses dictate that all fish caught under a Namibian fishing license be offloaded and monitored by a fisheries inspector at either of the two commercial ports of Lüderitz or Walvis Bay.

All foreign fishing vessel entering Namibian ports are thoroughly inspected to ensure that all fishing vessels that they have not contravened national laws and regulations of Namibia or other states or involved in any IUU fishing activities, conservation and management measures developed by ICCAT and any other RFMO's of which Namibia is a member. Foreign vessels operating in ICCAT Convention Area regularly make use of Namibian ports to offload their catches. These vessels are monitored and controlled under the ICCAT Port Inspection Scheme whereby the following procedures are in place:

- Advance Entry Notification by foreign fishing vessels are submitted by vessel agents at least 5 working days in advance with copies of their fishing licenses, high seas permits, vessel registration documents, authorized vessel registration on ICCAT website, cargo manifest, crew list and VMS/ positional report;

- The Ministry of Fisheries verify these documentation, confirm consent from flag state whether vessels are legal, confirm vessel listing on ICCAT website and other RFMO's IUU listing such as CCMLAR, SEAFO and IOTC.
- Approvals are then granted for entry into port.
- In port, the Fisheries Inspectors verify the original documentation onboard and allow offloading to commence. They monitor the landings and complete a Port Inspection Report at the end.
- The approved Advance Notification and Port Inspection Report are filed for future reference.

Namibia has designed a port state inspection form that records all landings. The fisheries inspector completes the form and results are presented to the master of the vessel for comments. Once satisfied, both the fisheries inspector and master sign the form.

Two patrol vessels namely “*Nathaniel Maxuilili*” and “*Anna Kakurukaze Mungunda*” are deployed at sea to strengthen fisheries control function through regular monitoring, control and surveillance. Inspectors onboard the patrol vessels inspect the fishing vessels for activities ranging from irregular round-straps, outdated vessel hold drawings, displaying of unclear vessel names on the vessel side and incomplete daily log books. Non-compliance in this regard is fined on the spot. There are two fisheries patrol aircrafts “*Sea Eagle I*” and “*Sea Eagle II*”.

**Table 1.** Landings of ICCAT species by bait boats and long line vessels operating in Namibia during the period 2009 to 2011.

<i>Year</i>	<i>Pole &amp; line vessels</i>	<i>Longline vessels</i>	<i>ALB</i>	<i>SWO</i>	<i>BET</i>	<i>YFT</i>	<i>BSH</i>	<i>SMA</i>
2009	35	9	4475	475	187	78	1494	182
2010	12	9	2111	526	228	15	2574	330
2011	38	7	3800	413	289	95	2957	889

**Table 2.** Level of observer coverage over the last three years 2009-2011

	<i>Fishing trips</i>		<i>Observer trips</i>	
	<i>Pole &amp; line</i>	<i>Longline</i>	<i>Pole &amp; line (% trips covered)</i>	<i>Longline (% trips covered)</i>
Jul 09 – Jun 10	88	5	84 (95.45)	5 (100%)
Jul 10 – Jun 11	260	12	238 (91.54%)	12 (100%)
Jul 11 – Jun 12	148	17	144 (97.30%)	17 (100%)

**ANNUAL REPORT OF NORWAY  
RAPPORT ANNUEL DE LA NORVÈGE  
INFORME ANUAL DE NORUEGA**

*SUMMARY*

*There have been no catches of Atlantic bluefin tuna (*Thunnus thynnus*), Atlantic swordfish (*Xiphias gladius*) or Atlantic bonito (*Sarda sarda*) in Norway in 2011. Norway continuously works on historical data on tuna and tuna-like species, and aims to put the data on these species into an ecosystem perspective. Norway participated at the SCRS annual science meeting in 2011.*

*RÉSUMÉ*

*Aucun spécimen de thon rouge de l'Atlantique (*Thunnus thynnus*), d'espadon de l'Atlantique (*Xiphias gladius*) et de bonite à dos rayé (*Sarda sarda*) n'a été capturé en Norvège en 2011. La Norvège mène des travaux continus sur les données historiques concernant les thonidés et les espèces apparentées et poursuit l'objectif de placer les données sur ces espèces dans une perspective écosystémique. La Norvège a participé à la réunion annuelle scientifique du SCRS en 2011.*

*RESUMEN*

*No ha habido capturas de atún rojo del Atlántico (*Thunnus thynnus*), de pez espada del Atlántico (*Xiphias gladius*) o de bonito (*Sarda sarda*) en Noruega en 2011. Noruega trabaja continuamente en los datos históricos de túnidos y especies afines, con el objetivo de incluir los datos sobre estas especies en una perspectiva ecosistémica. En 2011 Noruega participó en la reunión científica anual del SCRS.*

**Part I (Information on Fisheries, Research and Statistics)**

***Section 1: Annual Fisheries Information***

In light of the stock situation for bluefin tuna, Norway adopted in 2007 a prohibition for Norwegian vessels to fish and land bluefin tuna in Norway's territorial waters, in the Norwegian Economic Zone and in international waters. The prohibition remains in force.

There have been no catches in Norway in 2011 of Atlantic bluefin tuna (*Thunnus thynnus*), Atlantic swordfish (*Xiphias gladius*), Atlantic bonito (*Sarda sarda*) or other tuna or tuna-like species managed by ICCAT.

***Section 2: Research and Statistics***

Norway continuously works on historical data for bluefin tuna, and aims to put the data into an ecosystem perspective and as input to assessment models. A document entitled "Atlantic bonito in Nordic waters: biology, distribution and feeding" was submitted to the SCRS (Nøttestad et al, 2013). An historical overview of Atlantic swordfish observations and catches registered in Norwegian waters from 1967 to present was also submitted to the SCRS (Sundby et al, 2013). Norway participated at the SCRS annual science meeting in 2011. Knowledge about bluefin tuna research and management has also been presented in regional and national newspapers and magazines.

**Part II (Management Implementation)**

***Section 3: Implementation of ICCAT Conservation and Management Measures***

Bluefin tuna is the only tuna species in ICCAT's Convention area to which Norway is a coastal state. Norway has no long distance fisheries for other tuna or tuna-like species in the Convention area.



In light of the critical stock situation for bluefin tuna, Norway adopted 3 May 2007 a prohibition for that year for Norwegian vessels to fish and land bluefin tuna in Norway's territorial waters, in the Norwegian Economic Zone and in international waters. A new regulation adopted 19 December 2007 provides for the same prohibition. This regulation, which entered into force 1 January 2008, is not limited in time, and therefore remains in force until otherwise decided. In addition to the prohibition to fish and land bluefin tuna, the regulation stipulates that in case of incidental by-catches of bluefin tuna in fisheries for other species, all bluefin tuna fit for survival shall be immediately released back to the sea, whereas dead or dying bluefin tuna shall be landed. Any wilful or negligent contravention of these provisions is subject to penalty in accordance with Norwegian law.

Norway adopted 20 March 2009 a regulation relating to catch documentation for Atlantic bluefin tuna (*Thunnus thynnus*), bigeye tuna (*Thunnus obesus*) and swordfish (*Xiphia gladius*). The regulation which entered into force 6 April 2009, establishes a catch documentation scheme whereby the Norwegian Directorate of Fisheries will issue catch documents for bluefin tuna, bigeye tuna and swordfish upon landing. Although it is prohibited for Norwegian vessels to fish or land bluefin tuna, dead or dying bluefin tuna shall be landed, and catch documents shall be issued. Furthermore, when bluefin tuna, bigeye tuna or swordfish landed in Norway is subject to domestic trade, the new regulation stipulates that each consignment shall be accompanied by a valid catch document issued by the Directorate of Fisheries. The regulation further stipulates that import of bluefin tuna, bigeye tuna or swordfish is prohibited unless the consignment is accompanied by catch documents validated by the responsible authority in the country where the fish was landed. The importer shall immediately send a copy of the valid catch documents to the Directorate of Fisheries. This also applies to foreign vessels landing bluefin tuna, bigeye tuna or swordfish in Norway. Furthermore, export of bluefin tuna, bigeye tuna or swordfish is prohibited unless the consignment is accompanied by a catch document validated by the Directorate of Fisheries. Re-exports shall be accompanied by valid catch documents and re-export documents issued by the Directorate of Fisheries. When issuing catch documents and re-export documents the Directorate of Fisheries shall use the relevant ICCAT documents. The Customs Authorities and the Directorate of Fisheries may carry out controls according to this regulation. Any wilful or negligent contravention of the regulation is subject to penalty in accordance with Norwegian law.

According to paragraph 1 in Recommendation 11-08 on the Conservation of Silky Sharks caught in Association with ICCAT Fisheries, CPCs shall require fishing vessels flying their flag and operating in ICCAT managed fisheries to release all silky sharks whether dead or alive, and prohibit retaining on board, transshipping, or landing any part or whole carcass of silky shark. However, this prohibition on retention does not apply to CPCs whose domestic law requires that all dead fish be landed, that the fishermen cannot draw any commercial profit from such fish and that includes a prohibition against silky shark fisheries, cf. paragraph 6 of Recommendation 11-08.

There are no Norwegian flagged vessels operating in ICCAT managed fisheries, and silky sharks do normally not occur in Norwegian waters. However, there is a general requirement following from the Norwegian Marine Resources Act (Section 15) and the Regulations relating to Sea-water Fisheries (Section 48) that all dead fish be landed. Hence, in order to be in line with Recommendation 11-08, a prohibition against silky shark fisheries has been included in the Norwegian regulation prohibiting fisheries for basking shark, spiny dogfish and porbeagle. Furthermore, bycatches of basking shark, porbeagle and silky shark shall be returned to the sea if they are capable of surviving, and all catches shall be reported.

The regulations prohibiting fisheries of basking shark, porbeagle, spiny dogfish and silky shark are laid down under the Marine Resources Act, and the value of catches harvested or delivered in contravention of provisions laid down in or under this act, accrue to the appropriate sales organization or to the state. Hence, the fishermen cannot draw commercial profit from landings of silky shark.

#### ***Section 4: Inspection Schemes and Activities***

All fishing operations in waters under Norwegian fisheries jurisdiction are subject to resource control. This control is directed at the entire production chain, from the moment of capture in the sea, at the landing site, through storage and sale/export. Both Norwegian and foreign fishing vessels are subject to stringent controls in all Norwegian fishing waters. The Coast Guard annually performs around 2000 inspections of Norwegian and foreign vessels operating in Norwegian waters. Vessels over 15 metres are required to carry satellite transponders that permit their activities to be tracked 24 hours a day, all year round. Once catches have been landed, the landing data are cross-checked against the fishing rights of the vessel.

**Section 5: Other Activities**

Norway has no other tuna fishery related activities.

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**ANNUAL REPORT OF PANAMA  
RAPPORT ANNUEL DU PANAMA  
INFORME ANUAL DE PANAMÁ**

**Parte I (Información sobre pesquería, investigación y estadísticas)**

***Sección 1: Información anual sobre pesquería***

La República de Panamá está ubicada entre los 7° 12'07'' y 9° 38'46'' de Latitud Norte y 77° 09'24'' y 83° 03'07'' de Longitud Oeste y presenta una extensión de 75,517 Km<sup>2</sup> (29,208 millas cuadradas). Panamá forma un eslabón entre la América Central y la América del Sur, y posee costas en el Caribe y en el Pacífico donde emergen unas 1, 581 islas e islotes. Las costas suman en total 2,988.3 Km., de los cuales 1.700.6 Km. se encuentran del Pacífico y 1,287.7 Km. se encuentran en el Caribe.

Su aguas jurisdiccionales se extienden a unas 200 millas náuticas de ancho sobre la cual la República de Panamá ejerce soberanía y derechos soberanos, al igual que sobre su lecho marino. Esta zona se encuentra influenciada por un importante afloramiento en el Golfo de Panamá, la estación seca incrementa la productividad primaria y acelera el desarrollo de un gran número de especies. En las aguas del océano Pacífico, Panamá desarrolló el 95% de su actividad pesquera, y en dicha área geográfica se encuentra el 80% de la población del país.

A nivel nacional, nuestra pesquería está compuesta por dos importantes actores: el sector pesquero industrial y el artesanal. La pesca industrial ha sido desarrollada tanto en aguas jurisdiccionales como en la alta mar. Entre los rubros de mayor interés en la pesca en aguas jurisdiccionales podemos mencionar: la pesca del camarón blanco, la pesca de anchoveta y arenque y la pesca de especies demersales de carácter comercial, pelágicas y de fondo. Pero Panamá igualmente cuenta con una importante pesquería en la zona de alta mar, que ha desarrollado a través de su flota de buques con licencia internacional que pesca; pesquería que históricamente se ha dirigido a túnidos.

Existe una pesquería ribereña del Caribe en el Océano Atlántico, sectorizada hacia las zonas de Bocas del Toro, Colón y la Comarca de San Blas; siendo la plataforma continental corta y pronunciada, sólo se ha desarrollado la pesca de especies asociadas a los arrecifes, al igual que una pesquería industrial de camarón de baja intensidad. En esta áreas la pesca artesanal se dedica principalmente a la captura de langosta (*Panulirus sp*), caracoles (*Strombus sp*), pulpo y cangrejo centollo. De estas especies la más importante es la pesca de la langosta (*Panulirus sp*), resultando la principal pesquería de la región del Caribe. La explotación de estos recursos se encuentra regulada y para llevar a cabo su actividad se requiere la obtención previa de permisos, sujetos a otras medidas de ordenación y conservación, como la implementación de vedas para algunas de estas especies.

El limitado desarrollo de las pesquerías en esta zona ha impulsado el establecimiento de actividades asociadas a las pesquerías como lo son el cultivo de cobia y corvina y pargos en jaulas flotantes. *Información sobre la pesca nacional*

Entre 1990 y 1995, Panamá inicia acciones para reducir la flota de buques palangreros japoneses y coreanos que una vez ingresaron a nuestra Marina Mercante. Durante este tiempo nuevas regulaciones internacionales para la pesca de ciertas especies surgen en el seno de Organizaciones Regionales de Ordenación Pesquera (OROP's) especialmente en la Comisión Internacional para la Conservación del Atún del Atlántico (ICCAT).

En 1992 ICCAT se comunica oficialmente con Panamá para señalar que buques de su pabellón pescaban en contravención con las medidas de conservación de esa organización. En 1994 esta OROP recomendó una restricción sobre las capturas del atún rojo en el Atlántico, incluida las del Mediterráneo, así como el programa de documento estadístico para el atún rojo. En 1995 le advierte a la República Panamá y a otros países, que buques de sus pabellones fueron identificados con prácticas pesqueras contrarias a las medidas de ordenación, y durante el período de 1996 a 1998, en el ámbito internacional se critica muy fuertemente las actividades de la flota pesquera inscrita en el registro de Marina Mercante Panameña y nuestras autoridades aprueban el documento Estadístico para el Atún Rojo.

Panamá ha realizado una gran gestión en el control de sus naves de pesca, desde 1997, año en que estableció la obligación de obtener una licencia de pesca para naves que pesquen en la alta mar o en la Zona Económica Exclusiva de otros Estados. A finales de este mismo año, se estableció la obligatoriedad de obtener una Licencia

de Pesca previa a la inscripción en el registro de la Marina Mercante, se prohíbe la pesca en el Mediterráneo y la dirigida a la captura de atún rojo y atún blanco del Norte o del Sur en el Atlántico. Con dicha acción de Panamá, más de mil buques pesqueros de bandera panameña no aplicaron o no calificaron para la obtención de la licencia de pesca correspondiente y se les eliminó del registro de nuestra Marina Mercante.

Para el año de 1998, Panamá, se adhirió como Parte Contratante de ICCAT (Ley N° 74 de 10 noviembre de 1998) y a partir de 1999 mediante la Resolución Administrativa N° 101-99 del cuatro (4) de agosto de mil novecientos noventa y nueve (1999) se exige a todos los buques de pabellón panameño de servicio internacional, la instalación y uso de un sistema de localización satelital (VMS) autorizado por la autoridad competente, hoy en día la Autoridad de los Recursos Acuáticos de Panamá (ARAP), como un pre-requisito para obtener la licencia de pesca y se adopta el esquema de ICCAT para inspección en puerto.

El sistema de monitoreo satelital (VMS) instalado a bordo, es de irrestricto cumplimiento para todas las naves pesqueras con licencia de pesca internacional y se trata de un sistema de vigilancia de embarcaciones (VMS) que utiliza Panamá tanto en los barcos grandes de bandera panameña que pescan en el Atlántico, como en todas las naves de pesca panameñas de licencia internacional (naves de pesca que se dedican a la captura de recursos marinos fuera de las aguas jurisdiccionales). Es bueno recalcar que en el caso de estas naves de pesca, el tamaño de la eslora no exime del cumplimiento de la norma.

Con estas acciones, en 1999, Panamá logra levantar las sanciones comerciales que se le habían impuesto desde 1998 por los países miembros de ICCAT, que impedían la importación al mercado europeo, de atún proveniente de barcos de bandera panameña.

En cuanto a la flota nacional en el océano Atlántico, está conformada por 2 buques cerqueros y **35** buques palangreros, mayores de 20 m de eslora los cuales pescan atún aleta amarilla (yellowfin tuna-*Thunnus albacares*), patudo (bigeye tuna- *Thunnus obesus*), barrilete (skipjack tuna- *Katsuwonus pelamis*) y especies incidentales.

En el marco del organismo regional de ordenación pesquera, CIAT, Panamá como parte contratante desde 1952, ratifica el Acuerdo sobre el Programa Internacional para la Conservación de los Delfines, mediante Ley N° 75 de 10 de noviembre de 1998.

En cumplimiento de las decisiones adoptadas y emanadas por la Resolución A/RES/53/33 de 15 de marzo de 1999 de la Asamblea General de las Naciones Unidas, relativas a la pesca de altura en gran escala con redes de enmalle y deriva, la pesca no autorizada en zonas sujetas a jurisdicción nacional y en alta mar, las capturas incidentales y los descartes en la pesca y a otras cuestiones; República Panamá emite el Decreto Ejecutivo N° 90 de 17 de julio de 2002 "Por medio del cual se prohíbe el uso de redes de enmalle y/o deriva a todas las naves de pesca industrial de servicio interior e internacional con bandera panameña, ya que representa una amenaza importante para el medio ambiente marino, la sostenibilidad de las pesquerías y la biodiversidad marina; Panamá, en concordancia con estos instrumentos internacionales adopta los programas para el control de la pesca ilegal por parte de la Unión Europea y otras organizaciones regionales de ordenación pesqueras (OROP's), desde el año 2005. En el mismo año se incorpora a la Estrategia Marítima Nacional, la necesidad de conformar un Plan Nacional para prevenir, desalentar y eliminar la pesca Ilegal, No Declarada y No Reglamentada.

Con relación a la pesca deportiva, generalmente no está normada, no existe una estadística de pesca, excepto en los puntos de mayor actividad para el área del Pacífico; en el Caribe se realiza en áreas como Bocas del Toro y en Colón. La pesca basada en las normativas ya existente en algunas zonas de pesca para yates de paseo se realiza por captura y liberación de especies como lo es para el caso del pez espada (*Xiphias gladius*), habiéndose adoptado una normativa nacional que prohíbe la comercialización de esta especie si es capturada en aguas nacionales.

El Decreto Ejecutivo N° 83 de 5 de abril de 2005, establece la obligación que todas las naves de pesca de servicio interior, es decir que realizan sus capturas dentro de las aguas jurisdiccionales panameñas, de mantener a bordo un sistema de verificación de monitoreo satelital (VMS), y el Decreto Ejecutivo No. 17 de 30 de junio de 2008, hace extensiva la obligación a todas las naves de pesca mayores de 6 TRB, norma que entró a regir en el año 2009.

Mediante Ley No. 44 de 23 de noviembre de 2006, se crea la Autoridad de los Recursos Acuáticos de Panamá (ARAP) y se introduce una definición para *embarcación pesquera* que acoge las embarcaciones de transporte de pescado o barcos de carga y a los buques de apoyo. Tras algunas discusiones en torno a la definición clara de

este tipo de embarcaciones se adopta una Resolución que regula el tema de los buques que reciben trasbordo y de los buques de apoyo a las actividades de pesca.

En noviembre de 2008 fue aprobado el Código Marítimo de Panamá, allí se establece como pre-requisito para inscribir una nave de pesca en el registro de la Marina Mercante, el obtener una licencia de pesca, quedando limitada y altamente regulada la inscripción de embarcaciones pesqueras bajo la bandera panameña. Este ha sido un gran logro y, a pesar de todos los esfuerzos que se realizaron durante los años pasados, no es sino hasta ahora que se adopta mediante Ley de la República la obligación de obtener la licencia de pesca, para cualquier tipo de embarcación pesquera; antes se exigía a través de un Decreto Ejecutivo. Entre las normas implementadas, encontramos la definición de la pesca ilegal no declarada no reglamentada (INDNR) y la consideración expresa de no otorgar licencia de pesca a naves que estén bajo esta condición.

La Resolución 07-08 “*Recomendación de ICCAT respecto al formato y protocolo de intercambio de datos en relación con el sistema de seguimiento de buques (VMS) para la pesca del atún rojo en la zona del Convenio ICCAT*”, al referirse a la Resolución 06-05, el párrafo 30 nos dice que: “todos los buques pesqueros autorizados a pescar activamente atún rojo en el Atlántico este y el Mediterráneo. A efectos de esta recomendación se considerara que los buques pesqueros no incluidos en el Registro no están autorizados a pescar, retener a bordo, transbordar, transportar, transferir o desembarcar atún rojo en el Atlántico Este y Mediterráneo”. Panamá no autoriza barcos pesqueros para la pesca activa de atún rojo en el Atlántico ni en el Mediterráneo.

Panamá ha informado y reiterará su solicitud a ICCAT y a los otros organismos internacionales, para que se solicite autorización previa de ingreso de buques de bandera panameña, en el registro de buques de carga, por parte de la Autoridad de los Recursos Acuáticos; todo ello basado en que Panamá ha cuestionado al Secretario Ejecutivo (ver anexo IV) el hecho de que actualmente cualquier Parte Contratante o Parte, Entidad o Entidad Pesquera No Contratante Colaboradora (por sus siglas “CPC”) puede inscribir en el registro de buques de carga, un buque sin la anuencia del Estado de pabellón; lamentablemente a la fecha, la respuesta que hemos recibido de la ICCAT es que la propia Resolución ICCAT 06-11 adoptada por las Partes así lo establece.

Panamá se ha opuesto a que las CPC registren barcos sin que haya sido extendida la correspondiente anuencia previa del Estado de pabellón del buque, y en consecuencia queden prohibidos por exclusión, los trasbordos por buques de bandera panameña no inscritos con la anuencia de Panamá que no participen del programa de observadores de la Organización Regional Pesquera (OROP).

Muchos han sido los retos, entre ellos el hecho de que armadores abusen al usar la bandera panameña en sus embarcaciones aun cuando no sea cierto que estén matriculadas en Panamá, o cuando persiste en los organismos internacionales la condición de que una nave es panameña, cuando la misma ha sido dada de baja en el Registro de Buques panameños y cambiado de pabellón, y más recientemente en el año 2009 ha adoptado como norma nacional, el Código de Conducta para la Pesca Responsable y desarrollado su Plan de Acción Nacional para detener y eliminar la pesca INDNR.

La Resolución 11-08, *Recomendación de ICCAT sobre la conservación del tiburón jaquetón capturado en asociación con las pesquerías de ICCAT*. Hemos preparado una propuesta de normativa presentada ante esta Autoridad para su cumplimiento, la cual será revisada ante la Junta Directiva el próximo 29 de Agosto del presente año con la finalidad de adoptarla como norma nacional.

## ***Sección 2: Investigación y estadística***

Sistema de Información Pesquera: Actualmente la Autoridad Marítima de Panamá (AMP) registra y mantiene datos estadísticos de todas las actividades desarrolladas en los aspectos de la Marina Mercante, Puertos, Gente de Mar y datos de descarga de los productos pesqueros en puertos nacionales.

La ARAP cuenta con la Dirección General de Investigación y Desarrollo, encargada de verificar las capturas y mantiene información de desembarque, exportación, importación de los productos pesqueros, así como información biométrica de las especies explotadas, que son importantes como apoyo al desarrollo pesquero del país.

La ARAP mantiene programas de muestreo periódicos de desembarques en puertos por especies y tallas. Existen Centros de Investigaciones, tales como, el Centro de Ciencias del Mar y Limnología de la Universidad de Panamá, que realiza investigaciones puntuales en sistemas de estuarios y el Instituto Smithsonian de

Investigaciones Tropicales (STRI), que enfoca sus estudios en el área biológica y de la conservación de los ecosistemas marinos.

Asimismo, se realizan investigaciones conjuntas con la CIAT en el Laboratorio de Achotines ubicado en la región pacífica del litoral panameño, que apoya investigaciones de las especies del atún tropical, con el objetivo principal de cerrar su ciclo biológico, pero en adición de analizar los parámetros de mortalidad producto de las turbulencias de las aguas marinas. Igualmente, el Plan de Acción del Pacífico Sudeste y el Plan de Acción del Caribe son programas de mares regionales del Programa de Naciones Unidas para el Medio Ambiente (PNUMA), que apoyan investigaciones sobre indicadores ambientales y calidad de aguas marino costera, que permiten atender áreas de riesgo para ecosistemas y especies marinas de interés comercial. Por otro lado, con el apoyo del Ministerio de Ciencias de España se desarrollan investigaciones de prospección pesquera y monitoreo de inventarios de las poblaciones de los recursos pesqueros en las plataformas continentales en las costas del litoral pacífico, regiones de Azuero y Veraguas. Todo ello contribuye para una mejor toma de decisión en cuanto al manejo sostenible de los recursos pesqueros y los ecosistemas.

Existe un programa de recolección de datos de pesca para las naves de pesca internacional, específicamente encargado de Tareas I y II de ICCAT. Adicionalmente, la ARAP mantiene registros de naves de pesca en general que realizan sus actividades en el Océano Atlántico, así como las modificaciones de sus especificaciones y dimensiones, artes de pesca, especies capturadas y áreas de faena.

## **Parte II (Implantación de la ordenación)**

### ***Sección 3: Implementación de las medidas de conservación y ordenación de ICCAT***

La pesca de atún Rojo en aguas de la República de Panamá, no es una actividad regulada. Teniendo en cuenta las medidas de conservación y ordenación que mantiene ICCAT, la República de Panamá en cumplimiento de su Resolución Administrativa 1791 de 20 de diciembre de 2001, no otorga Licencias de Pesca de atún rojo para el Atlántico o Mediterráneo cumpliendo a cabalidad con las recomendaciones de la ICCAT.

Dentro de las medidas de ordenación, sobre patudo (*Thunnus obesus*) Panamá ha cumplido no sobrepasando su cuota establecida para buques cerqueros, ni ha rebasado sus cuotas para las distintas pesquerías, tal como aparece reflejado en Tareas I y II.

Panamá como país a través de la ARAP, ejerce acciones de Seguimiento, Control y Vigilancia, cuenta con un Centro de Control y Seguimiento Pesquero con aplicaciones tecnológicas propias para la vigilancia de las embarcaciones pesqueras. Las embarcaciones pesqueras con pabellón nacional cuentan con un MODEM de comunicación (Iridium, Torium, INMARSAT C, INMARSAT D+) bidireccional con la capacidad de recibir interrogaciones y transmitir en tiempo real 24/7, la localización de latitud y longitud, velocidad y rumbo. Para el año de 1998, Panamá se adhirió como Parte Contratante de ICCAT (Ley N° 74 de 10 noviembre de 1998) y a partir de 1999, se exige un sistema de localización satelital (VMS), como uno de los requisitos previos a la obtención de la licencia de pesca y se adopta el esquema de ICCAT para inspección en puerto. Panamá cumple con exigir el sistema VMS para los barcos pesqueros desde 1999 y para los barcos de apoyo a la pesca y transporte desde el 2001.

Las naves de pesca industrial y las que realizan actividades de pesca internacional deben instalar a bordo un dispositivo de monitoreo satelital, que deben mantener encendido desde el zarpe hasta la recalada de la nave (Decreto Ejecutivo No. 83 de 5 de abril de 2005, Decreto Ejecutivo No. 17 de 30 de junio de 2008). La aplicación del VMS está reglamentada y la información proporcionada por el sistema, es interpretada por la autoridad competente, tiene validez legal de plena prueba. La adulteración de información, la operación sin el funcionamiento del dispositivo, así como el uso indebido del sistema VMS son sancionados por la Autoridad.

Observadores científicos: La ARAP tiene atribuciones para incluir a bordo de las naves de pesca, observadores científicos o inspectores. Esta disposición es de obligatorio cumplimiento con respecto a las naves nacionales que en períodos de veda y cuando se requiera, a fin de dar cumplimiento a las normativas e investigaciones existentes para la conservación y ordenación de los recursos pesqueros, existe también un Programa nacional de observadores científicos especialmente diseñado para las naves de pesca en aguas internacionales.

El Estado panameño a través de la ARAP certifica la idoneidad de los observadores que cumplan con los requisitos del sistema de observadores. Estos deberán remitir la información pertinente en original o copia debidamente autenticada a la misma.

En cumplimiento de las Recomendaciones de ICCAT, se incluyeron todos los barcos mayores de 20 metros de eslora en su Registro Regional de barcos pesqueros. En este sentido es bueno hacer del conocimiento general que todas nuestras embarcaciones, independientemente del tamaño de eslora, tienen la obligación de cumplir con las normas establecidas por la OROP del área donde realizan sus actividades, así como sobre las especies abarcadas por dicho organismo. En ese sentido, el Decreto Ejecutivo No. 49 de 19 de octubre de 2009, por medio del cual se establece y reglamenta la Licencia de Pesca Internacional para Naves de Servicio Internacional y se dictan otras disposiciones relativas a barcos de transporte de pescado y actividades de trasbordo de productos pesqueros, es extensivo a todas las embarcaciones pesqueras incluyendo a los grandes palangreros

Mediante Resolución No. 1791 de 20 de diciembre de 2001, se estableció la obligación ‘a barcos panameños que realicen actividades pesqueras en aguas internacionales o en aguas de otro Estado, de pertenecer el Estado de pabellón, a la organización regional o sub-regional de pesca competente de dicha área geográfica y especies reguladas. Según esta Resolución, los barcos de bandera panameña no pueden realizar actividades pesqueras si no somos miembros o colaboradores del organismo regional competente.

#### ***Sección 4: Actividades de esquema e inspección***

En el lado Atlántico de Panamá, existen puertos internacionales con característica para el trasbordo o desembarque, sin embargo, pocos buques que faenan en el mar Caribe o en el Atlántico realizan esta actividad en puertos panameños. Los barcos panameños de licencia internacional desembarcan su captura en puertos de otros Estados.

Mediante Resuelto 002 de 17 de noviembre de 2009, Panamá adoptó los Reglamentos 1005 y 1006 de la Unión Europea que establecen la obligación de implementar un Sistema de Certificación para la validación de las capturas de recursos acuáticos provenientes de terceros países que serán transportados hacia y desembarcados en el territorio de la Unión Europea desde el 1 de enero de 2010; cumpliendo así el país con su compromiso de cooperar con la erradicación de la pesca ilegal, no declarada no reglamentada (INDNR).

Mediante Resolución ADM/ARAP No. 113 de 02 de noviembre de 2011 y publicada en Gaceta Oficial No. 26918-A el miércoles 23 de noviembre de 2011 se ordenó el Registro de Buques de Más de Veinte (20) Metros de Eslora en cumplimiento a las medidas de los Organismos Regionales e Internacionales de Ordenamiento Pesquero.

El Canal de Panamá, por Constitución, tiene reglas diferentes sobre todo para permitir el paso sin distinción, de naves de distintas nacionalidades, el Canal de Panamá es considerado una vía interoceánica internacional de naturaleza neutral, por lo que no es ni debe definirse como una facilidad o recinto portuario.

#### ***Sección 5: Otras actividades***

Panamá no excedió la cuota de captura de patudo en sus buques cerqueros, no capturó ninguna especie de las cuales no tenemos cuota o superando los límites asignados dentro de la resolución para los países que no tenemos cuota.

Cabe mencionar que entre otras actividades de captura se adjunta en las Tareas I y II.

**ANNUAL REPORT OF THE PHILIPPINES  
RAPPORT ANNUEL DES PHILIPPINES  
INFORME ANUAL DE FILIPINAS**

*SUMMARY*

*In 2011 the total marine fish production of the country was 1.5 million MT. Of which tuna fisheries contributed approximately 35% of the total marine fish production. The tuna catch from the ICCAT Convention Area was more or less 36% of the Philippine tuna production in terms of volume. While the Philippines have twenty three (23) Philippine flagged fishing vessels authorized to fish in the ICCAT Convention area as listed in the ICCAT registry of vessels, only eleven (11) fishing vessels are authorized to fish at the same time in any given year. The Philippines has been strengthening the data collection system to address the conservation and management issues of highly migratory fish stocks as evidenced in its involvement in the data collection project funded by the Western and Central Pacific Fisheries Commission (WCPFC). It also supports the ICCAT statistical program for Bluefin, Bigeye and Swordfish and providing financial support the ICCAT Regional Observer Program. The Philippines as a member of ICCAT continues its strong commitment for the effective management, conservation and sustainable use of highly migratory fish stocks in the ICCAT convention area.*

*RÉSUMÉ*

*En 2011, la production halieutique totale du pays s'élevait à 1,5 million de tonnes. La prise de thonidés représentait environ 35% de la production halieutique totale. La prise de thonidés relevant du mandat de l'ICCAT représente environ 36 % de la production thonière des Philippines en termes de volume. Même si les Philippines comptent 23 navires de pêche arborant le pavillon des Philippines autorisés à pêcher dans la zone de la Convention de l'ICCAT et inscrits dans le registre ICCAT de navires, seuls 11 navires de pêche sont autorisés à pêcher au même moment au cours de toute année donnée. Les Philippines ont renforcé le programme de collecte de données visant à faire face aux problèmes de conservation et de gestion des stocks de grands migrants, comme en témoigne leur participation au projet de collecte des données financé par la Commission de la pêche dans le Pacifique central et occidental (WCPFC). Les Philippines soutiennent également le Programme statistique de l'ICCAT sur le thon rouge, le thon obèse et l'espadon et apportent un support financier au Programme régional d'observateurs de l'ICCAT. En qualité de membre de l'ICCAT, les Philippines poursuivent leur ferme engagement en vue d'une gestion efficace, de la conservation et l'utilisation durables des stocks de grands migrants présents dans la zone de la Convention de l'ICCAT.*

*RESUMEN*

*En 2011, la producción total de peces marinos del país se situó en 1,5 millones de toneladas. Las pesquerías respondieron aproximadamente del 35% de la producción total de peces marinos. La captura de túnidos en la zona del Convenio de ICCAT responde de aproximadamente el 36% de la producción de túnidos de Filipinas en términos de volumen. Filipinas cuenta con 23 buques pesqueros con pabellón de Filipinas autorizados a pescar en la zona del Convenio ICCAT y que están incluidos en el Registro ICCAT de buques. De estos 23 buques pesqueros, sólo 11 están autorizados a pescar al mismo tiempo en un año determinado. Filipinas ha estado reforzando el sistema de recopilación de datos para abordar las cuestiones de conservación y ordenación de stocks de peces altamente migratorios tal y como se evidencia por su participación en un proyecto de recopilación de datos financiado por la Comisión Pesquera del Pacífico central y occidental (WCPFC). Filipinas respalda también el programa de documento estadístico ICCAT para el atún rojo, patudo y pez espada y proporciona apoyo financiero al Programa regional de observadores de ICCAT. Filipinas, en su calidad de miembro de ICCAT, mantiene su firme compromiso de fomentar la ordenación eficaz, la conservación y el uso sostenible de los stocks de peces altamente migratorios en la zona del Convenio de ICCAT.*



## **Part I (Information on Fisheries, Research and Statistics)**

### ***Section 1: Annual Fisheries Information***

The Philippines, as one of the major tuna producer in the Western and Central Pacific Ocean (WCPO) contributes 2.3% and 4.3% at current and constant prices to the country's Gross Domestic Product (GDP), both for domestic food security and on industrial scale. About 1.5 million people depend on the tuna fishing industry for their livelihood.

The Philippines as a member of the Western and Central Pacific Fisheries Commission (WCPFC), Indian Ocean Tuna Commission (IOTC) and International Commission for the Conservation of Atlantic Tunas (ICCAT), and as Cooperating Non-Member of the Commission for the Conservation of Southern Bluefin Tuna (CCSBT) have fishing vessels operating in these Oceans where there catches of tunas continue to provide significant contribution to the total production of the country. The catches from the WCPFC accounts for the largest volume in the tuna production estimated at 409,697 MT.

### ***Section 2: Fisheries Research and Statistics***

The statistics for tuna in the Philippines are gathered by the Bureau of Agricultural Statistics (BAS) of the Department of Agriculture. In view of the provisions of the Philippine Fisheries Code of 1998, Philippine fishing vessels are required to submit fish caught reports every month and failure to do so will mean the none renewal of the their Commercial Fishing Vessel and Gear License (CFVGL). Moreover, landing surveys are conducted in major landing sites in the country by enumerators under our National Stock Assessment Program (NSAP). The Philippines is also involved in the Philippines Data Collection Project (PDCP) of the Western and Central Pacific Tuna Commission (WCPFC) since last January 2005 which aims to strengthen the data collection system to address the conservation and management issues of highly migratory fish stocks by setting a standard data collection and verification for the tuna fisheries in the region.

The Philippines is also a participant in the Regional Observer Program of ICCAT to monitor transshipment of catches in the high seas and is contributing a sizable amount in its implementation.

## **PART II (Management Implementation)**

### ***Section 3: Implementation of ICCAT Conservation and Management Measures***

The Philippines continue to implement relevant ICCAT conservation and management measures as well as Philippine fisheries laws and regulations. All fishing vessels are required to secure Commercial Fishing and Gear License (CFVGL) before they are allowed to fish in Philippine waters. Moreover, if they plan to fish outside Philippine waters they are also required to secure an International Fishing Permit before they are allowed to fish. All these fishing vessels are also required to keep a daily record of fish catch and spoilage, landing points, and gear, species, quantity and value of fish caught and those off-loaded for transshipment, sale and/or disposal. These reports are submitted to the BFAR for record and validation. Failure on their part to submit this requirement is a ground for non-renewal of the CFVGL and International Fishing Permit.

The Philippine Fisheries Code also provide the establishment of a monitoring, control and surveillance system to ensure that the fisheries and aquatic resources in Philippine waters and adjacent waters and also in the other Oceans where our fishing vessels are operating are judiciously and wisely utilized and managed on a sustainable basis. The Philippine Vessel Monitoring System is now in place and in operation. The Fisheries Monitoring Center in the BFAR MCS Station and Fishing Technology Laboratory in Navotas currently monitors and tracked 12 Philippine Flagged Vessels operating in the ICCAT and in the IOTC; 53 vessels via remote access granted by WCPFC and the 10 MCS Patrol Vessels and the M/V DA-BFAR.

BFAR have also passed FAO 241 on the Regulation and Implementation of Vessel Monitoring System in the High Seas last April 13, 2012 in which it requires all Philippine Flagged Fishing Vessels Operating in the High Seas to have an onboard transponder.

With the implementation of the WCPFC Conservation and Management Measure (CMM) 2011-01, the Philippine fishing vessels have been given access to operate in the High Seas Pocket No.1 as a Special Management Area. In view hereof, BFAR have implemented FAO 245 or the Regulations and Implementing

Guidelines on Group Tuna Purse Seine Operations in High Seas Pocket Number 1 as a Special Management Area. This requires all 36 medium scale purse seine and ring net fishing vessels to have a two-way communication type transponder installed onboard their fishing vessels, which is also a requirement by the WCPFC.

Relative thereto, an HSP-1 SMA Reporting System was also developed in compliance with the FAO 245, the system will be exclusively used by the Philippine Flagged Vessels authorized to fish in the convention area. This will serve as an electronic communication for fishing companies to notify BFAR prior to entry and exit in High Seas Pocket 1 Special Management Area (HSP-1 SMA) for subsequent notification and submission to the WCPFC and other Flag State required before the entry and exit in the area.

The operation of Vessel Database Management System (VDBMS) has gathered the historical data of the vessels for Regions 1, 2, 3, 4, 5, 7 and 10 with a total of 1,253 vessel records and 2307 history of vessel recorded.

Likewise, Poaching Database Management System (PDBMS) records a total of 952 local apprehensions and updated the system with an additional 114 apprehensions of foreign poachers.

As mentioned in our National Report last year, the Philippines is implementing the approved Philippine Tuna Management Plan providing for management measures such as control of fishing capacity, regulation on the catching of immature fish through mesh size regulation, regulation on fish Aggregating Devices (FAD) by limiting the number per fishing vessel, etc.

#### ***Section 4: Inspection Schemes and Activities***

The Philippines is a participant of the ICCAT Regional Observer Program to monitor transshipment operations of fishing vessels authorized to fish in the ICCAT Convention area.

Since July 2002, the Philippines have implemented the ICCAT Tuna Statistical Document Program for bluefin, big-eye and swordfish. We are also doing this in IOTC, WCPFC and CCSBT.

#### ***Section 5: Fisheries Information of Philippine Vessels in the Atlantic Ocean***

In 2011, we have twenty three (23) fishing vessels that are authorized and registered to fish in the ICCAT Convention Area however only eleven (11) vessels are authorized to fish in the area in any given year. The catches of these vessels for 2011 totaled 1,500 tons and broken down by species as follows:

##### *2011 Catch*

Bigeye -	1,266 tons
Yellowfin -	134 tons
Swordfish -	52 tons

**ANNUAL REPORT OF RUSSIA  
RAPPORT ANNUEL DE LA RUSSIE  
INFORME ANUAL DE RUSIA**

A.A. Nesterov<sup>1</sup>

SUMMARY

*During 2008-2012 Russia conducts two types of fishery in the ICCAT Convention area, trawl and purse-seine fishing, during which tunas occur in the catches. In the course of non-specialized trawl fishing (small coastal fishes) tunas are found as a by-catch. The purse-seine specialized fishing for tunas belonging to a tropical group was resumed in the late 2006 after a four-year interruption and is now at the stage of formation; the vessels were engaged in fishing at regular intervals and in experimental mode of operation. During 2010, 2011 and 2012 the specialized (purse) fleet did not operate. In Russia the works related to research of tunas and other species of tuna fishery are carried out in the Atlantic Research Institute of Marine Fisheries and Oceanography (AtlantNIRO), Kaliningrad, and in the Russian Federal Research Institute of Fisheries and Oceanography (VNIRO), Moscow. These institutions collect catch and biological statistics and analyze the collected data, provide operative fishery monitoring, draw up proposals and recommendations required for tuna fishing vessels operation. In the framework of ICCAT Russia participates in the work of Panel 1 "Tropical Tunas". The research carried out in 2011-2012 included collection and processing current fishery and biological materials.*

RÉSUMÉ

*En 2008-2012, la Russie a mené deux types de pêche dans la zone de la Convention de l'ICCAT, à savoir la pêche au chalut et à la senne, dans le cadre desquelles des thonidés ont été capturés. Dans le cadre de la pêche au chalut non spécialisée (petits poissons côtiers), les thonidés sont capturés en tant que prises accessoires. La pêche à la senne spécialisée ciblant les thonidés tropicaux a repris à la fin de l'année 2006 après quatre années d'interruption, et connaît actuellement une phase de formation. Les navires ont participé à la pêche à intervalle régulier et ont opéré de manière expérimentale. En 2010, 2011 et 2012, la flottille spécialisée de senneurs n'a pas opéré. En Russie, les travaux de recherche portant sur la pêche de thonidés et d'autres espèces sont assumés par l'Institut de recherche atlantique des pêcheries marines et de l'océanographie (AtlantNIRO) de Kaliningrad et par l'Institut de recherche fédéral russe des pêcheries et d'océanographie (VNIRO) de Moscou. Ces institutions recueillent les statistiques sur la prise et la biologie et analysent les données collectées, fournissent un suivi des pêcheries opérationnelles et formulent les propositions et les recommandations nécessaires aux opérations des navires de pêche thoniers. Dans le cadre de l'ICCAT, la Russie prend part aux travaux de la Sous-commission 1 « Thonidés tropicaux ». Les travaux de recherche réalisés en 2011 et 2012 ont englobé la collecte et le traitement des données halieutiques et biologiques actuelles.*

RESUMEN

*Durante 2008-2012, Rusia ha desarrollado dos tipos de pesca en la zona del Convenio de ICCAT: arrastre y cerco, en las cuales hay presencia de túnidos en las capturas. Durante la pesca de arrastre no especializada (pequeños peces costeros), se capturan túnidos de forma fortuita. La pesca especializada con cerco de túnidos que pertenecen al grupo tropical se retomó a finales de 2006, tras una interrupción de cuatro años, y actualmente está en fase de formación; los buques pescaron en intervalos regulares y realizaron operaciones de pesca experimental. Durante 2010, 2011 y 2012 la flota especializada (cerco) no operó. En Rusia, el trabajo de investigación relacionado con la pesca de túnidos y especies afines lo lleva a cabo el Atlantic Research Institute of Marine Fisheries and Oceanography (AtlantNIRO), Kaliningrado, y el Russian Federal Research Institute of Fisheries and Oceanography (VNIRO), Moscú. Estas instituciones recopilan estadísticas biológicas y de captura, analizan*

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*los datos recopilados, proporcionan un seguimiento operativo de la pesca, y también redactan propuestas y recomendaciones necesarias para las operaciones de los buques pesqueros atuneros. En el seno de ICCAT, Rusia participa en los trabajos de la Subcomisión 1, “Túndidos tropicales”. Los trabajos de investigación realizados en 2011-2012 incluyeron la recopilación y procesamiento de materiales biológicos y pesqueros actuales.*

## **Part I (Information on Fisheries, Research and Statistics)**

### ***Section 1: Annual Fisheries Information***

In 2011 the trawl fishing vessels caught 119 t of bullet tuna *Auxis rochei*, 912 t of frigate tuna *Auxis thazard*, 11 t of Atlantic black skipjack *Euthynnus alletteratus*, 20 t of skipjack tuna *Katsuwonus pelamis* and 2293 t of Atlantic bonito *Sarda sarda* as a by-catch in the central-East Atlantic. The catch per fishing effort (per vessel-fishing day) amounted to 358 kg for “Small Tunas” and skipjack tuna and 783 kg for Atlantic bonito.

In the first half of 2012, according to the preliminary data, the catches taken by trawlers in the central-East Atlantic amounted to 315 t of frigate tuna, 50 t of bullet tuna and 316 t of Atlantic bonito. The catch per fishing effort (per vessel-fishing day) amounted to 293 kg for “Small Tunas” and 189 kg for Atlantic bonito.

### ***Section 2: Research and Statistics***

In 2011 the observers from AtlantNIRO were sampling biological material on tunas from the trawlers in the central-East Atlantic Ocean (area SJ71 according to ICCAT classification). Fish length, weight, sex and maturity stages of gonads, stomachs fullness were measured. The species from the group “Small Tunas” were found in the trawls as a by-catch individually or up to several tens specimens. The material on frigate tuna, bullet tuna and Atlantic bonito was collected in amount of 7948 specimens for mass measurements and 1621 specimens for biological analyses.

Atlantic black skipjack occurred in catches within the area at 12-20° N every month. Fish length varied from 33 to 56 cm. The mean annual catch per fishing effort for this species constituted 5 kg/vessel-fishing day.

Bullet tuna occurred in catches in the area at 18-22° N from May to December. Fish length varied from 21 to 38 cm, the mean length constituted 30.5 cm. Immature and post-spawning tuna were regularly caught in June-July in the area from 18 to 20°N. The female proportion in catches prevailed as compared to males, the sex ratio constituted 0.9. The mean catch per effort was 4 kg/vessel-fishing day.

Frigate tuna occurred in catches from the area at 12-25°N during the entire year. During the observation period the fish length varied from 22 to 40 cm, the mean length constituted 28.8 cm. The highest by-catch was recorded in January-February within 12-16°N. In February immature (10%), maturing (30%) and mature (60%) fish prepared to the spawning occurred in catches. In April mainly maturing (98%) fish were found in catches. From May to July the number of mature females with gonads at the stage IV decreased from 75 to 10%, while the number of spawned females increased from 7 to 37%, i.e. spawning occurred in the summer period. In November-December catches consisted of immature and maturing fish. The mean annual proportion of males and females was 1.0. The mean catch per effort was 307 kg/vessel-fishing day.

Atlantic bonito occurred as a by-catch in the area at 12-30° N during the entire year. The maximum by-catch was recorded in January-February in the area at 12-16 °N and in June-July at 19-20° N. Fish of 25-68 cm in length occurred in catches, the mean length was 43.5 cm. From May to July the number of spawning fish (71-27%) decreased, while the number of post-spawning and immature fish increased. In September-October mostly immature specimens were caught. Males prevailed in catches, sex ratio was 1.3. The mean catch per effort was 783 kg/vessel-fishing day.

## **Part II (Management Implementation)**

### ***Section 3: Implementation of ICCAT Conservation and Management Measures***

During the fishery in the areas where tunas and tuna-like species occur in catches, the ICCAT requirements and recommendations concerning restrictions in tuna fishery, and a ban imposed on fishing quoted species were observed.

### *3.1 Vessels list*

Each year Russia submits to ICCAT Secretariat the list of vessels over 20 m in compliance with Recommendations [Recs. 09-08, 11-01]. The ship owner reported these vessels as the vessels of specialized purse fishery for tunas. In 2011 and 2012, seven purse seiners were recorded, which were in an inoperative condition.

### *3.2 Vessel Monitoring System (VMS)*

In compliance with ICCAT Recommendation on VMS equipment improvement [Rec. 04-11], the Satellite Vessel Monitoring System (VMS) has been installed onboard all fishing vessels in 2000.

### *3.3 Closing the fishing season*

In compliance with Recommendations [Recs. 04-01 and 11-01] no purse fishery was carried out from 01 to 30 November and from 01 January to 28 February 2009-2012 in the areas indicated in the Recommendations.

### *3.4 Observers program*

In compliance with Recommendation by ICCAT to Establish Minimum Standards for Fishing Vessel Scientific Observer Programs [Rec.10-10] Russia has implemented the observers program “Small tunas in the trawl fishery” on fishing vessels since 2006. Observers are collecting biological data in the Eastern Atlantic Ocean within the exclusive economic zones. During 2011-2012 the observers onboard the vessels fishing in ICCAT Convention area carried out monitoring of fishery and collection of fishery and biological data. In 2011 the observers were onboard of 12% of the trawl vessels. The observers fulfilled the following works: identification of the species composition of tunas, assessment of tuna amount in by-catches. The data on fishing gears and fishery locations, as well as the other information on fishery parameters and vessels were collected. Availability of observers collecting materials on tuna and tuna-like species by-catch on the annual basis onboard the fishing trawlers improves the statistics quality.

### *3.5 Bigeye tuna*

There are no vessels of specialized fishery for bigeye tuna in Russia. In compliance with Recommendation [Rec. 11-01] the annual by-catch of bigeye tuna in Russian purse fishery could not exceed 2100 t. In 2011 bigeye tuna was absent in by-catches.

### *3.6 Oceanic sharks*

In compliance with Recommendations [Recs. 09-07, 10-07, 10-08] the information on the ban imposed on the oceanic sharks (bigeye thresher *Alopias superciliosus*, hammerhead shark *Sphyrnidae* and oceanic whitetip shark *Carcharhinus longimanus*) fishery in the ICCAT Convention area was submitted to fishery, transport and other organizations concerned.

### *3.7 Silky shark*

In compliance with Recommendation [Rec. 11-08] the information on the ban imposed on fishery, retaining onboard, as well as transshipping and landing of any part or whole carcass of the silky shark *Carcharhinus falciformis* was submitted to fishery, transport and other organizations concerned.

### *3.8 Transshipment program*

In compliance with Recommendation [Rec. 06-11] catch landing in 2011 and 2012 was carried out in the port.

## **Section 4: Inspection Activities**

The observers were working at trawl vessels engaged in the target fishery for small pelagic fishes (horse mackerel, sardinella, mackerel, etc.) on the annual basis. Tunas and bonito appeared in catches as a by-catch. The observers controlled the total catches, catch per effort, species composition of catches, proportion of different species in catches, collected data on fish length and biological state. The group of observers onboard the vessels filled in the documents describing the fishing activity and biological data of the species caught. The observers prepared reports on the basis of their work onboard the vessels.

**ANNUAL REPORT OF SENEGAL  
RAPPORT ANNUEL DU SÉNÉGAL  
INFORME ANUAL DE SENEGAL**

Fambaye Ngom Sow,<sup>1</sup> Sidy Ndaw<sup>2</sup>

SUMMARY

*In Senegal, there are three types of fisheries that exploit tuna and tuna-like species. This is an industrial fishery comprised of 6 baitboat vessels that target mainly tropical tunas, yellowfin (Thunnus albacares), bigeye tuna (Thunnus obesus) and skipjack tuna (Katsuwonus pelamis) and one longline vessels that targets swordfish (Xiphias gladius), artisanal fishing (lines and nets) that catch small tunas and sport fishing catching billfish (marlins, swordfish and sailfish) and tunas. In 2011 the total baitboat Senegalese catches were estimated at 6.118 t. Catches decreased as compared to 2010 (4.606 t). The 2011 fishing effort slightly increased, from 1.220 fishing days in 2010 to 1.366 fishing days in 2011. Longline fishery catches in 2011 are estimated at 533 t (312 t in 2010). Catches are mainly comprised of swordfish (264 t) and sharks (216 t). As regards artisanal fisheries, the catches including all species are estimated at 9.024 in 2011. The continuous increasing trend (8.719 t in 2010). Regarding sport fishing, catches are estimated at 81 t in 2011 (288 t in 2010) with an effort of 809 trips. Landed tuna samples in Dakar continues to be carried out by the team of researchers implemented by the CRODT. It is a task of statistical collection and sampling of different tropical tuna species landed by baitboats and purse seiners. This work is completed with the information of various sources (factories, boat owners, Fishery Directorates, etc.). With the funds of the Enhanced Research Programme for Billfish, ERBP (Programme de Recherche Intensive des Istiophoridés), catch, effort and size sampling of billfish has increased in the major landing centres of the artisanal fishery.*

RÉSUMÉ

*Au Sénégal, il existe trois types de pêcheries qui exploitent les thonidés et les espèces voisines. Il s'agit de la pêche industrielle composée de six canneurs qui ciblent essentiellement les thons tropicaux, l'albacore (Thunnus albacares), le thon obèse (Thunnus obesus) et le listao (Katsuwonus pelamis) et d'un palangrier qui exploite l'espadon, de la pêche artisanale (les lignes et les filets) qui capture les petits thonidés et de la pêche sportive qui capture les poissons porte-épée (marlins, espadon, voiliers) et les thons. En 2011, les prises totales des canneurs sénégalais sont estimées à 6.118 tonnes. Les captures ont connu une hausse par rapport à 2010 (4.606 tonnes). L'effort de pêche de 2011 a légèrement augmenté, il est passé de 1.220 jours de pêche en 2010 à 1.366 jours de pêche en 2011. Pour la pêche palangrière, les prises de 2011 sont estimées à 533 tonnes (312 tonnes en 2010). Les captures sont essentiellement constituées d'espadon (264 tonnes) et de requins (216 tonnes). Concernant les pêcheries artisanales, les prises de toutes espèces confondues sont estimées à 9.024 t en 2011. La tendance est toujours à la hausse (8.719 tonnes en 2010). Quant à la pêche sportive, les prises sont estimées à 81 tonnes en 2011 (288 tonnes en 2010) pour un effort de pêche de 809 sorties. L'échantillonnage des thonidés débarqués au port de Dakar est toujours mené par l'équipe d'enquêteurs mise en place par le CRODT. C'est un travail de collecte des statistiques de pêche et d'échantillonnage des différentes espèces de thonidés tropicaux débarquées par les canneurs et senneurs. Ce travail est complété par des informations de diverses sources (douane, armements, Direction des pêches maritimes etc.). Au niveau de la pêche artisanale, l'échantillonnage des captures, efforts et tailles des istiophoridés est intensifié dans les principaux centres de débarquement de la pêche artisanale grâce aux fonds du Programme de recherche intensive des istiophoridés (EPBR).*

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## RESUMEN

*En Senegal existen tres tipos de pesquerías que explotan los túnidos y especies afines. Estos tres tipos son: la pesca industrial, compuesta de seis cañeros que explotan básicamente túnidos tropicales, como rabil (*Thunnus albacares*), patudo (*Thunnus obesus*) y listado (*Katsuwonus pelamis*), y de un palangrero que se dirige al pez espada; la pesca artesanal (líñas y redes), que captura pequeños túnidos; y la pesca deportiva que captura peces de pico (marlines, pez espada y pez vela) y túnidos. En 2011, las capturas totales de los cañeros senegaleses se han estimado en 6.118 t. Las capturas han registrado un incremento con respecto a 2010 (4.606 t). También se ha incrementado ligeramente el esfuerzo de pesca en 2011, pasando de 1.220 días en 2010 a 1.366 días en 2011. Para la pesca de palangre, las capturas de 2011 se estimaron en 533 t (312 t en 2010). Las capturas están compuestas sobre todo de pez espada (264 t) y tiburones (216 t). En lo que concierne a la pesca artesanal, las capturas de todas las especies juntas se estimaron en 9.024 t en 2011. La tendencia es otra vez al alza (8.719 t en 2010). En cuanto a la pesca deportiva, las capturas se han estimado en 81 t en 2011 (288 t en 2010), con un esfuerzo de pesca de 809 mareas. El muestreo de túnidos desembarcados en el puerto de Dakar sigue realizándolo el equipo de encuestadores del CRODT. Es un trabajo de recopilación de estadísticas y de recogida de muestras de diferentes especies de túnidos tropicales desembarcados por los cañeros y cerqueros. Este trabajo se completa con información de varias fuentes (aduana, armadores, Dirección de pesca marítima, etc.). A nivel de la pesca artesanal, el muestreo de las capturas, esfuerzos y tallas de los istiofóridos se ha intensificado en los principales puertos de desembarque de la pesca artesanal gracias a los fondos del Programa de investigación intensiva sobre marlines (EPBR).*

## I<sup>ère</sup> partie (Informations sur les pêcheries, la recherche et les statistiques)

### Chapitre 1 : Information annuelle sur les pêcheries

Ce rapport est essentiellement axé sur la pêche thonière sénégalaise (industrielle, artisanale et sportive).

#### 1.1 Les thonidés tropicaux

La pêche industrielle cible essentiellement les thons tropicaux concentrés entre la Guinée et la Mauritanie. Il s'agit de l'albacore *Thunnus albacares* (YFT), du listao *Katsuwonus pelamis* (SKJ) et du patudo *Thunnus obesus* (BET). En 2011, la flottille basée à Dakar était composée de 14 canneurs (6 sénégalais, 1 français et 7 espagnols).

Par ailleurs, 25 senneurs ont aussi transbordé et/ ou débarqué une partie seulement au port de Dakar. Il s'agit de 17 senneurs espagnols et 3 français, 2 cap-verdiens, 1 panaméen, 1 Antilles hollandais et 1 guatémaliens.

##### 1.1.1 Les prises de thonidés tropicaux des canneurs sénégalais

En 2011, les prises totales des canneurs sénégalais sont estimées à 6.118 tonnes (1.014 tonnes d'albacore, 4.763 tonnes de listao, 215 tonnes de patudo, 20 tonnes de thonine et 28 tonnes d'auxide). Les captures ont connu une hausse par rapport à 2010 (4.606 tonnes). Cette hausse est due à l'augmentation des captures du listao. En effet, en 2011, les canneurs sénégalais ont exclusivement pêché dans la zone Sénégal qui est celle du listao. L'effort de pêche est passé de 1.220 jours de pêche en 2010 à 1.366 jours de pêche en 2011. Le **Tableau 1** montre les prises par espèce, les efforts et les prises par unité d'effort (PUE) des canneurs sénégalais de 1991 à 2011. En 2011, 172 échantillons de tailles plurispécifiques sont réalisés sur les captures des canneurs sénégalais (288 en 2010) et 24.824 poissons ont été mesurés, dont 10.614 albacores, 3.811 patudos, 9.517 listaos, 728 thonines et 154 individus d'auxides (**Tableau 2**).

Les **Figures 1** et **2** montrent la distribution des captures et de l'effort des canneurs sénégalais dans l'Atlantique en 2010 et 2011.

Les débarquements des senneurs étrangers non basés sont estimées à 31.335 tonnes dont 7.637 tonnes par les Français, 13.080 tonnes par les Espagnols, 3.711 tonnes par les Capverdiens, 2.998 tonnes par les Antilles hollandais, 780 tonnes par les Guatémaliens et 3.126 tonnes par les Panaméens.

### 1.1.2 Les prises de la flottille palangrière

La pêcherie palangrière sénégalaise cible l'espadon, cependant, d'autres espèces (requins, marlin, voilier etc.) sont capturées accessoirement par cette pêcherie. Un seul palangrier a été en activité en 2011. La prise totale en 2011 est de 533 tonnes (312 tonnes en 2010). Les captures sont constituées d'espadon (264 tonnes), de requins (216 tonnes), d'albacore (15 tonnes), d'ailerons (12 tonnes.) et de divers (26 tonnes). Le **Tableau 3** présente les prises par espèce de la pêche palangrière en 2011. L'effort de pêche en 2011 est de 255 jours de pêche.

### 1.2 Les prises des pêcheries artisanales

Les prises de petits thonidés et espèces apparentées (thonine, maquereau bonite, palomette, bonite à dos rayé, thazard bâtard, auxide, les poissons porte épée : espadon, marlins et voiliers) des pêcheries artisanales utilisant la ligne à la main, la ligne de traîne et la senne tournante sont estimées à 9.064 tonnes. Les prises sont dominées par la thonine (4.890 tonnes) et la bonite à dos rayé (2.876 tonnes). Les captures de 2011 ont connu une hausse par rapport à 2010 (8.719 tonnes). Le **Tableau 4** montre l'évolution des captures de la pêche artisanale de 2000 à 2011.

### 1.3 Les prises de la pêche sportive

Au Sénégal, la saison de pêche sportive se situe de mai à décembre pêche. La pêche sportive cible les marlins (BUM-*Makaira nigricans*), voiliers (SAI-*Istiophorus albicans*) et espadon (SWO-*Xiphias gladius*). Les coryphènes, les thonidés et autres espèces sont également capturés par cette pêcherie. Il existe au Sénégal deux principaux centres de pêche Dakar et Mbour. Le **Tableau 5** présente les prises totales en poids collectées par mois dans les centres principaux de Dakar et Mbour. Pour l'année 2011, les prises s'élevaient à 81 tonnes, dont 14 tonnes de voiliers, 64 tonnes de marlins et 3 tonnes d'albacore. L'effort de pêche est de 809 sorties en 2011. Les captures ont connu une baisse qui est due à la stratégie de lâchage de certains individus adopté par la Fédération sénégalaise de pêche sportive en 2011.

## Chapitre 2 : Recherche et statistiques

Le suivi des thoniers sénégalais et étrangers (français et espagnol) est assuré par le Centre de Recherches Océanographiques de Dakar Thiaroye (CRODT). Il s'agit d'un suivi scientifique régulier des activités de pêche de tous les navires thoniers débarquant au port de Dakar. Le travail consiste à la collecte des statistiques de captures et d'effort de pêche. Le système de collecte des statistiques repose sur une enquête détaillée journalière, auprès des patrons thoniers lors de chaque débarquement, complétée par des informations de diverses sources (usines, armements, Direction des pêches maritimes etc.). Des échantillonnages multi sont également réalisés lors des débarquements au port de Dakar. La gestion des données se fait en partenariat avec l'Institut de Recherche pour le Développement (IRD) et l'Institut Espagnol d'Océanographie (IEO). Nos activités sont financées pour l'essentiel par le budget national appuyées par l'UE à travers l'IEO et l'IRD.

Concernant la pêche artisanale, le CRODT a développé depuis plus d'une trentaine d'année un système d'enquête et de collecte des statistiques au niveau des différents sites de débarquement répartis le long du littoral sénégalais. Ces statistiques sont recueillies par des enquêteurs suivant un protocole d'échantillonnage établi scientifiquement. Grâce au fonds du Programme de Recherche Intensive des Istiophoridés (EPBR), l'échantillonnage des tailles des istiophoridés (le voilier-*Istiophorus platypterus*) est réalisé dans les principaux centres de débarquement de la pêche artisanale, notamment à Soumbédioune, Yoff et Mbour.

## II<sup>e</sup> Partie (Mise en œuvre de la gestion)

### Chapitre 3 : Mise en œuvre des mesures de conservation et de gestion de l'ICCAT

En ce qui concerne la mise en œuvre des mesures de conservation et de gestion pertinentes de l'ICCAT, la Direction des Pêches maritimes (DPM) a mis en place, en relation avec les armements, les mécanismes pour s'assurer du respect des conventions internationales en matière de capture et de commercialisation des captures de thonidés et espèces apparentées.



Dans son engagement à surveiller et à contrôler ses navires qui pêchent en haute mer, le Sénégal, dans le cadre de la révision en cours du Code de la Pêche maritime, a étendu le champ d'application dudit code aux navires battant pavillon sénégalais pêchant en haute mer. Les armateurs et/ou capitaines des bateaux devront respecter les obligations contenues dans les normes internationales de pêche établies à savoir :

- L'existence à bord d'un journal de pêche dans lequel les capitaines annoteront les captures effectuées, ainsi que les mouvements d'embarquement et de débarquement prévus dans le dit journal.
- Les autorisations sont valables seulement pour une durée de 12 mois renouvelable sous les conditions des dispositions réglementaires auxquelles les navires sont soumis.

Au niveau de la pêche artisanale, le Sénégal a fait des efforts conséquents pour la maîtrise de la capacité de pêche à travers le programme national d'immatriculation informatisée des embarcations de type artisanal, dont les pirogues qui capturent les thonidés et espèces voisines (accessoirement ou ciblé). Cette pêche capture de manière accessoire les espèces relevant de l'ICCAT. Pour mieux contrôler cette activité, l'utilisation de certains engins de pêche tel le filet maillant dérivant sont interdits.

De façon générale, les dispositions issues de la révision du Code de la Pêche au Sénégal permettent de transposer dans l'environnement juridique du Sénégal les mesures pertinentes de gestion de l'ICCAT et l'observation de certaines mesures est obligatoire.

#### ***Chapitre 4 : Schéma d'inspection***

Le Sénégal a bénéficié d'un appui du JMDIP pour l'amélioration de son système VMS, lequel permet à l'heure actuelle, un meilleur suivi des activités de l'armement et de connaître, en temps réel, la situation de son armement. Des rapports périodiques sont élaborés par la Direction de la surveillance des Pêches.

La totalité des navires sénégalais disposent d'une balise Argos fonctionnelle à la charge des armateurs qui leur permet aussi de suivre les opérations de leur flotte. L'embarquement de balise est une obligation préalable pour l'obtention et la détention d'autorisation de pêche régie par un arrêté ministériel portant organisation et fonctionnement du système de positionnement et de localisation des navires.

Tous les débarquements, nationaux comme étrangers, sont suivis et inspectés grâce au dispositif d'inspection mis en place au port de Dakar. Dans le cadre du suivi, contrôle et surveillance des navires de pêche et la gestion, la Direction de la Protection et de la Surveillance des Pêches ont pris les mesures préventives suivantes :

- L'élaboration d'un programme mensuel, mis en œuvre au quotidien par une équipe pour l'inspection et le contrôle des documents administratifs et les engins de pêche de l'ensemble des navires débarquant au port de pêche de Dakar.
- La mise en œuvre des principes du ressort de l'État du Port par le contrôle et l'inspection de navires débarquant et n'ayant pas de licence au Sénégal notamment certains navires du registre de l'ICCAT.

Pour lutter efficacement contre la pêche INN, le Sénégal a adopté d'importantes mesures de surveillances des pêches :

#### *Sur le plan juridique :*

- Révision de la loi 98-32 portant code de la pêche et sur son décret d'application.
- Adoption d'un plan national de lutte contre la pêche INN (texte en cours de validation).
- Processus de ratification en cours des mesures du ressort de l'État du port.

#### *Sur le plan opérationnel*

- Application des dispositions relatives à l'inspection et au contrôle des navires conformément aux mesures du ressort de l'État du port : la vérification d'une autorisation de pêche ; la demande d'entrée au port, l'autorisation de débarquement ; la fiche de contrôle de captures, l'autorisation de transbordement ; l'inscription au registre.
- L'organisation de patrouilles maritimes et aériennes pour la surveillance.

- La mise en service du VMS.
- La mise en place d'un registre national des navires de pêche.
- L'embarquement des observateurs à bord des navires étrangers.

*Rapport sur les actions entreprises dans le cadre du respect des mesures de gestion de l'ICCAT*

- Rapport sur la mise en œuvre des obligations en matière de déclaration pour toutes les pêcheries de l'ICCAT, notamment les espèces de requins : cf. Rapport annuel du Sénégal de 2012.
- Résumé des activités menées conformément aux accords d'accès, incluant toutes les captures réalisées dans le cadre de ces accords : voir débarquements en annexe.
- Liste des navires de thon obèse/albacore : voir liste des navires thoniers sénégalais ciblant le thon obèse.
- Liste des navires autorisés ayant pêché du thon obèse et/ou de l'albacore en 2011 : voir liste des navires thoniers sénégalais ciblant le thon obèse.
- Rapport sur les mesures prises en vue de mettre en œuvre la Recommandation 11-08 par le biais de la législation et de réglementations nationales, ainsi que de mesures de suivi, contrôle et surveillance qui appuient la mise en œuvre. Il n'y a pas de mesures spécifiques prises par rapport à ce requin, mais le Sénégal a adopté un plan national d'action Requin pour une gestion durable des requins.

**Tableau 1.** Prises par espèces, efforts et prises par unité d'effort (PUE) des canneurs sénégalais de 1991 à 2010.

Année	Prises (t) canneurs				Effort j/pec	PUE (t/j)			
	YFT	SKJ	BET	Total		YFT	SKJ	BET	Total
1991	79	309	10	399	73	1,08	4,24	0,14	5,45
1992	--	--	--	--	--	--	--	--	0,00
1993	13	42	5	60	27	0,46	1,56	0,20	2,22
1994	6	59	11	76	40	0,16	1,49	0,27	1,90
1995	20	18	60	98	74	0,27	0,24	0,81	1,31
1996	41	163	84	288	91	0,45	1,79	0,92	3,16
1997	208	455	204	867	1,76	1,18	2,59	1,16	4,93
1998	251	1679	676	2606	511	0,49	3,29	1,32	5,10
1999	834	1479	1473	3786	572	1,46	2,59	2,58	6,62
2000	252	1506	1131	2889	697	0,36	2,16	1,62	4,14
2001	295	1271	1308	2874	512	0,58	2,48	2,55	5,61
2002	447	1053	565	2065	395	1,13	2,67	1,43	5,23
2003	279	733	474	1486	370	0,75	1,98	1,28	4,02
2004	668	1323	561	2552	691	0,97	1,91	0,81	3,69
2005	1301	4874	721	6896	1236	1,05	3,94	0,58	5,57
2006	1262	3534	1267	6063	1326	0,95	2,66	0,95	4,76
2007	816	2278	804	3898	1206	0,68	1,89	0,67	3,24
2008	550	3667	926	5143	1500	0,37	2,44	0,62	3,43
2009	1157	4513	1041	6711	1574	0,73	2,87	0,66	4,26
2010	1168	2413	844	4425	1220	0,96	1,09	0,38	2,45
2011	1014	4	215	6118	1366	0,74	3,09	0,16	4,39

**Tableau 2.** Nombre de poissons total et nombre mesuré par espèce et par mois.

Espèces	Albacore		Listao		Patudo		Thonine		Auxide		Totaux	
	Nombre mesurés	Effectifs totaux	Nombre mesurés	Effectifs totaux	Nombre mesurés	Effectifs totaux	Nombre mesurés	Effectifs totaux	Nombre mesurés	Effectifs totaux	Nombre mesurés	Effectifs totaux
1	2000	2000	491	2717	70	70	189	189	4	4	<b>2754</b>	4980
2	1770	1770	912	6169	161	161	245	822	4	4	<b>3092</b>	8926
3	330	330	583	3717	1271	1271	41	41	6	6	<b>2231</b>	5365
4	184	184	540	4033	489	489	7	7	-	-	<b>1220</b>	4713
5	35	35	660	5248	83	83	-	-	1	1	<b>779</b>	5367
6	447	447	600	3003	543	543	-	-	-	-	<b>1590</b>	3993
7	468	468	840	6457	290	290	7	7	-	-	<b>1605</b>	7222
8	736	736	1141	8293	640	640	3	3	-	-	<b>2520</b>	9672
9	616	616	960	960	73	73	72	72	-	-	<b>1721</b>	1721
10	539	539	1020	8178	11	11	1	1	3	3	<b>1574</b>	8732
11	469	469	540	4215	55	55	-	-	7	7	<b>1071</b>	4746
12	3020	3020	1230	8530	125	125	163	163	129	129	<b>4667</b>	11967
<b>TOTAL GENERAL</b>	<b>10.614</b>	<b>10.614</b>	<b>9.517</b>	<b>61.520</b>	<b>3.811</b>	<b>3.811</b>	<b>728</b>	<b>1.305</b>	<b>154</b>	<b>154</b>	<b>24.824</b>	<b>77.404</b>

**Tableau 3.** Prises d'espèces apparentées, de thonidés et requins par la flottille palangrière en 2011.

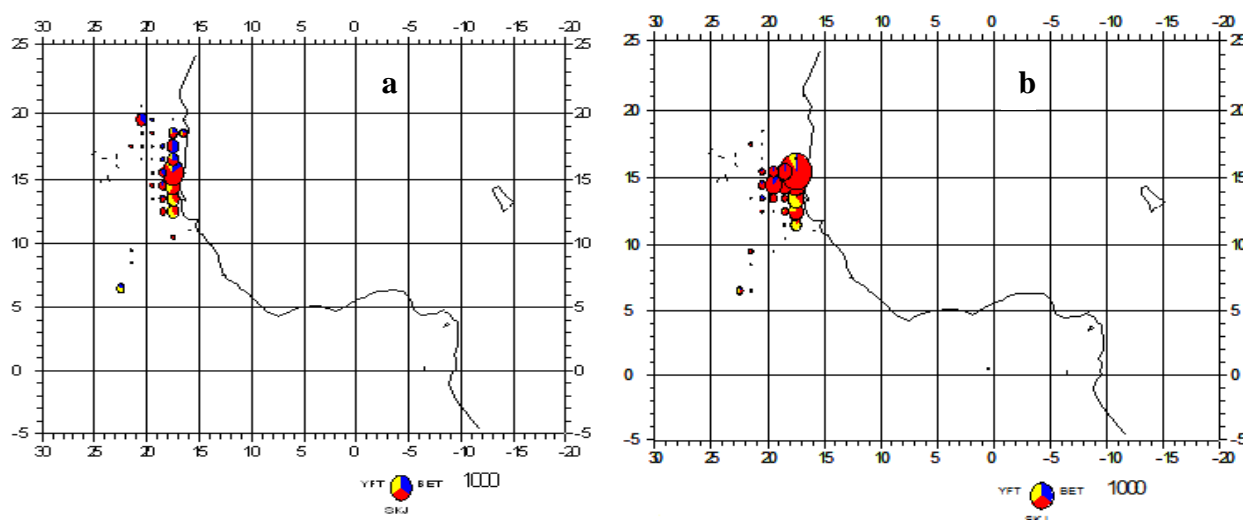
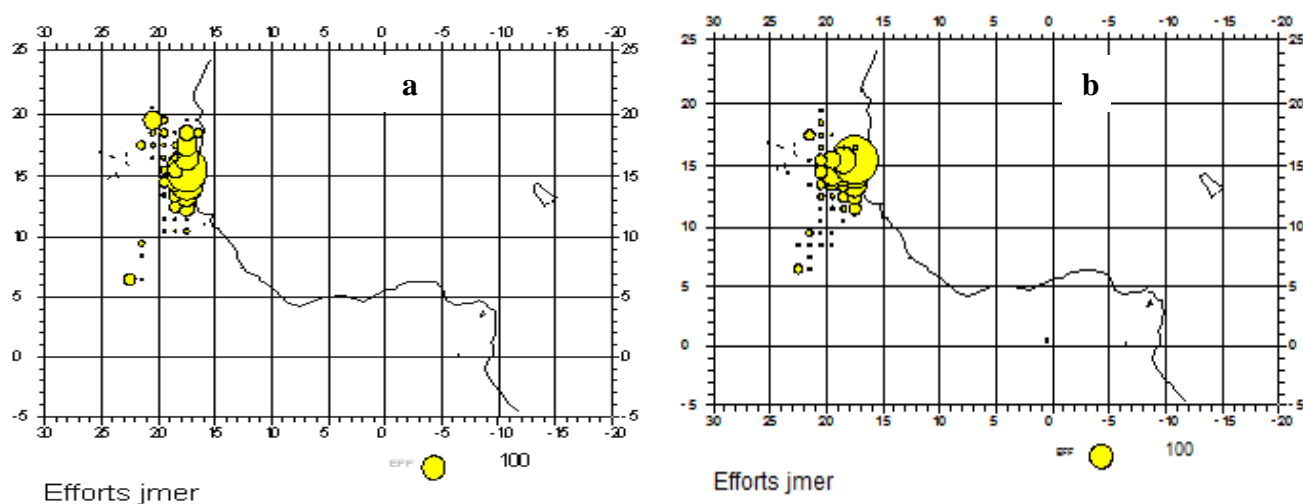
<i>Espèce</i>	<i>Quantité (tonnes)</i>
Espadon	264
Requins	216
Albacore	15
Ailerons	12
Divers	26
<b>Total</b>	<b>533</b>

**Tableau 4.** Prises (en tonnes) de petits thonidés, d'istiophoridés et xiphiidés par la pêche artisanale de 2000 à 2010.

<i>Espèces</i>	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<i>Orcynopsis unicolor</i>	14	28	6	7	67	85	29	240	33	158	53	114
<i>Scomberomorus tritor</i>	778	408	584	532	288	489	196	845	189	305	239	749
<i>Acanthocybium solandri</i>	0	0	0	7	0	0	1	0	0	2	6	0
<i>Euthynnus alletteratus</i>	3336	4969	2659	4394	4160	2166	3826	3815	2972	1684	6207	4890
<i>Sarda sarda</i>	286	545	621	195	197	486	2304	1020	1154	2544	1668	2876
<i>Katsuwonus pelamis</i>	7	6	287	45	154	341	90	195	60	83	36	58
<i>Thunnus obesus</i>	0	0	3	5	4	4	1	3	35	3	14	19
<i>Auxis thazard</i>	0	4	0	13	285	159	83	119	249	11	70	173
<i>Thunnus albacares</i>	3	0	25	3	10	43	63	39	4	111	12	24
<i>Istiophorus platypterus</i>	782	953	240	673	291	250	256	614	338	550	402	160
<i>Makaira nigricans</i>		11	24	32	8	0	5	4	0	0	1	0
<i>Xiphias gladius</i>	2	2	17	2	4	7	7	6	6	28	11	1
<b>Total</b>	<b>5.448</b>	<b>6.926</b>	<b>4.466</b>	<b>5.908</b>	<b>5.468</b>	<b>1.864</b>	<b>6.861</b>	<b>6.900</b>	<b>5.040</b>	<b>5.315</b>	<b>8.719</b>	<b>9.064</b>

**Tableau 5.** Effort, captures de voiliers et marlins de la pêche sportive de 2011.

<i>Mois</i>	<i>Effort (Nombre de sorties)</i>	<i>YFT (kg)</i>	<i>SAI (kg)</i>	<i>BUM (kg)</i>
5	115	216	2 044	6 845
6	103	414	2 464	10 545
7	118	342	2 576	8 695
8	98	288	2 128	5 735
9	116	414	1 596	9 805
10	103	504	1 372	10 915
11	156	702	1 764	11 655
<b>Total</b>	<b>809</b>		<b>13.944</b>	<b>64.195</b>

**Figure 1.** Carte de distribution des captures des canneurs sénégalais dans la zone de pêche en 2010 (a) et 2011 (b).**Figure 2.** Carte de distribution des efforts des canneurs sénégalais dans la zone de pêche en 2010 (a) et 2011 (b).

**ANNUAL REPORT OF SOUTH AFRICA\***  
**RAPPORT ANNUEL DE L'AFRIQUE DU SUD**  
**INFORME ANUAL DE SUDÁFRICA**

**Part I (Information on Fisheries, Research and Statistics)**

***Section 1: Annual Fisheries Information***

*1.1 Poling, Rod and Reel, Linefish Fishery, and Recreational Fishery*

The fishery generally operates between September and May along the west coast of South Africa. The total reported annual pole fleet (including rod and reel) catch in the Atlantic region was 3 297 t for albacore and 551 t for yellowfin tuna. The total catch has continued to decline since 2009 (when it reached its maximum since 1994), even though the effort (days fishing) has increased from 4 518 days (2010) to a much higher 7 122 days in 2011. The poor availability of albacore in South African waters is evident in the decrease in the albacore nominal CPUE from 675 kg.day in 2010 to 463 kg.day in 2011. Due to the poor fishing season in South Africa many of the larger freezer vessels sought charter agreements with Namibia, with all catch made during this period accruing to Namibia. The yellowfin catches are higher than they've been since 2007, mainly due to the high availability of yellowfin along the south west coast during the latter part of 2011. The pole/rod and reel fishery has also reported an associated catch of 28.1 t of bigeye tuna and 5.5 t of skipjack tuna.

The traditional commercial line fishery opportunistically target albacore and yellowfin tuna when they are close inshore and when linefish species are not available. The commercial line fishery skippers in reporting their catches have in some instances grouped their tuna catches under a 'general tuna' category. These catches are most likely albacore and yellowfin tuna. We are continually working on correcting species identification in catch reporting.

The recreational fishery, including informal charter and sport fisheries using rod and reel and spearguns, also operates in the vicinity of Cape Town and targets albacore and yellowfin from small fishing vessels (5-10m). Although catch and effort in the recreational fishery for yellowfin and albacore are not quantified, the total catch is estimated between 100-140 t for albacore and a further 20-40 t for yellowfin in the Atlantic Ocean. Other species that are occasionally landed would include blue and black marlins. Recreational fishers are restricted by a bag limit of 10 tuna per day and 5 billfish (marlins and sailfish) and 5 swordfish per day and catches may only be used for own consumption. Sea conditions and distance to fishing grounds far offshore (> 25 NM) limits fishing operations to the months of December – May. In South Africa the total number of deep-sea anglers and underwater tuna fishers is estimated at 40 000. However, not all fisher's fish in the Atlantic Ocean and some do not fish for tuna and tuna-like species. Furthermore, a number of fishers do not stay close to the coast and will only fish when on holiday. South Africa is working towards developing a survey to obtain more information on this sector.

*1.2 Tuna/ Swordfish Longline Fishery*

The number of longline vessels increased from 26 in 2010 to 33 in 2011, including 15 Japanese charter vessels fishing for South African right holders. As a consequence of more vessels fishing the total number hooks deployed increased slightly from 0.62 million hooks in 2010 to 0.78 million hooks in 2011 in the ICCAT region. However, the increase in fishing effort was most evident in the Indian Ocean as this is where most of the foreign vessels preferred to fish due to better catch rates of bigeye and yellowfin. Total reported catch and nominal CPUE increased only for yellowfin tuna (120 t at 90.06 kg.1000hooks<sup>-1</sup>). In contrast, total reported catches and nominal CPUE declined for bigeye tuna (124 t at 122.25 kg.1000hooks<sup>-1</sup>), albacore (82 t at 78.89 kg.1000hooks<sup>-1</sup>) and swordfish (96 t at 112.88 kg.1000hooks<sup>-1</sup>),

*1.3 Shark Longline Fishery*

The Department of Agriculture, Forestry and Fisheries (hereafter referred to as the Department) consolidated the pelagic shark fishery with the large pelagic fishery in March 2011. Seven shark exemption holders were permitted to fish in 2010 and the vessels continued to fish with these until March 2011. Six of the ex pelagic

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\* No summary provided. / Aucun résumé soumis. / No se ha facilitado el resumen.

shark fishery vessels were issued with tuna and swordfish permits for the remainder of 2011. Effort increased from 104 thousand hooks in 2010 to 183 thousand hooks in 2011, mainly due to fishing effort shifting from the Indian to the Atlantic Ocean. Total catches of blue shark and shortfin mako increased from 102 t in 2010 to 317 t in 2011, with an increase in nominal CPUE for both species. The Department is in the process of developing a phase out plan for the directed targeting of pelagic sharks.

## ***Section 2: Research and Statistics***

### *2.1. Poling, Rod and Reel, and Sport Fishery*

Concerted efforts are continually being made between the Department and Industry associations and rights holders to improve reporting by the tuna pole fishery. These efforts have seen an improvement in reporting of the logbook information in 2011. Port sampling trips were undertaken in the latter part of 2011 into the 2011/2012 tuna pole season to obtain length frequencies of albacore landed by the poling fleet. Port sampling trips will be conducted until a shore-based observer programme is re-established in South Africa.

Tuna pole vessels are requested to collect yellowfin tuna length frequency measurements before the fish are dressed and the Department is striving towards increased reporting on these data.

The pole sector had 10 vessels with experimental permits in the use of live bait in 2011. Sufficient data is still to be collected and analysed to quantify the effect live bait exploitation by the tuna pole sector will have on the small pelagics sector and to assess the effects on tuna pole catch rates.

The Department is also in the process of revising the logbooks to capture all relevant data pertaining to tuna pole/ rod and reel fishing.

A standardised catch-per-unit-effort for albacore in the tuna pole fleet over a time series from 1999 – 2010 was submitted to ICCAT for the albacore stock assessment session in 2011, with a greater percentage of total variance explained by the model than in previous studies.

There was still no statistical system in place to record recreational catch and effort.

### *2.2 Tuna/ Swordfish Longline Fishery*

Skippers in the tuna/swordfish longline fishery have been required to complete daily logs of catches since 1997. After 2001 the comparison between reported catch statistics and US trade statistics were very similar, indicating good reporting for this sector subsequent to 2001. Reporting is considered to cover 100% of all swordfish, yellowfin and bigeye catches made by this sector. Although the logbooks have been used to report nominal catches to the RFMOs this will change in future in favour of using landing declarations as monitored by the 2 Fishery Control Officer when the fish are discharged. This is more accurate as all fish are required to be weighed.

Since 1998, South Africa has implemented an on board observer programme for the longline fishery, which is still in place for the foreign charter vessels and achieves 100% observer coverage. Only one domestic fishing trip was observed in 2011 before the programme ended in March 2011. Once the observer programme for the domestic longline vessels is re-established, observer coverage is intended to cover 20% of all domestic fishing trips. The observer programme is integral in ensuring the collection of length frequency data and that vessels comply with bycatch (sharks, seabirds and turtles) mitigation measures, and catch and size limits.

### *2.3 Shark Longline Fishery*

The six ex pelagic shark vessels are required to complete the same logbook information as the tuna/swordfish vessels. Levels of reporting from the six vessels are good with coverage of 100%. No size frequencies have been collected from this fishery and neither has any observers been placed on any of these vessels.

### *2.4 Research*

Various projects were initiated in 2008 including: collection of material for studying the age and growth of albacore and bigeye tuna; the life history, stock delineation and spatial movement and distribution of bigeye tuna, swordfish and blue sharks between the Atlantic and Indian Oceans. The Department, with the assistance of

NGOs (Birdlife SA) and universities, continued to assess the impact of longline fisheries on seabirds and investigated various mitigation and management measures. The recent establishment of a large pelagic fishery represents an important milestone in the development of South African fisheries. However, research activities directed at the large pelagic species targeted by longline are in its infancy in South Africa and to date only four dedicated research trips have been undertaken since 2008.

South Africa's involvement in the South West Indian Ocean Fisheries Programme (SWIOFP) through Component 4: Assessment and sustainable utilization of large pelagic resources has provided momentum to our research programme. The primary focus is to understand the distribution and movement of swordfish, bigeye and yellowfin tuna within the SWIO region. As part of the study 15 pop-up archival tags (PATs) have been provided for deployment on swordfish, yellowfin and bigeye tunas as well as hook monitors and time depth records for deployment of an instrumented longline. Prior to the inception of this project, two bigeye tuna and four blue sharks have been tagged with PATs and 441 blue sharks were tagged with conventional tags. In 2010, three yellowfin tuna were tagged with PAT tags provided by SWIOFP. The three tags popped up and transmitted data earlier than what they were programmed for, indicating that the animals had died prematurely and the tags had exceeded their depth limit of 1200m. The trends in the data are yet to be analysed in detail to understand the cause of these premature pop-ups. Three blue sharks were also tagged with PAT tags in 2010 and a further two blue sharks were tagged with SPOT tags in 2011. The Department's national research cruise in 2011 was a momentous achievement during which 11 swordfish were successfully PAT tagged in the SWIO region with SWIOFP tags. Swordfish have proven to be very sensitive to handling and South Africa is the first country to achieve PAT tagging of swordfish in this region. Tags have been programmed for either 90 or 180 days. Of the 11 tags, 4 remained on the swordfish for more than 2 months. The results of this study were presented at the IOTC Working Party for Billfish in 2012 (Document number IOTC-2012-WPB10-16).

The Department continues to collaborate with WWF, University of Washington Seas Grant, and Birdlife SA to assess the impact of longline fisheries on seabirds, turtles and sharks and to investigate various mitigation and management measures. A National Plan of Action for seabirds was also published in 2008, which aimed to reduce seabird mortalities below 0.05 seabirds.1000hooks<sup>-1</sup>. Good collaboration with the fishing industry, researchers and managers, continual refining of mitigation measures, the implementation of stringent management measures through permit conditions, and close monitoring through the observer programme has resulted in seabird mortalities to decrease below the stipulated goal of the NPO-seabirds in 2012. Rhodes University (Grahamstown) is also collaborating with the Department and is conducting research on the stock delineation of yellowfin in the boundary region between the Indian and Atlantic Oceans by conducting genetic analysis and investigating movement patterns. The results, which form part of a MSc thesis, have yet to be released and verified.

South Africa aims to conduct further research on the movement of large pelagic species between the Indian and Atlantic Oceans by placing more satellite (PSAT and SPOT) tags on animals as well as testing out the more affordable electronic spaghetti tags. Coupled with movement data, genetic studies on the difference between swordfish from the two Ocean basins will be explored.

A study on exploratory live bait permits issued to the tuna pole sector is intended from 2012 to 2013. The aim of the study will be to review a live bait component in South Africa and to ascertain the effect live bait extraction will have on the Small Pelagics sector.

South Africa has 3 years of instrumented longline data from the dedicated research cruises which should be analysed from 2012 onwards to further understand the way in which the longline fishery impacts upon target and bycatch species.

## **Part II (Management and implementation)**

### ***Section 3: Implementation of ICCAT Conservation and Management Measures***

*Closed seasons* 96-02, 98-07, 02-08: South Africa does not catch northern bluefin tuna (*Thunnus thynnus thynnus*), hence these management measures are not applicable.

#### *Data and minimum size*

96-14: Not applicable to South Africa

- 97-01: As a result of the reduced swordfish size adopted in 2005, undersize swordfish (< 119 cm FL or < 18 kg dressed weight) are confiscated by the Fishery Control Officers/ Monitors who are required to monitor all discharges of longline vessels fishing on a South African permit.
- 98-14: South Atlantic swordfish catches are presented in the ICCAT Reporting Table.
- 01-16: Task I and II data were submitted to ICCAT in August 2012, for 2011 data. ICCAT reporting tables for south Atlantic swordfish was also provided to ICCAT secretariat. No revisions of historical data were conducted this year.
- 03-13: All tuna pole/ rod and reel, tuna/swordfish/shark longline vessels are required to complete a daily log of all fishing activity and meets the standards described in the ICCAT Field Manual.
- Oth: All fishing sectors targeting large pelagic species, except for the recreational sector, are managed by a TAE (with TAE = no of vessels) as determined by the Minister of Agriculture, Forestry and Fisheries. The Regulations in terms of the Marine Living Resources Act (1998) also specify minimum weight limits for bigeye tuna (3.2 kg), bluefin tuna (6.4 kg), yellowfin tuna (3.2 kg). The swordfish minimum size limits of 125 cm LJFL and 25 kg mass were reduced to 119 cm LJFL and 18 kg in order to minimize dumping at sea. An estimate of the total amount of undersize swordfish caught is reported in the Compliance Tables.

#### *Capacity limits*

- 93-04: South Africa is a developing country, which only started commercial longlining in 1997, and cannot restrict its effort on yellowfin to that of 1992. Furthermore, yellowfin caught in the vicinity of Cape Town are likely to be of Indian Ocean origin.
- 98-03: The limitation of bigeye tuna fishing capacity is not applicable to South Africa according to paragraph 3.
- 04-01: South Africa is in the process of developing a tuna longline fleet which would target bigeye, but currently bigeye tuna is caught on domestic vessels targeting swordfish. Nonetheless South Africa is exempted from this resolution, as it is a developing country with reported bigeye catch in 1999 less than 2 100 t.

#### *Statistical Documents*

- 94-05: South Africa neither imports nor exports northern bluefin tuna; hence this resolution is not applicable.
- 01-21: Bigeye tuna statistical documents have been issued since 2003 and the management of these documents was improved upon in 2007.
- 01-22: Swordfish statistical documents have been issued since 2003, and the management of these documents was improved upon in 2007.

#### *Other measures relating to individual species*

- 96-09: Billfishes (excluding swordfish) and sharks are designated as by-catch species in the tuna/swordfish longline fishing sectors and are limited to a combined maximum of 10% of the total tuna and swordfish catch by weight. Longline skippers are also encouraged to release live billfishes according to their permit conditions.
- 97-09: Longline skippers are encouraged to release live billfishes, including blue and white marlins.
- 01-11/ 04-10: South Africa annually reports catch and effort data for mako and blue sharks. Annual length frequencies are also provided. To limit the tuna/swordfish longline fishery impact on sharks permit holders were only allowed a 10% by-catch of sharks by weight. Finning is banned, and skippers are required to land shark trunks and fins simultaneously, with fins not allowed to exceed 8% of trunk weight for shortfin mako and 12% for other species. Furthermore, in expanding the tuna longline fishery the Department has terminated the directed pelagic shark fishery and is developing a plan to phase out targeting of pelagic sharks in the tuna and swordfish longline fishery.
- 09-03: South Africa has not exceeded her initial swordfish quota of 1001 t (adjusted quota of 1562 t) in 2011. Only 96.5 t landed.
- 02-14/ 11-09: Various bird mitigation measures have been included as permit conditions, such as: All longliners are required to deploy a tori line when setting. No bright lights are to be used when setting at night. Baits are required to be properly defrosted to ensure faster sinking rates. All tuna longline vessels may only set at night. Bird limits have been introduced per vessel per year and if non-compliance with bird mitigations were found then the vessel would be required to stop fishing at either 25 birds or 50 birds. In addition,



scientific observers also collect data on bird mortality rates and provide dead specimens for identification. Awareness programmes have been held to educate permit holders/ skippers of detrimental impact longliners have on seabird populations. To encourage responsible fishing permit holders have been given bird posters so as to be able to identify the common species occurring in Southern African waters. WWF and Birdlife SA have also provided vessels with tori lines and given instructions on how to use them. In addition, research into seabird mitigation has taken place on board the fishing vessels during 2009-2010 with the assistance of the University of Washington Sea Grant. Seabird mortality has been greatly reduced due to the collaborative efforts and was recorded at 0.04 seabirds per thousand hooks in 2012.

- 03-10: Although the shark NPOA has been redrafted in 2011 and gazetted for public comment in August 2012 South Africa has already implemented a number of measures to manage and conserve shark population. For example: shark catches are restricted to 10% of the weight of tuna and swordfish; skippers are encouraged to release sharks alive; skippers are required to carry dehooking devices on board the vessel; and no finning is allowed. South Africa has also unilaterally implemented an Precautionary Upper Catch Limit for sharks of 2000 t.
- 09-07 all species of thresher shark are prohibited from being landed. In addition hammerhead sharks and oceanic white-tip have also been banned.
- 03-11: Skippers are required to release turtles alive. An on board observer programme has been established which collects data on turtle interactions. South Africa is currently investigating circle hooks as a means to reduce turtle catch.
- 03-04: Mediterranean swordfish is not applicable to South Africa.
- 05-05: Not applicable to South Africa as our vessels do not fish for North Atlantic mako.
- 05-08: South Africa encourages the use of circle hooks in its longline fishery, but has not implemented a study on the effects of circle hooks on catch rates as yet.
- 06-08: Resolution pertaining to fishing for bluefin in the Atlantic Ocean is not applicable to South Africa.
- 07-06: South Africa has started to conduct research on the life history and spatial distribution and movement of blue sharks in the Atlantic and Indian Oceans. One of the key priority areas would be to examine whether a short-fin mako nursery exists along the south coast of South Africa.
- 07-07: Data on sea-bird mortality in 2011 has been provided to ICCAT.
- 11-01: South Africa has authorised its vessels >20 m in length to fish for bigeye and yellowfin and has provided this information to the secretariat for 2012.
- 11-02: South Africa does not fish for North Atlantic swordfish, hence the recommendation is not applicable.
- 11-03: South Africa does not fish for Mediterranean swordfish hence the management measures are not applicable.
- 11-04: Rebuilding programme not relevant to South Africa as we do not fish for North Atlantic Albacore.
- 11-05: South Africa has implemented an electronic landing summary for its tuna pole fleet and has used this information to report its Southern Atlantic Albacore catches according to the stipulated reporting dates in 2012.
- 11-06/ 11-20/11-21: Not applicable as South Africa does not fish for bluefin.
- 11-08: South Africa has banned the landing of silky sharks in its tuna and swordfish longline fishery since the 1 February 2012. Furthermore, it has also banned the landing of silky sharks in its ports by foreign fishing vessels since 1 August 2012.

#### *Trade sanctions*

02-17, 06-13, 11-19: South Africa has no developed markets for tuna and tuna-like species hence there is no tuna trade with listed countries.

#### *VMS*

03-14, 04-11: Any pole, rod and reel, tuna/swordfish/shark vessel, irrespective of size, is required to have a functional VMS (as approved by the Department) in place before a vessel is permitted to embark on any fishing trip.

### General

- 97-10 (para 7): Thus far longline vessels fishing on a South African permit have only discharged in South African ports. However, provisions are made in the permit conditions that if a vessel discharges in another country the permit holder is required to arrange for a South African Fishery Control Officer to monitor the discharge.
- 99-07: The tuna recreational sector is restricted by a bag limit of 10 tuna per person per day as stipulated in the Regulations in terms of the Marine Living Resources Act (1998). The minimum size limits as stipulated by the Regulations in terms of the Marine Living Resources Act (1998) also applies to the recreational sector. No statistical system is in place to quantify catches made by the recreational fishery. A shorebased observer programme was established in 2007 which may allow for better catch estimates from this sector.
- 01-18: South Africa does not allow IUU vessels to enter its EEZ. Furthermore, no port services are made available to the vessels should they be allowed to enter in the case of *force majeure*. In addition, transshipments at sea are not permitted.
- 02-21: South Africa is in the process of developing its fishing capacity and as such has chartered foreign vessels in the tuna longline fishery. These vessels were under the control of South African regulations and permit conditions. All vessels were equipped with VMS and were required to take an observer on board on all fishing trips. Charter notification for 2012 and a chartering report for 2011 were submitted to ICCAT. In addition a number of South African pole vessels were authorized to fish under charter in Namibia in 2011 and 2012.
- 03-12: Commercial tuna fishing vessels are authorised by the Department to fish for tuna by means of a permit. A high seas licence is required if the vessel is to fish on the high seas. The original permit and licence are required to be on board the vessel on all fishing trips. Fishing vessel call signs and names also have to be marked in a specific manner.
- 03-16: South Africa does not allow any IUU vessels to land product in South African ports. Moreover, South Africa does not allow entry to the EEZ for IUU vessels. Transshipment of tuna into cages by IUU vessels are not applicable to South Africa as we do not have any tuna farming in South Africa.
- 06-11(Annex 3, para 6): South Africa does not permit transshipments at sea; hence this resolution is not applicable.
- 06-16: South Africa has an electronic statistical document programme in place for Patagonian and Antarctic toothfish under CCAMLR, but has not implemented any pilot electronic programme for tuna and tuna-like species.
- 09-08/ 11-12: South Africa has provided a list to ICCAT of vessels > 20m in the tuna pole and longline fisheries that were authorized to operate in the Atlantic Ocean for 2012.

### Section 4: Inspection Schemes and Activities

Vessels, including charter vessels, participating in the South African tuna/swordfish longline and tuna pole fishing sectors are required to notify the local Fishery Control Officer prior to landing as per the stipulated permit conditions. These vessels are only allowed to discharge in designated ports. No transshipments at sea are permitted. Transshipments in port are allowed subject to the issuing of a transshipment permit and monitoring by a Fishery Control Officer (FCO) or Fishery Monitor (FM). All pole and longline vessels are required to have a functional VMS, which reports to the Department's operations centre. All longline discharges are weighed at quayside and are independently monitored and inspected by FCOs and FMs. The Statistical Document Programme for swordfish and bigeye, which was implemented in 2003, is now well established. On board scientific observers also assist in monitoring longline skippers compliance with regards to permit conditions. For 2011, 100% observer coverage was achieved for all charter longline vessels and one domestic fishing trip was observed. The observer contract expired in March 2011 and the Department is currently in process to re-establish the observer programme for domestic vessels.

South Africa has continued to improve on the implementation of Port State Measures through collaborating with other national agencies such as National Ports Authority and Customs and Excise. South Africa has a full Port Inspection Scheme in place in accordance with the FAO Port State Measures Agreement (PSMA). This includes foreign vessels requiring an EEZ permit to enter and discharge in South African ports. Port access for foreign vessels is limited to Cape Town harbour, Port Elizabeth harbour and Durban harbour, where sufficient capacity exists to monitor the vessels. EEZ permits are only issued to authorized vessels. No IUU-listed vessels are allowed to enter South Africa's ports or to discharge in South African Ports. In applying for an EEZ permit,

skippers have to provide South African authorities with the necessary Flag State authorization documents, quantity of fish and species onboard to be discharged as well as the gear type used. A letter of authorization from the Flag State is required if South African authorities are uncertain about the application for a discharge permit.

Transshipments are only allowed in port on the authority of a transshipment permit. In applying for this permit the skipper has to provide South African authorities with the vessel details, quantity of fish and species to be transshipped, and where it was caught. Random inspections and monitoring are conducted for foreign vessel discharges and transshipments. South Africa is in the processes of acceding to the PSMA.

***Section 5: Other Activities***

Surveillance of coastal waters is provided by the fisheries offshore patrol vessels and *ad hoc* patrols by spotter planes, and navy vessels.

**ANNUAL REPORT OF ST. VINCENT AND THE GRENADINES  
 RAPPORT ANNUEL DE ST VINCENT ET LES GRENADINES  
 INFORME ANNUAL DE SAN VICENTE Y LAS GRANADINAS**

Cheryl Jardine-Jackson<sup>1</sup>

*SUMMARY*

*St. Vincent and the Grenadines (SVG) present in this report, the local landings of the large pelagics and high seas fishing fleet landings for 2011. The high seas fishing fleet is more of an industrial nature while the local fleet is small-scale and artisanal. St. Vincent and the Grenadines is a small island developing state who continues to explore all available sources of revenue in order to ensure food security for its people while meeting the challenges of sustainable use and a changing global environment. However, such efforts must be in compliance with acceptable international practices and standards. SVG continues to develop, refine and implement the relevant legislative, management, monitoring and enforcement mechanisms with regards to its high seas fishing fleet. These measures are geared toward ensuring the activities of these vessels are fully compliant with management initiatives taken by ICCAT and other relevant organizations.*

*RÉSUMÉ*

*Ce rapport présente les débarquements locaux des grandes espèces pélagiques ainsi que les débarquements de la flottille de pêche hauturière au titre de 2011 pour St Vincent et les Grenadines (SVG). La flottille de pêche hauturière est plus industrielle que la flottille locale qui est à petite échelle et artisanale. En tant que petit État insulaire en développement, Saint Vincent et les Grenadines continue à explorer toutes les sources disponibles de revenus, afin de garantir la sécurité alimentaire de ses ressortissants, tout en relevant les défis de l'utilisation soutenable et d'un environnement mondial changeant. Or, ces efforts doivent respecter les normes et pratiques internationales acceptables. Saint Vincent et les Grenadines continue à développer, perfectionner et mettre en œuvre les mécanismes de législation, gestion, suivi et exécution en ce qui concerne sa flottille de pêche hauturière. Ces mesures visent à garantir que les activités de ces navires sont pleinement conformes aux initiatives de gestion prises par l'ICCAT et d'autres organisations pertinentes.*

*RESUMEN*

*En este informe San Vicente y las Granadinas (SVG) presenta los desembarques locales de grandes pelágicos y los desembarques de la flota pesquera de altura para 2011. La flota pesquera de altura es más industrial, mientras que la flota local es de pequeña escala y de carácter artesanal. Como pequeño estado insular en desarrollo, San Vicente y las Granadinas debe continuar explorando todas las fuentes disponibles de ingresos con el fin de garantizar la seguridad alimentaria de sus ciudadanos a la vez que cumple los desafíos de la utilización sostenible y de un medio ambiente global cambiante. Sin embargo, dichos esfuerzos deben cumplir las prácticas y normas internacionales aceptables. San Vicente y las Granadinas continúa desarrollando, refinando e implementando los mecanismos pertinentes legislativos, de ordenación, de seguimiento y de ejecución respecto a su flota pesquera de altura. Estas medidas están destinadas a garantizar que las actividades de estos buques son plenamente conformes con las iniciativas en materia de ordenación de ICCAT y de otras organizaciones pertinentes.*

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## **Part I (Information on Fisheries, Research and Statistics)**

### ***Section 1: National Fisheries Information***

#### *1.1 The local fishing fleet*

The local pelagic fishing fleet of SVG is predominantly artisanal in nature, using traditional gear, method and vessels. The Fishing vessels are open and powered by outboard engines. These vessels exploit both oceanic and inshore pelagics as well as the shelf and deep slope demersals.

In 2011 there were approximately 750 registered vessels and 2,500 fulltime and part-time fishers (Fisheries Division, July 2011). Because of the small-scale nature of fishing operations any one of these vessels is likely to catch tunas and tuna-like species opportunistically. However, it is estimated that 250 of these vessels (500 fishers) target these species. More than 95% of these vessels are open fiberglass boats less than 8m in length. They are equipped with 15-125 HP gasoline outboard engines. The other 5% of the pelagic fishing fleet is comprised of six (6) longliners (13 m in length) and several “day tour” boats that are engaged in sport fishing.

In general, a fishing trip has a duration of one day for the open fiberglass vessels (4:00 a.m – 4:00 p.m) and up to five (5) days for the longliners. The smaller vessels fish predominantly in the eastern waters of the state, 50 miles off-shore. The longliners conduct fishing in the western waters, 150 miles off-shore. Trolling by the open vessels, longlining by the longliners, beach seining and gillnetting are the primary fishing gears used to catch tuna and tuna-like species.

#### *1.2 The high seas fishing fleet*

St. Vincent and the Grenadines is also responsible for a high seas fishing fleet. These vessels are foreign owned vessels registered with SVG and conduct their fishing activities on the high seas. In 2011 there were 32 vessels fishing in the Atlantic. Tuna and tuna-like species were caught with yellow fin tuna being the main species targeted. The areas of 10-15S & 30-35W, 15-20S & 30-35W, 10-15N & 40-45W were the three main areas for fishing activity in the Atlantic by these vessels in 2011.

In 2011 Thirty-two (32) vessels fishing in the Atlantic, were 20 meters and over, of these vessels eighteen (18) were 23-30 meters, Three (3) were between 31-40 meters, seven (7) were between 41-50 meters and four (4) were over 50 meters (see table 1).

### ***Section 2: Research and Statistics***

#### *2.1 Data collection system*

##### **– Local**

St. Vincent and the Grenadines used a system of stratified cluster sampling to estimate catch and fishing effort for twenty-one landing sites on mainland St. Vincent. A total census is collected at the Kingstown market which is the main market on the island. Data is collected from all landing sites using a cluster-stratified random sampling methodology. That is, all landing sites clustered into zones and then divided according to their status of importance (primary, secondary, tertiary) which then determines the frequency of sampling – primary sites (most frequently), tertiary sites (less frequent). All species-specific landings are then raised on a monthly basis to estimate total landings weight per month. Information is taken from boats at random eight hour periods between the hours of 6:00 a.m and 7:00 p.m. These eight hour periods are divided into two four hour periods with a one hour break for lunch. Sampling is done for the first available vessel after the data collector arrives and then the next available vessel given the length of time spent conducting the interview. The completed data forms are submitted to the Data Officer to be reviewed and digitized.

In 2010-2011, the Japan International Cooperation Agency (JICA) in collaboration with the Caribbean Community (CARICOM) Secretariat and the Caribbean Regional Fisheries Mechanism (CRFM) Secretariat undertook a pilot project on improving the artisanal fishery statistical systems in St. Vincent and the Grenadines. The study was completed in September 2011 and a proposal for the implementation of a revised sampling program was made. This revised sampling program will come in effect early 2012 and a revised document would be forwarded to all relevant parties.

## 2.2 Port Sampling Programme

### – High seas

The open registry operated by St. Vincent and the Grenadines is government-owned and operated. It contributes significantly to the National economy. In 2010, St. Vincent and the Grenadines signaled the need for ICCAT support to help improve the sampling of the commercial tuna fishing fleets, primarily at high priority landing locations such as the trans-shipment port in Trinidad and Tobago. The proposal to establish a 12-month sampling programme at the two main trans-shipment ports in Trinidad and Tobago has been approved by ICCAT. A draft Memorandum of Understanding (MOU) has been drawn up and is being reviewed. One data collector would be recruited to operate at the two main ports in Trinidad. The data collector would be trained in sampling techniques.

## 2.3 Logbook system

A log book system is presently in place as stipulated in the Highseas Fishing Regulations, 2003, paragraph 6. Information is recorded daily on sheets provided by the Fisheries Division and is sent to the division for analysis. The logbooks capture information such as the position (lat, long) of the vessel, date, catch and effort (Weight, species, hooks) and size (length frequency) data.

## 2.4 VMS System

St. Vincent and the Grenadines utilizes an internet version of vessel position monitoring. This can display the reporting positions of each vessel on a daily basis. The program utilizes the Inmarsat C, Argos and FAX systems. The vessel positions are downloaded at least twice per day although information can be downloaded up to five times per day. The text details are exported to Excel where the positions are saved for future use.

## 2.5 Data storage

Presently, data is being stored in the Fisheries Database CARIFIS (CARICOM Fisheries Information system) and Microsoft excel workbooks. Two network computers are used to store data on fishers, vessels, catch and effort and other relevant fisheries data.

## 2.6 Local statistics

In 2011 approximately 230mt of tuna and tuna-like species were landed at landing sites around St. Vincent and the Grenadines. Skip jack tuna (50.38 mt), yellowfin tuna (36.24 mt), Mahi Mahi (91.69 mt) and wahoo (30.69 mt) were the species of great importance. There was a significant increase of tuna and tuna-like species by the local artisanal fishing fleet for 2011 when compared to 2010. There was an overall increase of 38.5 mt that is approximately 16.1% increase (see table 2).

## 2.7 High seas statistics

Total reported high seas landings in 2011 showed an increase of approximately 9% ( 1,719.742 metric tons) when compared to landings of 2010 (1560.362 metric tons). During the year (2011) landings for spearfish, swordfish, sailfish, mahi mahi, and kingfish decreased substantially. Yellowfin tuna and Albacore, increased significantly (see table 3).

## Part II (Management Implementation)

### Section 3: Implementation of ICCAT Conservation and Management Measures

#### 3.1 Legislation

The Fisheries Division operated under the Ministry of Agriculture lands and Fisheries and is responsible for the overall management and development of the fisheries sector. The Division has the following pieces of legislation to assist in this task:

1. The Maritime Areas Act Of 1983
2. The Fisheries Act, No 1 of 1986

3. The Fisheries Regulations, No 8 of 1987 to the Act No 1 of 1986
4. The Fisheries Processing Regulations of 2001
5. The High Seas Fishing Act of 2001
6. The high Seas Fishing Regulations, November 2003

### *3.2 Compliance*

#### 3.2.1 Moratorium

The moratorium on the registration of new high seas fishing vessels established in June 2001 is still in effect. This moratorium prevents further increased in the overall tuna fishing effort in the ICCAT Convention Area by St. Vincent and the Grenadines fishing vessels. The measure is also contributing to the effort limitation regulations in effect for yellowfin and bigeye tunas and the catch limitations for other species.

#### 3.2.2 Licensing of high seas vessels

To date, highseas fishing vessels are in compliance with the specific terms and conditions as stipulated by section 6 of the Highseas Fishing Regulations of 2003.

#### 3.2.3 IUU declaration

In July 2010, at the 2<sup>nd</sup> special meeting of CFRM Ministerial Council, The Castries Declaration on Illegal, unreported and unregulated fishing (IUU) was passed. St. Vincent and the Grenadines is party and committed to this declaration.

#### 3.2.4 Training

The ICCAT statistical correspondent for St. Vincent and the Grenadines is currently on study leave pursuing studies in Ocean Governance, which upon completion of his studies will enhance the legislative, management, monitoring and enforcement mechanism of the highseas fishing fleet, which will ensure that highseas vessels are fully compliant with management initiatives taken by ICCAT

**Table 1.** SVG High seas vessel registry.

<i>International Radio call Sign (IRCS)</i>	<i>Registry Number</i>	<i>Vessel Name</i>	<i>Previous</i>	<i>Current Flag</i>	<i>length (m)</i>	<i>type of length</i>
<b>Vessels Over 20 Meters</b>						
J8PA7	400465	Ocean Atun #62		St. Vincent	23.8	LOA
J8AK5	400346	Luminous		St. Vincent	27.8	LOA
J8PV7	400647	OCEAN ATUN #11		St. Vincent	23.9	LOA
J8PU7	400649	OCEAN ATUN #16		St. Vincent	23.9	LOA
J8AV4	400420	RELIANCE		St. Vincent	23.8	LOA
J8AU4	400411	LIBERDADE		St. Vincent	23.8	LOA
J8AK	400363	LIBERTY		St. Vincent	23.8	LOA
J8PA5	400461	OCEAN ATUN #26		St. Vincent	23.8	LOA
J8A06	400364	SAILOR		St. Vincent	23.8	LOA
J8AQ6	400379	MIRACLE		St. Vincent	23.8	LOA
J8AR5	400381	CRYSTAL		St. Vincent	23.8	LOA
J8AR4	400380	DYNASTY		St. Vincent	23.8	LOA
J8AB7	400344	FREEDOM		St. Vincent	23.8	LOA
J8ACB	400378	ISIS		St. Vincent	23.8	LOA
J8AB2	400343	NEPTUNE		St. Vincent	23.8	LOA
J8AB	400445	PIONEER		St. Vincent	23.8	LOA
J8PV8	400648	OCEAN ATUN #12		St. Vincent	23.13	LOA
J8PW3	400650	TRI OCEAN 212		St. Vincent	23.13	LOA
J8AN8	400355	Emily 11		St, vincent	33.5	LOA
J8AN9	400356	Emily 12		St, vincent	33.5	LOA
J8AO1	400357	Emily 16		St, vincent	33.5	LOA
J8AP9	400371	Exquisite		St, vincent	43.63	LOA
J8AN5	400347	Ocean Harvest		St. Vincent	54.02	LOA
J8AQ3	400374	Sapador		St. Vincent	49	LOA
J8PA3	400460	Invictus	Ocean Star 11	St. Vincent	57.65	LOA
J8-PX5	400660	Uberty		St. Vincent	49.4	LOA
J8 PV5	400645	Barana		St. Vincent	78.18	LOA
J8 PV6	400646	Ametrine	Brisk	St. Vincent	49.62	LOA
J8 AQ2	400373	Espy	Topaz	St. Vincent	49	LOA
J8 AX3	400425	Ocean Media		St. Vincent	56.46	LOA
J8 AO8	400388	Halo	Gloria	St. Vincent	49.01	LOA
J8AP8	400370	Tuna Brass 11		St. Vincent	43.63	LOA



**Table 2.** Landings of tuna and tuna-like species in SVG.

<i>YEAR</i>	<i>2010 (weights in t)</i>	<i>2011 (weights in t)</i>
Yellowfin	34.763	36.24
Bigeye	0	1.15
Albacore	2.237	0.27
Mahi Mahi	64.076	91.69
W.marlin	0.082	0.05
B.Marlin	1.049	0.00
Sailfish	0	0.00
Skipjacks	44.432	50.38
Bonito	6.462	20.37
Shark	7.073	6.84
Wahoo	39.677	30.69
K.mackerel	0.041	0.14
C.mackerel	0.119	0.68
<b>TOTAL</b>	<b>200.011</b>	<b>238.495</b>

**Table 3.** Highseas landings of tuna and tuna-like species.

<i>Species</i>	<i>2011 (weight in t)</i>	<i>2010 (weight in t)</i>	<i>Increase/decrease (%)</i>
Yellowfin	927.223	819.494	11.6
Bigeye	36.97	395.9	
Albacore	423.116	205.103	51.5
Spearfish	4.741	8.252	-74
Swordfish	13.507	17.089	-26.5
Sailfish	4.414	7.46	-69
Mahi Mahi	4.44	7.506	-69
Kingfish	5.878	9.123	-55
Skipjacks	0	1.763	
Small Tunas	0	0	
Miscellaneous	299.453	88.672	70.4
<b>TOTAL</b>	<b>1719.742</b>	<b>1560.362</b>	<b>9.3</b>

**ANNUAL REPORT OF TRINIDAD AND TOBAGO  
RAPPORT ANNUEL DE TRINIDAD ET TOBAGO  
INFORME ANUAL DE TRINIDAD Y TOBAGO**

Fisheries Division<sup>1</sup>

SUMMARY

*The Trinidad and Tobago catch of tuna and tuna-like species for 2011 was estimated at approximately 4300 t. Yellowfin tuna continued to be the most abundant species in the catch of the longliners. The fleet size has not changed since 2011. Currently there are 31 operational longliners, two of which are greater than 24 m LOA. Trinidad and Tobago is nearing conclusion of an agreement to secure ICCAT's assistance for implementation of a data collection program to generate Task II size data for the major tuna and tuna-like species. To address reporting issues on billfish catches by the artisanal fleet data collectors have been retrained in species identification and accurate recording of species names. In 2012 a gillnet survey was conducted to inform enforcement of related legislation and in 2013 research will be conducted to identify the species and estimate their relative quantities in the by-catch and discards of net and pelagic longline fisheries. A project to elaborate a National Plan of Action for Sharks will also commence in 2013. Trinidad and Tobago remains committed to regional and international efforts aimed at management of pelagic fisheries, through its participation in a regional project for sustainable management of shared marine resources and membership in a recently established Regional Working Group on Recreational Fisheries. New fisheries management legislation which will strengthen Trinidad and Tobago's capability to meet its international fisheries management obligations and which provides for management of the recreational fishery is soon to be laid in Parliament. Legislation prohibiting the killing, capture and sale of turtles has been passed and similar initiatives are to be taken to improve compliance with ICCAT management recommendations on sharks, north Atlantic Swordfish and billfishes. A pilot Vessel Monitoring System is currently being implemented, and monitoring, surveillance and enforcement capability has been strengthened. The inspection of landings of the semi-industrial longline fleet, the implementation of the Statistical Document Programs (SDPs) and the monitoring of operations at the transshipment ports in Trinidad are ongoing.*

RESUME

*La prise de thonidés et d'espèces apparentées réalisée par Trinidad et Tobago a été estimée à environ 4.300 t au titre de l'année 2011. L'albacore reste l'espèce la plus abondante de la capture des palangriers. La flottille n'a pas changé depuis 2011. La flottille est actuellement composée de 31 palangriers opérationnels et deux d'entre eux mesurent plus de 24 mètres de longueur hors-tout. Trinidad et Tobago est sur le point de conclure un accord afin de recevoir l'assistance de l'ICCAT aux fins de la mise en œuvre d'un programme de collecte des données en vue de générer des données de taille de Tâche II pour les principaux thonidés et espèces apparentées. Afin de résoudre les problèmes de déclaration des captures d'istiophoridés de la flottille artisanale, des collecteurs ont reçu une formation de recyclage sur l'identification des espèces et la consignation correcte des noms des espèces. En 2012, une étude sur les filets maillants a été réalisée afin de faire le point sur la législation s'y rapportant. En 2013, des travaux de recherche seront réalisés afin d'identifier les espèces et d'estimer leurs quantités relatives dans les prises accessoires et les rejets des pêcheries au filet et à la palangre pélagique. Un autre projet débutera en 2013 dans le but d'élaborer un plan d'action national pour les requins. Trinidad et Tobago demeure attaché aux efforts régionaux et internationaux en faveur de la gestion des pêcheries pélagiques par le biais de sa participation à un projet régional de gestion durable des ressources marines partagées et de sa participation à un groupe de travail régional récemment créé sur les pêcheries récréatives. Il est escompté qu'une nouvelle législation en matière de gestion des pêcheries, qui renforcera la capacité de Trinidad et Tobago de remplir ses obligations internationales en la matière et qui portera sur la gestion*

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*de la pêche récréative, soit soumise prochainement au parlement. Une loi interdisant la mise à mort, la capture et la vente des tortues a été adoptée et des initiatives similaires doivent être entreprises pour améliorer l'application des recommandations de gestion de l'ICCAT sur les requins, l'espadon de l'Atlantique Nord et les istiophoridés. Un système pilote de surveillance des navires est actuellement mis en œuvre, et les capacités de suivi, de surveillance et d'application ont été renforcées. L'inspection des débarquements de la flottille palangrière semi-industrielle, la mise en œuvre des Programmes de documents statistiques (SDP) et le suivi des opérations de transbordement dans les ports de Trinidad sont en cours.*

## RESUMEN

*La captura de Trinidad y Tobago de túnidos y especies afines para 2011 se estimó en aproximadamente 4.300 t. El rabil continuó siendo la especie más abundante en las capturas de los palangreros. El tamaño de la flota no ha cambiado desde 2011. Actualmente, hay 31 palangreros operativos, dos de ellos con una eslora total de más de 24 m. Trinidad y Tobago está a punto de concluir un acuerdo para garantizar la asistencia de ICCAT en la implementación de un programa de recopilación de datos para generar datos de talla de Tarea II para los principales túnidos y especies afines. Para solucionar los problemas de las capturas de istiofóridos realizadas por la flota artesanal, se ha vuelto a formar a los recopiladores de datos en la identificación de especies y en el registro preciso de los nombre de las especies. En 2012, se llevó a cabo una prospección de redes de enmalle para informar de la ejecución de la legislación asociada con dicho arte. En 2013 se realizarán trabajos de investigación para identificar las especies y estimar sus cantidades relativas en la captura fortuita y descartes de las pesquerías de redes y de palangre pelágico. En 2013, también comenzará un proyecto para la elaboración de un Plan Nacional de Acción para los tiburones. Trinidad y Tobago sigue comprometida con los esfuerzos regionales e internacionales encaminados a la ordenación de pesquerías pelágicas mediante su participación en un proyecto regional de ordenación sostenible de recursos marinos compartidos y se ha hecho miembro del recientemente establecido Grupo de trabajo regional sobre pesquerías de recreo. Pronto se presentarán ante el Parlamento nuevas legislaciones de ordenación de las pesquerías que reforzarán la capacidad de Trinidad y Tobago a la hora de cumplir sus obligaciones internacionales en lo que concierne a la ordenación de sus pesquerías internacionales y que establecerán una ordenación para las pesquerías de recreo. Se ha aprobado una ley que prohíbe matar, capturar y vender tortugas y se emprenderán iniciativas similares para mejorar el cumplimiento de las recomendaciones de ordenación de ICCAT relacionadas con los tiburones, el pez espada del Atlántico norte y los istiofóridos. Se está implementando un sistema piloto de seguimiento de buques, y se han reforzado las capacidades de seguimiento, control y vigilancia. Se están realizando inspecciones de los desembarques de la flota de palangre semiindustrial, se están implementando los Programas de Documento Estadístico (SDP) y se está procediendo al seguimiento de las operaciones de transbordo en los puertos de Trinidad y Tobago.*

## Part I (Information on Fisheries, Research and Statistics)

### Section 1: Annual Fisheries Information

The Trinidad and Tobago catch of tuna and tuna-like species for the year 2011 was estimated, from the landings of commercial vessels and all of the major game fishing tournaments held, at approximately 4 333 t. As has also occurred in the previous few years, yellowfin tuna (*Thunnus albacares*) was by far the most abundant species in the catch of the longliners with the 2011 catch of the species being approximately 788 t.

The fleet of longliners comprises 31 operational vessels, two of which are over 24 m LOA. The fleet of artisanal vessels has remained relatively stable in size.

### Section 2: Research and Statistics

Trinidad and Tobago is nearing conclusion of an agreement with ICCAT with regard to securing ICCAT's assistance to implement a data collection program to generate Task II size data for the major tuna and tuna-like species. A Memorandum of Understanding to facilitate implementation of the program is currently under review

by the Secretariat and arrangements are being made to hire the respective Data Collectors and to convene a Training Workshop in early 2013 on Species Identification and Reporting to fulfill ICCAT's Task II data reporting requirements.

The aggregation of the catches of Atlantic blue marlin and Atlantic sailfish by the artisanal fleet in the data collection system, due to both species being commonly known by a single local name, continues to be addressed. Data collectors have been re-trained with respect to species identification and accurate recording of the species names.

A gillnet survey was conducted to ascertain the number of gillnets currently in use, the characteristics, including mesh size of such nets, area of fishing and target species. A fishing community awareness programme was also implemented in 2012 in preparation for enforcement of current fisheries regulations, including the 4.25 inch (10.8 cm) stretched mesh for gillnets, by the newly reconstituted Fisheries Monitoring, Surveillance and Enforcement Unit.

Due to the important role of pelagic fisheries in national food security the majority of fish and sharks in the by-catch in pelagic line fisheries are utilized. However, a research programme is to be implemented in 2013 to identify the species and estimate their relative quantities in the by-catch and discards of net and pelagic longline fisheries. A project has been developed with national funding towards the elaboration of a National Plan of Action for Sharks.

Following from Trinidad and Tobago's participation in the 2011 meeting of the Large Pelagic Working Group (LPWG) of the Caribbean Regional Fisheries Mechanism (CRFM) a report was completed which provides an overview of the available data on blackfin tuna in CRFM Member States with recommendations for data improvement to facilitate catch rate standardization.

During 2011 and 2012 Trinidad and Tobago continued its participation in the "Sustainable Management of the Shared Marine Resources of the Caribbean Large Marine Ecosystem (CLME) and Adjacent Regions Project". This project seeks to facilitate management reforms that will promote sustainable development and effective management of the living marine resources shared among the 23 countries of the wider Caribbean. In particular, Trinidad and Tobago participated in the following activities under the Large Pelagic Fisheries Case Study implemented by the CRFM.

- a) Review and analysis of existing policy, legal and institutional arrangements for governance and management of fisheries to make recommendations for improvement, including, as appropriate, identifying mechanisms for decision-making at regional and sub-regional levels;
- b) Stakeholder analysis to identify relevant stakeholders at the national, regional and international levels, to ascertain their roles, level of importance and institutional capacity in respect of participation in fisheries management; and
- c) Assessment of recreational fisheries in the Eastern Caribbean, which includes a preliminary costs and earnings study for charter boat fishing operations in Trinidad and Tobago and Grenada.

Trinidad and Tobago is a member of the joint Western Central Atlantic Fishery Commission (WECAFC), Organization for Fisheries and Aquaculture in the Central American Isthmus (OSPESCA), Caribbean Regional Fishery Mechanism (CRFM) and the Caribbean Fishery Management Council (CFMC) Working Group on Recreational Fisheries, established at the Fourteenth Session of the Western Central Atlantic Fishery Commission (WECAFC), held in Panama from 06 to 09 February 2012. Between 2012 and 2013 this Working Group is expected to begin implementation of the FAO Technical Guidelines for Responsible Fisheries: Recreational Fisheries through: development of an assessment methodology for the socio-economic value of such fisheries in the Wider Caribbean Region and testing such methodology in the eastern Caribbean/Lesser Antilles States, preparation of a recreational fisheries data collection scheme for testing in the WECAFC region and preparation of a draft billfish management and conservation plan for the wider Caribbean Region. A member of staff of the Fisheries Division and a representative of the Trinidad and Tobago Game Fishing Association are expected to attend the Expert Workshop on the Assessment of Socio-Economic Impacts of Recreational Fishing to be convened in Santa Marta, Colombia on 04 November 2012.

## **Part II (Management Implementation)**

### ***Section 3: Implementation of ICCAT Conservation and Management Measures***

The proposed new legislation governing fisheries management is currently under review by the Legislation Review Committee of the Cabinet and is expected to be laid in Parliament in 2013. The new legislation will strengthen Trinidad and Tobago's capability to meet its international fisheries management obligations. It is aligned with global efforts to implement an ecosystem approach to fisheries management and consequently includes provisions for, *inter alia*, considering the impacts of discarding of non-target as well as associated and dependent species (as pertain to catches of sharks, billfishes, seabirds and other relevant species) in management decision-control rules. In addition, the proposed new legislation makes provisions for managing the recreational fishery.

Six Trinidad and Tobago longliners (two greater than 24m LOA and four between 20 and 24M LOA) have been engaged since March 2012 in a pilot programme to test two Vessel Monitoring Systems (VMS). This project will terminate in December 2012 following which a phased approach to implementation of a national system, beginning with all large-scale fishing vessels (greater than 24m LOA) will begin utilizing the system identified as most appropriate for Trinidad and Tobago. Monitoring of the vessels will be done by the Division's Fisheries Monitoring, Surveillance and Enforcement Unit (FMSEU).

New legislation was passed in October 2011 which prohibits the killing, capture, possession, purchase or sale of turtles. The legislation offers similar protection for turtle eggs. Currently the Fisheries Division is engaged in discussions aimed at introducing legislation that limits the size of north Atlantic Swordfish in the catch; prohibits the landing of shark fins without accompanying carcass and prohibits trade in billfishes, namely blue marlin and white marlin. In order to minimize catches of billfish fishers are currently in the process of changing the species of bait used in longlining. Through the assistance of authorities in St Vincent and the Grenadines operators of some fishing vessels can now purchase bait in that country. The impacts of this change in bait species will be evaluated by the next reporting period.

### ***Section 4: Inspection Schemes and Activities***

The FMSEU was reconstituted in March 2012 and now comprises ten members of staff. Currently the Unit is engaged in training, implementation of the pilot VMS programme, inspection of landings of the semi-industrial longline fleet and implementation of the Statistical Document Programs (SDPs).

Transshipment port monitoring is ongoing at the two port locations in Port of Spain and Chaguaramas. Foreign fishing vessel use of the transshipment ports is monitored particularly in relation to the conduct of IUU fishing activities. Landings data are also collected.

Trinidad and Tobago is currently participating in a regional study on Monitoring Control and Surveillance in the CARICOM/CARIFORUM Region, under the ACP Fish II Programme, aimed at characterizing: (1) the current situation of the fisheries; (2) IUU fishing in the region; and (3) associated monitoring, control and surveillance (MCS) responses. The study will propose a set of strategic guidelines to improve MCS at both the national and regional levels.

**ANNUAL REPORT OF TUNISIA  
RAPPORT ANNUEL DE LA TUNISIE  
INFORME ANUAL DE TÚNEZ**

Hechmi Missaoui

SUMMARY

*Tuna fishing is regulated by law No. 94-13 of 31 January 1994 and its compliance regulations, principally by the Decree of 28 September 1995 on the organization of fishing activities and the Decree of 13 April 2010, amending the Decree of 21 May 2008, relative to the organization of bluefin tuna fishing. The provisions of this decree, establish mainly the fishing period, gear and minimum size of catch authorised. In 2011, in the framework of the compliance with the provisions of Recommendation 10-04 on fishing capacity, Tunisia reduced the number of active bluefin tuna fishing vessels from 42 vessels to 23. Likewise and in compliance with paragraph 90 and 91 of the same Recommendation regarding the onboard tuna observation programme and in fattening farms, Tunisia guaranteed a 100% observer coverage. National and scientific observers have carried out the tasks established in paragraph 90 of the Recommendation as regards sampling work. It should be noted that a ministerial decision, enacted in February 17, 2011, provided observers for the national programme with observers from the administrative authority and research institutions to guarantee the monitoring of bluefin tuna fishing activities. A training session regarding Recommendation 10-04 was organised for observers during the 3-10 February period. The total catch of bluefin tuna in 2011 amounted to 851.482 t, i.e. a 98,9 % catch rate of the national adjusted quota in the amount of 860.180 t. 89.93 % of these catches were placed in cages in fattening farms and 9.18 % of catches were exported live to Turkey.*

RÉSUMÉ

*La gestion de la pêche de thonidés est régie par les dispositions de la loi N° 94-13 du 31 janvier 1994 et de ses textes d'application dont notamment l'arrêté du 28 septembre 1995 portant sur l'organisation de l'exercice de la pêche et l'arrêté du 21 mai 2008 relatif à l'organisation de la pêche du thon rouge tel que modifié par l'arrêté du 13 avril 2010. Les dispositions de cet arrêté fixent notamment la période de pêche, l'engin de capture et la taille minimale de capture autorisée. En 2011, dans le cadre de l'application des dispositions de la Recommandation 10-04 sur la capacité de pêche, la Tunisie a procédé à une réduction du nombre des navires actifs de pêche de thon rouge de 42 navires à 23 navires. Aussi et en application des paragraphes 90 et 91 de la même Recommandation sur le programme d'observation à bord des thoniers et dans les fermes d'engraissement, la Tunisie a assuré une couverture de 100 % d'observateurs. Les observateurs nationaux et scientifiques ont accompli les tâches fixées dans le paragraphe 90 de la Recommandation dont les travaux d'échantillonnages. Il convient de noter qu'une décision ministérielle décrétée le 17 février 2011 a mis à la disposition du programme national des observateurs de l'administration et des institutions de recherche pour assurer le suivi de l'activité de pêche de thon rouge. Une session de formation a été organisée au profit de ces observateurs sur la Recommandation 10-04 pendant la période du 3 au 10 février 2011. Les captures totales du thon rouge en 2011 ont atteint 851,482 tonnes, soit un taux de réalisation de 98,9 % du quota national ajusté à 860,180 tonnes. 89,93 % de ces captures ont été mises en cage dans les établissements d'engraissement et 9,18 % des prises ont été exportées vivantes à la Turquie.*

RESUMEN

*La ordenación de la pesca de túnidos se rige principalmente por la ley n° 94-13 del 31 de enero de 1994 y sus textos de aplicación: el decreto del 28 de septiembre de 1995 sobre la organización del ejercicio de la pesca y el decreto del 21 de mayo de 2008 sobre la organización de la pesca de atún rojo, tal y como fue modificado por el decreto del 13 de abril de 2010. Las disposiciones de este decreto establecen sobre todo el periodo de pesca, el arte de*

*captura y la talla mínima de captura autorizada. En 2011, en el marco de aplicación de las disposiciones de la Recomendación 10-04 sobre la capacidad de pesca, Túnez procedió a una reducción del número de sus buques activos de pesca de atún rojo, pasando de 42 a 23 buques. Asimismo, de conformidad con los párrafos 90 y 91 de la misma Recomendación sobre el programa de observadores a bordo de los atuneros y en las granjas, Túnez ha garantizado una cobertura de observadores del 100%. Los observadores nacionales y científicos han realizado las tareas enumeradas en el párrafo 90 de dicha Recomendación, entre ellas las tareas de muestreo. Cabe señalar que mediante una decisión ministerial, decretada el 17 de febrero de 2011, se ha puesto a disposición del programa nacional observadores de la administración y de las instituciones de investigación para garantizar el seguimiento de las actividades de pesca de atún rojo. Se organizó una sesión de formación sobre la Rec. 10-04 dirigida a estos observadores (del 3 al 10 de febrero de 2011). Las capturas totales de atún rojo en 2011 se situaron en 851,482 t, es decir un 98,9% de la cuota nacional ajustada de 860,180 t. El 89,93% de estas capturas se introdujo en jaulas en las granjas y el 9,18% se exportó vivo a Turquía.*

## **1<sup>ère</sup> Partie (Informations sur les pêcheries, la recherche et les statistiques)**

### **Chapitre 1 : Information annuelle sur les pêcheries**

La pêche des thonidés est pratiquée principalement au large des côtes Est et Sud (du golfe de Hammamet à la frontière tuniso-libyenne) pour le thon rouge et au large de toutes les côtes tunisiennes pour l'espadon. Certains ports comme ceux de Tébourba, Mahdia et Zarzis sont des ports importants de débarquement de cette espèce.

En 2011, les fermes d'engraissement de thon rouge ont reçu près de 90 % de la capture totale alors que la quasi-totalité d'espadon est destinée à l'exportation aux pays de l'Union européenne.

En 2011, les captures du thon rouge et d'espadon ont totalisé 1.850 tonnes marquant une baisse de 9,5 % par rapport à l'année 2010.

Pendant la campagne de pêche au thon rouge 2011, le nombre de jours de mer effectué par les navires de pêche autorisés a atteint 585 jours contre 658 jours réalisés en 2010.

La production moyenne par jour de mer de la flottille thonière active est de 1.456 tonnes pendant la campagne 2011 contre 1.586 tonnes pendant la campagne 2010, soit un taux de diminution de 8,93 %.

La production moyenne par thonier actif s'élève à près de 37 tonnes en 2011 contre 27,4 tonnes en 2010, soit un taux d'augmentation de 35 %.

L'estimation des poids moyens des pièces de thon rouge capturées au cours de la campagne 2011 était de 54,3 kg.

Il est à signaler que la Tunisie a procédé à la réduction du nombre des navires actifs de pêche de thon rouge. En effet, la flottille comptait 42 navires en 2008 ; elle est passée à 23 navires en 2011 (19 navires de longueur supérieure à 24 m et 4 navires de longueur inférieure à 24 m).

La capacité tunisienne de pêche est passée de 1809,26 t en 2008 à 1080,54 t en 2011, soit une réduction de 76,78 % de la divergence entre la capacité de pêche en 2008 et le quota alloué et ajusté en 2011.

### **Chapitre 2 : Recherche et statistiques**

En Tunisie, le suivi de la collecte des données statistiques des espèces gérées par l'ICCAT assure la totalité des prises depuis la capture à la commercialisation. Pour le thon rouge, la Tunisie a commencé à partir de l'année 2011 à mettre en œuvre un système de gestion électronique des documents de transfert en mer. Cette technique de communication entre les navires de pêche et le centre de gestion d'information de pêche permet la collecte instantanée des données sur les captures (poids total, nombre de pièces, position de capture, destination de la prise, mortalités, etc.).

Pour l'espadon, les navires de pêche détiennent à bord des journaux de pêche pour noter les informations relatives à leurs activités journalières. Ces informations sont ensuite compilées dans une base de données pour servir aux travaux scientifiques.

Le programme d'observateur en mer et à terre permet d'assurer la traçabilité et la collecte des informations sur les captures. Les observateurs scientifiques à bord des thoniers et des palangriers permettent notamment de :

- mieux connaître les stocks des pêcheries palangrières et leurs écosystèmes pélagiques,
- améliorer les données annuelles sur l'état des prises, d'effort et de taille,
- compléter les données statistiques par l'estimation de la composition spécifique, notamment dans les pêcheries artisanales et
- compléter certaines informations pour tenir compte de la distribution géographique des pêcheries de thon rouge d'espadon.

Le programme d'échantillonnage, tel que décrit au paragraphe 87 de la Rec. 10-04, a été réalisé par les observateurs nationaux durant les opérations de transfert en mer et les opérations de mise en cage avec une couverture en moyenne de 5 % de la quantité totale capturée. Les données recueillies sont compilées dans les formulaires de la Tâche I et II.

Le suivi des activités de pêche n'a pas détecté d'interaction entre les engins employés et d'autres espèces marines (cétacés, tortues marines, etc.).

Différentes activités de recherche sur le thon rouge et l'espadon sont en cours d'exécution. Parmi ces activités :

### *2.1 Structure démographique et les relations biométriques du thon rouge*

Les lieux d'échantillonnage sont les zones de pêche et les fermes d'engraissement (**Tableau 1**). Des mesures de longueur et de poids ont été réalisées pour avoir les structures démographiques et les relations taille-taille et taille-poids, les fréquences des tailles (LF) des individus échantillonnés (**Figure 1**) et les relations allométriques (**Tableaux 2, 3 et 4**).

La relation poids total (WT) en fonction de la longueur à la fourche (LF) a été déterminée pour les individus non encore engraisés (**Tableau 5**) et pour les individus engraisés (**Tableau 6**).

### *2.2 Étude de la croissance de thon rouge*

Cette activité a été basée sur les prélèvements des opérations d'échantillonnage. Elle a pour objectif la détermination de l'âge et l'élaboration des modèles de croissance. Les analyses des échantillons prélevés sont en cours.

### *2.3 Études des larves de thon rouge*

Un programme de recherche scientifique sur les larves de thon rouge est en cours d'exécution. Les filets utilisés de type « bongo » Le maillage est de 335 $\mu$  et 505 $\mu$ . Les stations d'échantillonnage sont sous forme de grille de distance l'une de l'autre de 10 miles nautiques. Les principaux paramètres environnementaux suivis sont la profondeur, la température, la salinité, les courants marins, la chlorophylle-a et la biomasse du zooplancton. La totalité des côtes tunisiennes ont été prospectées (**Tableau 7**). Les échantillons et les données sont en cours d'analyses.

### *2.4 Caractéristiques de la flottille pêchant l'espadon*

Les caractéristiques des navires tunisiens pêchant l'espadon ont été analysées par catégories de longueur (**Figure 2a**), de tonnage (**Figure 2b**) et de puissance (**Figure 2c**). Ces navires ont été au nombre de 412. La catégorie dominante ( $\approx 30\%$ ) des bateaux a été celle qui a une longueur entre 12 et 14 m, un tonnage entre 10 et 15 tonnes et une puissance entre 100 et 150 cv. On note aussi que la catégorie de faible puissance ( $< 50$  cv) est de proportion considérable, soit 20%.



## **II<sup>ème</sup> Partie (Mise en œuvre de la gestion)**

### ***Chapitre 3 : Mise en œuvre des mesures de conservation et de gestion de l'ICCAT***

Malgré les difficultés sociales à laquelle la Tunisie a été confrontée en 2011, des efforts louables ont été déployés pour faire respecter les exigences de l'ICCAT dont notamment :

- la transmission des données sur les pêcheries thonières dans les délais ;
- la réduction de la capacité de pêche ;
- la mise en œuvre du programme des observateurs régionaux (ROP-BFT) ;
- la participation au Schéma conjoint d'inspection internationale.

Les réunions de sensibilisation organisées avant le démarrage de la saison de pêche au profit des armateurs de pêche de thon rouge et d'espadon et les opérateurs des établissements d'engraissement ont facilité substantiellement l'application des programmes de suivi et de contrôle.

Aussi et dans le cadre de l'application des recommandations de l'ICCAT, les mesures suivantes ont été mises en œuvre :

#### *3.1 Allocation de quotas individuels*

En 2011, la Tunisie a partagé le quota national sur les navires autorisés selon leurs caractéristiques techniques et le nombre de navires de chaque armateur opérant dans la pêche au thon rouge. Le suivi des quotas individuels a été assuré comme en 2010 par les observateurs embarqués à bord des navires et les gardes pêche dans les ports.

#### *3.2 Programme d'observateurs*

La Tunisie a participé au programme d'observation par des observateurs régionaux et par des observateurs nationaux (décision ministérielle N°213 du 17/02/2011).

Une session de formation a été réalisée au profit des observateurs pour accomplir les tâches qui leur sont confiées dont notamment les travaux d'échantillonnage (données des Tâche I, collecte des informations sur les prises accessoires et les rejets.).

Le programme des observateurs nationaux est réalisé dans les fermes pour assurer les travaux d'échantillonnage (données de Tâche II). Quant au programme des observateurs scientifiques, il est accompli pour améliorer la collecte des informations scientifiques sur les pêcheries de thon rouge et d'espadon. Ces observateurs ont suivi aussi une session de formation sur la systématique et la biologie des thonidés.

Un manuel de travail a été distribué aux observateurs pour les aider à recueillir les informations demandées : les captures et les dates de pêche, les zones de pêche, le nombre d'opérations de pêche par sortie, les spécifications des hameçons (en cas de la pêche d'espadon), les captures accessoires et leur destination, les caractéristiques des engins employés, la composition des captures par tailles, les mensurations des poids individuels.

#### *3.3 Moyens alternatifs de suivi scientifique pour les navires de pêche d'espadon de longueur inférieure à 15 m*

La collecte des informations sur les caractéristiques techniques des engins de pêche et les volumes des captures par espèce y compris les espèces accessoires est réalisée aussi par le biais des journaux de pêche à bord des navires, le système de certification de captures d'espadon de l'ICCAT (Rec. 01-22 ) et le système de certification établi par UE pour les produits de pêche destinés à l'exportation (règlement CE/1005/2008 et CE/1010/2009).

#### *3.4 Documents de bord*

Pour assurer une traçabilité de thon rouge capturé au niveau des différentes filières, un suivi par croisement des données des documents de l'ICCAT (ITD, BCD) et d'autres documents (le carnet de pêche, la notification préalable de transfert du thon rouge au moment de capture et l'autorisation préalable de mise en cage dans les fermes d'engraissement) a été réalisé. Les informations ainsi recueillies sont saisies dans la base de données statistique.

### 3.5 Système de surveillance des navires (VMS)

Le système de surveillance VMS a été élargi en 2011 pour accomplir aussi la tâche de transmission d'information sur les positions de capture, les volumes des prises et les dates de transfert de thon rouge en mer.

### 3.6 Programme de document statistique de l'ICCAT

Les informations consignées dans les BCD sont vérifiées par les agents des autorités portuaires. L'autorité compétente au niveau régional procède à la validation des BCD après l'entrée du navire au port avant leur transmission à l'ICCAT.

## Chapitre 4 : Schémas et activités d'inspection

Le contrôle des activités de pêche de thon rouge est assuré par les services actifs de la surveillance côtière en mer et par les gardes pêche dans les ports (vérification des déclarations de débarquement, volume de thon rouge mort à bord et déclaré dans les documents, etc.).

La Tunisie a participé aussi aux opérations d'inspection des navires par le déploiement du navire tunisien Amilcar avec un équipage de 10 personnes dont deux inspecteurs. Cette mission s'est étendue sur toute la campagne de pêche de thon rouge.

56 opérations d'inspection ont été réalisées sur des navires de pavillon tunisien, français, italien et maltais. Elles ont été focalisées sur la vérification de la validité des permis de pêche, le fonctionnement de VMS, les données consignées dans les documents de bord et les enregistrements vidéo des opérations de transfert.

Le navire d'inspection Amilcar est intervenu pendant la saison de pêche 2011 suite à une agression de certains navires tunisiens par deux bateaux pirates qui se sont présentés comme étant des navires d'inspection de l'ICCAT.

**Tableau 1.** Caractéristiques des échantillons pour l'étude des structures démographiques et les relations biométriques.

<i>Mois</i>	<i>Nombre</i>	<i>Opération</i>
Juillet 2010	67	Transfert
Septembre 2010	274	Abattage
Novembre-décembre 2010	538	Abattage
Mars 2011	144	Abattage
Novembre-décembre 2011	916	Abattage
Mai-juin 2012	30	Pêche
Juin-juillet 2012	140	Transfert

**Tableau 2.** Paramètres des relations allométriques entre LT et LF.

<i>Date échan.</i>	<i>Nature</i>	<i>Opération</i>	<i>a</i>	<i>b</i>	<i>R<sup>2</sup></i>	<i>N</i>
Juillet 2010	Sauvage	Transfert	3,47	1,05	0,99	70
Septembre 2010	Engraisés	Abatage	-1,05	1,08	0,97	274
Nov. – déc. 2010	Engraisés	Abatage	3,32	1,06	0,99	536
Mars 2011	Engraisés	Abatage	1,17	1,07	0,99	142
Nov. – déc. 2011	Engraisés	Abatage	-0,48	1,07	0,99	916
Mai-juin 2012	Sauvage	Pêche	1,00	1,07	0,99	30
Juin-juillet 2012	Sauvage	Transfert	4,69	1,04	0,98	140

**Tableau 3.** Paramètres des relations allométriques entre LCF et LF.

<i>Date échan.</i>	<i>Nature</i>	<i>Opération</i>	<i>a</i>	<i>b</i>	<i>R<sup>2</sup></i>	<i>N</i>
Juillet 2010	Sauvage	Transfert	1,49	1,02	0,99	70
Septembre 2010	Engraisés	Abattage	-1,86	1,05	0,98	273
Nov. – déc. 2010	Engraisés	Abattage	-1,06	1,04	0,99	536
Mars 2011	Engraisés	Abattage	6,38	0,99	0,98	142
Nov. – déc. 2011	Engraisés	Abattage	-0,29	1,05	0,99	841
Mai-juin 2012	Sauvage	Pêche	0,99	1,02	0,99	30
Juin-juillet 2012	Sauvage	Transfert	0,04	1,03	0,99	140

**Tableau 4.** Paramètres des relations allométriques entre TE et LF.

<i>Date échan.</i>	<i>Nature</i>	<i>Opération</i>	<i>a</i>	<i>b</i>	<i>R<sup>2</sup></i>	<i>N</i>
Juillet 2010	Sauvage	Transfert	-	-	-	-
Septembre 2010	Engraisés	Abattage	6,28	0,27	0,86	262
Nov. – déc. 2010	Engraisés	Abattage	6,64	0,25	0,97	536
Mars 2011	Engraisés	Abattage	8,51	0,24	0,84	142
Nov. – déc. 2011	Engraisés	Abattage	8,02	0,25	0,95	841
Mai-juin 2012	Sauvage	Pêche	5,47	0,26	0,98	30
Juin-juillet 2012	Sauvage	Transfert	7,81	0,24	0,84	140

**Tableau 5.** Paramètres des relations  $WT = a LF^b$  des individus non engraisés.

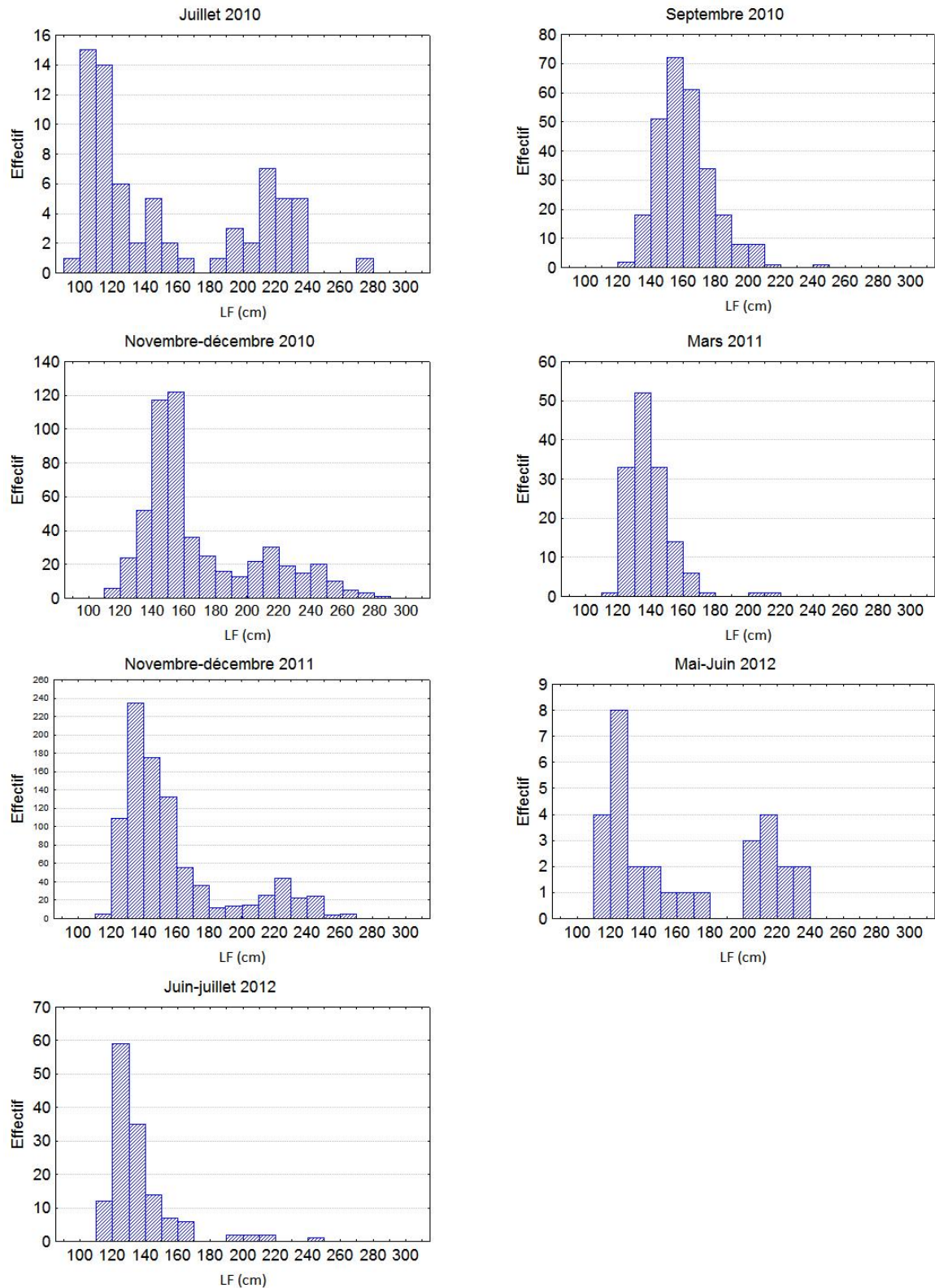
<i>Date échan.</i>	<i>Nature</i>	<i>Opération</i>	<i>a</i>	<i>b</i>	<i>R<sup>2</sup></i>	<i>n</i>
Juillet 2010	Sauvage	Transfert	0,00015	2,999	0,99	30
Mai-juin 2012	Sauvage	Pêche	0,00020	2,586	0,98	30
Juin-juillet 2012	Sauvage	Transfert	0,00005	2,740	0,93	140

**Tableau 6.** Paramètres des relations  $WT = a LF^b$  des individus engraisés.

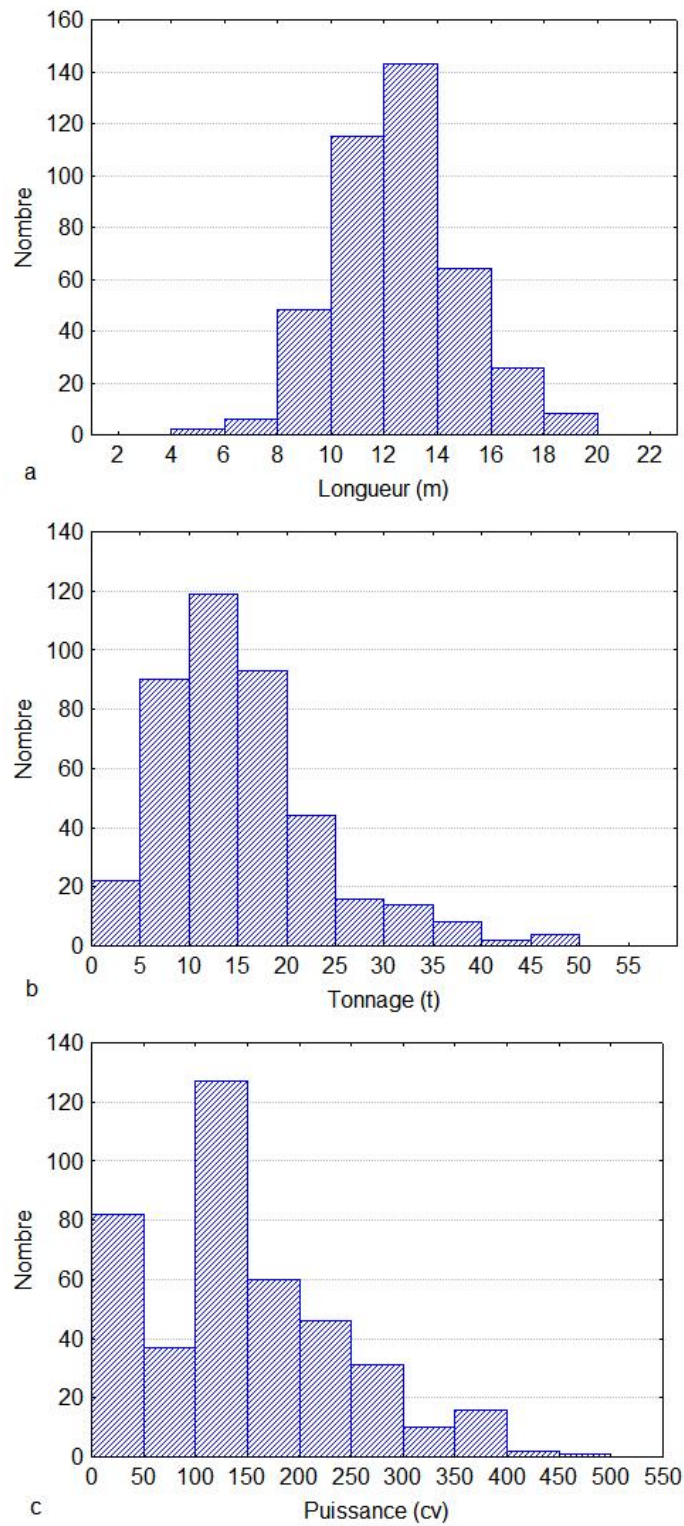
<i>Date échan.</i>	<i>Nature</i>	<i>Opération</i>	<i>a</i>	<i>b</i>	<i>R<sup>2</sup></i>	<i>n</i>
Septembre 2010	Engraisés	Abattage	0,000015	3,031	0,92	274
Novembre-décembre 2010	Engraisés	Abattage	0,000415	2,836	0,95	535
Mars 2011	Engraisés	Abattage	0,000245	2,970	0,84	142
Novembre-décembre 2011	Engraisés	Abattage	0,000140	3,058	0,92	913

**Tableau 7.** Campagnes d'échantillonnage des larves des thonidés effectuées le long des côtes tunisiennes.

<i>Année</i>	<i>Région</i>	<i>Période</i>	<i>Nb. Stations</i>
2008	Est	23 Jun - 9 July 2008	71
2009	Sud	25 Jun - 4 July 2009	80
2010	Nord	7-14 July 2010	74



**Figure 1.** Structures démographiques de *Thunnus thynnus* échantillonnés en Tunisie entre juillet 2010 et juillet 2012.



**Figure 2.** Caractéristiques des bateaux tunisiens pêchant l'espadon.

**ANNUAL REPORT OF TURKEY  
RAPPORT ANNUEL DE LA TURQUIE  
INFORME ANUAL DE TURQUÍA**

Ministry of Food, Agriculture and Livestock,  
General Directorate of Fisheries and Aquaculture<sup>1</sup>

*SUMMARY*

*During the course of 2011, the total catch of tuna and tuna-like fishes amounted to 16,120.9 t. In 2011, Turkey's total catch of bluefin tuna, albacore, Atlantic bonito and swordfish were 527.5 t, 1,395.7 t, 10,018.9 t, and 189.6 t, respectively. The entire bluefin tuna catch was caught by purse seiners, the majority of which have an overall length 40-50 meters. The fishing operation was conducted intensively off Antalya Bay in the south of Turkey and in the Eastern Mediterranean region. The highest bluefin tuna catch was obtained in May and finalized in early June. Recommendations and resolutions imposed by ICCAT were transposed into national legislation and implemented. All conservation and management measures regarding bluefin tuna fisheries and farming are regulated by national legislation through notifications, considering ICCAT's related regulations. The Fisheries Information System has been updated in order to meet the requirements of data exchange at the national and regional level. Major research activities in 2011 focused on bluefin tuna, swordfish and albacore.*

*RÉSUMÉ*

*Au cours de 2011, la prise totale de thonidés et d'espèces apparentées s'est élevée à 16.120,9 t. En 2011, la prise totale turque de thon rouge, de germon, de bonite à dos rayé et d'espada a totalisé 527,5 t, 1.395,7 t, 10.018,9 t, et 189,6 t, respectivement. Toute la prise de thon rouge a été réalisée par des senneurs, dont la plupart avait une longueur hors-tout de 40 à 50 m. Les opérations de pêche se sont déroulées intensivement dans la baie d'Antalya dans le Sud de la Turquie et dans la région de la Méditerranée orientale. Le plus grand volume de prise de thon rouge a été réalisé au mois de mai jusqu'au début du mois de juin. Les recommandations et résolutions imposées par l'ICCAT ont été traduites dans la législation nationale et mises en œuvre. Toutes les mesures de conservation et de gestion relatives aux pêcheries et à l'engraissement du thon rouge sont réglementées par la législation nationale, à travers des notifications, qui tient compte des réglementations pertinentes de l'ICCAT. Le Système d'information des pêcheries a été actualisé afin de remplir les exigences en matière d'échange des données au niveau national et régional. En 2011, les principales activités de recherche se sont concentrées sur le thon rouge, l'espada et le germon.*

*RESUMEN*

*Durante el transcurso de 2011, la captura total de túnidos y especies afines ascendió a 16.120,9 t. En 2011, las capturas totales turcas de atún rojo, atún blanco, bonito y pez espada ascendieron a 527,5 t, 1.395,7 t, 10.018,9 t y 189,6 t, respectivamente. Toda la captura de atún rojo la realizaron cerqueros que en su mayoría tienen una eslora total de 40-50 m. Las operaciones de pesca se llevaron a cabo de forma intensiva en la bahía de Antalya, en el Sur de Turquía, y en la región del Mediterráneo oriental. La mayor captura de atún rojo se obtuvo en mayo y finalizó principios de junio. Las recomendaciones y resoluciones de ICCAT han sido incorporadas a la legislación nacional e implementadas. Todas las medidas de conservación y ordenación respecto a las pesquerías y engorde de atún rojo están reguladas por la legislación nacional mediante notificaciones, que tienen en cuenta las regulaciones relacionadas de ICCAT. El sistema de Información sobre Pesquerías ha sido actualizado para que cumpla los requisitos de intercambio de datos a nivel nacional y regional. Las principales actividades de investigación llevadas a cabo en 2011 se centraron en el atún rojo, el pez espada y el atún blanco.*

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## **Part I (Information on Fisheries, Research and Statistics)**

### ***Section 1: Annual Fisheries Information***

In 2011 the total catch of tuna and tuna-like fishes (including small tunas and swordfish) was 16,120.9 t., an increase as compared to 2010.

#### *1.1 Albacore*

Albacore, which historically used to be by-catch from the bluefin tuna fishery in the past, has increasingly been caught as the target species in recent years. The catch quantity of albacore has increased remarkably from 208 t in 2008 to 631 t in 2009 (**Table 1**). The fishing season for this species was concentrated between May and July in the eastern Mediterranean Sea. The total catch in 2011 was 1,395.7 t.

#### *1.2 Atlantic bonito*

Bonitos play a major role in Turkish fishery. Bonito fishing is intensively carried out in Black Sea and Marmara Sea using purse seines, gillnets, encircling nets and hand lines. The total catch in 2011 was 10,018.9 t. There has been a considerable decrease in catch quantity since 2005.

#### *1.3 Bluefin tuna*

Turkey's total catch of bluefin tuna in 2011 was 527.5 t, an increase compared to the previous year (409.4 t in 2010). Almost all of the catch was caught by purse seiners. Almost all of the total purse seine catch was transferred to cages at the farming facilities authorized by ICCAT for fattening purposes.

The Ministry of Food, Agriculture and Livestock (MoFAL) issued bluefin tuna fishing licenses to 17 fishing vessels in 2011, in accordance with domestic legislation as well as relevant ICCAT regulations. The majority of the bluefin tuna purse seiners had an overall length of 40-50 m and a tonnage between >100 and >400 GRT. All these fishing boats were equipped and monitored with a Vessel Monitoring System (VMS). In addition to the fishing vessels, 32 vessels were licensed as tug boats transporting bluefin tuna cages. The total number of bluefin tuna purse seiners by tonnage for the period 2003-2011 is presented in **Table 2**.

The bluefin tuna fisheries in 2011 started on 16 May and ended on 14 June. The fishing operation was conducted intensively off Antalya Bay in the south of Turkey and in the Eastern Mediterranean region. The highest bluefin tuna catch was obtained in May and finalized in early June. While the harvesting in bluefin tuna farms in the Mediterranean Sea was conducted in October, this was conducted more in December and less in early January for the bluefin tuna farms in the Aegean Sea.

#### *1.4 Mediterranean swordfish*

The swordfish fishery in Turkey is carried out in Aegean Sea and eastern Mediterranean Sea. While swordfish fishing is carried out using harpoon in the northern Aegean Sea, it is carried out by longlines in the eastern Mediterranean Sea. The total catch amount in 2011 was 189.6 t. Despite a decrease compared with previous years the fishery trend has not changed since 2000.

#### *1.5 Other tunas*

The bullet tuna and little tunny fishery is carried out in Aegean Sea and eastern Mediterranean Sea using purse seines, gill nets and encircling gillnets. In 2011, the total catches of little tunny and bullet tuna were 1,437.4 t and 2,551.8 t, respectively, with an increase as compared to the previous year.

### ***Section 2: Research and Statistics***

#### *2.1 Research*

##### *2.1.1 Research on species other than bluefin tuna*

Scientific research conducted in Turkish waters regarding tuna species, comprise fleet characteristics (inc. area of catch), size composition of the specimen and biological samples for life history studies which are published not only by SCRS, but also by the international publications.

Turkey conducted casual sea surveys to collect biological data at sea, together with supporting oceanographic data, through national research institutes or universities. During 2011 “Turkish Swordfish Fishery Monitoring Program” has been implemented by Ege University Faculty of Fisheries. The results of the mentioned Program were submitted to the SCRS on 22 June 2012.

In 2011, a study on Turkish drift-net fishery for albacore and incidental catches in the Mediterranean was conducted. This study was carried out with 18 representative drift-netters based at the port of Alanya, Kaş, Fethiye, and Sığacık from May to July 2010 and from May to July 2011. On each fishing trip, data were collected on date, location, depth, fishing boat characteristics, fishing gear aspects, and the capture of both target and non-target species by weight (biomass) and number. A total of 125 data sets were collected during the study. The mean CPUEs for albacore by number and weight were  $13 \pm 1.6$  specimens and  $90 \pm 11$  kg per km of net, respectively. A total of 12 species, belonging to 9 families were caught during the sampling period. The target species –albacore- had the highest ratio both in number (76.6%) and weight (62.8%) followed by, *Euthynnus alletteratus*, *Xiphias gladius*, *Thunnus thynnus*, and *Auxis rochei*. Ratios of biomass and number ratios of the non-target species to the target albacore were 1: 0.59 kg and 1: 0.31 individuals, respectively (Akyol and Ceyhan 2012).

As for the swordfish, a study was recorded on the age and growth of swordfish in the Aegean Sea which were determined from 205 specimens (total n=1408), collected from onboard of swordfish fishery fleet, and also from wholesale fish market between June 2008 and July 2011 (Akyol and Ceyhan 2012).

### 2.1.2 Bluefin tuna research

Scientists in Turkey, do scientific studies intended age and growth analysis, reproduction biology, determination of diet composition and genetic analysis of bluefin tuna in Turkish waters on yearly basis.

During 2012, pilot study to better estimate number and weight of caged E-BFT was implemented in order to comply with the requirements of Paragraph 87 of ICCAT Recommendation [10-04]. Under the scope of the pilot study, Stereoscopic Underwater Camera and AM100 Tuna Sizing and Counting System has been tested on 9<sup>th</sup> of January 2012 at the facilities of AKUA-KOCAMAN Fisheries Production and Marketing Company located in the region Gerence/ IZMIR, with participation of MoFAL inspectors, researchers from Ege University Fisheries Faculty and representatives from Company referred above. The results of the pilot study were submitted to the SCRS.

Some research is being carried out by the Istanbul University Faculty of Fisheries concerning age and growth, reproduction biology, determination of diet composition, determination of reproduction area, tagging and genetics of bluefin tuna.

AZTI-Technalia and Istanbul University signed a protocol for 2011 for sampling surveys and in this respect, during the harvesting period in 2011, 150 bluefin tuna will be sampled for age and genetic analysis. Between 21-24 June 2011 a tuna larvae survey was conducted, and the 83 larvae obtained were sent to AZTI-Technalia.

## 2.2 Statistics

During the bluefin tuna fishing season, daily bluefin tuna data were collected and assessed at the Ministry of Food, Agriculture and Livestock to determine and pre-announce the closure time to the fishing vessels. Task I and Task II data were regularly reported to the ICCAT Secretariat.

## 2.3 Fisheries information system

Turkey has continued to implement a Fisheries Information System (FIS) to improve its fisheries management system through collection and analyzing fishery data. Technical works to update and integrate the current vessel registry system into FIS have completed. FIS comprises data on landings, logbooks, vessel monitoring system, sale notes, observer and control forms, first buyer notification, and storage notification.



## **Part II (Management Implementation)**

### ***Section 3: Implementation of ICCAT Conservation and Management Measures***

In deference to relevant ICCAT conservation and management measures, the Ministry of Food, Agriculture and Livestock introduced the Amended Notification on Regulating Commercial Fishing at Seas and Inland Waters, covering the period 2012-2016, in order to ensure more sustainable fishing activities, improved quality for fishing products, and better conservation of fisheries resources. Essential regulations on the bluefin tuna and swordfish fisheries were directly transposed from current and applicable ICCAT Recommendations adopted by the Commission.

Fishing for tunas and tuna-like species, bluefin tuna fattening and trade activities were continued to be regulated by the Ministry of Food, Agriculture and Livestock through the above-mentioned Notification based on Fisheries Law-1380 as well as the Ministerial Communication on Tuna Fishing and Trade, the Ministerial Communiqué on Aquaculture Production (Fattening) of Bluefin Tuna.

The Ministerial Communication of bluefin tuna fisheries and trade is issued every year before the commencement of the fishing season. The rules and the reporting forms which are the obligations of the bluefin tuna fishing vessels, such as: Bluefin Tuna Fishing License, Bluefin Tuna Transfer License, Fishing Notification Form, Certificate of Vessel's Origin, Dead Tuna Notification Form, Duties of Supervisors, Technical Specifications of Vessel Monitoring Device, Landing Ports are announced by Ministerial Communications.

#### *3.1 Closed seasons and catch limits*

##### *3.1.1 Bonito*

Bonito fishing by all gear types, including stake nets is banned between 1 April and 31 August throughout the territorial waters. However, longlining for bonito is allowed between 15-31 August. The fishery of bonito smaller than 25 cm is prohibited (Official Gazette dated 18.08.2012).

##### *3.1.2 Bluefin tuna*

The authorized fishing period for bluefin tuna by purse seiners has been set from 16 May to 14 June. However, if the catch quota allocated by ICCAT is exhausted before the closure time, the Ministry of Food, Agriculture and Livestock has the authority to extend the time closure.

The total catches of bluefin tuna has been 535.51 t. for the year 2012 including incidental and by-catch.

An individual quota system for bluefin tuna catching vessels has been applied. It is obligatory to inform the Ministry about the catch amount and the coordinates of fishing area following each fishing operation in order to monitor and supervise the fishing quota. Quota pursuit has been exercised by MoFAL through inspections at farms and a standard weight increase model has been applied for the time period from the date of commencement of the ranching until the date of harvesting.

Bluefin Tuna Catch Document (BCD) shall not be issued in cases where the individual quota is exceeded and/or any IUU fisheries are detected by MoFAL inspectors. Furthermore, in case of determining bluefin tuna that have been caught by fishing vessels without fishing permission or adequate individual quota or determining bluefin tuna that have been misreported, the fish shall be seized or released if alive.

Transfer operations to farming cages cannot be initiated without the Ministry's authorization. The skippers of catching and towing vessels must produce the recording of catching and transfer operations by under-water video cameras and must keep these records on board. The stocking of bluefin tuna into farms without the correct, factual and validated documents and information is forbidden (Official Gazette dated 18.08.2012).

##### *3.1.3 Swordfish*

Swordfish fishing by all gear types is banned between 15 February – 15 March and 1 October – 30 November throughout the territorial waters.

The catch of swordfish less than 125 cm is prohibited.

It is mandatory for the fishing vessels catching swordfish to obtain a "Fishing Permit" from the Provincial Directorate issuing vessel's license. Applications by the fishermen to acquire a special fishing permit for swordfish is subject to some technical criteria.

As of 30 November, the special fishing permits to be acquired by fishermen (or to be issued by the Ministry) shall apply to the next fishing season for swordfish. When an application made is approved by the Ministry, the special permit information is simultaneously recorded in the Fisheries Information System (FIS) operated by the Ministry.

Turkey announced its position for elimination of modified driftnet usage in ICCAT Circular #3225/2010. Accordingly, usage of all modified driftnets has been prohibited as from 1 July 2011. Further, all fishing vessels with the modified driftnets are under obligation to shift their fishing gears in accordance with provisions of Revised Notification No. 2/1 Regulating Commercial Fishing (Official Gazette 31.03.2011-No.27891).

The examination of swordfish import/export data made by MoFAL based on ICCAT Statistical Document reports has indicated no inconsistencies until now.

#### 3.1.4 Little tunny, bullet tuna and albacore

As for the period 15 April-15 August, where purse seine fishery is totally prohibited within all territorial waters, fishing for little tunny and bullet tuna is permitted throughout the fishing season in some certain areas. Fishing for these species is subject to special fishing permit and landings shall only be made at specified landing ports (Official Gazette dated 18.08.2012).

In the Aegean Sea, little tunny and albacore landings are prohibited in certain areas for different reasons, such as the protection of spawning areas and juveniles, protection of artisanal fisheries, etc.

#### 3.2 Length and weight prohibitions

The minimum lengths and weights of the capture fisheries are given in **Table 3**. The catch of bluefin tuna weighing less than 30 kg is prohibited. However, an incidental catch of maximum 5% of bluefin tuna weighing between 10 and 30 kg is authorized (Official Gazette dated 18.08.2012).

#### 3.3 Vessel Monitoring System

It is obligatory to equip all bluefin tuna fishing and towing vessels with an operational VMS which has functions established by the Ministry. In any case that there exists a defect in device, at first it is also obligatory to inform the Ministry about the situation and then to submit regular position data to the Ministry.

#### 3.4 Licensing and fishing methods

The use of airplanes or helicopters for the purpose of bluefin tuna spotting is prohibited. Mesh size in the bag part of the bluefin tuna nets shall not be less than 44 mm (Official Gazette dated 18.08.2012).

It is mandatory for bluefin tuna fishing vessels and bluefin tuna tug boats to obtain a "Bluefin Tuna Fishing License" and a "Bluefin Tuna Tug Vessel License" from the related Provincial Directorate. In addition to these, vessels that tug bluefin tuna cage(s) for farming purposes are obliged to have a "Bluefin Tuna Transfer License" and to notify the Ministry of their location, final destination, planned arrival time, and the amount of product in the cage(s) (Official Gazette dated 18.08.2012).

The special fishing/transport permits belonging to the vessels violating the set fishing rules and regulations shall be confiscated and nullified. Each vessel is obliged to record the catch data required by MoFAL with regard to the amount of bluefin tuna caught and traded.

#### 3.5 Observers

In accordance with the Ministerial Communication on bluefin tuna fishing, vessels over/below 20 meters that have been permitted to fish bluefin tuna with an allocated individual catch quota are obliged to accommodate ICCAT Regional Observers during the entire fishing season.

Regardless of the fishing vessel size it is obligatory to cover an ICCAT Regional Observer on fishing vessels carrying out joint fishing operations during the fishing season. Also, transfer operations from fishing vessels to a carrier vessel or a transfer operation between two carrier vessels shall be carried out with an accompanying ICCAT Regional Observer.

As for each transfer and caging operations, deployment of ICCAT Regional Observers is mandatory during all transfer operations to farming cages and harvest operations from the cages.

Information on the number and quantity of bluefin tuna caught, transferred and caged have been obtained through the estimations made by utilization of conventional underwater cameras and stereoscopic cameras.

#### ***Section 4: Inspection Schemes and Activities***

During the fishing, transfer and caging operations, monitoring, control and at-sea/landing inspections were carried out by the Coast Guard and MoFAL staff, respectively. In addition to on-site checks/observations during transfer and caging operations, regular inspections were made by MoFAL staff.

Under the scopes of ICCAT Port Inspection Scheme and ICCAT Joint Scheme of International Inspection, MoFAL assigned 10 landing ports to ensure the efficiency of inspections on fishing operations in accordance with relevant ICCAT Recommendation. Those ports and landing points were announced to fishermen and the concerned authorities before the commencement of the fishing season.

Turkey participated in the ICCAT's Joint Inspection Scheme with a large number of patrol boats and inspector staff during the bluefin tuna fishing season. During the 2011 fishing campaign, 94 vessels were inspected by the Turkish Coast Guard under this scope.

#### **References**

- Akyol O., Ceyhan T. 2012. Turkish driftnet fishery for albacore, *Thunnus alalunga* (Actinopterygii: Perciformes: Scombridae), and incidental catches in the eastern Mediterranean. *Acta Ichthyol. Piscat.* 42 (2): 131-135.
- Akyol O., Ceyhan T. 2012. Age and growth of swordfish (*Xiphias gladius* L.) in the Aegean Sea (in press).

**Table 1.** Catches (t) of tunas and tuna-like species (2003-2011).

<i>Species</i>	2003	2004	2005	2006	2007	2008	2009	2010	2011
Atlantic bonito	6,000	5,701	70,797	29,690	5,965	6,448	7,036	9,401	10,018.9
Bluefin tuna	3,300	1,075	990	806	918	879	665.4	409.4	527.5
Swordfish	350	386	425	410	423	386	301	334	189.6
Albacore	0	27	30	73	852	208	631	402	1,395.7
Little tunny	0	568	507	1,230	785	1,072	1,309	1,046	1,437.4
Bullet tuna	0	284	1,020	1,031	993	836	1,873	1,081	2,551.8

**Table 2.** The total number of bluefin tuna purse seiners, by tonnage (2003-2011).

<i>Tonnage (as GRT)</i>	2003	2004	2005	2006	2007	2008	2009	2010	2011
<50	1	3	1	1	2	2	-	-	-
51-100	4	1	7	4	2	3	-	-	-
101-200	7	9	16	8	4	13	5	-	7
201-300	27	40	50	42	44	50	30	6	1
301-400	3	7	8	6	7	9	6	1	2
>400	8	8	14	14	18	21	16	10	7

**Table 3.** Length and weight prohibitions, by species.

<i>Species</i>	<i>Minimum length (cm)</i>	<i>Minimum weight (kg)</i>
Bluefin tuna ( <i>Thunnus thynnus</i> )		30*
Atlantic bonito ( <i>Sarda sarda</i> )	25	
Swordfish ( <i>Xiphias gladius</i> )	125	
Little tunny ( <i>Euthynnus alletteratus</i> )	45	

\* For incidental catch purposes, a maximum of 5% bluefin tuna catch weighing between 10 and 30 kg is authorized (Official Gazette of 18.08.2012).

**ANNUAL REPORT OF THE UNITED KINGDOM (OVERSEAS TERRITORIES)  
 RAPPORT ANNUEL DU ROYAUME-UNI (TERRITOIRES D'OUTRE-MER)  
 INFORME ANNUAL DE REINO UNIDO (TERRITORIOS DE ULTRAMAR)**

SUMMARY

*The level of fishing activity of the United Kingdom Overseas Territories (UK-OT) engaged in ICCAT during 2011 was similar to previous years. There was a slight increase in the number of fishing vessels licensed to fish in Bermuda and the British Virgin Islands, while the Turks & Caicos Islands saw the small decline in the number of registered fishers continue. The level of catches overall remains modest, although there was a significant increase in catches of Southern Albacore and Bigeye compared with 2010, with particularly good catches rates reported by St Helena. UK-OT fishing activity is primarily artisanal or sports-related (the UK-OTs do not have any registered fishing vessels over 20 metres targeting tuna or tuna-like species) but aspirations to explore the potential to develop the fisheries more commercially in Bermuda and St Helena are underway. Also during 2011, Bermuda and the Sargasso Sea Alliance compiled scientific information on Sargassum and the Sargasso Sea, including its role in supporting fisheries and biodiversity, for presentation to ICCAT for discussion.*

RÉSUMÉ

*Le niveau des activités de pêche menées en 2011 par le Royaume-Uni (Territoires d'outre-mer) dans le cadre de l'ICCAT était semblable à celui des années antérieures. Le nombre de navires de pêche autorisés à pêcher dans les Bermudes et les îles Vierges britanniques a connu une légère augmentation, alors que le nombre de pêcheurs enregistrés des îles Turks & Caicos poursuit une légère tendance à la baisse. Le niveau global des captures est resté modeste, même si les captures du germon du Sud et du thon obèse ont connu une augmentation significative par rapport à 2010, les taux de capture déclarés par Ste Hélène étant particulièrement positifs. Les activités de pêche du Royaume-Uni (Territoires d'outre-mer) sont principalement artisanales ou sportives (le Royaume-Uni -Territoires d'outre-mer- ne compte aucun navire de pêche enregistré de plus de 20 mètres ciblant les thonidés ou les espèces apparentées), mais les Bermudes et Ste Hélène souhaitent actuellement explorer le potentiel du développement plus commercial des pêcheries. En 2011 également, les Bermudes et la Sargasso Sea Alliance ont rassemblé des données scientifiques sur les sargasses et la mer des Sargasses, notamment sur leur rôle dans le soutien des pêcheries et de la biodiversité, aux fins de leur présentation à l'ICCAT à des fins de discussion.*

RESUMEN

*Durante 2011, el nivel de actividad pesquera de los Territorios de Ultramar del Reino Unido que participan en ICCAT no ha experimentado cambios importantes respecto a años anteriores. Se produjo un ligero incremento en el número de buques pesqueros con licencia para pescar en Bermudas e Islas Vírgenes Británicas, mientras que en las Islas Turcos y Caicos continuó descendiendo ligeramente el número de pescadores registrados. El nivel de capturas totales sigue siendo modesto, aunque se produjo un importante incremento en las capturas de atún blanco del Sur y de patudo en comparación con 2010, con tasas capturas especialmente buenas comunicadas por Santa Helena. La actividad pesquera del Reino Unido (TU) es sobre todo artesanal y deportiva (RU-TU no cuenta con buques pesqueros registrados de más de 20 m de eslora total que se dirijan a los túnidos y especies afines), pero se está explorando el potencial de desarrollar las pesquerías a un nivel más comercial en Bermudas y Santa Elena. Además durante 2011, Bermudas y la Alianza del mar de los Sargazos compilaron información científica sobre sargassum y el mar de Sargazos, lo que incluye su contribución a las pesquerías y a la biodiversidad, para presentar dicha información a ICCAT y debatirla.*

## Compliance

The United Kingdom Overseas Territories (UK-OTs) received a Letter of Concern dated 21 February 2012 highlighting the late submission of Task I and Task II data. The UK-OTs responded to the Letter of Concern on 9 October 2012. The UK-OTs strongly supports the work of the Compliance Committee and believes that its work is essential to conserving the fishing stocks under ICCAT's remit. The UKOTs are creating and implementing robust and effective long-term systems and supporting frameworks to enable increased compliance with ICCAT requirements. This has helped to ensure timely submission of our Task I and II data this year.

It is important to note, however, that the UK-OTs are small islands at various stages of development with limited human and financial resources available, but progress within the UK-OTs continues despite these pressures. A current restructuring of the Turks & Caicos Islands Fisheries Department will set new guidelines and standards and help to strengthen data collection. Bermuda has reported that tournament organisers have established a minimum weight of 500 lbs for the retention of blue marlin to help reduce the number of landings and aid conservation. The British Virgin Islands has continued with the implementation of its logbook programme and continual monitoring of fishing tournaments which is contributing to better catch reporting and further monitoring systems are being developed.

All applicable ICCAT conservation and management measures are implemented into the national law. Given the low amount of fishing activity there is a limited amount of inspection activity to report. Each territory carries out inspection and compliance monitoring in accordance with domestic national law. Aside from the scientific work on the Sargasso Sea, there is no new scientific information or data to be submitted in addition to task and compliance data already submitted to ICCAT.

### – BERMUDA

## Part I (Information on Fisheries, Research and Statistics)

### *Section 1: Annual Fisheries Information*

The number of vessels licensed to fish commercially in Bermuda in 2011 rose to 193 vessels (up from 179 vessels in 2010) as vessels previously affected by local policies introduced in 2010 returned to the fishery. The number of vessels actively fishing for tunas and tuna-like species remains at about one-third. Local charter vessels are included in the commercial fleet and primarily target these species. There are no foreign commercial vessels licensed to fish in Bermuda waters.

The Bermuda domestic fleet is made up predominantly of fiberglass commercial fishing vessels. A small number of vessels are configured for pelagic longlining but only one vessel is currently active. Most of the fishing effort is conducted in the inner 50 km (including two offshore banks) of the Bermuda Exclusive Economic Zone. The active longliner fishes further offshore; however, all fishing occurs within Bermuda's EEZ and the fish captured are consumed on the Island.

Limited development of longline fishing in Bermuda has meant that quotas for swordfish, albacore tuna and bluefin tuna have not been fully utilized. However, the development of the offshore fishery is an important component of Bermuda's plans to diversify the local fishery as reef fish stocks close to the island are essentially fully exploited.

### *Section 2: Research and Statistics*

The total catch of tunas and tuna-like species by the Bermuda domestic fleet in 2011 was approximately 224.1 metric tonnes (t). This represents an increase in landings of about 83.6 t from the previous year, which can largely be attributed to a substantial increase in the landings of yellowfin tuna year over year. Details of the catch composition are presented in **Table 1**.

As most of the commercial fleet in Bermuda catches tunas and related species by trolling, there is virtually no by-catch from these vessels. However, the sole longliner does get small quantities of by-catch. This by-catch consists primarily of blue sharks, which are subsequently released. Incidental catches of shortfin mako sharks by the vessel are also released unless already dead on the line. Data on incidental catches of shortfin mako and other species of sharks are included in the Task I data sent to ICCAT. Interactions with turtles are rare (about one

turtle every other year) but the owner of the longline vessel has received training in how to release turtles in a manner that maximizes the probability of their survival.

Tunas are also sought after by local recreational fishers. A survey of recreational fishing activity was conducted in 2011 and results indicate that yellowfin tuna and wahoo are two of the most frequently targeted species by this sector, potentially accounting for close to 20% of recreational fish landings by weight. Following the survey, an additional 100 logbooks were distributed under the recreational fisher's voluntary logbook scheme to provide further information on this sector's activities. Measurements of fish at local fishing tournaments continued. Species frequently landed in these tournaments include yellowfin tuna, wahoo, and blackfin tuna. Most marlins are released but a small number are landed in specialized billfish tournaments each year. Tournament organizers have established a minimum weight of 500 lbs for the retention of blue marlin during the tournaments in an effort to reduce the number landed.

Also during 2011, the Bermuda led Sargasso Sea Alliance compiled scientific information on *Sargassum* and the Sargasso Sea. The resulting document entitled "The Protection and Management of the Sargasso Sea: The golden floating rainforest of the Atlantic Ocean" (available at [www.sargassoalliance.org](http://www.sargassoalliance.org)) indicates that the Sargasso Sea is an important breeding, nursery and feeding area for several species of tunas, billfishes and sharks, including albacore tuna, blue marlin and porbeagle shark. It also identifies a number of threats to this ecosystem.

## **Part II (Management Implementation)**

### ***Section 3: Implementation of ICCAT Conservation and Management Measures***

The Fisheries Act 1972 and associated regulations can be amended when necessary to implement ICCAT conservation and management measures. The minimum sizes required by ICCAT for bluefin tuna, yellowfin tuna, bigeye tuna and swordfish have already been incorporated into the local legislation. In addition, a minimum size of 3.2 kgs (7 lbs) was established for wahoo in 2010 as a precautionary measure since it is one of the most frequently caught species in Bermuda waters.

### ***Section 4: Inspection Schemes and Activities***

Fisheries wardens are responsible for enforcement under the Fisheries Act 1972 and routinely stop local vessels to inspect catches and determine compliance with legislation.

### ***Section 5: Other Activities***

Bermuda and the Sargasso Sea Alliance have been using evidence presented in the science case to start mobilizing support for the establishment of appropriate protective measures in the Sargasso Sea.

## **– ST. HELENA**

## **Part I (Information on fisheries, research and statistics)**

### ***Section 1: Annual Fisheries Information***

The main commercially exploited resource are yellowfin, bigeye, albacore and skipjack tunas which are seasonal, and in abundance between February and June each year. Wahoo, mackerel and various species of groundfish make up the bulk of catch throughout the remainder of the year.

All fish from the local commercial fleet are landed daily and delivered within 12 hours of being caught. Fishing is done by reel-rod / pole and line for the local fishermen. No long lining was carried out during the period. Types of bait used are live, dead and artificial. A maximum of 12 boats fished full-time complementing a crew of 26 persons.

### ***Section 2: Research and Statistics***

Fish landings into the Fisheries Corporation over the period January 2011 to December 2011 totalled some 898.71 metric tonnes of fish, a record catch for St Helena. Of this amount, 53% of the species consisted of tuna,

3.5% of wahoo, 41.3% of skipjack and the rest consisting of various other non ICCAT species consisting of grouper, conger, cavalley, bullseye, soldier, yellowtail, dorado and filefish.

The main ICCAT species caught in 2011 over a total of 3974 fishing days are given in **Table 2**.

Data of fish catches within the St Helena Exclusive Fishing Zone is submitted to the ICCAT Secretariat on an annual basis.

## **Part II (Management implementation)**

### ***Section 3: Implementation of ICCAT Conservation and Management Measures***

ICCAT conservation and management measures are implemented where appropriate under the Fishery Limits Ordinance which makes provision for the regulation of fishing and for other matters connected thereto. Under the Ordinance, fishing by fishing boats, whether St Helenian or foreign, are prohibited unless authorised by a licence granted by the Governor. A licence under this section will authorise fishing subject to such conditions as appear to be necessary.

Foreign vessels are licensed for longline fishing only; the use or carriage of nets is not allowed within the fishery limits of St. Helena.

There was no take-up of foreign vessel licensing within St Helena EEZ during 2011 although the opportunity to do so still exists. All foreign vessels taking up licenses to fish are required to have on board a Vessel Monitoring System as part of the conditions of the license.

### ***Section 4: Inspection Schemes and Activities***

Fish landings from the local fleet are made predominantly into the one establishment i.e. the St Helena Fisheries Corporation. The Fisheries Corporation is responsible for providing catch statistics to the Government Directorate of Fisheries. Because of the centralized landings, catches are monitored by staff of the Directorate of Fisheries for control purposes.

### ***Section 5: Other Activities Nil***

## **– TURKS AND CAICOS ISLANDS (TCI)**

### **Part I (Information on Fisheries, Research and Statistics)**

Fishing activity with regards to ICCAT species is currently focused on sport related or artisanal fishing for domestic consumption in the Turks and Caicos Islands (TCI). However, a need to diversify the local fisheries could lead to more commercial targeting of certain species not currently harvested. This would most likely be used for local consumption. Catch and effort towards the ICCAT species are still relatively low, although the strengthening of data collection processes should lead to an increase in data and statistics on fishing activity. Catch levels are well below 1 metric tonne a year, even when data for several species are combined.

While capacity limitations remain an issue of concern, the Fisheries Department is undergoing a significant restructuring, an output of which will be new guidelines and standards for data collection, fisheries management, protection of biodiversity and infrastructure. Concerns such as having no dedicated/official landing sites have allowed fisherman to land their catches at any point throughout the islands which have made it more difficult for the department to collect necessary data. It is hoped that the new measures would improve collection methods, accuracy as well as consistency.

### ***Section 1: Annual Fisheries Information***

The Turks and Caicos Islands archipelago is made up of three (3) shallow water banks, primarily the Caicos Bank, the Turks Bank, and the Mouchoir Bank. There is limited fishing activity recorded for the Mouchoir Bank, and fishers require a “Mouchoir Bank license” in order to undertake in any sort of fishing in the area. The Turks and Caicos Banks however, are utilized much more in comparison for both local consumption and exports of *Panulirus argus*, *Strombus gigas* and some scale fish species for personal use. Approximately 85% of the vessels



utilized in the TCI are small retrofitted V-hull boats ranging in length from 4-7 metres with a 85-115 hp out board engines, remaining 15% of registered vessels are under 20 metres powered by diesel inboard engines. The larger vessels normally carry between 5-12 men onboard for a trip, whilst the smaller vessels carry between 1-3 people on board for a day's catch.

Commercial fishermen from the TCI are opportunistic, thus would bring in more than one commercially exploitable fishery at a time. Methods of capture legally include using only free diving with no underwater breathing apparatus, in depths ranging from 3 meters to 30 meters. The day of a fisherman begins by leaving the docks anytime after 6:30-7:00 a.m. and returning up until 5:00 pm or by sunset, which is considered 1 boat-day.

The numbers of registered fishers has been in decline in recent years, partly due to management decisions to decrease effort by limiting the numbers of assisted fishermen allowed. Within the past ten years, the commercial fisheries have directly employed an average of 360 fishers per year. In 2010-2011 fishing season, the number of commercially licensed fishers was 288 and the year 2011-2012 saw another decrease to 243 registered fishers. Likewise, registered vessels have gradually declined from 154 licensed vessels in 2009-2010 to 131 in 2010-2011 and a continued trend to 118 in 2011-2012. This trend may be partly due to economics, since in years past some fishers registered two vessels.

### ***Section 2: Research and Statistics***

Catch and effort data for scale fish is collected at the landing docks and processing facilities. Fish are measured by standard length, fork length and total length and reported with species name. Weight is collected if time allows. Captains are then interviewed for the number of days at sea, number of crew, location fished and any other related information that may have been observed.

Scale fish is not exported on a commercial scale, but individuals normally carry a maximum amount of 10 lbs for personal use when travelling overseas.

## **Part II (Management Implementation)**

### ***Section 3: Implementation of ICCAT Conservation and Management Measures***

ICCAT species are only caught for local consumption, or catch and release sports fishing, thus not on a large scale. Data including weight of landed catch, species caught and other basic information are all collected where possible.

### ***Section 4: Inspection Schemes and Activities***

There are enforcement officers at processing plants to inspect the catches brought in by fishers to ensure that laws are not infringed upon, but are adhered to; the method of capture, place of capture, the size of individual animals meeting required sizes set out in the Fisheries Protection Ordinance

### ***Section 5: Other Activities***

Nothing to report.

## **– BRITISH VIRGIN ISLANDS**

### **Part I (Information on fisheries, research and statistics)**

#### ***Section 1: Annual Fisheries Information***

During the 2011 and 2012 season there were 8 local commercial fisherpersons/vessels that primarily fish for ICCAT interested species. As in recent years, there is one particular vessel that accounted for the majority of the Swordfish (*Xiphias gladius*) catches during 2011 and 2012. Additional catches came from the remainder of the vessels along with catches from annual fishing tournaments that target tuna/tuna-like species, and sport-fishing activity. It is noteworthy to mention that the sport fishing vessels were also holders of commercial fishing licenses and that all catch were caught and landed locally.

***Section 2: Research and Statistics***

As is typical, most fishing activity occurred within the inner 50 km and the associated banks of the Virgin Island's Exclusive Economic Zone with vessels seldom venturing further offshore. Details of landings can be found in **Table 1**. During the 2011/2 fishing season 6.94 metric tons of tuna and tuna-like species were locally caught and landed.

**Part II (Management Implementation)*****Section 3: Implementation of ICCAT Conservation and Management Measures***

The Territory continues its efforts to better utilize its allotted quota with efforts to encourage and enhance the harvesting of the off-shore fisheries. The implemented logbook programme and continual monitoring of fishing tournaments has contributed to better catch reporting and further monitoring systems are being developed.

The VI Fisheries Act, 1997 and VI Fisheries Regulations, 2003, remain the primary legislation setting limits with regard to any fishery, the declaration of any species as a protected species, declaration of any area as a protected area and the granting or refusal to grant licenses with respect to any fishery. The process involves ministerial declaration, based on the advice of the Chief Conservation and Fisheries Officer and consultation with the Fisheries Advisory Committee. This provides a ready framework for compliance with ICCAT management recommendations. It is worth noting that the government of the Virgin Islands is currently updating both the VI Fisheries Act of 2007 and the VI Fisheries Regulations of 2003.

***Section 4: Inspection Schemes and Activities***

Currently efforts are implemented to inspect vessels and gears of each commercial fishing applicant. Focus is placed primarily on new applicants and random gear inspections of current license holders are attempted though limitations on human capacity greatly limits the frequency of such efforts.

***Section 5: Other Activities***

Nil.

**Table 1.** Species composition of the Bermuda domestic fleet catch.

<i>Species</i>	<i>Weight (t)</i>
Yellowfin tuna	100
Bluefin tuna	0.3
Bigeye tuna	0.05
Blackfin tuna	8
Albacore tuna	0.8
Atlantic black skipjack tuna	4.7
Skipjack tuna	0.3
Wahoo	100
Blue marlin	2
White marlin	0.3
Swordfish (North Atlantic)	2.8
Shark	4.8
Other small tuna species	0.05
<b>TOTAL</b>	<b>224.1</b>

**Table 2.** Major ICCAT species caught by St. Helena in 2011 (over a total of 3974 fishing days).

<i>Species</i>	<i>Weight (t)</i>
Yellowfin tuna	163
Albacore tuna	120
Bigeye tuna	190
Skipjack tuna	371
Skipjack tuna	31
Shark	<0.5
Marlin	2
<b>TOTAL</b>	<b>877</b>

**Table 3.** Summary table of landings of tuna and tuna-like species within the Virgin Islands (UK) during 2011-2012.

<i>Code</i>	<i>Scientific name</i>	<i>Common name</i>	<i>Weight (t)</i>
BLF	<i>Thunnus atlanticus</i>	Blackfin tuna	0.42
YFT	<i>Thunnus albacores</i>	Yellowfin tuna	1.20
SWO	<i>Xiphias gladius</i>	Swordfish	3.75
WAH	<i>Acanthocybium solandri</i>	Wahoo	1.38
KGM	<i>Scomberomorus cavalla</i>	King mackerel	0.19
BON	<i>Sarda sarda</i>	Atlantic bonito	0
SAI	<i>Istiophoridae albicans</i>	Sailfish	0
WHM	<i>Tetrapturus albidus</i>	White marlin	(0 catch and release)
BUM	<i>Makaira nigricans</i>	Blue marlin	(0 catch and release)
BIL	<i>Istiophoridae</i>	Other/unclassified billfish	0
	<i>Thunnus spp.</i>	Other/unclassified tuna	0
	<i>Isurus oxyrinchus</i>	Shortfin mako	0
<b>TOTAL</b>			<b>6.94</b>

**ANNUAL REPORT OF THE UNITED STATES  
RAPPORT ANNUEL DES ÉTATS-UNIS  
INFORME ANUAL DE ESTADOS UNIDOS**

U.S. Department of Commerce, NOAA,  
National Marine Fisheries Service (NMFS)<sup>1</sup>

*SUMMARY*

*Total (preliminary) reported U.S. catch of tuna and swordfish, including dead discards, in 2011 was 9,742 metric tons (t), an increase of about 14 % from 8,573 T in 2010. Swordfish catches (including estimated dead discards) increased from 2,412 T in 2010 to 2,887 T in 2011, and provisional landings from the U.S. fishery for yellowfin tuna increased in 2011 to 3,015 T from 2,482 T in 2010. U.S. vessels fishing in the northwest Atlantic caught in 2011 an estimated 884 T of bluefin, a decrease of 69 T compared to 2010. Provisional skipjack tuna landings increased by about 30 T to 84 T from 2010 to 2011, bigeye tuna landings increased by 174 T compared to 2010 to an estimated 746 T in 2011, and albacore landings increased from 2010 to 2011 by 134 T to 449 T. In 2011, the United States met its obligations with regard to the implementation of ICCAT's conservation and management measures. Furthermore, the United States takes an ecosystem approach to management of highly migratory species and implements a number of measures that go beyond the measures required in ICCAT recommendations. The United States implemented its western bluefin tuna 2011 and 2012 quotas as well as the two-year balancing period for limiting the harvest of bluefin tuna measuring less than 115 cm (45 inches) to 10 percent (by weight) of the U.S. quota. The United States also implemented the reduction in the amount of under-harvest that may be carried forward to 2012 (i.e., not to exceed 10 percent of the initial quota allocation). The United States has prohibited all commercial retention of billfish caught in association with ICCAT fisheries since 1988 and maintains regulations that prohibit all landings of blue and white marlins caught in the Atlantic ocean by any method other than rod and reel. In 2012, the United States implemented the measures for northern swordfish adopted by ICCAT in 2011, including the U.S. catch limit of 3,907 t ww, the provision allowing the United States to catch up to 200 t of its North Atlantic swordfish quota between 5 degrees North latitude and 5 degrees South latitude, and the provision to transfer 150 t to Morocco. At present, the Atlantic pelagic longline fishery of the United States typically targeting ICCAT-managed species, such as swordfish and bigeye, albacore, skipjack and yellowfin tunas, is subject to several discrete time/area closures to reduce all bycatch (e.g., undersized swordfish, billfish, etc.). Furthermore, pelagic longline vessels may only fish for ICCAT species if they observe strict circle hook and bait restrictions and use approved sea turtle release gear in accordance with release and handling protocols. Effective in May 2011, the United States now requires the use of "weak hooks" by pelagic longline vessels fishing in the Gulf of Mexico to reduce bycatch of bluefin tuna by pelagic longline vessels targeting other species, such as swordfish and yellowfin tuna. The United States submitted its report on the history of U.S. swordfish fishing/management plan on September 14, 2012, pursuant to ICCAT Rec. 11-02. The United States continues to fulfill the requirements of ICCAT's shark recommendations through data collection programs and domestic management measures including a requirement to keep shark fins naturally attached. The United States has catch limits in place for Atlantic porbeagle, shortfin mako, and blue sharks and will continue to submit catch and effort data for sharks to ICCAT. The United States also has measures to prohibit harvest of bigeye thresher sharks in all ICCAT fisheries and fully implements the requirements of Rec. 10-07 and 10-08, which prohibit retaining, transshipping, landing, storing, or selling hammerhead sharks in the family Sphyrnidae (except for *Sphyrna tiburo*) and oceanic whitetip sharks (*Carcharhinus longimanus*), respectively, as well as silky sharks caught in association with ICCAT fisheries, per Rec. 11-08.*

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## RÉSUMÉ

*La prise totale (préliminaire) de thonidés et d'espadon, déclarée par les États-Unis en 2011 (rejets morts y compris) s'est élevée à 9.742 t en 2011, soit une augmentation de près de 14 % par rapport au volume de 8.573 t de 2010. La prise d'espadon (rejets morts estimés compris) a augmenté, passant de 2.412 t en 2010 à 2.887 t en 2011, et les débarquements provisoires de la pêcherie américaine d'albacore ont augmenté en 2011 (3.015 t) par rapport à 2010 (2.482 t). Les navires américains pêchant dans l'Atlantique Nord-Ouest ont réalisé, en 2011, une capture estimée de 884 t de thon rouge, soit une diminution de 69 t par rapport à 2010. En 2011, les débarquements provisoires de listao ont augmenté d'environ 30 t par rapport à 2010, se situant à 84 t. Les débarquements de thon obèse ont augmenté de 174 t par rapport à 2010 (746 t estimées en 2011). Les débarquements de germon ont augmenté de 134 t par rapport à 2010 se situant à 449 t en 2011. En 2011, les États-Unis ont rempli leurs obligations vis-à-vis de la mise en œuvre des mesures de conservation et de gestion de l'ICCAT. De surcroît, les États-Unis adoptent une approche écosystémique de gestion des espèces de grands migrateurs et mettent en œuvre des mesures allant au-delà des mesures requises dans les recommandations de l'ICCAT. Les États-Unis ont mis en œuvre leurs quotas de thon rouge de l'Ouest de 2011 et 2012, ainsi que la période d'ajustement de deux ans visant à limiter la capture de thon rouge mesurant moins de 115 cm à 10% (en poids) du quota des États-Unis. Les États-Unis ont également mis en œuvre la réduction du volume de sous-consommation pouvant être reporté de 2012 (à savoir, ne pouvant dépasser 10% de l'allocation initiale de quota). Les États-Unis ont interdit la retenue commerciale à bord d'istiophoridés capturés en association avec les pêcheries de l'ICCAT depuis 1988 et maintiennent des réglementations interdisant tous les débarquements de makaires bleus et blancs capturés dans l'océan Atlantique autrement qu'à la canne et au moulinet. En 2012, les États-Unis ont mis en œuvre les mesures s'appliquant à l'espadon de l'Atlantique Nord adoptées par l'ICCAT en 2011, incluant la limite de capture des États-Unis de 3.907 t (poids vif), les dispositions autorisant les États-Unis à capturer jusqu'à 200 t de leur quota d'espadon de l'Atlantique Nord entre 5 degrés de latitude Nord et 5 degrés de latitude Sud ainsi que les dispositions permettant de transférer 150 t au Maroc. À l'heure actuelle, la pêcherie palangrière pélagique de l'Atlantique des États-Unis, ciblant traditionnellement les espèces relevant de l'ICCAT, telles que l'espadon et le thon obèse, le germon, le listao et l'albacore, fait l'objet de plusieurs fermetures spatio-temporelles séparées en vue de réduire toutes les prises accessoires (entre autres, d'istiophoridés et d'espadon sous-taille). De surcroît, les palangriers pélagiques ne peuvent pêcher des espèces relevant de l'ICCAT qu'à la condition de respecter strictement les limitations d'hameçons circulaires et d'appât et d'utiliser des engins de remise en liberté de tortues marines conformément aux protocoles de remise à l'eau et de manipulation. Depuis mai 2011, les États-Unis imposent désormais l'utilisation d' « hameçons faibles » aux palangriers pélagiques se livrant à des opérations de pêche dans le golfe du Mexique afin de réduire les prises accessoires de thon rouge par les palangriers pélagiques ciblant d'autres espèces, telles que l'espadon et l'albacore. Les États-Unis ont soumis leur rapport sur l'historique et leur plan de gestion/de pêche de l'espadon le 14 septembre 2012, en vertu de la Recommandation 11-02 de l'ICCAT. Les États-Unis continuent à remplir les exigences des recommandations de l'ICCAT sur les requins au moyen de programmes de collecte de données et de mesures de gestion nationales incluant l'obligation de conserver les ailerons des requins attachés naturellement au corps. Les États-Unis ont instauré des limites de capture pour le requin-taupe commun de l'Atlantique, le requin-taupe bleu et le requin peau bleue et continueront à soumettre à l'ICCAT les données de prise et d'effort sur les requins. Les États-Unis ont également adopté des mesures portant interdiction de capturer des renards à gros yeux dans toutes les pêcheries de l'ICCAT et ont mis pleinement en œuvre les exigences des Recommandations 10-07 et 10-08 qui interdisent de retenir à bord, transborder, débarquer, stocker ou vendre des requins marteau de la famille Sphyrnidae (à l'exception du *Sphyrna tiburo*) et des requins océaniques (*Carcharhinus longimanus*), respectivement, ainsi que des requins soyeux capturés en association avec les pêcheries de l'ICCAT en vertu de la Rec. 11-08.*

## RESUMEN

*En 2011, la captura total (preliminar) comunicada estadounidense de túnidos y pez espada, incluyendo los descartes muertos, ascendió a 9.742 t, un incremento de aproximadamente un 14 % con respecto a las 8.573 t de 2010. La captura de pez espada (incluyendo la estimación de descartes muertos) se incrementó pasando de 2.412 t en 2010 a 2.887 t en 2011, y los desembarques provisionales estadounidenses de la pesquería estadounidense de rabil se*

incrementaron en 2011, llegando a las 3.015 desde las 2.482 t de 2010. En 2011, los buques pesqueros estadounidenses capturaron en el Atlántico noroccidental un volumen estimado de 884 t de atún rojo, lo que supone un descenso de 69 t en comparación con 2010. Los desembarques provisionales de listado experimentaron un incremento de 30 t de 2010 a 2011, situándose en 84 t. Los desembarques de patudo experimentaron un incremento de 174 t con respecto a 2010, con una estimación de 746 t en 2011, y los desembarques de atún blanco se incrementaron 134 t con respecto a 2010, situándose en 449 t en 2011. En 2011, Estados Unidos cumplió sus obligaciones con respecto a la implementación de las medidas de conservación y ordenación de ICCAT. Además, Estados Unidos ha adoptado un enfoque ecosistémico en la ordenación de las especies altamente migratorias, y ha implementado una serie de medidas que van más allá de las medidas requeridas en las recomendaciones de ICCAT. Estados Unidos implementó sus cuotas de atún rojo occidental de 2011 y 2012, así como el periodo de dos años de ajuste para limitar la captura de atún rojo de menos de 115 cm al 10% en peso de la cuota estadounidense. Estados Unidos también ha implementado una reducción en lo que concierne al remanente de capturas que puede traspasarse a 2012 (a saber, que este traspaso no supere el 10% de la asignación de cuota inicial). Estados Unidos ha prohibido toda retención comercial de marlines capturados en asociación con pesquerías de ICCAT desde 1988, y mantiene reglamentos que prohíben cualquier desembarque de aguja azul y aguja blanca capturadas en el océano Atlántico por cualquier método que no sea caña y carrete. En 2012, Estados Unidos implementó las medidas para el pez espada del Norte adoptadas por ICCAT en 2011, lo que incluye el límite de captura de Estados Unidos de 3.907 t (peso vivo). Estas disposiciones permiten a Estados Unidos capturar hasta 200 t de su cuota de pez espada del Atlántico norte entre 5° N y 5° S, y la transferencia de 150 t a Marruecos. En la actualidad, la pesquería palangrera pelágica del Atlántico de Estados Unidos que se suele dirigir tradicionalmente a especies gestionadas por ICCAT, como el pez espada, patudo, atún blanco, listado y rabil, está sujeta a varios cierres espaciotemporales diferenciados encaminados a reducir toda la captura fortuita (por ejemplo, marlines, pez espada de talla inferior a la regulada, etc.). Además, los palangreros pelágicos sólo pueden pescar especies de ICCAT si cumplen las estrictas restricciones sobre cebo y anzuelos circulares y utilizan dispositivos de liberación de tortugas marinas aprobados de conformidad con los protocolos de manipulación y liberación. Desde mayo de 2011, Estados Unidos requiere la utilización de "anzuelos suaves" para los palangreros pelágicos que pescan en el Golfo de México con el fin de reducir la captura fortuita de atún rojo realizada por los palangreros pelágicos que se dirigen a otras especies, como el pez espada y el rabil. De conformidad con la Recomendación 11-02 de ICCAT, el 14 de septiembre de 2012, Estados Unidos presentó su informe sobre el historial de pesca y el plan de desarrollo de la pesquería de pez espada de Estados Unidos. Estados Unidos sigue cumpliendo los requisitos de las recomendaciones de ICCAT sobre tiburones mediante programas de recopilación de datos y medidas de ordenación nacionales, lo que incluye un requisito de mantener las aletas pegadas al cuerpo de un modo natural. Estados Unidos ha establecido límites de captura para todo el marrajo dientuso y marrajo sardinero del Atlántico y para la tintorera y continuará presentando datos de captura y esfuerzo sobre tiburones a ICCAT. Estados Unidos cuenta también con medidas para prohibir la captura de zorro ojón en todas las pesquerías de ICCAT e implementa totalmente las Recs. 10-07 y 10-08 que prohíben retener, transbordar, desembarcar, almacenar o vender peces martillo de la familia Sphyrnidae, (a excepción del Sphyrna tiburo) y tiburones oceánicos (Carcharhinus longimanus), respectivamente, así como tiburón jaquetón, capturados en asociación con las pesquerías de ICCAT, de acuerdo con la Rec. 11-08.

## **Part I (Information on Fisheries, Research, and Statistics)**

### **Section 1: National Fisheries Information**

Total (preliminary) reported U.S. catch of tuna and swordfish, including dead discards, in 2011 was 9,742 metric tons (t), an increase of about 14 % from 8,573 t in 2010. Swordfish catches (including estimated dead discards) increased from 2,412 t in 2010 to 2,887 t in 2011, and provisional landings from the U.S. fishery for yellowfin tuna increased in 2011 to 3,015 t from 2,482 t in 2010. U.S. vessels fishing in the northwest Atlantic caught in 2011 an estimated 884 t of bluefin, a decrease of 69 t compared to 2010. Provisional skipjack tuna landings

increased by about 30 t to 84 t from 2010 to 2011, bigeye tuna landings increased by 174 t compared to 2010 to an estimated 746 t in 2011, and albacore landings increased from 2010 to 2011 by 134 t to 449 t.

## **Section 2: Research and Statistics**

### *2.1 Fisheries Statistics*

#### 2.1.1 Tropical tuna fishery statistics

*Yellowfin Tuna.* Yellowfin is the principal species of tropical tuna landed by U.S. fisheries in the western North Atlantic. Total estimated landings increased to 3,015 t in 2011, from the 2010 landings estimate of 2,481 t (**Table 1**). The 2011 estimate is considered provisional and may change owing to incorporation of late reports of commercial catches as they become available and to possible revisions in estimates of rod and reel catches made by recreational anglers. A high proportion of the 2011 estimated landings were due to rod and reel catches of recreational anglers in the NW Atlantic (1,498 t). In the case of commercial landings, the highest proportion of landings in 2011 corresponded to the U.S. longline fleet operating in statistical area LLYF12 (698 t). Total commercial and total recreational landings in 2011 were 1,469 t and 1,498 t, respectively. Nominal catch rate information from logbook reports (longline catch per 1,000 hooks) for yellowfin by general fishing areas is shown in **Figure 1**.

*Skipjack Tuna.* Skipjack tuna are also caught by U.S. vessels in the western North Atlantic, but it is a minor component of the U.S. total tuna landings. Total reported skipjack landings (preliminary) increased from 54 t in 2010 to 84 t in 2011 (**Table 2**). Estimates of recreational harvests of skipjack continue to be reviewed and could be revised again in the future. **Figure 2** presents nominal catch rate information (longline catch per 1,000 hooks), based on logbook reports.

*Bigeye Tuna.* The other large tropical tuna reported in catches by U.S. vessels in the western North Atlantic is bigeye tuna. Total reported landings (preliminary) increased by approximately 175 t, from 571 t in 2010 to 746 t in 2011 (**Table 3**). Note that, like yellowfin, the estimates of rod and reel catch are considered provisional and may be revised based on results of a future review of recreational harvest estimates. **Figure 3** presents nominal catch rates (longline catch per 1,000 hooks), estimated from logbook reports.

#### 2.1.2 Temperate Tuna Fishery Statistics

*Albacore Tuna.* Albacore are landed by U.S. vessels; however, historically, albacore has not been a main target of the U.S. commercial tuna fisheries operating in the North Atlantic. Reported commercial catches were relatively low prior to 1986; however, these catches increased substantially and have remained at higher levels with nearly all of the production coming from the northeastern U.S. coast. The U.S. landings from the Caribbean increased in 1995 to make up over 14% of the total U.S. harvest of albacore, but have since remained below 4% of the total. Nominal catch rates from U.S. pelagic longline logbook reports are shown in **Figure 4**. Estimated total catches of albacore were 449 t in 2011, an increase of 134 t from 2010 (**Table 4**).

*Bluefin Tuna.* The U.S. bluefin fishery continues to be regulated by quotas, seasons, gear restrictions, limits on catches per trip, and size limits. The United States manages total U.S. landings to conform to ICCAT recommendations. U.S. 2011 provisional estimated landings and dead discards from the northwest Atlantic (including the Gulf of Mexico) were approximately 738 t and 145 t, respectively. Those estimated landings and dead discards represent a decrease of approximately 69 t from the 2010 estimates. The 2011 catches by gear were: 70 t by harpoon, 419 t by commercial rod and reel and 173 t by recreational rod and reel, 220 t by longline (including discards) of which 11 t were from the Gulf of Mexico, 0.9 t by handline and 0.4 t by trawl (**Table 5**).

In response to 1992 regulations limiting the allowable catch of small fish by U.S. fishermen, and in conformity with ICCAT agreements, enhanced monitoring of the recreational rod and reel fishery was implemented in 1993 for the purpose of providing near real-time advice on catch levels by this fishery. This monitoring activity has continued and has included estimation of catches by finer scale size categories than reported above. The preliminary estimates for the 2011 recreational rod and reel fishery off the northeastern United States for landings in several size categories are 55.9 t of fish 66-114 cm, 70.5 t of fish 115-144 cm, 41.1 t of fish 145-178 cm, and 5.8 t of fish >178 cm SFL.

#### 2.1.3 Swordfish Fishery Statistics

For 2011, the provisional estimate of U.S. vessel landings and dead discards of swordfish was 2,887 t (**Table 6**). This estimate represents an increase from the 2,412 t estimated for 2010. The provisional landings, including discard estimates, by ICCAT area for 2011 (compared to 2010) were: 338 t (218 t) from the Gulf of Mexico

(Area BIL91); 2,095 t (1,849 t) from the northwest Atlantic (Area BIL92); 15 t (41 t) from the Caribbean Sea (Area BIL93); and 438 t (303 t) from the North Central Atlantic (Area BIL94A).

U.S. swordfish landings are monitored in-season from reports submitted by dealers, vessel owners and captains, NMFS port agents, and mandatory daily logbook reports submitted by U.S. commercial vessels permitted to fish for swordfish. The U.S. swordfish longline fishery is also being monitored via a scientific observer-sampling program, instituted in 1992. Approximately 8% of the longline fleet-wide fishing effort is randomly selected for observation during the fishing year. The observer sampling data, in combination with logbook reported effort levels, support estimates of approximately 8,294 fish discarded dead in 2011. For the North Atlantic (including the Gulf of Mexico and Caribbean Sea), the estimated tonnage discarded dead in 2011 was 135 t, of which 127 was estimated due to longline gear. Overall, the estimates of dead discarded catch decreased by about 2 t compared to the 2010 levels, and corresponded to approximately 5% of the commercially landed catch.

Total weight of swordfish sampled for sizing U.S. commercial landings by longline, trawl, and handline was 2,285 t, 13 t, and 189 t in 2011. The weight of sampled swordfish landings in 2010 were 89%, 44%, and 90% of the U.S. total reported annual landings of swordfish for longline, trawl, and handline, respectively. Again, incorporation of late reports into the estimated 2011 landings figure will likely result in changes in the sampled fraction of the catch. Recent estimates of rod and reel landings of swordfish based on surveys of recreational anglers, range from about 5-76 t per year within the period 1996-2011.

#### 2.1.4 Marlins and Sailfish Fishery Statistics

Blue marlin, white marlin, and sailfish are landed by U.S. recreational rod and reel fishermen and are a bycatch of the U.S. commercial tuna and swordfish longline fisheries. The U.S. Fisheries Management Plan for Atlantic Billfishes was implemented in October 1988. The Plan allows billfish that are caught by recreational gear (rod and reel) to be landed only if the fish is larger than the minimum size specified for each species covered by the Plan. Recreational landings of each billfish species are monitored through: (a) the Southeast Fisheries Science Center (SEFSC) Recreational Billfish Survey (RBS) which provides the number of billfish caught during tournaments held along the southeastern U.S. coast (south of 35° N latitude), in the Gulf of Mexico, and U.S. Caribbean regions (i.e., U.S. Virgin Islands and Puerto Rico); (b) the NMFS Large Pelagics Recreational Survey (LPS) conducted by NMFS which provides estimates of recreational harvest of highly migratory species (including billfish), from waters along the northeastern United States (north of 35° N latitude); (c) Marine Recreational Information Program (MRIP); (d) a Headboat survey (large multi-party charter boats); and/or (e) a coastal sport fishing survey of the Texas recreational fishery (TPW). In addition, recreational catch statistics by self-reported catch cards also document billfish landings in some states.

The estimates of 2011 U.S. recreational rod and reel landings for these billfish species, combining the geographical areas of the Gulf of Mexico (Area BIL91), the northwestern Atlantic Ocean west of the 60° W longitude (Area BIL92), and the Caribbean Sea (Area BIL93) are: 6.6 t for blue marlin, 2.3 t for white marlin, and 4.2 t for sailfish. The estimates for 2010 were: 4.3 t for blue marlin, 2.1 t for white marlin, and 2.8 t for sailfish.

In addition to restrictions on U.S. recreational harvest, the Management Plan also imposed regulations on commercial fisheries by prohibiting retention and sale of the three species at U.S. ports. For this reason, there are no U.S. commercial landings for any of the three Atlantic species. Estimates of dead discards in the U.S. longline fleet are obtained using data collected through the mandatory Pelagic Logbook Program and the Pelagic Observer Program. The procedure for estimating the historical bycatch of blue marlin, white marlin, and sailfish was detailed in SCRS/96/97-Revised. Revisions to historical landings of billfish previously reported to ICCAT were based on review of the estimates conducted at the 1996 ICCAT Billfish Workshop held in Miami, FL. Estimates of the billfish bycatch discarded dead in the U.S. commercial longline and other commercial fisheries in 2011 were 48.6 t for blue marlin, 22.5 t for white marlin, and 9.8 t for sailfish.

#### 2.1.5 Shark Fishery Statistics

The U.S. Federal Fisheries Management Plan (FMP) implemented in 1993 (NMFS 1993) identified three management groups: large coastal sharks, small coastal sharks, and pelagic sharks. The pelagic complex included ten species: shortfin mako (*Isurus oxyrinchus*), longfin mako (*Isurus paucus*), porbeagle (*Lamna nasus*), thresher (*Alopias vulpinus*), bigeye thresher (*Alopias superciliosus*), blue (*Prionace glauca*), oceanic whitetip (*Carcharhinus longimanus*), sevengill (*Heptanchias perlo*), sixgill (*Hexanchus griseus*), and bigeye sixgill (*Hexanchus vitulus*). The 1993 FMP classified the status of pelagic sharks as unknown because no stock



assessment had been conducted for this complex. The Maximum Sustainable Yield (MSY) for pelagic sharks was set at 1,560 t dressed weight (dw), which was the 1986-1991 commercial landings average for this group. In 1997, as a result of indications that the abundance of Atlantic sharks had declined, commercial quotas for large coastal, small coastal and pelagic sharks were reduced. The quota for pelagic sharks was set at 580 t. In 1999, the U.S. FMP for Atlantic Tunas, Swordfish, and Sharks (NMFS 1999) proposed the following measures affecting pelagic sharks: 1) a reduction in the recreational bag limit to one Atlantic shark per vessel per trip, with a minimum size of 137 cm fork length for all sharks, 2) an increase in the annual commercial quota for pelagic sharks to 853 t dw, apportioned between porbeagle (92 t), blue sharks (273 t dw), and other pelagic sharks (488 t dw), with the pelagic shark quota being reduced by any overharvest in the blue shark quota, and 3) making the bigeye sixgill, sixgill, sevengill, bigeye thresher, and longfin mako sharks prohibited species that cannot be retained. Regulations on prohibited species went into effect in 2000, whereas those on pelagic shark quotas were enacted in 2001. Presently, the commercial quotas for pelagic sharks are 273 t dw (blue sharks), 1.7 t dw (porbeagles), and 488 t dw (pelagic sharks other than porbeagle or blue).

Landings and dead discards of sharks by U.S. pelagic longline fishermen are monitored and reported to ICCAT. In 2011, the species of shark with the largest amount of landings (in weight) was shortfin mako with a total of approximately 372 t (of which 171 t were landed by the U.S. recreational fishery), followed by thresher sharks (*Alopias spp.*), blue shark, and hammerhead sharks (*Sphyrna spp.*) with approximately 89, 65, and 3.8 t, respectively.

In 2011, estimates of dead discards for blue shark by the U.S. pelagic longline fleet amounted to almost 1,115t, the largest amount of any shark species discarded by this fleet. The second largest amount of dead discards by this fleet corresponded to tiger shark with 357 t followed by silky shark and shortfin mako with 83, and 28 t, respectively.

#### – Domestic Pelagic Longline Observer Coverage

In accordance with ICCAT recommendations, randomized observer sampling of the U.S. pelagic longline fleet was continued into 2011 (**Figure 5**) through the U.S. Pelagic Observer Program. Representative scientific observer sampling of this fleet has been underway since 1992. The data collected through this program have been used to quantify the composition, disposition, and quantity of the total catch (both retained and discarded at sea) by this fleet which fishes in waters of the northwest Atlantic Ocean, Gulf of Mexico, and the Caribbean Sea. Selection of the vessels is based on a random sampling of the number of sets reported by the longline fleet. The percent of fleet coverage has varied over time, for example in 1992 it reached 2.5% coverage; while in 2011 it reached 10.9%. The targeted sampling fraction of the U.S. pelagic longline fleet was increased from 5% to 8% in 2002.

NOAA fisheries observer personnel recorded a total of 15,104 longline sets (11,015,040 hooks) from May of 1992 to December of 2011. During this period, observers recorded over 505,775 fish (primarily swordfish, tunas, and sharks), in addition to marine mammals, sea turtles, and seabirds. Documents SCRS/04/168 and SCRS/08/034 provided a more detailed summary of the data resulting from observer sampling, observer coverage, and sampling strategy. Similar to 2007-2010, from approximately March 15 through June 15, 2011, the pelagic observer program increased the coverage of the longline fleet operating in the Gulf of Mexico. The goal of this increase was to collect data to better characterize the interaction between the longline fleet and bluefin tuna during the spawning season. A total of 232 longline sets were observed (117,298 hooks) from 13 vessels, which accounted for approximately 76.8 % of the longline trips during that period.

#### – Shark Bottom Longline Observer Coverage

The U.S. Atlantic shark bottom longline fishery operates in the Atlantic Ocean from about the Mid-Atlantic Bight to south Florida and throughout the Gulf of Mexico. The bottom longline gear targets large coastal sharks, but small coastal sharks, pelagic sharks, and dogfish species are also caught. Currently, 214 U.S. fishermen are permitted to target sharks (excluding dogfish) in the Atlantic Ocean and Gulf of Mexico, and an additional 285 fishermen are permitted to land sharks incidentally caught. Recent amendments to the Consolidated Atlantic Highly Migratory Species Fishery Management Plan based on updated stock assessments have greatly reduced levels of shark fishing in the U.S. Atlantic and modified the authorized species in commercial shark fisheries. The amendments have also implemented a shark research fishery, which allows the U.S. National Marine Fisheries Service (NMFS) to select annually a limited number of commercial shark vessels to fish for certain species carrying observers on 100% of trips to collect life history data, and other necessary data to conduct shark

stock assessments. Commercial shark fishermen not participating in the research fishery are no longer allowed to land sandbar sharks, which used to be the main target species for most fishermen. Additionally, commercial fishermen are required to land sharks with their fins naturally attached. The revised measures also affected the number of authorized species that can be landed by the recreational shark fisheries; modified time/area closures for commercial shark vessels deploying bottom longline gear; and modified regions, seasons, and shark dealer reporting frequency in the commercial shark fishery. Observations of the shark-directed bottom longline fishery in the Atlantic Ocean and Gulf of Mexico have been conducted since 1994. From January to December 2011, observations of 211 hauls on 121 trips were made in the shark research fishery in the Gulf of Mexico and the South Atlantic. Sharks comprised 97.6% of the catch, followed by teleosts (1.9%) and batoids (0.4%). Large coastal shark species (excluding sandbar shark) comprised 41.4% of the shark catch, sandbar shark comprised 47.3%, small coastal shark species comprised 8.3%, deep water sharks comprised 0.8%, and pelagic sharks comprised 0.01%. Prohibited shark species were also caught including the dusky shark, the Caribbean reef shark, sand tiger shark and the great white shark (2.1% of shark catch). For vessels not participating in the shark research fishery, there were 13 hauls on 8 trips observed in the Gulf of Mexico and South Atlantic. Sharks comprised 96.2% of the catch, followed by teleosts (2.5%), and batoids (1.3%). Large coastal shark species (excluding sandbar shark) comprised 48.7% of the shark catch, small coastal shark species comprised 47.7%, sandbar sharks comprised 3.2% and other prohibited sharks comprised 0.4% of the shark catch.

## 2.2 Research Activities

### 2.2.1 Bluefin Tuna Research

As part of its commitment to the Grande Bluefin Year Program (GBYP), research supported by the United States has concentrated on ichthyoplankton sampling, tagging and biological sampling from fisheries.

Ichthyoplankton surveys in the Gulf of Mexico during the bluefin spawning season were continued in 2010 and 2011. In addition to the regular survey, which occurs over a fixed spatial grid in May, adaptive sampling was carried out in spring 2010 and 2011 in collaboration with NASA and scientists from Mexico (INAPESCA). Adaptive sampling focused on the western Caribbean, with stations sampled between the Windward Passage and the Yucatan Peninsula. Station selection was guided by a larval habitat model, run on remotely sensed satellite data. Preliminary visual identifications suggest larval occurrence only along the Yucatan Peninsula, inshore of the Caribbean Current. This confirms results from less extensive sampling in 2009 and 2010. Work has continued on a collaborative project investigating the potential effects of climate change through the end of the 21<sup>st</sup> century on bluefin tuna spawning grounds in the Gulf of Mexico. Results suggest that in the future, spawning may be initiated earlier in the year, due to warming water temperatures, and that spawning activity may be curtailed in the warmer months of May and June. In July 2011, larval bluefin tuna scientists from the United States and Spain attended an informal workshop, to discuss parallel lines of research, and potential future collaboration efforts. Environmental constraints on larval distributions between the Gulf of Mexico and Mediterranean Sea were discussed, as were variables influencing larval feeding, growth and survival.

The NOAA Fisheries Southeast Fisheries Science Center (SEFSC) has deployed a total of 35 PSATs on bluefin tuna from contracted longline vessels fishing in the Gulf of Mexico to monitor survivorship and post release behavior of bluefin tuna in the western Atlantic (from February-June, 2010, 2011, and 2012). Monitoring times ranges from 4-93 days. Three tags are still at large. Field activities will continue for FY 2013 until the remaining 15 PSATs are deployed (though June 2013). In 2011, the Large Pelagic Research Center at the University of Massachusetts (LPRC) conducted PSAT tagging of juvenile BFT off New England with tag missions of one year, with results pending. In addition, LPRC is now conducting an extensive review and integrative analysis of all PSAT tagging results for adult BFT tagged and released off New England and Canada from 1997-2011.

The LPRC is collaborating with the SEFSC and ICCAT GBYP program on a scientific mark recapture study focusing on juvenile BFT. Tagging commenced in 2011 and will continue through 2013. Conventional, high reward and PSAT tags are being deployed simultaneously to facilitate the estimation of key population parameters.

The SEFSC initiated the first ever comprehensive sampling program for bluefin tuna in 2010, collecting otoliths, dorsal spines, caudal vertebrae and other tissues in a manner representative of the catch. The 2010 pilot program produced only a few dozen otoliths; however an additional 300 were collected opportunistically by the LPRC from a few participating commercial fish houses. Subsequently, SEFSC scientists and contractors met with several university scientists to expand and better coordinate a collaborative approach to sampling both the recreational and commercial fisheries. As a result, otoliths and other samples were taken from over 800 bluefin

tuna. Approximately 230 bluefin were sampled from the recreational fishery through the Large Pelagic Survey and over 600 bluefin were sampled from commercial fisheries (520 through the LPRC and 81 through the pelagic observer program and Northeast Regional Office of NMFS). The LPRC has completed analyses of maturity and reproduction in western Atlantic bluefin tuna ranging from young of year to adult size classes, including estimation of fecundity, age of maturity and a comparison of western and eastern spawners. Results are being submitted for publication.

Scientists from Texas A & M University and the University of Maryland assigned natal origin (Mediterranean Sea or Gulf of Mexico) to Atlantic bluefin tuna collected off North Carolina in 2011, targeting an abundant 2003 year-class. Maximum likelihood estimates of the sample's mixture were based on stable isotope composition,  $\delta^{15}\text{O}$  and  $\delta^{13}\text{C}$ , of base-line natal age-1 juveniles. Estimated contribution rate of Gulf of Mexico members to the 2003 year-class was  $49.2\% \pm 13\%$  SD. This estimate was robust to error in year-class assignment (i.e., ageing error) but showed moderate imprecision due to low sample size ( $n=39$ ). Analysis of archived otoliths from U.S. landed fish of similar size range to the 2003 year-class indicated a slightly higher Gulf of Mexico contribution:  $56.2\% \pm 6.5\%$  (sample years 1996-1998;  $N=110$ ). Results support the inference that the 2003 year-class, evident in U.S. fisheries during the past five years, received contributions from both natal populations.

Scientists from the University of Massachusetts and University of Maryland are developing a biologically realistic model of Atlantic bluefin tuna stocks, incorporating the best available empirically-derived data, to examine how structure and connectivity influence population and fishery dynamics. The simulation framework allows for representation of population structure (i.e., multiple spawning components) and varying rates and patterns of movement among areas.

Scientists from Stanford University and the Tag-A-Giant research team continued to deploy electronic tags on giant bluefin tuna in Canada to monitor bluefin in the Gulf of Mexico. They continued archival tagging off North Carolina to keep the time series of archival tagged bluefin moving forward. Genetic studies of bluefin using microsatellites in the western Population were continued to improve our understanding of genetic population structuring. Genomic tools for monitoring maturation and gender specific gene differences from gonad samples are completed. In collaboration with scientists from the University of British Columbia, a Bayesian, spatially explicit, quarterly time step, statistical catch-at-age model was developed that is fitted to conventional and electronic tag-track data, historic catch-at-age reconstructions and otolith microchemistry data on origin to better account for stock mixing in assessments (Multistock Age-Structured Tag-integrated stock assessment model, MAST).

From late March through mid-June 2011, the SEFSC conducted extensive observations of the pelagic longline fishery in the Gulf of Mexico. Roughly 50% of known fishing trips and a higher percentage of total effort was observed. Various biological samples were taken from the bluefin including otoliths, gonads and muscle. Contracts were awarded to conduct research on bluefin stock structure, growth, gender determination and reproduction.

At the same time as the extended coverage observer program, the SEFSC has been assessing the efficacy of a new 16/0 "weak" circle hook designed to reduce the bycatch mortality of bluefin tuna in the directed yellowfin tuna fishery in the Gulf of Mexico. The 2008-10 study was a continuation of research conducted in April 2007 to examine "weak link" concepts which would allow bluefin tuna to escape capture on pelagic longlines, while retaining yellowfin tuna. Results of the study indicate that the new circle hook design reduces the bluefin tuna catch rate with no significant reduction in the target catch of yellowfin tuna. Consequently, the National Marine Fisheries Service published a final rule requiring the new hook design in the Gulf of Mexico pelagic longline fishery effective 5 May 2011. Research on this new bycatch reduction technology will continue through 2012 in order to improve the statistical precision and confidence of the results and assess how quickly the escapement occurs.

The SEFSC continues to be a leader in developing methodology to improve catch per unit effort standardization methods. To build upon this research, SEFSC has initiated a project to investigate the effects of incorporating gear effects and remotely sensed satellite and hydrodynamic model data as variables in fishery-dependent bluefin tuna indices. The goal of this project will be to better account for the environmental factors that may affect bluefin catch rates, resulting in more accurate CPUE indices.

### 2.2.2 Swordfish Research

U.S. research on Atlantic swordfish in 2011 focused primarily on assessing movement and habitat use of the North and South Atlantic populations. U.S. anglers participating in the long-term cooperative tagging program

marked 106 swordfish captured in recreational fisheries off the U.S. East Coast and reported recapture information on two fish. The recaptured swordfish demonstrated regional site fidelity, with one fish released and recaptured after 114 days at large in the Gulf of Mexico near the Florida panhandle, and the other released and recaptured after 81 days at large in the Atlantic Ocean near Ft. Lauderdale, Florida.

U.S. scientists synthesized movement and habitat use information of satellite archival tagged fish in the Pacific and Atlantic Oceans and reported diel variation in vertical habitat use patterns. Swordfish resided primarily below the thermocline during the day and migrated closer to the surface at night, with vertical movements between the surface and depth occurring during crepuscular hours. Temperature influenced the nighttime depth use in the Pacific where fish typically remained in the surface mixed layer, whereas observed depths were much deeper in the warmer regions of the tropical Atlantic. Temperature data indicated that swordfish are capable of tolerating extremely low temperatures (4°C) and rapid temperature change (>20°C). Researchers concluded that swordfish vertical distribution patterns, especially during daytime, were influenced largely by resource availability.

Researchers from Nova Southeastern University in Florida conducted several research studies relevant to swordfish. The habitat utilization and post-release survival rates of 16 juvenile swordfish released from the recreational rod-and-reel fishery and commercial swordfish buoy gear fishery in the Florida Straits was investigated in a Cooperative Research Program (CRP) funded study (in association with the SEFSC and UM/RSMAS) using pop-up satellite archival tags. Five of the fourteen reporting tags indicated mortality within 48 hours, for a release mortality rate of 35.7%. The researchers noted, however, the imprecision of this estimate. Scientists also conducted socio-economic analyses of swordfish and sailfish recreational tournaments in the Florida Straits, collecting information on angler characteristics, experience, fishing preferences and expenditure patterns. Additionally, an analytical description of the South Florida recreational tournament fishery for swordfish, beginning in 1977, was conducted. These studies will provide useful information for understanding the economic importance and management implications of these activities.

Researchers from the Pacific Islands Fisheries Research Center, University of Maine, and National Taiwan University developed a habitat suitability model to examine the relationships between swordfish catches in the South Atlantic Ocean and environmental variables, and to identify potential fishing grounds. Optimum swordfish habitat was determined to occur in areas with sea surface temperatures between 27 and 28°C, sea surface height anomaly between -0.05 and 0.05 m, chlorophyll-a concentration of 0.1 to 0.2 mg m<sup>-3</sup> and ocean bathymetry of 4000 to 4500 m. The researchers cross-validated the predicted habitat suitability index values with observed catch information, and suggested that the model can be used as a tool for reliable prediction of potential fishing grounds.

### 2.2.3 Tropical Tunas Research

U.S. scientists participated in the ICCAT SCRS Tropical Tuna Species Group Inter-Sessional Meeting on the Ghanaian Statistics Analysis (Phase II), held in Madrid, Spain, 30 May to 3 June 2011. The work conducted included the review of available historical data, methods for revision and results, as well as a review of sampling methodologies. U.S. scientists also participated in the ICCAT SCRS Yellowfin tuna stock assessment meeting, held in Pasaia, Gipuzkoa, Spain, on 5-12 September 2011.

In 2011, SEFSC scientists presented several papers to the SCRS concerning tropical tunas. Abundance indices were developed for yellowfin tuna from U.S. pelagic longline fleet as well as U.S. recreational fleet data. U.S. scientists have continued to conduct cooperative research with scientists from Mexico, pursuing the development of indices of abundance for species of concern to ICCAT in the Gulf of Mexico as well as descriptive analyses of that fishery. An updated abundance index for yellowfin tuna, using Mexican and U.S. pelagic longline observer data, was prepared for the 2011 Atlantic Yellowfin Tuna Stock Assessment.

Scientists at NOAA's Southeast Fisheries Science Center (SEFSC) have been collaborating since 2008 with the Texas A&M University, using pop-up satellite archival tag (PSAT) technology to evaluate habitat use of yellowfin tuna in the Gulf of Mexico. Fish were captured using rod and reel gear near the edge of the continental shelf in the central Gulf (Mississippi Delta region). A total of 32 PSATs were deployed on yellowfin tuna ranging from 87 to 158 cm FL, and monitored for periods up to 95 days, with field work being completed in 2011. Net displacement from point of release to point of pop-up ranged from 5 to 609 nautical miles (nm). A preliminary analysis of the data, describing the time yellowfin tuna spent at temperature, relative to the surface temperature, was presented to the ICCAT SCRS. Further analyses are underway that will help define essential fish habit and improve CPUE standardization approaches.

In response to the Deepwater Horizon oil spill event, SEFSC scientists initiated a study in 2010 to evaluate the movements, migration patterns and site fidelity of yellowfin tuna in the Gulf of Mexico in order to assess the potential exposure of the stock to contaminants, as well as optimal fishery closure strategies for potential future events. This differed from the work conducted in collaboration with Texas A&M in that generally larger fish were targeted, and longline vessels were used as deployment platforms (in addition to recreational vessels) to achieve a broader geographic representation of deployment locations, corresponding more closely to the range of the fishery. This study is ongoing in 2012, so far tracking the movements of 36 yellowfin for durations of 10 to as many as 172 days (8 of the fish were tracked for more than 3 months). More deployments, for periods up to one year, are planned for the northern Gulf of Mexico. In addition, collaborative work with Mexican scientists is underway, with the goal of deploying at least 12 PSATs on yellowfin tuna in Mexican water within the southwestern Gulf of Mexico. These data will be analyzed in conjunction with the ongoing study. In addition to the main study objectives, the resulting data should be of great benefit to improving understanding of stock structure, movement rates, mortality, etc., all of which are important to improving the stock assessments.

NOAA's SEFSC has also increased biological sampling of tropical tunas from the commercial and recreational fisheries, including hard parts.

#### 2.2.4 Albacore Research

Research conducted by U.S. scientist on Atlantic albacore (*Thunnus alalunga*) has been limited. However, a collaborative study between European and U.S. scientists regarding the spatial variation of albacore diet in the northeast Atlantic and Mediterranean Sea was published in 2011. This study found that spatial, seasonal, inter-annual, and size-related variability in the diet of albacore. Albacore diet varied by location in the Mediterranean Sea, with a particularly high proportion of cephalopods and low  $\delta^{15}\text{N}$  values in the Tyrrhenian Sea. In the northeast Atlantic, albacore consumed a higher proportion of crustaceans and a lower proportion of fishes in the most offshore sampling zone than inshore.

U.S. scientists participated in the 2011 ICCAT South Atlantic and Mediterranean albacore assessment meeting held in Madrid, Spain 25-29 July 2011.

#### 2.2.5 Mackerels and Small Tunas Research

*King mackerel.* The last domestic stock assessment of U.S. Gulf of Mexico and South Atlantic king mackerel populations was carried out in 2008. During 2011, SEFSC scientists continued to make routine collections of otolith samples from the directed commercial and recreational fisheries for use in developing age length keys. These updated age length keys will be incorporated into future updated population models. The estimates of age composition from the updated age length keys will enable analysts to evaluate changes in year class strength since the 2008 stock assessment; additional samples can be acquired through cooperative efforts with state entities. In 2010, the North Carolina Division of Marine Resources worked with a Sea Grant researcher to collect king mackerel tournament (KMT) angler CPUE data using a text messaging survey. This was an effort to look at this text messaging technology and to collect and compare the King mackerel CPUE data that we collected in the 1990s.

*Spanish mackerel.* The last domestic stock assessment of U.S. Gulf of Mexico and South Atlantic Spanish mackerel populations was carried out in 2008. During 2011, SEFSC scientists continued efforts to acquire otolith samples from the directed commercial and recreational fisheries for use in developing age length keys. These updated age length keys will be incorporated into the next updated population models expected to be made in 2012. The age composition samples will be used to evaluate changes in year class size since the last stock evaluation. Independent researchers from the University of North Carolina are planning in 2012 to conduct stock demographic research and carry out otolith microchemistry examinations of the Gulf of Mexico stock.

#### 2.2.6 Shark Research

The ICCAT Shark Working Group (WG) held a "Data Preparatory Meeting to Apply an Ecological Risk Assessment" in Madrid, 20-24 June 2011. Following that meeting, the Shark WG met again in Olhão, Portugal, 11-18 June 2012, to conduct a stock assessment of shortfin mako and continued to work on an Ecological Risk Assessment (ERA) of a suite of pelagic shark species. The ERA was completed in time for the 2012 Shark WG and SCRS meetings and included a total of 20 stocks of pelagic elasmobranchs.

As part of a cooperative shark research project between Brazil (Universidade Federal Rural de Pernambuco) and the United States (NMFS SEFSC Panama City Laboratory and the University of Florida's Florida Museum of Natural History) initiated in 2007 and aimed at understanding better the factors that affect catchability and habitat use of pelagic sharks, a document on "Survivorship of pelagic species in the Southwest Atlantic Ocean's

Tuna Longline Fishery” was submitted for publication to a peer-reviewed journal. Catches of pelagic shark and other species in longlines with circle and J hooks were compared with the use of hook timers to measure differences in fishing mortality associated with the time fish are hooked and on the line and hook type in the southwest Atlantic Ocean off the coast of Brazil. Mortality rate of fish increased with increasing time between capture and boarding, but some species endured long capture periods surviving until the time of boarding. Swordfish had high mortality rates, unlike blue sharks, which had low mortality rates regardless of hook type and the location where the hook was set. The species of tuna and billfish examined in this study showed a strong association between hook location and the animal’s release condition, with reduced mortality in individuals hooked externally. A trend of increased survival with increased individual fish length was observed for most species. However, in sharks, increased survival with increased individual fish length was only observed for the blue shark, while other shark species showed an opposite pattern, although the difference was only statistically significant for crocodile sharks. Results suggest that knowledge of factors affecting the survival of pelagic fish caught in longline fisheries may enable the development and adoption of fishing methods to reduce mortality of longline bycatch.

A collaborative project between the SEFSC and Uruguay’s fisheries agency (DINARA) entitled “Sustainable fisheries and bycatch reduction of pelagic sharks in the Atlantic Ocean”, initiated in 2009, continues. The ultimate goal of this project is to advance knowledge on the productivity and susceptibility of pelagic sharks to longline fisheries in the western South Atlantic Ocean, aspects which are largely unknown for pelagic sharks in the southern hemisphere. To that end, eight archival satellite tags (five PSATs, two SPOTs, one SPLASH) obtained through grants awarded to conduct this project, have been deployed to date on blue sharks to characterize in detail the spatio-temporal habitat use of this species. The two individuals fitted with SPOT tags (a 127 cm FL female and a 245 cm FL male) were captured in the western South Atlantic Ocean in EEZ waters and headed N-NE for the first five weeks after capture and release at a mean speed of 2 km/h. These individuals were tracked for 60 and 257 days, respectively. Of the five individuals tagged with PSAT tags, two never sent a signal, two (a 127 cm FL female and a 122 cm FL male) were deployed for 46 and 146 days, respectively, and the information for the 5th has not yet been analyzed. The immature female (which had been double-tagged with an MK10-PAT tag and a SPOT tag) spent 97% of the time at depths <100m. As part of this ongoing collaborative project, the SEFSC Panama City Laboratory hosted two Uruguayan scientists from DINARA in August 2012 to review results of satellite tagging thus far and plan deployments of additional tags in blue and porbeagle sharks. Scientists from Uruguay and the USA also worked on the ERA mentioned above and one of the Uruguayan scientists received training in preparation techniques and laboratory analysis of shark vertebral samples for age and growth studies.

Staff from DINARA and the SEFSC also worked cooperatively on the development of an identification guide for carcharhinid sharks of the Atlantic Ocean for ICCAT. Another guide for pelagic sharks had been completed in late 2010 and the guide for carcharhinid sharks (Guide for the identification of Atlantic Ocean sharks. Domingo et al. ICCAT) was completed in 2011.

Data collection and sampling of biological tissues for determining life history characteristics of several pelagic species (i.e. silky, bigeye thresher and common thresher) continues, with the number of archived samples close to 500. Reproductive tissues are processed and sectioned using histological techniques. Morphological data on organ measurements have been plotted and will be compared to the histological results. Vertebrae are also processed using histology and image analysis and are currently being read.

Controlled experiments are being conducted comparing catchability, at vessel mortality, and post release survivorship in longline sets using J style hooks and those using circle hooks. Contracted fishing vessels are deploying 500 hooks per set and with the exception of hook type, all other factors remain constant. Soak time is limited to the average rate observed for the fishery. All gangions are two m long and constructed of a snap, 363 kg test monofilament line and a swivel, to which the leader and hook are attached. The two experimental treatments are Lindgren-Pitman Inc. 0° offset 18/0 circle hooks and Mustad 12/0 J hooks.

A fin identification guide in collaboration with Stony Brook University is in the process of being completed and will allow for the identification of over 20 coastal and pelagic shark species by their fins.

### 2.2.7 Billfish Research

U.S. scientists again played substantial roles in the ICCAT Enhanced Research Program for Billfish in 2011, with a U.S. NOAA scientist (Dr. Eric Prince) serving as western Atlantic coordinator. Major accomplishments in the western Atlantic in 2011 were documented in SCRS/2011/163. Highlights include at-sea biological sampling by observers aboard Venezuelan longline vessels targeting tuna and/or swordfish. Sampling of swordfish, istiophorids, and yellowfin tuna for reproductive, age determination, and genetic studies was continued at about the same rate as the previous year. Program participants in Venezuela, Grenada, and Barbados continued to assist

in obtaining information on tag-recaptured billfish, as well as numerous sharks. In the western Atlantic Ocean, during 2011, a total of seven tagged billfish were recaptured.

An international collaboration on billfish genetic research, initiated in 2008 and ongoing in 2011, included U.S. scientists from NOVA Southeastern University and SEFSC. Other collaborators include Venezuela (Instituto Oceanografico, Universidad de Oriente), Uruguay (Recursos Pelagicos, Direccion Nacional de Recursos Acuaticos), and Brazil (Universidade Federal Rural de Pernambuco). One of the primary goals is to develop accurate estimates of white marlin/round scale spearfish ratios in the Atlantic Ocean, including retrospective analyses. A paper entitled "Occurrence and broad geographic distribution of roundscale spearfish *Tetrapturus georgii* (Teleostei, Istiophoridae) in the central north and western south Atlantic revealed by DNA analysis: implications for white marlin management" is currently under review. U.S. scientists (SEFSC and Univ. of Miami's RSMAS) collaborated in 2011 with oceanographers from the Leibniz Institute of Marine Science (Kiel, Germany) on an interdisciplinary study entitled "Expansion of oxygen minimum zones may reduce available habitat of tropical pelagic fishes" published in *Nature Climate Change* in January 2012. Results of this work were also presented to the "Planet Under Pressure" Conference in London, UK during 2012.

A U.S. scientist prepared and implemented a statistically integrated model (Stock Synthesis) during the ICCAT Atlantic blue marlin (*Makaira nigricans*) stock assessment meeting held in Madrid, Spain in April 2011. This represents the first implementation of such models for Atlantic billfish, and the Working Group, considering that this approach utilized more of the available observational data that has been collected over the years (lengths, growth, fecundity, etc.), adopted it as the new base model for Atlantic blue marlin. The U.S. scientist also implemented a Stock Synthesis model for white marlin in 2012.

#### 2.2.8 Seabird research

During 2011 and continuing in 2012, U.S. scientists worked to improve techniques for estimating seabird bycatch of the U.S. Atlantic pelagic longline fleet using data collected through the Pelagic Observer Program (POP) and data from the pelagic longline logbooks. Because the observed seabird catches are rare events even on the scale of the POP sampling, and further, observed catches are not well distributed in space or time, new estimation methods and model structures are applied each year in an effort to improve the accuracy and reliability of the estimates. The entire data series since the start of the POP program is used to estimate anew each year the annual catch for each year from 1992 through the latest year of the record.

The scientists have also begun exploring the use of geospatial methods to describe the spatial distribution of the seabird bycatch. They examined the intensity of occurrence of observed seabird bycatch events by area within the U.S. pelagic longline fishery, using a maximum likelihood approach. They found that the intensity of occurrence of seabird bycatch events increased as the longitude and latitude increased in the southwest to northeast direction, indicating great spatial heterogeneity. They produced semivariograms of the seabird bycatch in the annual POP data. The semivariogram is not only a means of describing spatial distribution patterns but also a means of making predictions using relative location (as in kriging). The different semivariogram patterns produced across years suggest a temporal variation in the spatial distribution of seabird bycatch. These results encourage the development of a spatio-temporal model for seabird bycatch estimation.

#### 2.2.9 Tagging

Participants in the Southeast Fisheries Science Center's Cooperative Tagging Center (CTC) and The Billfish Foundation (TBF) Tagging Program tagged and released 1,870 billfishes (including swordfish) and 482 tunas in 2011. This represents an increase of 0.3% for billfish and an increase of 11.8% for tunas from 2010 levels. Several electronic tagging studies involving yellowfin tuna, bluefin tuna and billfish in the Atlantic Ocean and adjacent waters continued during 2011. These are discussed in the corresponding research sections above. There were 31 billfish recaptures from the CTC and TBF projects in 2011. This represents a decrease of 61.8% from 2010. These recaptures included 17 sailfish, five swordfish, two white marlin, and seven blue marlin. A total of four tunas were recorded as recaptures in 2011, all of which were bluefin tuna. This recapture level was a decrease of 84% from the 2010 values. The ICCAT Enhanced Research Program for Billfish (IERPBF) in the western Atlantic Ocean has continued to assist in reporting tag recaptures to improve the quantity and quality of tag recapture reports, particularly from Venezuela, Barbados, and Grenada.



## Part II (Management Implementation)

### *Section 3: U.S. Implementation of ICCAT conservation and management measures*

#### *3.1 Catch Limits and Minimum Sizes*

##### *3.1.1 Rebuilding Program for West Atlantic Bluefin Tuna (96-14,10-03)*

Recommendation 10-03 revised the annual WBFT quota for the United States to 948.70 t for 2011 and 2012, including 25 t to account for bycatch related to directed longline fisheries in the vicinity of the management area boundary. Consistent with Rec. 10-03, the United States implemented the recommended 2011 and 2012 quotas as well as a 2011-2012 two-year balancing period for limiting the harvest of WBFT measuring less than 115 cm (45 inches) to 10 percent (by weight) of the U.S. quota and the reduction in the amount of under-harvest that may be carried forward to 2011 (i.e., not to exceed 10 percent of a Contracting Party's initial quota allocation) in July 2011. In setting the 2012 adjusted quota (July 2012), the United States accounted for *half* of the estimated dead discards *up front* using the 2011 estimate (145.2 t) as a proxy, and applied the allowed under-harvest from the 2011 fishing year to the 2012 fishing year, resulting in an adjusted 2012 quota for domestic management purposes of 971 t. Total 2012 landings and dead discards will be accounted for and reported to ICCAT in 2013. Consistent with Rec. 10-03, the United States began submitting provisional reports of monthly catches of WBFT to the Secretariat in June 2011.

Consistent with Rec. 10-03, the United States prohibits directed fishing for BFT in the Gulf of Mexico. Additionally, effective May 2011, the United States now requires the use of "weak hooks" by pelagic longline vessels fishing in the Gulf of Mexico to reduce bycatch of spawning BFT. A weak hook is a circle hook that meets current U.S. hook size and offset restrictions for the Gulf of Mexico pelagic longline fishery, but is constructed of round wire stock that is thinner-gauge than the circle hooks currently used and is no larger than 3.65 mm in diameter. Weak hooks can allow incidentally hooked BFT to escape capture because the hooks are more likely to straighten when a large fish is hooked. The purpose of the action is to reduce pelagic longline catch of BFT in the Gulf of Mexico, consistent with the 2010 SCRS advice that ICCAT may wish to protect the strong 2003 year class until it reaches maturity and can contribute to spawning.

##### *3.1.2 Multi-annual Recovery Plan for Bluefin Tuna in the Eastern Atlantic and Mediterranean (07-05; 08-05; 09-06; 10-04)*

Most of the elements of the recovery plan for eastern Atlantic and Mediterranean bluefin tuna do not apply to the United States. As discussed in Section 3.3, however, the United States has implemented the Bluefin Tuna Catch Documentation Program (Rec. 07-10), as amended in 2008 (Rec. 08-12), 2009 (Rec. 09-11), and 2011 (Rec. 11-20) to monitor all bluefin tuna imports, including those from the eastern Atlantic and Mediterranean.

##### *3.1.3 Resolution by ICCAT on Fishing Bluefin Tuna in the Atlantic Ocean (06-08)*

Resolution 06-08 requests CPCs to refrain from increasing effort by large-scale tuna longline vessels from the 1999/2000 level in the area north of 10 degrees North latitude and between 35 degrees and 45 degrees West longitude. Consistent with Res. 06-08, the United States has reduced effort by large-scale tuna longline vessels in the vicinity of the 45-degree West boundary line for eastern and western BFT since 1999/2000 through implementation of a limited access program and fishing gear restrictions.

##### *3.1.4 Recommendation to Further Strengthen the Plan to Rebuild Blue Marlin and White Marlin Populations (00-13, 02-13, 04-09, 06-09, 10-05, 11-07)*

Recommendation 11-07 for Atlantic blue and white marlin requires countries to limit harvest and retention of Atlantic blue and white marlin (including spearfish) captured in pelagic longline and purse seine fisheries to no more than 30 percent of a CPC's highest landing level from 1996 to 2004 (excluding Chinese Taipei) for blue and white marlin individually. The United States has prohibited all commercial retention of billfish caught in the Atlantic since 1988. For its part of the rebuilding program, the United States maintains regulations that prohibit all landings of Atlantic blue and white marlins by any method other than rod and reel, and provides 10% scientific observer coverage of billfish tournament landings; the United States currently meets or exceeds these observer requirements. The United States also limits annual landings by U.S. recreational fishermen to 250 Atlantic blue and white marlins, combined, as first recommended by ICCAT Rec. 00-13. Catch and release rates in the U.S. recreational fishery for Atlantic blue and white marlin are estimated to be very high (90 – 99%) based



on tournament data, and minimum sizes have been established at 168 cm (66 inches) for white marlin and 251 cm (99 inches) for blue marlin.

The United States has implemented procedures to remain within the 250 marlin limit; prohibited the retention of Atlantic billfish on all commercial vessels; and established a permit condition requiring that recreational vessels possessing an HMS permit abide by Federal regulations regardless of where fishing, unless a state has more restrictive regulations. In addition, since January 2008, all anglers participating in Atlantic billfish tournaments have been required to use only non-offset circle hooks when deploying natural baits or natural bait/artificial lure combinations. These management measures are expected to further limit marlin mortality.

All registered Atlantic billfish tournaments are selected to report landings and effort information. The United States implemented a mandatory reporting program for billfish landed by recreational anglers who are not participating in registered tournaments in March 2003. The United States continues to refine estimation and data collection methodologies for rod and reel catches and landings of marlins. Preliminary 2011 calendar year data indicate landings of 43 blue marlin and 56 white marlin and seven roundscale spearfish from recreational fishing activities.

### 3.1.5 Recommendation to Establish a Rebuilding Program for North Atlantic Swordfish (96-14, 06-02, 08-02, 09-02, 10-02, 11-02)

Recommendation 11-02 established a catch limit of 3,907 mt ww for the United States for 2012 - 2013, an allowance for the United States to catch up to 200 mt of its North Atlantic swordfish quota between 5 degrees North latitude and 5 degrees South latitude, a provision to transfer up to 150 mt to Morocco to be used to support joint scientific research and Morocco's efforts to eliminate the use of driftnets, a limit on carryover of unused quota to 25 percent of the baseline quota, a one-time transfer within a fishing year of up to 15% of the TAC allocation to other CPCs with TAC allocations, and an option to use an alternative minimum size of 25" (63 cm) for swordfish that have been dressed. The United States published a final rule in July 2012 that fully implements this recommendation. The United States has a required minimum size of 47" (119 cm) lower jaw fork length (LJFL) or 25" (63 cm) cleithrum to caudal keel length, with zero tolerance. Recommendation 11-02 further specified that each CPC shall submit to the ICCAT Secretariat in 2012, a report on the CPC's history of swordfish fishing and a development/management plan of its swordfish fishery. The United States submitted its report by the September 15, 2012 deadline. Consideration of the multi-year conservation and management plans in 2013 shall be based upon those reports and development/management plans as well as the ICCAT Criteria for the Allocation of Fishing Possibilities [Rec. 01-25].

### 3.1.6 Recommendation on South Atlantic Swordfish (06-03, 09-03)

Recommendation 06-03 established catch allocations for the United States of 100 mt each year for the period 2007 – 2009, inclusive, and allowed up to 100 mt ww of underharvest to be carried forward by the United States each of these years. Recommendation 09-03 extended the provisions of Rec. 06-03 through 2012. Per Rec. 09-03, in 2010-2012, the United States transferred 100 mt of U.S. quota to other CPCs (50 mt to Namibia, 25 mt to Cote d' Ivoire, and 25 mt to Belize) from the available South Atlantic swordfish quota.

### 3.1.7 Recommendation on the Southern Albacore Catch Limits (07-03; 11-05)

The United States was subject to a catch limit of 100 mt in 2011. The United States did not prosecute a directed fishery for southern albacore in 2011.

### 3.1.8 Recommendation on North Atlantic Albacore Rebuilding Program (98-08; 07-02; 09-05; 11-04 )

Under Rec. 09-05, the annual U.S. landings quota was 527 mt for 2010 and for 2011. Recommendation 11-04 maintained the annual U.S. landings quota at 527 mt for 2012 and 2013. The recommendations provide that overages/underages of annual catch limits should be deducted from, or added to, specific future catch limits, and limit the amount of underage that may be carried over to 25 percent of a CPC's initial catch quota.

In addition, pursuant to ICCAT's recommendation concerning the limitation of fishing capacity on North Atlantic albacore (Rec. 98-08), the United States submits the required reports providing a list of U.S. vessels operating in the fishery on an annual basis and implemented limited entry in its pelagic longline fishery in 1999. The 2012 submission indicated that there were 209 vessels authorized to harvest North Atlantic albacore in the Convention area.

### 3.1.9 Recommendation by ICCAT on a Multi-Annual Conservation and Management Program for Bigeye and Yellowfin Tunas (11-01)

The United States has implemented a number of regulatory measures that ensure consistency with Rec. 11-01. These measures include authorizing vessels 20 meters or greater to fish bigeye and yellowfin tunas in the Convention area and providing a list of these authorized vessels to the Executive Secretary prior to July 1 each year. The operative capacity limiting paragraph of Rec. 11-01, paragraph 2, does not apply to the United States because the annual catch of bigeye tuna in the convention area in 1999, as provided to the SCRS in 2000, did not exceed 2,100 mt. Also, bigeye tuna catch limits do not apply to the United States under the catch limits operative paragraph, paragraph 10, since 1999 catch was less than 2,100 mt. To provide additional protection to the bigeye tuna stock, particularly juveniles, the United States has implemented a minimum size for this stock. This minimum size of 27 inches (approximately 6.8 kg) applies to all U.S. fisheries landing bigeye and yellowfin tuna, both commercial and recreational.

### 3.1.10 Resolution on Atlantic Sharks (03-10)

Resolution 03-10 requested CPCs to provide the SCRS with information on shark catches, effort by gear type, and landings and trade of shark products, and called for the full implementation of National Plans of Action (NPOAs) by CPCs, in accordance with the Food and Agriculture Organization's (FAO) International Plan of Action (IPOA) for the Conservation and Management of Sharks. The U.S. National Plan of Action for the Conservation and Management of Sharks was adopted in February 2001, consistent with the IPOA. The United States has provided Task I and Task II data in compliance with Res. 03-10 and to support stock assessments for shortfin mako, porbeagle and blue sharks.

### 3.1.11 Recommendations on Atlantic Sharks (04-10; 05-05; 06-10; 07-06; 09-07; 10-06; 10-07; 10-08, 11-08)

Recommendation 04-10 included reporting requirements for shark catches, including available historical data on catches; full utilization of shark catches; a requirement that CPCs prevent their vessels from having shark fins onboard that total more than 5% of the weight of sharks; a requirement that the ratio of fin-to-body weight of sharks be reviewed by the SCRS by 2005; and prohibitions on fishing vessels retaining, transshipping or landing any fins harvested in contravention to the Rec. 04-10. In addition, the Rec. 04-10 encourages the release of live sharks, especially juveniles in fisheries not directed at sharks, as well as additional research to improve the selectivity of fishing gears and identify shark nursery areas. Recommendation 04-10 was amended via Rec. 05-05 to include additional requirements for CPCs to implement and report on measures taken to reduce fishing mortality of North Atlantic shortfin mako sharks caught in association with fisheries managed by ICCAT. Recommendation 06-10 required submission of relevant data for shortfin mako and blue shark assessments.

The United States continues to fulfill the requirements of these recommendations through research and data collection programs and a variety of fishing restrictions. The United States was already in conformance with the finning prohibition in Rec. 04-10 through provisions of the Shark Finning Prohibition Act of 2000, which prohibited the practice of finning and the possession or landing of shark fins without the corresponding carcasses. In 2008, the United States required sharks landed in the Atlantic Ocean, including the Gulf of Mexico and Caribbean Sea, to be landed with their fins naturally attached. The United States enforces a minimum size limit and retention limits for recreationally caught sharks, commercial trip limits and commercial quotas, and prohibitions on possession of several species, and has established a time/area closure for shark bottom longline fishing in the mid-Atlantic to protect sharks in the nursery grounds.

Recommendation 07-06 requires CPCs to take action toward the conservation of porbeagle sharks and North Atlantic shortfin mako sharks and to contribute data and research to future stock assessments of the species. Consistent with Rec. 07-06, the United States significantly reduced the porbeagle shark quota in 2008 from 91 metric tons to 1.7 metric tons and implemented a rebuilding plan for this species. Shortfin mako is managed in the United States as part of a pelagic shark complex, with commercial quotas, retention limits, and other management measures. The United States is actively involved in pelagic shark research and continues to submit Task I and Task II data for sharks to ICCAT on an annual basis.

Recommendation 08-07 requires that all nations release bigeye thresher sharks unharmed and report all data on incidental catches. Recommendation 09-07 prohibits retention of bigeye thresher sharks, as well as requires CPCs to submit Task I and II data for all thresher sharks and where possible, requires implementation of research projects to determine nursery areas for these species. The United States has prohibited the retention of bigeye thresher sharks since 1999 and continues to submit Task I and Task II data for sharks as well as actively engaging in pelagic shark research.

Recommendation 10-06 required CPCs to include information in their 2012 Annual Reports on actions taken to implement Rec. 04-10, 05-05, and 07-06, and the steps taken to improve their Task I and Task II data collection for direct and incidental catches. As noted above, the United States has implemented regulations to fully comply with these recommendations. The United States establishes and tracks annual quotas for pelagic sharks, which include landings of shortfin mako sharks, to ensure that catches of these species are within the United States' domestically designated quota. Tracking of the pelagic shark quota in recent years indicates that pelagic sharks, including shortfin mako sharks, do not constitute a significant portion of U.S. shark landings. In accordance with domestic requirements, the United States has catch limits in place for Atlantic porbeagle, shortfin mako, and blue sharks and will continue to submit catch and effort data for sharks to ICCAT.

Recommendations 10-07 and 10-8 prohibit retaining, transshipping, landing, storing, or selling hammerhead sharks in the family Sphyrnidae (except for *Sphyrna tiburo*) and oceanic whitetip sharks (*Carcharhinus longimanus*) caught in association with ICCAT fisheries. Additionally, discard and release data for these species must be reported to ICCAT. By regulation, the United States fully implemented the requirements of these recommendations in 2011.

Recommendation 11-08 requires fishing vessels operating in ICCAT-managed fisheries to release all silky sharks whether dead or alive, and prohibits retaining on board, transshipping, or landing silky sharks (*Carcharhinus falciformis*). Additionally, discard and release data for this species must be reported to ICCAT. By regulation, the United States fully implemented the requirements of Rec. 11-08 in 2012 and took additional action to prohibit the storing, selling, or purchasing of silky sharks.

### 3.2 Closed Seasons

#### 3.2.1 Domestic Time/Area Closures for ICCAT Fisheries

The United States takes an ecosystem approach to management of HMS fisheries. As such, the United States implements a number of measures that go beyond the measures required in ICCAT recommendations.

*Closures Affecting ICCAT-Managed Fisheries.* At present, the U.S. Atlantic pelagic longline fishery, which typically targets ICCAT-managed species, is subject to several discrete time/area closures. These closures are designed to reduce all bycatch (e.g., undersized swordfish, billfish, *etc.*) in the pelagic longline fishery by prohibiting pelagic longline fishing for ICCAT-managed species in those areas during specified times. These closures affect offshore fishing areas up to 200 nm from shore (see **Figure 6**). Those closures are as follows: (1) Florida East Coast: 50,720 nm<sup>2</sup> year-round; (2) Charleston Bump: 49,090 nm<sup>2</sup> from February through April each year; (3) DeSoto Canyon: 32,860 nm<sup>2</sup> year-round; and (4) the northeastern United States: 21,600 nm<sup>2</sup> during the month of June each year. The Northeast Distant Statistical Sampling Area (NED) (2,631,000 nm<sup>2</sup>), which had been closed year-round (per regulations at 50 CFR part 223 and 635) from 2001 through mid-2004, has been reclassified as a gear restricted area.

The United States conducted research in portions of the Charleston Bump and Florida East Coast Closed Areas from 2008 to September 2010. This research, which was carried out with academic partners, should allow NMFS to determine the relative effectiveness of the pelagic longline closed areas under current fishery conditions and provide data to help make determinations about whether modifications to the existing closed areas are warranted. To reduce sea turtle mortality, pelagic longline vessels may only fish for HMS in the NED if they observe strict circle hook and bait restrictions and use approved sea turtle release gear in accordance with release and handling protocols. Outside of the NED, in order to reduce sea turtle mortality, the U.S. HMS pelagic longline fishery is required to use circle hooks with certain bait combinations, depending on the region, as well as the required, approved sea turtle release gear and release and handling protocols. If selected, pelagic longline vessels must carry observers when fishing in or outside of the NED.

Effective June 2009, in order to conduct research to minimize marine mammal interactions, there is also a Cape Hatteras Special Research Area that is located in the mid-Atlantic Bight, which requires vessels fishing with pelagic longline gear to carry observers, when needed. Additionally, since June 2009, U.S. pelagic longline vessels must limit the length of the longline mainline to 20 nm in length to reduce serious injuries and mortalities of both pilot whales and Risso's dolphins in the Mid-Atlantic Bight. Observers may conduct additional scientific investigations while on board pelagic longline vessels fishing in the area.

### *3.3 Trade and Compliance Related Measures*

#### 3.3.1 Trade Restrictive Recommendations (02-17, 03-18, 11-19)

No new trade restrictive measures were adopted by the Commission at the 2011 Annual Meeting, and the trade restrictive measures that were in effect to prohibit the importation of bigeye tuna from Bolivia (02-17) and Georgia (03-18) were lifted (11-19). The United States published a regulation to lift the prohibition on imports per Rec. 11-19 in 2012.

#### 3.3.2 Recommendation Concerning Trade Measures (06-13)

Recommendation 06-13 directs CPCs that import products of tuna and tuna-like species to collect relevant import, landings, or associated data on such products in order to allow for submission of that information to the ICCAT Secretariat. The United States collects information through a combination of programs, including the bluefin tuna catch documentation program, bigeye and swordfish statistical document programs, and through domestic Customs programs and relevant information is provided to the Commission.

#### 3.3.3 Bluefin Tuna Catch Documentation Program (07-10, 08-12, 09-11, 10-11, 11-20, 11-21)

In June 2008, the United States implemented the ICCAT bluefin tuna catch document (BCD) program per Rec. 07-10. This program repealed the earlier statistical document program and now tracks bluefin tuna landings and international trade using a bluefin tuna catch document. In June 2009, the U.S. program was updated to comply with the program changes implemented by Rec. 08-12 and the U.S. program is consistent with both Rec. 09-11 and 11-20, which amended Rec. 08-12.

Recommendation 11-20 made changes that affect how farming is documented under the BCD program. Catches made by one single operation can no longer divide that catch into different farming cages. Catches made by a CPC joint fishing operation will now be aggregated and recorded on one BCD. Also, when fish taken by different vessels flying the same flag and/or on different days, those original BCD's can now be grouped onto one master BCD which will be accompanied by the related original BCDs. Although these changes do not affect the U.S. fishery, they may make it simpler to understand documentation of farmed product that is imported into the United States.

The U.S. program continues to require that bluefin tuna be fitted with a tail tag upon sale to a domestic dealer. The tag (or tag number in the case of a cut carcass) must remain with the fish, thereby tracking bluefin tuna from domestic harvest to international markets. The 2012 annual bluefin tuna catch document report was submitted to ICCAT before the 1 October 2012 deadline, and covered the time period from 1 July 2011, through 30 June, 2012. The United States is submitted our 2012 report by the deadline. The United States continues to work towards implementation of an electronic reporting system for imports covered by RFMO consignment document programs.

Recommendation 11-21 amended Rec. 10-11, which established a plan to develop an electronic bluefin catch document (eBCD) program to eventually replace the paper-based BCD program. It will first be tested by CPCs, including the United States, in a pilot program starting in 2013. The initial electronic system will continue to offer the ability to produce paper documents as well.

#### 3.3.4 Swordfish and Bigeye Tuna Statistical Document Programs (00-22, 01-21, 01-22, 03-19)

ICCAT's Statistical document programs for swordfish and frozen bigeye tuna have been implemented by the United States. As required under the statistical document programs, the United States submits reports to ICCAT twice yearly, providing information on import, export and re-export activity involving these species products. Statistical document reports for swordfish and bigeye tuna were submitted to the ICCAT Secretariat in April 2012 for the period covering July 2011 through December 2011. The United States submitted its report covering the first half of the 2012 calendar year before the 1 October 2012 deadline. The United States has recently take steps to address related issues raised by the Compliance Committee.

### *3.4 Observer Programs and Related Activities*

3.4.1 Minimum standards for fishing vessel scientific observer programs and information collection and harmonization of data on bycatch and discards in ICCAT fisheries (10-10, 11-10).

The U.S. observer program currently meets two main objectives: monitoring of interactions between fishing gear and protected species (marine mammals, sea turtles, and sea birds), and monitoring of fishing effort and catch (estimation of total landings of target species and/or bycatch of non-target or prohibited species). An overview of observer programs in the United States can be found online at <http://www.st.nmfs.noaa.gov/st4/nop/index.html>. During calendar year 2011, the United States achieved 10.9 percent observer coverage expressed as a proportion of reported sets and 9.9 percent as a proportion of reported hooks in the Atlantic pelagic longline fishery for highly migratory species. Click on the pelagic longline link on the map on the National Observer Program web page at <http://www.st.nmfs.noaa.gov/st4/nop/index.html> for information regarding the different observer programs.

The United States requires the collection of bycatch and discard data in our observer program, as described in the 2012 U.S. Observer Program report, which was submitted on the 31 July deadline. Given the nature of the U.S. fleet and fisheries, the United States does not need to avail itself of the special provisions of paragraph 1(b). The United States reports bycatch and discard data in the format specified by SCRS and in accordance with existing deadlines for data reporting. The United States reported on efforts made to mitigate bycatch and reduce discards and on relevant research on bycatch in Sections 3.1.1, 3.6.3, 3.7.5, 3.7.11, 2.2.1, 2.2.6, and 2.2.8. Also in compliance with Rec.11-10, the United States has provided identification guides for sharks, seabirds, turtles, and marine mammals caught in the Convention Area.

The United States is coordinating with the Chilean government and the Instituto de Fomento Pesquero (Institute for Fisheries Development) to host the 7th International Fisheries Observer and Monitoring Conference to be held in April 2013 in Viña del Mar, Chile. The previous conference was held in Portland, Maine in July 2009 and sponsored the participation of a number of attendees from developing nations. A continuation of the conference series that started in 1998, this event is an important opportunity to improve fisheries monitoring programs worldwide through sharing of practices and is a valuable forum for dialog between those responsible for monitoring fisheries and those who rely upon the data they collect. For additional information on U.S. capacity building activities, see Appendix 4: Capacity Building Assistance to ICCAT Countries.

### *3.5 Vessel Monitoring*

#### *3.5.1 Recommendation by ICCAT Concerning Minimum Standards for the Establishment of a Vessel Monitoring System in the ICCAT Convention Area (03-14, 04-11, 07-08)*

The United States implemented a fleet-wide VMS requirement in the Atlantic pelagic longline fishery in June 2003. This rule requires all vessels away from port with pelagic longline gear onboard to operate their VMS units. In addition to what is required by these recommendations, the United States also requires VMS operation for vessels with bottom longline gear onboard between 33°00' N. latitude and 36°30' N. latitude or near the mid-Atlantic shark closed area and for shark gillnet vessels operating during the right whale calving season. Recommendation 07-08 applies to vessels fishing for bluefin tuna in the eastern Atlantic Ocean and Mediterranean Sea and is not applicable to the United States.

In December 2011, the United States published a final rule modifying the requirements for vessels required to have a VMS installed. Any new or replacement Enhanced Mobile Transmitting Unit (E-MTU) VMS must be installed by a qualified marine electrician effective January 1, 2012. Also, any vessel with a Mobile Transmitting Unit (MTU) VMS must be replaced with an approved E-MTU VMS units. The final rule also established a declaration system where vessel operators would declare their target species and gear type(s) possessed on board prior to departing from port and provide advance notice of landing before a trip has been completed. Due to implementation and technical issues, the United States delayed the date for the installation of E-MTUs and declaration requirements while these issues were addressed. The United States anticipates full implementation of all requirements by January 2013. All other requirements established in the regulation remain effective.

### *3.6 Measures to Ensure Effectiveness of ICCAT Conservation and Management Measures and to Prohibit Illegal, Unreported and Unregulated Fishing*

#### *3.6.1 Management Standard for the Large-Scale Tuna Longline Fishery (01-20)*

The updated U.S. submission is attached as **Appendix 1<sup>2</sup>**.

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<sup>2</sup> The Appendices are available at the Secretariat. / Les Annexes sont disponibles auprès du Secrétariat. / Los Anexos están disponibles en la Secretaría.

### 3.6.2 Recommendation by ICCAT Concerning the Duties of Contracting Parties and Cooperating Non-Contracting Parties, Entities, Fishing Entities in relation to their vessels in the ICCAT Convention Area (03-12)

The United States is implementing this measure through various means (e.g., licensing requirements, monitoring control, and surveillance measures, maintaining up-to-date records of U.S. vessels authorized to fish species managed by ICCAT in the Convention area, etc.) as described throughout this annual report.

### 3.6.3 Recommendation Further Amending Recommendation 09-10 to Establish a List of Vessels Presumed to Have Carried Out Illegal, Unreported, and Unregulated Fishing Activities in the ICCAT Convention Area (11-18), Recommendation by ICCAT to Adopt Additional Measures Against Illegal, Unreported and Unregulated (IUU) Fishing (03-16) and Resolution by ICCAT Further Defining the Scope of IUU Fishing (01-18)

The United States has laws and regulations that serve to prohibit the import of tuna and tuna-like species from vessels included in the IUU vessel list or which are not on ICCAT's authorized vessel list (*50 CFR Part 635.41*). The United States has developed regulations to clarify domestic implementation of other aspects of this recommendation, including restriction of entry into port and access to port services for vessels on the ICCAT IUU vessel list. Such vessels may also be prohibited from engaging in commercial transactions, if allowed entry into port. The actions taken against listed IUU vessels will be in accordance with the relevant conservation and management measure and based on consultations among relevant U.S. agencies.

IUU fishing is the focus of growing attention in the United States, due to its adverse impacts on target fish stocks, habitat, fish markets, bycatch, and competition with legal fishing. The United States has taken action to implement Resolution 01-18, which calls upon CPCs to take every possible action, consistent with relevant laws, to instruct importers, transporters, and others in the fishing industry to refrain from engaging in transaction and transshipment of tunas and tuna-like species caught by fishing vessels that have been engaged in IUU fishing activity. The U.S. fishing industry has been further advised that, in addition to potentially violating U.S. law, doing business with a vessel identified on a RFMO's IUU list may include restricted port access or unloading prohibitions imposed at the intended destination.

Recommendation 03-16 requires CPCs to take the necessary measures to prohibit landings, placement in cages for farming, and/or transshipment of tunas or tuna-like species that were caught by fishing vessels engaged in IUU fishing activity consistent with their rights and obligations under international law. U.S. vessels do not participate in Atlantic bluefin tuna farming operations, and the United States prohibits at sea transshipment of highly migratory species (HMS) products in the Convention Area.

### 3.6.4 Recommendation by ICCAT to Promote Compliance By Nationals of Contracting Parties, Cooperating Non-Contracting Parties, Entities, or Fishing Entities with ICCAT Conservation and Management Measures (06-14)

This recommendation requires CPCs to take appropriate measures in accordance with their applicable laws and regulations to investigate and respond to allegations and verifiable incidents of IUU fishing activities by their nationals, cooperate with the relevant agencies of other CPCs, and to report to ICCAT on actions and measures taken in accordance with the recommendation, effective July 2008. The United States complies with the requirements of this recommendation by pursuing reports of illegal fishing activities by its citizens. A report of enforcement related activities pertaining to ICCAT species, which includes any IUU related enforcement actions, can be found in **Appendix 2**, NOAA Enforcement Actions Taken on ICCAT Species.

## 3.7 Other Recommendations

### 3.7.1 Recommendation by ICCAT on Vessel Chartering (02-21)

The United States collects all relevant information for monitoring before issuing the permits necessary to allow chartering to be undertaken and will continue to report any chartering activities to ICCAT. Since the adoption of Rec. 02-21, the United States has issued only one chartering permit (in late 2004), which authorized chartering activities to take place in the ICCAT Convention area during 2005.

### 3.7.2 Recommendation by ICCAT Concerning the Recording of Catch by Fishing Vessels in the ICCAT Convention Area (03-13)

The United States requires vessels issued commercial Atlantic tunas, shark, or swordfish permits, as well as charter and headboat vessels fishing for Atlantic HMS, to maintain and submit logbooks upon selection for reporting by the U.S. Government regardless of vessel length. This includes, for example, 100 percent of Atlantic pelagic longline vessels fishing for Atlantic tunas, shark, or swordfish, regardless of vessel length. For information on the implementation of this recommendation relative to recreational fishing vessels, see section 3.7.3 below.

### 3.7.3 Resolution on Improving Recreational Fishery Statistics (99-07)

Recreational landings are estimated through the newly implemented Marine Recreational Information Program (MRIP), and a combination of the Recreational Billfish Survey, the Large Pelagics Survey, mandatory non-tournament landings reporting requirements for Atlantic blue and white marlins, sailfish, swordfish, and bluefin tuna, and state landings data. Final regulations adopted in 1999 require selected HMS charter/headboat vessels that do not already complete a logbook to do so. Registration of all recreational fishing tournaments for Atlantic HMS has been required since 1999. All tournaments for Atlantic HMS are required to submit landing reports, if selected for reporting. Longstanding U.S. policy is to select 100 percent of billfish tournaments for reporting. All non-tournament landings of Atlantic billfish and swordfish are required to be reported within 24 hours of landing. In the fall of 2007, the United States enhanced recreational reporting by implementing a new internet-based non-tournament reporting system for Atlantic billfish, including swordfish.

The United States is in the final stages of fully implementing the MRIP, which is an improved national system of regional surveys that replaces existing marine recreational fishing data collection programs and provides better regional monitoring of recreational fishing participation, effort, catches, landings and releases of finfish species. In 2012, the United States provided revised recreational fishing information (from 2004 -2010) based upon the new MRIP catch estimates. The United States has also established a national registry of saltwater anglers, including those fishing for ICCAT-managed species, which includes names and contact information among other information. The registry is intended to improve foundational information concerning recreational fishery participation, which will support improvements in the overall monitoring recreational fisheries. Information about the registry can be found at: [www.countmyfish.noaa.gov](http://www.countmyfish.noaa.gov).

### 3.7.4 Recommendation by ICCAT Concerning the Establishment of an ICCAT Record of Vessels 20 meters in Length Overall or Greater Authorized to Operate in the Convention Area (11-12)

The United States submitted a list of vessels required pursuant to Rec.11-12, to ICCAT in June 2012. At that time, there were 387 U.S. vessels that met the appropriate criteria for inclusion in the list. Since our June submission, the United States has been submitting monthly updates. Additional information is available in **Appendix 3** - Report on Internal Actions Taken to Ensure That Tuna Vessels on the ICCAT Record of Vessels over 20 Meters Are Fishing in Accordance with ICCAT Management and Conservation Measures.

### 3.7.5 Recommendation by ICCAT on the Bycatch of Sea Turtles in ICCAT Fisheries (10-09)

In July 2004, the United States codified regulations to reduce sea turtle bycatch in Atlantic pelagic longline fisheries for HMS. These measures pertain to the entire U.S. Atlantic pelagic longline fishery, and include: mandatory attendance at sea turtle release and disentanglement workshops, mandatory bait specifications, use of circle hooks (size of hook depending on fishing locale), and the mandatory possession and use of sea turtle handling and release gear on board all vessels with pelagic longline gear. The United States continues to modify the suite of disentanglement and release gears required to be onboard longline vessels as new gears and information on best practices are developed. Beginning in 2010, the United States reported sea turtle interactions in the U.S. pelagic longline fleet to ICCAT.

### 3.7.6 Recommendation by ICCAT Establishing a Program for Transshipment by Large-Scale Longline Fishing Vessels (06-11)

This recommendation establishes a program of transshipment affecting tuna longline and carrier vessels, including the establishment of an ICCAT record of authorized carrier vessels, documentation requirements, and extensive obligations and procedures pertaining to transshipment to assist in combating IUU fishing, ensure adequate monitoring of transshipment activities, and collecting catch data from large-scale vessels. U.S. regulations prohibit transshipment of HMS products in the Convention area.

### 3.7.7 Recommendation by ICCAT for a Revised Port Inspection Scheme (97-10)

The United States generally prohibits foreign fishing vessels from landing in U.S. ports, fish or fish products harvested or taken onboard on the high seas, with a few exceptions, including for landings in some Pacific U.S. territories. Under U.S. domestic law, all fishing vessels, including those carrying fish species subject to regulations pursuant to a recommendation of ICCAT, and their catch, gear, fishing logbooks and manifests are subject to inspection. See Section 4 below for additional information.

### 3.7.8 Recommendation by ICCAT on Compliance with Statistical Reporting Obligations (05-09)

Recommendation 05-09 requires Contracting parties and CPCs to provide explanations regarding reporting deficiencies and data gaps along with plans for corrective action. The United States was compliant with its statistical reporting obligations in 2011 and 2012.

### 3.7.9 Electronic Statistical Document Program (06-16)

The United States continues to implement an electronic system for the collection and dissemination of international trade information. The International Trade Data System (ITDS) is a project required under U.S. domestic legislation and is aimed at improving the efficiency of import and export processes. ITDS will help U.S. government agencies monitor the origin and safety of imported products. Given the domestic requirement to collect information from the trade community (shippers, carriers, brokers, etc.) in an electronic format, the United States is taking steps to integrate ICCAT's statistical and catch document programs into the internet-based electronic data collection system. NMFS has cataloged all of the information collection requirements and the respective data elements for the several seafood trade monitoring programs established either by U.S. domestic law or by the RFMOs to which the United States is a party. These data collection requirements have been reviewed by U.S. Customs and Border Protection, and a set of data formats and coding instructions has been developed. Additionally, NMFS has worked with U.S. Customs on a document imaging system that will allow brokers to attach electronic images of the paper certificates to the entry filings. NMFS issued an Advance Notice of Proposed Rulemaking in May 2009 ([www.regulations.gov](http://www.regulations.gov) <<http://www.regulations.gov>>) and continues to consult with U.S. importers and exporters from ICCAT parties to determine the most efficient means of collecting the required data in electronic format. More detailed information on the U.S. International Trade Data System can be found on the [www.itds.gov](http://www.itds.gov) <<http://www.itds.gov>> internet site.

The United States has implemented the ICCAT bluefin tuna catch document program as explained in Section 3.3.3.

### 3.7.10 Recommendation by ICCAT on Reducing Incidental Bycatch of Seabirds in Longline Fisheries (07-07, 11-09)

The United States does not have any vessels actively participating in ICCAT-managed fisheries south of 20 degrees S. longitude. However, consistent with this recommendation, in 2011, the United States reported seabird interactions in the U.S. pelagic longline fleet to ICCAT. The United States does not fish in the area south of 25 degrees South latitude or the Mediterranean where the new requirements of Rec. 11-09 apply.

### 3.7.11 Recommendation by ICCAT to Clarify the Application of Compliance Recommendations and for Developing the Compliance Annex (11-11)

The United States has submitted its Compliance Tables separately to the Secretariat in accordance with Rec. 11-11.

### 3.7.12 Recommendation by ICCAT on Access Agreements (11-16)

The United States has not entered into any fishery access agreements in the Convention Area for ICCAT species.

### 3.7.13 Other resolutions and recommendations

The following were not addressed in this report as no specific action was required of the United States due to the nature of the measure (for instance, we do not participate in the fishery covered by the recommendation) or the United States had nothing to report:



- [11-03] Recommendation by ICCAT for Management Measures for Mediterranean Swordfish
- [11-06] Recommendation by ICCAT Concerning the Atlantic-Wide Research Programme for Bluefin Tuna (GBYP)
- [11-13] Recommendation by ICCAT on the Principles of Decision Making for ICCAT Conservation and Management Measures
- [11-15] Recommendation by ICCAT on Penalties Applicable in Case of non-Fulfillment of Reporting Obligations
- [11-26] Recommendation by ICCAT on the Establishment of a Meeting Participation Fund for Developing ICCAT Contracting Parties
- [09-13] Other: ICCAT Inspection Reports
- [09-12] Resolution by ICCAT for the Pilot Application of the Kobe 2 Decision Matrix
- [09-04] Recommendation by ICCAT for a Management Framework for the Sustainable Exploitation of Mediterranean Swordfish and Replacing ICCAT Recommendation 08-03
- [07-08] Recommendation by ICCAT Concerning Data Exchange Format and Protocol in Relation to the Vessel Monitoring System for the Bluefin Tuna Fishery in the ICCAT Convention Area
- [07-01] Recommendation by ICCAT on Mediterranean Swordfish
- [05-11] Resolution by ICCAT on pelagic *Sargassum*
- [03-04] Recommendation by ICCAT Relating to Mediterranean Swordfish
- [99-03] Recommendation on the Establishment of a Closed Area/Season for the Use of Fish-Aggregation Devices

#### ***Section 4: Inspection schemes and activities***

U.S. Atlantic enforcement for ICCAT species is undertaken by the NOAA Office of Law Enforcement (OLE), the U.S. Coast Guard, and, pursuant to cooperative enforcement agreements, by States and territories with maritime boundaries in the Atlantic Ocean, Gulf of Mexico, and/or Caribbean Sea. Enforcement activities include monitoring and inspecting offloads at landing facilities and marinas in conjunction with dealer record checks and at-sea boarding and inspection. A summary of NOAA enforcement actions taken in ICCAT fisheries is provided in **Appendix 2**.

The U.S. Coast Guard is the primary federal agency responsible for monitoring compliance with HMS regulations on the fishing grounds. From 1 October 2011 to mid-September 2012, the Coast Guard boarded 333 commercial, charter, and recreational vessels resulting in six significant violations. As enforcement of regulations for tuna and tuna-like species is just one of many vital component missions that the Coast Guard undertakes in the course of fisheries enforcement and of other duties, for every actionable incident documented, Coast Guard personnel log hundreds of hours monitoring the fishing grounds. From 1 October 2011 to 12 September 2012, the Coast Guard dedicated 2,354 aircraft, 8,397 small boat (<65ft), and 57,599 cutter (>65ft) patrol hours to monitoring compliance with fisheries laws and regulations in the Atlantic Ocean and Gulf of Mexico.

In addition to ICCAT's requirements, the United States supported the development of the FAO Agreement on Port State Measures to Prevent, Deter and Eliminate IUU fishing (the Agreement) and, upon its adoption in November 2009, was one of the first to sign it. In December 2011, the President submitted the Agreement to the Senate for ratification and draft implementing legislation was also transmitted to Congress. U.S. ratification of the Port State Measures Agreement will complement existing regulations that restrict port entry and access to port services to vessels included on the IUU lists of ICCAT and other RFMOs of which the United States is a party.

#### **Section 5: Other activities**

Recent U.S. management action for Atlantic highly migratory species can be found online at:  
<http://www.nmfs.noaa.gov/sfa/hms>.

Federal register notices containing the full text of proposed and final regulations can be found at:  
<http://www.gpoaccess.gov/fr/index.html>.

**Table 1.** Annual landings (t) of yellowfin tuna from 2007 to 2011.

<i>Area</i>	<i>Gear</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>
Northwest (NW) Atlantic	Longline	757.8	460.5	416.4	673.4	698.3
	Gillnet	4.2	0.6	0.0	0.5	0.05
	Handline	113.2	30.1	58.7	43.5	33.1
	Trawl	2.4	0.0	0.0	1.4	1.3
	Troll	6.9	2.4	5.4	1.2	0.5
	Trap	0.0	0.05	0.1	0.5	0.0
	Rod and reel*	2,726	657.1	742.6	1,209	1,134
	Unclassified	7.0	1.4	2.2	9.5	4.2
Gulf of Mexico	Longline	1,379.3	756.5	1,147	303.2	634.1
	Handline	26.2	11.2	21.6	2.9	8.7
	Rod and reel*	227.6	366.3	264.7	18	362.8
	Unclassified	0.0	0.0	0.0	0.0	0.1
Caribbean	Longline	255.6	107.1	136.7	212.2	132.1
	Gillnet	0.0	0.04	0.04	0.0	0.0
	Handline	9.1	3.7	3.3	1.9	1.0
	Rod and reel*	12.4	9.7	3.5	4.5	0.9
North Central (NC) Atlantic	Longline	1.8	0.4	0.0	0.0	4.1
<b>TOTAL</b>		<b>5,529.5</b>	<b>2,407.2</b>	<b>2,802.3</b>	<b>2,481.7</b>	<b>3,015.2</b>

\* Rod and reel catches and landings represent estimates of landings based on statistical surveys of the U.S. recreational harvesting sector.

**Table 2.** Landings (t) of skipjack tuna from 2007 to 2011.

<i>Area</i>	<i>Gear</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>
NW Atlantic	Longline	0.0	0.1	0.4	1.4	0.4
	Gillnet	0.07	0.04	3.3	0.2	0.04
	Handline	0.3	0.4	2.8	1.2	1.2
	Trawl	0.005	0.003	0.0	0.0	0.0
	Rod and reel*	27.4	21.0	75.7	29.1	50.3
	Unclassified	0.6	0.5	1.2	0.1	0.8
Gulf of Mexico	Longline	0.0	0.05	0.05	0.0	0.2
	Handline	0.2	0.06	0.2	0.02	0.2
	Rod and reel*	23.9	16.3	22.0	15.5	23.7
Caribbean	Longline	0.02	1.3	0.05	0.0	0.05
	Gillnet	0.0	0.01	0.6	0.0	0.0
	Handline	13.7	16.0	8.8	6.2	4.5
	Rod and reel*	0.2	11.3	4.3	0.4	3.0
<b>TOTAL</b>		<b>66.5</b>	<b>67.1</b>	<b>119.4</b>	<b>54.2</b>	<b>84.3</b>

\* Rod and reel catches and landings represent estimates of landings and dead discards based on statistical surveys of the U.S. recreational harvesting sector.

**Table 3.** Annual landings (t) of bigeye tuna from 2007 to 2011.

<i>Area</i>	<i>Gear</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>
NW and NC Atlantic	Longline	340.3	384.8	388.4	431.1	622.1
	Gillnet	1.0	0.04	0.0	0.0	0.0
	Handline	16.8	6.9	4.6	1.8	3.4
	Trawl	0.4	0.0	0.0	0.7	1.2
	Trap	0.0	0.0	0.3	1.2	0.0
	Troll	0.9	0.8	0.6	0.0	0.1
	Rod and reel*	126.8	70.9	77.6	116.8	72.4
	Unclassified	0.9	2.1	1.9	6.7	4.7
Gulf of Mexico	Longline	37.0	14.0	19.5	6.9	2.1
	Handline	0.01	0.0	0.07	0.09	0.0
	Rod and reel	0.0	0.0	0.0	0.8	34.9
Caribbean	Longline	3.4	8.9	22.2	5.0	2.9
	Handline	0.0	0.0	0.0	0.0	0.05
	Rod and reel*	0.0	0.0	0.0	0.0	2.3
Southwest (SW) Atlantic	Longline	0	0	0	0.2	0.0
<b>TOTAL</b>		<b>527.3</b>	<b>488.5</b>	<b>515.2</b>	<b>571.3</b>	<b>746.1</b>

\* Rod and reel catches and landings represent estimates of landings and dead discards based on statistical surveys of the U.S. recreational harvesting sector.

**Table 4.** Annual landings (t) of albacore tuna from 2007 to 2011.

<i>Area</i>	<i>Gear</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>
NW and NC Atlantic	Longline	110.2	115.9	141.3	87.8	147.8
	Gillnet	1.0	2.1	5.6	0.5	0.2
	Handline	5.4	0.2	0.5	1.9	0.7
	Trawl	0.3	0.01	0.08	0.2	2.0
	Trap	0.4	0.005	0.01	0.01	0.0
	Troll	0.2	0.2	0.07	0.04	0.0
	Rod and reel*	393.6	125.2	22.8	46.2	170.6
	Unclassified	4.2	1.9	1.3	2.2	7.8
Gulf of Mexico and Caribbean	Longline	16.6	10.6	17.0	72.1	119.8
	Rod and reel*	0.0	0.0	0.0	103.4	0.0
	Handline	0.2	0.64	0.01	0.05	0.1
<b>TOTAL</b>		<b>532.1</b>	<b>256.7</b>	<b>188.8</b>	<b>314.5</b>	<b>449.0</b>

\* Rod and reel catches and landings represent estimates of landings and dead discards based on statistical surveys of the U.S. recreational harvesting sector.

**Table 5.** Annual catches (t) of bluefin tuna from 2007 to 2011.

<i>Area</i>	<i>Gear</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>
NW Atlantic	Longline**	70.7	107.4	166.7	164.7	202.2
	Handline	0.0	0.6	0.1	2.7	0.9
	Harpoon	22.5	30.2	65.6	29.0	70.1
	Purse seine	27.9	0.0	11.4	0.0	0.0
	Rod and reel (>145 cm FL)*	235.4	305.7	717.1	570.8	-
	Rod and reel (<145 cm FL)*	398.6	352.2	143.3	111.4	-
	Unclassified	0.0	0.3	0.0	0.0	0.0
	Commercial rod and reel	-	-	-	-	418.6
	Recreational rod and reel*	-	-	-	-	173.3
	Trawl	0.0	0.0	0.0	0.0	0.4
Gulf of Mexico	Longline**	81.2	111.7	111.6	56.2	11.2
NC Atlantic	Longline**	12.4	13.5	56.7	17.8	6.4
Caribbean	Longline**	0.0	0.0	0.0	0.0	0.6
<b>TOTAL</b>		<b>848.7</b>	<b>919.9</b>	<b>1,272.6</b>	<b>952.6</b>	<b>883.7</b>

\* Recreational rod and reel catches and landings represent estimates of landings and dead discards when available based on statistical surveys of the U.S. recreational harvesting sector.

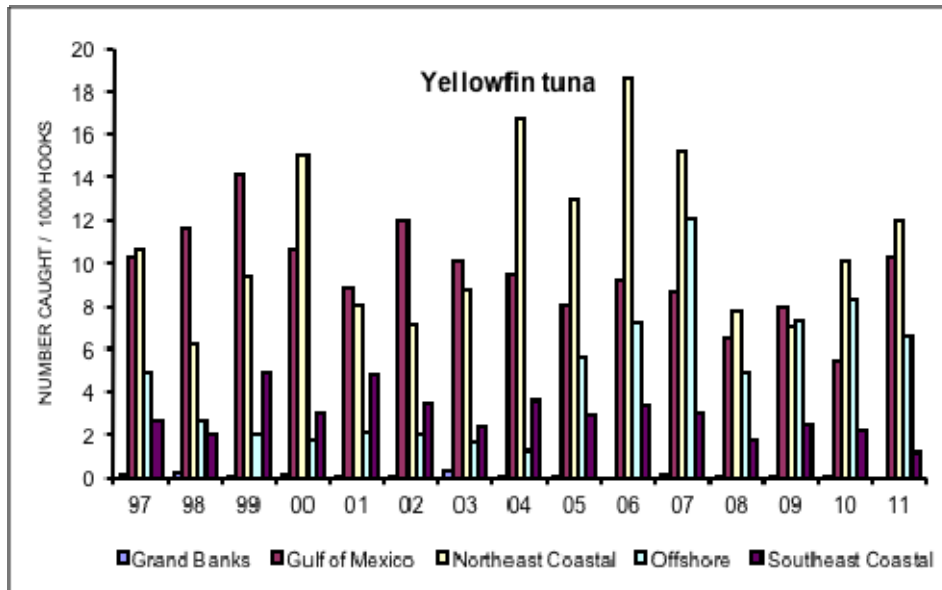
\*\* Includes *landings* and *estimated discards* from scientific observer and logbook sampling programs.

**Table 6.** Annual catches (t) of swordfish from 2007 to 2011.

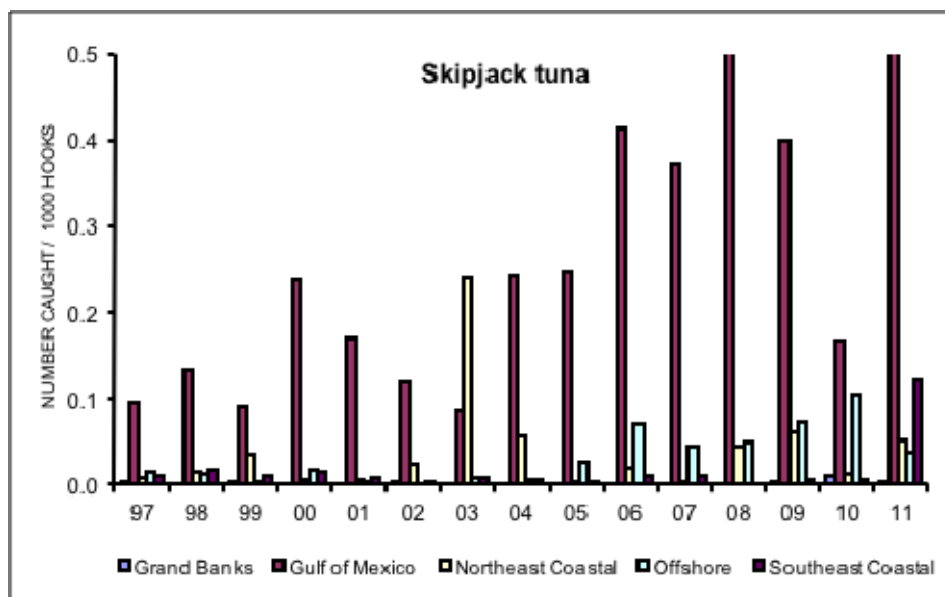
<i>Area</i>	<i>Gear</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>
NW Atlantic	Longline**	1,649.6	1,622.5	1,696	1,647	1,898.8
	Gillnet	0.2	0.0	0.05	0.0	0.0
	Handline	125.2	83.2	123	126.9	124.6
	Harpoon	0.0	0.0	0.05	0.6	0.6
	Trawl	6.5	7.6	23.7	21.2	17.9
	Rod and reel*	65.9	56.7	19.0	47.6	48.7
	Unclassified	0.2	0.2	0.0	2.1	0.1
	Unclassified discards	5.5	4.1	3.5	3.6	4.8
Gulf of Mexico	Longline**	457.7	361.6	476.2	212.3	329.8
	Handline	0.2	1.2	1.9	2.6	0.6
	Rod and reel*	2.3	19.0	12.6	1.7	4.9
	Unclassified discards	5.5	4.6	3.1	1.3	2.9
Caribbean	Longline**	27.8	57.9	22.7	41.4	14.2
	Handline	0.0	0.0	0.003	0.0	0.0
	Unclassified discards	0.0	0.0	0.2	0.04	0.8
NC Area 94A	Longline**	338.9	311.6	496.4	304.8	438.4
	Unclassified discards	0.5	0.0	0.0	0.01	0.0
SW Atlantic	Longline**	0.0	0.0	0.0	0.3	0.0
<b>TOTAL</b>		<b>2,682.8</b>	<b>2,530.3</b>	<b>2,878</b>	<b>2,412.1</b>	<b>2,887.6</b>

\* Rod and reel catches and landings represent estimates of landings and dead discards when available based on statistical surveys of the U.S. recreational harvesting sector.

\*\* Includes *landings* and *estimated discards* from scientific observer and logbook sampling programs.

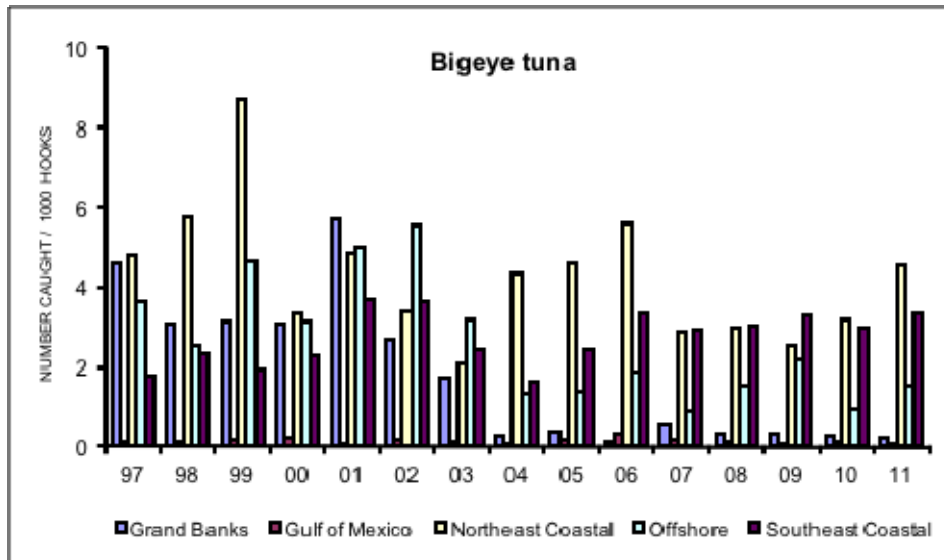


**Figure 1.** Nominal catch rates for yellowfin tuna in U.S. pelagic longline logbook reports.

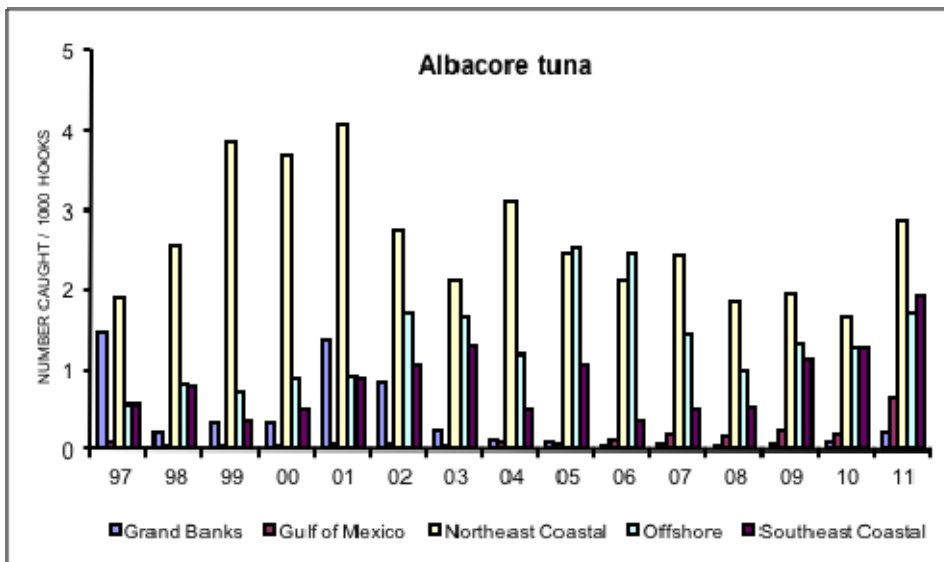


**Figure 2.** Nominal catch rates for skipjack tuna in U.S. pelagic longline logbook reports.

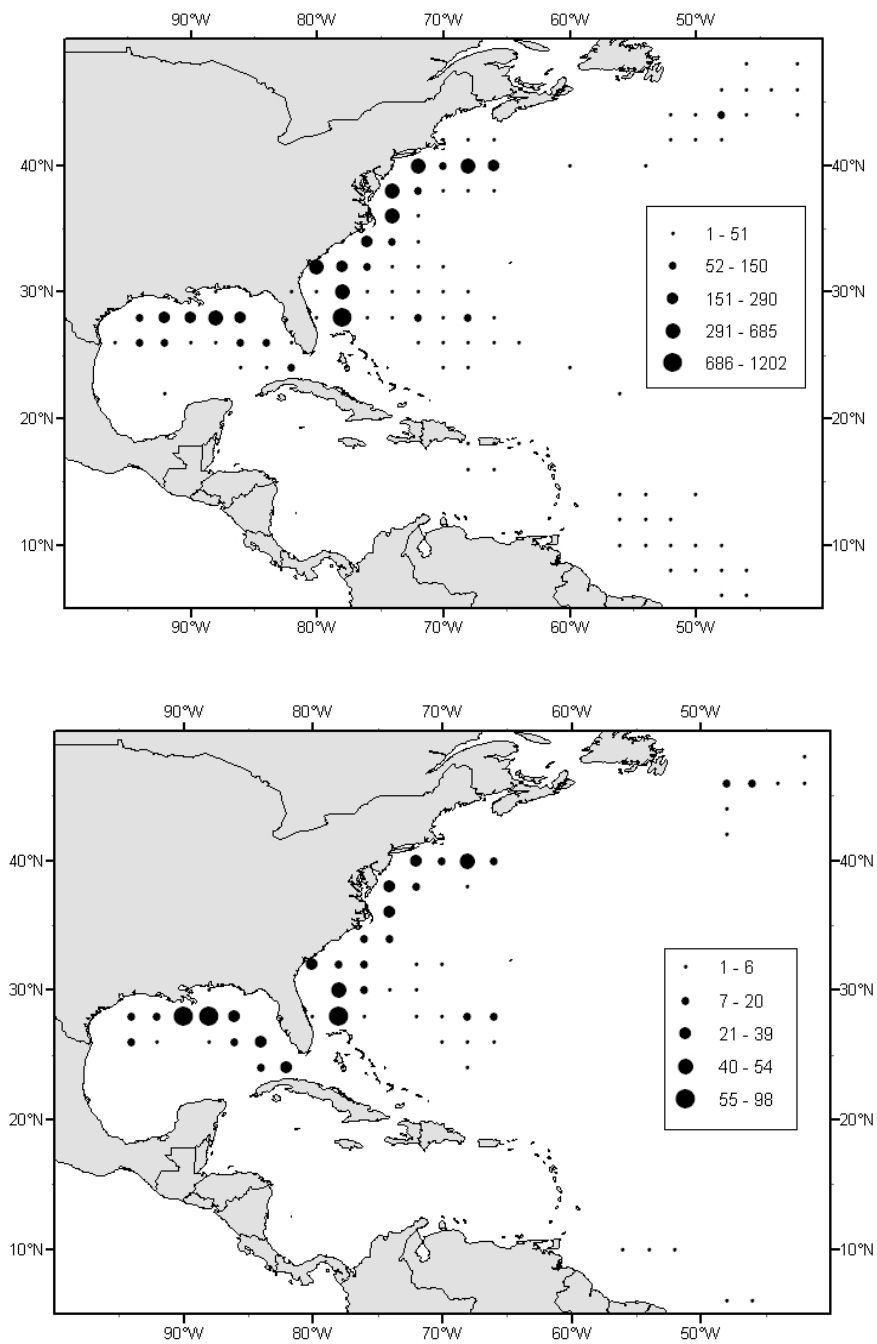




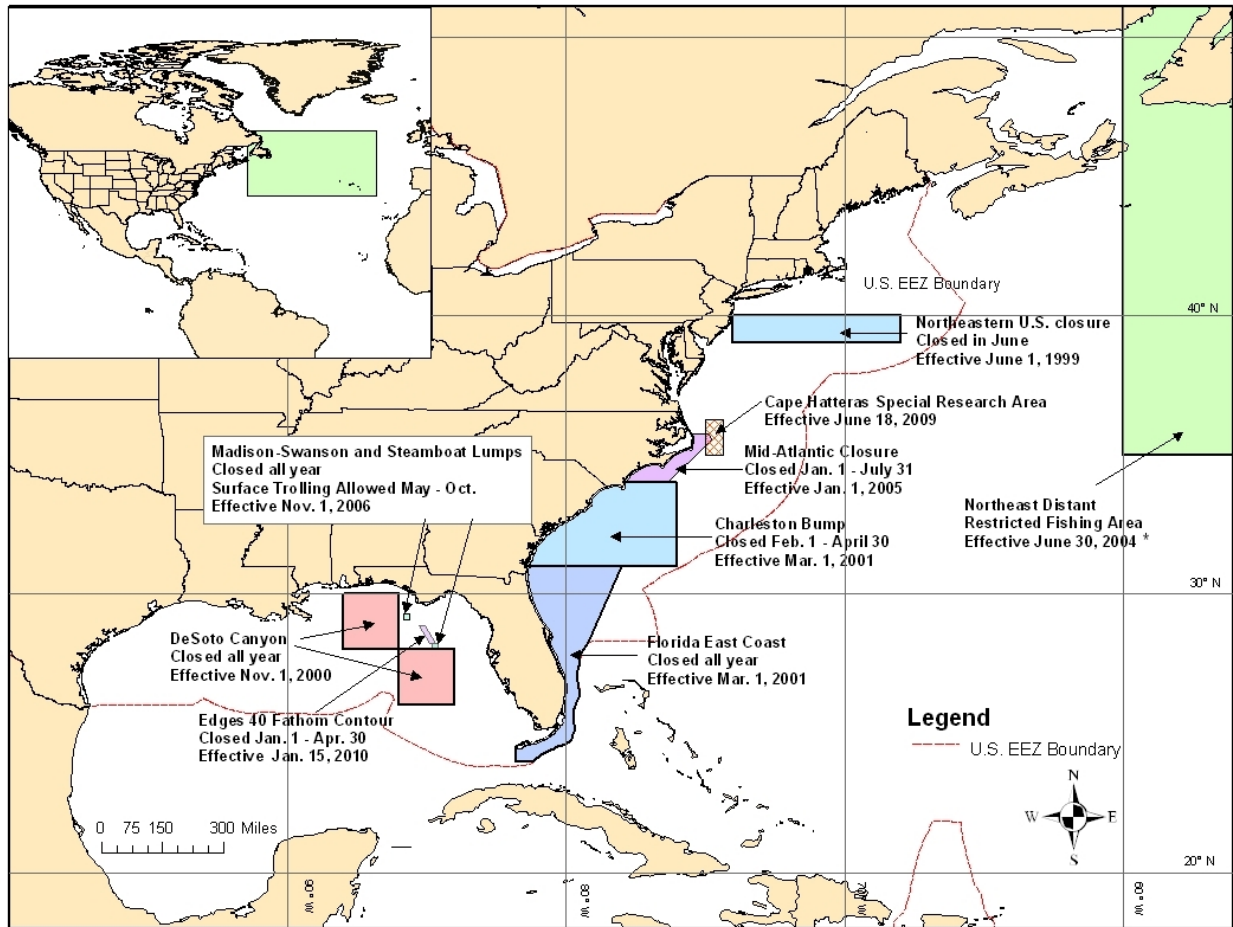
**Figure 3.** Nominal catch rates for bigeye tuna in U.S. pelagic longline logbook reports.



**Figure 4.** Nominal catch rates for albacore tuna in U.S. pelagic longline logbook reports.



**Figure 5.** osition of longline sets as reported in pelagic logbooks (upper panel) and observed by the U.S. pelagic observer program (lower panel) in 2011 summarized by 2°x2° square.



**Figure 6.** Selected existing U.S. time/area closures in HMS fisheries. Inset shows extent of the Northeast Distant restricted fishing area. The Mid-Atlantic Closure is applicable to bottom longline gear only. Note: the Northeast Distant (NED) was a closed area to all vessels as of 2001. It became the NED Restricted Fishing Area on 30 June 2004, when it was opened to those participating in the NED experiment. The Cape Hatteras Special Research Area requires vessels fishing with pelagic longline gear to carry observers, when needed, and limit longline mainline to 20 nm in length. The Caribbean bottom longline closures and South Atlantic MPAs closed to bottom longline gear are not included.

**ANNUAL REPORT OF URUGUAY  
RAPPORT ANNUEL DE L'URUGUAY  
INFORME ANUAL DE URUGUAY**

Andrés Domingo y Philip Miller

SUMMARY

*In 2011, fishing effort for the Uruguayan tuna fleet decreased as compared to 2010. The total catch amounted to nearly 1,067 t. The species most caught were blue shark (724 t), swordfish (179 t) and shortfin mako (76 t). Monitoring of catch and effort of the national fleet continues to be carried out, based on the information transmitted from the fishing parties and the observer programme. The observer programme covered approximately one million hooks, in which priority was given to catch identification, and records of sizes and sex identification. A total of 1,008 fish were tagged, the majority of which were blue sharks. Experiments were carried out to assess mitigation measures of incidental catches during commercial fishing and research operations. Uruguay participated in and provided various studies at several SCRS meetings including the albacore assessment meeting (two documents), blue marlin assessment and white marlin data preparatory meeting (one document), sharks data preparatory meeting to apply Ecological Risk Analysis (seven documents), ecosystems (four documents). Work on the implementation of the "National Plan of Action for Reducing the Incidental Catch of Seabirds in Uruguayan Fisheries" and the "National Plan of Action for the Conservation of Chondrichthyans in Uruguayan Fisheries" is ongoing. Control at port, carried out since 2009, continued for vessels flying a third flag. This was carried out through a group comprised of public officials from DINARA (OROPS). Inspections were carried out at port to determine the type and origin of species landed at the port of Montevideo and to control formal aspects as regards vessel documentation. All the ICCAT Recommendations adopted at the 2011 Commission meeting have been applied in Uruguay and are currently enforced by decree.*

RÉSUMÉ

*En 2011, l'effort de pêche de la flottille thonière d'Uruguay a connu une baisse par rapport à 2010. La prise totale s'est élevée à 1.067 t, le requin peau bleue (724 t), l'espadon (179 t) et le requin-taupe bleu (76 t) étant les espèces les plus capturés. Le suivi de la prise et de l'effort de la flottille nationale a continué à se développer, sur la base de l'information provenant des parties prenantes à la pêche et du programme d'observateurs. Le programme d'observateurs a couvert à peu près un million d'hameçons, en donnant la priorité à l'identification des prises, le registre des tailles et la détermination des sexes. On a apposé des marques à un total de 1.008 poissons, dont la plupart sont des requins peau bleue. Des expériences ont été réalisées en vue d'évaluer les mesures d'atténuation de la prise accidentelle pendant les opérations de pêche commerciale et de recherche. L'Uruguay a pris part et a présenté de nombreux travaux aux diverses réunions du SCRS : la réunion d'évaluation du germon (deux documents), la réunion d'évaluation du makaira bleu et de préparation des données sur le makaira blanc (un document), préparation des données pour l'application de la ERA aux requins (sept documents), écosystèmes (quatre travaux). La mise en œuvre du « Plan d'action national visant à réduire les captures accidentelles d'oiseaux marins dans les pêcheries uruguayennes » et du « Plan d'action national de conservation des chondrichthyens dans les pêcheries uruguayennes » a été poursuivie. Les travaux de contrôle au port des navires de pays tiers, qui ont démarré en 2009, se sont poursuivis, par le biais d'un groupe composé de fonctionnaires de la DINARA (OROPS). Des inspections au port ont été réalisées dans le but de déterminer quelles sont les espèces débarquées au port de Montevideo, quelle est leur origine, et de contrôler les aspects formels de la documentation des navires. Toutes les recommandations de l'ICCAT adoptées pendant la réunion de la Commission en 2011 ont été transposées en droit uruguayen et sont actuellement régies par décret.*

RESUMEN

*Durante el 2011, el esfuerzo de la flota atunera de Uruguay se redujo en comparación con el 2010. La captura total alcanzó aproximadamente 1.067 toneladas, siendo el tiburón azul (724 t), el pez espada (179 t) y el marrajo dientuso (76 t) las especies más capturadas. Se continúa*

*desarrollando el seguimiento de la captura y el esfuerzo de la flota nacional, en base a información proveniente de partes de pesca y del programa de observadores. Con el Programa de Observadores se cubrió aproximadamente 1 millón de anzuelos, durante los cuales se priorizó la identificación de la captura, registro de tallas y determinación de sexo. Se marcaron un total de 1.008 peces, la mayoría de los cuales fueron tiburones azules. Se realizaron experimentos para evaluar medidas de mitigación de la captura incidental durante operaciones de pesca comercial y de investigación. Uruguay participó y aportó numerosos trabajos en diversas reuniones del SCRS, incluyendo la reunión de evaluación de albacora (2 documentos), evaluación de aguja azul y preparación de datos de aguja blanca (1 documento), preparación de datos para aplicar ERA a tiburones (7 documentos), ecosistemas (4 trabajos). Se continúa trabajando en la implementación del “Plan de Acción Nacional para Reducir la Captura Incidental de Aves Marinas en las Pesquerías Uruguayas”, y el “Plan de Acción Nacional para la Conservación de los Condrictios en las pesquerías uruguayas. Se continuó con el trabajo de control en puerto de buques de tercera bandera iniciado durante 2009, a través de un grupo conformado por funcionarios de la DINARA (OROPS). Se realizaron inspecciones en puerto para determinar cuáles son las especies desembarcadas en el puerto de Montevideo, cual es su origen y controlando aspectos formales de la documentación de los barcos. Todas las Recomendaciones de la CICAA aprobadas durante la Reunión de la Comisión en el año 2011 han sido internalizadas en Uruguay, y actualmente rigen bajo decreto.*

## **Parte I (Información sobre pesquerías, investigación y estadísticas)**

### ***Sección 1: Información sobre la pesquería***

Durante el año 2011, el esfuerzo pesquero en la flota atunera uruguaya decreció en relación al año anterior. La mayoría de los barcos fueron fresqueros menores de 27 m de eslora. El esfuerzo estuvo dirigido principalmente a la captura del pez espada (*Xiphias gladius*). Durante este año se continuó con el proyecto de investigación para la prospección del atún ojo grande (*Thunnus obesus*) dentro de la ZEE de Uruguay, iniciado conjuntamente con una empresa japonesa durante el 2009.

La captura total (preliminar) desembarcada y comunicada en 2011 fue de aproximadamente 1.067 toneladas. Se pescaron 179 toneladas de pez espada, los desembarques de tiburón azul (*Prionace glauca*) estuvieron alrededor de las 724 toneladas y los de moro (*Isurus oxyrinchus*) en las 76 toneladas. Dentro de los atunes el Albacora (*Thunnus alalunga*) fue la especie más capturada (37 t) representando un 3 % de la captura total, seguido por el aleta amarilla (*Thunnus albacares*) con 24 toneladas y el Atún ojo grande (15 toneladas), representando ambas juntas el 3,6 % de la captura total (**Tabla 1, Figura 1**). A partir de finales de 2010, la flota comenzó a descartar los tiburones martillo (*Sphyrna* spp), de acuerdo con las recomendaciones de CICAA y el tiburón pinocho (*Lamna nasus*) por decisión de la administración nacional. La flota continúa liberando otros peces pelágicos y de pequeñas tallas capturados vivo, así como de tortugas y aves marinas. La liberación se realiza de forma tal, que permita la mayor sobrevivencia post captura de los ejemplares

### ***Sección 2: Investigación y estadísticas***

La Dirección Nacional de Recursos Acuáticos (DINARA) del Ministerio de Ganadería, Agricultura y Pesca (MGAP), a través del Laboratorio de Recursos Pelágicos (LaRPe), es quien tiene a cargo el seguimiento estadístico, la investigación y la administración de estos recursos. A tales efectos dicha institución procesa la información procedente de cuadernos de pesca, boletas de desembarques, muestreos en puerto y del Programa de Observadores de la Flota Atunera (PNOFA). Durante el año 2011 se realizaron múltiples actividades vinculadas a las estadísticas, investigación y ordenación. Algunas de estas actividades se desarrollaron conjuntamente con otras instituciones gubernamentales, la Universidad de la República del Uruguay y organizaciones no gubernamentales, así como con otros países como Australia, Brasil, Estados Unidos, Reino Unido y Venezuela. Se continuó con el PNOFA, desarrollando las actividades que se venían cumpliendo y ampliando las mismas. En 2011 se continuó con las campañas de investigación iniciadas en el 2009 a bordo del buque de investigación científica B/I “Aldebarán” de la DINARA con el objetivo general de recabar datos independientes de la pesquería, incluyendo información más detallada sobre las especies, y también realizar experimentos de diferentes medidas mitigatorias de la captura incidental, dirigidas a aves y tortugas, y obtener datos ambientales. A su vez, se realizó un esfuerzo en el marcado de peces pelágicos, complementando las tareas de investigación

realizadas en la pesquería, incluyendo tanto marcaje convencional como con marcas satelitales (en el caso de los tiburones, mas información en sección correspondiente del presente informe).

## 2.1 Investigación

La investigación se desarrolló principalmente a partir de la información proveniente de los partes de pesca y del PNOFA y durante 2011-2012 se integraron los datos obtenidos en las campañas realizadas en el Buque de Investigación.

### 2.1.1 Programa de observadores

El PNOFA cubrió una importante parte de la actividad de la flota de bandera nacional durante 2011 y el 100% en la flota de palangre profundo que participó en la investigación del Atún ojo grande. Este programa se desarrolla desde el año 1998 y ha permitido recabar importante información relacionada con todos los aspectos de la pesquería y la biología de las especies capturadas. Durante 2011 se observaron unos 191.586 anzuelos (datos preliminares) en la flota de bandera nacional y 810.323 anzuelos en la flota de palangre profundo. Los embarques fueron realizados por observadores científicos los cuales han aprobado los cursos que dicta la DINARA y han recibido un entrenamiento adicional brindado por los investigadores del LaRPe.

En el 2011 se continuó con el Programa Internacional Cooperativo de Marcaje de la CICAA, tanto en barcos pesqueros de la flota uruguaya, como en el barco de investigación así como en los barcos de bandera japonesa que operaron en Uruguay. Durante 2011 se colocaron 1.008 marcas (información preliminar). La mayoría de los individuos marcados fueron tiburones (**Figura 2**), siendo el tiburón azul la principal especie con 616 individuos (61% del total de individuos marcados). La segunda y tercera especie, en cuanto al número de marcas fueron el atún aleta amarilla (n=176) y el albacora (n=84), respectivamente. Durante el 2011 se han obtenido recapturas de al menos 6 individuos, siendo 5 de ellos tiburones azules (ver **Figura 3**, más información en la sección 2.1.6).

Dentro de las actividades del PNOFA se continúa con el trabajo dirigido a la educación y sensibilización de los trabajadores y armadores pesqueros. Conjuntamente con el “Proyecto Albatros y Petreles” llevado adelante por la ONG CICMAR (Centro de Investigación y Conservación Marina) se ha editado y distribuido en los diferentes barcos pesqueros el “Boletín Atlántico Sur” N° 9.

### 2.1.2 Pez espada

En el marco del PNOFA se continuó con la recopilación de datos de talla por sexo, colecta de muestras (tejido destinados a estudios genéticos) y marcaje, utilizando las marcas que provee CICAA. Durante el año 2011 el LaRPe ha continuado el estudio sobre la biología reproductiva del pez espada en conjunto con la Facultad de Ciencias de la Universidad de la Republica.

### 2.1.3 Atunes tropicales

Al igual que en otras especies se continuó con el seguimiento de las estadísticas de captura de aleta amarilla y atún ojo grande, esfuerzo de pesca y colecta de muestras biológicas por parte del Programa de Observadores. Se continúa también con el Programa de Marcado en las especies de atunes tropicales.

### 2.1.4 Albacora

Se continúa con el seguimiento de las estadísticas de captura y esfuerzo y colecta de muestras biológicas por parte del Programa de Observadores.

En 2011 Uruguay participó de la reunión de la CICAA de evaluación del stock de albacora. Durante la reunión se presentaron 2 documentos sobre esta especie: SCRS/2011/113 y SCRS/2011/114.

En el documento SCRS/2011/113 se presentó nuevos datos sobre la composición por tallas y sexos en el Atlántico sudoccidental. En el SCRS/2011/114 se presentó una serie estandarizada de CPUE.

### 2.1.5 Agujas

Uruguay participó de la reunión de la CICAA de 2011 de evaluación del stock de aguja azul y preparación de datos de aguja blanca. Se presentó el documento SCRS/2011/026.

Se continúa desarrollando estudios genéticos para la identificación de especies, en conjunto con otros países (Brasil, Estados Unidos y Venezuela) y estudios de edad y crecimiento en *Tetrapturus pfluegeri* en conjunto con la Universidad de Miami (RSMAS) de Estados Unidos, la Universidad de Oriente (UDO) de Venezuela, la Universidad Rural Federal de Pernambuco (URFP) de Brasil y la Universidad de la República de Uruguay.

#### 2.1.6 Tiburones

Durante el 2011 se continuo desarrollando el proyecto de Telemetría satelital en tiburones, que tiene como objetivo determinar y caracterizar los movimientos y el uso de hábitat del tiburón azul en el Océano Atlántico Sur. Esta iniciativa fue creada a partir de un convenio entre la DINARA y la NOAA (Agencia Nacional de Océanos y Atmósfera de EEUU), y cuenta con el apoyo técnico del CICMAR. Hasta la fecha, se han marcado 7 individuos, uno de los cuales fue equipado durante una campaña realizada en el buque de investigación. Se están empleando tres tipos de transmisores satelitales: transmisores MK10-PAT configurados para coleccionar y archivar información de profundidad y temperatura durante 9 meses; transmisores SPOT5 que permiten conocer la ubicación del individuo cuando este se encuentra en la superficie y transmisores SPLASH que permiten conocer la posición del individuo cuando este se encuentra en la superficie, y obtener también datos sobre la temperatura y profundidad donde este se desplaza.

Durante la reunión de preparación de datos para aplicar Ecological Risk Assessment, llevada a cabo en Junio de 2011, se presentaron 7 trabajos elaborados por investigadores de Uruguay: SCRS/2011/092; SCRS/2011/093; SCRS/2011/094; SCRS/2011/095; SCRS/2011/096; SCRS/2011/097; SCRS/2011/098.

Se continuó el desarrollo de trabajos sobre la biología y ciclo reproductivo del tiburón azul; estructura poblacional del tiburón pinocho (*Lamna nasus*) y diversidad de tiburones pelágicos en aguas jurisdiccionales uruguayas entre otros. Se continuó también con el marcaje de tiburones, habiéndose marcado alrededor de 650 tiburones durante el 2011. Se recapturaron 5 individuos, incluyendo 2 que habían sido marcados en el Atlántico Suroccidental y en el Indico Suroccidental (**Figura 3**).

Durante el 2011 se finalizó la segunda parte de la Guía para la identificación de tiburones del Océano Atlántico, financiada por la CICAA. Dicha guía, enfocada en las especies del género *Carcharhinus* mas frecuentemente capturadas, fue realizada entre el LaRPe de DINARA y el laboratorio de Panamá City de la NOAA/NMFS. La misma se encuentra [disponible aquí](#).

#### 2.1.7 Aves marinas

Durante el año 2012, se continuó trabajando en la instrumentación del “Plan de Acción Nacional para Reducir la Captura Incidental de Aves Marinas en las Pesquerías Uruguayas” efectivizando las medidas propuestas en el mismo.

Se han desarrollado diferentes trabajos dirigidos al seguimiento y evaluación de la captura incidental y a la evaluación de medidas de mitigación durante operaciones de pesca comercial y de investigación. Para esto se vienen desarrollando trabajos conjuntos con el “Proyecto Albatros y Petreles de Uruguay (PAP)” integrantes del grupo de trabajo “Albatross Task Force” de “BirdLife International”, vinculados a la investigación y mitigación de la captura incidental de estas especies.

Los resultados obtenidos durante 2011, junto con los obtenidos durante los 2 años anteriores, han permitido demostrar la eficiencia de la línea espantapájaros en reducir significativamente la captura incidental de aves marinas en palangre pelágico.

Durante el 2011 se generó información sobre la tasa de hundimientos de los anzuelos, y especialmente sobre el uso de una brazolada alternativa con un peso a 1 m del anzuelo, que podría disminuir los ataques y captura incidental de aves marinas en el palangre pelágico. En combinación con la línea espantapájaros, la aplicación de estas brazoladas podría reducir al mínimo la captura incidental.

Se presentaron 2 trabajos sobre aves marinas en reuniones de la CICAA: SCRS/2011/061 y SCRS/2011/187.

#### 2.1.8 Tortugas marinas

Durante el 2011 se continuó con el monitoreo de la captura incidental de tortugas marinas en el palangre pelágico y en los barcos de bandera japonesa que operaron en aguas de Uruguay. A su vez, se continuó con los

estudios de telemetría satelital y con experimentos para determinar la eficiencia de medidas de mitigación para estas especies.

Se continuó con la colecta de muestras de tejido de los individuos capturados incidentalmente tanto de *C. caretta* como de *D. coriacea*. Se continúa con la elaboración de un trabajo que tiene como objetivo comprender la composición genética de las tortugas cabezonas que ocurren en aguas costeras y oceánicas de Uruguay así como en aguas internacionales del Océano Atlántico Sudoccidental.

El LaRPe ha seguido colaborando junto a organizaciones de otros países, en el desarrollo de una iniciativa llamada “Movements of Atlantic Leatherback Turtles: Steps Toward Bycatch Reduction and Transoceanic Cooperation for Conservation”. Dicho proyecto, coordinado por el Programa de Tortugas Marinas para Latinoamérica y el Caribe del WWF, ha generado una plataforma de compilación y diseminación de información sobre rutas migratorias y movimientos transoceánicos de las tortugas laúd (*Dermochelys coriacea*), para colaborar con el diseño de medidas para reducir la mortalidad por captura incidental en las pesquerías que operan en el Océano Atlántico.

Con el objetivo de determinar y caracterizar sus movimientos, uso de hábitat y supervivencia post-liberación, desde inicios del 2008 la DINARA, en conjunto con la NOAA y el CICMAR, ha equipado con transmisores satelitales a tortugas cabezonas juveniles capturadas incidentalmente por la flota palangrera Uruguaya. Durante el 2011 se continuó con este proyecto y se ha logrado rastrear exitosamente a 16 individuos, a los cuales se les colocaron transmisores SPLASH y SPOTS. Más información, imágenes y resultados de este proyecto pueden ser consultados en los siguientes sitios: <http://cicmar.org/archives/131>. <http://www.dinara.gub.uy> (Recursos Pelágicos) y [http://www.seaturtle.org/tracking/?project\\_id=441](http://www.seaturtle.org/tracking/?project_id=441).

Durante 2011 se continuaron los experimentos para determinar la efectividad de los anzuelos circulares en disminuir la captura de tortugas marinas, tanto en la flota que utiliza palangre de tipo americano como en el buque de investigación de la DINARA. También se analiza el efecto sobre las demás especies, incluyendo aquellas con valor comercial y las consideradas como captura incidental. Este proyecto se realiza en colaboración con la NOAA/National Marine Fisheries Service (NMFS), Pacific Island Fisheries Science, Honolulu, USA.

Durante la reunión inter-sesiones del Comité de Ecosistemas, se presentaron los siguientes trabajos elaborados por investigadores de Uruguay: SCRS/2011/057, SCRS/2011/058, y SCRS/2011/059

#### 2.1.9 Cetáceos

Se continuó con la investigación en este grupo, analizando información de distribución e interacción con la flota de palangre.

#### 2.1.10 Buque de Investigación

Se realizó una campaña de investigación en el B/I “Aldebarán” perteneciente a la DINARA. La campaña se realizó en octubre y se utilizó palangre pelágico de deriva tipo americano.

## Parte II (Implementación de la Ordenación)

### *Sección 3: Implementación de las medidas de conservación y ordenación de la CICA*

Se continúa con la implementación del “Plan de Acción Nacional para Reducir la Captura Incidental de Aves Marinas en las Pesquerías Uruguayas”. Ya se ha comenzado a utilizar líneas espantapájaros en prácticamente toda la flota atunera y se están haciendo pruebas de nuevas configuraciones de las mismas.

Se continúa con la instrumentación de las medidas de conservación presentadas en el “Plan de Acción Nacional para la Conservación de los Condrictios en las pesquerías uruguayas.

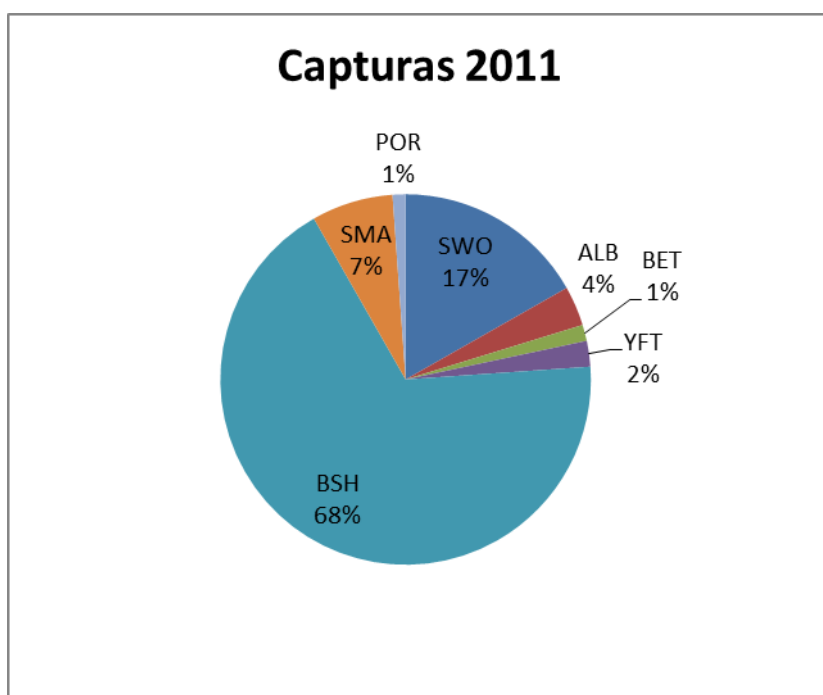
Se continuo con el trabajo de control en puerto de buques de tercera bandera iniciado durante 2009, a través de un grupo conformado por funcionarios de la DINARA (OROPS). Se realizaron inspecciones en puerto para determinar cuáles son las especies desembarcadas en el puerto de Montevideo, cual es su origen y controlando aspectos formales de la documentación de los barcos.



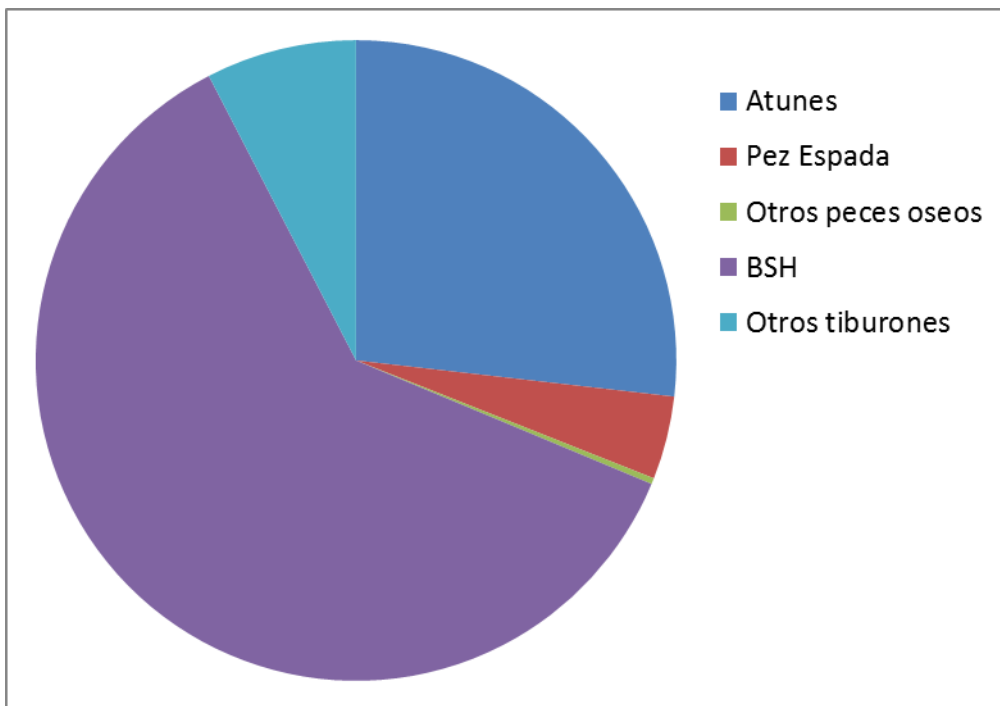
Todas las Recomendaciones de la CICAA aprobadas durante la Reunión de la Comisión en el año 2011 han sido internalizadas en Uruguay, y actualmente rigen bajo decreto.

**Tabla 1.** Capturas desembarcadas (ton) declaradas por Uruguay (2007-2011) por especie.

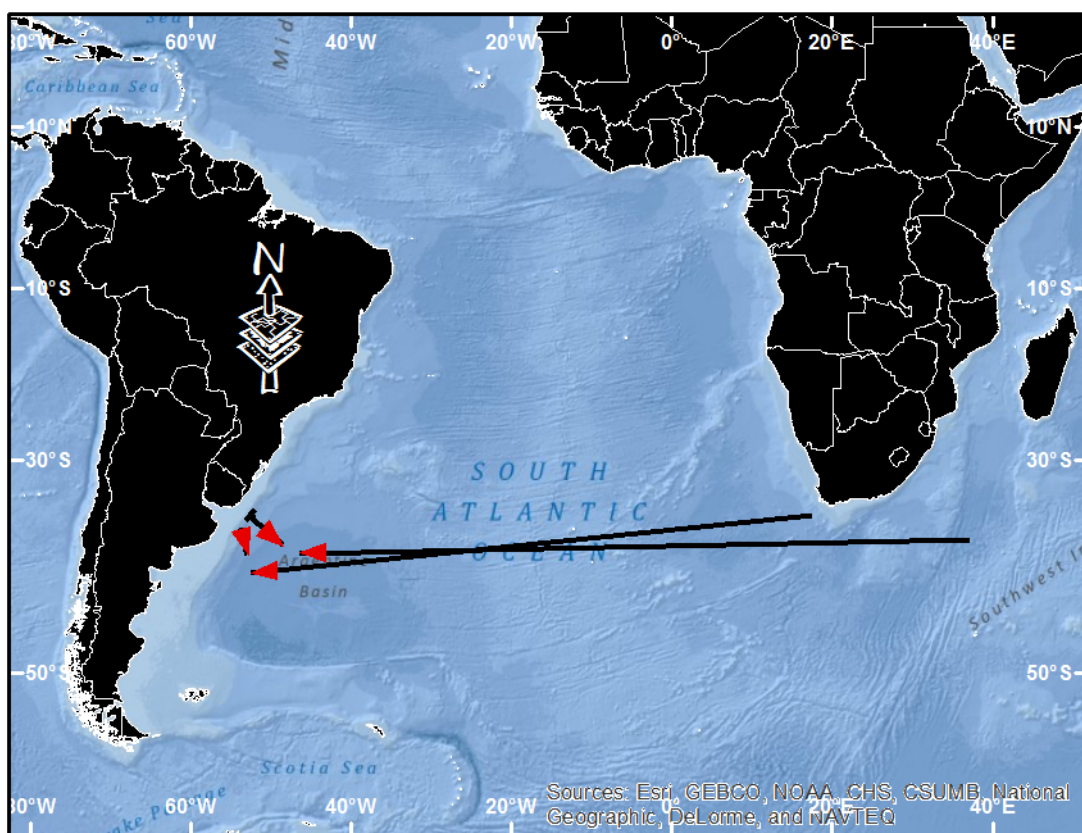
<i>AÑO</i>	<i>SWO</i>	<i>ALB</i>	<i>BET</i>	<i>YFT</i>	<i>BSH</i>	<i>SMA</i>	<i>POR</i>
2007	464	34	22	35	337	36	3
2008	370	53	27	66	359	41	40
2009	501	97	31	76	942	106	14
2010	222	24	23	122	208	23	6
2011	179	37	15	24	724	76	12



**Figura 1.** Porcentaje por especie de las capturas declaradas por Uruguay en el 2011.



**Figura 2.** Distribución por grupo del número total de individuos marcados por el Programa Nacional de observadores de la flota atunera uruguaya durante 2011.



**Figura 3.** Recapturas de tiburones azules realizadas por el Programa de Observadores de Uruguay durante 2011.

**ANNUAL REPORT OF VANUATU  
RAPPORT ANNUEL DE VANUATU  
INFORME ANUAL DE VANUATU**

*SUMMARY*

*A total of 10 Vanuatu flagged tuna long line fishing vessels operated in the ICCAT Convention area in 2011. The total catch was comprised of albacore tuna (283.46 metric tons), bigeye tuna (35.16 t), yellowfin tuna (313.83 t), shark (17.96 t), blue marlin (7.04 t), Black marlin (0.611 t), swordfish (19.39 t), and moro shark (1.13 t). Albacore and yellowfin tuna are the main target species of the Vanuatu flagged longline fishery in the ICCAT Convention area. Sharks are caught as by-catch. A total of 3,467 days were fished in the ICCAT Convention area in 2011 by the Vanuatu flagged tuna longlines. Routine data monitoring was carried out by the Vanuatu Fisheries Department Compliance Division. This covers the collection of data and fishing effort statistics from Vanuatu flagged tuna long liners operating in the ICCAT Convention area. The Vanuatu Government implements a national observer programme to monitor the operations of its distant-water tuna fleet. Although the observers only worked in the western and central Pacific Ocean (WCPFC Convention area) for scientific and compliance purposes in 2011, the Vanuatu Government plans to expand the observer coverage area to the ICCAT convention area. The Vanuatu Fisheries Department is developing a Fisheries Information Management System (FIMS) for data reporting and VMS monitoring of operation of its distant water fleet in all tuna RFMOs convention areas (ICCAT, IATTC, IOTC and WCPFC), and analysis of fisheries data. The Vanuatu Fisheries Act endorses all international Conventions which Vanuatu is a member or signatory including the International Convention for the Conservation of Atlantic Tunas. Changes to these conventions in the form of conservation and management measures are automatically binding in law.*

*RÉSUMÉ*

*Dix palangriers thoniers battant le pavillon du Vanuatu ont réalisé des activités dans la zone de la Convention de l'ICCAT en 2011. La capture totale était composée comme suit : germon : 283, 46 t ; thon obèse : 35,16 t ; albacore : 313, 83 t ; requin : 17,96 t ; makaire bleu : 7,04 t ; makaire noir : 0,611 t ; espadon : 19,39 t et requin-taupe bleu : 1,13 t. Le germon et l'albacore sont les principales espèces ciblées par la pêcherie palangrière battant le pavillon du Vanuatu dans la zone de la Convention de l'ICCAT. Les requins sont capturés en tant que prise accessoire. Les palangriers thoniers arborant le pavillon du Vanuatu ont pêché pendant 3.467 jours dans la zone de la Convention de l'ICCAT. La division d'application du département des pêches du Vanuatu a assuré le suivi des données de routine. Ce travail englobe la collecte des données et des statistiques de l'effort de pêche des palangriers thoniers du Vanuatu opérant dans la zone de la Convention de l'ICCAT. Le gouvernement vanuatuan met en œuvre un programme national d'observateurs pour suivre les opérations de sa flottille thonière hauturière. Même si les observateurs n'ont œuvré en 2011 que dans l'océan Pacifique central et occidental (zone de la Convention de la WCPFC) à des fins scientifiques et d'application, le gouvernement vanuatuan a l'intention d'étendre la zone de couverture d'observation à la zone de la Convention de l'ICCAT. Le département des pêches du Vanuatu élabore actuellement un système de gestion des informations halieutiques (FIMS) destiné à la déclaration des données, le suivi VMS des opérations de sa flottille hauturière dans les zones de Convention de toutes les ORGP thonières (ICCAT, IATCC, CTOI et WCPFC) et l'analyse des données des pêches. La loi sur les pêches du Vanuatu transpose toutes les conventions internationales dont le Vanuatu est membre ou signataire, notamment la Convention internationale pour la conservation des thonidés de l'Atlantique. Les changements apportés à ces conventions, sous la forme de mesures de conservation et de gestion, acquièrent automatiquement force de loi.*

*RESUMEN*

*En 2011 operaron en la zona de ICCAT 10 palangreros atuneros con pabellón de Vanuatu. La captura total se compuso de: atún blanco: 283,46 t, patudo: 35,16 t, rabil: 313,83 t, tiburonos: 17,96 t, aguja azul: 7,04 t, aguja negra: 0,611 t, pez espada: 19,39 t y marrajo dientuso: 1,13 t. El atún blanco y el rabil son las principales especies objetivo de la pesquería de palangre con*

*pabellón de Vanuatu en la zona del Convenio de ICCAT. Los tiburones se capturan como captura fortuita. En 2011, los palangreros atuneros con pabellón de Vanuatu faenaron un total de 3.467 días en la zona del Convenio de ICCAT. La División de cumplimiento del Departamento de pesca de Vanuatu realizó el seguimiento rutinario de los datos. Esto cubre la recopilación de datos y estadísticas de esfuerzo pesquero de los palangreros atuneros con pabellón de Vanuatu que operan en la zona del Convenio de ICCAT. El Gobierno de Vanuatu implementa un programa nacional de observadores para hacer un seguimiento de la flota atunera de aguas distantes. Aunque en 2011 los observadores solo trabajaron en el océano Pacífico occidental y central (zona de Convenio de la WCPFC) con fines científicos y de cumplimiento, el Gobierno de Vanuatu tiene previsto ampliar la zona de cobertura de observadores a la zona del Convenio de ICCAT. El Departamento de pesca de Vanuatu está desarrollando un Sistema de Gestión de Información Pesquera (FIMS) para la comunicación de datos y el seguimiento mediante VMS de su flota de aguas distantes en todas las zonas de Convenio de las OROP (ICCAT, IATTC, IOTC y WCPFC), así como para analizar los datos pesqueros. La Ley de pesca de Vanuatu incorpora todos los Convenios internacionales de los que Vanuatu es miembro o signatario, incluido el Convenio Internacional para la Conservación del Atún Atlántico. Los cambios a estos convenios, en forma de medidas de conservación y ordenación, son automáticamente incluidos en la Ley.*

## **Part I (Information on Fisheries, Research and Statistics)**

### ***Section 1: Annual Fisheries Information***

Vanuatu's offshore fishery consists of tuna longline vessels targeting albacore (*Thunnus alalunga*), yellowfin (*Thunnus albacares*) and bigeye tunas (*Thunnus obesus*). The operating fleets comprise three components: locally based foreign vessels, which operate within the Vanuatu EEZ and land their catch into Vanuatu where the catch is part processed; Vanuatu registered longliners, purse seiners and carrier vessels which operate outside the Vanuatu zone in the IOTC, IATTC, ICCAT and WCPFC convention areas; and foreign longliners, which operate for part of the year within the Vanuatu EEZ.

In 2011, a total of 10 Vanuatu flagged tuna long liners and 8 Vanuatu flagged Carrier vessels operated in the ICCAT Convention area. Total catch, in metric tons (t) by the Vanuatu fishing vessels in the ICCAT Convention area comprised: albacore tuna (283.46 t); bigeye tuna (35.16 t); yellowfin tuna (313.83 t); shark (17.96 t); blue marlin (7.04 t); black marlin (0.611 t); swordfish (19.39 t); and moro shark (1.13 t).

Albacore and yellowfin tuna are the main target species of the Vanuatu flagged longline fishery in the ICCAT Convention area and catch distributions has shown sharp decrease in Albacore catch during the last quarter of 2011 while there was an increase in yellowfin tuna catch. The bigeye catch has remained very low with a slight increase towards to end of the year.

A total of 3,467 days were fished in the ICCAT Convention area in 2011 by the Vanuatu flagged tuna longlines. The distribution of the number of fishing days has shown that there were fluctuations in fishing activity with highest fishing activity during the months of January and August.

The eight (8) Vanuatu flagged Carrier vessels received up to 309 transshipments in the ICCAT Convention area, comprising mainly of frozen albacore tuna (1,467.3 t); bigeye tuna (8,908.97 t); yellowfin tuna (4,116.44 t); swordfish (807.08 t); and others (4,226.48 t) from flagged large scale tuna longline fishing vessels from Japan, Korea, China, Chinese Taipei, Seychelles, Belize and the Philippines.

### **Section 2: Statistics and Research**

Routine data monitoring was carried out the Vanuatu Fisheries Department Compliance Division. This covers the collection of data and fishing effort statistics from Vanuatu flagged tuna long liners operating in the ICCAT Convention area. Task I and Task II data were provided to the ICCAT Secretariat.

#### ***2.1 Observer Program***

The Vanuatu Government has initiated the training of national observers to monitor its distant-water tuna fishery. Although the observers only worked in the Western and Central Pacific Ocean (WCPFC Convention

area) for scientific and compliance purposes in 2011, the Vanuatu Government plans to expand the observer coverage area to the ICCAT convention area.

## *2.2 Data Reporting System*

The Vanuatu Fisheries Department is establishing a new Fisheries Information Management System (FIMS) for monitoring operation of its distant water fleet in all tuna RFMOs convention areas (ICCAT, IATTC, IOTC and WCPFC), and analysis of fisheries data

## **Part II (Management Implementation)**

### ***Section 3: Implementation of ICCAT Conservation and Management Measures***

In 2011, the Republic of Vanuatu continued to strengthen its legal and administrative framework with the aim to enhance its compliance with the conservation and management measures endorsed by the Commission. The Fisheries Act endorses all international Conventions which Vanuatu is a member or signatory including the International Convention for the Conservation of Atlantic Tunas. Changes to these conventions in the form of conservation and management measures are automatically binding in law.

#### *3.1 Data and Minimum Size*

##### *Rec. 96-14 Recommendation by ICCAT Regarding Compliance in the Bluefin Tuna and North Atlantic Swordfish Fisheries*

Catch of swordfish by Vanuatu flagged tuna longlines in 2011 has remained low to prevent overharvest. Bluefin tuna is not a target species for Vanuatu flagged tuna longliners operating in the ICCAT Convention area.

##### *Rec. 97-01 Recommendation by ICCAT to Improve Compliance with Minimum Size Regulations*

The main target tuna species of the Vanuatu flagged longline fishery are albacore and yellowfin tuna. Recommendation 97-01 is legally binding pursuant to the Vanuatu Fisheries Act [CAP 315].

#### *3.2 Statistical Documents*

##### *Rec. 01-21 Recommendation by ICCAT Concerning the ICCAT Bigeye Tuna Statistical Document Program*

The total bigeye catch by Vanuatu flagged longliners in 2011 constitutes about 5% of the total catch. Bigeye tuna are off loaded at Port of Spain, Trinidad.

##### *Rec. 01-22 Recommendation by ICCAT Establishing a Swordfish Statistical Document Program*

Vanuatu has a specific quota of 25 t of North Atlantic swordfish. In 2011, a total of 19.39 t of North Atlantic swordfish was caught by Vanuatu flagged tuna longline fleet operating in the ICCAT Convention area.

#### *3.3 Measures Relating to Individual Species*

##### *Rec. 06-09 Recommendation by ICCAT to Further Strengthen the Plan to Rebuild Blue Marlin and White Marlin Populations*

A total of 7.04 t of blue marlin was caught by the Vanuatu flagged tuna longline fleet in the ICCAT Convention area in 2011. There was no catch of white marlin recorded. The blue marlin were offloaded at the Port of Spain, Trinidad.

##### *Rec. 03-04 Recommendation by ICCAT Relating to Mediterranean Swordfish*

Vanuatu flagged tuna longlines do not operate in the Mediterranean. Section 33, Part 7 of the Vanuatu Fisheries Act [CAP 315] prohibits use of driftnets for fisheries of large and small pelagics.

Rec. 11-02 *Recommendation by ICCAT for the Conservation of North Atlantic Swordfish*

Vanuatu has a specific quota of 25 t of North Atlantic swordfish. In 2011, a total of 19.39 t of North Atlantic swordfish was caught by Vanuatu flagged tuna longline fleet operating in the ICCAT Convention area

Res. 06-08 *Resolution by ICCAT on Fishing Bluefin Tuna in the Atlantic Ocean*

Bluefin Tuna is not a target tuna species for the Vanuatu flagged tuna longline fleet operating in the ICCAT Convention area.

Rec. 05-05 *Recommendation by ICCAT to Amend Recommendation [Rec. 04-10] Concerning the Conservation of Sharks Caught in Association with Fisheries Managed by ICCAT*

The Vanuatu Fisheries Act endorses all international Conventions which Vanuatu is a member or signatory including the International Convention for the Conservation of Atlantic Tunas. As such, the Recommendation by ICCAT to Amend Recommendation [Rec. 04-10] Concerning the Conservation of Sharks Caught in Association with Fisheries Managed by ICCAT is automatically binding in law. A total of 17.96 t of sharks and 1.13 t of moro sharks were caught by the Vanuatu flagged tuna longline fleet in the ICCAT Convention area in 2011.

Rec. 07-06 *Supplemental Recommendation by ICCAT Concerning Sharks*

Sharks are caught as by-catch and not as target fisheries by the Vanuatu flagged tuna longlines operating in the ICCAT Convention area, as such, Vanuatu has not participated or implemented research on pelagic shark species caught in the Convention area in order to identify potential nursery areas.

Rec. 09-07 *Recommendation by ICCAT on the Conservation of Thresher Sharks Caught in Association with Fisheries in the ICCAT Convention Area*

Sharks are caught as by-catch and not as target fisheries by the Vanuatu flagged tuna longlines operating in the ICCAT Convention area, as such, Vanuatu has not participated or implemented research on thresher shark species caught in the Convention area in order to identify potential nursery areas.

Rec. 10-06 *Recommendation by ICCAT on Atlantic Shortfin Mako Sharks Caught in Association with Fisheries*

Sharks are caught as by-catch and not as target fisheries by the Vanuatu flagged tuna longlines operating in the ICCAT Convention area.

Rec. 10-08 *Recommendation by ICCAT on Hammerhead Sharks (family Sphyrnidae) Caught in Association with Fisheries Managed by ICCAT*

Hammerhead Sharks are not target fisheries by the Vanuatu flagged tuna longlines operating in the ICCAT Convention area, as such, Vanuatu has not participated or implemented research on pelagic hammerhead shark species caught in the Convention area in order to identify potential nursery areas.

Rec. 10-09 *Recommendation by ICCAT on the By-catch of Sea Turtles in ICCAT Fisheries*

The Vanuatu Fisheries Act endorses all international Conventions which Vanuatu is a member or signatory including the International Convention for the Conservation of Atlantic Tunas. As such, 10-09 Recommendation by ICCAT on the By-catch of Sea Turtles in ICCAT Fisheries is automatically binding in law.

Rec. 11-08 *Recommendation by ICCAT on the Conservation of Silky Sharks Caught in Association with ICCAT fisheries*

The Vanuatu Fisheries Act endorses all international Conventions which Vanuatu is a member or signatory including the International Convention for the Conservation of Atlantic Tunas. As such, 11-08 Recommendation by ICCAT on the Conservation of silky sharks caught in association with ICCAT fisheries is automatically binding in law.

Rec. 11-09 *Supplementary Recommendation by ICCAT on Reducing Incidental By-Catch of Seabirds in ICCAT Longline Fisheries*

The Vanuatu Fisheries Act endorses all international Conventions which Vanuatu is a member or signatory including the International Convention for the Conservation of Atlantic Tunas. As such, 11-09 Supplementary Recommendation by ICCAT on Reducing Incidental By-Catch of Seabirds in ICCAT Longline Fisheries is automatically binding in law. Vanuatu flagged tuna longline vessel masters are advised to minimize Incidental by-catch of seabirds on fishing areas where applicable.

3.4 *Other*

Res. 05-11 *Resolution by ICCAT on Pelagic Sargassum* – No information collected on pelagic Sargassum.

3.5 *General*

Rec. 97-10 *Recommendation by ICCAT for a Revised ICCAT Port Inspection Scheme*

Vanuatu has not entered into bilateral agreements/arrangements with other Contracting Parties that allow for an inspector exchange program.

Res. 99-07 *Resolution by ICCAT on Improving Recreational Fishery Statistics*

Vanuatu is a fishing flagged state within the ICCAT Convention area and not a coastal state, as such this Resolution is not applicable.

Res. 05-08 *Resolution by ICCAT on Circle Hooks*

Vanuatu has not undertaken research trials of appropriate-size circle hooks in commercial pelagic longline fisheries

Res. 01-18 *Resolution by ICCAT Further Defining the Scope of IUU Fishing*

The Vanuatu Fisheries Act [CAP315] endorses the International Convention for the Conservation of Atlantic Tunas, as such all recommendations and Resolutions endorsed by ICCAT is legally binding on all distant water Vanuatu flagged fishing fleet including transshipment of tunas and tuna like species caught by vessels carrying out IUU fishing activities and fishing contrary to the ICCAT conservation and management measures (CMMs).

Rec. 03-16 *Recommendation by ICCAT to Adopt Additional Measures Against IUU Fishing*

Vanuatu distant water fleet operating in the ICCAT Convention area only target Albacore, bigeye and Yellowfin tunas and are not involve in catching tunas for farming purposes.

Rec. 03-12 *Recommendation by ICCAT Concerning the Duties of Flag States in Relation to their Vessels Fishing in the ICCAT Convention Area*

The Vanuatu Fisheries Department keeps and maintains an up-to-date record of Vanuatu flagged fishing vessels entitled to fly its flag and authorized to fish species managed by ICCAT. The Vanuatu flagged tuna longline vessels operating in the ICCAT Convention area are monitored to ensure that the vessels comply with and do not undermine ICCAT CMMs. All Vanuatu flagged vessels operating in the ICCAT Convention area are authorized pursuant to Section 14(1) of the Vanuatu Fisheries Act [CAP 315]. Penalty for unauthorized operations of a Vanuatu flagged fishing vessel is US\$1,000,000.00. All authorized Vanuatu Fishing Vessels are required by Law to carry the authorization on board at all times and to produce it on demand for inspection by a duly authorized person. Part 5, Section 16 of the Vanuatu Fisheries Act [CAP 315] obligates the Director of Fisheries to investigate and follow-up on an alleged violation by a vessel and report the results of such investigation as well as actions taken whenever that violation has been confirmed.

Rec. 05-09 *Recommendation by ICCAT on Compliance with Statistical Reporting Obligations*

The Vanuatu Fisheries Department is the official government competent authority for reporting obligations of Vanuatu flagged tuna longlines operating in the ICCAT Convention area. The Department of Fisheries faced a number of critical challenges which resulted in very poor reporting performances. The Department of Fisheries is currently investing on the development and establishment of a Fisheries Information Management System for all Vanuatu flagged fishing vessels which will greatly enhance the reporting and monitoring performance.

Rec. 06-11 *Recommendation by ICCAT Establishing a Programme for Transshipment*

There were no transshipments undertaken by Vanuatu flagged tuna longline fishing vessels that operated in the ICCAT Convention area in 2011. However, Vanuatu has eight (8) flagged Carrier vessels that operated in the ICCAT Convention area in 2011. The Carrier vessels received up to 309 transshipments comprising mainly of frozen albacore tuna, bigeye tuna, yellowfin tuna and swordfish from flagged large scale tuna longline fishing vessels from Japan, Korea, China, Chinese Taipei, Seychelles, Belize and the Philippines.

Rec. 10-10 *Recommendation by ICCAT to establish Minimum Standards for Fishing Vessel Scientific Observer Programmes*

Vanuatu has recently established national observer programme coordinated by the Fisheries Department. Up to 32 observers have been trained so far and registered under the WCPFC Regional Observer Programme (ROP) and involved in observer activities on board Vanuatu flagged tuna longlines operating in the WCPFC Convention area. At present observer coverage of Vanuatu flagged tuna longlines operating in the WCPFC Convention area is 5%. The vessels are randomly selected for placement of observers. Data collection protocols are subject and in accordance with the WCPFC ROP requirement. Data collected includes samples, scientific data, compliance, and surveillance data. There is 100% observer coverage for locally base foreign fishing vessels. Vanuatu Fisheries Department has an annual training programme with training manuals for national observers which trains up to 8 observers every year. Vanuatu intends to expand its observer activities to the ICCAT Convention area.

Rec. 11-10 *Recommendation by ICCAT on Information Collection and Harmonization of Data on By-catch and Discards in ICCAT Fisheries*

All species caught in association with the ICCAT fisheries by Vanuatu flagged tuna longline fishing vessels in the ICCAT Convention area are retained and are reported as "Others". In 2011, a total of 60.05 t of other species were caught and retained by the Vanuatu flagged tuna longline fishing vessels.

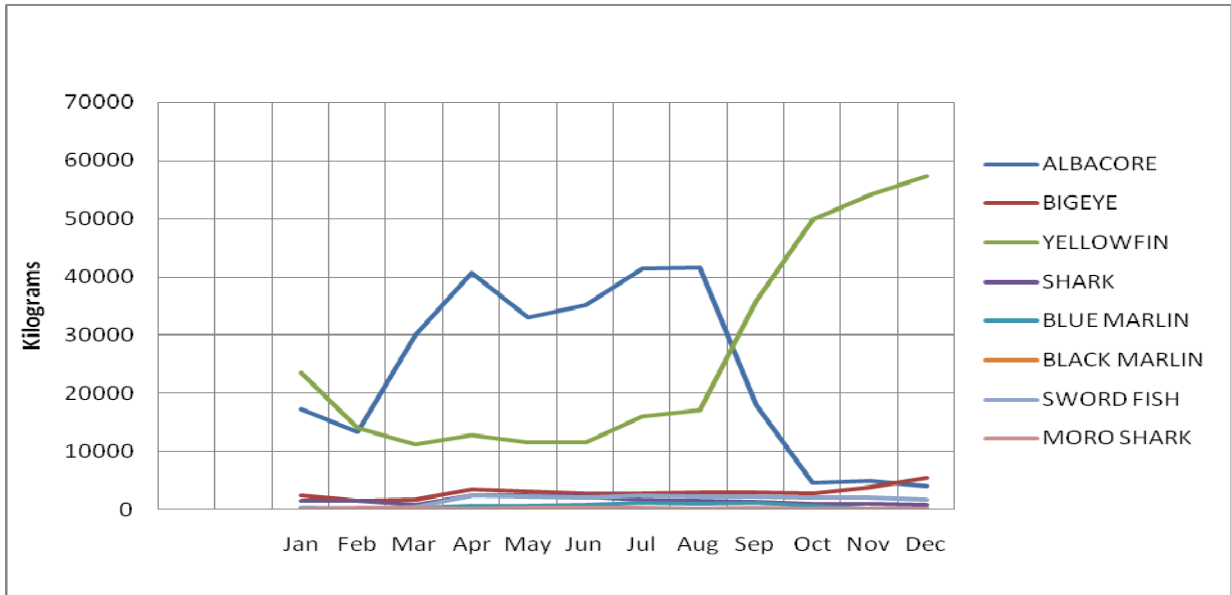
Rec. 11-15 *Recommendation by ICCAT on Penalties Applicable in case of non-Fulfillment of Reporting Obligations*

Vanuatu through its Fisheries Department is taking steps to improve its reporting obligations for all ICCAT fisheries, including shark species caught in association with ICCAT fisheries, including Task I and Task II data collection for direct and incidental catches.

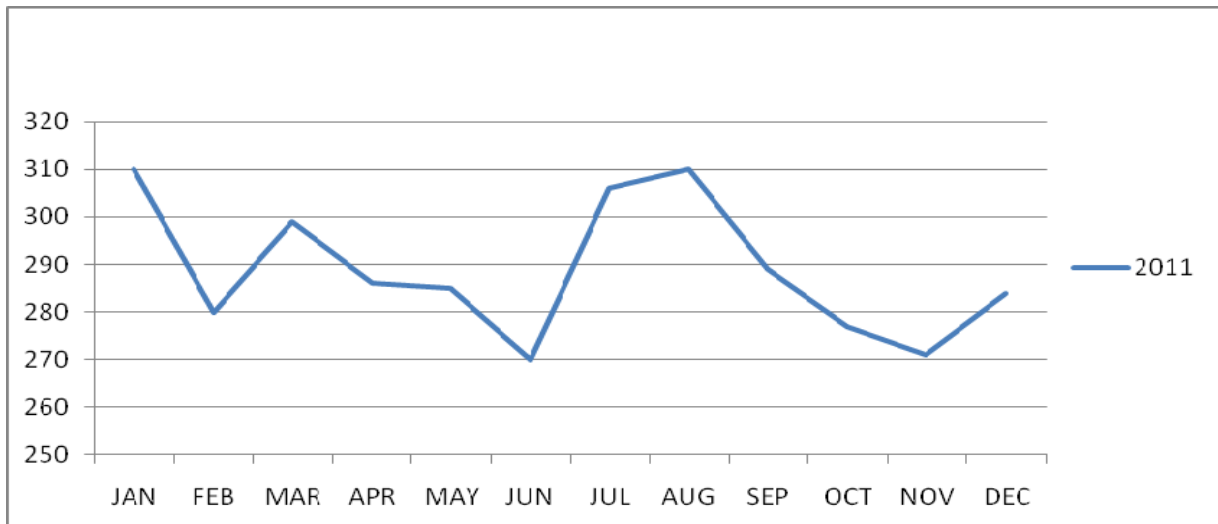
Rec. 11-16 *Recommendation by ICCAT on Access Agreements*

Vanuatu does not have an access agreement with coastal CPCs within the ICCAT Convention area.





**Figure 1.** Monthly catch records of Vanuatu flagged longliners in the ICCAT Convention area in 2011.



**Figure 2.** Monthly distributions of fishing days by the Vanuatu flagged longliners in the ICCAT Convention area in 2011.

**ANNUAL REPORT OF VENEZUELA  
RAPPORT ANNUEL DU VENEZUELA  
INFORME ANUAL DE VENEZUELA**

Instituto Socialista de la Pesca y Acuicultura  
(INSOPESCA)

SUMMARY

*The Venezuelan fleet fishing pelagic resources in the Atlantic Ocean was comprised of 74 industrial vessels in 2011: 61 longliners, 6 purse seiners and 7 handliners. Besides, 41 artisanal vessels operating with driftnets in the central coasts of Venezuela, from the community of Playa Verde, are registered. A total of 8,042 t of tuna and tuna-like species were landed this year from the Atlantic Ocean. Of these, 93.5% were tunas, among which the most important species was yellowfin (T. albacares) with 55.0 %, while skipjack tuna (K. pelamis), black skipjack (T. atlanticus) and bigeye tuna (T. obesus) catches amounted to 18,3 %, 6,3 %, 5.9 and 3.4 % of the catch, respectively. By-catch was comprised of billfish, notably sailfish (Istiophorus albicans) with 2.9 % and blue marlin (Makaira nigricans) with 1,2 % and shark landings which represented 2 %. 57.8 % of landings were carried out from the purse seine fishery, 15.4 % from baitboat, 22.1 % from longline and 4.6 % from the artisanal fishery. In 2011, research on large pelagic fisheries continued; this includes tunas, billfishes and sharks and the program of scientific observers on board industrial longline vessels was maintained, as did the coverage of the sport fishing tournaments along the central coast of the country.*

RÉSUMÉ

*En 2011, la flottille vénézuélienne ciblant les ressources pélagiques opérant dans l'océan Atlantique était composée de 74 unités industrielles : 61 palangriers, six senneurs et sept canneurs. On enregistre également 41 embarcations artisanales qui utilisent les filets maillants le long du littoral central du pays depuis la communauté de Playa Verde. Les débarquements de thonidés et d'espèces apparentées de l'océan Atlantique se sont élevés cette année à 8.042 t. Ceux-ci étaient composés à 93,5% de thonidés, parmi lesquels l'albacore (T. albacares) était prédominant (55,0 %) tandis que le listao (K. pelamis), l'auxide (A. Thazard), le thon à nageoires noires (T. atlanticus) et le thon obèse (T. obesus) représentaient 18,3 %, 6,3 %, 5,9 % et 3,4 % respectivement. Les prises accidentelles étaient composées de poissons porte épée, parmi lesquels des voiliers (Istiophorus albicans) (2,9 %) et des makaires bleus (Makaira nigricans) (1,2 %), ainsi que des requins dont les débarquements ont représenté 2 %. 57,8 % des débarquements ont été réalisés par la pêcherie de senneurs, 15,4 % par des canneurs, 22,1 % par des palangriers et 4,6 % par des pêcheurs artisanaux. En 2011, les programmes de recherche sur la pêcherie de grands pélagiques se sont poursuivis, englobant les thonidés, les poissons porte-épée et les requins. De la même façon, le Programme d'observateurs scientifiques à bord d'embarcations palangrières industrielles a été maintenu, tout comme la couverture des tournois de pêche sportive sur la côte centrale du pays.*

RESUMEN

*La flota venezolana orientada a los recursos pelágicos que operó en el océano Atlántico estuvo conformada en 2011 por 74 unidades industriales: 61 palangreros, 6 cerqueros y 7 cañeros; y se registran además 41 embarcaciones artesanales que operan con redes de enmalle en el Litoral Central de Venezuela, desde la comunidad de Playa Verde. Ese año se produjeron desembarques de túnidos y afines provenientes del océano Atlántico por 8.042 t. El 93,5% de éstas lo representan los atunes, entre los cuales el más importante fue el aleta amarilla (T. albacares) con 55,0 %, mientras que el bonito listado (K. Pelamis), la carachana (A. Thazard), el aleta negra (T. atlanticus) y el ojo gordo (T. obesus) alcanzaron 18,3 %, 6,3 %, 5,9 y 3,4 %, respectivamente. La captura incidental estuvo conformada por peces de pico, entre los que se destacan el pez vela (Istiophorus albicans) con 2,9 % y la aguja azul (Makaira nigricans) con 1,2 % y tiburones cuyos desembarques representan el 2 %. El 57,8 % de los desembarques provinieron de la pesquería de cerco, 15,4 % de la de caña, 22,1 % de palangre y 4,6 % de las pesquerías artesanales. En 2011 continuaron las investigaciones sobre la pesquería de los*

*grandes pelágicos; éstos incluyen los atunes, peces de pico y tiburones; y se mantuvo el programa de observadores científicos a bordo de embarcaciones industriales de palangre y la cobertura de los torneos de pesca deportiva en el litoral central del país.*

## **Parte I (Información sobre pesquerías, investigación y estadísticas)**

Las estadísticas de captura y esfuerzo de las pesquerías industriales venezolanas de caña, cerco y palangre son recabadas por el Instituto Socialista de la Pesca y Acuicultura (INSOPESCA) mediante un programa de recolecta de bitácoras en los puertos de desembarques y de muestreos biológicos multiespecíficos. Se cuenta con la cooperación de diversas instituciones nacionales e internacionales tales como el INIA, Universidad de Oriente, ICCAT e IRD.

### **Sección 1: Información anual sobre pesquerías**

#### *1.1 Pesquerías de cerco*

La flota cerquera venezolana estuvo conformada por 23 embarcaciones, de las cuales 6 faenaron en el Océano Atlántico Occidental y el resto en el Océano Pacífico Oriental (**Tabla 1**). El área de pesca de los cerqueros venezolanos estuvo comprendida entre los 5° y 15° N y 51° y 71° W (**Figura 1**).

Los desembarques realizados por la flota cerquera fueron de 4.648,1 t lo cual representa una disminución del 9,85 % respecto al 2010. El atún aleta amarilla, *Thunnus albacares*, representó el 48,5 % de los desembarques de la flota, y el bonito, *Katsuwonus pelamis*, 28,1 %. Otras especies capturadas por la flota fueron atún aleta negra, *Thunnus atlanticus*; carachana negra, *Auxis thazard* y atún ojo gordo, *Thunnus obesus*; las cuales representaron el restante 23,4% de los desembarques. El esfuerzo ejercido por estas embarcaciones en el 2011 fue de 705 días de pesca, inferior en 8,4 % al ejercido en el 2010 (**Tabla 2**).

#### *1.2 Pesquerías de caña*

La flota cañera venezolana estuvo conformada en 2011, por 7 unidades de pesca y faenan en las mismas áreas que las de la flota de cerco (**Figura 1**). Los desembarques de esta flota alcanzaron 1.241,2 t, aumentando un 14,8 % en relación año 2010. Las especies más importantes en la captura de esta flota fueron el atún aleta amarilla, *T. albacares*, con 86,0 % y el listado, *K. pelamis*, con 11,8 %; mientras que el atún ojo gordo, *T. obesus* y el atún aleta negra, *T. atlanticus*, contribuyeron con el 2,2 % de los desembarques totales de la flota. El esfuerzo aplicado fue de 676 días de mar lo cual representó una disminución del 11,2 % en relación al 2010 (**Tabla 3**). Las áreas de pesca coinciden con la de los cerqueros.

#### *1.3 Pesquerías de palangre*

El número de embarcaciones de palangre pelágico venezolanos que operaron en el Océano Atlántico en 2011 fue de 61 unidades. El área de pesca de estas embarcaciones se extiende entre 11°-17° N y 61 °-75° W en el Mar Caribe y en la parte occidental del Océano Atlántico 5°-17° N y 48° - 60° W (**Figura 1**).

Los desembarques controlados en la flota de palangre pelágico basadas en el Puerto de Cumaná y Puerto La Cruz, arrojaron un total de 1.780,1 t. en el 2011, mientras que el esfuerzo aplicado fue de 3.402.624 anzuelos (**Tabla 4**).

El atún aleta amarilla, *T. albacares*, fue la especie más importante de los desembarques, representando el 61,2 % de los mismos, mientras que para los otros túnidos como el atún albacora, *T. alalunga* y el atún ojo gordo, *T. obesus*, el porcentaje fue de 13,9 y 1,5 %, respectivamente. Los peces de pico representaron el 12,8 % de los desembarques de la flota, de los cuales el mayor porcentaje correspondió al pez vela con un 8 %. Entre los tiburones los principales desembarques por especie fueron el tiburón azul, *Prionace glauca* y el tiburón carite, *Isurus oxyrinchus*.

## 1.4 Pesquerías artesanales

### 1.4.1 Playa Verde (Litoral Central de la República Bolivariana de Venezuela)

La pesquería de peces de pico en esta zona se realiza durante todo el año. La flota que opera en la misma está integrada por 41 embarcaciones con eslora comprendida entre 7 y 10 m, y utilizan como arte de pesca una red de trasmallo a la deriva.

Los desembarques totales realizados por esta flota para el 2011 fueron de 371,6 t, integrados fundamentalmente por peces de la familia Istiophoridae que representaron el 43,4 % de la captura total, entre los cuales destacan el pez vela, *Istiophorus albicans*, con un 24,9 %, la aguja azul, *Makaira nigricans*, con el 16,9 % y la aguja blanca (WHM) con el 1,6 % de los desembarques. Los túnidos capturados representaron el 43,8 %, siendo las especies más importantes en los desembarques, la carachana negra, *Auxis thazard*, con 16,4 % y el atún aleta negra, *Thunnus atlanticus*, con 11,1 %. Los desembarques de tiburones de varias especies, representaron el 1,0 % de los desembarques totales para el 2011 (**Tabla 5**). La flota que se dedica a la captura de estas especies en el litoral central de Venezuela, realizó 4.290 viajes.

### **Sección 2: Investigación y estadística**

En la República Bolivariana de Venezuela se llevan a cabo investigaciones sobre la pesquería de los grandes pelágicos; éstos incluyen los atunes, peces de pico y tiburones. En el 2011 se continuó con los muestreos biológicos de las diferentes especies desembarcadas en puertos de los estados Sucre, Anzoátegui y Vargas y la recolección de datos de captura y esfuerzo de las diferentes pesquerías. Se muestrearon 18.883 ejemplares de túnidos, peces de pico y otras especies afines provenientes de las flota de caña, cerco, palangre y de la artesanal con redes de enmalle (**Tabla 6**).

Se realizó el control de la captura y el esfuerzo de las embarcaciones industriales que ejercen pesquerías en el océano Atlántico occidental bajo las modalidades de caña, cerco y palangre pelágico. La flota industrial realizó 541 viajes, con un porcentaje de cobertura global de 100 %.

En el Programa de Investigación Intensiva sobre Marlines en la República Bolivariana de Venezuela (PIIM-VZLA), auspiciado por la Comisión Internacional para la Conservación del Atún Atlántico (CICAA), se continuó con el programa de observadores científicos en embarcaciones de palangre pelágico y con los muestreos en puertos de desembarques de peces de pico. En el 2011 se efectuaron 19 cruceros con observadores científicos en embarcaciones palangreras industriales, con una cobertura del 3.5% del total de los viajes realizados por la flota palangrera en ese año. La información registrada por los observadores ha contribuido a las estimaciones de tasas de captura estandarizadas de las diversas especies de peces de pico y de tiburones. También ha contribuido al conocimiento de la distribución espacio-temporal de las tasas de capturas de esas especies, así como especies objetivo de las pesquerías con palangre.

Otra de las actividades que ejecuta el PIIM-VZLA se realiza en la comunidad pesquera de Playa Verde (Litoral Central de Venezuela). La actividad consiste en el monitoreo diario de los desembarques de peces de pico y otros grandes pelágicos como atún aleta amarilla, atún aleta negra, otros pequeños túnidos, pez espada, tiburones, dorado y sierra canalera o peto. La actividad consiste en el registro diario de tallas, peso, e identificación de sexo de todos los ejemplares de peces de pico, atunes, tiburones, dorados y de pez espada desembarcados. Adicionalmente, en esta comunidad se observaron el mayor número de ejemplares con marcas, las cuales son registrados por el PIIM-Vzla con toda la información del ejemplar y luego son enviadas a la Secretaría CICAA. En el año 2011 se registraron un total de 11 ejemplares marcados. Durante este año se continuó con la recolección de muestras biológicas de aguja blanca y pez vela además de aguja picuda y marlín peto para los estudios de edad, crecimiento y reproducción que se llevan a cabo entre científicos de la Universidad de Oriente junto con científicos de otros países miembros.

Se continuó el monitoreo de los torneos de pesca deportiva en el litoral central de la República Bolivariana de Venezuela (área La Guaira), cubriéndose los 3 torneos realizados en 2011.

El Programa Nacional de Observadores a Bordo de Embarcaciones Atuneras que faenan en el Océano Atlántico Centro Occidental se implementó a partir de abril de 2011. Este programa permitirá la colecta de información sobre las capturas objetivo e incidentales, descartes, capturas prohibidas y otras actividades de investigación requeridas, lo cual fortalecerá el seguimiento de esta pesquería y complementará la información que se lleva con los métodos de sistema de cuadernos de pesca, datos de desembarques y sistema de muestreo en puerto. Durante

el primer año se realizó la capacitación del personal técnico sobre el diseño y elaboración de la base de datos, metodologías, normas y procedimientos de campo, protocolos de recopilación de datos sobre actividades y operaciones pesqueras, e identificación de especies. Actualmente se está trabajando en la programación de archivos de desarrollo para la validación de la información en la base de datos. El programa pretende en sus inicios tener una cobertura de al menos un 5% de los viajes de los buques de la flota industrial polivalente y atunera. La selección de las embarcaciones a monitorear se realiza por un muestreo aleatorio simple por viaje. Oficialmente en mayo de 2012 se iniciaron los monitoreos en embarcaciones de palangre pelágico y en agosto 2012 el de los buques cerqueros y cañeros. Se han realizado un total de 13 viajes; 12 en embarcaciones palangreras, y 1 en un cañero. En las faenas palangreras, se ha registrado la captura de 4 tortugas; 2 cardón (*Dermochelys coriacea*), 1 verde (*Chelonia midas*) y 1 tortuga carey (*Eretmochelys imbricata*); todas fueron liberadas (tres vivas y una muerta). Ocasionalmente se ha registrado la incidencia de aves (pardelas) en los lances de palangreros.

## Parte II (Implementación de la ordenación)

### *Normativas para regular la pesquería de atún en el país*

El Ministerio del Poder Popular para la Agricultura y Tierras es el órgano con competencia en materia de Pesca y Acuicultura, y el ente ejecutor es el Instituto Socialista de la Pesca y Acuicultura INSOPESCA. Este último tiene entre otras competencias, la de establecer los principios y las normas para la aplicación de prácticas responsables de pesca que aseguren la gestión y el aprovechamiento eficaz de los recursos acuáticos vivos, respetando el ecosistema y la diversidad biológica.

La República Bolivariana de Venezuela, a través del Ministerio con competencia en materia de pesca y acuicultura, puede adoptar medidas orientadas a la conservación y recuperación de las poblaciones bajo aprovechamiento. En este sentido, se sometió a consideración ante el Ministerio, la propuesta de Resolución para regular la cuota máxima permisible de atún albacora *Thunnus alalunga*, para la flota atunera industrial del país, no obstante, que Venezuela no tiene una pesquería dirigida a la captura de la albacora. Igualmente se hizo la revisión de los datos históricos de la pesquería atunera, identificándose cifras erróneas para el año 2000, tanto para el atún albacora como para las otras especies de atún. En cuanto a las medidas sobre conservación de tiburones; el 19 de junio de 2012, se publicó, la Resolución DM/N062-2012, donde se dictan las Normas Técnicas de Ordenamiento para Regular la Captura, Intercambio, Distribución, Comercio y Transporte de Tiburones. Estableciendo, entre otras medidas, la prohibición a todo buque pesquero la captura de las especies tiburón zorro ojón (*Alopias superciliosus*) y tiburón oceánico (*Carcharhinus longimanus*) y para los buques pesqueros industriales la captura de las especies tiburón bobo (*Carcharhinus falciformis*) y las especies pertenecientes a la familia Sphyrnidae (tiburones martillo o cornudas).

En ese mismo orden de ideas, la República Bolivariana de Venezuela implementó un programa de monitoreo de identificación de especies en conflicto, en la localidad de Playa Verde (zona central del país) y en los puertos de Juangriego, Guiria, Puerto Santo, Carúpano y Guanta (en el oriente del país), como lo son los ejemplares de las diversas especies del género *Tetrapturus* (aguja blanca, aguja picuda, marlín y peto), así como especies de tiburones y rayas capturados por las pesquerías atuneras venezolanas.

Se continúan aplicando medidas de vigilancia y control de la norma técnica de ordenación para regular la pesca y comercialización de las especies de las familias Istiophoridae y Xiphiidae en todo el territorio nacional, dispuestas en la Providencia Administrativa N° 69 de año 2003, la cual, entre otras disposiciones, limita el número y tamaño de las embarcaciones y artes de pesca, y establece una zona de protección pesquera de las especies mencionadas.

La legislación pesquera nacional fomenta la actuación de los diferentes actores vinculados al desarrollo de las pesquerías de túnidos y especies afines, a través de los órganos consultivos como lo son los Consejos Consultivos, Comité de Seguimiento del Atún y los Grupos de Expertos, con la finalidad de propiciar la participación y consulta permanente entre instituciones públicas, privadas, así como de representantes de los pescadores, para la asesoría de la Administración Pesquera en la propuestas de políticas y formulación de planes o programas relativos a la pesca de los grandes pelágicos.

**Tabla 1.** Composición de la flota industrial venezolana en el océano Atlántico centro occidental, según la capacidad de almacenaje. Año 2011.

<i>C. Almacén (t)</i>	<i>BB</i>	<i>LL</i>	<i>PS</i>	<i>TOTAL</i>
0	50	38		38
51	100	3	20	23
101	150	1	3	4
151	200	1		1
201	250			
251	300	2	1	3
301	350			
351	400			
401	450			
451	500			
501	550			
551	600		5	5
601	650			
651	700			
701	750			
751	800			
801	850			
851	900			
901	950			
951	100			
<b>Total</b>	<b>7</b>	<b>61</b>	<b>6</b>	<b>74</b>

**Tabla 2.** Captura (t) y esfuerzo (días de pesca) de la flota cerquera venezolana en el océano atlántico centro occidental durante el año 2011.

<b>TRIM</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>TOTAL</b>	<b>%</b>
YFT	657,1	661,4	108,6	826,0	2253,2	48,5
SKJ	877,7	37,1	98,6	294,5	1307,9	28,1
FRI	8,2	435,2	4,0	0,0	447,4	9,6
BET	0,8	0,9	31,3	190,5	223,4	4,8
BLF	360,9	7,7	18,1	29,5	416,1	9,0
<b>TOTAL</b>	<b>1.904,7</b>	<b>1.142,3</b>	<b>260,5</b>	<b>1340,553</b>	<b>4648,05</b>	<b>100</b>
<b>EFF (Días)</b>	<b>139</b>	<b>121</b>	<b>158</b>	<b>287</b>	<b>705</b>	

YFT= ALETA AMARILLA

SKJ= LISTADO

FRI= CARACHANA

EFF= ESFUERZO (D. DE PESCA)

BET= OJO GORDO

BLF= ALETA NEGRA

**Tabla 3.** Captura (t) y esfuerzo (días) de la flota de caña venezolana en el océano Atlántico centro occidental durante el año 2011.

<b>TRIM</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>TOTAL</b>	<b>%</b>
YFT	195,2	240,8	136,6	495,4	1.068,0	86,0
SKJ	10,5	31,9	103,6	0,0	146,0	11,8
BET	0,0	0,8	12,2	0,8	13,8	1,1
BLF	0,0	0,5	12,8	0,0	13,3	1,1
<b>TOTAL</b>	<b>205,7</b>	<b>273,9</b>	<b>265,3</b>	<b>496,2</b>	<b>1.241,2</b>	<b>100,0</b>

Ver leyenda en la Tabla 2.

**Tabla 4.** Captura (t) y esfuerzo (anzuelos) de la flota palangrera atunera venezolana en el océano Atlántico centro occidental durante el año 2011.

TRIM	1	2	3	4	TOTAL	%
YFT	167,4	402,5	273,8	246,5	1.090,2	61,2
BET	13,8	10,6	0,9	1,3	26,5	1,5
ALB	38,5	55,0	80,6	73,2	247,4	13,9
BLF	0,2	0,9	0,1	0,4	1,7	0,1
SAI	9,0	31,1	50,1	52,8	143,0	8,0
SWO	3,7	3,5	1,6	4,3	13,1	0,7
BUM	4,6	10,7	6,7	11,0	33,0	1,9
WHM	10,3	5,5	2,9	22,1	40,8	2,3
SPF	1,0	3,7	2,2	4,5	11,4	0,6
DOL	4,6	5,4	5,6	4,1	19,7	1,1
WAH	3,4	6,6	3,0	5,6	18,6	1,0
BSH	21,0	43,1	23,8	28,6	116,4	6,5
SMA	6,5	7,8	1,2	2,4	18,0	1,0
CCE	0,0	0,1	0,2	0,0	0,3	0,0
CCL	0,1	0,0	0,0	0,0	0,1	0,0
<b>TOTAL</b>	<b>284,2</b>	<b>586,4</b>	<b>452,7</b>	<b>456,8</b>	<b>1.780,1</b>	<b>100,0</b>
<b>f (Anzuelos)</b>	<b>584.916</b>	<b>1.007.948</b>	<b>828.534</b>	<b>981.226</b>	<b>3.402.624</b>	

**Tabla 5.** Captura (kg) y esfuerzo (viajes) en la pesquería artesanal de peces de pico con redes de enmalle en el litoral central año 2011.

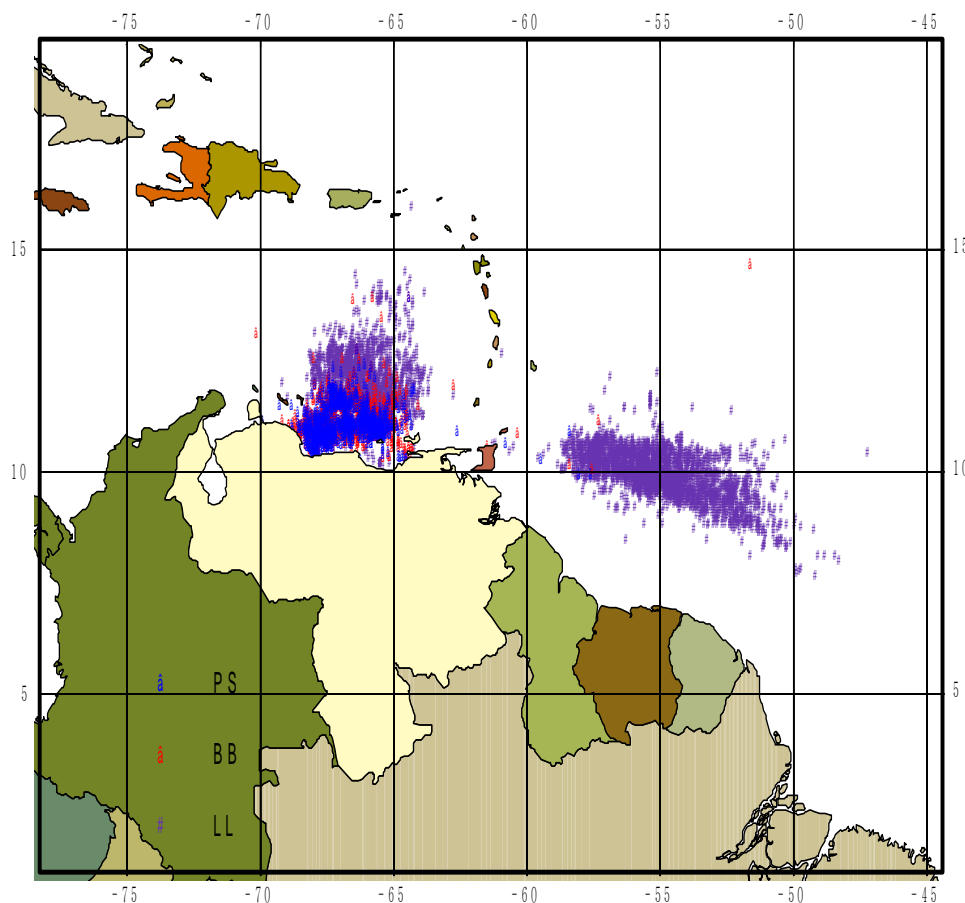
ESPECIE	I	II	III	IV	TOTAL	%
BUM	14,43	18,79	11,97	17,71	62,90	16,93
WHM	1,28	1,41	2,41	0,92	6,03	1,62
SAI	9,70	39,86	25,79	16,99	92,33	24,85
SPF	0,00	0,00	0,12	0,07	0,19	0,05
SWO	1,84	1,96	0,56	0,39	4,75	1,28
DOL	5,23	5,12	4,30	3,42	18,07	4,86
SHX	11,23	8,03	1,35	0,00	20,61	5,55
YFT	5,52	1,88	0,40	0,25	8,05	2,17
BLF	21,95	13,62	2,84	3,01	41,42	11,14
WAH	1,56	1,17	0,89	0,99	4,62	1,24
SKJ	12,96	4,10	1,55	0,00	18,61	5,01
BON	13,03	0,00	0,01	7,61	20,65	5,56
LTA	6,79	0,41	0,20	1,05	8,44	2,27
FRI	18,11	11,17	11,86	19,96	61,09	16,44
BSH	0,00	0,00	0,08	0,61	0,68	0,18
SMA	0,00	0,00	0,03	0,95	0,98	0,26
CCS	0,00	0,00	0,51	0,06	0,57	0,15
TIG	0,00	0,00	0,01	0,06	0,07	0,02
SPN	0,00	0,00	0,36	0,46	0,82	0,22
THR	0,00	0,00	0,07	0,69	0,76	0,20
<b>TOTAL</b>	<b>123,629</b>	<b>107,514</b>	<b>65,29</b>	<b>75,181</b>	<b>371,614</b>	<b>100,00</b>
SALIDAS	1.098	1.254	960	978	4.290	
BARCOS/MES	115	115	113	110	453	

Ver leyenda en la Tabla 4.

**Tabla 6.** Muestras biológicas de túnidos y especies acompañantes en la pesquería de túnidos en el océano Atlántico centro occidental, año 2011.

SP	BB	%	PS	%	LL	%	GN	%	TOTAL	%
YFT	374	48,45	394	20,50	1069	23,06	17	0,15	1854	9,82
SKJ	304	39,38	957	49,79					1261	6,68
FRI	0	0,00	136	7,08					136	0,72
ALB	0	0,00	0	0,00	1199	25,87			1199	6,35
BET	34	4,40	66	3,43	39	0,84			139	0,74
BLF	60	7,77	369	19,20			2720	23,54	3149	16,68
WAH					181	3,91			181	0,96
SAI					984	21,23	5574	48,24	6558	34,73
SPF					121	2,61			121	0,64
SPG					5	0,11			5	0,03
BUM					83	1,79	998	8,64	1081	5,72
SWO					59	1,27	228	1,97	287	1,52
WHM					343	7,40	266	2,30	609	3,23
DOL					313	6,75	1090	9,43	1403	7,43
SHX					239	5,16	661	5,72	900	4,77
<b>TOTAL</b>	<b>772</b>	<b>100</b>	<b>1922</b>	<b>100</b>	<b>4635</b>	<b>100</b>	<b>11554</b>	<b>100</b>	<b>18883</b>	<b>100</b>

SP= ESPECIE PS= CERC0 BB= CAÑA GN= RED DE ENMMALE



**Figura 1.** Áreas de pesca de las embarcaciones atuneras venezolanas año 2011.



**REPORTS OF OBSERVERS FROM COOPERATING  
NON-CONTRACTING PARTIES, ENTITIES OR FISHING ENTITIÉS /  
RAPPORTS DES OBSERVATEURS DES PARTIES, ENTITES OU ENTITÉS DE  
PÊCHE NON-CONTRACTANTES COOPÉRANTES /  
INFORMES DE OBSERVADORES DE PARTES, ENTIDADES O ENTIDADES  
PESQUERAS NO CONTRATANTES COLABORADORAS**

**ANNUAL REPORT OF CHINESE TAIPEI  
RAPPORT ANNUEL DU TAIPEI CHINOIS  
INFORME ANUAL DE TAIPEI CHINO**

Fisheries Agency, Council of Agriculture<sup>1</sup>

*SUMMARY*

*In 2011, the total number of longline vessels authorized to operate in the Atlantic Ocean was 124, including 75 vessels targeting bigeye tuna and 49 vessels targeting albacore, and the total catch of tuna and tuna-like species was 35,799 t. The catch of tropical tunas (bigeye tuna 13,732 t and yellowfin tuna 1,768 t) accounted for 43% of the total catch, and the catch of albacore 14,399 t accounted for 40% of the total catch. To comply with the catch limit set by ICCAT, individual quota management was implemented by Fisheries Agency for Atlantic bigeye tuna, northern and southern Atlantic albacore, swordfish, blue marlin and white marlin. The catches of these species were well below catch limits allocated by the ICCAT for 2011. The fisheries data (fleets characteristics/Task I/Task II/size/observer sea turtle report) was submitted to ICCAT Secretariat within the required timeframe. In 2011, 27 observers were placed on fishing vessels in the Atlantic Ocean, and the observer coverage on albacore vessels was 7.8%, and 11.06% on bigeye vessels, well above the requirement set by ICCAT. The research programs conducted by scientists in 2011 included the researches of CPUE standardizations on bigeye tuna, yellowfin tuna, albacore, blue marlin and white marlin, the catch estimation of shark species, the incidental catch estimation of seabirds, sea turtles and cetaceans. The research results were presented at the regular meeting and inter-sessional working group meetings of SCRS.*

*RÉSUMÉ*

*En 2011, le nombre total de palangriers autorisés à opérer dans l'océan Atlantique s'est élevé à 124 unités, dont 75 palangriers ciblant le thon obèse et 49 ciblant le germon et la prise totale de thonidés et d'espèces apparentées s'élevait à 35.799 t. Les thonidés tropicaux (thon obèse, 13.732 t et albacore 1.768 t) constituaient les principales espèces capturées, représentant 43% de la prise totale, et le germon (14.399 t) représentait 40% de la prise totale. Afin de respecter la limite de capture fixée par l'ICCAT, la gestion des quotas individuels a été mise en œuvre par l'Agence des pêches pour le thon obèse, le germon de l'Atlantique Sud et Nord, l'espadon, le makaire bleu et blanc. Les prises de ces espèces étaient nettement en deçà des limites de prise allouées par l'ICCAT au titre de 2011. Les données halieutiques (caractéristiques des flottilles/Tâche I/Tâche II, données de taille, rapport d'observateur sur les prises de tortues marines) ont été soumises au Secrétariat de l'ICCAT dans les délais impartis. En 2011, 27 observateurs ont été détachés sur des navires de pêche opérant dans l'océan Atlantique et le taux de couverture d'observation s'élevait à 7,8% dans le cas des navires de germon et de 11,06% dans le cas des navires de thon obèse, ce qui est supérieur au niveau requis par l'ICCAT. Les programmes de recherche menés par des scientifiques en 2011 englobaient des travaux sur la standardisation de la CPUE du thon obèse, de l'albacore, du germon, du makaire bleu et du makaire blanc, l'estimation de la prise des espèces de requins, l'estimation de la prise accessoire d'oiseaux marins, de tortues de mer et de cétacés. Les résultats de ces travaux ont été présentés lors de la réunion ordinaire et lors des réunions intersessions des groupes de travail du SCRS.*

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## RESUMEN

*En 2011, el número total de palangreros autorizados a operar en el océano Atlántico fue de 124, incluidos 75 buques que se dirigen al patudo y 49 buques que se dirigen al atún blanco, y la captura total de túnidos y especies afines fue de 35.799 t. La captura de túnidos tropicales (patudo 13,732 t y rabil 1.768 t) supuso el 43% de la captura total y la captura de atún blanco (14.399 t) supuso el 40% de la captura total. Para cumplir el límite de captura establecido por ICCAT, la gestión de la cuota individual para el patudo del Atlántico, el atún blanco del Atlántico sur y norte, el pez espada, la aguja azul y la aguja blanca la realizó la Agencia de Pesca. Las capturas de estas especies se situaron en un nivel muy inferior a los límites de captura asignados por ICCAT para 2011. Las estadísticas (características de la flota/Tarea I/Tarea II/talla/informes de tortugas marinas de observadores) fueron enviadas a la Secretaría de ICCAT en los plazos requeridos. En 2011, 27 observadores se embarcaron en pesqueros en el Atlántico y la cobertura de observadores en buques de atún blanco fue del 7,8% y del 11,06% en buques de patudo, superior a la establecida por ICCAT. Los programas de investigación de 2011 llevados a cabo por los científicos incluyen investigaciones sobre estandarizaciones de la CPUE del patudo, rabil, atún blanco, aguja azul y aguja blanca, la estimación de la captura de especies de tiburones y la estimación de la captura incidental de aves marinas, tortugas marinas y cetáceos. Los resultados de las investigaciones fueron presentados en la reunión ordinaria del SCRS y en las reuniones intersesiones de los grupos de trabajo del SCRS.*

## Part I (Information on Fisheries, Research and Statistics)

### Section 1: Annual Fisheries Information

#### –General overview

The longline fleet of Chinese Taipei commenced operating in the Atlantic Ocean in early 1960s to target albacore and yellowfin tunas. In the mid 1980s, newly built longliners equipped with deep-freezers started operating in tropical areas to target bigeye tuna.

Bigeye tuna, yellowfin tuna and albacore are the most dominant tuna species in the catch comprising the majority (about 80%, **Table 1**) of the total catch of the longline fishery in the Atlantic Ocean. **Figure 1** shows the catch distributions from 2009 to 2011. It was noted that the catches of bigeye tuna and yellowfin tuna were located mainly in tropical areas between 15°N and 15°S, and the catch of albacore were observed located in temperate areas, north of 15°N and south of 15°S. The catch of swordfish was the highest among bycatch species.

**Figure 2** shows the annual geographic distributions of fishing efforts (number of hooks) from 2009 to 2011. It was noted that fishing efforts were distributed from 40°N to 45°S and more concentrated in the Southern Hemisphere. The tropical tunas fishing fleet operated in the tropical waters between 15°N and 15°S off the west coast of Africa. The fishing efforts of albacore fishing fleet were located in the waters off the southwest coast of Africa, as well as the waters off the southeast coast of South America in the South Atlantic Ocean.

The number of fishing vessels declined from 205 in 1998 to 124 in 2011, following the implementation of a 3-year vessel reduction program between 2005 and 2007. Subsequently, there was a decline in the overall catch by the fishery, from 45,437 t in 1998 to about 35,799 t in 2011 (**Table 1**).

#### –Albacore

In the Atlantic Ocean, two stocks of albacore have been identified and separated by parallel 5°N as set by ICCAT for the sake of application of fishery management measures. The annual catch of South Atlantic albacore fluctuated between 9,000 t and 17,500 t in the last decade. The catch of South Atlantic albacore in 2011 was 13,032 t, an increase of 2,057 t from that of the previous year as the result of an increase in fishing efforts. The catch of North Atlantic albacore in 2011 was 1,367 t, a decrease of 220 t from 2010. The total catch of albacore in 2011 was 14,399 t, an increase of 1,838 t from 2010. The catch of albacore in 2011 by the fleet was well below the catch limit allocated under ICCAT Rec. 07-02, Rec. 09-05, and Rec. 07-03.

*–Bluefin tuna*

Bluefin tuna was targeted seasonally by some longliners in the Mediterranean prior to 2007. The catch of bluefin tuna was 277 t in 2005 and drastically reduced to 9 t in 2006. Although Chinese Taipei was entitled to catch 71.12 t, 68.71 t, 66.3 t, 41.6 t and 39.75 t of bluefin tuna for 2007, 2008, 2009, 2010 and 2011 respectively in the eastern Atlantic and Mediterranean, as from 2007, no vessel was authorized to fish on bluefin tuna, and there was no catch reported.

*–Tropical tunas*

The catches of bigeye and yellowfin tunas in 2011 were 13,732 t and 1,768 t, respectively, showing increases of 543 t and 944 t, respectively, from those of the previous year (13,189 t and 824 t in 2010). In accordance with the catch limits set forth in ICCAT Rec. 04-01, Rec. 08-01 and Rec. 09-01, the catch of bigeye tuna in 2011 by the fleet was well below the catch limit allocated.

*–Swordfish*

The preliminary estimate of swordfish catch was 616 t in 2011, comprising 192 t in the North Atlantic Ocean and 424 t in the South Atlantic Ocean. In accordance with the catch limits as set in ICCAT Rec. 06-02, Rec. 06-03 and Rec. 09-03, the catch of swordfish in 2011 by the fleet was well below the catch limit allocated.

*–Billfish species*

Billfish species are bycatch for longline fishery and the catch estimates of the fleet for white marlin, blue marlin, sailfish, spearfish and other marlins were 28 t, 199 t, 60 t, 21 t and 5 t, respectively in 2011.

*–Sharks*

Sharks are also bycatch species captured by longline fishery. Blue shark was the most dominant species caught in the Atlantic Ocean, followed by mako shark, silky shark and other sharks. The catch of sharks was 1,904 t in 2010 and 2,582 t in 2011. The preliminary catch estimates in 2011 for blue shark, shortfin mako, silky shark and other sharks were 2,286 t, 216 t, 0.17 t and 80 t, respectively.

**Section 2: Research and Statistics**

*2.1 Data collection and processing system*

Task I data are obtained by information from (1) weekly catch report; (2) the total catch from the recovered logbooks; (3) statistical documents reported to the Fisheries Agency; (4) monthly traders' sales records; (5) the verification on settlement of fish sales from the Fisheries Agency; and (6) trading data from the Organization for the Promotion of Responsible Tuna Fishery (OPRT).

As for Task II catch/effort and size data were compiled from logbooks.

The observers were required to collect fishery data and size measurements on target species and bycatch species. Biological samples of bigeye tuna, albacore, swordfish and bycatch/incidental catch species were also collected. The budgets of observer program from 2009 to 2011 were shown as follows:

– 2009	US\$2,128,000
– 2010	US\$2,270,000
– 2011	US\$2,212,700

The observer program for the Atlantic started in 2002. For the period of 2009-2011, the deployment of observers on all fishing vessels in the Atlantic Ocean, including the observers on bigeye vessels, was as follows:

	2009	2010	2011
On all vessels	25	18	27
On bigeye vessels	20	15	23

The coverage of observers on albacore and bigeye vessels has been over 5% and over 10%, respectively since 2007.

There were 12 bycatch shark species recorded by observers in the Atlantic Ocean during 2009-2011. During the trips, 7.2% of sharks in number were released alive, 52.5% were dead discarded and 40.3% were retained onboard. The retained sharks were mainly blue shark (93.4%) and shortfin mako shark (6.4%). The discarded sharks, including alive and dead, were mainly blue shark (42.5%), crocodile shark (33.5%) and bigeye thresher shark (6.4%).

During the observers' trips from 2009 to 2011, 102 sea turtles were incidentally caught, in which fifty-two of them were released alive, forty-seven were discarded dead and three were unknown status. Most of sea turtles were incidental catch in tropical areas, in which thirty-six of them were leatherback sea turtle, thirty-four were olive ridley turtle, nine were loggerhead turtle, five were green turtle, one was Kemp's ridley turtle and three were unidentified sea turtle. There small numbers were caught in temperate areas, in which eleven of them were loggerhead turtle, one was leatherback sea turtle, one was green turtle and one was olive ridley turtle.

A total of 218 seabirds were recorded by observers in the Atlantic Ocean during 2009-2011, including 7 seabirds in tropical areas and 211 seabirds in southern latitudes. Bycatch was mainly distributed in the Southwest Atlantic Ocean and Southeast Atlantic Ocean (35-45°S/40-50°W and 25-35°S/10-25°W, respectively). The bycatch species mainly included black-browed albatross, yellow-nosed albatross, wandering albatross, spectacled petrel, white-chinned petrel and streaked shearwater.

## 2.2 Research

Our scientists carried out a series of research programs, including the CPUE standardizations on bigeye tuna, yellowfin tuna, albacore, blue marlin and white marlin, shark fin ratio estimation, shark catch estimation, incidental catch rate of seabirds, sea turtles and cetaceans. The research results were presented at the regular meeting and inter-sessional working group meetings of SCRS. For the research work on global tuna fisheries, the budgets for the period between 2009 and 2011 were as follows:

– 2009	US\$1,432,531
– 2010	US\$1,481,724
– 2011	US\$1,432,333

The scientific papers presented at recent ICCAT meetings are shown in the “References” section of this report.

## Part II (Management implementation)

### *Section 3: Implementation of ICCAT Conservation And Management Measures*

#### *3.1 Limit on the number of fishing vessels*

– Bigeye tuna (ICCAT Rec. 10-01)

In accordance with ICCAT Recommendations 10-01, Chinese Taipei limited the number of fishing vessels for catching of bigeye tuna to 75 in 2011. The list of authorized vessels was duly submitted to ICCAT.

– Northern albacore (ICCAT Recs. 98-08, 99-05)

In accordance with the *Recommendation by ICCAT on the Limitation of Fishing Capacity on Northern Albacore* (Rec. 98-08), the number of fishing vessels for catching northern albacore was set at the average number for the period between 1993 and 1995. Following the limitation on the number of fishing vessels, 14 vessels were authorized to fish northern albacore in 2011 and the list of vessels was duly submitted to ICCAT.

#### *3.2 Catch limits and minimum sizes*

In accordance with the relevant ICCAT Recommendations, catch limits were set on northern and southern albacore, bigeye tuna, northern and southern swordfish, blue marlin and white marlin. Measures to prohibit catch of undersized fish for swordfish were also enforced.

As for the *Recommendation by ICCAT Regarding Compliance with Management Measures Which Define Quotas and/or Catch Limits* (Rec. 00-14), Chinese Taipei has taken into account of the requirement of the adjustment of underage/overages in the management of its tuna fishery in the Atlantic Ocean. Catch estimates together with the status of overages/underages in 2011 have been provided in the compliance table.

– Bigeye tuna (ICCAT Rec. 04-01, 10-01)

For 2011, Chinese Taipei's adjusted catch limit of bigeye tuna was 20,257.9 t<sup>2</sup> in accordance with *ICCAT Rec. 04-01 and 10-01*. To ensure the catch of bigeye tuna did not exceed the limit, and to minimize the chances of overuse of such limit, the Fisheries Agency provided each vessel an individual catch limit. Once the individual vessel catch limit is exhausted, the vessel must stop fishing and return to a designated port. In 2011, 13,732 t of bigeye tuna was caught by the fleet of Chinese Taipei.

– Bluefin tuna (ICCAT Rec. 10-04)

Although Chinese Taipei was entitled to catch bluefin tuna in the eastern Atlantic and Mediterranean in accordance with the relevant ICCAT recommendations, voluntary closure of Atlantic Bluefin tuna fishery was applied by the Fisheries Agency since 2007, prohibiting fishing vessels from fishing E-BFT to allow the E-ATL BFT stock to recover. Hence, no vessel was authorized to fish bluefin tuna and no catch was reported in 2011. Despite the closure, in order to ensure the fishing right of the stock, the unused quota of 66.3 t of bluefin tuna in 2009 was carried over to the year 2011 in accordance with paragraph 15 of Rec. 08-05, which was duly informed ICCAT.

– Northern albacore (ICCAT Rec. 09-05)

Chinese Taipei was limited to a catch of 3,271.7 t in 2011 according to the *Recommendation by ICCAT to Establish a Rebuilding Program on North Atlantic Albacore for the Period 2010-2011* (Rec. 09-05). In addition to the catch limitation, a carry-over of up to 817.9 t (25% of initial catch limit) was applied against its underage in 2009 of the northern albacore catch to 2011, and a transfer of 100 t from its catch limit was made to St. Vincent and Grenadines. Subsequently, the adjusted catch limit of this stock for Chinese Taipei was 3,989.6 t. Only 1,367 t of northern albacore was caught by our fleet.

– Southern albacore (ICCAT Rec. 07-03)

In accordance with the *Recommendation by ICCAT on the Southern Albacore Catch Limits for 2008, 2009, 2010 and 2011* (Rec. 07-03), a total allowable catch (TAC) of 29,900 t of southern albacore was to be shared among all countries fishing for the stock. As one of the major players in the fishery, Chinese Taipei's fleet caught 13,032 t of southern albacore in 2011.

– North swordfish (ICCAT Rec. 09-04, 10-02)

According to the *Recommendation by ICCAT for the Conservation of North Atlantic Swordfish* (Rec. 10-02), Chinese Taipei was limited to a catch of 270 t in 2011 and applying for a carry-over against its underage in 2009 of north swordfish catch to 2011 up to 135 t, bringing to an adjusted catch limit of 405 t north swordfish catch. Only 192 t of north swordfish was caught in 2011. In addition, restrictions on minimum weight (< 25 kg) and size (lower jaw fork length (LJFL) < 119 cm) of swordfish were applied. Domestic measures were taken to ensure compliance with these measures.

In accordance with the *Recommendation by ICCAT for A Management Framework for The Sustainable Exploitation of Mediterranean Swordfish and Replacing ICCAT Recommendation 08-03* (Rec. 09-04), fishing for Mediterranean swordfish shall be prohibited in the Mediterranean Sea during the period from 1 October to 30 November. In fact, no vessel was authorized to fish for Mediterranean Swordfish in 2011 by Chinese Taipei.

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<sup>2</sup> 2011 adjusted catch limit of bigeye tuna by Chinese Taipei fleet was 20,257.9 tons in view of the fact the underage of 2009 has exceeded 30% of the 2011 catch limit (15583\*(1+30%) t).

– South swordfish (ICCAT Rec. 09-03)

In accordance with the *Recommendation by ICCAT on the South Atlantic Swordfish Catch Limits* (Rec. 09-03), Chinese Taipei was limited to a catch of 459 t in 2011 and applying a carry-over of up to 84 t against its underage in 2010 of the south swordfish catch to 2011, bringing the adjusted catch limit of 543 t of south swordfish. Domestic measures were taken to ensure compliance with these recommendations. It was recorded 424t of south swordfish was caught in 2011 by the fleet of Chinese Taipei.

– Atlantic white marlin and blue marlin (ICCAT Rec. 06-09, 10-05)

In accordance with the *Recommendation by ICCAT on the Plan to Rebuild Blue Marlin and White Marlin Populations* (Rec.10-05), Chinese Taipei's catch of Atlantic white marlin and blue marlin was, respectively, limited to 186.8 t and 330 t in 2011. Domestic measures were taken to ensure compliance with these recommendations. The catch of abovementioned species in 2011 was 28 t and 199 t, respectively.

3.3 *Measures to reduce incidental catch of sea turtle, seabird and sharks (ICCAT Recs. 95-02, 03-10, 04-10, 05-05, 06-10, 07-06, 07-07, 08-08, 09-07, 10-06, 10-07, 10-08, 10-09, 11-08, 11-09, 11-10)*

– Education:

- a) To disseminate the information on conservation of incidental catch species, in recent year pamphlets and leaflets were distributed to fishermen, fishery industries and domestic conservation groups for promoting the concept of conservation of sea turtle, seabird and sharks.
- b) To ensure the people in the industry sector better understand the recommendations on management and conservation adopted by ICCAT, the Fisheries Agency convened seminars of propagandas for introducing new measures and explaining the way for the effective implementation of such measures, including measures to reduce incidental catch of sea turtle, seabird and sharks.
- c) Fishermen on longliners were trained to use specific equipment in safe handling and techniques to release sea turtles to maximize the probability of their survival.

– Mandatory measures:

- a) Fishing vessels shall release all live sharks incidentally caught, giving due consideration to the safety of crew members.
- b) Fishing vessels shall carry such tools as line cutter, de-hooker and scoop/dip net to release incidentally caught seabirds and sea turtles, for maximizing the probability of their survival.
- c) Fishing vessels operating in the area south of 20°S shall use tori line (of a length of at least 150 meters and 5 to 7 meters apart between streamers, and streamer be made of bright colored and durable material) during operation, and shall maintain at least one spare set on board. In 2012, the Fisheries Agency encouraged the fishing vessels operating in the area south of 25°S to use either night setting with minimum deck lighting or line weighting.
- d) Ban on specific sharks: Fishermen were required to prohibit catching and possessing bigeye thresher sharks (since 2010), hammerhead shark (since 2011), oceanic whitetip shark (since 2011) and silky sharks (since 2012). Any by-catch of such shark species shall be released and recorded on the catch logbook.

– Data collection:

- a) Observers were placed on distant water tuna longline vessels since 2000 to record:
  - i) the length, species and related information of incidental catch;
  - ii) the number of discards and releases of specific sharks with indication of status (dead or alive);
  - iii) interactions by sea turtle species, and the nature of the hooking, bait type, hook size and type, and the size of the animal.
- a) b) Fishermen were required to duly record the following data on catch logbook:
  - i. i) incidental catches of sharks as well as live releases, and
  - ii. ii) the number of seabird, sea turtle and cetacean, incidentally caught by the fishing vessels and released when caught alive or discarded dead.

- Adopted NPOA: In 2006, Chinese Taipei established the National Plans of Actions (NPOA) for reducing catch of seabirds in longline fisheries and for the betterment of management and conservation of sharks.

### *3.4 Closed seasons (ICCAT Rec. 10-04)*

In its efforts to conserve bluefin tuna stocks, Chinese Taipei voluntarily implemented domestic regulations to prohibit all longline vessels to fish in the eastern Atlantic, western Atlantic, and Mediterranean for the entire year since 2009.

### *3.5 Ban on Imports (ICCAT Rec. 02-17, 03-18)*

In accordance with ICCAT Rec. 02-17 and Rec. 03-18, imports of products of bluefin tuna, swordfish, and bigeye tuna caught from those countries under trade restrictive measures were prohibited. However, the restrictive measures have been lifted since Rec. 11-19 its effective date on June 7, 2012.

### *3.6 Implementation of the ICCAT Management Standard for Larger-Scale Tuna Longline Vessels (ICCAT Rec. 01-20, 09-08)*

Pursuant to ICCAT Rec. 01-20 Resolution Concerning a Management Standard for the Large-Scale Tuna Fishery, the Report of Implementation of the ICCAT Management Standard for Large-Scale Tuna Longline Vessels (LSTLVs) is herewith attached as **Table 2**.

Likewise, in accordance with ICCAT Rec. 09-08 Recommendation by ICCAT Concerning the Establishment of an ICCAT Record of Vessels 20 Meters in Length Overall Or Greater Authorized to Operate in the Convention Area, a list of vessels larger than 20 meters length overall that were authorized to fish for tuna and tuna-like species in the ICCAT Convention Area was submitted to ICCAT Secretariat.

### *3.7 Vessel Monitoring System (ICCAT Rec. 03-14, 04-11)*

In accordance with ICCAT Rec. 03-14 Recommendation by ICCAT Concerning Minimum Standards for the Establishment of a Vessel Monitoring System in the ICCAT Convention Area and Rec. 04-11 Recommendation by ICCAT Concerning Implementation of the VMS Recommendation, all large-scale tuna fishing vessels authorized to fish for tuna and tuna-like species in the ICCAT Convention Area were required to install satellite-based vessel monitoring system (VMS) and report their positions every 6 hours.

To ensure uninterrupted reporting of their positions and to prevent fishing vessels from malfunction of VMS, all fishing vessels and transport vessels operating in the Atlantic Ocean have been required to possess a spare set of VMS since 2005, to make immediate replacement in case of machine breakdown. Staff at the land based monitoring center was instructed to closely monitor the activities of vessels through VMS reporting.

### *3.8 Observer Program (ICCAT Rec. 04-01, 06-09)*

In 2011, Chinese Taipei dispatched 27 observers on board the active bigeye vessels, with observer coverage of over 10%. In addition, observers were placed onboard the LSTLVs targeting albacore tuna to achieve a minimum 5% observer coverage based on the policy of the Fisheries Agency and the requirement of ICCAT. They collected fishery data and size measurements on major target and bycatch species. Biological samples of bigeye, albacore, swordfish and bycatch/incidental catch species were also collected.

### *3.9 Measures to Ensure effectiveness of ICCAT Conservation and Management measures and to prohibit Illegal, Unreported, and Unregulated fisheries (ICCAT Rec. 09-10)*

To prevent illicit activities from happening again, the Fisheries Agency has been exerting its greatest efforts in cracking down any violation under the applicable legal framework. In 2011, no IUU fishing activities were detected or reported to have conducted by Chinese Taipei flagged vessels in the Atlantic Ocean.

– Restriction in the export of fishing vessels

Chinese Taipei promulgated “Regulations on Permission for the Export of Fishing Vessels” in 2005 and the regulations were amended in 2007. According to the said Regulations, it is required to have consultations with the authority of the country which plans for the importation of the fishing vessel, and to provide information of the fishing activities of vessel if the investment for the building of the vessel is derived from a national of Chinese Taipei. The objective of the Regulation is primarily to prevent the expansion of fishing capacity with Chinese

Taipei beneficiary. Export of newly built fishing vessel in Chinese Taipei will not be permitted where the country planning for the importation of the fishing vessel refuses to consult with Chinese Taipei, or such export will be in contravention to the conservation measures adopted by the RFMOs, or the vessel will be destined to countries under sanction by RFMOs, or to non-members or non-cooperating non-members of RFMOs. Under the spirit of the said regulations, exports of fishing vessels built in Chinese Taipei will in no way in contravention of the conservation and management measures adopted by the relevant RFMOs.

– Prior approval for operation of foreign flag vessels by CT nationals

To show the determination of the government in eliminating IUU fishing activities, through tremendous efforts, the Ordinance to Govern Investment in the Operation of Foreign Flag Vessels was enacted and promulgated on 17 December 2008. The essence of the legislation is to have both the beneficial owner State (the State whose national owns the vessel) and the flag State assumed the responsibility of fisheries management. This legislation is a major breakthrough, instead of focusing on the location of crime as appeared traditionally in the legislation of Chinese Taipei, it takes into account of person who commits the crime, that is to say, IUU fishing activities in a foreign country by any Chinese Taipei national will be subject to criminal prosecution, and when convicted the offender will be liable to imprisonment.

### *3.10 Transshipment (ICCAT Rec. 06-11)*

Since the establishment of the Program for Transshipment by ICCAT in May 2007 in accordance with Rec. 06-11, Chinese Taipei's vessels have been conducting at-sea transshipment in compliance with the measure adopted. In 2011, 72 vessels were authorized to transship at-sea and 70 vessels were authorized to conduct in-port transshipment. In-port transshipment was conducted in accordance with the regulations applied by the port States concerned. The detailed report on the implementation of Regional Observer Program of ICCAT in 2011 by Chinese Taipei was duly submitted to ICCAT Secretariat.

### *3.11 Statistical Document (ICCAT Rec. 01-21, 01-22, 03-09, 03-19)*

In accordance with ICCAT Recommendation, the system for issuing “ICCAT Bigeye tuna Statistical Document” and “ICCAT Swordfish Statistical Document” was conducted since 1 July 2002 and 1 January 2003, respectively. In 2011, 676 Statistical Documents were issued for the trading of bigeye tuna and swordfish caught in the Atlantic Ocean. Among which, 74.7% was issued for bigeye tuna, 25.3% for swordfish. Most of the catch was exported to Japan.

### *3.12 Bluefin Tuna Catch Documentation (ICCAT Rec. 09-11)*

In accordance with ICCAT Recommendation, Chinese Taipei established a domestic regulation for the purpose of implementing ICCAT bluefin tuna catch documentation in 2008. In fact, as no fishing on bluefin tuna was authorized, no Atlantic Bluefin tuna Catch Documentation (BCDs) was issued by Chinese Taipei in 2011.

## ***Section 4: Inspection Scheme and Activities***

### *4.1 Inspections*

In 2011, port inspections on 76 vessels were carried out in Cape Town, South Africa to ensure the compliance of ICCAT measures by the vessels of Chinese Taipei.

## ***Section 5: Summary of Access Agreements (ICCAT Rec. 11-16)***

In 2012, Chinese Taipei vessels have fished in waters under jurisdiction of Ascension Island, São Tomé e Príncipe, Gambia and Sierra Leone, Colombia, and Côte d'Ivoire. The catches include bigeye tuna, yellowfin tuna, swordfish, albacore, swordfish, billfish and by-catch species by longliners, except for bluefin tuna and specific shark species prohibited by ICCAT.



## **Section 6: Other Activities**

### **6.1 Contributions to ICCAT**

Being a non-member of ICCAT, Chinese Taipei has no obligation to share the budget of ICCAT. However, in view of the importance of the stock conservation and assessment and an important user of the tuna stocks in the Atlantic Ocean, Chinese Taipei has been making voluntary contributions to ICCAT since 1998. The contributions from Chinese Taipei to ICCAT, which in the recent five years totaled more than 500 thousand Euros, are shown in **Table 3**.

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**Table 1.** Catch estimates (in round weight, t) in the Atlantic Ocean during 1998-2011.

YEAR	ALB	N.ALB	S.ALB	BET	YFT	BFT	SBF <sup>2</sup>	SWO	N.SWO	S.SWO	WHM	BUM	BIL <sup>3</sup>	SKJ	OTH	SKX	TOTAL
1998	19,204	3,098	16,106	16,314	5,328	456	42	1,433	286	1,147	506	578	411	75	121	969	45,437
1999	23,162	5,785	17,377	16,837	4,411	249	30	1,453	285	1,168	464	486	332	40	558	2,068	50,090
2000	22,520	5,299	17,221	16,795	5,661	313	24	1,650	347	1,303	437	485	165	41	714	1,666	50,471
2001	20,232	4,399	15,833	16,429	4,805	633	223	1,448	299	1,149	152	240	49	25	975	675	45,886
2002	21,651	4,330	17,321	18,483	4,659	666	16	1,474	310	1,164	178	294	206	39	758	653	49,077
2003	21,908	4,557	17,351	21,563	6,486	445	170	1,511	257	1,254	104	319	112	40	931	1,803	55,392
2004	17,566	4,278	13,288	17,717	5,824	51	17	775	30	745	172	315	59	43	871	1,380	44,790
2005	13,270	2,540	10,730	11,984	3,596	277	2	884	140	744	56	151	104	38	1,106	1,455	32,923
2006	14,650	2,357	12,293	2,965	1,260	9	0	549	172	377	44	99	105	38	1,289	2,678	23,686
2007	14,443	1,297	13,146	12,116	1,947	0	0	774	103	671	54	233	184	16	1,759	2,890	34,416
2008	11,073	1,107	9,966	10,418	1,122	0	3	809	82	727	38	148	149	27	1,412	2,211	27,410
2009	9,541	863	8,678	13,252	1,391	0	3	701	89	612	28	195	108	6	1,239	1,626	28,090
2010	12,562	1,587	10,975	13,189	824	0	5	498	88	410	20	153	57	13	1,782	1,904	31,007
2011 <sup>1</sup>	14,399	1,367	13,032	13,732	1,768	0	12	616	192	424	28	199	94	16	2,353	2,582	35,799

<sup>1</sup> Preliminary data.

<sup>2</sup> Catch estimate of SBF has been revised to be consistent with CCSBT database in 2004.

<sup>3</sup> Catch estimate of BIL was including black marlin, sailfish, spearfish and other billfishes.

**Table 2.** Report of Implementation of the ICCAT Management Standard for Large-scale Tuna Longline Vessels in 2011

**a. Management in the fishing grounds**

	<i>Scientific Observer boarding</i>	<i>Satellite-based vessel monitoring system</i>	<i>Daily or required periodic catch report</i>	<i>Entry/Exit report</i>
<b>Yes, No</b>	Yes	Yes	Yes	Yes
<b>Note</b>	<ol style="list-style-type: none"> <li>1. More than 10% coverage on bigeye tuna fishing vessels</li> <li>2. More than 5% coverage on albacore fishing vessels.</li> </ol>	100%	<ol style="list-style-type: none"> <li>1. Logbook report (catch record for every fishing operation) for every trip</li> <li>2. Monthly/weekly/ reports via fax</li> <li>3. E-logbook report (daily catch report through VMS or facsimile by bigeye-targeted vessels)</li> </ol>	Prior authorization by area and group <ol style="list-style-type: none"> <li>1. All vessels shall fish in fishing areas designated to the group they belong, and shall not fish in non-designated areas without prior authorization.</li> <li>2. Changing fishing areas/oceans should be approved by project application.</li> </ol>

**b. Management of transshipment (from the fishing grounds to the landing ports)**

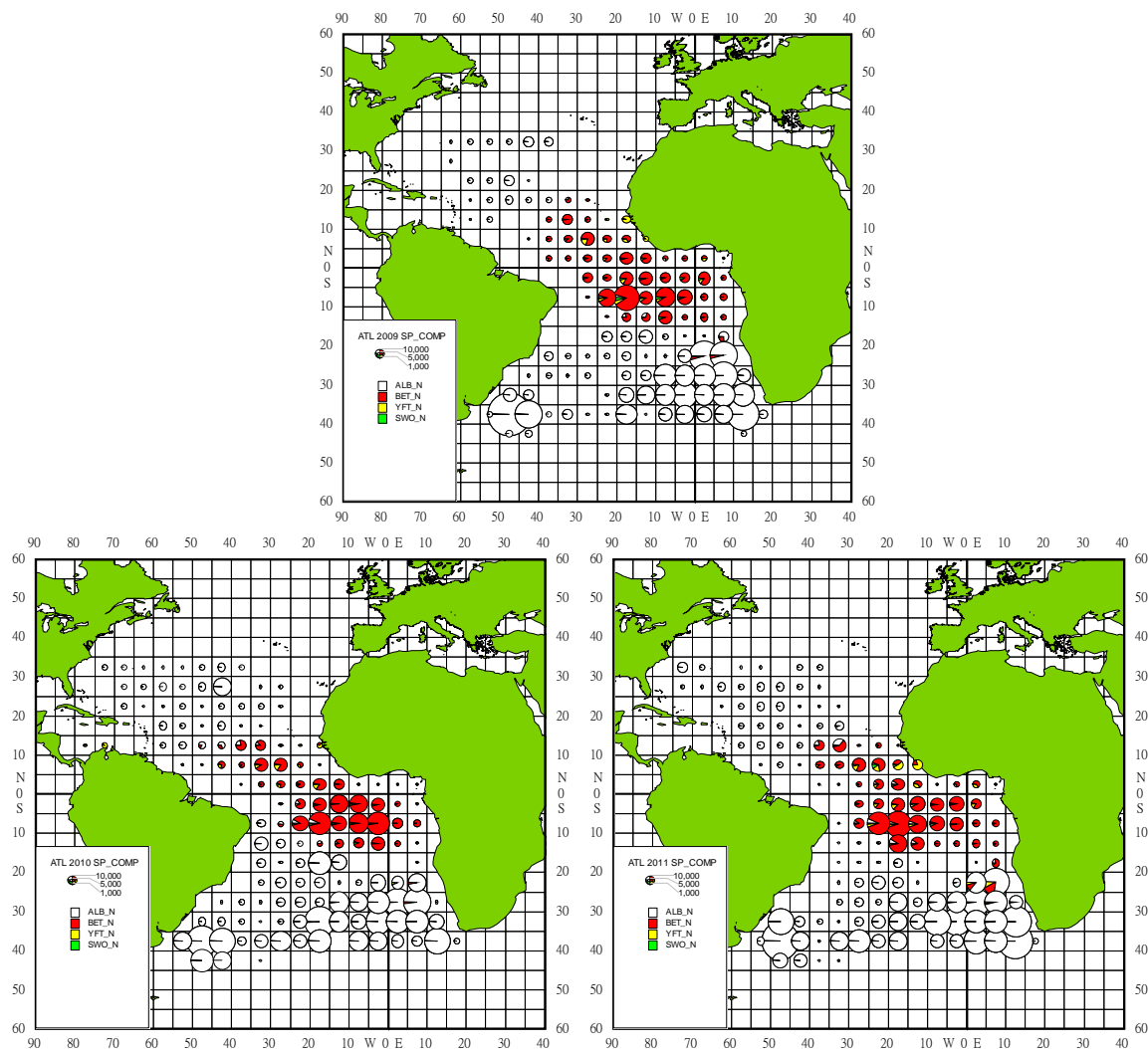
	<i>Transshipment report</i>	<i>Port inspection</i>	<i>Statistical document program</i>
<b>Yes, No</b>	Yes	Yes	Yes
<b>Note</b>	Report of transshipment items is required for each transshipment	<ol style="list-style-type: none"> <li>1. Application and permission are required for fishing vessels that are intended to access the foreign fishing ports.</li> <li>2. The fishing vessels shall accept inspector dispatched by the Fisheries Agency boarding and inspection, if necessary.</li> </ol>	<ol style="list-style-type: none"> <li>1. Implementation of issuing swordfish Certificate of Eligibility since June 1999 and November 2000 for the US and Japan respectively. Swordfish Statistical Document program has been implemented since 1 January 2003.</li> <li>2. Bigeye Tuna Statistical Document program has been implemented since 1 July 2002.</li> <li>3. Domestic regulations for the purpose of implementing ICCAT bluefin tuna catch documentation was established in 2008.</li> </ol>

**c. Management at landing ports**

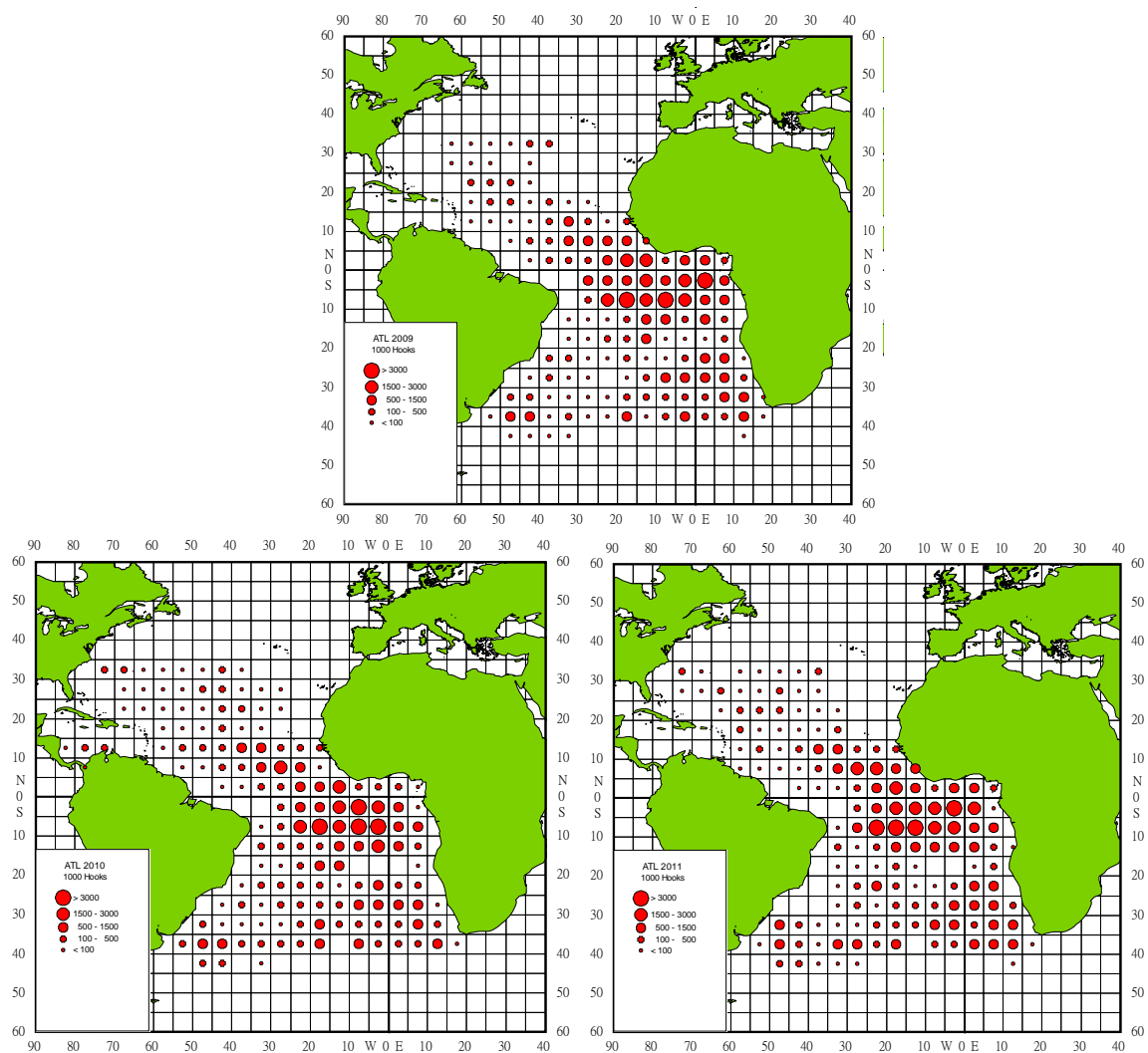
	<i>Landing inspection</i>	<i>Landing reporting</i>
<b>Yes, No</b>	Yes	Yes
<b>Note</b>	<ol style="list-style-type: none"> <li>1. Inspecting catch landings according to ICCAT Resolutions/Recommendations at domestic ports if their presumed connection to IUU fishing has been confirmed.</li> <li>2. All exported frozen catch were required to be transhipped at sea or landed at authorized foreign ports.</li> </ol>	<ol style="list-style-type: none"> <li>1. Collecting landing data from boat owners and trade agents.</li> <li>2. Import/trade data provided by Japan.</li> <li>3. Collecting landing data at domestic ports.</li> </ol>

**Table 3.** Chinese Taipei contributions to ICCAT, 2007-2011.

<i>Year</i>	<i>Contribution to ICCAT</i>	<i>Note</i>
2011	131,000 Euros	Contributions including: 1) 100,000 Euros for Commission 2) 8,000 Euros to the “Fund of ICCAT Enhanced Research Program for Billfishes” 3) 3,000 Euros to the “Fund of Bluefin Research Program” 4) 20,000 Euros for enhancing research on Albacore in the future.
2010	100,000 Euros	100,000 Euros for Commission
2009	108,000 Euros	Contributions including: 1) 100,000 Euros for Commission 2) 5,000 Euros to the “ICCAT Enhanced Research Program for Billfish Fund” 3) 3,000 Euros to the “Bluefin Tuna Research Program Fund”
2008	100,000 Euros	100,000 Euros for Commission
2007	100,000 Euros	100,000 Euros for Commission



**Figure 1.** Distributions of major tuna species and swordfish in the Atlantic Ocean of 2009 (top), 2010 (left, preliminary data) and 2011 (right, preliminary data).



**Figure 2.** Geographic distributions of fishing efforts (number of hooks) in the Atlantic Ocean of 2009 (top), 2010 (left, preliminary data) and 2011 (right, preliminary data).

**ANNUAL REPORT OF CURAÇAO  
RAPPORT ANNUEL DE CURAÇAO  
INFORME ANUAL DE CURAÇAO**

Ing. Stephen Mambi P. Gr.<sup>1</sup>

*SUMMARY*

*During the year 2011, a total of three purse seiners were registered under the flag of Curaçao. These purse seiners are: Galerna, Albacora Nueve and Albacora 6 (ex Koosha II). The vessels operated during all the year in the tropical area and had their operations based in the port of Abidjan, (Ivory Coast), Dakar (Senegal) and Takoradi (Ghana). There were no longliners in our register and the only activity was in the tropical area by the three purse seiners mentioned before.*

*RÉSUMÉ*

*En 2011, trois senneurs étaient immatriculés sous le pavillon de Curaçao. Ces senneurs sont les suivants : Galerna, Albacora Nueve et Albacora 6 (ex Koosha II). Les navires ont opéré tout au long de l'année dans la zone tropicale, et les ports d'Abidjan (Côte d'Ivoire), de Dakar (Sénégal) et de Takoradi (Ghana) constituaient les ports d'attache de leurs opérations. Aucun palangrier ne figurait sur notre registre et la seule activité a été réalisée dans la zone tropicale par les trois senneurs susmentionnés.*

*RESUMEN*

*Durante el año 2011, un total de tres cerqueros se registraron bajo pabellón de Curaçao. Estos cerqueros son: Galerna, Albacora Nueve y Albacora 6 (ex Koosha II). Los buques operaron durante todo el año en la zona tropical y sus operaciones tenían la base en el puerto de Abiyán (Côte d'Ivoire), Dakar (Senegal) y Takoradi (Ghana). No hay palangreros en nuestro registro y la única actividad la realizaron los tres cerqueros mencionados en la zona tropical.*

**Part I (Information on Fisheries, Research and Statistics)**

***Section 1: Annual Fisheries Information***

The catches of tunas and tuna-like species in 2010 and 2011 are shown in **Tables 1 and 2**.

***Section 2: Research and Statistics***

Catch data was analyzed in order to comply with management measures applicable for the vessel type and flag state, being all data in order with the recommendations. The bigeye catches during 2010 were 16,8% of the total catch. Catches of yellowfin and skipjack amounted 22,0% and 59,6%, respectively, during 2011.

Catch size and species composition sampling in port has been carried out in collaboration with the Instituto Español de Oceanografía (I.E.O.) of Spain in the main transshipment base of the purse seine vessels operating in 2010, that is Abidjan (Ivory Coast).

In general terms there is an increase in total catches of 10,6% from 2010. Skipjack and bigeye catches contributed to the increase.

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<sup>1</sup> Senior Policy Worker of the Ministry of Economic Development of Curaçao.

## Part II: (Management Implementation)

### *Section 3: Implementation of ICCAT Conservation and Management Measures*

Curaçao is committed to comply with all the recommendations issued by ICCAT.

The vessels are monitored and controlled by satellite tracking VMS.

The vessels complied with the recommendation 09-01 regarding conservation measures for big eye tuna.

### *Section 4: Inspection Schemes and Activities*

The fishing activity of those species under the ICCAT management in the EEZ of Curaçao was not relevant. On the other hand, there were not discharges of tuna or tuna like species to be analysed in the country.

Curaçao is committed to comply with all the Recommendations issued by ICCAT.

The vessels are monitored and controlled by satellite tracking VMS.

The vessels complied with Recommendation 09-01 regarding conservation measures for bigeye tuna.

The vessels report their catches to the Fishing Authority on a monthly basis.

### *Section 5: Requirements for Vessels Larger than 24 Metres in Length*

The fishing vessels under the flag of Curaçao larger than 24 metres in length must fulfil the following obligations in order to fish in the ICCAT convention area:

- Be fitted with a Vessel Monitoring System, by satellite tracking system
- To follow strictly all the recommendations issued by ICCAT for their fishery.
- To submit a monthly report of catches to the fishing Authorities.
- To submit a “Transshipment Declaration” each time a transshipment is carried out.
- To submit a “Discharge Declaration” each time a discharge is carried out.
- Every year, to submit a list of “Fishing Licenses” those are issued to the vessel by third countries, in order to fish in the EEZ of different countries.
- To apply for an International Fishing Permit issued by the Government of Curaçao that allows the vessel to operate in the high seas of the Atlantic Ocean and in the ICCAT Convention area.

**Table 1.** Catches of tunas and tuna-like species in 2010.

<i>Yellowfin</i>	<i>Skipjack</i>	<i>Bigeye</i>	<i>Other tuna-like sp.</i>	<i>Total</i>
5.048	9.590	3.047	428	18.113

**Table 2.** . Catches of tunas and tuna-like species in 2011.

<i>Yellowfin</i>	<i>Skipjack</i>	<i>Bigeye</i>	<i>Other tuna-like sp.</i>	<i>Total</i>
4.413	11.939	3.441	239	20.032



**ANNUAL REPORT OF GUYANA  
RAPPORT ANNUEL DE LA GUYANA  
INFORME ANNUAL DE GUYANA**

Ingrid Peters and Denzil Roberts, Fisheries Department, Guyana

*SUMMARY*

*Guyana's artisanal fishery is nearshore, operating within the national Exclusive Economic Zone and targets a number of groundfish species (Sciaenidae, Ariidae, Sparidae etc). In this fishery, scombrids and sharks are taken as by-catch, and are seasonal. In 2011, a total of 1,047,272 kg of shark and 2,172,727 kg of scombrids were harvested. Sharks continue to be landed dressed, which poses a real problem for recording shark catches by individual species.*

*GUYANE*

*La pêche artisanale de la Guyane opère non loin des côtes, à l'intérieur de la zone économique exclusive, et cible un certain nombre d'espèces de poissons de fond (Sciaenidae, Ariidae, Sparidae, etc.). Dans cette pêche, les scombridés et les requins sont capturés en tant que prise accessoire et sont de nature saisonnière. En 2011, un total de 1.047.272 kg de requins et de 2.172.727 kg de scombridés a été capturé. Les requins continuent à être débarqués en poids manipulé, ce qui pose un véritable problème pour l'enregistrement des prises de requins par espèce individuelle.*

*RESUMEN*

*La pesquería artesanal de Guyana se realiza cerca de la costa y opera dentro de la Zona Económica Exclusiva nacional. Se dirige a diversas especies de peces de fondo (Sciaenidae, Ariidae, Sparidae, etc.). En esta pesquería los escómbridos y los tiburones son capturas fortuitas estacionales. En 2011, se capturó un total de 1.047.272 kg de tiburones y 2.172.727 kg de escómbridos. Los tiburones continúan desembarcándose ya manipulados lo que plantea un gran problema a la hora de consignar las capturas de tiburones por especies individuales.*

**Part I (Annual Fisheries Information)**

***Section 1: Annual Fisheries Information***

In 2011 the Department of Fisheries conducted a national boat count exercise to determine the artisanal fleet. There are one thousand two hundred and thirty four (1234) working vessels.

Piracy continued to plague artisanal fishers and is considered to be one of the major problems for the artisanal fishery causing lost of lives. This led to some fishers not engaging anymore in fishing activities. The government is encouraging all fishers to equip their boats with GPS.

The constant increase prices for fuel affected the operations of the artisanal fishers. These fishers do not receive concession for fuel like members of the Guyana Association of Trawler Owners & Seafood Processors (GATOSP). Climate change has had negative impact on the fisheries and is reflected in the production data.

With the assistance of CRFM/ Kingdom of Spain a survey was done to determine the level of poverty exist in the artisanal fishery. The preliminary results are out and can be viewed at CRFM website.

Also, CRFM and JICA conducted a one year pilot study on Improving Statistical Data Report in Guyana. It is anticipated that there will be continuation of the project.

The option to transform Fisheries Department into a semi-autonomous agency is still under review by the government.

### 1.1 Description of the fishery

In Guyana, there is an inshore artisanal fishery, using locally made boats that exploit both the demersal and pelagic species found near shore and within the national EEZ. In this fishery five gear types are common: (i) Chinese seine / fyke net, (ii) Pin seine, (iii) Caddell, (iv) Gillnet (nylon and polyethylene), (v) Handline, fish pots.

All the boats are made from wood and are manufactured locally. The boats are 6 to 18 m in overall length and are powered by sails, outboard, or inboard engines.

### 1.2 Fishing gear and vessels

Chinese seine, caddell and pin seine vessels are flat-bottomed dories powered by sail, paddle or small outboard engines which give more maneuverability over shallow, muddy and sandy bottom areas. Chinese seines are funnel-shaped nets, 16m (52 ft) long and 4-6m (13.1-19.6 ft) wide at the mouth. The mesh size gradually tapers from 8cm at the mouth to 1 cm at the funnel end.

Caddell or demersal longline fishing vessels ranged in size from 6.71 to 9.15m (22-30 ft) in length. A caddell line consists of a horizontal/ground line anchored at each end, with a series of about 800 dangling/vertical lines, set with baited hooks at 2m outwards. Each vessel carries between 4-5 wooden trays with each tray having 2-6 main lines.

Nylon gillnet boats are v-bottom boats ranging in size from 7.63 to 9.15 m (25 – 30 ft) in length. These boats have no cabin but are equipped with an icebox and are usually powered by 48-hp outboard engines. The fishers therefore conduct daily fishing trips. Vessels using the (polyethylene) gillnet gear are v-bottom vessels with a length range of 12.2-15.25 m (40-50 ft). These vessels have a cabin and utilize diesel-powered inboard engines. The length of the trip for a gillnet vessel is usually 10-21 days.

Approximately 60 % of the artisanal vessels use gillnets and fishing is done in coastal / shallow waters. The fishers would normally harvest all available species of fish in season for example, snappers and trout, with sharks comprising the main portion of the by-catch. The gillnet gear is responsible for capturing 90 % of the sharks landed in Guyana.

For a normal fishing trip, a vessel would spend 7-15 days at sea. Sharks are harvested all year round, with a peak in landings usually during May – December.

### 1.3 Catches

Sharks and scombrids are exploited in Guyana mainly with the gillnet gears. This gear type is non-specific and catches all species of fish. The main target resources, however, are the smaller ground fish species (*Macrodon ancylodon*, *Nebris microps* and *Micropogonias furnieri*). Due to the incidental nature of the shark catches, this makes it difficult to control the harvest of juvenile sharks caught in the shallower waters and also to record shark catches by individual species. Other gear types that catch sharks are the caddell lines (manual longline), handline, trawl nets and pin seine.

All the landings data for sharks and scombrids are reported to ICCAT, together with the numbers of fishing vessels involved in these fisheries (**Tables 1 and 2**). At present effective fishing effort is not recorded, and hence only Task 1 data have been reported this year. Notably the shark fishery is a multimillion dollar fishing activity, and contributed significantly to the overall export of total fish products from Guyana at a value of US\$ 3,401,914.00 for 2011. The value of the fins and glue is of significant rather than the carcass.

## Section 2: Research and Statistics

Sharks are landed dressed, i.e. headless and gutted. Only the juvenile sharks (caught by either caddell, chinese seine or gillnet nylon), which account for 2% of the total catch, are landed whole. In view of this, it continues to be difficult to record shark catches by individual species. The Fisheries Department has noted the need for continued special technical assistance to address the issue of identification of dressed sharks, and is seeking assistance from external agencies such as Food and Agricultural Organization, Caribbean Regional Fisheries Organization to address this task. Some of the important species known to be caught by fishers are Hammerhead, Tiger, Blacktip, Sand and what is known locally as Waterbelly shark.

All the landings data for sharks and scombrids are reported to ICCAT, together with the numbers of fishing vessels involved in these fisheries (**Tables 1 and 2**). At present effective fishing effort is not recorded, and hence only Task 1 data have been reported this year. Notably the shark fishery is a multi million dollar fishing activity, and contributed significantly to the overall export of total fish products from Guyana at a value of US\$3,401,914.00 for 2011. The value of the fins and glue is of significant rather than the carcass.

Through the CRFM/ JICA/ ICNET Pilot Project on Improving Statistical Data, fishers were encouraged to fill logs on each trip made. Notably, not even one percent of the artisanal fishers are adhering to this call. The Department of Fisheries is making it mandatory for licences boat owners to comply by filling the logs and submit same to the department.

## Part 11 (Management Implementation)

### *Section 3: Implementation of ICCAT Conservation and Management Measures*

#### *Plans for Expansion*

The Department of Fisheries has no plans to expand the artisanal fishery. However there is an increase in the number of licences issued to catch red snapper. Fishers are using mackerel among other species as bait to catch fish.

#### *Section 4: Inspection Schemes / Activities*

Guyana Coast Guard (GCG) is responsible for monitoring all of the fishing activities within Guyana's Exclusive Economic Zone with assistance from the Fisheries Department and the Marine Police.

Despite the many challenges in 2011 the Guyana Coast Guard was able to conduct ninety one (91) patrols of which three patrols were done in Guyana's EEZ along with four air reconnaissance. Also, they assisted by responding to 42 reports of piracy to the artisanal fishers.

**Table 1.** Boat count for artisanal vessel by gear types, 2011.

<i>Gear type</i>	<i>#Vessels</i>
Gillnet polyethylene 5-6" mesh size	296
Gillnet polyethylene 7-8" mesh size	64
Gillnet nylon 2-4" mesh size	448
Caddell # 5-9 hooks	87
Chinese seine 4-5 bundles (25-30 lbs. each)	307
Pin seine	32
<b>Total</b>	<b>1234</b>

#### *Industrial and semi-industrial*

<i>Gears type</i>	<i># of Vessels</i>
Trawlers nets	127
Handline	20
Traps	52

**Table 2.** Scombrids and Shark Production by Species (kg) 2011.

<i>Scombrids</i>		<i>Sharks</i>	<i>Total</i>
<i>Scomberomorus brasiliensis</i>	<i>Scomberomorus Cavalla</i>	Unidentified shark species	
1,010,909	1,161,818	1,047,272	<b>3,219,999</b>

**ANNUAL REPORT OF SURINAME  
RAPPORT ANNUEL DE SURINAME  
INFORME ANUAL DE SURINAM**

Tania Tong Sang<sup>1</sup>

SUMMARY

*The jurisdictional waters of Suriname extend 350 nautical miles in the Atlantic Ocean (12 miles territorial waters and 338 miles adjacent Exclusive Economic Zone). The fishery sector in particular contributes for 16 percent to the GDP and comprises 24 percent of the total agriculture production. The fishing fleet of Suriname can be divided into two main groups, the industrial and the artisanal. The industrial fleet can be divided into shrimp trawlers and different types of finfish trawlers. The artisanal fleet operates in the coastal and inland waters and is the biggest. Suriname is part of the Atlantic Ocean community and highly migratory species, such as yellowfin tuna, pass through our territorial waters annually. Suriname does not have any flag vessels jet targeting tunas. Tuna and tuna-like species are landed by foreign flag vessels at the port of Suriname. Therefore, Suriname does not have any data to report to ICCAT right now. The vessels are from Panama with a Panamanian flag, so Panama has the obligation to report data to ICCAT. The type of gear is longline over 20m. These vessels are registered in Suriname to catch tuna. The registration of vessels is divided into three categories: (1) SA - vessels (these are only Surinamese flag vessels); (2) SB – vessels (fifty percent Surinamese and fifty percent foreign); and (3) SC - vessels (these are only foreign flag vessels). The main species that are been landed are yellowfin tuna, albacore, blue shark and other species such as mahi mahi, wahoo, white marlin and sailfish. From January 2012 up to 25 June 2012 the longline fleet landed approximately 2,182 ton of tuna and tuna-like species at the port of Suriname (Table 1). Several local companies has shown interest in developing high seas fisheries, so Suriname will shortly develop his own tuna fisheries industry.*

RÉSUMÉ

*Les eaux juridictionnelles du Suriname s'étendent à une distance de 350 milles nautiques dans l'océan Atlantique (12 milles des eaux territoriales et 338 milles adjacents à la zone économique exclusive). Le secteur de la pêche contribue au PNB à hauteur de 16 % et comprend 24% de la production agricole totale. La flottille de pêche du Suriname peut être divisée en deux groupes principaux : la flottille industrielle et la flottille artisanale. La flottille industrielle peut être divisée entre les chalutiers crevettiers et les différents types de chalutiers ciblant les poissons téléostéens. La flottille artisanale opère dans les eaux côtières et intérieures et est la plus importante. Le Suriname fait partie de la communauté de l'océan Atlantique et des espèces de grands migrants telles que l'albacore passe chaque année par nos eaux territoriales. Le Suriname ne compte aucun navire battant son pavillon ciblant des thonidés. Les thonidés et les espèces apparentées sont débarqués par des navires étrangers au port du Suriname. Le Suriname n'a donc actuellement aucune donnée à déclarer à l'ICCAT. Les navires battent le pavillon du Panama, de sorte que le Panama est tenu de déclarer les données à l'ICCAT. Le type d'engin est la palangre de plus de 20 mètres. Ces navires sont enregistrés au Suriname pour pêcher des thonidés. L'immatriculation des navires est divisée en trois catégories : (1) Navires SA (navires battant le pavillon du Suriname uniquement) ; (2) Navires SB (cinquante pour cent de navires du Suriname et cinquante pour cent de navires étrangers) et (3) Navires SC (navires étrangers uniquement). Les principales espèces débarquées sont : l'albacore, le germon, le requin peau bleue et d'autres espèces telles que la coryphène, le thazard bâtard, le makaire blanc et le voilier. Entre janvier 2012 et le 25 juin 2012, la flottille palangrière a débarqué environ 2.182 tonnes de thonidés et d'espèces apparentées au port du Suriname (Tableau 1). Plusieurs sociétés locales ont manifesté leur intérêt pour le développement de pêcheries hauturières, de sorte que le Suriname va bientôt développer sa propre industrie de pêche thonière.*

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## RESUMEN

*Las aguas jurisdiccionales de Surinam se extienden 350 millas náuticas en el Atlántico (12 millas de aguas territoriales y 338 millas de la zona económica exclusiva adyacente). El sector pesquero en particular representa el 16% del GDP y el 24% de la producción total de la agricultura. La flota pesquera de Surinam puede dividirse en dos grupos principales, el industrial y el artesanal. La flota industrial puede dividirse en los arrastreros camaroneiros y diferentes arrastreros de peces de aleta. La flota artesanal opera en aguas costeras e interiores y es la más grande. Surinam es parte de la comunidad del océano Atlántico y las especies altamente migratorias, como el rabil, pasan anualmente por sus aguas territoriales. Surinam no cuenta con ningún buque de su pabellón aún que se dirija a los túnidos. Los túnidos y especies afines son desembarcados en el puerto de Surinam por buques de pabellón extranjero. Por lo tanto, Surinam no tiene actualmente ningún dato que comunicar a ICCAT. Los buques son de Panamá con pabellón panameño, por lo que Panamá es quién tiene la obligación de comunicar los datos a ICCAT. El tipo de arte es palangre de más de 20 m. Estos buques están registrados en Surinam para capturar túnidos. El registro de buques se divide en tres categorías: 1. Buques SA - (buques con pabellón solo de Surinam) 2. Buques SB - (cincuenta por ciento de Surinam y cincuenta por ciento extranjeros) 3. Buques SC - (buques con pabellón solo extranjero). Las principales especies desembarcadas son rabil, atún blanco, tintorera y otras especies como dorado, peto, aguja blanca y pez vela. Desde enero de 2012 hasta el 25 de junio de 2012, la flota de palangre desembarcó aproximadamente 2.182 t de túnidos y especies afines en el puerto de Surinam (Tabla 1). Varias empresas locales han mostrado interés en desarrollar pesquerías de altura, por lo que dentro de poco Surinam desarrollará su propia industria pesquera atunera.*

**Part I (information on Fisheries, Research and Statistics)****Section 1: Annual fisheries information**

There is a licensing scheme in force covering both fleets, the industrial and the artisanal fleets, which consists of a maximum allowable licenses issued for each category. The licensing scheme also obliges the master of each vessels to regularly submit landing declaration forms at the end of each trip to the Fisheries Department. These forms include quantities of landing by species and effective fishing effort. Fishing effort can be limited by restricting the number of issued fishing licenses.

According to national legislation all foreign vessels must land their fish only at the central fishery harbour which is called the port of Cevihas and is located at Paramaribo, the capital of Suriname.

**Section 2: Research and statistics**

The Statistics and Research division at the Fisheries Department of the Ministry of Agriculture, Animal Husbandry and Fisheries is responsible for recording and processing of statistical data.

Regarding data collections, at present, yellowfin tuna is the most important species landed.

Almost all tuna and especially sharks are landed dressed, i.e. headless, tailless and gutted. In view of this, it continues to be difficult to record some tuna and shark catches by individual species. The Fisheries Department has noted the need for continued special technical assistance to address the issue of identification of dressed tuna and sharks, and is seeking assistance from external agencies to address this task.

**Part II (Management Implementation)****Section 3: Implementation of ICCAT Conservation and Management Measures**

Suriname will cooperate fully with ICCAT for improvement of data collection and to achieve sustainable management of tuna and tuna-like species.

All fishing vessels over 20m overall length, authorized to fish for tuna and tuna-like species in the ICCAT Convention area are required to install satellite-based vessel monitoring system (VMS).

This satellite tracking device continuously, permanently and automatically transmit the following information:

- 1) identification of the fishing vessel;
- 2) the geographical position of the vessel with an error margin of up to 500 meters;
- 3) the date and time when the position of the fishing vessel is determined;
- 4) the speed and direction of the vessel.

#### ***Section 4: Inspection Schemes and Activities***

Two fisheries inspectors are permanently based at the port of Cevihas for data collection purposes at the time of landing. The Customs Authority is also based permanently at the central harbour.

The Institute for Fisheries Inspection (VKI) conducts quality inspections on all fishing landings, which are exported. And the Fisheries department of the ministry of Agriculture, Animal Husbandry and Fisheries is responsible for the validation of illegal, unreported and unregulated fishing catch certificate (IUU).

The Suriname Coast Guard is responsible for monitoring all of the fishing activities within the Territorial waters and the Suriname's Exclusive Economic Zone.

All the foreign vessels are required to inform the Suriname Authorities 2 days before entering the port. They also have to provide information on the total catch (species and weight).

#### ***Section 5: Other Activities***

**Table 1.** All species that are landed at the port of Cevihas in Suriname from January 2012 up to 25 June 2012.

<i>Species</i>	<i>Metric tons (t)</i>
Yellowfin tuna	980.89
Sailfish	557.20
Albacore	231.76
White marlin	128.08
Mahi mahi	62.53
Wahoo	58.93
Blue shark	89.21
Shortfin mako shark	25.95
Mix shark	16.31
Escolar	31.43
<b>TOTAL (approximately)</b>	<b>2,182.29</b>

**REPORTS OF OBSERVERS FROM  
INTERGOVERNMENTAL ORGANIZATIONS  
RAPPORTS D'OBSERVATEURS D'ORGANISATIONS  
INTER-GOUVERNEMENTALES  
INFORMES DE OBSERVADORES DE ORGANIZACIONES  
INTERGUBERNAMENTALES**

**ANNUAL REPORT OF THE CARIBBEAN REGIONAL FISHERIES  
MECHANISM (CRFM) ON BEHALF OF CARICOM  
RAPPORT ANNUEL DU MÉCANISME RÉGIONAL DE LA PÊCHE DES CARAÏBES (CRFM)  
POUR LE COMPTE DE LA CARICOM  
INFORME ANUAL DEL MECANISMO REGIONAL DE PESCA DEL CARIBE (CRFM)  
EN NOMBRE DE CARICOM**

Maren Headley<sup>1</sup>, Susan Singh-Renton<sup>1</sup>, Derrick Theophile<sup>2</sup>,  
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*SUMMARY*

*The tuna and tuna-like fisheries of The Commonwealth of Dominica and St. Lucia, located in the eastern Caribbean, continued to develop in 2011. Such development efforts are ongoing and are intended to improve the efficiency of offshore fishing operations and to make full utilization of the available natural living marine resource base, in general pursuit of strategies to guarantee food security and economic development. Notwithstanding, the fishing operations remained largely artisanal, and the species composition and total overall catch levels showed no dramatic changes in 2011. In Dominica and St. Lucia there has been an increase in the use of FADs. Two major donor-funded regional fisheries initiatives, involving CARICOM and CRFM States, continued during 2011-2012, with completion of pilot field studies examining FAD fishery management in Dominica and St. Lucia, and the completion of two recreational fishery studies in the eastern and southern Caribbean regions. The MAGDELESA project which focuses on research for improving FAD fishery management is now underway in the Lesser Antilles and Haiti in collaboration with the EU, FAO and CRFM States. Also in 2011 and 2012, the CRFM Large Pelagic Fish Resource Working Group continued to develop the information and knowledge base of the eastern Caribbean blackfin tuna fishery, in preparation for more formal quantitative assessment of this fishery in the future.*

*CARICOM*

*Les pêcheries de thonidés et d'espèces apparentées du Commonwealth de la Dominique et Ste Lucie, situées dans les Caraïbes orientales, ont poursuivi leur développement en 2011. Ces efforts de développement sont en cours et visent à améliorer l'efficacité des opérations de pêche hauturière et à utiliser pleinement les ressources marines vivantes disponibles, et consistent de manière globale à élaborer des stratégies visant à garantir la sécurité alimentaire et le développement économique. Nonobstant, les opérations de pêche sont restées principalement artisanales et la composition de la prise ainsi que les niveaux de prise totaux n'ont pas connu de changements drastiques en 2011. L'utilisation des DCP a connu une augmentation à Dominique et Ste Lucie. Deux principales initiatives de pêcherie régionale financées par des donateurs, impliquant la CARICOM et les États du CRFM, ont été poursuivies en 2011 et 2012, et des études pilotes menées sur le terrain, consistant à examiner la gestion des pêches opérant sous DCP à la Dominique et Sainte-Lucie, ont été terminées ainsi que deux études sur la pêcherie récréative dans les régions des Caraïbes de l'Est et du Sud. Le projet MAGDELESA*

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*qui se consacre à la recherche en vue d'améliorer la gestion des pêcheries sous DCP est actuellement en cours dans les Petites Antilles et à Haïti, en collaboration avec l'Union européenne, la FAO et les États du CRFM. En 2011 et 2012 également, le Groupe de travail sur les ressources de grands pélagiques du CRFM a continué à élaborer les informations et les connaissances de base sur la pêche du thon à nageoires noires des Caraïbes orientales, aux fins de la préparation d'une évaluation quantitative plus formelle de cette pêche à l'avenir.*

## RESUMEN

*En 2011, continuaron desarrollándose las pesquerías de túnidos y especies afines de la Commonwealth de Dominica y Santa Lucía, situadas en la zona oriental del Caribe. Dichos esfuerzos de desarrollo están realizándose actualmente y pretenden mejorar la eficacia de las operaciones pesqueras en alta mar y conseguir la plena utilización de la base de recursos marinos naturales vivos disponibles, para lograr estrategias que garanticen la seguridad alimentaria y el desarrollo económico. No obstante, las operaciones de pesca siguen siendo artesanales en su mayor parte, y la composición por especies y los niveles de captura totales no han experimentado cambios importantes en 2011. En Dominica y Santa Lucía se ha producido un aumento en el uso de DCP. Dos iniciativas regionales pesqueras financiadas por donantes, relacionadas con CARICOM y los Estados del CRFM, han continuado en 2011-2012, con la finalización de estudios piloto de campo que examinaban la ordenación pesquera de los DCP en Dominica y Santa Lucía, y con la finalización de dos estudios sobre la pesquería de recreo en las regiones oriental y meridional del Caribe. El proyecto MAGDELESA, que se centra en la investigación para mejorar la ordenación pesquera de los DCP se está llevando a cabo en las Antillas Menores y Haití en colaboración con la UE, la FAO y los Estados del CRFM. Además, en 2011 y 2012, el Grupo de trabajo de recursos pesqueros de grandes pelágicos del CRFM continuó con el desarrollo de la información y los conocimientos básicos de la pesquería de atún aleta negra del Caribe oriental, en preparación para una evaluación cuantitativa más formal de esta pesquería en el futuro.*

## Part I (Information on Fisheries, Research and Statistics)

### Section 1: Annual fisheries information

The characteristics of tuna and tuna-like fisheries in the Commonwealth of Dominica, and St. Lucia have been described in reports submitted in previous years to ICCAT. These fisheries continued to develop in 2011. Such development efforts are ongoing and are intended to improve the efficiency of offshore fishing operations and to make full utilization of the available natural living marine resource base, in general pursuit of strategies to guarantee food security and economic development. Notwithstanding, a large artisanal component of the industry persists, and the species composition and total overall catch levels showed no dramatic changes in 2011, in comparison to previous years.

In Dominica during 2011, a total of 432 fishing vessels with LOA <20 m participated in the tuna and tuna-like fishery with the major targeted species being yellowfin tuna, skipjack tuna, Atlantic blue marlin, and blackfin tuna.

Given the popularity of Fish Aggregating Devices (FADs), fishers have reverted from only trolling to the use of a combination of floating drop lines and trolling near and around FADs for catching large migratory pelagics.

The management objectives for this fishery as outlined by the Fisheries Management Plan 2006 are:

- Expansion of this fishery;
- Sustainable exploitation of these resources;
- Determination of the status of these shared stocks;
- Development of a regional approach to resource management.

In St. Lucia, during 2011 a total of 640 fishing vessels with LOA <20 m participated in the tuna and tuna-like fishery, which harvests yellowfin tuna, albacore, bigeye tuna, skipjack tuna, Atlantic sailfish, Atlantic blue marlin, Atlantic white marlin and swordfish. The landing trends for large pelagics have remained progressive over the last few years. This increasing trend in pelagic landings may have been the result of the efforts



undertaken by the Department of Fisheries to promote the fishery as an alternative to the near shore fishery and to promote also the increased use of FADs. The management objectives for this fishery, as outlined in the Fisheries Management Plan of 2006, include:

- The promotion of the sustainable development of the commercial and sport fisheries for large pelagic species;
- Cooperation with other Caribbean States to manage the large pelagic resources
- 

Both Dominica and St. Lucia have recreational fisheries that harvest tuna and tuna-like species, but the size of the catches are unknown. In the case of Dominica, the activity is very limited, with only three recreational fishery operators providing the service from five fishing platforms.

## ***Section 2: Research and statistics***

### *2.1 Landings data*

Table 1 provides currently available best estimates of commercial landings of tuna and tuna-like species reported by Dominica and St. Lucia for 2011. The top three species harvested by weight in Dominica were yellowfin tuna, blue marlin and blackfin tuna whereas in St. Lucia the top three species were blackfin tuna, skipjack tuna, and yellowfin tuna.

### *2.2 Caribbean Large Marine Ecosystem (CLME) project*

The CLME project assists participating countries from the Wider Caribbean region to improve the management of their shared living marine resources, most of which are considered to be fully or overexploited through an Ecosystem-Based Management (EBM) approach (CLME, 2012). The objectives of the Caribbean Large Marine Ecosystem (CLME) project, funded primarily by the Global Environmental Facility (GEF) are:

- To identify, analyze and agree upon major issues, root causes and actions required to achieve sustainable management of the shared Living Marine Resources in the Caribbean Large Marine Ecosystem and its adjacent regions;
- To improve the shared knowledge base for sustainable use and management of transboundary Living Marine Resources;
- To implement legal, policy and institutional reforms to achieve sustainable transboundary Living Marine Resources management;
- To develop an institutional and procedural approach to Large Marine Ecosystem level Monitoring, Evaluation and Reporting.

CRFM continues to participate in the CLME project, with responsibility for completing priority activities in research and resource assessment for large pelagic fish resources. These technical activities are being coordinated by CRFM's Large Pelagic Fish Resource Working Group (CRFM LPWG), and further details of the progress achieved in 2011/12 are given in section 2.4.1.

### *2.3 Study on Formulation of Master Plan on Sustainable use of Fisheries Resources for Coastal Community Development in the Caribbean*

This initiative was completed in December 2011 and was funded primarily by the Japan International Cooperation Agency (JICA) (Anon., 2012a). One component of the study sought to address the need to improve approaches to the development and management of large pelagic fisheries, with a primary focus on the artisanal sector and FAD fisheries. The objectives were: i) to improve the capability of FAD fishery management on the part of the fisheries officers and fishers and; ii) increase the productive output of the FAD by developing the skills and capacity to utilize potential species. Two major outputs of this study were the development of a FAD Fishery Management Plan (Anon., 2012b) and Revised Draft Fisheries Regulations for FAD fishing in Dominica (Anon., 2012c).

### *2.4 Overview of 2011/2012 CRFM LPWG Meeting activities of relevance to ICCAT*

During the 2011/2012 Scientific Meetings, the CRFM LPWG meeting benefited from participation by several CARICOM and CRFM Member States, and also by scientists from the National Marine Fisheries Service – Southeast Fisheries Science Center (Miami, USA), L'Institut Français de Recherche pour l'Exploitation de la Mer

(IFREMER-Martinique), Instituto Oceanográfico –Universidad de Oriente (Venezuela) and (Organización del Sector Pesquero y Acuícola de Centroamerica) OSPESCA. During its past two meetings, the CRFM LPWG, under commitment to the CLME project in respect of large pelagic fish resources, attempted regional-level reviews and analyses of the dolphinfish and blackfin tuna fisheries of the Eastern Caribbean.(CRFM, 2010; CRFM, 2011; CRFM,2012).

#### 2.4.1 CLME Project

##### 2.4.1.1 Ecological Risk Assessment for the Effects of Fishing (ERAEF)

In order to address the data improvement component of the CLME project commitments, the CRFM explored the data needs for applying ERAEF as an ecosystem analysis tool for the large pelagic fishery of the Eastern Caribbean (CRFM, 2011; CRFM, 2012).

##### 2.4.1.2 Recreational Fisheries

The highly migratory large pelagic fish resources are an important contributor to employment, income and food security in the Caribbean Large Marine Ecosystem and adjacent Guianas-Brazil region. These resources are exploited by countries within the region, as well as by foreign nations for commercial and recreational purposes. The recreational fishery is assumed to form a significant component of the harvest subsector of the large pelagic fishing industry in the region. The main target species of the recreational fisheries in the Caribbean are: billfishes, yellowfin tuna, wahoo, king mackerel, and dolphinfish. Notwithstanding this level of importance, recreational fishing activities have received minimal fishery management attention in most Caribbean countries and data on this fishery are lacking (CRFM, 2012.). The CRFM is conducting four reviews to document the nature and importance of recreational fishing activities in the Caribbean region: Northern Caribbean, Southern Caribbean, Western Caribbean and Eastern Caribbean.

#### 2.4.2 Blackfin tuna data analyses

Catch, catch rates, stock structure and information on the biology of blackfin tuna were reviewed at the 2010 LPWG meeting (CRFM, 2010). During 2011, the LPWG continued data preparation to facilitate an assessment of the Eastern blackfin tuna fishery. Catch and effort data were submitted by St Lucia, St Vincent and the Grenadines, Trinidad and Tobago, Jamaica, the French West Indies and Venezuela. Venezuela submitted CPUE and size statistics. The St Lucia data were individual trip records for the period 1995-2009. The data included weights of all species caught and measures of effort (soak time, gear quantity and crew size) by gear type. The data submitted by St Vincent and the Grenadines were 2455 individual records for trips in which blackfin tuna were caught over the period 1984–1994. Species weight and value, and crew size and soak time among other measures of effort, were included by gear type. The data submitted by Trinidad and Tobago were 7385 records of individual trips in which flyingfish, dolphinfish and blackfin tuna were caught in Tobago for the period 2005–2010. The data included species weight and price, and number of crew by fishing method. The data submitted for the French West Indies included catch series for Martinique and Guadeloupe for dolphinfish and blackfin tuna for the period 1985–2009 and estimates of CPUE by gear for the years 2009 and 2010. The data submitted for Venezuela included blackfin tuna catch series and standardised CPUE for the period 1988–2009 and size data by fleet from 1993 to 2010 (CRFM, 2011). Based on consideration of the data submitted it was decided that an assessment of blackfin tuna could not be completed at this meeting (CRFM, 2011).

During 2012, the LPWG continued work on the blackfin tuna fishery and completed an evaluation on the status and availability of blackfin tuna data in Dominica, Grenada, St. Lucia and St. Vincent and the Grenadines (CRFM, in prep). Individual detailed ocean pelagic trip observations for St. Lucia were available from 1995–2011 and were used to explore the development of a standardized CPUE abundance index for the blackfin tuna fishery. Plots of annual nominal landings for all four islands indicated a general increasing trend. In the case of St. Lucia, a standardized plot of landings was constructed. Since none of the plots exhibited decreasing trends, there was no evidence of stock depletion at current harvest levels. It was thought that the most probable causes for the increased landings observed over time were the consideration of changes in behaviour (e.g. use of FADs) and data reporting improvement in the analysis. It was recommended that no significant increase in fishing effort be allowed until more information became available on the status of the stock (CRFM, in prep.).

#### 2.4.3 Review of progress of MAGDELESA Project

Information was presented to the LPWG on the MAGDELESA Project during the 2012 CRFM scientific meeting (CRFM, in prep.). This project aims to develop an integrated and participatory approach to the

sustainable and responsible development of the successful, anchored FAD fishery, involving scientific teams and fisheries managers in the Lesser Antilles and Haiti. The goals of the project are:

- The redeployment of the overfishing of the coastal resources (primarily fauna of the coral reefs) towards the pelagic high-sea species (tunas and tuna-like species) that still provide a reasonable possibility for catches, by the use of FAD (Fish Aggregation Device).
- To develop sustainable fishing practises for shared pelagic resources

So far, FADS have been deployed in Dominica, Grenada, St. Vincent and the Grenadines, and St. Kitts and Nevis.

## **Part II (Management Implementation)**

### ***Section 3: Implementation of ICCAT Conservation and Management Measures***

#### *3.1 Dominica*

The fishing practices in Dominica are governed by the exercise of sustainable fishing methods. There is no export fishery and all of the catch is used for local consumption.

Aside from the FAD fishery, there are no specific regulations pertaining to large pelagic landings in Dominica. However, fishers are deterred from harvesting juvenile species or using destructive gear using a combination of education programs, positive peer pressure, voluntary compliance and support from Coast Guard patrols.

#### *3.2 St. Lucia*

There are several regulations in place to control sport fishing operations. There is a bag limit regulation in place for king mackerel, dolphinfish and wahoo caught by sport fishers – 18 fish per person on boat. There is a second regulation that stipulates that any resource caught by sport fishers and not intended for use, should not be injured unnecessarily and be returned live to the sea. Finally, sport fishing vessels are generally limited to the use of six rod and reel gear units per fishing trip. At present, St. Lucia's tuna and tuna-like fishing operations are conducted in compliance with existing ICCAT regulations.

### ***Section 4: Inspection schemes and Activities***

#### *4.1 Dominica*

As mentioned, the Coast guard plays a critical role in monitoring activity at sea. Fisheries Officials perform some level of monitoring of the actual landings and on occasion at the FADs.

#### *4.2 St. Lucia*

Inspection and enforcement of fishery regulations are handled through a collaborative arrangement among fishery wardens, officials of the Marine Police Unit of the Royal St. Lucia Police Force, and officials from the Customs and Excise Department.

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**Table 1.** The 2011 tuna and tuna-like fish landings (MT) of Dominica and St. Lucia.

<i>Country</i>	<i>Common Name</i>	<i>Scientific Name</i>	<i>2011</i>
<b>Dominica</b>	Atlantic blue marlin	<i>Makaira nigricans</i>	60.31
	Atlantic bonito	<i>Sarda sarda</i>	0.04
	Atlantic sailfish	<i>Istiophorus albicans</i>	1.64
	Blackfin tuna	<i>Thunnus atlanticus</i>	37.05
	Cero	<i>Scomberomorus regalis</i>	0.16
	Skipjack tuna	<i>Katsuwonus pelamis</i>	13.06
	Swordfish	<i>Xiphias gladius</i>	0.03
	Tunas nei	<i>Thunnini</i>	1.14
	Wahoo	<i>Acanthocybium solandri</i>	12.70
	Yellowfin tuna	<i>Thunnus albacares</i>	132.33
<b>St. Lucia</b>	Albacore	<i>Thunnus alalunga</i>	1.55
	Atlantic blue marlin	<i>Makaira nigricans</i>	64.25
	Atlantic sailfish	<i>Istiophorus albicans</i>	1.68
	Atlantic Spanish mackerel	<i>Scomberomorus maculatus</i>	0.03
	Atlantic white marlin	<i>Tetrapturus albidus</i>	0.32
	Bigeye tuna	<i>Thunnus obesus</i>	0.38
	Blackfin tuna	<i>Thunnus atlanticus</i>	229.04
	Blacktip shark	<i>Carcharhinus limbatus</i>	0.10
	Bullet tuna	<i>Auxis rochei</i>	0.02
	Caribbean reef shark*		0.02
	Carpet shark*		0.08
	Cero	<i>Scomberomorus regalis</i>	0.70
	Great hammerhead	<i>Sphyrna mokarran</i>	0.16
	Hammerhead sharks nei	<i>Sphyrna spp</i>	0.16
	King mackerel	<i>Scomberomorus cavalla</i>	3.73
	Lemon shark	<i>Negaprion brevirostris</i>	0.37
	Little tunny(=Atl.black skipj)	<i>Euthynnus alletteratus</i>	0.02
	Nurse shark	<i>Ginglymostoma cirratum</i>	0.39
	Oceanic whitetip shark	<i>Carcharhinus longimanus</i>	0.20
	Sand tiger shark	<i>Carcharias taurus</i>	0.25
	Shortfin mako	<i>Isurus oxyrinchus</i>	0.73
	Skipjack tuna	<i>Katsuwonus pelamis</i>	142.93
	Swordfish	<i>Xiphias gladius</i>	0.36
	Tiger shark	<i>Galeocerdo cuvier</i>	0.66
	Tunas nei	<i>Thunnini</i>	48.89
	Unclassified shark*		0.36
	Yellowfin tuna	<i>Thunnus albacares</i>	113.98

\* Not listed in the ICCAT species codes.