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

R E P O R T
for biennial period, 2008-09
PART II (2009) - Vol. 3
Annual Reports

RAPPORT
de la période biennale, 2008-09
2ème PARTIE (2009) – Vol. 3
Rapports annuels

INFORME
del período bienal, 2008-09
IIª PARTE (2009) – 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 Advisors that represent said Contracting Parties, and has the honor to transmit to them the ***"Report for Biennial Period, 2008-09, Part II (2009)"***, which describes the activities of the Commission during the second half of said biennial period.

This issue of the Biennial Report contains the Report of the 21st Regular Meeting of the Commission (Recife, Brazil, November 9-15, 2009) 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 a series of 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 for 2009 has been published in three volumes. ***Volume 1*** includes the Secretariat's Administrative and Financial Reports, 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 Secretariat's Report on Statistics and Coordination of Research and the Report of the Standing Committee on Research and Statistics (SCRS) and its appendices. ***Volume 3*** (only published electronically) contains the Annual Reports of the Contracting Parties of the Commission and Observers.

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 2008-09, IIéme Partie (2009)"***, dans lequel sont décrites les activités de la Commission au cours de la première moitié de cette période biennale.

Ce rapport contient le rapport de la 21ème Réunion ordinaire de la Commission (Recife, Brésil, 9-15 novembre 2009) et les rapports de réunion 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 de l'année 2009 est publié en trois volumes. Le ***Volume 1*** réunit les rapports administratifs et financiers du Secrétariat, les comptes rendus de réunion 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 Secrétariat sur les Statistiques et la Coordination de la Recherche et le Rapport du Comité Permanent pour la Recherche et les Statistiques (SCRS) et ses appendices. Le ***Volume 3*** (seulement publié électroniquement) contient les Rapports annuels des Parties contractantes de la Commission et des Observateurs.

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.

PRESENTACIÓN

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 Bienal, 2008-09, II[a] Parte (2009)"***, en el que se describen las actividades de la Comisión durante la primera mitad de dicho periodo bienal.

El Informe Bienal contiene el informe de la Vigesimoprimera Reunión Ordinaria de la Comisión (Recife, Brasil, 9-15 de noviembre de 2009), 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 de 2009 se publica en tres volúmenes. El ***Volumen 1*** incluye los Informes Administrativo y Financiero de la Secretaría, 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*** contiene el Informe de la Secretaría sobre estadísticas y coordinación de la investigación y el Informe del Comité Permanente de Investigación y Estadísticas (SCRS) y sus apéndices. El ***Volumen 3*** (sólo se publica en formato electrónico) incluye los Informes anuales de las Partes contratantes de la Comisión y de los observadores.

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.

FABIO HAZIN
Commission Chairman / Président de la Commission / Presidente de la Comisión

TABLE OF CONTENTS[1] / TABLE DES MATIÈRES[2] / ÍNDICE[3]

ANNUAL REPORTS OF CONTRACTING PARTIES
RAPPORTS ANNUELS DES PARTIES CONTRACTANTES
INFORMES ANUALES DE PARTES CONTRATANTES

REPORTS OF OBSERVERS FROM COOPERATING NON-CONTRACTING PARTIES, ENTITIES, OR FISHING ENTITIES
RAPPORTS DES OBSERVATEURS DES PARTIES, ENTITÉS OU ENTITÉS DE PÊCHE NON-CONTRACTANTES COOPÉRANTES
INFORMES DE OBSERVADORES DE PARTES, ENTIDADES O ENTIDADES PESQUERAS NO CONTRATANTES COLABORADORAS

REPORTS OF OBSERVERS FROM INTERGOVERNMENTAL ORGANIZATIONS
RAPPORTS DES OBSERVATEURS D'ORGANISATIONS INTER-GOUVERNEMENTALES
INFORMES DE OBSERVADORES DE ORGANIZACIONES INTERGUBERNAMENTALES

[1] Reports received and distributed for the 2009 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 2009 Commission Report).

[2] Rapports reçus et diffusés pour les réunions annuelles de l'ICCAT de 2009. 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 2009).

[3] Informes recibidos y distribuidos durante las reuniones anuales de ICCAT de 2009. 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 2009).

ANNUAL REPORTS OF CONTRACTING PARTIES
RAPPORTS ANNUELS DES PARTIES CONTRACTANTES
INFORMES ANUALES DE PARTES CONTRATANTES

ANNUAL REPORT OF ALBANIA
RAPPORT ANNUEL D'ALBANIE
INFORME ANUAL DE ALBANIA

Rezart Kapedani[1]

SUMMARY

The Albanian catch of tuna and tuna-like species amounted to 50 t. The entire catch was comprised of bluefin tuna used for farming purposes in Turkey. There was one Albanian purse seiner authorized to exploit the quota. The quotas were not exceeded and the fishing activity was monitored by an authorized Turkish observer. The conservation and management measures related to tuna fishing activities were incorporated in the national legislation.

RÉSUMÉ

La prise albanienne de thonidés et d'espèces apparentées s'élevait à 50 t. La totalité de la capture était composée de thon rouge utilisé à des fins d'engraissement en Turquie. Un senneur albanien a été autorisé à exploiter le quota. Les quotas n'ont pas été dépassés et l'activité de pêche a fait l'objet de suivi par un observateur turc autorisé. Les mesures de conservation et de gestion relatives aux activités de pêche de thonidés ont été incorporées dans la législation nationale.

RESUMEN

La captura de Albania de túnidos y especies afines fue de 50 t. Toda la captura era atún rojo utilizado con fines de engorde en Turquía. Un cerquero albanés estaba autorizado a explotar la cuota. Las cuotas no se han superado y la actividad pesquera fue objeto de seguimiento llevado a cabo por un observador turco autorizado. Las medidas de conservación y ordenación relacionadas con las actividades de pesca de túnidos fueron incorporadas a la legislación nacional.

Part I (Information on Fisheries, Research and Statistics)

Section 1: Annual Fisheries Information

Albania is a relatively new member of ICCAT. During 2009, the annual catch of bluefin tuna amounted to 50 t. This quantity was fished by a purse seine vessel. The quota was exploited until the end of June and no further fishing activities targeting bluefin tuna were allowed for this year. There were no catches of bluefin tuna during 2007 or 2008 due to the fact that no quotas were allocated to Albania. No tuna farming activities were performed for this year in the Albanian waters. No other species of concern to ICCAT were caught.

Section 2: Research and Statistics

No research activities were performed during 2008 regarding these species. The catches are registered on the statistical database related to fisheries in the Ministry of Environment, Forestry and Water Administration.

[1] Directorate of Fishery Policies, Ministry of Environment, Forestry and Water Administration, Rruga Durrësit,nr. 27; Tirana, Albania; E-mail: rkapedani@moe.gov.al

Part II (Management Implementation)

Section 3: Implementation of ICCAT Conservation and Management Measures

The Directorate of Fishery Policies has already made effective the ICCAT Recommendations for 2009. The Recommendation 08-05 "to establish a multiannual recovery plan for bluefin tuna in the eastern Atlantic and Mediterranean" has already been translated and implemented including the necessary changes in the national legislation. The implementation became effective on 30 July 2009, and the ICCAT Secretariat was notified on the same day.

Recommendation 08-12 "on an ICCAT Bluefin Tuna Catch Documentation Program" is already in place. As such, all the catches during 2009 were documented following the requirements of this Recommendation and were accompanied by a Bluefin Catch Document (BCD) and also sent to the ICCAT Secretariat.

Furthermore, Albania is also implementing other Recommendations issued prior to the date of Albania becoming a member of ICCAT in order to fulfill the legislative framework needed.

The Albanian purse seiner authorized for the tuna fishery was informed regarding all the conservation and management measures in place and as such no over-fishing or catching of under-sized fish took place during the 2009 fishing season.

Section 4: Inspection Schemes and Activities

Due to the fact that no tuna fishing activity was carried out in Albania, and that Albania has not yet trained its bluefin tuna fishing observer, no inspection scheme was in place in Albania. However, the Fishing Inspectors monitor the Albanian waters to avoid any IUU fishery (including the one targeting the tuna species).

Regarding the Albanian purse seiner engaged in tuna fishing activity in Turkish waters, a successful cooperation was established with the Turkish official authorities, which enabled the appointment of an authorized observer for the Albanian vessel.

Section 5: Other Activities

Albania has nothing to report under this section.

ANNUAL REPORT OF ALGERIA*
RAPPORT ANNUEL DE L'ALGÉRIE
INFORME ANUAL DE ARGELIA

Ière partie (Informations sur les pêcheries, la recherche et les statistiques)

Chapitre 1 : Information annuelle sur les pêcheries

Les captures algériennes totales de thonidés et des espèces voisines se sont élevées en l'an 2008 à 4431 tonnes, réparties comme suit :

- Thon rouge : 1311 tonnes : soit 89,79 % du quota alloué à l'Algérie
- Espadon : 802 tonnes
- Thonidés mineurs : 2318 tonnes

Cette production a été réalisée grâce à l'intervention d'une flottille thonière nationale de type senneur dont la longueur des unités varie entre 25 et 31 m, et une puissance motrice allant de 900 à 1300 CV, ainsi que par 13 thoniers affrétés dont 12 long liner de longueur moyenne de 45 m et 01 thonier senneur.

Il y a lieu de signaler à ce propos que pour l'année 2008 le secteur des pêches a organisé une opération de pêche conjointe au profit d'armateurs nationaux dans le but d'acquérir un savoir-faire en matière de technique de pêche spécifique au thon rouge notamment en ce qui concerne la pêche au thon vivant par les senneurs.

- **Fréquences de taille :**

L'étude des fréquences de taille réalisée sur des échantillons estimés à 1059 individus, capturés durant les mois d'avril à mai 2008, a fait ressortir que les spécimens possèdent des tailles allant de 100 à 300 cm. Cependant, l'échantillon considéré est principalement composé d'individus dont la taille varie entre 180 cm et 240 cm.

La distribution des fréquences de taille du thon rouge est illustrée à la **Figure 1**.

- **Fréquences de poids :**

S'agissant de la variation pondérale des prises de thon rouge, la **Figure 2** montre que, sur l'échantillon considéré, le poids des individus varie entre 25 et 368 kg avec une prédominance des individus de 120 kg à 200 kg.

- **Relation taille-poids**

La **Figure 3** illustre la relation taille-poids de l'année 2008.

- **Sex-ratio**

L'étude du sex-ratio global sur 1059 spécimens révèle une nette différence en faveur des femelles (58,7 %) par rapport à celui des mâles (41,3 %). Le sex-ratio global est représenté dans le **Tableau 1** et illustré par la **Figure 4.**

Par ailleurs, il a été enregistré une dominance en faveur des femelles pour les tailles comprises entre 180 et 220 cm et au-delà de 200 cm. Cependant, les plus gros individus en termes de poids sont des mâles, mais le pourcentage reste moins important par rapport à celui des femelles.

Chapitre II : Statistiques et recherche

S'agissant du suivi de l'exploitation des ressources halieutiques, le secteur des pêches a mis en place un dispositif de collecte de données statistiques, qui consiste en l'instauration d'autorisations de pêche et l'obligation de la tenue d'un journal de pêche à bord de chaque navire quelque soit ses caractéristiques. Le journal de pêche est

* No summary provided. / Aucun résumé soumis. / No se ha facilitado el resumen.

renseigné par le capitaine du navire pour chacune des pêches effectuées. Ces informations permettent à l'agent de collecte de statistiques au niveau des ports structurés de vérifier la fiabilité des données.

Les informations statistiques demandées portent essentiellement sur les espèces pêchées, le quota pêché, les zones de pêche, les engins de pêche, etc.

Aussi, le secteur a mis en place une Commission permanente pour l'établissement d'un fichier national sur toute la flottille de pêche exerçant dans les eaux sous juridiction nationale. Ce fichier constitue une base de données des différents types de navire de pêche algériens : sardiniers, petits métiers, chalutiers, thoniers et plaisanciers. Toutes les informations se rapportant à l'armateur, à l'autorisation de pêche, au navire, à la pêche, etc. sont enregistrées sur ledit fichier.

Plusieurs projets permettant le suivi, le contrôle et la collecte de toutes les informations et les données statistiques ont été inscrits et lancés par l'Algérie, dont notamment l'installation de halles à marées au niveau de chacune des wilayas maritimes du pays et l'installation du VMS à bord des navires de plus de 15 mètres.

Quant à la recherche scientifique se rapportant aux thonidés et aux espèces voisines, des travaux de recherche notamment sur les paramètres biologiques, la croissance de ces espèces, sont effectués. Par ailleurs, deux axes de recherche sont pris en charge par deux cadres du secteur dans le cadre de la préparation de mémoire portant essentiellement sur « Écologie, biologie et exploitation du thon de la côte algérienne ».

Par ailleurs, dans le cadre de la pêche aux grands migrateurs halieutiques, en plus des deux contrôleurs embarqués à bord de chaque thonier, pour la collecte et le renseignement des canevas statistiques, des élèves relevant de l'Institut national supérieur de la pêche et de l'aquaculture (INSPA) et des scientifiques relevant du Centre national de recherche et du développement de la pêche et de l'aquaculture (CNRDPA) sont aussi embarqués à bord de chaque navire avec un programme de recherche mis en place. Le programme porte essentiellement sur les techniques de pêche et la biologie des espèces.

Il y a lieu de signaler que l'Algérie dans le cadre de son programme de développement a mis en place tous les dispositifs administratif et technique pour l'exécution des campagnes d'évaluation périodiques et régulières par l'acquisition d'un navire de recherche qui est en construction. À ce titre, une formation dans le cadre du projet COPEMED, est programmée au profit d'un groupe de spécialistes, relevant du centre de recherche du secteur. Cette formation, qui aura lieu en 2009, porte essentiellement sur les méthodes d'évaluation des stocks halieutiques.

IIe partie (Mise en œuvre de la gestion)

Chapitre 3 : Mise en œuvre de mesures de conservation et de gestion

En ce qui concerne la campagne 2008, le décret exécutif nº 08-118 du 9 avril 2008, modifiant et complétant, le décret exécutif nº 04-86 du 18 mars 2004, fixant les tailles minimales marchandes des ressources biologiques a été élaboré, et ce, conformément à la recommandation 06-05 de l'ICCAT. Ce décret fixe également le taux de prises accessoires arrêté dans cette même recommandation.

De plus, une décision nº 297 du 12 octobre 2008 fixant la période d'interdiction de la pêche de l'espadon a été mise en application, et ce, conformément à la recommandation 07-01 de l'ICCAT.

Affrètement des navires :

Conformément à la recommandation 02-21 de l'ICCAT, les informations relatives à l'affrètement des navires par l'Algérie ont été notifiées à la commission.

Licences de pêche :

L'exercice de cette activité par les nationaux ou par les étrangers conformément à la réglementation nationale est subordonné à l'obtention d'une autorisation ou d'un permis de pêche délivré par l'autorité chargée de la pêche.

Chapitre 4 : Schémas et activités d'inspection

- Navires affrétés :

Le secteur des pêches délivrant un permis de pêche commerciale des grands migrateurs halieutiques prévoit l'embarquement de deux contrôleurs à bord de chaque navire étranger, et ce, durant toute la campagne de pêche.

Ces contrôleurs ont pour mission principale, le contrôle des zones de pêche, du quota autorisé à être pêché, les tailles minimales marchandes, les espèces pêchées, etc.

Des contrôles inopinés par des agents du Service des Gardes-côtes sont également prévus en mer conformément à la réglementation en vigueur.

Par ailleurs, la réglementation nationale prévoit une visite d'inspection de ces navires, au niveau du port d'accostage, par une Commission locale regroupant différentes institutions du pays (pêche, douanes, garde-côtes) avant et à la fin de chaque campagne de pêche.

- Navires nationaux :

Durant la campagne 2008, et en ce qui concerne les navires nationaux, un contrôleur/observateur a été embarqué à bord de chaque navire, et ce, conformément aux recommandations de l'ICCAT.

Aussi, dans le cadre du renforcement du système de suivi et de contrôle de l'activité de la pêche, le Ministère de la pêche et des ressources halieutiques a mis en place le système de suivi des navires de pêche.

Tableau 1 : Le sex-ratio global de *Thunnus thynnus*.

Effectif	*Sexe (%)*	
	Mâle	***Femelle***
1059	41.3	58.7

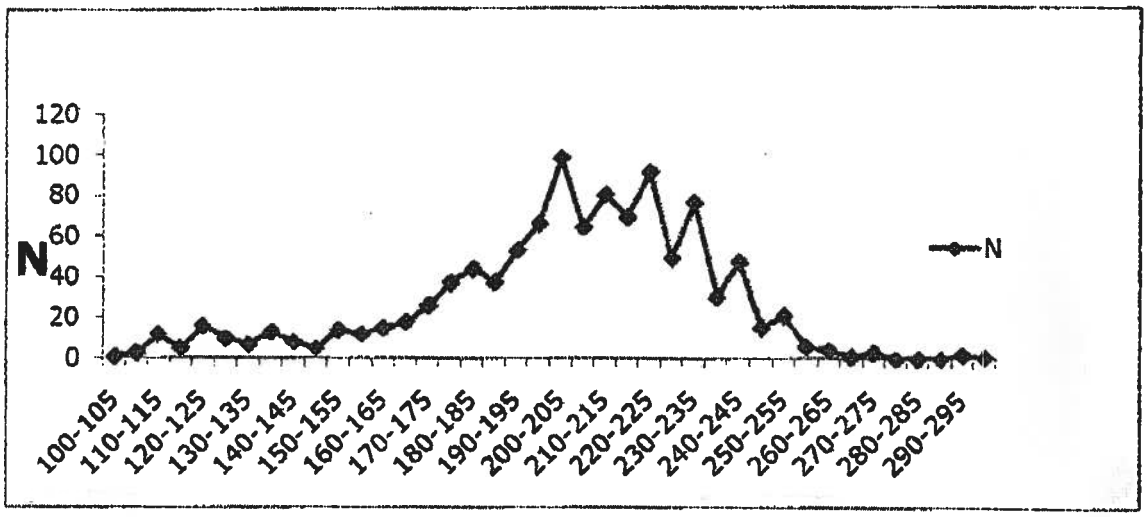

Figure 1 : Distribution de fréquence de tailles de *Thunnus thynnus*.

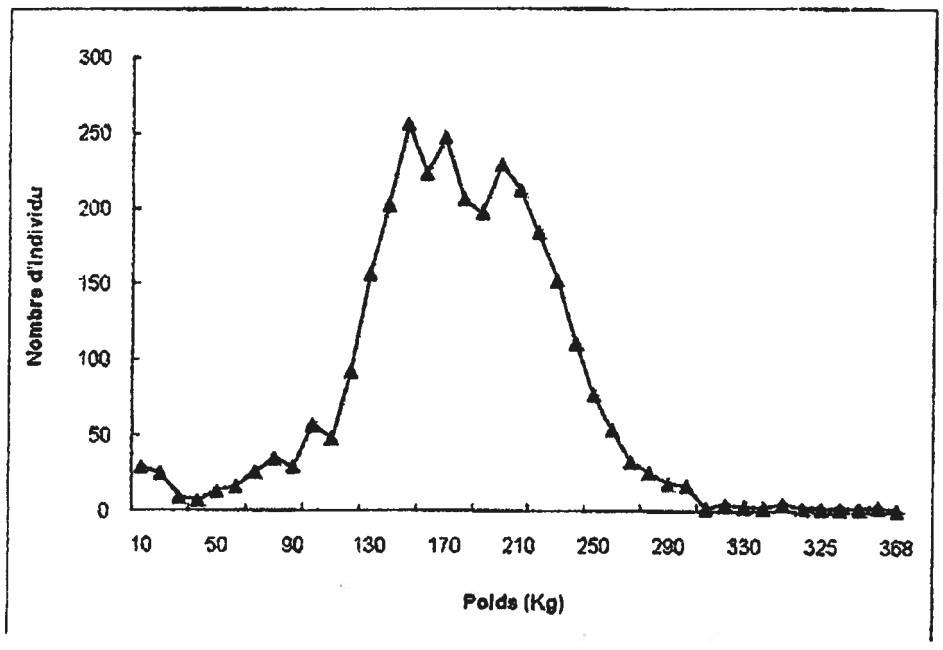

Figure 2 : Distribution de fréquence de poids de *Thunnus thynnus*.

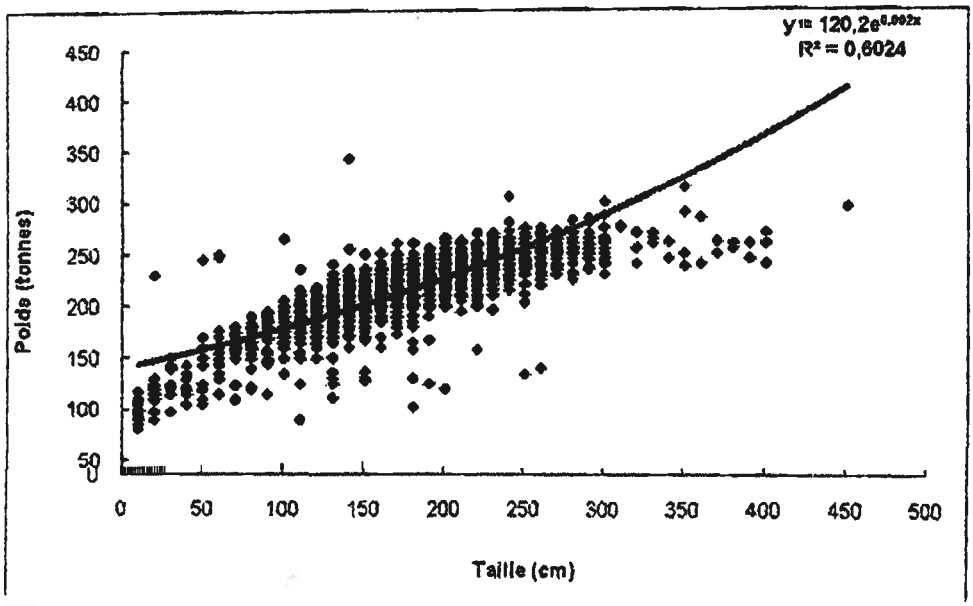

Figure 3 : Relation taille-poids.

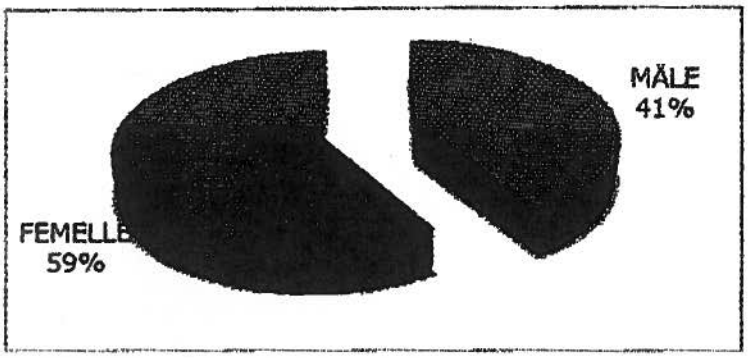

Figure 4 : Sex-ratio / pourcentage des mâles et des femelles.

ANNUAL REPORT OF ANGOLA
RAPPORT ANNUEL DE L'ANGOLA
INFORME ANUAL DE ANGOLA

Henriette Lutuba Nsilulu[1]

SUMMARY

*The major Scomber species caught in Angola are: yellowfin tuna (*Thunnus albacares*), skipjack tuna (*Katsuwonus pelamis*), bigeye tuna (*Thunnus obesus*), albacore (*Thunnus alalunga*) and small tunas, such as: Atlantic black skipjack (*Euthynnus alletteratus*), Atlantic bonito (*Sarda sarda*), chub mackerel (*Scomber japonicus*), and frigate tuna (*Auxis thazard*). These resources are exploited by the artisanal fleet, and the semi and industrial fleet. Billfish and swordfish are caught in the waters of Angola mainly by the sport fishing. Angola does not have any vessels targeting tunas. The foreign vessels fish under their flag in Angola's Exclusive Economic Zone. Thus, we do not have data to report to ICCAT on large tunas. The types of gears used normally for the target species are purse seine, trawl, hand line, trap and also longline for the foreign vessels. The National Institute of Fisheries Research (INIP), through the Research Center of Lobito (CIP), is strengthening the sampling program with the collection of biological data, particularly on the size frequencies of the major species of small tunas from the traps. In 2008, nine samplings were carried out on small tunas and of these samples three concentrated on* Auxis thazard *for which 324 fish were measured; six centered on* Euthynnus alletteratus *in which 725 fish were measured. The size frequency of the fish sampled ranged between 20 and 40 cm fork length for* Auxis, *with an average size of 34 cm, and between 34 and 55 cm for Atlantic black skipjack, with an average size of 46 cm. As regards sport and recreational fishing, the data are monitored by the association of this fishing and these data are available on Angola's sport fishing web site (www.ipescas.nexus.ao). Regional and international tournaments are carried out. The statistical data obtained from the Direction Nationale de Pêche et Protection de Ressources (DNPPR), the Cabinet d'Études de Plans et Statistiques (GEPE), the Institut National de Recherches de Pêches (INIP), the Centres de Recherches de Pêches (CIPs), and the Institut de Pêches Artisanale (IPA).*

RÉSUMÉ

*Les principaux scombridés pêchés en Angola sont : l'albacore (*Thunnus albacares*), le listao (*Katsuwonus pelamis*), le thon obèse (*Thunnus obesus*), le germon (*Thunnus alalunga*) et les thonidés mineurs qui sont la thonine commune (*Euthynnus alletteratus*), la bonite à dos rayé (*Sarda sarda*), le maquereau espagnol (*Scomber japonicus*), l'Auxide (*Auxis thazard*). Ces ressources sont exploitées par la flottille artisanale, semi industrielle et industrielle. Les Istiophoridés et Xiphiidés sont pêchés dans les eaux angolaises principalement par la pêche sportive. L'Angola ne dispose pas de bateaux pour la pêche dirigée des thonidés. Les embarcations étrangères sont en train de pêcher avec leur drapeau dans la Zone Economique Exclusive dans les eaux Angolaises. Ce qui fait que nous ne disposons pas de données pour déclarer à ICCAT sur les grands thonidés. Les types d'engins utilisés normalement pour les espèces cibles sont les sennes, chalutage, cannes, ligne à main, madragues et aussi les palangres pour les embarcations étrangères. L'INIP (Institut de National de Recherches de Pêches) à travers son Centre de Recherche de Lobito (CIP) est en train de renforcer le programme d'échantillonnage avec la collecte de données biologiques, principalement de fréquence de taille des principales espèces de thonidés mineurs provenant de madragues. Durant l'année 2008, neuf échantillonnages de thons mineurs étaient effectués, dont trois échantillonnages pour l'espèce* Auxis thazard *avec 324 poissons mesurés au total et six échantillonnages pour l'espèce* Euthynnus alletteratus *où 725 poissons étaient mesurés. La fréquence de taille des individus échantillonnés varie de 20cm à 40cm de longueur à la fourche pour l'Auxide avec une longueur moyenne de 34cm alors que celle de la Thonine commune varie de 34cm à 55cm avec une longueur moyenne de 46cm. Relativement à la pêche sportive et récréative en Angola, les données sont contrôlées par l'association de cette pêcherie et celles-ci sont disponibles sur le site web de pêche sportive de l'Angola (www.ipescas.nexus.ao). Ils*

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réalisent des compétitions internationales et régionales. Les données statistiques sont obtenues à partir de la DNPPR (Direction Nationale de Pêche et Protection de Ressources), du GEPE (Cabinet d'Études de Plans et Statistiques), de l'INIP (Institut National de Recherches de Pêches), des CIPs (Centres de Recherches de Pêches) et de l'IPA (Institut de Pêches Artisanale).

RESUMEN

*Los principales escómbridos que se pescan en Angola son: rabil (*Thunnus albacares*), listado (*Katsuwonus pelamis*), patudo (*Thunnus obesus*), atún blanco (*Thunnus alalunga*) y pequeños túnidos como bacoreta (*Euthynnus alletteratus*), bonito (*Sarda sarda*), caballa (*Scomber japonicus*) y melva (*Auxis thazard*). Estos recursos son explotados por la flota artesanal y por la flota semi-industrial e industrial. Los istiofóridos y xifoideos son capturados sobre todo por la pesca deportiva en las aguas angoleñas. Angola no dispone de buques para la pesca dirigida a los túnidos. Los buques extranjeros pescan bajo su pabellón en la zona económica exclusiva de las aguas angoleñas. Por lo que no disponemos de datos para declarar a ICCAT en lo que concierne a los grandes túnidos. Los tipos de artes utilizados normalmente para las especies objetivo son cerco, arrastre, liña de mano, almadraba y también palangre para las embarcaciones extranjeras. El INIP (Institut National de Recherches de Pêches), a través del centro de investigación de Lobito (CIP) está reforzando el programa de muestreo con la recopilación de datos biológicos, sobre todo de frecuencias de tallas de las principales especies de pequeños túnidos procedentes de las almadrabas. Durante 2008, se realizaron nueve muestreos de pequeños túnidos, de éstos muestreos tres se centraron en* Auxis thazard*, y midieron 324 ejemplares, y seis se centraron en* Euthynnus alletteratus *y en ellos se midieron 725 ejemplares. La frecuencia de tallas de los ejemplares muestreados osciló entre 20 y 40 cm de longitud a la horquilla para Auxide, con una talla media de 34 cm, y entre 34 y 55 cm para la bacoreta, con una talla media de 46 cm. En lo que concierne a la pesca deportiva y de recreo, los datos son controlados por la asociación de esta pesquería y dichos datos están disponibles en la página web de la página de pesca deportiva de Angola (www.ipescas.nexus.ao). Realizan competiciones internacionales y regionales. Los datos estadísticos se obtienen de la DNPPR (Direction Nationale de Pêche et Protection de Ressources), GEPE (Cabinet d'Études de Plans et Statistiques), INIP (Institut National de Recherches de Pêches), CIPs (Centres de Recherches de Pêches) y del IPA (Institut de Pêches Artisanales).*

Introduction

L'Angola est un pays avec une superficie de 1.246.700 km^2 et une longueur de la côte de 1.650 km en suivant la côte de l'Océan Atlantique Sud Est, à partir de 5º S à 17 º15 S de latitude. La plateforme continentale (jusqu'à 200 m de profondeur) présente une superficie de 51.000 km^2 (Altunaga,1999). La côte est dominée par deux systèmes de courants qui sont le courant froid de Benguela au sud et le courant de l'Angola au nord (Moroshkin *et al.* 1970). La Zone Economique Exclusive est de 200 milles nautiques partant de la côte.

Le secteur de la pêche occupe économiquement la troisième place après le secteur du pétrole et du diamant. Le poisson est la principale source de protéine animale et la consommation par habitant atteint une moyenne de 19 kg par an au niveau de la zone côtière. Le secteur de la pêche est la majeure source d'emploi pour plusieurs Angolais vivant le long de la côte. La majorité de la population exerce la pêche artisanale pour l'autosuffisance.

I^{ère} Partie (Information sur les pêcheries, la recherche et les statistiques)

Chapitre 1 : Information annuelle sur les pêcheries

La diversité spécifique de thonidés le long de la côte angolaise est influencée par la présence du courant froid de Benguela au sud et du courant chaud du Golfe de Guinée au nord du pays.

La ressource de thonidés dans les eaux angolaises est divisée en deux principaux groupes qui sont le groupe de petits thonidés et de grands thonidés.

Le groupe de petits thonidés capturés cette année est dominé principalement par les espèces suivantes :

- Bonite à dos rayé (*Sarda sarda*)
- Auxide (*Auxis thazard*)
- Thonine commune (*Euthynnus alletteratus*)

Ces espèces sont principalement capturées par la pêche artisanale et aussi pêchées comme prise accessoire de la pêche de petits pélagiques (chinchard, sardinelles) pendant la pêche semi-industrielle tout comme industrielle.

Le groupe de grands thonidés est constitué principalement par les espèces :

- Thon obèse (*Thunnus obesus*)
- Albacore (*Thunnus albacores*)
- Germon (*Thunnus alalunga*)
- Espadon (*Xiphias gladius*)

Ces espèces sont rencontrées en haute mer le long de la marge de plateforme et son exploration est effectuée par les embarcations de grande portée pendant une période définie (pêche Industrielle).

Pour le moment, l'Angola ne dispose pas de bateaux pour la pêche dirigée sur les thons et les embarcations de grande portée qui sont en train d'explorer les grands thonidés sont des embarcations étrangères qui pêchent avec leur drapeau dans la Zone Economique Exclusive des eaux Angolaises. Ce qui fait que nous ne disposons pas de données pour déclarer à l'ICCAT.

La pêche artisanale est pratiquée normalement à bord de pirogues de longueur inférieure ou égale à 14 m propulsées à la rame ou par de petits moteurs hors-bord de 15-40 CV.

Types d'engins

Les types d'engins utilisés normalement pour les espèces cibles sont la senne, chalutage, cannes, ligne à main, madragues et aussi les palangres pour les embarcations étrangères.

Les prises

Pour le moment, l'Angola ne dispose pas de bateaux pour la pêche dirigée sur les thons. Durant l'année 2008, 42 embarcations étaient licenciées pour la capture de grands thonidés et ces embarcations de grande portée qui sont en train d'explorer les grands thonidés sont des embarcations étrangères qui pêchent avec leur drapeau dans la Zone Economique Exclusive des eaux angolaises. Ce qui fait que le pays ne dispose pas de données pour déclarer à l'ICCAT.

Chapitre 2 : Recherche et statistiques

L'échantillonnage se réalise normalement une fois par semaine. Durant l'année 2008, on a réalisé trois échantillonnages pour l´espèce *Auxis thazard* et six échantillonnages pour l'espèce *Euthynnus alletteratus.*

Les **Tableaux 1** et **2** illustrent le nombre de poissons échantillonnés par mois et espèce. Au total, 1.049 poissons ont été mesurés, dont 324 poissons de l´espèce *Auxis thazard* et 725 de l'espèce *Euthynnus alletteratus.*

La **Figure 1** indique les classes de fréquence de taille de l'auxide (*Auxis thazard)* et de la thonine commune (*Euthynnus alletteratus*) capturées durant l'année 2008. La classe de taille de l'auxide varie entre 20 cm à 40 cm de longueur à la fourche, présentant une mode à 36 cm avec une longueur moyenne de 34 cm, alors que celle de la thonine commune varie de 33 cm à 55 cm, présentant une mode à 44 cm avec une longueur moyenne de 46 cm. Les **Tableaux 1** et **2** nous montrent la distribution de fréquence de taille de la longueur à la fourche mensuelle ainsi que le nombre des échantillonnages réalisés par mois pour l'auxide et la thonine commune.

Seulement 279 thonines communes ont été analysées biologiquement, dont 123 femelles et 156 mâles (**Figure 2).**

En ce qui concerne la pêche sportive et récréative en Angola, les données sont contrôlées par l'association de cette pêcherie et celles-ci sont disponibles sur le site web de la pêche sportive de l'Angola (www.ipescas.nexus.ao). Ils participent à des compétitions internationales et régionales.

Les données statistiques sont obtenues à partir de la DNPPR (Direction Nationale de Pêche et Protection de Ressources), du GEPE (Cabinet d'Études de Plans et Statistiques), de l'INIP (Institut National de Recherches de Pêches), des CIPs (Centres de Recherches de Pêches) et de l'IPA (Institut de Pêches Artisanale).

II^{ème} Partie (Mise en oeuvre de la gestion)

Chapitre 3 : Mise en oeuvre des mesures de conservation et de gestion de l'ICCAT

Il est un peu difficile de mettre en oeuvre les mesures de conservation et de gestion de l'ICCAT une fois que les bateaux se trouvent en haute mer et ne déchargent pas au port mais le pays est en train de faire un effort pour mettre en œuvre le programme d'observateurs à bord des embarcations.

Chapitre 4: Schémas et activités d'inspection

Les inspecteurs se déplacent au port de déchargement pour effectuer le contrôle et ils octroient ensuite la licence de pêche.

Tableau 1. Distribution de fréquences de taille de la longueur à la fourche mensuelle de l'auxide (*Auxis thazard*).

Classe (cm)	*NOV*	*DEC*	*TOTAL*
20		1	**1**
26		9	**9**
27		20	**20**
28		21	**21**
29		11	**11**
30		12	**12**
31	1	3	**4**
32		2	**2**
33	12	8	**20**
34	10	29	**39**
35	20	36	**56**
36	36	30	**66**
37	19	17	**36**
38	8	10	**18**
39	1	2	**3**
40	4	2	**6**
N	**111**	**213**	**324**
n	**1**	**2**	**3**
W	**100**	**100**	
C	**200**	**125**	
F	**2**	**1,25**	

N = Nombre de poissons mesurés.

n = Nombre d'échantillonnages réalisés.

W = Poids de l'échantillon en tonnes.

C = Prises échantillonnées en tonnes.

F = Facteur de pondération

Tableau 2. Distribution de fréquences de taille de la longueur à la fourche mensuelle de la thonine commune (*Euthynnus alletteratus*).

Classe (cm)	*OCT*	*NOV*	*DEC*	***TOTAL***
34		1		**1**
35			2	**2**
36	1			**1**
37	5			**5**
38	6		1	**7**
39	2	1	2	**5**
40	1		8	**9**
41	11	2	2	**15**
42	23	4	13	**40**
43	30	7	13	**50**
44	41	35	21	**97**
45	29	35	28	**92**
46	18	22	39	**79**
47	21	30	37	**88**
48	25	26	26	**77**
49	12	13	28	**53**
50	6	22	26	**54**
51		4	19	**23**
52		2	9	**11**
53		5	3	**8**
54			3	**3**
55	1		4	**5**
N	**232**	**209**	**284**	**725**
n	**2**	**2**	**2**	**6**
W	**0.340**	**0.350**	**0.330**	
C	**5.700**	**1.050**	**0.950**	
F	**16.765**	**3**	**2.879**	

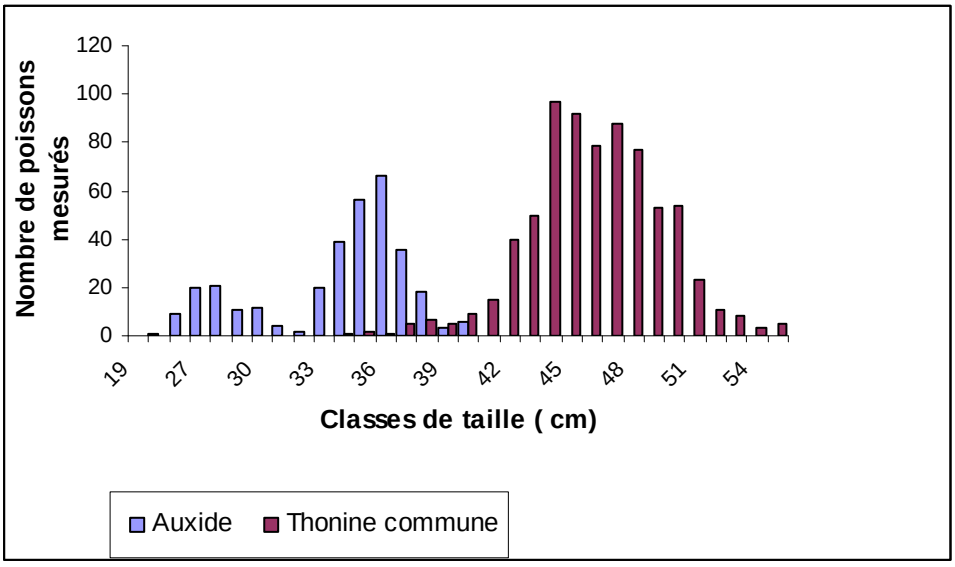

Figure 1. Classes de fréquence de tailles de l'auxide (*Auxis thazard*) et de la thonine commune (*Euthynnus alletteratus*).

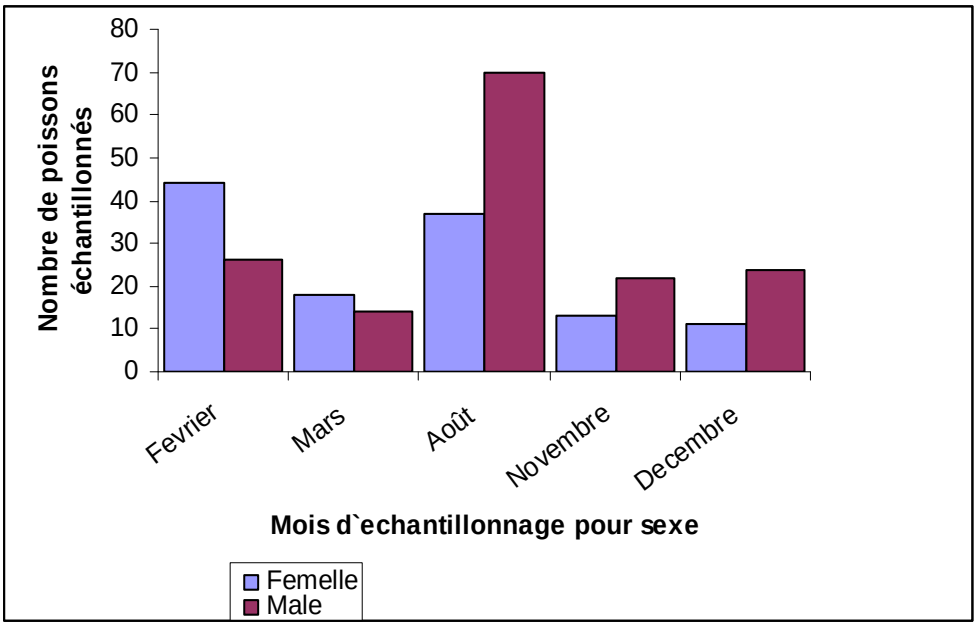

Figure 2. Nombre de poissons échantillonnés par sexe de l´espèce thonine commune (*Euthynnus alletteratus*).

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

Beverly Wade[1] and Valerie Lanza[2]

SUMMARY

Belize is currently a Contracting Party of ICCAT, IOTC and IATTC. Belize is currently a Cooperating non Contracting Party of NEAFC, a Cooperating non-Member of WCPFC and is also engaged in negotiations for the formation of SPRFMO which should be finalized in November of this year. The majority of Belize's fishing vessels which are licensed to target tuna and tuna-like species in the ICCAT Convention area are longliners. Belize has recently registered/licensed three purse seiners. The total number of tuna longliners operating in the ICCAT Convention area was 11 in 2006, 12 in 2007, 14 in 200,8 and currently 16 longliners and 3 purse seiners in 2009. The total catches of tuna and tuna-like species amounted to 201.52 mt in 2006, 1676.18 t in 2007 and 1431.48 t in 2008. Yellowfin tuna continues to be the dominant catch amounting to 71% of the total catch in 2006, 69% of the total catch in 2007 and 81% of the total catch in 2008. The average size of Belize's vessels in 2006 and 2007 was 116 GT and 133 GT, respectively, in 2008. Blue shark and mako shark are the most common non-tuna species in the longline fishery in the ICCAT Convention area, followed by sailfish and blue marlin. The compiled data including Task I and Task II for 2008 were reported to ICCAT on 7 April 2009. The list of vessels licensed to operate in the Convention area was reported on 10 February 2009 and subsequent amendments were reported thereafter. Belize continues to monitor, control and surveille its high seas fishing fleet so as to ensure that the activities of these vessels are fully compliant with its 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.

RÉSUMÉ

Le Belize est actuellement Partie contractante de l'ICCAT, de la CTOI et de l'IATTC. Il est une Partie non-contractante coopérante de NEAFC et un non-membre coopérant de WCPFC. Le Belize a également entamé des négociations pour la formation de SPRFMO qui devraient conclure en novembre de cette année. La plupart des navires de pêche du Belize munis d'une licence pour cibler les thonidés et les espèces apparentées dans la zone de la Convention ICCAT sont des palangriers. Le Belize a récemment immatriculé/octroyé des licences à trois senneurs. Le nombre total de palangriers opérant dans la zone de la Convention ICCAT s'élevait à 11 en 2006, 12 en 2007, 14 en 2008 et actuellement, en 2009, le Belize dispose de 16 palangriers et de 3 senneurs. Les prises totales de thonidés et d'espèces apparentées se sont chiffrées à 201,52 t en 2006, 1.676,18 t en 2007 et 1.431,48 t en 2008. L'albacore continue à être l'espèce dominante, représentant 71% de la prise totale en 2006, 69% de la prise totale en 2007 et 81% de la prise totale en 2008. La taille moyenne des navires béliziens en 2006 et 2007 était de 116 TJB et 133 TJB en 2008. Le requin peau bleue et le requin taupe bleue sont les espèces non-thonières les plus communes au sein de la pêcherie palangrière du Belize qui opère dans la zone de la Convention ICCAT, suivies des voiliers et du makaire bleu. Les données compilées, incluant la Tâche I et la Tâche II, au titre de 2008, ont été déclarées à l'ICCAT le 7 avril 2009. La liste des navires munis de licences pour opérer dans la zone de la Convention ICCAT a été déclarée le 10 février 2009 et les amendements ultérieurs ont été communiqués par la suite. Le Belize continue de suivre, contrôler et surveiller sa flottille de pêche hauturière afin de garantir que les activités 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.

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RESUMEN

Belice es actualmente Parte contratante de ICCAT, de la IOTC y de la IATTC. Además, es Parte no contratante colaboradora de la NEAFC, y no miembro colaborador de la WCPFC. Belice también está en negociaciones para la formación de SPRFMO, que se finalizará en noviembre de este año. La mayoría de los buques pesqueros de Belice con licencia para dirigir su actividad a los túnidos y especies afines en la zona del Convenio de ICCAT son palangreros. Recientemente se han registrado/concedido licencias a tres cerqueros. El número total de palangreros atuneros que operaron en la zona del Convenio de ICCAT en 2006 ascendió a 11 en 2006, 12 unidades en 2007, a 14 unidades en 2008 y actualmente, en 2009, contamos con 16 palangreros y 3 cerqueros. Las capturas totales de túnidos y especies afines ascendieron a 201,52 t en 2006, a 1.676,18 en 2007 y a 1.431,48 en 2008. El rabil sigue siendo la especie predominante, ya que respondió del 71% de la captura total en 2006, del 69% de la captura total en 2007 y del 81% de la captura total en 2008. El tamaño medio de los buques de Belice en 2006 y 2007 se situó en 116 TRB y en 2008 en 133 TRB. La tintorera y el marrajo son las especies más comunes, dentro de la categoría de no túnidos, capturadas por la pesquería de palangre de Belice en la zona del Convenio de ICCAT, seguidas por el pez vela y la aguja azul. Los datos recopilados para 2008, que incluyen datos de Tarea I y Tarea II, se comunicaron a ICCAT el 7 de abril de 2009. La lista de buques con licencia para operar en la zona del Convenio fue comunicada el 10 de febrero de 2009 y posteriormente se comunicaron varias enmiendas. 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 I (Information on Fisheries, Research and Statistics)

Section 1: Annual Fisheries Information

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

The table below shows the annual catch and effort data by gear and species for the Belize longline fleet which operated in the ICCAT Convention area over the past three years (Source: Fishing logs and fishing vessel voyage reports).

As can be observed in **Table 1**, yellowfin remains the dominant catch species in Belize. All the catches of albacore, bigeye tuna, yellowfin tuna and swordfish are well within the quota levels set for these species in 2006, 2007 and 2008.

1.2 Number of vessel by gear type, size (fleet structure)

The Belize longline fishing fleet in 2008 consisted of 14 longline fishing vessels of >24 meters in length overall (LOA), all of which were licensed to operate exclusively in the ICCAT Convention area. **Table 2** shows the number of active long line fishing vessels within the ICCAT Convention area by gear type and size. Belize has recently licensed two purse seine vessels to operate in the Convention area in 2009.

1.3 Fishing patterns (catch by area)

The areas of operation of the Belizean tuna longline fleet during the 2006-2008 period are given in **Table 3**.

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

Table 4 shows Belize's catches of non-target, associated and dependent species for 2006, 2007 and 2008.

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 Fisheries Department. Matters of policy are determined jointly by the Ministry of Agriculture and Fisheries and the Director General of IMMARBE.

Section 2: Research and Statistics

2.1 Summary of observer and port sampling programmes

For the purpose of ensuring compliance, surveillance is conducted on a regular basis or as a result of an investigation by boarding at seas or in port, plant checks, and by requesting the assistance of other Governments/Organizations, as necessary. Belize does not currently have any at-sea Observer Programs.

2.2 Research activities

Belize does not currently conduct research activities within the Convention area.

2.3 Statistical data collection system in use

Fishing vessel owners/operators are required to submit data on their fishing operations based on a specific format for such reporting , which includes a detailed Fishing Log and Fishing Vessel Voyage Report showing, *inter alia*, information regarding positions, time/dates, set, catch by species including weights, start times, number of hooks, sizes etc.

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

Belize's operational effort level is verified by VMS. The coverage was 100% in 2007 and 2008. The operational catch level for 2007 was verified by mates' receipts and sales invoices and/or purchase contract. This included species and size by weight in 2007 and weight and length in 2008. 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 Belize fishing vessels which are operating in the ICCAT Convention area are compliant with ICCAT's conservation and management measures as well as the Belize national laws and international regulations. There are no Belize flagged fishing vessels on the IUU List of any RFMO worldwide. Details of Belize's licensing and monitoring system were provided to the Secretariat on several occasions.

Recommendations and Resolutions on Closed Seasons

- With regard to Recommendation 06-06 concerning the western Atlantic bluefin tuna rebuilding program, paragraph 13, Belize is not engaged in this fishery and none of its LSTLFVs have been licensed to target bluefin tuna in the Convention area.

- With regard to Recommendation 08-03 on Mediterranean swordfish, paragraph 1, Belize is not engaged in this fishery and none of its 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 compliance in the bluefin tuna and North Atlantic swordfish fisheries, paragraph 1, Belize has not licensed any vessel to target bluefin tuna in the Convention area. With respect to North Atlantic swordfish, Belize has registered and licensed two vessels to target this specie in 2009 in accordance with the quotas which have been allocated to Belize for this species.

- With regard to Recommendation 97-01 to improve compliance with the minimum size regulation, paragraph 2, during 2007 and prior years, Belize's fishing vessels were required to report size by weight. However, in 2008 the requirement was introduced for measurement by length for 25% of a vessel's daily catches for each species. Also, in regard to paragraphs 2 and 3, none of Belize's vessels are licensed to fish bluefin tuna in the Convention area.

- With regard to Recommendation 98-14 on the application of three compliance Recommendations, the required ICCAT Reporting Table has been submitted.

- With regard to Resolution 01-16 on the deadlines and procedures for data submission and in accordance with Paragraph 1, Belize Task I and Task II data as well as the listing of vessels licensed to operate in the Convention area were submitted to the Secretariat on 7 April 2009.

- With regard to Recommendation 03-13 concerning the recording of catch by fishing vessels in the ICCAT Convention area, Belize fishing vessel owners/operators are required to submit data on their fishing operations based on a specific format for such reports, which includes a detailed Fishing Log and Fishing Vessel Voyage Report.

Resolutions and Recommendations on Capacity Limits

- With regard to Recommendation 93-04 on supplementary regulatory measures for the management of Atlantic yellowfin tuna, all Belize's 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 meters overall, paragraph 1 of this Recommendation does not apply to Belize flagged vessels because in accordance with paragraph 3, catches by Belize are below 2000 t per annum.

- With regard to Recommendation 04-01 on a multi-year conservation and management program for bigeye tuna, Belize 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 Belize.

Resolutions and Recommendations on Statistical Documents

- With regard to Recommendation 01-21 Concerning the ICCAT Bigeye Tuna Statistical Document Program, Belize has not issued any statistical document for bigeye tuna caught in the ICCAT Convention area or which have been exported to any of the ICCAT member countries.

- With regard to Recommendation 01-22 on establishing a Swordfish Statistical Document Program, Belize has not issued any Swordfish Statistical Document for swordfish caught in the ICCAT Convention area or which have been exported to any ICCAT member countries.

Resolutions and Recommendations on other measures related to individual species

- With regard to Recommendation 06-09 to further strengthen the plan to rebuild blue marlin and white marlin populations, none of Belize's vessels target these species, nor have caught any by-catch.

- With regard to Resolution 03-10 on the sharks fishery, paragraph 2, Belize does 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, Belize only has two vessels targeting shortfin mako and blue shark. Belize has a NPOA-Shark which complies with the Standards of the FAO-IPOA.

- With regard to Resolution 03-11 on sea turtles, Belize encourages the release of marine turtles that are incidentally caught alive in its fishing activities generally and have commenced requiring specific data for the incidental by-catch of sea turtles. Belize has not received any reports in 2008 from any of its fishing vessels of any interaction with sea turtles.

- With regard to Resolution 03-04 relating to Mediterranean swordfish, Belize has not licensed any of its 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, Belize has reduced the number of Atlantic shortfin mako shark from 70 t in 2006 to 17 t in 2007 and 2 t in 2008 and of South Atlantic blue shark from 423 t in 2006 to 236 t in 2007 and 109 t in 2008. However, this reduction in 2008 is due to the vessels which target these species being laid up for the better part of 2008.

- With regard to Resolution 05-08 on circle hooks, currently, none of Belize's 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, Belize is not engaged in this fishery.

- With regard to Recommendation 07-06 on a supplemental Recommendation by ICCAT concerning sharks, paragraph 3, Belize does not conduct any scientific research for North Atlantic shortfin mako and porbeagle shark in the Convention area, and does not catch these species in that area.

Resolutions and Recommendations concerning trade measures

- ICCAT Recommendations 02-17 and 03-18 regarding Bolivia and Georgia are respected.

Resolutions and Recommendations concerning VMS

- With regard to Recommendation 03-14 concerning minimum standards for the establishment of a Vessel Monitoring System in the ICCAT Convention area, Belize re-states that it has successfully implemented 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. The 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.

General Recommendations and Resolutions

- With regard to Recommendation 07-10, paragraph 7, Belize conducts 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 Belize national waters. All fishing boats engaged in such activities are obliged to respect all the 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, Belize introduced its 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, Belize has instructed all its 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 Belize 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, Belize is 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 the Belize ISO 9001-2000 compliant Quality Management System and will be reflected in Belize's National Plan of Action for IUU.

- With regard to Recommendation 06-11 establishing a program for transshipment, Belize does not currently have any LSTLVs or fishing vessels below 24 meters in Length Overall in the ICCAT Convention area which wish to engage in transshipment at sea or any refrigerated cargo vessels which wish to receive such transshipment. However, Belize has implemented a program to control transshipment at sea from fishing vessels to its refrigerated carrier vessels which may apply for authorization to receive such transshipment.

- With regard to Recommendation 06-16 on an Electronic Statistical Document Pilot Program, Belize has not yet developed any such programmes.

Section 4: Inspection schemes and activities

For the purpose of ensuring compliance, surveillance is conducted on a regular basis or as a result of an investigation by: boarding at sea or in port, plant checks, observer teams, requesting the assistance of other Government/Organization as necessary.

Section 5: Other Activities

- Since the IATTC Antigua Convention has been passed, Belize will officially become a member of IATTC in August 2010. Apart from ICCAT and IATTC, Belize is also a Contracting Party of IOTC, a Cooperating non-Contracting Party of NEAFC and WCPFC and has participated in the discussion for the implementation of SPRFMO.

Table 1. Annual catch and effort for the Belize longline fleet, by species, in the ICCAT Convention area.

Year	*Effort*	*N.ALB*	*S.ALB*	*YFT*	*BET*	*SWD*	*Total*
2006	50061		54.43	143.04	4.05		201.52
2007	267511	21.78	31.94	1164.12	60.15	128.45	1406.44
2008	218412	26.23	31.11	1160.42	68.97	32.93	1319.66

Table 2. Number of active longline fishing vessels licensed to operate within the ICCAT area.

Year	*Base Port*	*Operation status*	*LOA Class (m)*	*GT Class (T)*	*Major target species*
2006	TTO/Montevideo	Operational	20-29 (10 vessels) 30 & above (1 vessel)	50-299 (10 vessels) 300 & above (1 vessel)	YFT, ALB, BET, BSH, MAK
2007	TTO/Montevideo	Operational	20-29 (11 vessels) 30 & above (1 vessel)	50-299 (11 vessels) 300 & above (1 vessel)	YFT, ALB, BET, BSH, MAK
2008	TTO/Montevideo	Operational	20-29 (12 vessels) 30 & above (2 vessels)	50-299 (12 vessels) 300 & above (2 vessels)	YFT, ALB, BET, BSH, MAK

Table 3. The area of operation of our tuna longline fleet during 2006-2008.

Year	*Quadrant*	*Latitude position*	*Longitude position*
2006	SW	Between 09S-15S	Between 25W-35W
2007	SW	Between 00S-25S	Between 15W-65W
	NW	Between 00N-25N	Between 15W-65W
2008	SW	Between 00S-25S	Between 15W-65W
	NW	Between 00N-25N	Between 15W-65W

Table 4. The table below shows Belize catches (in metric tons) of non-target, associated and dependent species including sharks.

Year	*BSH (t)*	*MAK*	*SAI*	*BUM*
2006	421.81	71.22		
2007	236.45	17.44	12.07	3.78
2008	109.03	1.600		

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

Paulo Travassos, Fábio Hazin & Luis Lima

Part I (Information on Fisheries, Research and Statistics)

Section 1: Annual Fisheries Information

In 2008, the Brazilian tuna longline fleet consisted of 55 vessels registered in the following ports: Rio Grande-RS (1), Itajaí-SC (6), Santos-SP (8), Recife-PE (5), and Natal-RN (35), plus 40 artisanal boats based in Itaipava-ES, which also operated with longlines but with several other gears as well. Of these 95 boats, 86 were national and 9 were foreign chartered vessels. The total number of vessels decreased only by about 1.0%, from 2007, when 96 vessels were operating. The number of chartered vessels, however, decreased by about 25% from 2007, when 12 boats operated. The number of bait-boats operating in 2008 was 41, the same from 2007. These 41 vessels (100% national) were based in the same ports (Rio de Janeiro-RJ, Itajaí-SC, and Rio Grande-RS). In 2008, the number of purse seiner boats was 8, showing no change in relation to 2007.

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 35,924.9 t (live weight), in 2008 **(Table 1)**, representing a decrease of 23.5%, from 2007 (46,979.1 t). The majority of the catch again was taken by bait-boats (21,756.0 t; 60.5%), with skipjack tuna being the most abundant species (20,547.5t, accounting for 94.4% of the bait-boat catches). This figure, however, is provisional and can be as high as 23,000t, due to under-reporting of the catches taken from the Rio Grande fleet, being presently reassessed. With a total catch of 394.0t, yellowfin tuna was the second dominant species in the bait-boat fishery.

Total catch of the tuna longline fishery (9,210.0 t) was about 13.3% smaller than 2007, with swordfish being again the most abundant species (3,146.8 t), accounting for 34.2% of the longline catches. Yellowfin and blue shark, accounting for 18.9% (1,744.3 t) and 17.5% (1,611.1 t) of the catches, respectively, were the second and the third most caught species. With a total catch of 784.8 t, bigeye tuna was the fourth most abundant species in the Brazilian longline fishery, accounting for 8.5%.

The total catch of white marlin and blue marlin was, respectively, 46.8 t and 160.9 t, representing a decrease of about 10.3% and 36.4%, from 2007, when the catches of these species were 52.2 t and 252.9 t. The decrease in the catches of marlin species, in 2008, was mainly due to the end of fishing operations of foreign chartered vessels. Data collected from observers on board, indicated the following amount of discards: 5.8 t live and 0.9 t dead for white marlin, and 19.5 t live and 0.3t dead for blue marlin. The catches of sailfish, in turn, increased by 88.1%, from 2007 (139.3 t), reaching 222.3 t, in 2008.

Concerning the purse seine fishing activity, which is based in the south coast to target skipjack tuna, the total catch in 2008 was only 311.0 t, with skipjack tuna accounting for 68.6%. These are originally sardine seiners that sporadically target tunas.

Part of the Brazilian catches resulted from the fishing activities of small scale fishing boats based mainly in Itaipava- SC (southeast coast). Although made of relatively small boats of about 15 m, this fleet is highly mobile, operating throughout most of the Brazilian coast and targeting a variety of species with different gears, including longline, handline, troll and other surface gears. In 2008, this fleet caught 1.785.3 t of tunas and tuna-like fish, with dolphin fish, blue shark, blackfin tuna, yellowfin tuna, and swordfish being the most frequent species caught, accounting for 23.3% (416.5t), 13.9% (248.0t), 13.6% (243.6t), 13.2% (235.0t), and 11.7% (209.2t) of the total catch, respectively.

Section 2: Research and Statistics

Several institutions directly assisted the Special Secretariat of Fisheries and Aquaculture (SEAP) in processing and analyzing data from 2008: Universidade Federal do Pará-UFPA (Federal University of Pará), located in the

* No summaryprovided. / Aucun résumé soumis. / No se ha facilitado el resumen.

North; 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 Federal do Espírito Santo-UFES (Federal University of Espírito Santo), Instituto de Pesca de São Paulo (São Paulo Fisheries Institute), located in the Southeast, and Universidade do Vale do Itajaí (Itajaí Valley University-UNIVALI); and Fundação Universidade do Rio Grande-FURG (Rio Grande University), located in the South. These institutions, together with the Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis (Institute of the Environment and Renewable Natural Resources-IBAMA), 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 2008, a total of 22,387 fishes were measured at sea and while landing. The distribution of fish measured by species was: yellowfin= 144; bigeye= 287; albacore= 1,372; swordfish= 12,731; blue marlin= 113; white marlin= 407; skipjack= 7,208. These numbers are, however, provisional and may increase significantly, since the collected data are still being processed.

Data have also been collected from several recreational fisheries based off southeast and northeast Brazil, mainly in São Paulo, Rio de Janeiro, Espírito Santo, and Fernando de Noronha, where sport tournaments are conducted by local yacht clubs. These data were collected mainly under the scope of a program implemented by the Institute of Environment and Renewable Natural Resources (IBAMA), for the control and statistics of recreational fisheries in Brazil, and by Instituto de Pesca de São Paulo.

In 2008, an important research effort on billfishes and sharks, in cooperation with U.S. scientists, continued to be developed, including the 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. During 2008, a larvae collection cruise was also conducted in cooperation with the Brazilian Navy, the Universidade Federal Rural de Pernambuco-UFRPE, and the Virginia Institute of Marine Science-VIMS, from the USA.

Another important research program started in 2008 (MADE Project - Mitigating Adverse Ecological Impacts of Open Ocean Fisheries), in cooperation with EC scientists, propose 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.

Research continued on the incidental catches of seabirds and was aimed mainly at monitoring by-catch and testing mitigation measures. In 10 pelagic longline cruises (116 sets and 120,016 hooks), carried out in 2008, the total seabird catch rate was 0.391 birds/1,000 hooks. There was no by-catch in the warm months period (December- April), in which 44 sets were done, with 48,966 hooks being deployed. In cold months (May-November), the catch rate was 0.605 birds/1000 hooks, in 72 sets and 71,050 hooks.

Torilines were tested in twenty fishing trips onboard commercial pelagic longline vessels based in southern Brazil, in 2007 and 2008 (203 sets and 231,540 hooks). Toriline was tested when 101,040 hooks were deployed, compared with 130,500 hooks used with no measures to avoid seabird by-catch. Single light toriline reduced seabird catch rates by 64%. The seabird catch rate without torilines was 0.904 birds/1000 hooks, while the catch rate using torilines was 0.366 birds/1000 hooks. The effect of torilines on fish production was also observed. During cold months (May- November), the overall fish catch rate with toriline was 64.1 fish/1000 hooks, while without toriline this rate was 54.2 fish/1000 hooks, a 15.4% increase.

The monitoring of sea turtles by-catch in longline fisheries, in Brazil, has been developed by Project TAMAR, since 1998. However, due to the difficulties regarding data collection and analyses of such incidental captures, these studies were focused in obtaining reliable rates of capture, instead of unreliable estimation of total catch. In 2008, 57 cruises were monitored, including a total of 1,066 sets and a total effort of 1,285,405 hooks, during which 396 sea turtles were caught. Most of the turtles caught were olive ridley (*Lepidochelys olivacea*) (160), loggerheads (*Caretta caretta*) (109) and leatherbacks (*Dermochelys coriacea*) (79).

The reduction of incidental catch and post-release mortality of sea turtles in the Brazilian pelagic longline fishery, operating in the southwestern Atlantic Ocean, was also investigated, by comparing the performance of

18/0 10° offset circle hooks with 9/0 J-type (control) hooks. Hook selectivity experiments were performed between 2004 and 2008, in a total of 26 trips and 229 sets, during which 145,828 hooks were deployed. The results indicate a significant reduction of catch rates for both loggerhead and leatherback turtles with circle hooks. Since the catch rates of these two species are worrying for the region studied, it is important to improve the information on their by-catch by other contracting parties operating in the SW Atlantic, as well as to develop monitoring and mitigation measures within ICCAT.

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. No new regulation was, however, introduced in 2008. It is important to note, however, that in 2009 Brazil adopted a new law on fisheries and aquaculture and raised the Secretariat of Fisheries and Aquaculture to the level of a Ministry.

Rule No. 12, of July 14, 2005, **establishing**:

- The mandatory release of all white and blue marlins which are alive by the time of boarding;
- The prohibition of sale of any white and blue marlins caught;

Rule No. 26, of July 19, 2005, **establishing**:

- New procedures for filling-in and submitting fishing logbooks of the Brazilian tuna fisheries;

Interministerial Rule No. 2, of September 4, 2006, **establishing**:

- The National Fishing Vessel Monitoring System (Programa de Rastreamento de Embarcações Pesqueiras por Satélite-PREPS)

Rule No. 1, of September 29, 2006, **establishing**:

- The National Onboard Fishing Fleet Observer Program (Programa Nacional de Observadores de Bordo da Frota Pesqueira-PROBORDO)

Table 1. Total catch by species and fishing gear, by Brazilian tuna fishing vessels, in 2008.

Species	*BB*	*HL*	*LL*	*PS*	*SP*	*UN*	*Total*
ALB	155,891.00		233,488.16			97,657.88	487,037.05
BET	159,081.00	34.00	784,764.31			13,747.86	957,627.17
BIL			4,739.00			71,422.80	76,161.80
BLF	17,900.00		58.76		89.00	248,345.75	266,393.51
BRS						1,520,905.43	1,520,905.43
BSH	40.00	300.00	1,611,053.48			374,185.25	1,985,578.73
BTH			31,492.33			54,086.12	85,578.45
BUM			117,967.00		578.00	41,646.00	160,191.00
CVX			6,237.00			145,559.37	151,796.37
DOL			30,900.41		188.50	440,922.64	472,011.55
FRI	134,059.00			14,771.00			148,830.00
KGM			63.00			69.56	132.56
LMA			1,857.00				1,857.00
MAK	4.000.00		120,440.66			78,167.92	202,608.58
OCS			8,050.00			231,558.40	239,608.40
OFH	340,506.00	3,915.00	924,200.94	82,817.00	211.00	26,191.00	1,377,840.94
RSK			120,747.44			110,429.31	231,176.75
SAI			72,363.54		249.00	149,674.80	222,287.34
SKJ	20,547,489.00			213,413.00	14.00	84,970.00	20,845,886.00
SPN			120,677.66			1,120.00	121,797.66
SWO			3,146,790.70			260,172.74	3,406,963.44
TIG			6,278.12			18.20	6,296.32
TUN		26,880.00	57,654.00				84,534.00
WAH			26,092.26		760.00	49,205.20	76,057.46
WHM			39,958.80			6,642.00	46,600.80
YFT	397,047.00	25,164.00	1,744,266.37		1,265.00	581,388.57	2,749,130.94
TOTAL	**21,756,013.00**	**56,293.00**	**9,210,140.94**	**311.001.00**	**3,354.50**	**4,588,086.80**	**35,924,889.24**

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

B. Lester[1], S. Paul[2], J. Neilson[3], S. Campana[4], L. Hussey[5]

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 2008 was 626.2 t. A total of 398 licensed fishermen participated in the directed bluefin fishery using rod and reel, handlines, electric harpoon and trap nets to harvest 574.8 t. Each fish harvested 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 2008 was 1365.0 t with landings reaching 1334.0 t. The tonnage taken by longline was 1076.1 t while 257.9 t were taken by harpoon. Only 53 of the 77 licensed swordfish longline fishermen landed fish in the 2008 fishery. The other tunas (albacore, bigeye and yellowfin) are at the northern edge of their range in Canada throughout the year. Canadian catches of these species have traditionally been a minor portion of the overall Canadian catch of large pelagic species. In 2008, other tunas accounted for approximately 15% of commercial large pelagic species landed. Yellowfin tuna (167.9 t) was the most important other tuna species landed, followed by bigeye (130.2 t) and albacore (33.4 t). Porbeagle is the only shark species for which there is a directed longline fishery and the combined directed and by-catch harvests were 123.9t in 2008. 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, and log record data must be submitted by each fisherman whether a fish is harvested or not. Canada fully supports research that improves the basic inputs and approaches of the Atlantic bluefin and swordfish stock assessments. Canadian scientists continue to be active in the studies of: age determination for bluefin tuna and in a study on the origin of bluefin tuna caught in the southern Gulf of St. Lawrence using the otolith microchemistry. Canada has increased its long-term funding for large pelagics research, particularly for bluefin tuna. Research is continuing on bluefin tuna movement and migrations through PSAT tagging (particularly in areas not covered by previous investigations), post-capture survival and natal origin investigations. For swordfish, PSAT tagging studies have been undertaken to augment those already in place for Georges Bank, targeting the foraging assemblage off the Grand Banks of Newfoundland. Canada also engaged in a multi-year research and stock assessment program on large pelagic sharks.

RÉSUMÉ

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 2008 s'est élevé à 626,2 t. Au total, 398 pêcheurs titulaires de licences ont participé à la pêcherie dirigée sur le thon rouge en utilisant la canne et moulinet, la ligne à main, le harpon électrique et les filets de madrague, avec une capture de 574,8 t. Chaque poisson pêché 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 1.365 t au titre de 2008, avec des débarquements atteignant 1.334 t. Le tonnage capturé à la palangre se chiffrait à 1.076,1 t, tandis qu'un volume de 257,9 t était capturé au harpon. Sur les

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77 pêcheurs titulaires de permis de pêche d'espadon à la palangre, seuls 53 ont débarqué du poisson en 2008. Les autres thonidés (germon, thon obèse et albacore) se trouvent à la limite septentrionale de leur aire de répartition au Canada tout au long de l'année. Les prises canadiennes de ces espèces ont traditionnellement représenté une faible proportion de la prise globale canadienne de grands pélagiques. En 2008, les autre thonidés constituaient près de 15% des débarquements commerciaux de grands pélagiques. L'albacore (167,9 t) était la principale espèce thonière dans les débarquements, suivie du thon obèse (130,2 t) et du germon (33,4 t). Le requin-taupe commun est la seule espèce de requins pour laquelle il existe une pêcherie palangrière dirigée, et la combinaison des captures dirigées et des prises accessoires a totalisé 123,9 t en 2008. 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. A la fin de chaque sortie de pêche, des observateurs de quai indépendants et agréés doivent être présents lors du déchargement et chaque pêcheur doit soumettre les données des carnets de bord, qu'un poisson ait été capturé ou non. Le Canada apporte son plein soutien à la recherche qui améliore les données de base et les stratégies d'évaluation des stocks de thon rouge et d'espadon de l'Atlantique. Les scientifiques canadiens ont continué à participer activement aux études sur la détermination de l'âge du thon rouge et à une étude 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 accru son financement à long terme en faveur de la recherche sur les grands pélagiques, notamment sur le thon rouge. Les travaux de recherche sur les déplacements et les migrations du thon rouge se poursuivent par le biais du marquage avec des marques-archives pop-up reliées par satellite (PSAT) (surtout dans les zones n'ayant pas fait l'objet de recherches antérieures), sur la survie post-capture et l'origine natale. Pour l'espadon, les études de marquage PSAT ont été réalisées pour compléter celles déjà en place au large de Georges Bank, en ciblant les concentrations de poissons à la recherche de nourriture au large de Georges Bank, en ciblant les concentrations de poissons à la recherche de nourriture au large des Grands Bancs de Newfoundland. Le Canada s'est également lancé dans un programme pluriannuel de recherche et d'évaluation des stocks de grands requins pélagiques.

RESUMEN

El atún rojo se captura en aguas canadienses de julio a diciembre, en la plataforma continental, en el Golfo de San Lorenzo, en la Bahía de Fundy y en las aguas frente a Terranova. La cuota ajustada canadiense para 2008 fue de 626,2 t. Un total de 398 pescadores con licencia participaron en la pesquería dirigida al atún rojo, utilizando caña y carrete, liñas de mano, arpones eléctricos y almadrabas para capturar 574,8 t. Cada ejemplar capturado se marca de forma individual con un número único y es obligatorio pesar cada ejemplar en el muelle. La pesquería de pez espada en las aguas canadienses se desarrolla de abril a diciembre. La cuota ajustada de pez espada canadiense para 2008 fue de 1.365 t, con desembarques de 1.334 t. Los palangreros capturaron 1.076,1 t y 257,9 t se capturaron con arpón. Solo 53 de los 77 pescadores con palangre con licencia para pescar pez espada desembarcaron esta especie en la pesquería de 2008. En cuanto a los otros túnidos (atún blanco, patudo y rabil), éstos tienen a la altura de Canadá su límite septentrional, y pueden encontrarse durante todo el año. Las capturas canadienses de estas especies han representado tradicionalmente una proporción menor dentro del conjunto de las capturas canadienses de grandes pelágicos. En 2008, los otros túnidos respondieron de casi el 15% de los desembarques de grandes pelágicos comerciales. El rabil (167,9 t) fue la especie desembarcada más importante, seguido del patudo (130,2 t) y el atún blanco (33,4 t). El marrajo sardinero ha sido la única especie de tiburón objeto de una pesca dirigida con palangre, con unas capturas combinadas de la pesca dirigida y la captura fortuita que se situaron en 123,9 t en 2008. Todos los buques comerciales que pescan especies pelágicas tienen que comunicar su intención de pescar antes de las mareas y tienen que comunicar sus capturas desde el mar. El sistema estadístico atlántico canadiense proporciona un seguimiento en tiempo real de la captura y el esfuerzo para todas las mareas de pesca dirigidas a especies pelágicas. Al final de cada marea, durante el desembarque, deben estar presentes los controladores a pie de muelle, independientes y certificados, y cada pescador debe presentar los datos consignados en sus cuadernos de pesca, con independencia de que se haya producido

o no captura. Canadá respalda completamente la investigación para mejorar las contribuciones básicas y los enfoques de las evaluaciones del stock de atún rojo y pez espada del Atlántico. Los científicos canadienses continúan desarrollando activamente estudios sobre determinación de la edad del atún rojo y un estudio sobre el origen del atún rojo capturado en la parte meridional del Golfo de San Lorenzo, utilizando microquímica de otolitos. Canadá ha incrementado su financiación a largo plazo destinada a la investigación sobre grandes pelágicos, especialmente para el atún rojo. Continúan los trabajos de investigación centrados en las migraciones y el movimiento del atún rojo mediante campañas de marcado PSAT (sobre todo en zonas no cubiertas por investigaciones anteriores) y en la supervivencia tras la captura y origen natal. Para el pez espada, se han llevado a cabo estudios de marcado PSAT para complementar los que se realizan en las aguas del Georges Bank, centrados en la agrupación trófica de las aguas de los Grandes Bancos de Terranova. Canadá también está desarrollando actualmente un programa de investigación plurianual y de evaluación de stocks sobre grandes tiburones pelágicos.

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 2008 calendar year was 626.2 t. The Canadian nominal landings of Atlantic bluefin tuna in 2008 were 574.8 t **(Table 1)**. The 51.4 t shortfall from the 2008 fishery will be carried over in deriving the 2009 Canadian quota.

With the exception of the Grand Banks off eastern Newfoundland and Labrador, all other traditional bluefin tuna fishing areas produced catches of tuna in 2008 **(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 2008 (263 t, or 46% of total caught quota). The Gulf of St. Lawrence fish weighed about 280 kg (round), on average. Fish captured in the Hell Hole fishery weigh about 167 kg (round), on average. Additional catch breakdown is shown in **Table 2**.

In 2008, 398 licensed fishermen participated in the directed bluefin fishery, one offshore longline licence was authorized to direct for other tuna with a small bluefin bycatch provision, and four fish-trap licence holders in St. Margaret's Bay used 6 bluefin tuna trapnet licences **(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 reducing dead discards to nearly zero.

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.

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 ICCAT recommendation for the Canadian swordfish quota for 2008 was 1,348 t. Canada's adjusted quota for 2008 was 1,365 t. Canadian nominal landings in 2008 were 1,334 t **(Table 1)**, resulting in an underage of 31.0 t. The 2008 dead discard estimate was 38.7 t which will be deducted from the initial catch limit in 2010.

The Canadian tonnage taken by longline was 1,076.1 t (or 76% of the catch), while 257.9 t were taken by harpoon **(Table 4)**. The mean round weight of fish caught by longline and harpoon was 73 kg and 106 kg, respectively **(Table 4)**. Only 53 of the 77 licensed swordfish longline fishermen landed fish in the 2008 fishery **(Table 4)**. This number is lower than the mid-1990's when all, or nearly all, of the swordfish longline licenses

were active **(Table 4)**. Although a total of 962 fishermen are eligible for harpoon licenses, only 75 were active in 2008 as harpooning swordfish is usually an opportunistic activity conducted during other fisheries.

1.3 Other tunas

The other tunas (albacore, bigeye and yellowfin) are at the northern edge of their range in Canada, and they are found along the edge of the Gulf Stream and Georges Bank, the Scotian Shelf and the Grand Banks (and beyond) throughout the year. Canadian catches of these species have traditionally been a minor portion of the overall Canadian catch of large pelagic species. In 2008, however, the other tunas accounted for approximately 15% of commercial large pelagic species landed. Yellowfin tuna was the most important other tuna species landed, followed by bigeye and albacore. Yellowfin tuna landings were down from last year with 2008 landings reaching only 167.9 t. Bigeye tuna landings were also down slightly from 2007 to levels of 130.2 t while albacore landings rose slightly to 33.4t. Fifty four of the 78 licensed other tuna fishermen were active in 2008.

One Canadian offshore longline vessel is authorized to direct for other tuna species with a bluefin tuna by-catch. 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. 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 by-catch 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 up slightly over the previous year to a level of 115.4 t in 2008. Blue shark and shortfin mako landings were down in 2008, to 0.1 t and 37.3 t respectively **(Table 1)** in directed fisheries and as a by-catch in other directed pelagic fisheries.

In 2008, 27 exploratory shark fishing licences were authorized to land porbeagle and/or blue shark, with all other sharks, including shortfin mako restricted to a bycatch **(Table 3)**. This reduction from a high of 55 licences in 2001 has been achieved through the attrition of inactive licences, a management measure implemented in response to the current stock status. In addition, approximately 275 recreational shark licences were authorized in 2008, most being restricted to hook and release fishing only **(Table 3)**, except when participating in a small number of approved derbies that allow for retention of catch, under strict protocols, for scientific research purposes.

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 Department of Fisheries and Oceans (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. 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. Furthermore, funds are being made available to augment staffing of the Large Pelagics Program, including the recent recruitment of a second research scientist, who will start work in early 2010.

2.1 Bluefin tuna research

Highlights of the 2008/09 scientific research program at the Biological Station (St. Andrews) included the following activities:

1) A program of biological sampling of bluefin tuna in the southern Gulf of St. Lawrence continued in 2008. Biological samples were collected from giant bluefin tuna, and distributed to collaborating researchers.

2) Canada, along with several other ICCAT member countries, continues to be active in studies of age determination for bluefin tuna. In particular, Canadian scientists have confirmed results from an pilot investigation of bluefin tuna age and growth reported to the SCRS last year, with a larger (n = 30) sample size. Funding, in part, was provided by the Bluefin Year Program, and the results were published in the primary literature (Neilson and Campana 2008). Electronic images containing annotations identifying annuli were provided to USA investigators who used them as a "training set". Those workers provided a new growth model, presented at the 2008 stock assessment for bluefin tuna (Secor *et al.* 2009). Work on refining the growth model is ongoing. Finally, Canadian scientists have been collaborating with Spanish scientists to investigate the feasibility of radiocarbon validation using fin spines.

3) In collaboration with scientists at Texas A&M University and the Chesapeake Biological Laboratory, Canada is investigating the natal origin of bluefin tuna caught in the southern Gulf of St. Lawrence using the otolith microchemistry approach, and other fisheries along the eastern coast of North America. These results were presented to the 2008 bluefin tuna assessment, and were used to guide preliminary modeling using information from eastern and western stock components concurrently. The results were published in Science (Rooker *et al.* 2008). Subsequently, the same team of researchers has published results of a study focusing on the natal origin of bluefin from the southern Gulf of St. Lawrence over a period of several decades. The results of this new research (to be published in the Canadian Journal of Fisheries and Aquatic Sciences) verifies the conclusion from the Science paper: based on the otolith microchemistry, the natal origin of Gulf of St. Lawrence bluefin appeared to be the Gulf of Mexico regardless of the year of collection.

4) In collaboration with scientists from the University of New Hampshire Large Pelagics Research Center and the Nova Scotia tended line bluefin tuna industry, Canada has undertaken successful tagging of bluefin tuna with PSATs, an initiative that continued into 2008, with 18 bluefin tagged on the Northern Edge of Georges Bank. This same team has also tagged an additional five fish in the southern Gulf of St. Lawrence

5) In collaboration with researchers from Dalhousie University, Stanford University and the Prince Edward Island and the Gulf Nova Scotia Fishermen's Associations, 15 bluefin tuna were tagged with PSATs in the southern Gulf of St. Lawrence. The results of that tagging were reported to the SCRS during the 2008 stock assessment meeting (Block *et al.* 2009). For 2009, another program of tagging in the southern Gulf is expected to commence shortly.

6) Canada led a charter conducting PSAT tagging of bluefin off the Virgin Rocks, on the Grand Banks of Newfoundland. This was the first time that bluefin tuna have been tagged in this part of the Canadian EEZ, and 10 fish were successfully marked. Canadian scientists returned to this area in 2009, and a further 18 fish were marked.

2.2 Swordfish research

1) Canada provides estimates of dead swordfish and bluefin discards based on Observer coverage of the domestic large pelagic longline fleet.

2) Canada contributed a paper on targeting behaviour in the Canadian pelagic longline fleet to the Methods Working Group of ICCAT, March 2009 (Paul and Neilson 2010).
3) Results from the first (2005) and second (2006) years of a swordfish tagging study were reported to the Second International Symposium on Tagging and Tracking of Marine Fish (San Sebastian, 2007). A manuscript describing these results has been published (Neilson *et al.* 2009). Results since then were summarized in Neilson and Smith (2010), presented during the swordfish stock assessment in September, 2009.

4) Canada has initiated a study to develop prototype satellite archival tags whose sole purpose is to measure fish survival after capture and release. Successful testing of the prototypes occurred in 2008. It is expected that a relatively large scale experiment using both this special purpose tag and more traditional satellite tags will be undertaken to investigate the mortality associated with a planned catch and release sport fishery.

5) In collaboration with DFO, a Ph.D. student at Memorial University of Newfoundland and Labrador is in the third year of her dissertation research, examining patterns of bycatch in the Canadian pelagic longline fishery. Some of her recent findings on the hooking mortality of different species have been published in the journal Biological Conservation (Carruthers *et al.* 2009).

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 2008:

1) A comprehensive review of northwest Atlantic porbeagle population dynamics in comparison with other porbeagle populations was undertaken and published (Campana *et al.* 2008; Francis *et al.* 2008). In addition, a new stock assessment for porbeagle was initiated, with plans to complete the assessment and present it to ICCAT in 2009.

2) An additional 12 PAT tags were applied to mature porbeagles in an effort to locate the birth grounds and to estimate the proportion of sharks which migrate into international waters. Initial results indicate that migration pathways are extensive and can extend well outside of the EEZ.

3) PAT tags were applied to 38 discarded blue sharks and used for the first time to estimate discarding mortality of blue sharks caught as bycatch in the Canadian swordfishery. The results indicated that none of the healthy blue sharks died in the 6 months after release, but that 33% of the injured and gut-hooked sharks died. Overall, 19% of the blue sharks died after discarding, and 35% died when account was taken of hooking mortality (Campana *et al.* 2010). Further trips would need to be monitored to determine if these results are representative of the entire Canadian swordfishery and to reconcile these discarding mortality estimates with those obtained from the long-term observer coverage for the Canadian pelagic longline fishery which indicate mortality levels substantially below those determined from the tagging study.

4) The catch rate, size composition and sexual maturity of all sharks caught at recreational shark tournaments were monitored.

5) A Canadian shark tagging program was continued 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.

2.4 Precautionary Approach

Canada strongly supports 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 the Precautionary Approach is not limited to the development of reference points, 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. In 2008, Canada co-hosted (with ICCAT) a Workshop on the Precautionary Approach for Western Bluefin Tuna (Gavaris *et al*. 2009).

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 has issued multi-year management plans 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

3.1.1 Bluefin tuna

Canada has implemented the ICCAT regulatory recommendations that apply to bluefin tuna in the Canadian Atlantic Integrated Bluefin Management Plan. The 2008 quota was set at 626.2t (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.

3.1.2 Swordfish

Canada has implemented the ICCAT regulatory recommendations that apply to swordfish in the Canadian Atlantic Integrated Swordfish Management Plan. The 2008 adjusted quota was set at 1,365 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 - 2008, landings of fish <119 cm LJFL were reduced to as close to zero as possible.

3.1.3 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 2008. A multi-year management plan for both swordfish and other tunas was last published in 2005 and continues to be in force. 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 another 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 by-catch 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 Observer Program in place since 1977. Observers collect biological data, and monitor compliance with fishing regulations. In 2008, the observer coverage level of approximately 5% (by sea days fished) on the pelagic longline fleet fishing for swordfish and other tunas was achieved. Data from the Observer Program are used to estimate dead discards, and document incidental catch of non-target species.

3.4 Vessel monitoring

Canada has 8 licences for large pelagic vessels over 24 meters in length. Most fishing is conducted within the 200 mile zone. All vessels are equipped with a VMS system as per the recommendation adopted by ICCAT. Canadian licensing measures permit these licenses to be used on smaller vessels and in most years less than 8 vessels over 24 meters in length may actually operated in the fishery. All Canadian longline vessels, regardless of length, are required to use a vessel monitoring system.

3.5 Inspection schemes and activities

Canada has a Port Inspection Scheme 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

Canada has a Port Inspection Scheme consistent with the ICCAT Regulatory Recommendation that entered into force on 13 June 1998. 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 Department of Fisheries and Oceans 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 fleets at-sea. Shore-based patrols monitor routine landings, watch for illegal landings and conduct airport and border surveillance. Observer coverage is used periodically to monitor specific important management questions in the commercial fishery. Test fisheries are established 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, 1999-2008.

Species	*1999*	*2000*	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*
Swordfish	1115.1	1118.5	967.8	1078.9	959.3	1284.9	1203.3	1557.9	1403.6	1334.0
Bluefin tuna	596.0	576.1	549.1	523.7	603.7	556.6	536.9	599.7	732.9	574.8
Albacore tuna	23.2	38.8	121.7	51.0	112.7	55.7	27.1	52.1	27.3	33.4
Bigeye tuna	119.6	262.8	327.0	241.2	279.3	181.6	143.1	186.6	196.1	130.2
Yellowfin tuna	56.6	21.8	105.2	125.3	70.4	72.7	303.5	239.5	292.9	167.9
Unspec. tuna	0.0	0.0	0.5	0	.1	0.4	0.2	1.3	0.0	0.1
Blue shark	4.5	53.5	18.4	0.4	5.1	6.0	0.3	11.4	4.4	0.2
Shortfin mako	69.5	70.4	77.8	69.3	78.2	73.3	79.5	90.9	71.4	42.8
Porbeagle	1007.8	958.2	902.3	498.6	236.6	142.4	231.5	202.2	192.2	123.9
Unspec. sharks	37.3	17.6	10.7	19.7	21.1	13.4	11.3	14.7	8.3	5.8
Marlin[1]	7.9	4.8	5.3	3.2	2.1	1.4	1.7	4.7	3.1	2.6

[1]Prior to 2002, marlin catches were reported as white marlin, although the ability to distinguish between white and blue marlin is not clear. This has been addressed for 2002 and in subsequent years.

Table 2. Canadian bluefin tuna landings and discards (tonnes round weight) by fishing area, 1998-2008.

Bluefin fishing area (west to east)	*1998*	*1999*	*2000*	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*
Southwest Nova Scotia	362	357	221	290	280	310	281	272	351	174	231
Northeast Nova Scotia	82	26	7	25	35	7	11	21	45	60	65
Gulf of St. Lawrence	115	164	236	149	205	192	239	251	312	226	263
Newfoundland	21	10	71	51	68	33	5	26	11	14	0
Offshore	16	18	13	7	16	14	0.5	30	14	17	16
Year-end adj[1]	-	1	1	<1	<1	<1	-	<1	<1	<1	
Total Landings	**596**	**576.1**	**549.1**	**523.7**	**603.6**	**556.6**	**536.9**	**599.7**	**732.9**	**491.7**	**574.8**
Dead Discards[2]	16.3	10.7	46	13.2	36.9	14	14.6	0	2	0.72*	1.2
Canadian quota	*600.7*	*577.7*	*569.5*	*553*	*594.7*	*580*	*645.9*	*731.8*	*755.1*	*571.4*	*626.2*

[1] e.g., seized, Bermuda fishery or tournaments .
[2] Discarded dead from swordfish longline fishery: no estimates prior to 1997; 1997 actual tonnage observed by at-sea observers; 1998-2007 estimate for entire fishery based on Observer coverage (see Porter *et al.* 2000).
[3] Landings which were not accompanied by geographic data at the required scale for dividing catch into individual fishing areas in the western Nova Scotia area.
* = Unextrapolated discards plus tagging mortality.

Table 3. Distribution of tuna, swordfish longline and shark fishing licences by region and species[1] in 2008.

Region	*Number of licences*[1]							
	Bluefin		*Swordfish (LL)*		*Other tuna (LL)*[4]		*Sharks*	
	Total	*Active*	*Total*	*Active*	*Total*	*Active*	*Explor.*	*Rec.*
Gulf	602	356	0	0	0	0	10	34
Newfoundland	55[3]	9	2	1	2	1	0	26
Scotia-Fundy	42	41	75	52	76	53	15	215
St. Margaret's Bay[2]	24	7	-	-	-	-	-	-
Quebec	54	23	0	0	0	0	2	0
Total	777	444	77	53	78	54	27	275

[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] Four fish trap licence holders with 6 bluefin trapnet licences each.
[3] 38 of these licences are subject to a reduced level of fishing activity and restricted to NAFO Divisions 3LNO.
[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 1997-2008 swordfish vessels landing fish, landings (tonnes round weight), discards[1], average weight of fish (kg round) by gear, percentage of small fish by number[2], and percentage of catch sampled for size.

	1997	*1998*	*1999*	*2000*	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*
Number of vessels landing fish												
Longline	60	49	53	61	63	46	44	45	48	51	55	53
Harpoon	105	109	66	92	84	71	89	86	86	78	76	75
Landings (t)												
Longline	1000	875	1101	873	957.6	922	1138[3]	1116	1365.0	1200.3	998.8	1076.1
Harpoon[1]	89	240	18	95	121.3	38	147	87	192.9	203.3	267.4	257.9
Total	1089	1115	1119	968	1078.9	959	1285	1203	1557.9	1403.6	1266.2	1334.0
Discards (t)[2]	5.0	51.7	34.6	49.9	26.4	32.7	78.6	44.8	106.3	38.0	60.8	38.7
Average weight (kg)												
Longline	70	61	56	58	69	72	63	70	69	74	75	73
(# sampled)	(14438)	(13447)	(19630)	(12991)	(13611)	(12859)	(17298)	(15368)	(20333)	(15541)	(14246)	(11648)
Harpoon	131	126	109	111	102	117	108	121	117	108	102	106
(# sampled)	(652)	(1911)	(147)	(830)	(1287)	(413)	(1364)	(658)	(1646)	(2275)	(2327)	(2757)
% small fish by number landed[3]												
<125 cm	5	3	3	3	2	<1	2	<<1	<<1	<<1	<<1	<<1
<119 cm	2	<1	<<1	<<1	<1	<<1	<1	<<1	<<1	<<1	<<1	<<1
% of catch sampled	100	95	100	100	100	100	100	100	100	100	96	86

[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 (see (see Porter *et al.* 2000).
[2] Minimum size under regulation in bold: <25 kg round weight or <125 cm LJFL with 15% tolerance (by number) from 199-1995, 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

I ère Partie (Information sur les pêcheries, la recherche et les statistiques)

La pêche de thon au Cap-Vert est pratiquée principalement à la ligne à main, dans la pêche artisanale et à la senne et la ligne / canne dans la pêche industrielle ou semi-industrielle. Il n'y a pas d'activités de pêche ciblée sur les requins, mais en raison de la fragilité de notre surveillance et de la possibilité de captures non déclarées étrangères à la Zone économique exclusive (ZEE) du Cap-Vert, les requins font souvent partie des prises accessoires de la pêche à la palangre. Dans la sous-région de l'Afrique de l'Ouest, ces ressources sont fortement surexploitées, ce qui montre une tendance à la hausse de l'effort de pêche dans les ZEE, par des navires qui y opèrent.

La pêche sportive a été la cible d'une demande croissante due au développement du tourisme, de sorte qu'une réglementation claire et détaillée sur cette question devient urgente.

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 alletteratus), l'*auxide *(Auxis sp)* et le thazard bâtard *(Acanthocybium solandri).*

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

1.1 Captures

Les données de capture de thonidés et d'espèces apparentées en 2008 sont provisoires et estimées à 15.749 t (**Figure 1**). Il y a une faible fluctuation, sauf pour le thon albacore, par rapport à l'année précédente.

Les espadons et les istiophoridés sont capturés dans les eaux du Cap-Vert, principalement par des navires de l'UE et la pêche sportive.

Les requins sont toujours présents en tant que prises accessoires. La flotte étrangère de palangriers de surface continue à pêcher une quantité significative de requin, comme prise accessoire, bien que l'autorisation soit octroyée seulement à la pêche du thon.

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

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

1.2 Flotte et engins

La flotte du Cap-Vert, selon le dernier recensement effectué en 2005, est composé de:

- 766 barques avec des hors-bord ;
- 270 barques sans moteur ;
- une moyenne de 3 pêcheurs par barque ;
- il y a environ 80 embarcations plus grandes, avec un moteur intérieur, et avec une moyenne de 12 pêcheurs par unité.

* No summary provided. / Aucun résumé soumis. / No se ha facilitado el resumen.

Les ressources sont exploitées par la flotte artisanale composée de barques et de petits bateaux, et par la flotte industrielle composée de plus grandes embarcations.

Les engins de pêche plus utilisés sont la ligne à main, hameçon et canne, palangre et seine. Le nombre de pêcheurs a tendance à diminuer ; on recensait en 2005 3.108 pêcheurs.

1.3 Flotte étrangère

La flotte étrangère licenciée opère dans la ZEE du Cap-Vert, sur la base d'accords ou de contrats de pêche. Les navires appartiennent surtout aux pays de l'Union européenne et aux pays asiatiques.

Les demandes de licence des navires étrangers prévoient généralement comme espèces cibles les thons. Les principales espèces pêchées par les flottes étrangères continuent à être des requins, le thon obèse, l'espadon et le thon.

Les palangriers asiatiques pêchent essentiellement l'albacore et le thon obèse. Seulement quelques embarcations de l'Union européenne déclarent les captures effectuées.

Chapitre 2 : Recherche et statistiques

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. La recherche halieutique, l'environnement et les études socio-économiques sont donc un instrument de grande importance pour le développement de la pêche.

En ce qui concerne les questions relatives aux espèces de grands migrateurs, la responsabilité au Cap-Vert incombe à la DGP et à l'INDP, les deux institutions appartenant au Ministère d'Environnement, Développement Rural et Ressources Marins (MADRRM). La collecte de données statistiques est faite aux ports de débarquement, par les enquêteurs de l'INDP, suivi de digitalisation, traitement et analyse. Les prélèvements sont réalisés à la taille pour toutes les espèces de scombridés et autres prises au Cap-Vert.

Le Bulletin statistique est une publication annuelle, mais pour diverses raisons, il est toujours publié avec un certain retard.

Le Cap-Vert envoie les informations relatives aux captures, contribuant ainsi à la mise à jour des statistiques et des évaluations des stocks de l'ICCAT.

On prévoit de:

i) Faire un prélèvement des données de pêche de thons, avant 1975 ;
ii) Réaliser des formations, avec l'aide des experts de l'ICCAT ;
iii) Contrôler et mieux suivre les données de la flotte étrangère.

II^{ème} Partie (Mise en œuvre de la gestion)

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

Pour la mise en place des recommandations de l'ICCAT, le gouvernement du Cap-Vert, à travers le Plan de Gestion des Pêches actualisé en 2009, a suspendu la prohibition de capture d'exemplaires d'albacore et de thon obèse de moins de 3,2 kg et il a été maintenue la réservation de la région à l'intérieur des 3 milles nautiques exclusivement 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.

Pour les requins, il est interdit, dans la ZEE du Cap-Vert, de pratiquer la pêche aux requins à des fins exclusivement de commercialisation des nageoires. Toute cette réglementation est apparue dans la Résolution 3/2005 du 21 février.

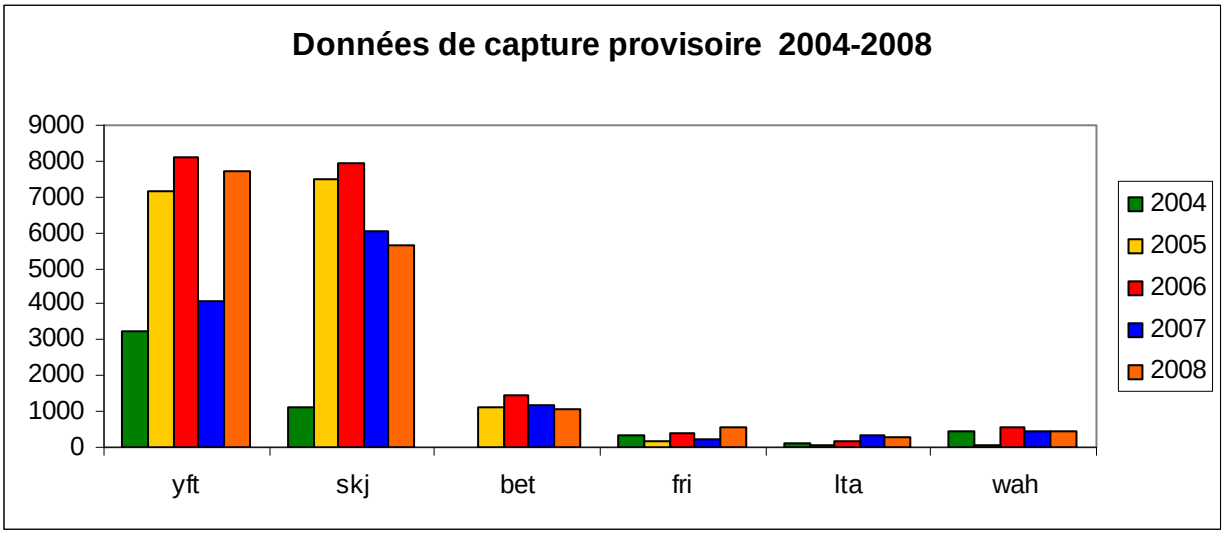

Figure 1. Données de capture provisoire 2004-2008.

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

Song Liming, Li Yunkai, Xu Liuxiong, Dai Xiaojie[1]

SUMMARY

Longline is the only fishing gear used by the Chinese fishing fleet to fish tunas in the Atlantic Ocean. Thirty-eight (38) Chinese tuna longliners operated in 2008, with a total catch of 7,296.3 t (round weight) including tuna and tuna-like species and sharks. This amount is less than that of 2007 (10,836.3 t). The target species were bigeye tuna and bluefin tuna, and their catches amounted to 5,686 t and 119 t, in 2008, respectively. Bigeye tuna was the major target species in the Chinese catch, accounting for 77.9% of the total. However, this amount was 1,713 t lower than that of 2007(7,399 t). Yellowfin tuna, swordfish, and albacore were taken as by-catch. The catch of yellowfin tuna decreased from 1,124 t in 2007 to 649 t in 2008. The catch of swordfish was 562 t, with an increase from the previous year (558 t in 2007). The catch of albacore was 49 t, which represented a 47.9% decrease from the previous year. 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 the People's Republic of China. China has carried out a national scientific observer program for the tuna fishery in ICCAT waters since 2001. In 2008, one observer was dispatched on board one Chinese Atlantic tuna longline fishing vessel covering the area of 05°37'N - 12°01'N，29°00'W - 36°51'W from January to April 2008. The data of target species and non-target species (sharks, sea turtles, especially) were collected during the observation. In terms of implementation of the relevant ICCAT conservation and management measures, the BOF requires all fishing companies operating in the Atlantic Ocean to report their fisheries data on a monthly basis to the Distant Water Fisheries Branch of the China Fisheries Association and the Tuna Technical Working Group in order to comply with the catch limits. The 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. Since October 1, 2006, the Chinese high seas tuna fishing fleet has been required to be equipped with a VMS system. The BOF has strictly followed the National Observer Program and the ICCAT Regional Observers Program for transshipment at sea.

RÉSUMÉ

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 opérant en 2008 s'élevait à 38, avec une prise totale de 7.296,3 t (en poids vif) comprenant des thonidés, des espèces apparentées et des requins, chiffre moins élevé qu'en 2007 (10.836,3 t). Le thon obèse et le thon rouge sont les espèces cibles, leurs prises ayant atteint respectivement 5.686 t et 119 t en 2008. Le thon obèse était la principale espèce cible dans la prise chinoise, représentant 77,9 % du total. Toutefois, la prise était inférieure de 1.713 t à celle de 2007 (7.399 t). L'albacore, l'espadon et le germon ont été capturés en tant que prise accessoire. La prise d'albacore a diminué, étant ramenée de 1.124 t en 2007 à 649 t en 2008. La prise d'espadon s'est située à 562 t, soit une augmentation par rapport à l'année précédente (558 t en 2007). La prise de germon s'est élevée à 49 t, soit une réduction de 47,9 % par rapport à l'année précédente. 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. La Chine mène un programme national d'observateurs scientifiques pour la pêcherie de thonidés dans les eaux relevant de l'ICCAT depuis 2001. En 2008, un observateur a été embarqué à bord d'un palangrier chinois ciblant les thonidés dans l'Atlantique de janvier à avril 2008. La zone couverte par cet observateur était 05°37'N-12°01'N， 29°00'W-36°51'W. L'observateur a collecté les données sur les espèces cibles et les espèces non ciblées (notamment les requins et les tortues marines). En ce qui concerne la mise en œuvre des mesures de conservation et de

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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, au Département des pêcheries en eaux lointaines de l'Association des pêches de la Chine 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 1er 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.

RESUMEN

El palangre es el único arte de pesca utilizado por la flota pesquera china para pescar túnidos en el océano Atlántico. Treinta y ocho (38) palangreros atuneros chinos operaron en 2008, con una captura total de 7.296,3 t (en peso vivo), lo que incluye túnidos y especies afines y tiburones, captura que se sitúa por debajo de la de 2007 (10.836,3 t). Las especies objetivo fueron patudo y atún rojo, y sus capturas ascendieron a 5.686 t y 119 t, respectivamente, en 2008. El patudo fue la principal especie objetivo en la captura china, y respondió del 77,9% del total. Sin embargo, se capturaron 1.713 t menos que en 2007 (7.399 t). El rabil, pez espada y atún blanco se capturan de forma fortuita. La captura de rabil descendió pasando de 1.124 t en 2007 a 649 t en 2008. La captura de pez espada ascendió a 562 t, lo que supone un incremento en comparación con el año anterior (558 t en 2007). La captura de atún blanco se situó en 49 t, lo que supone un descenso del 47,9% con respecto al año anterior. 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 2001 China ha estado desarrollando un programa de observadores científicos para las pesquerías de túnidos en las aguas de ICCAT. En 2008 se embarcó un observador a bordo de un palangrero atunero chino en el Atlántico desde enero hasta abril de 2008 y la zona cubierta fue 05°37'N - 12°01'N; 29°00'W - 36°51'W. El observador recopiló los datos de las especies objetivo y no objetivo (sobre todo tiburones y tortugas marinas). En términos de implementación de las medidas pertinentes de conservación y ordenación de ICCAT, el BOF requiere que todas las compañías pesqueras que operan en el océano Atlántico comuniquen sus datos pesqueros mensualmente a la Sección de pesquerías en aguas distantes de la Asociación de Pesquerías de China 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. La flota china de pesca de túnidos en alta mar está sujeta al requisito de estar equipada con un sistema VMS desde el 1 de octubre de 2006. El BOF ha cumplido estrictamente con el Programa Nacional de Observadores y el Programa regional de observadores de ICCAT para los transbordos en el mar.

Part I (Information on Fisheries, Research and Statistics)

Section 1: Annual Fisheries Information

Longline is the only fishing gear used by Chinese tuna fishing fleet to fish tunas in the Atlantic Ocean. In 2008, 38 tuna longliners operated and caught 7,296.3 t of tunas and tuna-like species in total, 3,540 t less than that of 2007. The target species were bigeye tuna, and bluefin tuna, and yellowfin tuna, swordfish, and albacore as the bycatch species. The highest CPUE of both bigeye tuna and yellowfin tuna occurred in the first quarter **(Figures 1** to **3)**. The lowest CPUE of bigeye tuna occurred in the third quarter in 2004, 2006, 2007, and 2008 and in the 4th quarter in 2005, respectively **(Figures 1** and **3)**. The lowest CPUE of yellowfin tuna occurred in the third quarter in 2004, 2005, and 2006, in the fourth quarter in 2007, and in the second quarter in 2008, respectively **(Figures 1** and **3)**. It should be noted that the CPUEs of bigeye tuna and yellowfin tuna in 2004 were the highest of the last five years **(Figure 1)**. In 2004, the highest fishing effort was observed in December and lowest in July

(Figure 2). In 2005, the highest fishing effort occurred in the fourth quarter **(Figure 2)**, while the highest showed in the first quarter of 2006, 2007, and 2008 **(Figures 2** and **4)**. The fishing effort was found to be the lowest in the third quarter in 2004, 2007, and 2008 **(Figure 2 and 4)**. In addition, the fishing effort in 2008 was the lowest of the last 5 years **(Figure 2)**.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** shows the species composition of the catch in total Atlantic since 2001. The ICCAT Catch Reporting Tables of China in 2008 are shown in **Table 2**.

1.1 Albacore

Albacore were caught as by-catch by the Chinese fleet in the Atlantic Ocean. The total albacore catch in 2008 was estimated to be around 49 t, a 47.9% decrease from the previous year (94 t); of which 24.4 t were caught in the North Atlantic Ocean and 24.6 t in the South Atlantic Ocean.

1.2 Bluefin tuna

The total catch of bluefin tuna by the Chinese longline fleet was 119 t in the North Atlantic Ocean in 2008, with an increase from the previous year (72 t in 2007).

1.3 Tropical tunas

Tropical tuna in the statistics included bigeye tuna and yellowfin tuna in the Atlantic Ocean. The total catch of bigeye tuna in 2008 amounted to 5,686 t, which was lower than that of 2007 (7,399 t) by 23.2%, while the catch of yellowfin tuna was 649 t, lower than that of 2007 (1,124 t) by 42.3 %.

1.4 Swordfish

The total catch of swordfish in 2008 was 561 t with an increase from the previous year (558 t in 2007). Of this amount, 91 t (85 t in 2007) were caught in the North Atlantic Ocean and 470 t (473 t in 2006) were caught in the South Atlantic Ocean.

1.5 Sharks

The total catch of blue shark and shortfin mako in 2008 amounted to 149 t and 21 t, respectively. The data were submitted to ICCAT for the second time in compliance with the ICCAT recommendation.

Section 2: Research and Statistics

The Tuna Technical Working Group (TTWG) of Shanghai Ocean University (SHOU) is authorized by the Bureau of Fisheries (BOF), Ministry of Agriculture to be 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, have been routinely reported to the ICCAT Secretariat.

Size frequency data of main tuna species were scheduled to be submitted to the ICCAT Secretariat before the opening of stock assessment conducted in September 2008.

The BOF required that all the fishing companies operating in the Atlantic Ocean must report their fisheries data on a monthly basis to the Distant Water Fisheries Branch of China Fisheries Association (DWFB-CFA) and the TTWG in Shanghai Ocean University in order to comply with the catch limits. The BOF also required fishing companies to report the 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.

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 adopted by ICCAT on bigeye tuna, eastern bluefin tuna, northern and southern swordfish, blue marlin and white marlin, catch limits were allocated to the relevant fishing companies as well as the fishing vessels by DWFB-CFA at the beginning of the year. The BOF required that all the Chinese fishing companies operating in the Atlantic Ocean to report their catch data monthly to the DWFB-CFA and the

TTWG in Shanghai Ocean University. If the catch was over the catch limit allocated to this company based on their monthly catch report, the 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 2008 did not exceed the quota adopted by ICCAT, except for eastern bluefin tuna. However, the amount of over-harvested eastern bluefin tuna will be paid back based on 61 t of quota in 2009. The Chinese tuna fleet had strictly followed the minimum size criteria established by ICCAT for the conservation and protection of juvenile tunas.

3.2 Tuna Statistical Document Program

Since July 2002, all exported bluefin tuna and bigeye tuna caught by Chinese tuna fleet had been accompanied by a Bluefin Tuna Statistical Document and a Bigeye Tuna Statistical Document, respectively. Tuna Statistical Documents were issued by the responsible officer of the 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 devotes more effort towards strengthening 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.

− Data collection and report system

The BOF required all fishing companies to submit their fisheries data monthly to the DWFB-CFA and the TTWG in Shanghai Ocean University. A pilot logbook data submission system was initiated in IOTC waters three years ago. Detailed information of the catch and fishing effort has been collected. In 2008, the 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 improvement of the data report system, and the submission of fisheries statistics to regional tuna fisheries management organizations as required. During the 2009 east bluefin tuna fishing season, the vessels will directly report their position to the ICCAT Secretariat via VMS. The vessels will also report their catch data, and the tag recorded information of east bluefin tuna to ICCAT secretariat, on a weekly basis.

− Implementation of the VMS program

The BOF has implemented a VMS program and, since October 1, 2006, requires that all the large-scale tuna longliners install the VMS equipment

3.4 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 carried out a national tuna observer program in ICCAT waters since 2001 and began to implement the national tuna observer program in the Pacific, Atlantic and Indian Oceans soon after. The national observer program has been funded by the Chinese government.

The TTWG in Shanghai Ocean University has been in charge of the national tuna scientific observer program in the Pacific, Atlantic, and Indian Oceans, which was authorized by the BOF. A national scientific observer program has been carried out normally. So far, scientists, and graduate and post graduate students of Shanghai Ocean University majoring in marine fisheries science and technology, and marine fisheries resources have been chosen as the candidates for the tuna scientific observers.

A national scientific observer has been dispatched on board a Chinese Atlantic tuna longline fishing fleet since January, 2008. The observer had worked on board the fishing vessel for four months. The area covered was

05°37′N ~ 12°01′N, 29°00′W ~ 36°51′W. Data on the target species and non-target species (particular sharks and sea turtles) were collected during the observation. During the east bluefin tuna fishing season in 2009, there will be one observer on board one of the four fishing vessels. The name of the observer will be reported to the ICCAT Secretariat before the fishing season.

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

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Table 1. Catch of tunas and Tuna-like species (in round weight, t), 2001-2008.

Species	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*
Bluefin tuna	68.1	39.1	19.3	41.0	23.7	42	72	119
Yellowfin tuna	1,055.8	696.7	1,049.7	1,305.2	1,185.5	1,085	1,124	649
Bigeye tuna	7,210	5,839.5	7,889.7	6,555.3	6,200.2	7,200	7,399	5,686
Swordfish	302	513.2	669.1	333.6	199.2	372	558	561
Albacore	82.7	225.7	181.6	144.3	206.5	302	94	49
Blue Shark	----	----	----	----	----	----	943	149
Short mako	----	----	----	----	----	----	157.3	21
Blue marlin	91.6	87.8	88.5	58.4	96.3	99	65	12.7
White marlin	19.8	22.8	7.6	6.5	8.6	5.6	9.9	4.5
Sailfish	8.1	11.7	4.7	4.5	7.8	16	8.1	1.5
Other	532.4	590.3	137.4	173.1	1040.9	785	406	42.6
Total	9,370.4	8,026.8	10,048	8,621.7	8,968.7	9,906.6	10,836.3	7,296.3

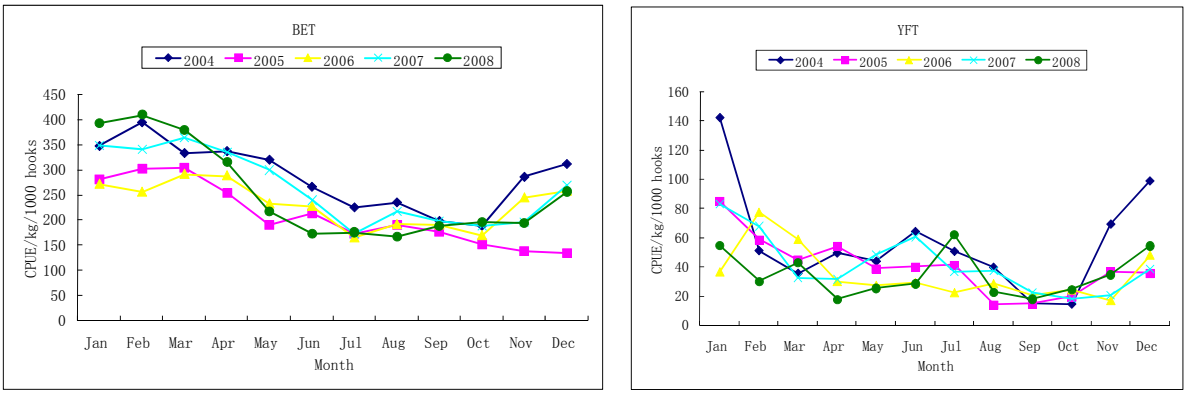

Figure 1. Monthly CPUE (kg /1000 hooks) distribution of bigeye tuna (left) and yellowfin tuna (right) caught by Chinese tuna longline fleet in ICCAT waters from 2004 to 2008.

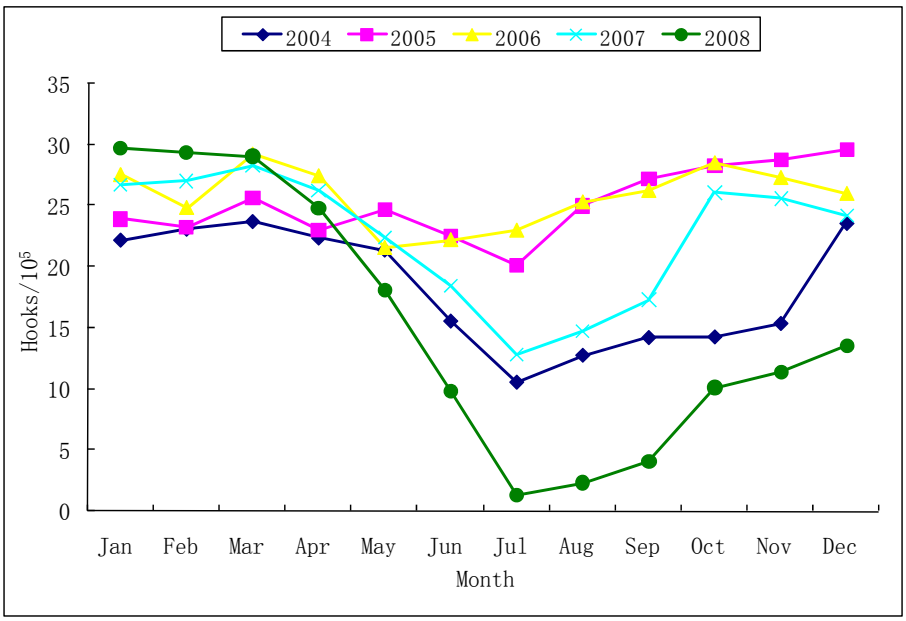

Figure 2. Monthly fishing effort (hooks) of Chinese tuna longline fleet in ICCAT waters from 2004 to 2008.

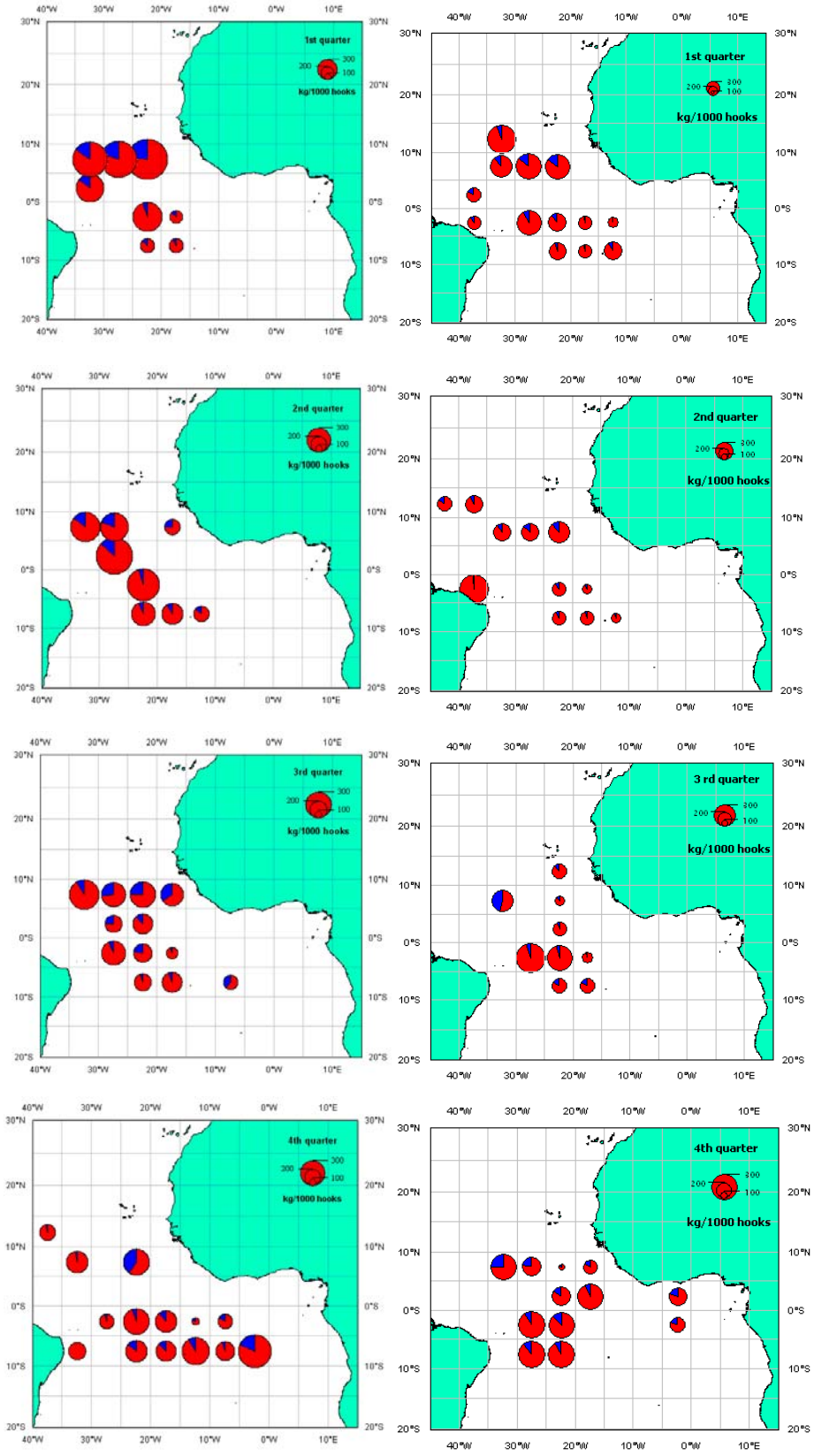

Figure 3. CPUE distribution of BET (in red) and YFT (in blue) by $5^{o} \times 5^{o}$ and quarter in 2007 (left) and 2008 (right).

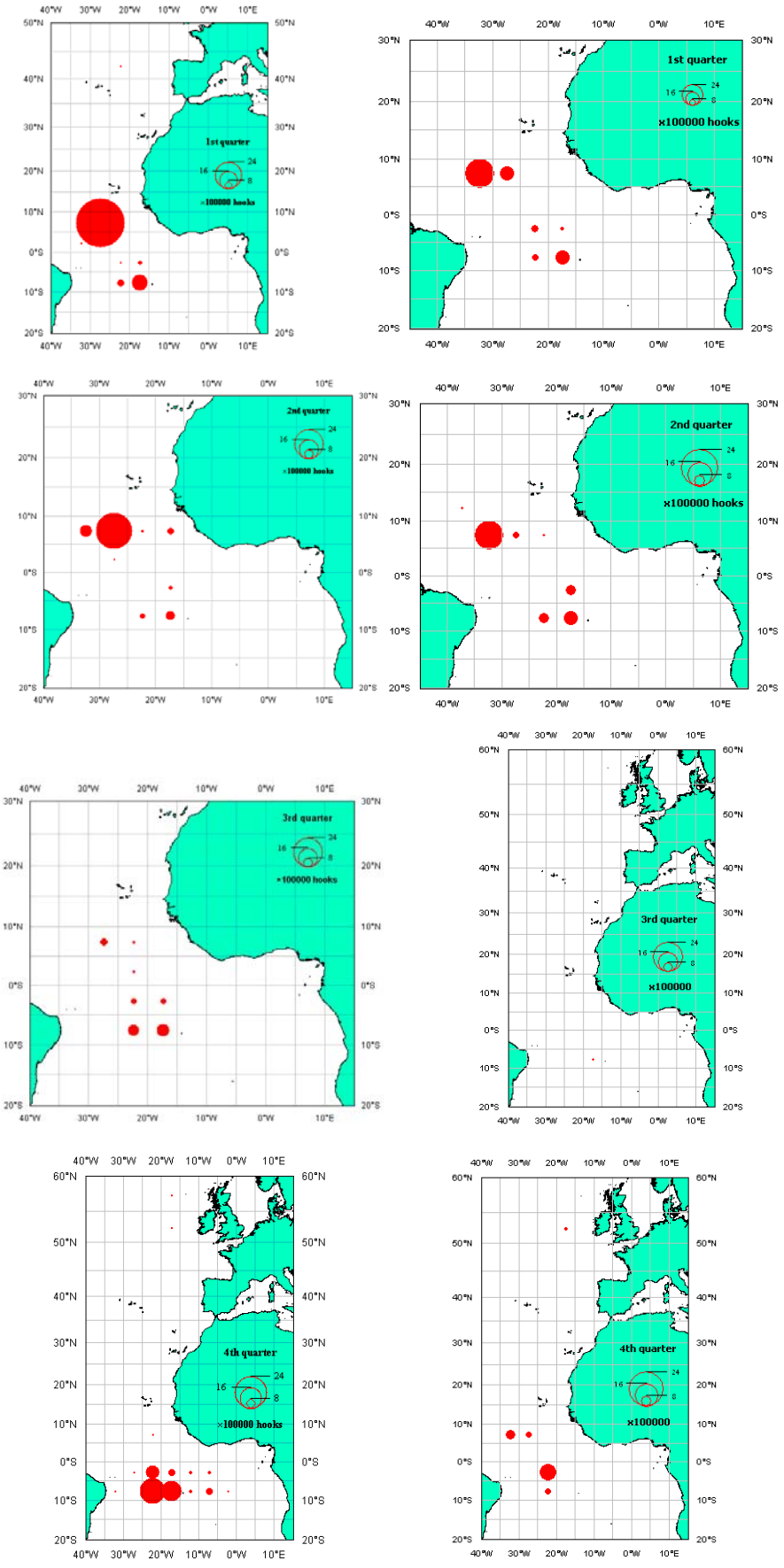

Figure 4. Distribution of fishing effort by $5^{o} \times 5^{o}$ and quarter in 2007 (left) and 2008 (right).

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

Fisheries Directorate, Ministry of Agriculture,
Fisheries and Rural Development of Croatia[1]

SUMMARY

The total Croatian catch of bluefin tuna (BFT) in 2008 was 834,03 metric tons (t). Bluefin tuna was predominantly transferred into farming cages (97,6%, 814,32 t), and 19,7 t were landed. Bluefin tuna catches were mostly realized by purse seiners (98,47 %), while the remaining amount was caught using hook and line gears. 709,08 t of live bluefin tuna were imported from Italy, France, Libya, Tunisia and Morocco for farming purposes. Significant improvements in fleet registry and data collection were made in 2008 and 2009, enabling Croatia to report more detailed data on bluefin tuna and other tuna-like species. Research was continued on the growth and reproductive biology of bluefin tuna. A national sampling program targeting bluefin tuna harvested from aquaculture facilities has been carried out. An observer programme at bluefin tuna farms and vessel has been implemented, and further activities to increase of monitoring, surveillance and control (MSC), including VMS, have been undertaken. Croatia has adopted the Regulation on catch, farming and trade of bluefin tuna that includes provisions of the ICCAT Recommendations 06-07, 08-12 and 08-05 and transposed them into national legislation in full. Croatia has undergone significant changes in terms of organization of its inspection services.

RÉSUMÉ

La prise totale croate de thon rouge s'est élevée en 2008 à 834,03 t. Presque tout le thon rouge a été transféré dans des cages aux fins d'engraissement (97,6%, 814,32 t), et seulement 19,7 t ont été débarquées. L'essentiel des prises de thon rouge a été effectuée par des senneurs (98,47%), le reste étant capturé à la ligne et à l'hameçon. En outre, 709,8 t de thon rouge ont été importées en provenance de CE-France, CE-Italie, de la Lybie, de la Tunisie et du Maroc aux fins d'engraissement. En 2008 et 2009, des améliorations importantes ont été apportées au registre des flottilles et à la collecte des données, ce qui permet à la Croatie de déclarer des données plus détaillées sur le thon rouge et d'autres espèces apparentées aux thonidés. Les travaux de recherche sur la croissance et la biologie reproductive du thon rouge se sont poursuivis. Un programme d'échantillonnage national visant le thon rouge mis à mort dans les établissements d'aquaculture a été réalisé. La Croatie a mis en œuvre un programme d'observateurs pour les navires et les établissements d'engraissement de thon rouge, et a entrepris des actions supplémentaires en vue d'accroître les activités MCS (y compris le VMS). La Croatie a adopté un Règlement portant sur la prise, l'engraissement et le commerce de thon rouge qui incorpore les dispositions des Recommandations 06-07, 08-12 et 08-05 de l'ICCAT et qui transpose intégralement ces dispositions dans la législation nationale. L'organisation des services d'inspection de la Croatie a fait l'objet de modifications importantes.

RESUMEN

La captura total de Croacia de atún rojo en 2008 fue de 834,03 t. El atún rojo fue principalmente transferido a jaulas de engorde (97,6%, 814,32 t) y 19,7 t fueron desembarcadas. Las capturas de atún rojo fueron realizadas en su mayoría por cerqueros (98,47%), mientras que el resto fue capturado con artes de anzuelo y liña. 709,08 t de atún rojo vivo fueron importadas de Italia, Francia, Libia, Túnez y Marruecos con fines de engorde. En 2008 y 2009 se han realizado mejoras significativas en el registro de la flota y en la recopilación de datos, lo que ha permitido a Croacia facilitar datos más detallados sobre el atún rojo y otras especies afines a los túnidos. Continúa la investigación sobre temas de

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crecimiento y biología reproductiva de atún rojo. Se ha llevado a cabo un programa nacional de muestreo dirigido al atún rojo sacrificado en las instalaciones acuícolas. Se ha implementado el programa de observadores en los buques y en las instalaciones de engorde de atún rojo, y se han llevado a cabo otras actividades para aumentar el seguimiento, control y vigilancia (lo que incluye el VMS). Croacia ha adoptado una Regulación sobre captura, engorde y comercio de atún rojo que incluye disposiciones de las Recomendaciones 06-07, 08-12 y 08-05 y las transpone a la legislación nacional en su totalidad. Croacia ha realizado cambios importantes en términos de la organización de los servicios de inspección.

Part I (Information on fisheries, research and statistics)

Section 1: Annual Fisheries Information

The total Croatian catch of bluefin tuna (BFT) in 2008 was 834,03 metric tons (t). Of this amount, 98,47% (821,29 t) was caught using purse seine (PS). The remainder was caught using coastal artisanal longline (LL, 0,5% - 4,26 t) and hand lines (HAND, 1,03% - 8,47 t). Of the total catch, 97,6% was caged (814,32 t) and only 2,4% was landed (19,71 t). Croatia imported 709,08 tons of bluefin tuna in 2008 (live, for farming).

The total number of vessel licensed for participation in the bluefin tuna fishery in 2008 was 82, of which 63 were purse seiners, 2 artisanal longliners and 17 hand-lines. Out of 63 vessels, 33 purse seiners were active in fishing, with a total number of days at sea amounting to 1785, with 166 days when catches were realized. All hook and line vessels had 71 days at sea in total.

The length-weight frequencies indicate that the majority of fish caught (80843 individuals) were in the 9 to 10 kg. category (32,41%). Only 0,54% was in the 100 to 180 kg. category. Generally, only 15% of the catch are in the category over 20 kg, and only 11% over 30 kg. It should be noted that these data were collected prior to the adoption and implementation of the ICCAT Recommendation, and hence the data are not skewed but indicate the actual size composition.

Section 2: Research and Statistics

A national sampling program targeting bluefin tuna harvested from aquaculture facilities has been carried out in accordance with Recommendation 06-07. Within the framework of this sampling program, the collection of Task II data has been done. Croatia continues to support research activities related to tuna stock management. In addition, a research on influence of tuna aquaculture facilities on wild fish population has been carried out, and findings are submitted to scientific journal for its publication. Two different projects on genotyping of tuna have been started, as well as the project aimed to evaluate possibility of bluefin tuna spawning in growth-out floating cages.

Croatia operates a national observer scheme, with 100% coverage on all farm activities. In 2008 fishing season Croatia operated a scheme of fleet coverage pursuant to legislation in force. The scheme was adjusted and improved in 2009. Due to financial and administrative constrains, Croatia has operated a scheme whereby all fleet activity had to be covered by observes at transfer to towing cages. In cases where observers were not present on board on regular basis, inspection and observers were deployed when the catch was reported and the authorization for transfer requested. This secured 100% coverage of transfers into towed cages. Underwater video records were used as well. Data on transfers into tugs were verified during caging, where inspection and observers were also present. Discrepancies of data between counting and underwater video records at transfer into towed cages as compared to caging data were noted. In all cases the discrepancies were not significant, but may result in slight differences of figures reported as preliminary catches and figures reported as caged.

Croatia has undertaken all preparatory activities in order to implement the provisions of the Regional Observers Program (ROP) as stipulated by the relevant provisions of ICCAT Recommendation 08-05. This activity does not fall in the 2008 season, but is a continuation of all previous activities.

In terms of research, special focus was placed on studies of growth parameters in farming conditions and reproductive biology of farmed fish. The results of studies on growth parameters have been reported to the SCRS. Continuous monitoring of biological data pertaining to the tuna fishery has been continued. Furthermore, Task II data have been collected on farms in accordance with relevant ICCAT Recommendations.

Part II (Management implementation)

Section 3: Implementation of ICCAT Conservation and Management Measures

Croatia adopted the Regulation on the catch, farming and trade of bluefin tuna (OG 39/09, 67/09) 0n 31 March 2009. This Regulation includes the provisions of the ICCAT Recommendations 06-07, 08-12 and 08-05 and transposes them into national legislation in full. The aforementioned Regulation replaced the Regulation on the catch, farming and trade of bluefin tuna (OG 123/07, 69/08), which transposed the relevant provisions of ICCAT Recommendations in place (06-05, 06-07). In 2008, Croatia exceeded its quota, and has deducted the quantity exceeded from the quota allocated for 2009. In order to implement a more stringent regime, and fully comply with the relevant provisions of the Bluefin Tuna Multi-annual Recovery Plan, Croatia has continued to implement numerous measures during the 2008-2009 period.

Croatia has limited its farming capacity in accordance with paragraph 50 of ICCAT Recommendation 08-05, to that registered in the ICCAT list of authorized farms as of 1 July 2008. In September 200,9 Croatia adopted the Ministerial Decree on allocation criteria for setting the limit on the input of wild caught bluefin tuna into farms for 2010. The Decree also contains the criteria and the allocation of individual maximum inputs for Croatian farms for 2010.

The tuna fishing season for purse seiners was extended five days and closed on 20 June 2009 due to bad weather conditions, as was communicated to the ICCAT Secretariat. Croatia has limited the number of purse seiners authorized to fish in the Adriatic to the number engaged in the fishery in 2008. Hence, this season 29 vessels were allocated an individual quota. The total allocated quota for purse seiners in 2009 was 625 tons, hook and line gears were allocated a total quota of 10 tons, and the remaining 5 tons were allocated to leisure fisheries. The quota for purse seiners was allocated individually per vessel, with the possibility of quota transfers among the vessels with the obligation of notification to the Department of Fisheries. Elements of this scheme were reported to the Secretariat, and further elements will be presented in detail in the Report on implementation of the annual fishing plan for 2009.

The Regulation on catch, farming and trade of bluefin tuna stipulates that it is forbidden to trade with bluefin tuna caught by vessels flying Croatian flag which is not followed by the ICCAT Bluefin Tuna Catch Document (BCD) validated by the Ministry of Agriculture, Fisheries and Rural Development (MAFRD). In order to validate the BCD, a copy of the logbook must be submitted. Implementation of the BCD scheme required changes in internal organization. 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 established a web-based application containing data on vessels licensed for bluefin tuna fisheries, indicating the vessels authorized to fish in the 2009 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 ICCAT register and had to have a functional VMS. VMS data were constantly monitored and cross-checked with the positions of the catches as listed in logbooks. When the catch was undertaken 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. Upon receipt of the request, inspection was deployed to the vessel. The authorization was done for the catches reported by vessels authorized and equipped with the VMS. The transfer had to be filmed. The BCD was then filled and validated if the data were obtained from the logbook and the observer indicated that the catch was legal. This part of the validation process was undertaken by the Statistics and Fleet Unit within the DF MAFRD, responsible for catch data. The tug transported the fish to the farm site, and before the transfer from the tug to the farm, the tug had to obtain the authorization. In order to obtain the authorization, the tug had to provide information on all relevant steps, including the ICCAT declaration, logbook and BCD. Previous authorization to transfer the fish to the tug cage was available to the person in charge of the authorization. Authorization for transfer of fish from tug to farm was undertaken by personnel from the Aquaculture Unit. During the transfer to farm, 100% inspection and observer coverage was secured. Filming of the transfer was made available to both of them, and their verification allowed for caging BCD validation. 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. Validation of BCDs is done by the Trade Unit of the DoF MAFRD.

Section 4: Inspection Schemes and Activities

Croatia participated in the ICCAT International Scheme of Inspection, and has notified the names of its inspectors and available vessels to the Secretariat, and requested Identification Cards and banners. Croatian vessels took ICCAT International Inspectors on board during the fishing season. Croatia has dedicated 11 fisheries inspectors and three vessels for purposes of controlling its fleet activities during the fishing season. In addition, joint schemes of inspection were arranged with Maritime Police, Port Authorities and the Coast Guard. Employing different bodies authorized to perform inspection at sea facilitated the activities of inspection and control.

Croatia has undergone significant changes in terms of organization of inspection services in 2009. According to the recently drafted regulatory framework, Memorandums of Understanding are stipulated to be signed by all services authorized for inspection. All authorized personnel will be using the same Standard Operating Procedures and Infringement Records. The system is currently being improved following the test results. Since several authorities are engaged, Croatia has developed a web-based password-protected system that enables prompt reporting and cross-checking and verification. Infringements have been uniformly classified in three categories (serious, significant and mild). In the case of the 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. The minimum landing size in Croatia is 30 kg. Fish of 8 kg and more may be caught for farming purposes only.

Croatia has also put in place a port inspection scheme. Landings from vessels may be undertaken in registered ports only. The list of designated and registered ports has been communicated to the Secretariat. Landings, just like transfer/caging activities, have to be reported in advance, have to be authorized and an inspector has to be present at the time of landing. In 2009, only vessels flying Croatian flag landed fish in Croatian ports. Additionally, no import of live fish took place in 2009, meaning that tugs flying flags of other CPCs did not enter Croatian waters or ports in 2009.

Section 5: Other Activities

Croatia has nothing to report at this time.

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

José Bikoro Eko Ada

SUMMARY

Equatorial Guinea is experiencing an unprecedented moment as regards the exploitation of natural resources such as fishing and developing various infrastructures. All these actions bring about optimum socio-economic development which, in the future, can have negative impacts on the overall marine and terrestrial ecosystems if such actions are not accompanied by specific measures that hamper taking adequate decisions that guarantee sustainability, conservation and management of these natural resources. As is well known, geographically Equatorial Guinea is located deep within the Gulf of Guinea, with an extensive exclusive economic zone of 314.000 km^2, off the coasts of the continental area and around the islands of Bioko and Annobon. It has a potential máximum sustainable yield of tunas and tuna-like species, among others, calculated a 55,000 t per year. The country is comprised of two major areas: an insular región 2.034 km^2 comprised of the islands of Bioko and Annobon, and a continental región 26,0175 km^2 which includes the Corisco Islands and the Elobeyes Islands. The climate is tropical with abundant rainfall during two periods annually (from 1.700 a 4.000 l.), interspersed with dry periods. The average temperate is 25ºC, with 98% relative humidity. This report fully analyzes the limits for the development of the fishery in the country, particularly the national artisanal fishery, including a law that only regulates the industrial fishing. However, with a view towards improving the development of fishing, related to the fishing fleet, basically by vessels from national artisanal fishing that are not very stable or profitable, the Ministerio de Pesca y Medio Ambiente of the Republic of Equatorial Guinea, an organ of the Central Administration of the State, in charge of directing, managing and enforcing the laws and other provisions in matters of fishing, and within established policy as well as assuring the conservation of the marine resources, has established as a major objective the promotion of optimum development of the artisanal sector and, consequently provide the fishing communities within the national maritime framework the necessary knowledge and low cost technical knowhow to increase productivity, profitability and sustainability of the fishing activities, as well to resolve the serious problem of food security at the family and national. The fishing sector, in general, and the artisanal fishery, in particular, play an important role in overcoming, on a daily basis, the problems of food security and therefore an improvement in the standard of living the people.

RÉSUMÉ

La République de Guinée équatoriale est en train de traverser une étape sans précédents en ce qui concerne l'exploitation des ressources naturelles, comme la pêche et la mise en place des nombreuses infrastructures. Toutes ces actions consolident un développement socioéconomique optimal qui, dans l'avenir, peut donner lieu à des impacts négatifs sur l'ensemble des écosystèmes environnementaux marins et terrestres, si ces actions ne sont pas accompagnées d'une série de mesures spécifiques qui permettent d'adopter les meilleures décisions garantissant la durabilité, la conservation et la gestion desdites ressources naturelles. Il est bien connu que la République de Guinée équatoriale est située géographiquement dans le Golfe de Guinée, et que sa Zone économique exclusive s'étend sur 314.000 km^2, face aux côtes de la région continentale et autour des îles de Bioko et Annobón, avec un potentiel de production annuelle maximale équilibrée de thonidés et espèces apparentées qui s'élève à 55.000 t annuelles. Le pays est divisé en deux régions principales : une région insulaire qui englobe les îles de Bioko et Annobón avec une étendue de 2.034 km^2 et une région continentale à laquelle sont rattachées les îles Elobeyes et Corisco, avec 26.175 km$^{2.}$ Le climat est tropical, avec des précipitations abondantes au cours de deux saisons annuelles (de 1.700 à 4.000 l), intercalées avec des saisons sèches. La température moyenne est de 25ºC, avec une humidité relative de 98%. Dans ce rapport, les limitations pour le développement des pêcheries dans le pays sont analysées de façon intégrée, en mettant l'accent sur la pêcherie artisanale nationale. Parmi ces

limitations, on peut signaler l'existence d'une Loi qui prévoit uniquement des normes pour la pêche industrielle. Dans le but d'améliorer ce développement de la pêche en ce qui concerne la flottille de pêche composée fondamentalement d'embarcations peu stables et peu rentables consacrées à la pêche artisanale nationale, le Ministère de la Pêche et de l'Environnement de la République de Guinée équatoriale (organisme de l'Administration centrale de l'Etat chargé de diriger, gérer et exécuter et faire exécuter les lois et d'autres dispositions en matière de pêche dans le cadre des politiques établies, ainsi que de garantir la conservation des ressources naturelles) a établi comme objectif primordial de promouvoir le développement optimal du secteur artisanal et, par conséquent, de doter les communautés de pêche, dans le cadre maritime national, des connaissances et techniques nécessaires, à faible coût, afin d'accroître la productivité, la rentabilité et la durabilité des activités halieutiques, ainsi que de résoudre le problème épineux de la sécurité alimentaire au niveau familial et national. Le secteur de la pêche, en général, et celui de la pêche artisanale en particulier, joue un rôle fondamental en palliant, jour après jour, les problèmes de sécurité alimentaire et, par conséquent, en améliorant le niveau de vie de la population.

RESUMEN

Guinea Ecuatorial está experimentando un momento sin precedentes en materia de explotación de los recursos naturales como la pesca y la puesta en ejecución de diversas infraestructuras. Todas estas acciones vienen a imprimir un desarrollo socioeconómico óptimo, que en el futuro puede dar lugar a unos impactos negativos en el conjunto de ecosistemas medioambientales marinos y terrestres si dichas acciones no van acompañadas de una serie de medidas específicas que permitan adoptar las mejores decisiones que garanticen la sostenibilidad, la conservación y la ordenación de dichos recursos naturales. Como es bien sabido, geográficamente Guinea Ecuatorial está enclavada en el seno del Golfo de Guinea, con una extensión de la zona económica exclusiva de 314.000 km^2, frente a las costas de la parte continental y alrededor de las islas de Bioko y Annobón, con un potencial de producción anual máxima equilibrada compuesto entre otros, de túnidos y especies afines, calculado en 55.000 t/anuales. El país está compuesto por dos regiones principales; una región insular donde están integradas las islas de Bioko y Annobón con 2.034 km^2, y una región continental, que incluye las islas de Corisco y los Elobeyes, con 26,0175 km^2. El clima es tropical, con abundantes precipitaciones en dos períodos anuales (de 1.700 a 4.000 l.), intercalados con periodos secos. La temperatura media es de 25ºC, siendo la humedad relativa de 98%. En el presente informe se analizan integradamente las limitaciones para el desarrollo de la pesquería en el país, particularmente la pesquería artesanal del ámbito nacional, las cuales van desde la existencia de una Ley que sólo establece normas para la pesca industrial. Pero con vistas al mejoramiento del desarrollo de la pesca, relacionada con la flota de pesca, fundamentalmente con embarcaciones poco estables y rentables de la pesca artesanal nacional, el Ministerio de Pesca y Medio Ambiente de la República de Guinea Ecuatorial, Órgano de la Administración Central del Estado, encargado de dirigir, gestionar, ejecutar y hacer ejecutar las leyes y demás disposiciones en materia de pesca, y dentro de la política establecida, así como de asegurar la conservación de los recursos naturales, ha fijado como objetivo primordial promover el desarrollo óptimo del sector artesanal y, consecuentemente, proveer a las comunidades pesqueras del ámbito marítimo nacional de conocimientos y técnicas necesarios a bajo costo, para incrementar la productividad, la rentabilidad y la sostenibilidad de las actividades pesqueras, así como para solucionar el espinoso problema de la seguridad alimentaria a nivel familiar y nacional. El sector de la pesca, en general, y el de la pesca artesanal, en particular, juegan el importante rol de subsanar, día a día, los problemas de la seguridad alimentaria y, por lo tanto, la mejora del nivel de vida de la población.

Parte I (Información sobre pesquerías, investigación y estadísticas)

Sección 1: Información anual sobre pesquerías

La Ley Reguladora de la actividad pesquera en la República de Guinea Ecuatorial y su Reglamento de Aplicación distribuye las pesquerías en tres grandes grupos principales, a saber:

1) La pesca industrial marítima;
2) La pesca artesanal marítima; y
3) La pesca artesanal continental y acuicultura.

1.1 La pesca industrial marítima

La misma Ley Reguladora de la actividad pesquera en la Republica de Guinea Ecuatorial, en su Capítulo I, Artículo 1, Párrafo 5, define la pesca industrial marítima como "la practicada empleando embarcaciones y artes de pesca mayores, y haciendo uso de una tecnología y metodología apropiada para la explotación de la fauna marina en gran escala".

Con esta definición, podemos señalar en este informe que Guinea Ecuatorial, a pesar de contemplar esta pesquería en su legislación, hasta la fecha, carece de una flota de embarcaciones de pesca mayor bajo la cobertura de los datos señalados en el párrafo precedente. Las actividades de esta pesquería, la realizan las embarcaciones de flotas extranjeras que operan en el marco de los acuerdos de pesca suscritos, operando fundamentalmente con los barcos atuneros palangreros y cerqueros en la zona marítima de las islas de Annobón y Bioko y frente a las costas de la parte continental, al igual que los barcos arrastreros tangoneros y de popa.

Señalar que los barcos extranjeros, según el Reglamento de Aplicación de la Legislación Pesquera en Guinea Ecuatorial (Art. 31), están autorizados a operar en las aguas jurisdiccionales guineoecuatorianas, ya sea en el marco de un acuerdo pesquero concluido entre Guinea Ecuatorial y el Estado del pabellón concerniente o la organización que representa dicho Estado, ya sea cuando son alquilados por personas físicas o jurídicas de nacionalidad ecuatoguineana, o cuando operan por cuenta de éstas, debidamente acreditados y autorizados.

En la actualidad, existen alrededor de más de una docena de embarcaciones extranjeras que se dedican a la pesca industrial, fundamentalmente en la pesquería de atún y especies afines, utilizando barcos palangreros y cerqueros, siendo los armadores autorizados a faenar: la Asociación Nacional de Armadores de Buques Congeladores (ANABAC), la Asociación de Grandes Atuneros Congeladores (AGAC), la Royal Atlantic Fishing Industry Company Inc., y la Asociación de Cooperativas de Armadores de Atuneros Japoneses.

Por otra parte, y según ha sido demostrado científicamente que la zona marítima de Annobón es la zona de desove del atún atlántico, existe por la ausencia de medios de vigilancia y control en el país, una presencia masiva de barcos atuneros palangreros y cerqueros sin autorización, que aprovechando la falta de estos medios en el país, faenan involucrándose en una actividad ilegal o de IUU.

En otro contexto de la actividad industrial, habitualmente, las embarcaciones debidamente autorizadas a faenar en esa zona, a pesar de la insistencia de la Administración Pesquera de Guinea Ecuatorial para las entregas de cuadernos de pesca o informaciones estadísticas de producción de capturas, no la vienen entregando de manera regular y periódica.

Esta afirmación se constata en la **Tabla 1**, donde brilla la ausencia total de información de capturas de los barcos de la Asociación de Grandes Atuneros Congeladores (A.G.A.C.), que durante todo el año 2008 no ha enviado su producción de capturas al Ministerio de Pesca y Medio Ambiente. Las capturas durante el año 2008 de las sociedades señaladas a nivel global quedan reflejadas en la **Tabla 1**.

1.2 La pesca artesanal marítima

La pesca artesanal marítima tiene un ámbito de acción que puede extenderse dentro de las cuatro (4) millas náuticas, y que en algunas zonas al borde de la plataforma continental y parte manejable del talud está enfocada principalmente a las especies pelágicas, demersales y pelágicas oceánicas, utilizando varias artes de pesca como son: la línea de mano, palangres y otros aparejos.

No obstante, en esta pesquería sigue habiendo una falta de conocimiento de la magnitud de la pesca artesanal en Guinea Ecuatorial, de sus capacidades, de sus limitaciones y de identificación de las necesidades para el desarrollo.

El Ministerio de Pesca y Medio Ambiente, con el fin de cubrir el vacío informativo existente en este sector de la pesca artesanal, y como punto de partida al resto de las actividades a desarrollar en el mismo, tiene establecido evaluar las prioridades siguientes:

- Obtención de los censos actualizados de la flota artesanal y de sus características;
- Obtención de censos actualizados de los tipos y números de artes de pesca;
- Obtención de censos actualizados de profesionales de pesca y agrupaciones de pescadores; y
- El análisis de las variaciones espacio temporales de las especies capturadas y de sus índices de abundancia.

La pesca artesanal marítima, como fuente de abastecimiento de productos marinos a la población, es considerada como la pesca nacional con alrededor de 6.500 personas, que están involucradas de manera directa e indirecta en esta actividad.

La flota de la pesca artesanal, con alrededor de 2.000 embarcaciones, sigue siendo rudimentaria, con embarcaciones construidas a partir de troncos de árboles cavados, propulsadas en gran parte a remos y a vela; y otra porción propulsadas a motores fueraborda.

1.3 La pesca artesanal continental y acuicultura

La pesca artesanal continental sigue siendo considerada como una pesquería para el sustento familiar. Existen hasta la fecha varios factores que frenan su desenvolvimiento, factores que en los informes anteriores hemos señalado. Ahora bien, en cuanto a la acuicultura continental, hoy día inmersa en una importante red fluvial que se desarrolla sobre una cuenca hidrográfica bien definida, está conociendo su desarrollo óptimo.

Por su importante contribución a la política de seguridad alimentaria, la Administración Pesquera de Guinea Ecuatorial, está promoviendo el ejercicio de la acuicultura, creando las condiciones favorables al desarrollo de este subsector, principalmente mediante el establecimiento de un mecanismo de financiación apropiado y una fiscalidad incitativa.

En este contexto, el Ministerio de Pesca y Medio Ambiente, está:

- Implementando un programa de creación, rehabilitación, mantenimiento y gestión durable de estaciones piloto;
- Facilitando la producción de alimentos para peces, alevines y peces comerciales en asociación con el sector privado; e
- Implementado en las estaciones piloto un programa de producción de alevines y genitores para los promotores.

Es por esta iniciativa del Gobierno que la acuicultura se está convirtiendo en una parte importante de la actividad de abastecimiento de proteínas de origen animal a la población enclavada en el interior. La especie fundamental que se cultiva en la acuicultura continental en Guinea Ecuatorial es la tilapia, siendo su adaptación muy óptima. La producción sigue siendo ínfima, solamente para el sustento familiar, y el pequeño excedente se comercializa a nivel local, si se tiene en cuenta que la actividad de la acuicultura continental sigue en la fase de piloto.

No existen hasta hoy estadísticas de producción fiables dentro del desarrollo de la acuicultura al ser una actividad incipiente dentro del sector de la pesca en Guinea Ecuatorial.

Sección 2: Investigación y Estadísticas

La administración pesquera de Guinea Ecuatorial, con el fin de promocionar la pesca marítima y la acuicultura, tiene promovido el desarrollo de la formación y la creación de unidades de investigación, que desarrollarán programas de apoyo a los organismos de investigación capaces de proporcionar informaciones científicas fiables sobre las especies acuáticas; en este sentido, viene desarrollando en los últimos años una intensa labor en la cooperación multilateral en materia de pesca, que se ha plasmado en una de las actividades importantes como es la evaluación de los recursos pesqueros en la ZEE de Guinea Ecuatorial; sobre esta premisa y apoyados por un

experto de la Organización de las Naciones Unidas para la Agricultura y la Alimentación (FAO), se han realizado a nivel del ámbito marítimo nacional unas campañas de investigación para conocer de manera científica y fiable la situación de los recursos pesqueros en la Republica de Guinea Ecuatorial.

La realización de una campaña de evaluación de recursos pesqueros en la ZEE de Guinea Ecuatorial tiene como objetivo principal conocer la distribución de las pesquerías, así como el estado actual de las poblaciones de las especies de mayor interés comercial, medido en términos de abundancia y/o biomasas absolutas.

En los mismos términos y con el fin de favorecer el desarrollo de la pesca industrial, el Gobierno está dotando y mejorando las infraestructuras portuarias así como los puntos de desembarque de interés para la pesca. Igualmente, está tomando las medidas necesarias para la creación de condiciones fiscales favorables al desarrollo del sector, proporcionando la adopción de las medidas incitativas pertinentes.

Sobre las estadísticas de la pesca, Guinea Ecuatorial sigue inmerso en el proceso de instauración y puesta en marcha de un sistema de recolección, almacenamiento y análisis de estadísticas pesqueras eficaz, riguroso y de calidad.

Precisar que la presencia del Proyecto de Mejora de datos ICCAT/Japón, financiado por el Gobierno de Japón, y valorado positivamente por el Gobierno de Guinea Ecuatorial, que ha prestado en varias ocasiones su apoyo material, financiero y técnico en la formación del personal técnico del Departamento, ha originado a priori que el Ministerio haya conseguido establecer un sistema adecuado de recopilación de información estadística, fundamentada en la pesquería industrial atunera y especies afines, logrando así un resultado que favorezca la recolección de información estadística, que se realiza directamente en los puntos de desembarque de la flota artesanal.

La información de la producción de capturas que más abajo se insertan (**Tabla 2**), procede de la pesca artesanal de la zona marítima de Annobón, recopilada por los Inspectores de Pesca en los puntos de desembarque de la pesca artesanal marítima.

Parte II (Implementación de la ordenación)

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

Con el fin de estabilizar el esfuerzo de pesca y la implementación de las medidas de conservación y ordenación de ICCAT, se hace imperativo para el Ministerio de Pesca y Medio Ambiente la concepción de un sistema de vigilancia VMS; con ésta, el Ministerio encargado de la pesca conjuntamente con otros Ministerios involucrados, vienen analizando las propuestas de implementación de las medidas de conservación y ordenación de ICCAT, estableciendo los términos de referencia para un nuevo sistema.

En efecto, para dar cumplimiento a esta implementación de las medidas de conservación y ordenación de ICCAT, el Ministerio de Pesca y Medio Ambiente, apoyado por la Asociación de Cooperativas de Armadores Atuneros Japoneses, tiene instalado en la sede de la Dirección General de Recursos Pesqueros el sistema VMS, con el fin de vigilar las actividades pesqueras de las embarcaciones que faenan en la zona económica exclusiva de Guinea Ecuatorial. Por desgracia, esta instalación solo afecta a los barcos de la Asociación, mientras que otras embarcaciones no están siendo vigiladas.

Por otra parte, el Gobierno viene organizando y planificando la ordenación de las pesquerías de pesca marítima y acuicultura, sobre la base de la mejor información disponible. Los planes de ordenación se están estableciendo con respecto a los principales caladeros, y su contenido y su implementación serían aprobados por el Gobierno.

Actualmente, en nuestras aguas jurisdiccionales oficialmente faenan alrededor de 30 atuneros, distribuidos en palangreros y cerqueros.

Sección 4: Actividades y Programas de Inspección

Existe una preocupación por parte de la Administración Pesquera de Guinea Ecuatorial por la falta de ejecución de estas actividades y programas de Inspección; los motivos son fáciles de explicar. Los barcos que faenan en las aguas jurisdiccionales vienen negando la presencia y el embarque de Observadores a bordo, tampoco aceptan acercarse a los puertos nacionales, lugar en que los Inspectores pueden y deben realizar sus actividades. Por lo

tanto, estas actividades y programas de inspección, recomendadas por la Comisión Internacional para la Conservación de Atún Atlántico, en el caso de Guinea Ecuatorial, son de difícil cumplimiento.

En el mismo contexto, los Inspectores de pesca, con el fin de implementar las medidas de conservación y ordenación de ICCAT, están velando para que el ejercicio de la actividad pesquera se realice conforme determina la Ley de Pesca y sus normas de aplicación, así como las recomendaciones de las Instituciones internacionales. Puntualizar que esta actividad de los Inspectores de pesca se realiza particularmente en la pesquería artesanal marítima.

Sección 5: Otras actividades

Como ya lo señalamos en los informes anteriores, como otras actividades de desarrollo del sector de la pesca, el Gobierno centra su esfuerzo principalmente en explotar de manera ordenada y sostenible los recursos marinos existentes, con el objetivo principal de aprovisionar a la población de productos marinos y consecuentemente lograr la seguridad alimentaria.

Como resultado de esta previsión para el sector, se han establecido como prioritarios, entre otros, los siguientes componentes:

- Evaluar el volumen de los recursos marinos disponibles, determinando las poblaciones de peces de interés comercial, su estado de explotación y otros aspectos biológicos relacionados; con ello, se ha contado con el concurso de la Organización de las Naciones Unidas para la Agricultura y la Alimentación (FAO).
- Fortalecer el desarrollo de la pesca artesanal para el aumento de producción, estimulando el consumo de pescado interno y mejorar la comercialización con el fin de encauzar mejor los puntos de venta a nivel nacional.
- Establecimiento de centros piloto para el adiestramiento de la acuicultura, para las poblaciones enclavadas sin acceso al mar.
- Mejorar las condiciones de vida de la población pesquera artesanal, contribuyendo a evitar la emigración del campo hacia los centros urbanos.
- Luchar contra la pobreza, como uno de los objetivos del milenio; y
- Otros tantos.

Tabla 1. Producción de capturas, durante el periodo 2008, de las embarcaciones atuneras con licencias de pesca.

Especies	*A.N.A.B.A.C.*	*A.G.A.C.*	*ROYAL ATLANTIC*	*AS. ARM. JAPONESES*
Rabil	288.833	0	3.300	8.672
Patudo	543.367	0	0	7.367
Pez espada	2.261	0	0	2.261
Pez vela	818	0	0	818
Listado	60	0	9.800	3.000
Otras especies	773.133	0	0	2.746
Tiburón	0	0	140	0
Bonito Atlántico			120	0
Totales	**1.608.472**	**0**	**13.360**	**24.864**

Tabla 2. Estadísticas de capturas de la pesca artesanal durante el periodo 2008.

Especies	*oct-08*	*nov-08*	*dic-08*	*ene-09*	*feb-09*
Atún blanco	2.936	2.643	2.738	3.578	2.790
Patudo	1.436	4.401	215	410	194
Aguja azul	3.327	1.530	69	34	64
Bacoreta	1.079	1.646	121	102	111
Pez vela	167	387	205	243	124
Listado	1.104	2.193	106	126	183
Pez espada	1.139	675	543	843	421
Peto	2.432	4.654	1.432	1.763	982
Rabil	1.273	1.871	798	2.763	1.674
Tiburón	5.621	2.653	2.871	3.982	1.873
Melva	1.691	345	213	423	123

ANNUAL REPORT OF THE EUROPEAN COMMUNITY
RAPPORT ANNUEL DE LA COMMUNAUTÉ EUROPÉENNE
INFORME ANUAL DE LA COMUNIDAD EUROPEA

SUMMARY

The various fleets of the European Community 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 2008 was about 170.277,5 tonnes.

– Research and statistics

All Member States of the European Community have national research institutes or regional research laboratories. Considerable work was conducted in 2008 within the framework of the European studies and research programmes, in particular the evaluation of the results of the tagging programmes implemented between 2005-2007 in the Mediterranean and in the Atlantic on the bluefin tuna and swordfish stocks, the continuation of the research programmes concerning the evaluation of the biological parameters in collaboration with the FAO/COPEMED and FAO/MedFisis projects, and the implementation of a new research project on the reproduction of bluefin tuna and tuna farming (SELFDOTT). The European Community has a Regulation which aims to fulfil the Tasks I and II requirements and which is binding for its Member States and is applicable to all tuna and tuna-like fleets and areas. Between 2001 and 2008, the European Community also implemented a framework programme of data collection (EC Regulations No.1543/2000, 1639/2001 and 1581/2004) in order to ensure the systematic collection of the basic data being used for the scientific advice and stock assessment.

– Implementation

After each plenary session of ICCAT, the European Community transposes conservation measures adopted by ICCAT into its legislation so that they are binding on its Member States and nationals. All the technical conservation measures in force 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 Community 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 October2001), and modified by Council Regulation (EC) No. 869/2004 of 26 April 2004. The measures adopted at the 2007 ICCAT Annual Meeting as well as the catch limits for bluefin tuna, southern and northern swordfish, southern and northern albacore, bigeye tuna, and white marlin and blue marlin were transposed into Community legislation by the Council Regulation Council Regulation (EC) No. 40/2008 of 16 January 2008.

– Control and inspection

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. These controls primarily cover the quantities landed, the sizes, the age and weight of the fish, and the respect of closed fishing periods. They can also intervene at the time of marketing, to verify data. Some Member States have established an information network between the various landing ports to improve the monitoring of vessel movements. Routine inspections are also carried out, by third country inspectors and scientific institute observers at the time of landing of tropical tuna by Community vessels in Africa. 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. Human, naval, and aerial resources were deployed by Member States and administrative penalties and fines were applied when infractions were detected.

RÉSUMÉ

Les diverses flottilles de la Communauté européenne pêchent toutes les principales espèces réglementées par l'ICCAT dans l'Atlantique et la Méditerranée. Les captures totales de thonidés et d'espèces apparentées effectuées par ces diverses flottilles en 2008 se sont élevées à 170.277,5 t.

– Recherche et statistiques

Tous les Etats membres de la Communauté européenne disposent d'instituts de recherche nationaux ou de laboratoires régionaux de recherche. En 2008, de nombreux travaux ont été menés dans le cadre des études et programmes de recherche européens, en particulier, l'évaluation des résultats des programmes de marquage réalisés entre 2005 et 2007 dans l'Atlantique et la Méditerranée pour les stocks de thon rouge et d'espadon, la poursuite des programmes de recherche sur l'évaluation des paramètres biologiques en collaboration avec les projets FAO/COPEMED et FAO/MedFisis, ainsi que la mise en œuvre d'un nouveau projet de recherche sur la reproduction du thon rouge et l'engraissement de thon (SELFDOTT). La Communauté européenne dispose d'un règlement qui vise à répondre aux exigences de la Tâche I et de la Tâche II et dont les dispositions sont contraignantes pour les Etats membres et applicables à toutes les flottilles de pêche des thonidés et espèces apparentées et à toutes les zones. La Communauté européenne a mis également en œuvre, entre 2001 et 2008, un programme cadre pour la collecte des données (les Règlements (CE) nº1543/2000, 1639/2001 et 1581/2004) afin de garantir la collecte systématique des données de base utilisées pour l'avis scientifique et l'évaluation des stocks.

– Mise en œuvre

Après chaque session plénière de l'ICCAT, la Communauté européenne transpose dans sa réglementation les mesures de conservation adoptées afin de les rendre contraignantes pour ses Etats membres et ses ressortissants. Toutes les mesures techniques de conservation en vigueur pour les grands migrateurs ont été rassemblées dans le Règlement (CE) nº 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) nº 1936/01 du Conseil établissant certaines mesures de contrôle applicables aux activités de pêche de certains stocks de poissons grands migrateurs (JO L 236/1 du 03.10.2001), et modifiées par le Règlement (CE) nº 869/2004 du Conseil du 26 avril 2004. Les mesures adoptées à la réunion annuelle de l'ICCAT, en 2007, ainsi que les limites de capture 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 (CE) Nº 40/2008 du 16 janvier 2008.

– Contrôle et inspection

Les contrôles menés par les Etats 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. Ces contrôles portent essentiellement sur les quantités débarquées, les tailles, l'âge et le poids des poissons, et le respect des périodes d'arrêt de pêche. Ils peuvent aussi intervenir en cours de commercialisation, afin de faire des recoupements de données. Certains Etats membres ont établi un réseau d'information entre les différents ports de débarquement, afin de mieux superviser les mouvements des navires. Des contrôles systématiques sont également menés, lors des débarquements de thon tropical par les navires communautaires en Afrique, par des inspecteurs des pays tiers et par des observateurs rattachés à des instituts scientifiques. Les mêmes contrôles qui s'appliquent dans les inspections dans les ports sont effectués en cas de transbordement des thonidés, y compris pour les navires étrangers, des Parties contractantes et non contractantes à l'ICCAT. Des moyens humains, navals et aériens sont déployés par les Etats membres et des sanctions administratives et des amendes sont appliquées au cas où une infraction est détectée.

RESUMEN

Las diversas flotas de la Comunidad Europea pescan todas las especies principales reguladas por ICCAT en el océano Atlántico y mar Mediterráneo. La captura total de túnidos y especies afines realizada por las diversas flotas en 2008 fue de aproximadamente 170.277,5 t.

– Investigación y estadísticas

Todos los Estados miembros de la Comunidad Europea cuentan con Institutos de investigación nacionales o con laboratorios regionales de investigación. En 2008 se llevó a cabo mucho trabajo en el marco de los programas y estudios de investigación europeos, en particular la evaluación de los resultados de los programas de marcado implementados entre 2005 y 2007 en el Mediterráneo y en el Atlántico sobre los stocks de atún rojo y pez espada, la continuación de los programas de investigación relacionados con la evaluación de los parámetros biológicos en colaboración con los proyectos FAO/COPEMED y FAO/MedFisis y la implementación de un nuevo proyecto de investigación sobre la reproducción del atún rojo y el engorde de túnidos (SELFDOTT). La Comunidad Europea cuenta con una regulación cuyo objetivo es cumplir los requisitos de la Tarea I y la Tarea II, vinculante para sus Estados miembros, y aplicable a todas las flotas y áreas de túnidos y especies afines. La Comunidad Europea ha implementado también entre 2001 y 2008 un programa marco de recopilación de datos (Reglamentos nº 1543/2000, 1639/2001 y 1581/2004) con el fin de garantizar la recopilación sistemática de los datos básicos que se utilizan para el asesoramiento científico y las evaluaciones de stock.

– Implementación

Después de cada sesión plenaria de ICCAT, la Comunidad Europea transpone las medidas de conservación adoptadas por ICCAT a su legislación, por lo que son vinculantes para sus estados miembros y sus ciudadanos. Todas las medidas de conservación técnicas en vigor para las especies altamente migratorias están consolidadas en el Reglamento del Consejo (CE) nº 520/2007 que establece medidas técnicas de conservación para ciertos stocks de peces altamente migratorios. Las medidas de control se han transpuesto también a la legislación comunitaria mediante el Reglamento del Consejo (CE) nº 1936/01 que establece ciertas medidas de control aplicables a las actividades pesqueras dirigidas a ciertos stocks de peces altamente migratorios (OJ L 236/1 del 03.10.2001) y modificado por el Reglamento del Consejo (CE) nº 869/2004 del 26 de abril de 2004. Las medidas adoptadas en la Reunión anual de ICCAT de 2007 así como los límites de captura para el atún rojo, el pez espada del Norte y del Sur, el atún blanco del Norte y del Sur, el patudo, la aguja azul y la aguja blanca, fueron transpuestos a la legislación comunitaria en el Reglamento del Consejo (CE) nº 40/2008 del 16 de enero de 2008.

– 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. Estos controles cubren principalmente las cantidades desembarcadas, las tallas, la edad y el peso de los peces así como el respeto de las vedas de pesca. También pueden intervenir en el momento de la comercialización, para verificar los datos. Algunos Estados miembros han establecido una red de información entre los diversos puertos de desembarque para mejorar el seguimiento de los movimientos de los buques. 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 comunitarios desembarcan túnidos tropicales en África. Los mismos controles que se aplican a las inspecciones en puerto se llevan a cabo en los transbordos de túnidos, incluyendo en los buques extranjeros, independientemente de si son de una Parte contratante o no contratante de ICCAT. Los Estados miembros desplegaron sus recursos humanos, navales y aéreos y se aplicaron penalizaciones y multas administrativas cuando se detectaron infracciones.

Part I (Information on Fisheries, Research and Statistics)

Section 1: Information on the Fisheries

The various fleets of the European Community 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 2008 was about 170.277,5 tonnes (summary table in **Annex 1**)[1].

Chapter 1 of the EC annual report including reports of the various Member States of the European Community 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 for analysis by the Scientific Committee.

Part II (Management Implementation)

Section 2: Implementation of ICCAT Conservation and Management Measures

2.1 At the regulatory level

After each plenary session of ICCAT, the European Community transposes conservation measures adopted by ICCAT into its legislation so that they are binding on its Member States and nationals.

All the technical conservation measures in force 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 Community 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 measures adopted at the 2007 ICCAT Annual Meeting as well as the catch limits for bluefin tuna, southern and northern swordfish, southern and northern albacore, bigeye tuna, and white and blue marlin were transposed into Community legislation by the Council Regulation Council Regulation (EC) No 40/2008 of 16 January 2008 fixing for 2008 the fishing opportunities and associated conditions for certain fish stocks and groups of fish stocks, applicable in Community waters and, for Community vessels, in waters where catch limitations are required.

By the Council Regulation (EC) No. 1559/2007 of 17 December 2007 the Bluefin Tuna Recovery Plan was transposed in Community law. This regulation imposes additional obligations on the EC fleet in the implementation of the Plan and was transmitted to ICCAT in 2008.

The transposition of ICCAT Recommendation 08-12 on a Bluefin Tuna Catch Documentation Programme is not yet finalised, due to its technical nature. However, Member States have been firmly requested to comply with the obligations contained in the programme.

– Compliance

– Catch limits (see **Annex 2-**Compliance Tables).

In 2008, the European Community has in general respected all the catch limits adopted by ICCAT.

The European Community has not fully utilized the 2008 quotas of northern albacore, North and South swordfish and bigeye tuna. It wishes to carry-over the following underages:

[1] The Annexes are available from the Secretariat.

Northern albacore:	6.365,5 t, corresponding to 25% of its initial quota as the current underage of 20.652,8 is over the 25% limit established by Recommendation 07-02.
Northern swordfish:	1.917,7 t (ICCAT Recommendation 06-02)
Southern swordfish:	1.356,4 t (ICCAT Recommendation 06-03)
Bigeye tuna:	7.200 t, corresponding to 30% of its initial quota as the current underage of 19.569,5 is over the 30% limit established by Recommendation 08-01.

– Minimum size (see **Annex 2**-Compliance Tables).

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

– Vessels lists

The Community transmitted, in due time, the vessels lists respecting the formats required by ICCAT. In this regard it could be underlined that there are currently 1423 Community vessels greater than 24 meters authorized to fish in the ICCAT area, which is a reduction from precedent years.

– Large scale long line vessels

The Community took the necessary measures to control the activities of its large scale long line vessels (see **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 (see **Annex 4**).

– Area/season closure for bigeye tuna

In 2008, the European Community 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 2009 to other Contracting Parties is included in **Annex 6**. The European Community has not chartered any vessels from other Contracting Parties.

– Bluefin Tuna Report

In 2008, the European Community implemented the Recommendations by ICCAT on bluefin tuna. The Community report and forms related to bluefin tuna Recommendations were transmitted to ICCAT.

2.2 At the Member State level

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

Section 3: Complementary conservation and management measures

The European Community has adopted a control regime under the Community fisheries policy which imposes on the Member States specific obligations as regards control. In this regard, each Member State must control, inspect and supervise on its territory and in the maritime waters under its sovereignty or jurisdiction all fishing activities and in particular directed fishing, transshipment, landing, marketing, transport and storage of fish products and the recording of the landing and sale of fishery products (Council Reg. (EEC) No. 2847/93 of 12 October 1993 establishing a control regulation for the compliance with the common Community fisheries policy, EU Official Journal No. L261 of 20 October 1993, p. 1). This control regulation was strengthened following the reforms introduced into the common fisheries policy.

In addition to these obligatory provisions, Member States must adopt more restrictive provisions for certain species than those imposed at the Community level or by ICCAT; these provisions, modified to meet 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: annual fishing plans, an obligatory 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.

Some Member States are studying the future compliance of the new measures aimed at controlling fishing activities of highly migratory species and the protection of the resources. These measures should in particular strengthen the sector's supervision and monitoring of the fish from catch to retail.

The European Community also has:

- Obligatory monthly transmission of catch data for all species subject to TAC and quotas and quarterly transmission for other species;
- Obligatory 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, transhipments 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;
- Adopted a Council Regulation No. 1005/2008 on 29 September 2008 to prevent, deter and eliminate IUU fishing.

In 2008, the Commission launched a review of the Common Fisheries Policy which will be based on an analysis of the achievements and shortcomings of the current policy, and will look at experiences from other fisheries management systems to identify potential avenues for future action. The European Community has also launched a reform of the control regime with the view of its strengthening.

3.1 Inspection schemes

3.1.1 Member States

– In-port 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. These controls primarily cover the quantities landed, the sizes, the age and weight of the fish, and the respect of closed fishing periods. They can also intervene at the time of marketing, to verify data.

Some Member States have established an information network between the various landing ports to improve the monitoring of vessel movements.

Routine inspections are also carried out, by third country inspectors and scientific institute observers at the time of landing of tropical tuna by Community vessels in Africa.

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 Community 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.

3.2 Implementation and results (2008)

Spain

The objectives of the inspection activities are:

- To monitor and control, by maritime, aerial and land based means, the activities of longline and purse-seine vessels;
- To monitor and control cargo vessels which transport or tranship ICCAT managed species;
- To monitor and control vessels flying the flag of third countries and "flags of convenience";
- To monitor and control technical measures;
- To monitor and control minimum sizes, in particular of bluefin tuna and swordfish in the framework of the ICCAT measures to reduce catches of juvenile tunas;
- The constant monitoring and control of fishing activities in waters falling under the jurisdiction of Spain;
- Control of foreign vessels activities;
- Control of gears and all obligatory documentation.

There were a total of 581 inspections (in-port, at-sea and aerial) and 112 presumed infringements were detected. The bluefin tuna in the Mediterranean Sea and in the North Atlantic Ocean was a priority of the inspection activities in 2008. Four patrol vessels were operative and two engaged in the Joint Deployment Programme for bluefin tuna during the period April to October. Three planes and three helicopters participate in the aerial surveillance. Additionally, Spain has also concentrated on the control of swordfish, sharks and tunas, and has prohibited the landing/importation of tuna from vessels which have not respected ICCAT recommendations.

France

Maritime and aerial control means in the Atlantic and Mediterranean in particular for the bluefin tuna fishery. France implemented a National Plan to monitor the bluefin tuna fishery with the main objective of monitoring the quota, the reporting obligations and to reinforce at port and at sea activities.

There were a total of 193 in Atlantic (158 at port and 158 at sea) and 157 in Mediterranean (120 at port and 37 at sea). 32 presumed infringements were detected.

France implemented an observer's programme on vessels over 15 m fishing for bluefin tuna (161 days of observation by 7 observers in 7 vessels in Mediterranean and 510 days in 54 vessels in Atlantic).

Statistical documents were controlled.

To ensure the respect of the moratorium in the Gulf of Guinea during the period 1 to 30 November 2008 was monitored by VMS.

Italy

Within the framework of the implementation of the Community control regulation including for ICCAT control measures and the Bluefin tuna Recovery Plan, Italy deployed human, naval and aerial resources. During 2008, 87 ports were designated for landing bluefin tuna which were covered by an ICCAT inspector present for all landings. Italy also took part Joint Deployment Programme for bluefin tuna during de fishing season.

Portugal

Human, naval (Navy), and aerial resources were deployed. 51 inspection missions were undertaken in the continental area and 462 in the Azores. Some infractions were detected and 5 vessels were verbalized

Greece

The control of fishing and trade of tunas is carried out by Port Authorities and particularly 156 inspection vessels and two aircraft were engaged in the controlling of fishing activities among with other tasks. One Greek patrol vessel took part Joint Deployment Programme for bluefin tuna during the fishing season. In 2008, numerous inspections of fishing vessels took place by port authorities and as a result administrative penalties and fines were applied to 31 Greek vessels. The tuna farming is inspected and monitored by local and central services.

United Kingdom

Monitoring and enforcement is undertaken by inspectors based in the relevant fishing ports in the West of England in the northern albacore troll line fishery. This includes vessel inspections on landing, market inspections and documentary checks of EC logbooks, landing declarations and sales notes. No infringements detected.

Ireland

Sea Fishery Officers inspected all vessels fishing for albacore before they engaged in the fishery to ensure they held an authorization and to ensure compliance with all relevant requirements. All landings were inspected in port to ensure the vessels respect the regulations. The Irish Air Corps CASA maritime patrol aircraft and the Fishery patrols of the Irish Naval Service also carried out missions to monitor the activity of the albacore fleet.

Malta

Malta has a team of Fisheries Protection officers that carry out inspection on the activities of large pelagic species activities thus aiding the conservation of highly migratory species. These inspectors assure that fishing for bluefin tuna is only carried out following the Recommendations and Resolutions of ICCAT. A VMS system has been installed on all vessels over 12 m.

During 2008, 4 ports were designated for landing bluefin tuna covered by a landing officer who was present for all landings and all tuna that was landed were tagged by the landing officer for internal traceability.

During 2008, Malta took part in a Joint Deployment Plan for bluefin tuna and several joint inspections were carried out on local and foreign vessels, in ports and farms during caging and harvesting. Several air patrols were also conducted under the Joint Deployment Plan.

3.3 Other Member States

Other Member States also carry out controls in accordance with Community legislation to ensure the respect of the ICCAT conservation measures.

3.4 The 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 2008 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 Community 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 Community 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 Community legislation, which includes, in particular, the ICCAT recommendations.

In 2008, bluefin tuna was 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 Community pursuant to the provisions of the fishing agreements concluded by the EC with the third countries concerned.

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

SUMMARY

In 2008, the total amount of catches taken from the ICCAT quotas allocated to France (on behalf of St. Pierre and Miquelon) amounted to 55.t of tuna and tuna-like species. The quotas allocated to the islands did not permit any local boat owner to operate any vessel. All the French catches of tuna and tuna-like species are made by a chartered fishing vessel (a 30 m longliner). However, a project to construct a multi-purpose vessel is under way which, starting in 2010, will permit exploiting the French quotas under French flag. This vessel will target northern swordfish and albacore and will catch western bluefin tuna and bigeye as by-catch. Tuna fishing is regulated by means of fishing licences issued by the representative of France in the islands. For the island's artisanal vessels (less than 12 m), the licenses indicate the possibility of catching tunas only to prevent excessive by-catch. In effect, local vessels have a limited area of action. Eleven vessels have been granted licenses to fish bluefin tuna within the scope of the available quota. This activity, carried out in the French area using floating lines (a maximum of two hooks), for the local fleets, is an activity aside from the traditional fishing activities (cod). No catches of the ICCAT species were made in the St. Pierre and Miquelon exclusive economic zone. Vessels are required to report their catches and occasionally have on board observers. All the landings are monitored, as are all the products exported. France has control measures through several administrations (Maritime Affairs, Customs, Police, etc.). Fishing control campaigns, both at sea and on land, are carried out regularly. Special attention is given to the landing of tunas at the port of St. Pierre. Any legal actions that may be taken during these controls are often notified to the judicial administration.

RÉSUMÉ

Le montant total des captures réalisées sur les quotas de la CICTA attribués à la France (au nom de Saint-Pierre-et-Miquelon) s'élèvent à 55,5 tonnes de thonidés et espèces apparentées pour l'année 2008. Les quotas attribués à l'archipel ne permettant à un armement local d'exploiter une unité, les captures françaises de thonidés et espèces apparentées sont réalisées par un navire de pêche affrété (palangrier de 30 mètres). Cependant, un projet d'armement permettra à partir de 2010 d'exploiter les quotas français sous pavillon français. Ce navire ciblera l'espadon du nord et le germon et pêchera plus accessoirement du thon rouge de l'ouest et du patudo. La pêche des thonidés est règlementée par le biais de l'attribution de licences par le représentant de l'Etat sur l'archipel. Pour les navires artisanaux de l'archipel (moins de 12 m), les licences mentionnent la possibilité de captures de thonidés uniquement pour prévenir une exceptionnelle prise accessoire. En effet, les unités locales ont un rayon d'action limité. Onze navires se sont vu délivrer des licences pour la pêche du thon rouge sur le quota disponible. Cette activité, exercée en zone française au moyen de lignes flottantes (maximum de 2 hameçons), reste pour la flottille locale une pêche en marge des activités traditionnelles (morue). Aucune capture n'a été enregistrée en 2008 sur les espèces gérées par la CICTA dans la zone exclusive économique de Saint-Pierre et Miquelon. Les navires sont soumis à obligation de déclaration des captures et embarquent également ponctuellement des observateurs. Tous les débarquements font l'objet d'un contrôle, de même que la totalité des produits exportés. La France dispose de moyens de contrôle de plusieurs administrations (affaires maritimes, douanes, gendarmerie…). Des campagnes de contrôle des pêches, tant en mer qu'à terre, sont régulièrement effectuées. Un accent est particulièrement mis sur le débarquement des thonidés sur le port de Saint-Pierre. Les procès verbaux éventuellement établis à cette occasion sont transmis à l'administration judiciaire.

RESUMEN

En 2008, las capturas totales realizadas sobre las cuotas de ICCAT asignadas a Francia (en nombre de San Pedro y Miquelón) ascendieron a 55,5 t de túnidos y especies afines. Las cuotas atribuidas al archipiélago no permitían a ningún armador local explotar ninguna unidad, las capturas francesas totales de túnidos y especies afines son habitualmente realizadas por un buque pesquero fletado (un palangrero de 30 m). Sin embargo, se está desarrollando un proyecto para construir un buque polivalente que permitirá, a partir de 2010, explotar las cuotas francesas bajo pabellón francés. Este buque se dirigirá al pez espada del Norte y al atún blanco, y pescará de forma accesoria atún rojo del Oeste y patudo. La pesca de túnidos está reglamentada por medio de la concesión de licencias por parte del representante del Estado en el archipiélago. Para los buques artesanales del archipiélago (menos de 12 m), las licencias mencionan la posibilidad de captura de túnidos únicamente para prevenir una captura fortuita excepcional. En efecto, las unidades locales tienen un radio de acción limitado. Once barcos han recibido licencias para pescar atún rojo en el marco de la cuota disponible. Esta actividad, ejercida en zona francesa por medio de líneas flotantes (máximo de 2 anzuelos), es para la flota local una pesca al margen de las actividades tradicionales (bacalao). En 2008, no se ha registrado ninguna captura de las especies de ICCAT en la zona económica exclusiva de San Pedro y Miquelón. Los buques están obligados a declarar las capturas y embarcan puntualmente observadores. Todos los desembarques son objeto de un control, al igual que la totalidad de los productos exportados. Francia dispone de medios de control en varias administraciones (asuntos marítimos, aduanas, gendarmería…). Las campañas de control de la pesca, tanto en mar como en tierra, se realizan de forma regular. Se presta especial atención al desembarque de túnidos en el puerto de San Pedro. Los atestados que puedan levantarse durante dichos controles se transmiten posteriormente a la administración judicial.

I^{ère} partie (Information sur les pêcheries nationales, la recherche et les statistiques)

Chapitre 1 : Information annuelle sur les pêcheries

Les captures d'espèces gérées par la CICTA ont été de 55,5 tonnes pour la campagne 2008. En 2007 les captures françaises totales de thonidés et espèces apparentées dans l'Océan Atlantique avaient été de 110,8 tonnes. Elles s'élevaient à 64 tonnes en 2005 et à 87 tonnes en 2004. Aucune activité n'a été enregistrée en 2006.

Les quotas attribués à l'archipel ne permettent à un armement local d'exploiter une unité et le recours à l'affrètement est donc utilisé chaque année. Les captures françaises totales de thonidés et espèces apparentées sont habituellement réalisées, en Atlantique Ouest, par un navire de pêche canadien affrété (palangrier de 30 mètres). En 2008, un accord d'affrètement a été conclu par un opérateur économique local et notifié à la CICTA (courrier France-DPMA n° 1785 du 31 juillet 2008).

A l'instar de l'année passée, 11 navires locaux de la flottille artisanale se sont vu délivrer des licences pour la pêche du thon rouge sur le quota disponible. Cette activité, qui ne peut s'exercer pour ces navires – en raison de leur taille (moins de 12 mètres) – qu'en zone française et au moyen de lignes flottantes gréées pour un maximum de deux hameçons, reste pour la flottille locale une pêche en marge des activités traditionnelles de pêche artisanale, qui s'orientent principalement, dans la zone 3Ps, sur la morue. Aucune capture n'a été enregistrée pour cette pêche locale.

1.1 Thon rouge (stock de l'Océan Atlantique Ouest)

La France, au titre de Saint-Pierre et Miquelon, disposait pour l'année 2008 d'un quota global de 16,4 tonnes de thon rouge (*Thunnus thynnus thynnus* – « Bluefin tuna », BFT) sur le stock ouest, niveau de quota issu du transfert depuis les années précédentes de droits non consommés, en raison des reports *glissants* (pour un quota initial de 4 tonnes par an sur cette espèce).

Les prises par le navire affrété ont été de 3,1 tonnes en 2008. Ainsi, conformément à la recommandation [08-04], la France devrait disposer d'un quota ajusté de 17,3 tonnes pour la campagne 2009.

1.2 Germon (stock de l'Océan Atlantique nord)

Le quota ajusté français 2008 était de 300 tonnes. Ces captures constituent en fait des prises accessoires pour l'unique navire affrété sur la pêcherie de thonidés de l'archipel. Les captures sont généralement faibles. Elles ont été de 0,2 tonnes en 2008 (3,2 tonnes en 2007, nulles en 2006, 2,12 tonnes en 2005, 7,06 tonnes en 2004). Compte-tenu des possibilités de reports de captures, le quota ajusté sera de 300 tonnes en 2009.

1.3 Espadon de l'Océan Atlantique Nord

Le quota nominal octroyé à la France est de 40 tonnes, abondé d'un transfert du Royaume-Uni de 20 tonnes pour les années 2007 à 2009 [Rec. 08-02].

L'espadon est l'espèce cible recherchée dans cette partie de l'Atlantique Nord Ouest. Les reports de sous consommation avaient permis des captures de 82 t en 2007, 48,4 t en 2005 et 35,65 t en 2004.

Les captures 2008 se sont élevées à 47,6 tonnes. Le quota ajusté 2009 sera de 56,8 tonnes.

1.4 Autres espèces

Les autres espèces généralement capturées à la palangre sont le thon obèse (2,6 t en 2008, 2,2 t en 2007, 5,8 t en 2005, 28,3 t en 2004) et les requins (0,9 t en 2008, 2,6 t en 2005, 7,01 t en 2004). Conformément à la mesure de gestion en vigueur [Rec. 04-01], la France (Saint-Pierre et Miquelon) n'a pas reçu de limitation spécifique de capture pour le patudo.

Chapitre 2 : Recherche et statistiques

La recherche française sur les thonidés et les espèces apparentées est assurée par l'Ifremer (Institut Français de Recherche pour l'Exploitation de la Mer). Cet institut est présent sur l'archipel de Saint-Pierre-et-Miquelon, mais le laboratoire concerné ne pratique pas de recherche sur les thonidés : celle-ci est assurée par divers centres situés en métropole.

II^{ème} Partie (Mise en œuvre de la gestion)

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

3.1 Mise en œuvre des recommandations de la CICTA

Il convient d'évoquer ici que l'activité de pêche des thonidés sur les droits ouverts à l'archipel dans les eaux internationales est réalisée par le biais de l'affrètement d'un navire de pêche canadien spécialisé sur ce métier, dans des conditions similaires à celles de l'année passée.

Cette activité a été initiée à nouveau pour l'année 2008 après la signature d'une convention d'affrètement entre Propeche Sarl et la société canadienne Law Fisheries Limited, convention conclue au mois d'avril 2008 et expirant à la fin de l'année de pêche. Les autorités françaises (Préfecture de Saint-Pierre et Miquelon) ont émis une licence de pêche jusqu'au 31 décembre de la même année, autorisant le navire à effectuer des captures d'espadon, de thon rouge, de germon, ainsi que de patudo (en tant que capture accessoire).

Cette émission de licence est conforme aux règlementations en vigueur : décret du 9 janvier 1852 sur l'exercice 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 de l'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.

Conformément à la Recommandation 02-21 de la CICTA, la notification de cet affrètement a été signifiée au secrétariat exécutif.

Ce montage, qui implique pour la société PROPECHE SARL de déclarer les prises réalisées comme prises françaises et qui nécessite de se conformer à l'obligation de renseigner les documents statistiques, ainsi que de procéder au marquage des produits, devait permettre de recueillir les résultats de captures du navire.

Cependant, les captures n'ayant pas été débarquées à Saint-Pierre et Miquelon en 2008, la France ne dispose pas de la totalité des déclarations dans ce type de montage. Ainsi, la rédaction de la tâche II devrait être réalisée par l'Etat du pavillon concerné, qui dispose de moyens lui permettant un échantillonnage précis des débarquements au port.

3.2 Mesures nationales

Des licences sont attribuées par le représentant de l'Etat sur l'archipel (Préfet) aux navires de pêche qui en font la demande. La licence délivrée mentionne la possibilité de capture de thonidés uniquement pour prévenir une exceptionnelle prise accessoire. En effet, les unités locales ont un rayon d'action limité et pratiquent leur activité aux alentours de l'archipel. L'essentiel de l'activité est générée, au moyen d'arts dormants, sur les crustacés et la morue présente sur les grands bancs de Terre-Neuve.

Les navires sont soumis à obligations de déclaration de captures et embarquent également ponctuellement des observateurs à leur bord. Tous les débarquements font l'objet d'un contrôle, de même que la totalité des produits exportés.

Chapitre 4 : Schémas et activité d'inspection

Les moyens de contrôle français sont assurés par plusieurs administrations. Plusieurs d'entre elles sont présentes sur l'archipel de Saint-Pierre-et-Miquelon (Affaires Maritimes, Gendarmerie Nationale et Douanes françaises). Ces moyens effectuent régulièrement des campagnes 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. Les procès verbaux éventuellement établis à cette occasion sont transmis à l'administration judiciaire.

4.1 Bilan des contrôles effectués en 2008

Contrairement à 2006 (4 transbordements) aucune opération de transbordement ou de débarquement de thonidés n'a été enregistrée par les douanes françaises à Saint-Pierre et Miquelon en 2008.

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

Paul Bannerman[1]

Part I (Information on Fisheries, Research and Statistics)

Section 1: Annual Fisheries Information

1.1 The fisheries

The Ghanaian tuna industry comprises mainly the skipjack (*Katsuwonus pelamis*), yellowfin (*Thunnus albacares*) and bigeye tuna (*Thunnus obesus*). Baitboats and purse seinesr fishing off the EEZ of Ghana exploit these tuna species. Other minor tuna-like species especially the black skipjack (*Euthynnus alletteratus*) are also exploited by both fleets**.** The total number of vessels registered in 2008 to fish for tuna resources within the EEZ of Ghanaian waters was 29, comprised of 20 baitboats and nine purse seiners. The Marine Fisheries Research Division of the Ministry of Fisheries (MFRD) is the Government agency responsible for tuna research and statistics in Ghana.

1.2 The resources

During the year under review, skipjack catches (58.33 %) were the most abundant followed by yellowfin (22.23%), bigeye (14.46%) and other tuna-like species 4.97%, respectively **(Table 1)**. Tuna baitboats use anchovy (*Engraulis encrasicolus*) and other small pelagics as bait for their operations. In addition, both fleets employ over 15,000 fish aggregating devices (FADs) in capturing the resources whilst collaborating extensively with each other and often sharing the catch during fishing operations. This collaborative act has been the norm since the late 1990s.

Catches of the main tuna species for the year 2008 dropped to 64,094 t from 67,746 t in 2007, a difference of approximately 3,000 t.

Port sampling of the three major species of tuna were carried out from Tema to determine, among others, length frequency distribution to be used for stock assessment purposes. Size ranges of tunas caught generally during the year 2008 are shown in **Table 2**.

Percentages of fish greater that 70 cm were noted to be approximately 15% of the entire catch landed in Tema and this can be ascribed to the majority of fishing occurring within the major spawning//breeding grounds of the fish with the Equatorial zone.

Data (Task I, II and III), i.e. catch-effort, for 2008 were duly forwarded to ICCAT via the AVDTH programme.

Section 2: Research and Statistics

2.1 Statistics

In conformity with the objectives of the Data Fund aimed at improving data collection and quality assurance [Res. 03-21], Ghana's statistics for the principal tunas were revised during the bigeye stock assessment meeting held in June 2007. Further synthesis of the database in Ghana since 2007-2009 is being done to get a clear picture on the catch and species composition of the catch in relation to the collaborative fishing strategies and other factors influencing catching patterns **(Table 3**, **Figure 3)**.

The AVDTH software adopted from the French purse seine fleet for processing catch, effort and logbook data was used to analyse data for 2008.

* No summary provided. / Aucun résumé soumis. / No se ha facilitado el resumen.

[1]Fisheries Department, Ghana.

2.2 Compliance measures

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 being processed has been initiated. The ICCAT list of vessels over 24 m has been updated and sent accordingly to the Secretariat. **(Appendix 1)**[*].

2.3 Logbook returns

A refresher course with second officers of the tuna companies was held in February 2008 to help them improve upon the quality of logbook returns. Logbook information (Task II) since 1992-2007 with 12,485 records has been recovered. Although the recovery rates were rather low, plans are in place to further enhance the quality of Task II by integrating the information into the ICCAT database to improve the overall information for management **(Figure 2)**.

2.4 Observer Program 2008

An observer programme was organized in August-November 2008 and sponsored by ICCAT to, among others:

- sample exclusively from purse seine and baitboat catches;
- sample catches by set noting carefully how many sets are collaborative;
- sample to determine catch and species composition;
- determine geographic distribution of the species;

Two baitboats and two purse seiners participated in the programme during the period. Reports by the observers indicate a general fishing pattern for all fleets with over 85% of fishing on FADs and within a small narrow strip off the north east with occasional fishing positions off the regular zone.

Catch composition showed the predominance of skipjack (60%), followed by yellowfin 25%, then bigeye 5%, with the remainder being other tuna-like species.

Biological sampling conducted revealed that size of all fish lengths ranged between 35-70 cm with just over 15% greater than 70 cm.

This study confirms the fact that:

- Both baitboats and purse seiners are still collaborating in their fishing activities;
- Collaborative fishing off FADs yields higher catches than the other modes of capture;
- Fishing is generally in the same area between latitude 4^{o} North to 1^{o} South and longitude 5^{o} East to 5^{o} West. However, in 2008 a few fishing positions were observed in the southeast (Quadrant 4);
- No differences exist in sizes of fish landed by the two fleets;
- Majority of fish caught were small-medium (i.e., 30-80 cm) with over 80% below the 55 cm level (3.2 kg).
- Strategies of fishing captains have not changed since the last observer programme in 2006 with the exception of one or two vessels in 2008;

In recommendation,

- On-board observers should be intensified to improve the knowledge on the fishery;
- A time area closure should be enforced once again as in the previous recommendation (Rec. 99-01);
- There should be a quota on the number of FADs a vessel can carry and use at sea;
- Phasing out baitboats would be a possible way to reduce the high incidence on juvenile mortality;
- Limit entry in the fishing fleet;

2.5 Billfish Program

Beach sampling of the billfishes continued off the western coast of Ghana. Catch and effort data for 2008 were submitted accordingly **(Table 4)**. Swordfish landings increased slightly in 2008 from 2007 whilst catches of the others species dropped **(Figure 1)**. Very few white marlins were landed and recorded. Generally, abundance for all billfishes was noted to occur in the fourth to first quarters of each year.

[*] The appendix is available from the Secretariat.

Table 1. Ghanaian landings (t) of the principal tunas in 2007and 2008.

Vessel/ Species	*Yellowfin 2008*	*Yellowfin 2007*	*Skipjack 2008*	*Skipjack 2007*	*Bigeye 2008*	*Bigeye 2007*
Baitboats	9797	5540	25704	15423	6373	1720
Purse seine	4453	7415	11684	30285	2897	2914

Table 2. Size (cm) ranges of tunas in 2008.

	Skipjack	*Yellowfin*	*Bigeye*
Baitboats	35-70	36-79	33-80
Purse seine	35-68	34-120	33-138

Table 3. Revised Ghanaian data.

	Old data			*Revised data*		
Year	*Bigeye*	*Skipjack*	*Yellowfin*	*Bigeye*	*Skipjack*	*Yellowfin*
1997	7431	27667	16504	9758	26035	15809
1998	13252	34150	17807	13423	33941	17846
1999	11460	43460	28328	17763	40217	25268
2000	5586	29950	17010	5910	28974	17662
2001	14095	43341	30642	12041	42489	33546
2002	5894	31888	23499	7106	30499	23675
2003	4816	32766	19030	13557	24597	18457
2004	6944	33600	15137	14901	25726	15054
2005	2333	54322	19833	13916	44671	17493
2006	-	-	-	9141	30236	11931
2007	-	-	-	4633	45709	12954
2008	-	-	-	9269	37387	14250

Table 4. Billfish catches in t for 2007 and 2008.

		Jan	*Feb*	*Mar*	*Apr*	*May*	*Jun*	*Jul*	*Aug*	*Sep*	*Oct*	*Nov*	*Dec*	*Total*
SAI	2008	13.66	16.42	9.44	86.69	2.36	84.98	26.99	1.16	11.37	6.84	67.62	14.17	**341.69**
SAI	2007	124.22	58.83	2.77	8.17	7.84	18.26	0.61	0.90	2.33	7.05	13.33	207.49	**451.80**
BUM	2008	1.35	2.74	2.00	2.53	3.74	67.28	21.00	2.00	14.66	37.56	31.39	4.64	**190.91**
BUM	2007	14.98	16.76	13.95	20.89	16.47	14.79	21.25	14.36	10.80	20.62	398.16	119.91	**682.94**
SWO	2008	28.54	0.00	1.92	15.86	36.54	32.05	0.00	1.24	22.83	13.72	18.14	6.03	**176.87**
SWO	2007	0.80	17.71	3.97	1.10	1.34	9.53	6.07	7.59	8.26	5.32	3.35	0.00	**65.04**
WHM	2008	0.00	0.17	0.00	0.69	0.00	0.51	0.00	0.00	0.00	0.00	0.00	2.28	**3.65**
WHM	2007	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
EFFORT	2008	2451	11147	11308	11579	3088	11120	11551	2756	11396	12141	15092	2547	**106176**
EFFORT	2007	11133	13582	1755	2094	2428	9473	1363	1526	3621	2594	2564	18128	**70261**

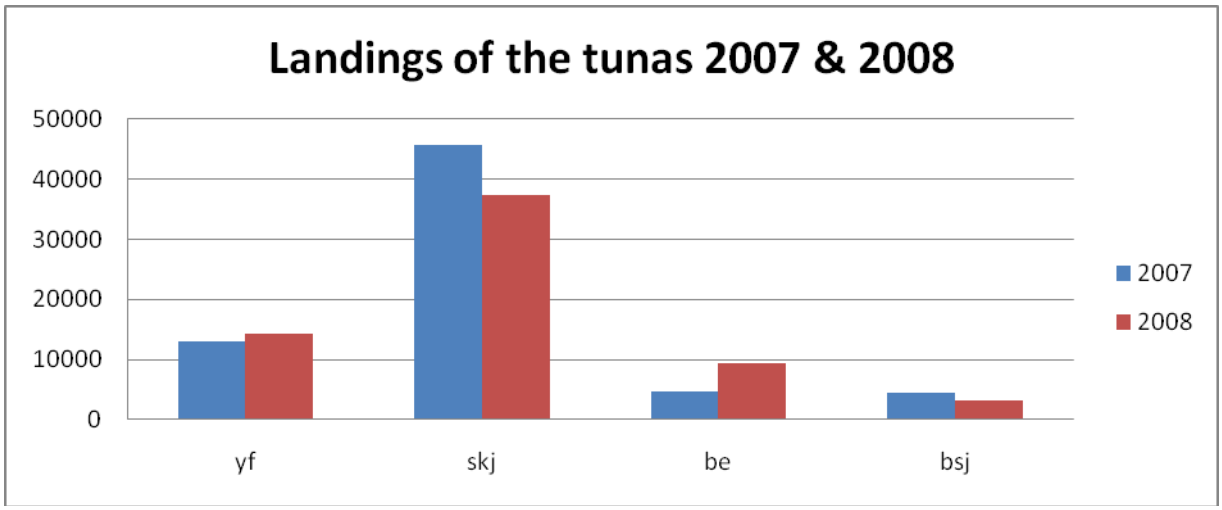

Figure 1. Comparison of landings of the tuna species caught in 2007 and 2008.

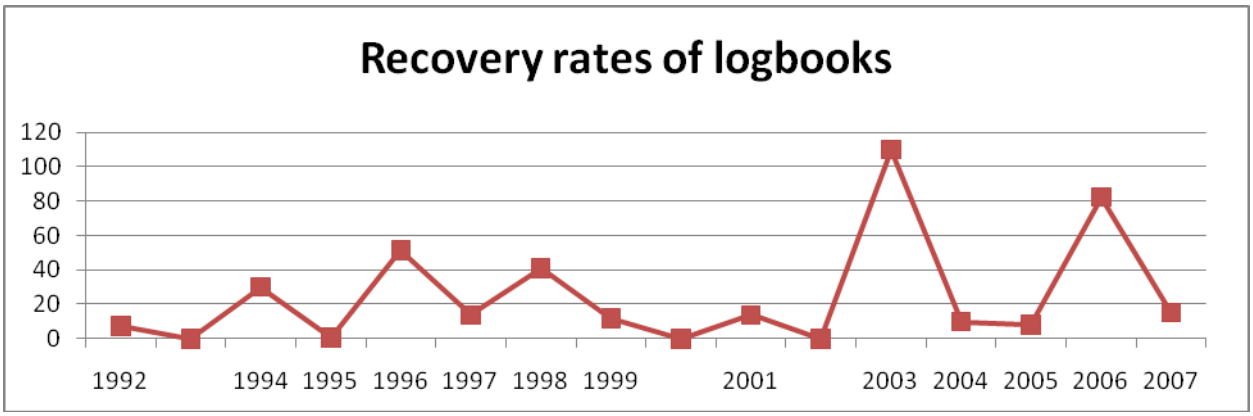

Figure 2. Percentage recovery rates of logbooks.

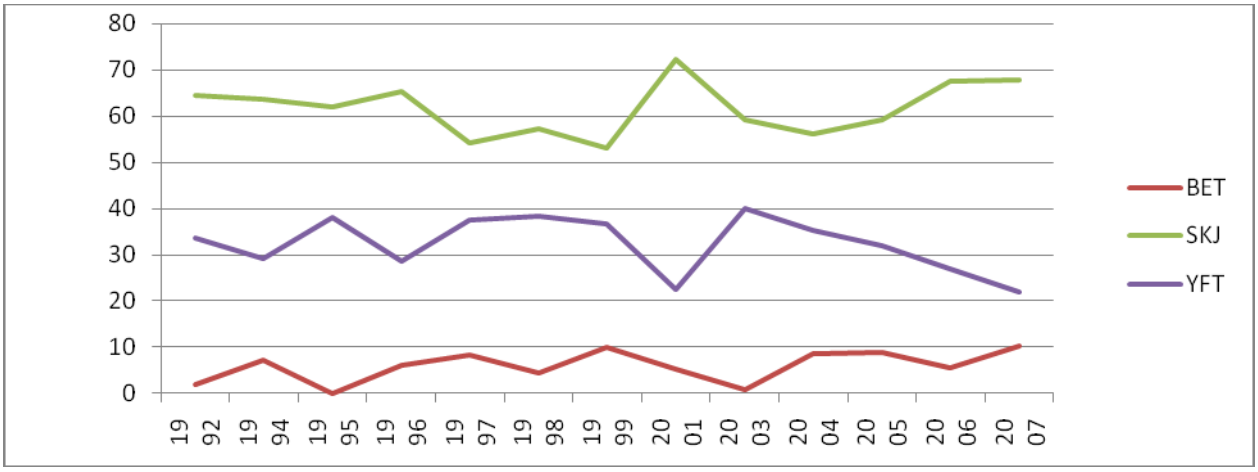

Figure 3. Species composition in Ghanaian logbooks 1991-2007.

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

SUMMARY

In 2009, the Icelandic Ministry of Fisheries and Agriculture decided on a voluntary reduction of 49 of its 49,72 tonnes quota. Subsequently, the 49 tonnes quota was transferred to 2011 and Icelandic vessels were not allowed to fish for bluefin tuna in 2009. The remaining 0,72 tonnes were reserved to allow for incidental by-catch by commercial and non-commercial vessels. No by-catches have been reported in 2009 by Icelandic vessels and discards of commercial fish species is banned. 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. There were no imports, exports or re-exports of bluefin tuna, bigeye tuna or swordfish to or from Iceland in 2009.

RÉSUMÉ

En 2009, le Ministère de la Pêche et de l'Agriculture de l'Islande a décidé de procéder à une réduction volontaire de 49 t sur son quota de 49,72 t. Ultérieurement, le quota de 49 t a été transféré à l'année 2011 et les navires islandais n'ont pas été autorisés à pêcher du thon rouge en 2009. La quantité restante (0,72 t) a été réservée pour permettre la prise accessoire des navires commerciaux et non-commerciaux. En 2009, les navires islandais n'ont pas déclaré de prises accessoires et le rejet des espèces commerciales a été interdit. 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. Il n'y a pas eu d'importation, d'exportation ou de réexportation de thon rouge, de thon obèse ou d'espadon à destination ou en provenance de l'Islande en 2009.

RESUMEN

En 2009, el Ministerio de Pesca y Agricultura islandés decidió una reducción voluntaria de 49 t de su cuota de 49,72 t. Posteriormente, la cuota de 49 t fue transferida al año 2011 y no se permitió a los buques islandeses pescar atún rojo en 2009. Las 0,72 t restantes se reservaron para las capturas fortuitas incidentales de los buques comerciales y no comerciales. En 2009 los buques islandeses no han comunicado capturas fortuitas y los descartes de las especies comerciales están prohibidos. No hay ninguna pesquería dirigida a otras especies gestionadas por ICCAT, pero el marrajo sardinero, pintarroja y tollo de Groenlandia son capturas fortuitas en la ZEE de Islandia en otras pesquerías comerciales. En 2009 no se produjeron importaciones, exportaciones o reexportaciones de atún rojo, patudo o pez espada hacia o desde Islandia.

Part I (Information on Fisheries, Research and Statistics)

Section 1: Annual Fisheries Information

There were no bluefin tuna fisheries by Icelandic vessels or vessel chartering in 2009.

Section 2: Research and Statistics

Icelandic authorities have submitted data on bycatches 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 theses 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 review each year as needed. A new regulation was issued in April 2009. Licenses to fish bluefin tuna are issued 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.

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. To date there have been no imports or re-exports of bluefin tuna in Iceland.

Section 4:

No bluefin tuna was landed in Iceland in 2009, but port State measures regarding catches are considered a priority by the Icelandic authorities and will be strictly enforced for bluefin tuna as well as other fisheries. All catches entering Icelandic ports are monitor

ANNUAL REPORT OF JAPAN[1]
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 logbook coverage from the Japanese longline fleet has been 90-95 % before 2006. The current coverage for 2007 and 2008 is estimated to be about 82% for both years. The logbooks were submitted quickly since the ten days reporting system has been applied since August 2008. Therefore, the current coverage (82%) is very high in comparison to 58% at the same time for the previous year. In 2008, the number of fishing days was 30,300, which was near the average value in the recent ten year period. The catch of tunas and tuna-like fishes (excluding sharks) is estimated to be 40,413 t, which is 124% of the past ten years´ average catch. The most important species was bigeye, representing 50% of the total tuna and tuna-like fish catch in 2007. The next dominant species was yellowfin tuna, which comprised 19% in weight, and third species was bluefin tuna (8%). Observer trips on longline boats in the Atlantic were conducted and a total of 732 fishing days were monitored. The Fisheries Agency of Japan (FAJ) sets catch quotas for western and eastern Atlantic bluefin as well as for North and South Atlantic swordfish, blue marlin, white marlin and bigeye tuna, and requires all tuna vessels operating in the Atlantic Ocean to submit catch information, by radio or facsimile, every day (bluefin tuna) and every ten-day period (other tunas). All Japanese longline vessels operating in the Convention area are equipped with satellite tracking devices (VMS) on board. In accordance with ICCAT recommendations, the FAJ has taken measures to prohibit the catch of undersized several tuna species and the false import of Atlantic bluefin tuna, swordfish and bigeye tuna. Implementations of time and area closure in a part of the East Atlantic, the Mediterranean and the Gulf of Mexico have been regulated by Ministerial Order. Each species statistical or catch document programs has been conducted. Records of fishing vessels larger than 24 meters in length overall (LSTLVs) have been established. The FAJ dispatched patrol vessels to the North Atlantic to monitor and inspect Japanese tuna vessels and also to observe fishing activities of other nations' fishing vessels, and randomly inspected landings at Japanese ports to enforce the catch quotas and minimum size limit. A prior permission from the FAJ is required for any Japanese tuna longline vessels to transship tuna or tuna products to reefers at foreign ports and 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 90-95% avant 2006. Le taux de couverture actuel pour 2007 et 2008 est estimé à près de 82% pour les deux années. Les livres de bord ont été soumis sans délai grâce à l'application, depuis août 2008, d'un système de déclaration tous les 10 jours. Par conséquent, le taux de couverture actuel (82%) est très élevé par rapport au taux de couverture de 58% pour la même période de l'année précédente. En 2008, il y a eu 30.300 jours de pêche, ce qui était proche 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 40.413 t, soit 124% de la prise moyenne de ces dix dernières années. L'espèce la plus importante était le thon obèse qui représentait 50% du total de la prise de thonidés et d'espèces voisines en 2007. L'espèce dominante suivante était l'albacore, qui représentait 19% en poids, suivie du thon rouge (8%). Les observateurs embarqués à bord de palangriers ont réalisé des sorties dans l'Atlantique et au total 732 jours de pêche ont fait l'objet d'un suivi. L'Agence des Pêches du Japon (Fisheries Agency of Japan, FAJ) établit des quotas de capture pour le thon rouge de l'Atlantique Est et Ouest, ainsi que pour l'espadon, le makaire bleu, le makaire blanc et le thon obèse de l'Atlantique Nord et Sud, et elle demande à tous les thoniers opérant dans l'Océan Atlantique de soumettre des informations quotidiennes sur les prises de thon rouge ainsi que des

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informations sur les prises d'autres thonidés, tous les dix jours, par radio ou facsimile. Tous les palangriers japonais opérant dans la zone de la Convention sont équipés à bord de systèmes de surveillance des navires par satellite (VMS). Conformément aux recommandations de l'ICCAT, la FAJ a pris des mesures visant à interdire la prise de poissons sous-taille de diverses espèces de thonidés et la fausse importation de thon rouge, d'espadon et de thon obèse de l'Atlantique. La mise en œuvre de fermetures spatio-temporelles dans une partie de l'Atlantique Est, la Méditerranée et le Golfe du Mexique est réglementée par Décret Ministériel. Les Programmes de Documents Statistiques ou de documentation des captures sont réalisés pour chaque espèce. Des registres de navires de pêche de plus de 24 m de longueur hors tout (LSTLV) ont été établis. La FAJ a détaché des patrouilleurs dans l'Atlantique Nord afin de suivre et d'inspecter les thoniers japonais et d'observer les activités de pêche de navires de pêche d'autres nations et a procédé à des inspections aléatoires 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 est 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 et en mer.

RESUMEN

El palangre es el único arte pesquero que utiliza Japón actualmente en el océano Atlántico para capturar túnidos. La cobertura final de cuadernos de pesca de la flota palangrera japonesa ha sido del 90-95% antes de 2006. Se estima que la cobertura actual para 2007 y 2008 ha sido de aproximadamente el 82% para ambos años. Los cuadernos de pesca se han presentado rápidamente ya que desde agosto de 2008 se ha aplicado un sistema que establece la comunicación cada diez días. Por lo tanto, la cobertura actual (82%) es muy alta en comparación con el 58% de cobertura en el mismo momento del año pasado. En 2008 hubo 30.300 días de pesca, lo que se acerca al valor medio de los últimos diez años. La captura de túnidos y especies afines (excluyendo tiburones) se estima en 40.413 t, lo que supone el 124% de la captura media del periodo de los últimos diez años. La especie más importante fue el patudo, que respondió del 50% de la captura total de túnidos y especies afines en 2007. La siguiente especie dominante fue el rabil, que respondió del 19% en peso, y la tercera especie fue el atún rojo (8%). Se llevaron a cabo mareas con observadores en los palangreros del Atlántico y se hizo el seguimiento de 732 días de pesca. La Agencia de Pesca de Japón (FAJ) establece cuotas de captura para el atún rojo del Atlántico oriental y occidental, así como para el pez espada del Atlántico norte y sur, 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) y cada diez días (otros túnidos) 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 de diversas especies de túnidos y la importación falsa de atún rojo, pez espada y patudo del Atlántico. La implementación de vedas espaciales y temporales en parte del Atlántico este, en el Mediterráneo y en el Golfo de México ha sido regulada por 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 24 m de eslora total (grandes palangreros atuneros). La FAJ ha enviado buques patrulla al Atlántico norte para inspeccionar y hacer un seguimiento de los atuneros japoneses, así como para observar las actividades pesqueras de los buques pesqueros de otras naciones. También se procedió a la inspección aleatoria de los desembarques en los puertos japoneses para verificar el cumplimiento de las cuotas de captura y del 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 y 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. The two other fishery types, baitboat and purse seine, stopped fishing in the Atlantic in 1984 and 1992, respectively. Therefore, this report discussed the longline fishery in detail.

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 logbook coverage from the Japanese longline fleet operating in the Atlantic has been very good (90-95 %) before 2006. The current coverage, which completed collation in electronic form for 2007 and 2008, is estimated to be about 82% in both years. The logbooks were submitted quickly because the every ten days reporting system has been applied since August 2008, therefore the current coverage (82%) is very high in comparison with 58% at the same time last year.

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 Trend of fishing effort

The number and fishing days of the Japanese longliners which operated in the Atlantic in the 2008 calendar year was estimated to be 184 and 30,300 days (**Table 1** and **Figure 1**), which suggests that the fleet remained a longer time in the Atlantic in 2008.

The annual geographic distribution of the longline fishing effort in 2007 and 2008 (**Figure 2**) showed that fishing effort was exerted in a wide area of the North Atlantic from 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. On the other hand, nearly no fishing effort was observed in the waters off southern America. The seasonal distribution (**Figure 3**) clearly indicated a high concentration of fishing effort in areas such as the south of Iceland, off the 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 4th quarter to the 1st quarter, while the tropical fishing grounds are fished all year round.

1.4 Catch trends

In calendar year 2008, the catches of tunas and tuna-like fishes (excluding sharks) in the Atlantic Ocean and the Mediterranean Sea by the Japanese fishery are estimated to be 40,413 t (**Table 2**). Although the total amount of fishing effort in 2008 was 102% (**Table 1**) of the average for the last ten years (1999-2008), the total catches excluding discards and sharks in 2008 were 124% of the average catch for the same years (**Table 2**). The most important species was still bigeye tuna, representing 50% of the total tuna and tuna-like fish catch in 2008.

The next dominant species was yellowfin tuna, which occupied 19% in weight and the third species was bluefin tuna (8%). The remaining species were mainly comprised of swordfish, blue marlin, albacore and southern bluefin tuna. The total catch declined until 2006 and then recovered since 2007. In 2008, all the major species, except for bigeye and bluefin, showed catches that were above the past average catches (141-180 %) (**Table 2**). The bluefin and bigeye catches represented near average catch, 94% and 96% of the average catches, respectively. There were no swordfish catches in the North Atlantic between February 2000 and 2003 as all catches of this species were discarded. The area breakdown of catches by species is also shown in **Table 3** for the recent two years (2007-2008).

The geographic 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 geographic 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 the inter-tropical area between 30°N and 20°S, respectively. Large catches of yellowfin tuna and swordfish were recorded in tropical waters. These patterns are shown more clearly in **Figure 9** which indicates geographic distribution of catch composition by species.

1.5 New developments or shifts in the fishery

No new developments or drastic changes in trends were observed in recent years. A declining trend in the total amount of fishing effort was observed in general and, in particular, during 1994 and 2007 in the Atlantic. Effort recovered to some extent in 2003 and in the last year (**Figure 1**).

Section 2: Research and Statistics

The NRIFSF has been in charge of data collection and compilation of Atlantic tuna fishery data necessary for scientific research on Atlantic tuna and billfish stocks. The 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 inter-sessional meetings of the Standing Committee on Research and Statistics (SCRS).

2.1 Fishery data

The NRIFSF provided near final 2007 and 2008 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, nine observer trips on longline boats in the Atlantic were conducted between August 2008 and March 2009. A total of 732 fishing days were monitored. This year's activities, which have already started, will be conducted in eight trips between September 2009 and March 2010, which are planned to tag three pop-up-tags for bluefin tuna.

2.2 Tuna biology and stock assessment

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

This year, the NRIFSF and other affiliated scientists participated in the following ICCAT-related meetings in addition to the regular SCRS meetings: Inter-sessional Meeting of the Tropical Tunas Species Group (Madrid, Spain - April 20 to 25, 2009), 2009 Porbeagle Stock Assessments (Copenhagen, Denmark - June 22 to 27, 2009). In total, two papers were presented to the above meetings

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 vessels

3.1.1 Catch reporting by radio

The FAJ requires all tuna vessels operating in the Atlantic Ocean to submit the following catch information every ten-day period (early-, middle- and late-period of a month) by radio or facsimile to FAJ. In addition, all tuna vessels fishing 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 in real time:

- Catch weight of swordfish, blue marlin, white marlin and bigeye tuna (Ministerial Order on April 2, 1975 and supplemented on December 13, 1991 for swordfish and February 20, 1998 for blue marlin and white marlin, and July 30, 2001 for bigeye tuna).

3.1.2 Implementation of the Vessel Monitoring System (VMS)

All Japanese longline vessels operating in the Convention area are equipped with satellite tracking devices (VMS) on board that started to be installed in 1992. Those Japanese longline vessels are also required to report their positions through VMS in accordance with relevant ICCAT Recommendation.

3.1.3 Catch quotas management

i) Catch quotas

FAJ sets catch quotas for western and eastern Atlantic bluefin 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, all catches are required to be tagged with the designated plastic band distributed to the fishing vessels targeting for bluefin tuna. These vessels are also required to prepare ICCAT Bluefin Tuna Catch Documents (BCDs) provided by FAJ for landing and transshipping.

ii) Fishing year

The FAJ sets the "Fishing Year (August to July)" for the purpose of proper quota management for bluefin tuna, swordfish, blue marlin, white marlin and bigeye tuna. The 2007 quotas for these tunas were applied to the 2007 Fishing Year which started on August 1, 2007 and ended on July 31, 2008.

3.1.4 Number of fishing vessels

The FAJ has submitted the list of all the tuna fishing vessels which are licensed to fish for tuna and tuna-like species in the Convention area based on the 2002 recommendation to establishment of an ICCAT record of vessels over 24 meters authorized to operate in the Convention area.

Since 1998, the FAJ limits 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.

3.2 Minimum size limits

In accordance with ICCAT recommendations, the FAJ prohibits the catch of undersized fish with an exemption of a certain percentage of tolerance, by a Ministerial Order. The catch prohibition of undersized bluefin was established by a Ministerial Order on April 2, 1975 and the FAJ amended this Ministerial Order several times to cover undersized bigeye, swordfish, etc. The latest amendment of this order was in August of 2007 to implement the 2006 Recommendations on bluefin size limits.

3.3 Time and area closure

The FAJ has prohibited Japanese longline vessels to operate in the Mediterranean from June 1 to July 31 by Ministerial Order in accordance with the 1993 ICCAT recommendation. However, this order was amended in August 2007 to comply with Recommendation 06-05 on the extension of the time/area closure for east Atlantic bluefin. The FAJ also has prohibited Japanese longline vessels from operating in the Gulf of Mexico during the first half of a year.

3.4 National Observer Program

Based on the relevant ICCAT recommendations, the FAJ has implemented a national observer program of vessels operating in the North Atlantic. For 2007, the national observer program covered 21.1% of the total number of fishing vessels fishing for bluefin tuna in the North Atlantic Ocean in accordance with the 2006 East Atlantic and Mediterranean bluefin tuna recommendation. Similarly, the program covered about 5.8% of the total number of fishing vessels operating in the entire Atlantic Ocean in accordance with the 2004 recommendation on a multi-year conservation and management program for bigeye tuna.

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 conducts random DNA examination against imported tunas to prevent false import.

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 these documents for fresh product in accordance with the 1993 Recommendation.

The FAJ has reported the data collected by the program to the ICCAT Secretariat on a biannual basis.

From July 28, 2004, the Japanese government started collecting the 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.

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 reported the data collected by the program to the ICCAT Secretariat on a biannual basis.

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 ICCAT Secretariat on 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. 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 Japanese government does not permit their import.

Since November 22, 2004, the Japanese government has implemented the Positive Listing Measures on Farming Facilities based on the 2003 recommendation. 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 2006 recommendation.

Section 4: Inspection Schemes and Activities

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 Japanese tuna vessels. The FAJ dispatched patrol vessels to the North Atlantic during the 2007 fishing season. These vessels also observed fishing activities of other nations' fishing vessels.

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% landing inspection is implemented.

4.3 Management of transshipment

A prior permission from the FAJ is required for any Japanese tuna longline vessels to transship tuna or tuna products to reefers at foreign ports and at sea. 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 by facsimile to 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 vessels' 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 administrative guidance and conducted educational programs for fishermen to use fishing gears and other tools to reduce the 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 operate in the high latitudes of the southern hemisphere where interactions between seabirds often occur, it is required to use Tori-pole and other devices to avoid seabirds from approaching the hooks and baits 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 are collected on 31 items including species, fresh/frozen and type of product.

5.5 Effort limitation

The numbers of Japanese tuna longline vessels which can operate for bluefin tuna in the western Atlantic and in the eastern Atlantic including the Mediterranean have been limited to 15 and 38 vessels, respectively, in the 2007 fishing year. Furthermore, the 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 the FAJ to instruct the relevant fishing vessels to shift fishing grounds, if necessary. The number of longline vessels fishing for bigeye tuna was limited to 235 in 2007 in accordance with the recommendation on a multi-year conservation and management program for bigeye tuna.

5.6 Restriction of re-flagging of vessels

No Japanese large-scale tuna longline vessel is authorized to operate on the high seas unless the government of Japan issues a license. No Japanese vessel can escape from 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 operation 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 these 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 the tuna supply.

Since November 1999, the FAJ has implemented a mandatory reporting system, based on this law, to obtain more information on the 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 transported their tuna.

5.8 Scrapping of IUU vessels

To implement the Japan-Chinese Taipei Action Programs to eliminate the IUU fishing vessels, the Japanese government budgeted during 2001-2003 for the scrapping of IUU tuna longline vessels of Japanese origin. The total amount of the budget for this three-year program was about US$ 28 million (3.3billion 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 were 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 do not operate in the Atlantic any more.

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 representatives from fishermen, importers, distributors, processors and consumers. One of the main tasks of the 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. Another task of the OPRT 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 and the Seychelles have joined OPRT.

Table 1. Annual number of Japanese tuna boats that operated in the Atlantic and Mediterranean, 1981-2008.

	Longline			*Purse seine*	*Pole-and-line*
Year	*Number of boats*	*Fishing days (sets in 100)*	*Fishing days per boat*	*Number of boats*	*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	212	319	151	-	-
2004	216	323	150	-	-
2005	208	290	140	-	-
2006	186	252	135	-	-
2007[1]	155	254	164	-	-
2008[1]	184	303	164	-	-
average (1999-2008)	198	295	149	-	-
2007 average	78%	86%	110%		
2008 average	93%	102%	110%	-	-

[1] 2007 and 2008 values are almost final.

Table 2. Catches (t) of tuna and tuna-like fishes taken by the Japanese longline fishery, 1981-2008. The grand total includes sharks but excludes discards.

Year	*Bluefin*	*Southern bluefin*	*Albacore*	*Bigeye*	*Yellowfin*	*Swordfish*	*Blue marlin*[1]	*Black marlin*	*White marlin*	*Sailfish*[2]	*Spearfish*	*Others*	*Sub-total*	*Sharks*	*Bluefin discards*	*Swordfish discards*	*Grand Total*
1981	4,386	2,506	2,298	21,044	4,145	2,233	468		143	94		319	37,636				
1982	3,826	1,135	1,350	32,867	6,062	3,728	1,132		111	173		410	50,794				
1983	3,997	505	1,318	15,141	2,069	1,899	440		44	69		114	25,596				
1984	3,246	1,636	800	24,310	3,967	3,789	833		76	97		342	39,096				
1985	2,523	1,468	1,467	31,602	5,308	4,323	1,090		126	122		468	48,497				
1986	1,664	389	1,209	22,801	3,404	2,660	508		129	99		378	33,241				
1987	2,140	1,120	851	18,575	3,364	2,294	438		134	43		341	29,300				
1988	2,536	548	1,128	31,664	5,982	4,055	823		144	79		366	47,325				
1989	2,523	625	1,214	39,419	6,971	5,593	1,555		146	78		390	58,514				
1990	2,186	1,202	1,324	35,024	5,919	7,307	1,216		126	88		538	54,930				
1991	3,754	1,331	1,346	29,489	4,718	4,688	905		121	88		443	46,883				
1992	3,985	525	1,048	34,128	3,715	3,541	1,017		248	43		265	48,515				
1993	3,858	1,688	951	35,053	3,096	6,386	928		82	60		815	52,917				
1994	3,038	595	1,157	38,502	4,782	4,763	1,524	6	92	53	38	513	55,063	3,221			58,284
1995	5,171	1,409	758	34,223	5,046	3,563	1,366	1	55	52	28	826	52,498	2,149			54,647
1996	4,542	1,219	901	33,171	5,251	3,795	1,679	2	112	50	29	783	51,534	1,364			52,898
1997	3,498	301	838	26,489	3,538	2,765	1,349	1	58	36	31	415	39,319	1,304	8		40,631
1998	4,276	926	884	25,601	5,413	2,518	1,067	2	50	50	40	801	41,628	1,524	-	-	43,152
1999	3,436	946	1,027	21,833	3,405	1,869	790	0	40	26	44	685	34,101	1,001	-	-	35,102
2000	3,523	1,205	1,241	24,605	4,061	954	883	2	83	39	40	734	37,370	696	-	598	38,066
2001	3,083	376	1,467	18,087	2,692	686	335	1	56	9	23	313	27,128	675	-	567	27,803
2002	3,501	1,152	942	15,306	2,105	833	267	2	16	23	28	531	24,705	898	-	319	25,603
2003	3,068	1,952	1,002	20,528	3,049	956	459	1	33	32	65	958	32,102	1,089	-	263	33,191
2004	3,123	92	1,402	18,509	6,260	1,263	539	2	36	75	77	336	31,715	1,464	-	0	33,179
2005	3,241	354	1,648	14,026	4,247	1,189	442	1	34	72	98	479	25,830	1,692	-	0	27,522
2006	2,828	303	1,097	15,735	4,643	1,746	490	2	39	67	74	463	27,486	2,166	-	0	29,653
2007[3]	2,355	25	527	17,993	9,037	1,791	920	3	21	145	61	322	34,454	3,093	-	0	36,292
2008[3]	2,922	1,049	1,949	17,704	6,824	2,314	1,123	1	36	258	105	1,013	35,697	5,115	-	0	40,413
average (1999-2008)	3,108	745	1,230	18,433	4,632	1,360	625	1	39	75	62	583	31,059	1,789	-	-	32,682
2008[3] average	94%	141%	158%	96%	147%	170%	180%	57%	92%	346%	171%	174%	115%	286%			124%

[1] Blue marlin and black marlin were not separated in the catches until 1993.

[2] Sailfish and spearfish were not separated in the catches until 1993.

[3] 2007 and 2008 values are almost final.

Table 3. Area breakdown of Task I catches (t) taken by the Japanese longline fishery in 2007 and 2008. ICCAT area definition is used for tunas and billfishes. For other species, north and south, and east and west are separated at 5N and 30W, respectively. The Mediterranean Sea is separated by both west-east and north-south area division.

2007[1]

Species	*West*	*East*	*North*	*South*	*Med*	*Total*
Bluefin	277	1,612	1,889	0	466	2,355
Southern bluefin	0	25	0	25	0	25
Albacore	226	301	288	238	0	527
Bigeye	3,880	14,113	7,583	10,410	0	17,993
Yellowfin	541	8,496	1,366	7,670	0	9,037
Swordfish[2]			889	1,422	3	2,314
White marlin	6	15	10	11	0	21
Blue marlin	148	771	221	699	0	920
Black marlin	0	3	0	3	0	3
Sailfish	1	144	8	138	0	145
Spearfish	32	28	40	21	0	61
Blue shark	623	2,194	1,921	896	3	2,820
Other sharks	55	218	122	151	0	273
Other fishes	60	262	147	175	0	322
Total	6,187	30,888	14,485	22,591	472	37,547

[1] Almost final.
[2] Discards in the North Atlantic are not included.

2008[3]

Species	*West*	*East*	*North*	*South*	*Med*	*Total*
Bluefin	492	2,351	2,842	0	80	2,922
Southern bluefin	0	1,049	0	1,049	0	1,049
Albacore	401	1,548	437	1,511	0	1,949
Bigeye	4,421	13,283	7,918	9,786	0	17,704
Yellowfin	1,097	5,727	2,353	4,471	0	6,824
Swordfish[4]			986	803	2	1,791
White marlin	19	17	24	13	0	36
Blue marlin	447	675	536	587	0	1,123
Black marlin	0	1	0	1	0	1
Sailfish	37	220	60	198	0	258
Spearfish	51	54	57	49	0	105
Blue shark	1,542	3,089	2,686	1,945	2	4,633
Other sharks	104	377	184	298	0	482
Other fishes	146	867	264	749	0	1,013
Total	9,352	31,376	18,346	22,381	84	40,812

[*3] Almost final.
[*4] Discards in the North Atlantic are not included.

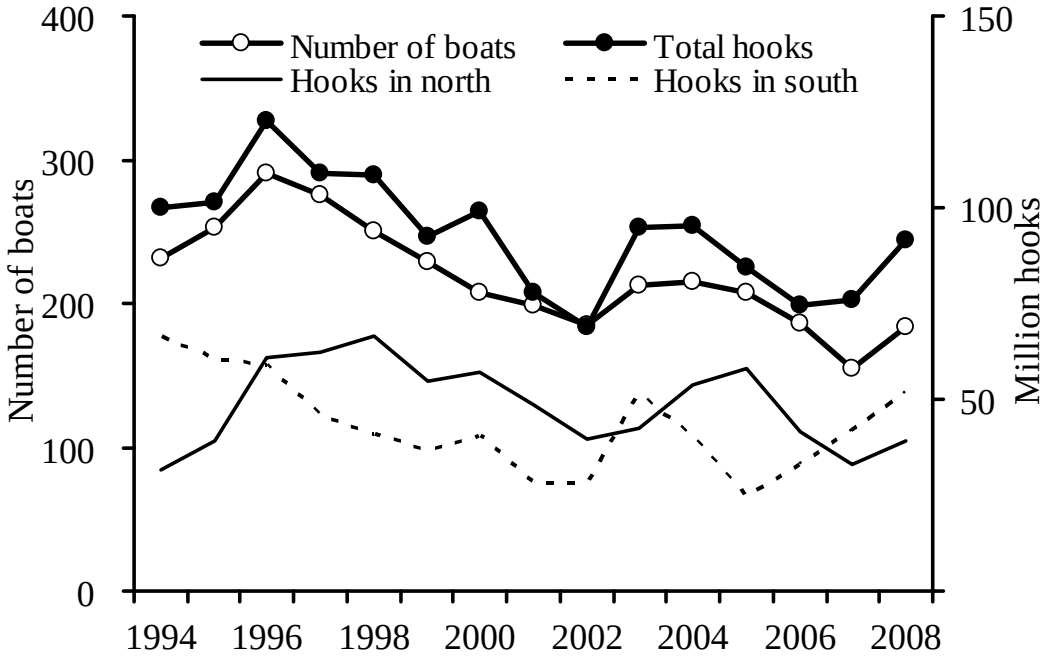

Figure 1. Trends in fishing effort (number of boats operated and number of hooks used) exerted by the Japanese longline fishery, 1999-2008.

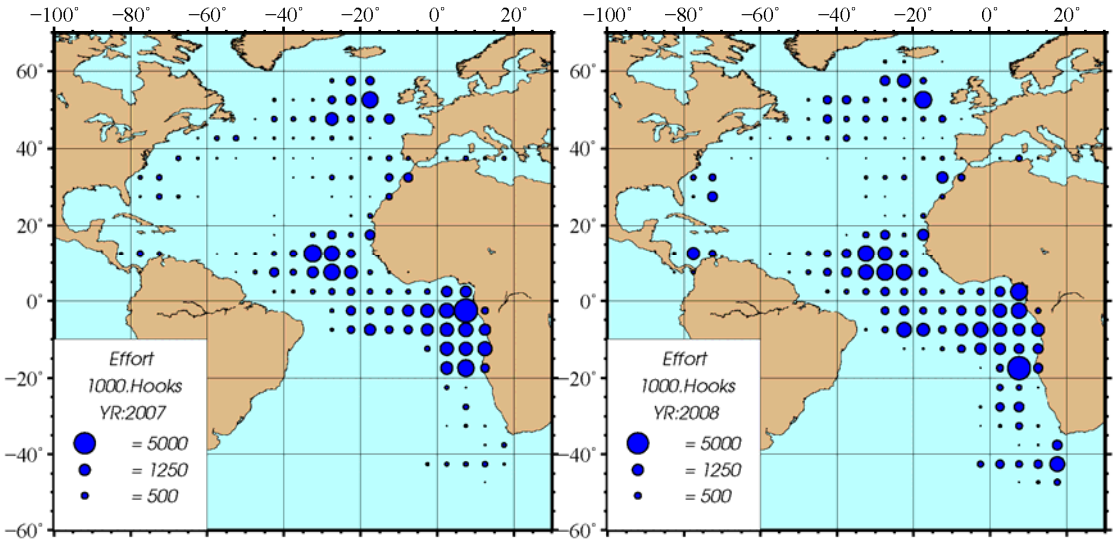

Figure 2. Geographic distribution of the Japanese longline effort (number of hooks) in the Atlantic for 2007 (left) and 2008 (right).

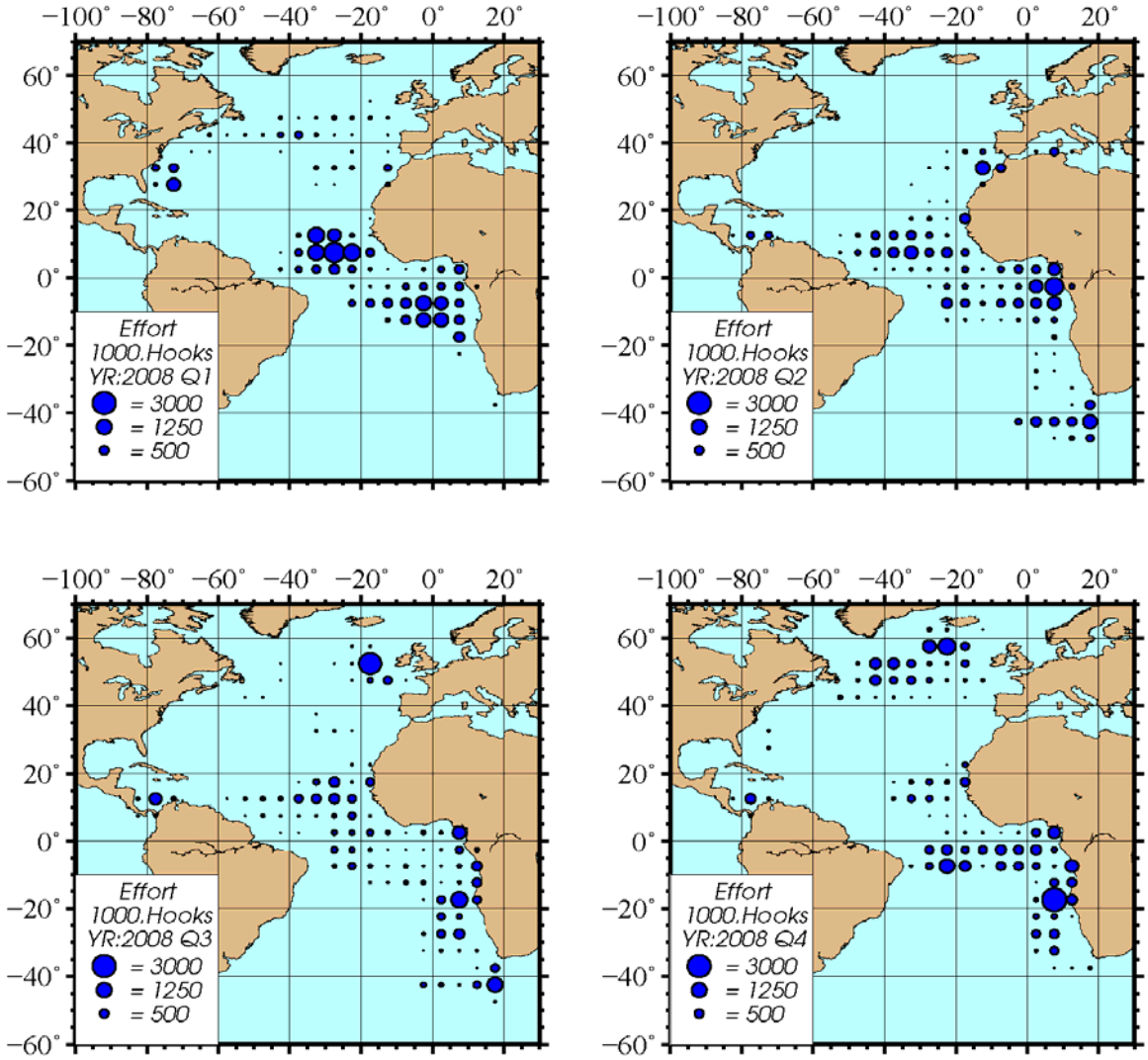

Figure 3. Quarterly distribution of the Japanese longline effort (number of hooks) in the Atlantic for 2008.

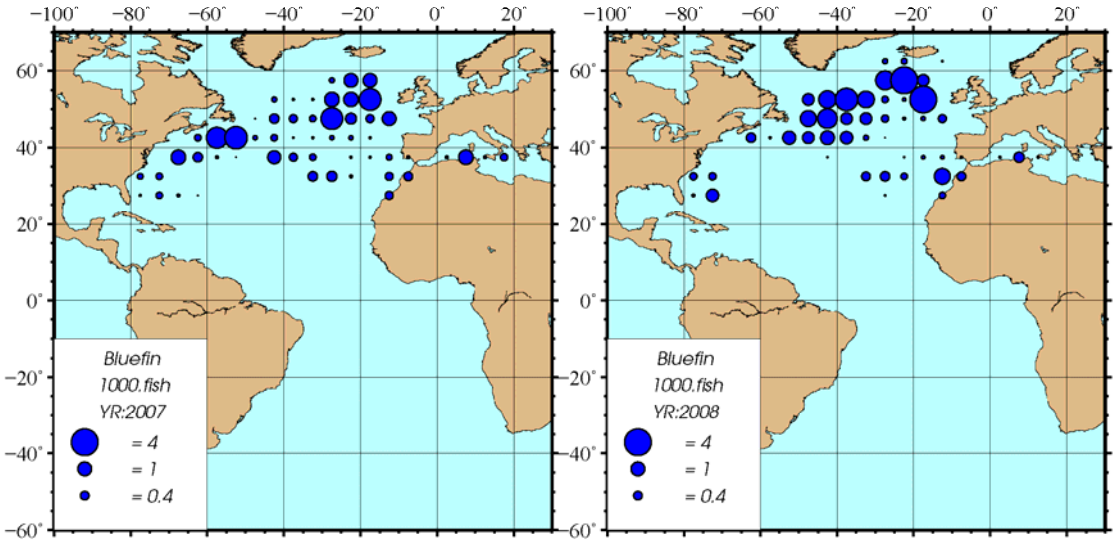

Figure 4. Geographic distribution of bluefin catch (number) in the Atlantic for 2007 (left) and 2008 (right).

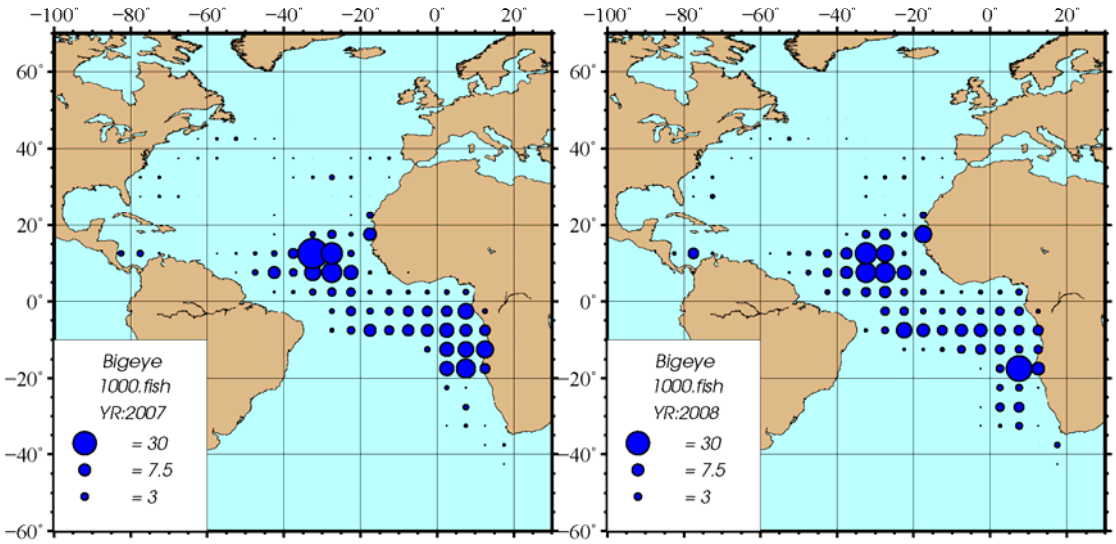

Figure 5. Geographic distribution of bigeye catch in number in the Atlantic for 2007 (left) and 2008 (right).

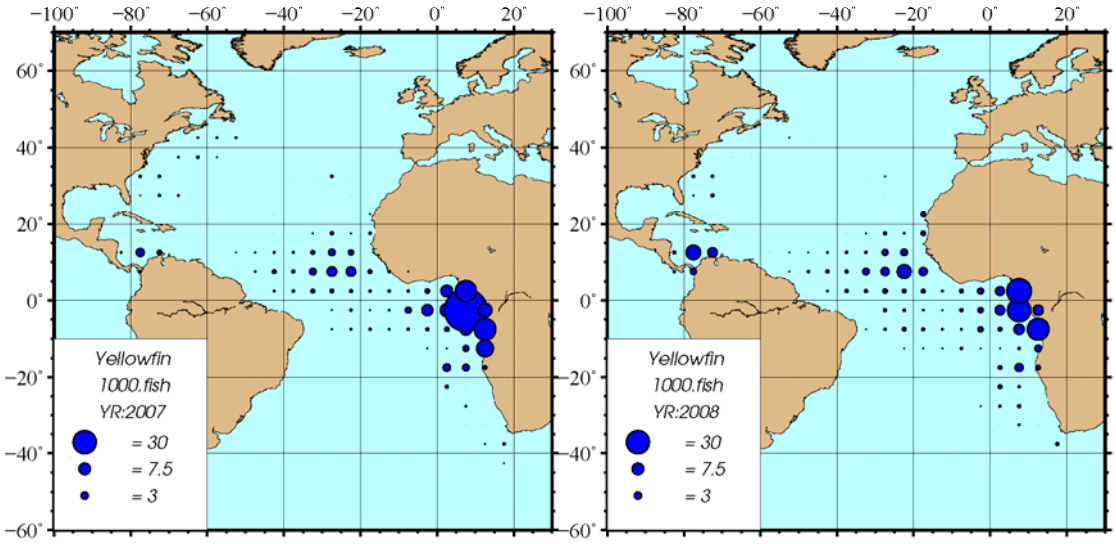

Figure 6. Geographic distribution of yellowfin tuna catch (number) in the Atlantic for 2007 (left) and 2008 (right).

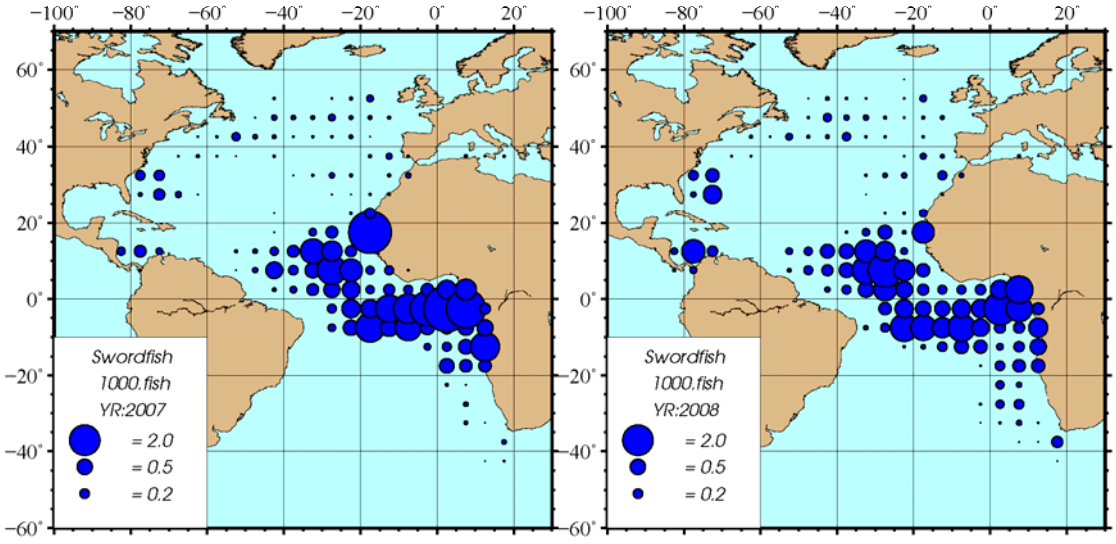

Figure 7. Geographic distribution of swordfish catch (number) in the Atlantic for 2007 (left) and 2008 (right).

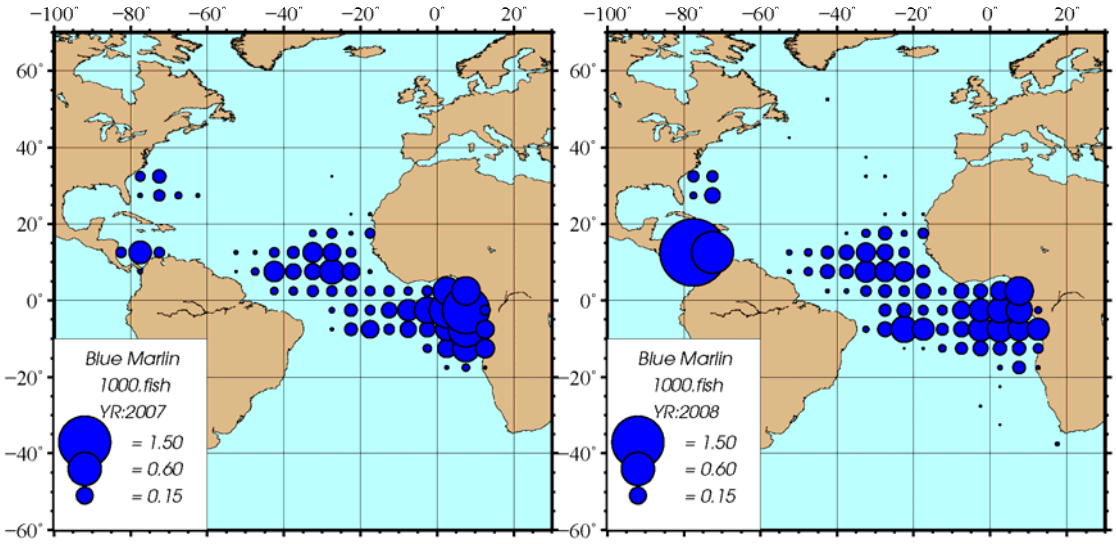

Figure 8. Geographic distribution of blue marlin catch (number) in the Atlantic for 2007 (left) and 2008 (right).

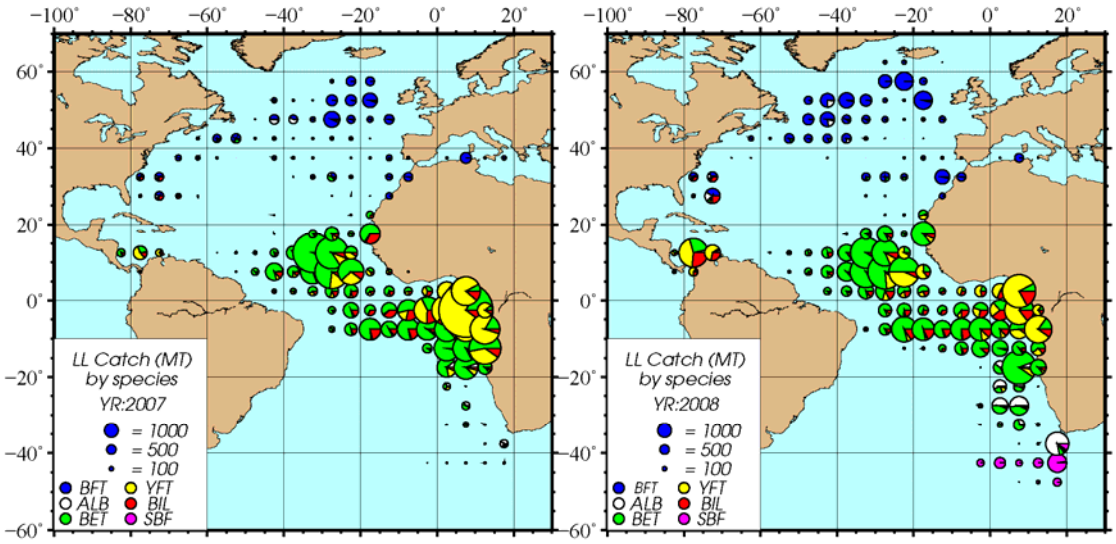

Figure 9. Species composition in the Japanese longline catch, in weight, for 2007 (left) and 2008 (right). The species are categorized into five groups: BFT (bluefin), ALB (albacore), BET (bigeye), YFT (yellowfin), BIL (swordfish and all billfishes) and SBF (southern bluefin).

ANNUAL REPORT OF KOREA*
RAPPORT ANNUEL DE LA CORÉE
INFORME ANUAL DE COREA

Seon Jae Hwang, Doo Hae An, Zang Geun Kim and Kyu Jin Seok[1]

Part I (Information on Fisheries, Research and Statistics)

Section 1: Annual Fisheries Information

1.1 The fishing fleet and catches

The tuna fishery is still one of the most important distant water fisheries in Korea. Most Korean longline and purse seine fisheries occur in the Pacific and Indian Ocean, but the fisheries for Atlantic tuna and tuna-like species have shown a gradual decline year after year since the mid-1980s. During the 1990s, the average number of Korean tuna longliners active in the Atlantic was less than 10 per year, with an annual catch of 1,700 metric tons (t). From mid-1990s, even though 54 longliners were registered in the IOTC area, many registered vessels migrated between the Indian and Atlantic Ocean, depending on the fishing conditions of each ocean. The gear-type-based licensing in Korea, not the limiting of fishing grounds, enables those tuna longliners to switch fishing grounds.

Recently annual catches of tuna and tuna-like species by Korean tuna longliners and purse seiners in ICCAT areas increased and ranged from 2,607 t to 4,668 t (averaged 3,275 t) from 2004 to 2008. The major species were composed of bigeye tuna (50%), yellowfin tuna (20%), bluefin tuna (16%) and swordfish (4%) during recent 5 years. Until recently, bigeye tuna and yellowfin tuna were the most important tuna species for the Korean tuna longline fishery, not only for catch size but also the higher commercial value than any other species sold in sashimi markets.

1.2 Annual trend of catches and number of vessels

The total annual catches of all tuna and tuna-like species in the Atlantic Ocean are given in **Table 1**. The recent changes in catch trends were mainly due to the re-entry of Korean tuna longliners and the operating of purse seiners since 2004 in the Atlantic Ocean. In 2008, one Korean purse seiner (home based in Malta) and 24 Korean longliners operated in the ICCAT area. The total catch was 4,668 t, which was an increase from the previous year. Almost 77% of the total catches was composed of two species: 2,559 t of bigeye tuna (56%), and 993 t of yellowfin tuna (21%). In particular, yellowfin tuna catches increased sharply from 507 t in 2007 to 993 t in 2008.

1.3 Distribution of fishing ground

Korean longliners mainly operated in the tropical area of the Atlantic Ocean and targeted bigeye tuna and yellowfin tuna. Most tuna longliners operated from January to December in 2008 in the central Atlantic Ocean (20˚N ~10˚S, 10°E~45˚W). However, the fishing grounds have fluctuated annually depending on the fishing condition**s** for target species and oceanographic conditions and the main fishing grounds concentrated in statistical area 31 and 34 of the Atlantic Ocean **(Figure 1)**. One Korean purse seiner which has a home port in Malta, operated in the Maltese EEZ area (34˚N, 21°E) for one month in the Mediterranean Sea.

Section 2: Research and Statistics

The National Fisheries Research and Development Institute (NFRDI) has carried out routine scientific monitoring work over the past years. This monitoring covered collections of catch and fishing effort statistics from the Korean tuna longliners and purse seiners in the Atlantic Ocean in 2008. The requested Task I and Task II data have been provided to the ICCAT Secretariat.

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* No summary provided. / Aucun résumé soumis. / No se ha facilitado el resumen.

[1] National Fisheries Research and Development Institute, Busan, Korea.

2.1 Observer program

Korea began to develop its observer program for distant-water fisheries including tuna fisheries in 2002. The purpose of this program is to meet the requirements of relevant regional fisheries management organizations or bodies. Therefore, the mission of trained observers is similar to those set out in the convention of the fisheries management organizations or bodies. Before the official observer program was launched, Korea had irregularly dispatched NFRDI scientists aboard commercial tuna vessels to monitor fishing activities and collect reliable catch data including biological samples, which were unobtainable through the regular data collection system.

In 2008, nine observers were deployed 13 times on Korean distant-water fishing vessels by NFRDI's observer program. Of the 13 observation periods, only one observer was deployed on a tuna purse seine vessel operated in Malta's EEZ to catch bluefin tuna in the Mediterranean. To reduce the by-catch of seabird**s,** sea turtles and sharks by the tuna longline fishery and purse seine fishery, Korean guide books and posters summarizing information of these species were distributed to fishing vessels with by-catch logbook sheets since 2008.

2.2 Data reporting system

The official catch statistics have been compiled and reported in "Distant Water Fishery Information System" by the Ministry for Food, Agriculture, Forestry and Fisheries (MIFAFF), which covers the entire world since 2000. National Fisheries Research & Development Institute (NFRDI) has a database system "OFIRIS (Ocean and Fisheries Integrated Research Information System)" which compiles logbook data collected from the vessels operating in the Atlantic Ocean.

The total coverage of the NFRDI database was about 68% of the official catch statistics of MIFAFF for ICCAT areas in 2007. The catch levels were derived from the catch levels for the entire Atlantic Ocean (catch statistics of MIFAFF) by multiplying the ratio of catch estimated from the logbook data of NFRDI (OFIRIS). The unit of catch is metric tons and the total weight of tuna and tuna-like species was derived from the rounded weights by ICCAT conversion factors.

Part II (Management Implementation)

Section 3: Implementation of ICCAT Conservation and Management Measures

To implement the recommendations adopted by ICCAT, Korea has introduced these in its domestic regulations. These include a minimum size limit for bigeye, yellowfin, bluefin tuna and swordfish. With a view to protecting the spawning stock of northern bluefin tuna in the Mediterranean Sea, a new domestic regulation has been effective since 1995.

Table 1. Nominal catch (t) of tuna and tuna-like species by the Korean longline and purse seine fisheries in the Atlantic Ocean, 1985-2008.

Year	*No. of vessels*	*BFT*	*YFT*	*ALB*	*BET*	*SBT*	*SKJ*	*SWO*	*BUM*	*WHM*	*SAI*	*Others*	*Total*
1985	45	77	3,239	901	10,691	-	20	344	416	372	101	1,293	17,454
1986	28	156	1,818	694	6,084	-	11	82	96	71	16	1,093	9,965
1987	29	1	1,457	401	4,438	-	6	75	152	27	21	1,048	7,625
1988	29	12	1,368	197	4,919	-	3	123	375	19	15	782	7,801
1989	33	45	2,535	107	7,896	-	6	162	689	135	33	944	12,507
1990	17	20	808	53	2,690	-	-	101	324	81	41	240	4,338
1991	9	229	260	32	801	-	-	150	537	57	30	267	2,134
1992	8	101	219	-	866	-	-	17	38	1	1	321	1,463
1993	4	573	180	-	377	-	-	-	19	2	1	308	887
1994	4	684	436	-	386	-	-	-	-	91	1	27	1,625
1995	4	663	453	-	423	-	-	-	61	1	-	114	1,715
1996	16	683	381	-	1,250	-	-	26	199	37	6	156	2,738
1997	12	613	257	5	796	10	-	33	70	24	1	115	1,924
1998	5	-	65	-	163	-	-	-	-	-	-	62	290
1999	9	-	94	-	124	28	-	-	-	-	-	31	277
2000	9	-	143	-	70	62	7	-	-	-	-	10	292
2001	5	0.5	3.4	1.4	1.3	157.7	-	0.1	0.5	-	-	27.4	192
2002		-	7.8	-	87.3	-	-	1.5	-	-	-	-	97
2003	3	-	209	5	143	-	-	24	-	11	-	10	402
2004	13	700	984	37	629	-	-	70	-	40	-	147	2,607
2005	13	1,146	675	101	770	-	-	87	-	7	-	109	2,895
2006	8	79	283	111	2,067	-	-	159	-	-	-	71	2,770
2007	21	276	507	68	2,136	42	-	264	-	94	-	50	3,437
2008	25	335	993	147	2,599	229	-	143	-	96	-	37	4,668

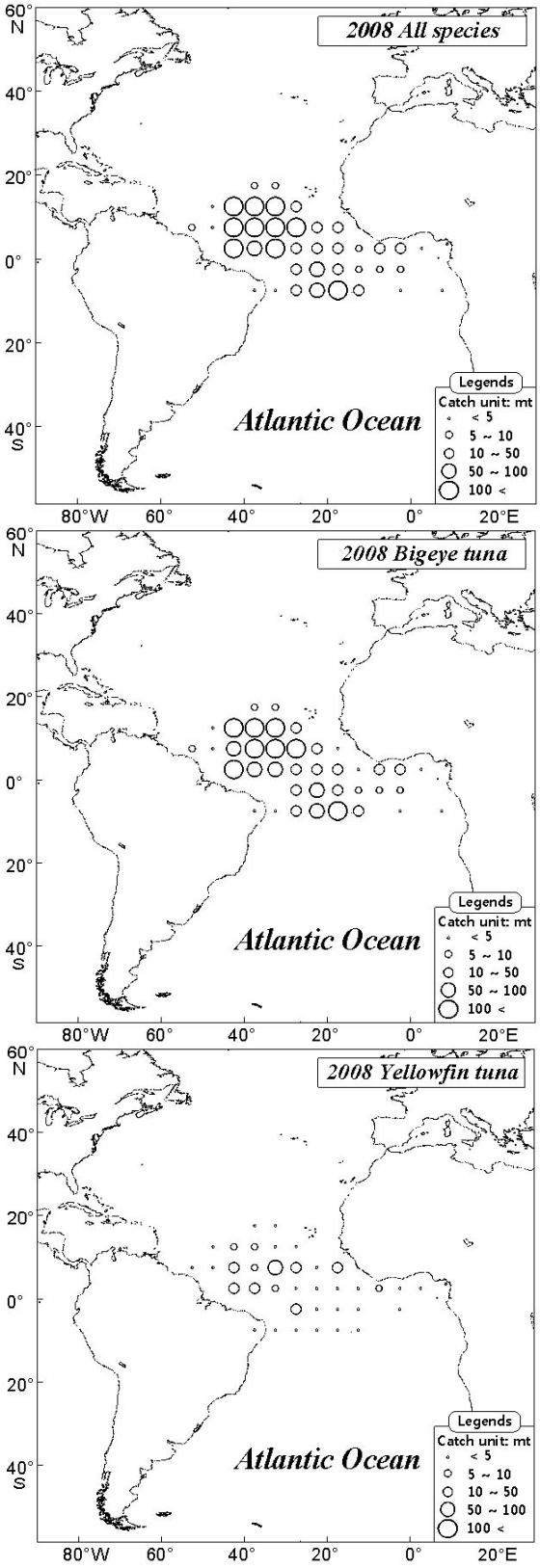

Figure 1. Catch distribution of tunas by the Korean longline fishery in 2008.

ANNNUAL REPORT OF LIBYA
RAPPORT ANNUEL DE LA LIBYE
INFORME ANUAL DE LIBIA

General Authority of Marine Wealth

SUMMARY

In 2008 fishing season only bigeye tuna was targeted by Libyan fishing fleet in the Mediterranean Sea, using two types of fishing gear, longline (LL) and purse seine (PS). The total number of vessels engaged in the operation was 30 (2 LL and 28 PS), while the total number of vessels engaged in 2007 season was 36 (2 LL and 34 PS). No traps operated. No other tuna species were targeted by the Libyan fishing fleet in 2008. The total catch of bluefin tuna was 1317.8 tons. Fishing operations for bluefin tuna took place mostly in Libya´s territorial waters. ICCAT conservation measures were respected and observers were put on board each fishing vessel licensed to monitor and control fishing activity.

RÉSUMÉ

Au cours de la saison de pêche 2008, le thon rouge était la seule espèce ciblée par la flottille de pêche libyenne dans la Méditerranée, utilisant deux types d'engin: la palangre (LL) et la senne (PS). Le nombre total de navires prenant part aux opérations s'élevait à 30 unités (2 palangriers et 28 senneurs), alors que le nombre total de navires qui ont opéré au cours de la saison de 2007 s'élevait à 36 (2 palangriers et 34 senneurs). En 2008, aucune madrague n'était en opération et la flottille de pêche libyenne n'a ciblé aucune autre espèce thonière. La prise totale de thon rouge s'est chiffrée à 1.317,8 t. Les opérations de pêche ciblant le thon rouge ont eu lieu principalement dans les eaux territoriales libyennes. Les mesures de conservation de l'ICCAT ont été respectées et des observateurs ont été embarqués à bord de chaque navire de pêche muni d'une licence afin d'effectuer un suivi et un contrôle des opérations de pêche.

RESUMEN

En la temporada de pesca de 2008, el atún rojo fue la única especie a la que se dirigió la flota pesquera libia en el Mediterráneo, utilizando dos tipos de arte: palangre (LL) y cerco (PS). El número total de buques que participó en las operaciones se situó en 30 (2 LL y 28 PS), mientras que el número de buques que participó en la temporada de 2007 fue de 36 (2 LL y 34 PS). No hubo almadrabas operativas y la flota pesquera libia no dirigió su actividad a otras especies de túnidos en 2008. La captura total de atún rojo ascendió a 1.317,8 t. Las operaciones de pesca de atún rojo se desarrollaron sobre todo en las aguas territoriales libias. Se respetaron las medidas de conservación de ICCAT y se embarcaron observadores a bordo de todos los buques con licencia para que siguiesen y controlasen las operaciones de pesca.

Part I (Information on Fisheries, Research and Statistics)

Section 1: Annual Fisheries Information

1.1 Types of fisheries

The main fishing effort was concentrated to catch the target species (bluefin tuna) which is a highly migratory species along the Libyan coast during the annual fishing season according to the ICCAT recommendation measures [Rec. 08-05]. During the 2008 fishing season, only two types of fishing gears was used: longline (LL) and purse seine (PS); there was no fixed trap activity during the 2008 fishing season.

1.2 Fishing effort trends

The total number of active fishing vessels during 2008 season was 30 (2 LL and 28 PS). The total number of fishing vessels was less as compared to previous years. There were four LL and 36 PS during the 2007 season.

1.3 Catch trends

The total catch of bluefin tuna in 2008 was 1317.8 tons. Data on the bluefin tuna catch during the 2003-2008 period are shown in **Table 1**.

Section 2: Research and Statistics

Data collection from the bluefin tuna fishery is necessary for scientific research. The required statistical data have been collected by scientific observers on board the longline vessels during 2008 season.

2.1 Fishery data

Some biological data and partial size frequency data (Task I and Task II) from longline fishing vessels were collected and analyzed, as shown in **Figures 1, 2** and **3**.

Part II (Management Implementation)

Section 3: Implementation of ICCAT Conservation and Management Measures

Bluefin tuna has been the only species targeted by Libyan fishing vessels in the last few years and the fleet´s fishing activity is concentrated in Libya territorial waters. In order to ensure a sustainable fishing activity for bluefin tuna, the General Authority for Marine Wealth (GAMW) issued Decision #28/2008, which regulates the licensing, monitoring, control and inspection of bluefin tuna fishing activities. The control measures adopted by ICCAT, Rec.06-05, are transposed into this decision by the GAMW.

The action taken by Libya concerning this section is reported in more detailed in the Libyan report on the implantation of Rec.06-05 in the 2008 fishing season which was transmitted to ICCAT Secretariat.

Section 4: Inspection Schemes and Activities

Libya required all fishing vessels fishing in its territorial waters during the 2008 season to have two observers on board (one representing the fishing authority and one from the Coast Guard); their missions are to monitoring and control fishing activity.

Table 1. Data on bluefin tuna catches during 2003-2008.

Year	*Initial quota (t)*	*Current catch (t)*
2003	1286	752.2
2004	1300	1299.6
2005	1400	1090.7
2006	1440	1254
2007	1280.14	1359
2008	1236.99	1317.8

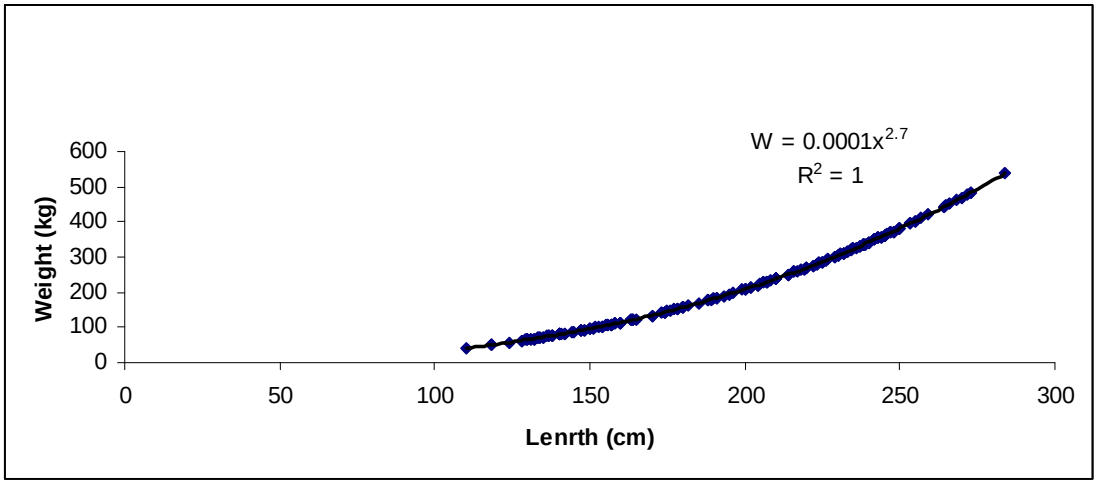

Figure 1. Length-weight relationship of bluefin tuna caught by longline in Libyan waters in 2008 (n=203).

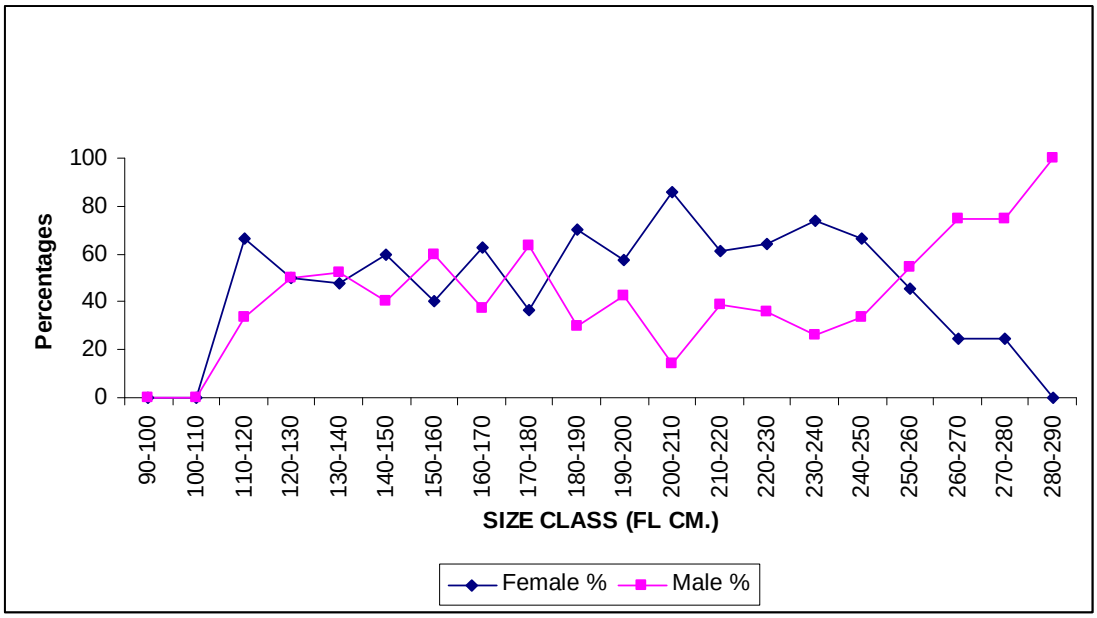

Figure 2. Female and male % frequency distribution of bluefin tuna caught by longline in Libyan waters in 2008 (n=203).

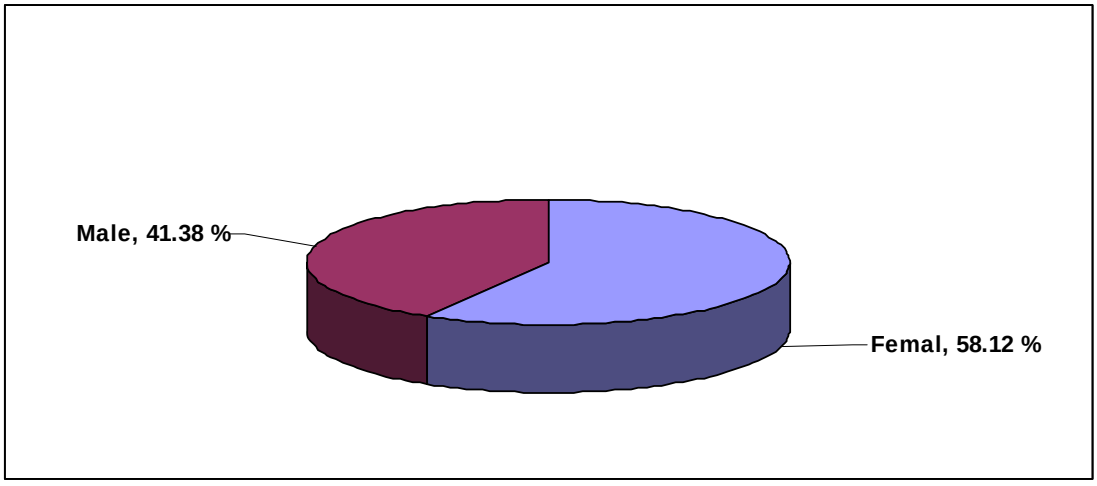

Figure 3. Sex ratio of male and female bluefin tuna caught by longline in Libyan waters in 2008.

ANNUAL REPORT OF MEXICO
RAPPORT ANNUEL DU MEXIQUE
INFORME ANUAL DE MÉXICO

Ramón Corral Avila[1], Luis F. Beléndez[2]

SUMMARY

The 2008 annual report of Mexico is presented concerning the fishing of yellowfin tuna (Thunnus albacares) *and its incidental catch in the Gulf of Mexico within the framework of the Commission´s conservation and management. In 2008, fishing effort registered 27 vessels that carried out 317 trips, in which 3,149 set were made during 5,666 days fishing and 1,813,188 hooks were used. The total catch was comprised mainly of the target species and, in a lesser proportion, by the incidental catch that is represented mainly by the following groups: (a) other tunas, (b) billfishes and similar species, (c) sharks and rays, and (d) other fish. In 2008, the catch of yellowfin tuna amounted to 956 t. In the last five years, the catches declined to 1,362 t, 1,207 t, 1050, t, 938 t, and 890 t in 2003, 2004, 2005, 2006 and 2007, respectively. Mexico strictly applies its legal framework to the fishing operations and in this sense it confirms the national position in support of the recommended legal and regulatory framework and strengthens efforts in scientific research to improve the yields of the target species and to reduce the incidental catch, and thus provide effective administration of tuna longline fishing in the Gulf of Mexico.*

RÉSUMÉ

*Le rapport annuel de 2008 du Mexique est ici présenté et se réfère à la pêche d'albacore (*Thunnus albacares*) et à la prise accessoire de cette espèce dans le Golfe du Mexique, dans le cadre de la conservation et de la gestion de la Commission. En 2008, l'effort de pêche a compté 27 navires, qui ont réalisé 317 sorties, au cours desquelles 3.149 opérations de pêche ont eu lieu, sur un total de 5.666 jours de pêche avec 1.813.188 hameçons. La prise totale (kg) a été composée, pour la plupart, de l'espèce ciblée et, dans une moindre mesure, de prises accessoires de poissons appartenant surtout aux groupes ci-après: (a) autres thonidés, (b) makaires et espèces apparentées, (c) requins et raies-mantas, et (d) autres poissons. En 2008, la capture d'albacore s'est élevée à 956 t. Au cours de ces cinq dernières années, les captures ont été ramenées à 1.362 t, 1.207 t, 1.050 t, 938 t et 890 t en 2003, 2004, 2005, 2006 et 2007, respectivement. Le Mexique applique strictement son cadre normatif aux opérations de pêche et, dans ce sens, il ratifie la position nationale de se conformer au cadre normatif et réglementaire recommandé et de renforcer les efforts en matière de recherche scientifique afin d'améliorer les rendements de la pêche d'espèces ciblées, de réduire les prises accessoires, et de garantir ainsi une gestion efficace de la pêche de thonidés à la palangre dans le Golfe du Mexique.*

RESUMEN

*Se presenta el informe anual 2008 de México referente a la pesca del atún aleta amarilla o rabil (*Thunnus albacares*) y su captura incidental en el Golfo de México dentro del marco de conservación y ordenación de la Comisión. Durante 2008 el esfuerzo pesquero registró 27 barcos que realizaron 317 viajes en los que se realizaron 3,149 lances en 5,666 días de pesca y se utilizaron 1´813,188 anzuelos. La captura total ha estado integrada en su mayoría por la especie objetivo de pesca y en menor proporción por la captura incidental, representada principalmente por los grupos: (a) otros atunes, (b) marlines y especies afines, (c) tiburones y mantarayas, y (d) otros peces. En el año 2008 se registró una captura de atún aleta amarilla de 956 t; en los últimos cinco años las capturas han registrado un decremento por el orden de las 1,362 t, 1,207 t, 1,050 t, 938 t y 890 t en 2003, 2004, 2005, 2006 y 2007, respectivamente.*

[1] Comisionado Nacional de Acuacultura y Pesca. Av. Camarón Sábalo S/N esq. Tiburón. Col. Sábalo Country Club, C. P. 82100. Mazatlán, Sin., México. rcorrala@conapesca.sagarpa.gob.mx
[2] Instituto Nacional de Pesca. Dirección General de Investigación Pesquera en el Atlántico. Av. Ejercito Mexicano No.106, Col. Ex-hacienda Ylang Ylang, C. P. 94298. Boca del Río, Ver., México. luis.belendez@inapesca.sagarpa.gob.mx

México aplica de manera estricta su marco normativo a las operaciones pesqueras de merito y en ese sentido ratifica la posición nacional de apoyar al marco normativo y regulatorio recomendado, y fortalecer los esfuerzos en materia de investigación científica para mejorar los rendimientos de la pesca objetivo y reducir la captura incidental, y así propiciar una efectiva administración de la pesca del atún con palangre en el Golfo de México.

Introducción

La pesca oceánica que realiza la flota mexicana con palangre en el Golfo de México tiene como objetivo de pesca el atún aleta amarilla o rabil (*Thunnus albacares*), cuyas capturas en los últimos cinco años han registrado un descenso en sus cifras. Esta pesquería tiene carácter regional, de la cual la información se obtiene de los viajes vía la pesca comercial a través del Programa de Observadores abordo, que forma parte del Programa Nacional de Aprovechamiento del Atún y Protección de Delfines (PNAAPD). Las embarcaciones tienen como base los puertos pesqueros en Tuxpan, Ver., y Progreso, Yuc., principalmente. Se trata de una flota pesquera de mediana altura con actividad permanente en la Zona Económica Exclusiva (ZEE) en el Golfo de México y Mar Caribe. Durante los últimos cuatro años, en promedio se han registrado 30 embarcaciones con 368 viajes por año.

La captura total ha estado integrada en su mayoría por la especie objetivo de pesca y en proporción sustantivamente menor por la captura incidental, representada principalmente por los grupos: a) otros atunes, como el atún aleta azul o rojo (*Thunnus thynnus*), el patudo (*Thunnus obesus*), el barrilete (*Katsuwonus pelamis*), el atún aleta negra (*Thunnus atlanticus*) y peto (*Acanthocybium solandri*); b) marlines y especies afines, como el pez espada (*Xiphias gladius*), el pez vela (*Isthiophorus albicans*), el marlín azul (*M. nigricans*) y marlín blanco (*Tetrapturus albidus*); c) tiburones como, tiburón puntas negras (*C. limbatus*), el mako o marrajo (*Isurus oxyrinchus*), tiburón zorro (*Alopias spp.*) y tintorera (*Galeocerdo couvier*); d) otros peces, como la lanceta (*Alepisaurus spp.*) y el aceitoso (*Lepidocybium flavobrunneum*). Esta captura además se ha clasificado de acuerdo a su destino en captura embodegada o retenida, captura liberada viva y captura descartada muerta. Lo anterior en consistencia con las recomendaciones y resoluciones aplicables de la Comisión.

Durante los últimos tres años, México ha llevado a cabo el análisis espacial y temporal del estado de la captura total con palangre en el Golfo de México. Asimismo, ha dirigido sus esfuerzos para facilitar el manejo y análisis de la información proveniente de PNAAPD con el objetivo de dar atención a las solicitudes de información tanto nacional como internacional.

Parte I (Información sobre pesquerías, investigación y estadísticas)

Sección 1: Información anual sobre pesquerías

En relación al esfuerzo pesquero de la flota palangrera mexicana del Golfo de México dirigido a la captura de atún aleta amarilla durante 2008, se registraron 27 barcos que realizaron 317 viajes en los que se realizaron 3,149 lances en 5,666 días de pesca y se utilizaron 1´813,188 anzuelos.

La captura total registrada fue de 1,429 t (108,248 organismos) en la que el atún aleta amarilla registró 992 t (30, 745 organismos), de la cual 956 t (27,221 organismos) pertenecieron a la captura retenida, 30 t (2,698 organismos) a captura liberada viva y 5 t (826 organismos) a captura descartada muerta. Se observa que de la captura total del atún aleta amarilla predomina el destino de captura retenida, cuya característica principal es cumplir la calidad de producto para satisfacer la demanda del mercado en los Estados Unidos en calidad de fresco. En el caso de la captura liberada viva, se considera que existe un manejo adecuado por parte del sector pesquero promoviendo la liberación de organismos juveniles, acorde con las recomendaciones de manejo nacional como internacional.

De la captura incidental se registraron en total 437 t (77,504 organismos) de los cuales el grupo de especies de otros atunes registró 45 t (4,949 organismos) de los cuales casi en su totalidad correspondieron a captura retenida. En el caso del grupo de marlines y especies afines se registraron 177 t (6,614 organismos) que correspondieron 175 t (6,457 organismos) a captura retenida y 1 t (126 organismos) a captura liberada viva. Para el grupo de tiburones se registro un total de 45 t (1,335 organismos) de los cuales 34 t (609 organismos) correspondieron a captura retenida, 10 t (692 organismos) captura liberada viva y casi media tonelada (34 organismos) de captura descartada muerta.

La pesca del atún aleta amarilla por la flota palangrera mexicana del Golfo de México se realiza durante los cuatro trimestres, aunque las capturas mayores se registran entre el segundo y tercer trimestre, y en menor medida en el primer y cuarto trimestre. Respecto a la caracterización espacial de la captura, las mayores concentraciones se presentan en el segundo y tercer trimestre, en la parte central del Golfo de México, frente a las costas del estado de Veracruz, situación asociada a la mayor ocurrencia de actividad de la flota palangrera en el Puerto de Tuxpan, Ver. En el caso del primer y cuarto trimestre, la concentración de captura ha sido menor, pero con un patrón de distribución amplio, lo que indica estar relacionado con la presencia y ausencia estacional del recurso en el Golfo de México.

Sección 2: Investigación y estadísticas

Durante 2008 los esfuerzos de México se encaminaron en la consolidación del Sistema de Información del Atún del Golfo de México (SIA) y la elaboración de análisis de la distribución espacial y temporal de la captura obtenida en la pesca del atún con palangre en el Golfo de México.

Se mantuvieron reuniones con el sector pesquero durante los meses de febrero y julio con el objetivo de analizar la situación actual de la pesquería mexicana del atún en el Golfo de México para reforzar las medidas de su administración, que se integrarán en un Plan de Manejo Pesquero. Adicionalmente, se comprometió el desarrollo de investigación sobre tecnología de captura del palangre y la difusión de los estudios relacionados con la pesca del atún al sector productivo a través del boletín del Instituto Nacional de Pesca y la Revista "El Vigía". En el mes de septiembre se sostuvo una reunión informativa con el sector pesquero sobre los resultados de la evaluación de la población del atún aleta amarilla en el Océano Atlántico convocado por la ICCAT.

A nivel internacional, dentro de las actividades convocadas por ICCAT se asistió y participó activamente en las reunión de evaluación del stock del atún aleta amarilla o rabil (*Thunnus albacares*) y barrilete o listado (*Katsuwonus pelamis*) en la Ciudad de Florianópolis, Brasil del 21 al 29 de julio de 2008. Asimismo en la reunión de evaluación de los stocks de tiburones 2008 en Madrid, España del 01 al 05 de septiembre de 2008, en ambos eventos se participo con documentos sobre la caracterización de las especies y el esfuerzo pesquero, particularmente en el Grupo de tiburones se presentaron documentos a nivel oceánico y costero.

Dentro de las reuniones del Grupo de especies, del Comité Permanente de Investigaciones y Estadísticas (SCRS, por sus siglas en ingles) y la 16ª Reunión Extraordinaria en 2008, se ratificó la posición nacional de apegarse al marco normativo y regulatorio recomendado, y fortalecer los esfuerzos en materia de investigación científica para mejorar los rendimientos de la pesca objetivo y reducir la captura incidental, y así propiciar una efectiva administración de la pesca del atún con palangre en el Golfo de México.

Parte II (Implementación de la ordenación)

Sección 3: Implementación de Medidas de conservación y ordenación de CICAA

3.1 Vedas

06-06 Recomendación suplementaria de ICCAT sobre el programa de recuperación del atún rojo del Atlántico oeste, párrafo 13.

De conformidad con el párrafo 13 de esta Recomendación México mantiene su compromiso por llevar a cabo una pesca responsable por lo que continua vigente la disposición para lograr la recuperación de especies, evitando las capturas dirigidas a los stocks de atún rojo reproductor en el Golfo de México.

3.2 Datos y talla mínima

96-14 Párrafo 1. Recomendación sobre el cumplimiento en las pesquerías de atún rojo y pesquerías de pez espada del Atlántico norte.

México no ha excedido los límites de captura para dichas especies en el año pesquero previo.

97-01 Recomendación para incrementar el cumplimiento de las regulaciones de talla mínima.

A través de la Norma Oficial Mexicana 023-PESC-1996, se establecen las especificaciones sobre el aprovechamiento de especies de túnidos con embarcaciones palangreras para el Golfo de México y Mar Caribe. Esta disposición 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. En cuanto a la captura incidental se establece que ésta no debe ser mayor al 20% (este 20% no solo incluye atún rojo, pez espada, pez vela, marlin, entre otras) de su captura nominal obtenida durante un año calendario, lo cual permite adecuadamente cumplir con las recomendaciones aplicables de la Comisión.

01-16 Recomendación sobre la aplicación de tres recomendaciones sobre cumplimiento (98-14) y Resolución sobre fechas límite y procedimientos de presentación de datos.

Para cumplir con estas recomendaciones, anualmente se comunica a la Comisión como parte del Informe Nacional, la información estadística sobre las capturas para las pesquerías. De igual manera, se ha hecho llegar a la Comisión la información correspondiente a los datos de la Tarea I y la Tarea II, los Informes Nacionales, y en consecuencia, las Tablas de Información, se han hecho llegar en tiempo y forma.

03-13 Recomendación sobre el registro de capturas realizadas por barcos en la zona del Convenio.

La normatividad mexicana establece que a efecto de verificar la legal precedencia de los productos pesqueros capturados por barcos de pesca que enarbolan bandera mexicana deben de presentar el aviso de arribo, documento en el que se reporta, a la autoridad competente, los volúmenes de captura obtenidos por especie durante una jornada o viaje de pesca.

De igual manera, la NOM-023, establece que todos los embarques de atún aleta azul o rojo que se realicen con destino a la exportación, además de los documentos con los que se acredite la legal procedencia, deberán acompañarse de un "Certificado de participación en el Programa Estadístico para el atún aleta azul, que expedirán los jefes de las oficinas federales de pesca utilizando el formato oficial que se publicó en la NOM, esta medida garantiza la integración de las capturas obtenidas por los productores.

Asimismo, establece como obligación para los permisionarios y concesionarios permitir y facilitar la participación a bordo de la embarcación de los observadores autorizados, así como apoyarlos en las actividades de captación de información especialmente aquella que se obtiene del instrumental de pesca, comunicación y navegación. Adicionalmente, el técnico de pesca, el capitán o ambos deben registrar las circunstancias y resultados de las operaciones de pesca en los cuadernos de bitácora, anotando los datos considerados en el formato oficial.

3.3 Límites de capacidad

93-04 Resolución sobre las medidas de regulación suplementarias para la ordenación del rabil del Atlántico

La NOM-023-PESC-1996, tiene como propósito establecer un régimen de pesca que garantice un óptimo aprovechamiento de las existencias de atún aleta amarilla o rabil, utilizando barcos equipados con palangre atunero de deriva en aguas de jurisdicción federal del Golfo de México y Mar Caribe, así como la conservación y preservación de este recurso y de las especies susceptible de ser capturadas de manera incidental.

En dicho instrumento regulatorio se establecen las características del sistema de pesca (uso de embarcaciones con una eslora de 37t, operando un palangre atunero de superficie a la deriva por embarcación) para el aprovechamiento del rábil así como el límite máximo permisible de 45 unidades de esfuerzo pesquero, especificando que esta cifra será revisada periódicamente con base en los resultados de la investigación científica y tecnológica sobre el desarrollo de la pesquería y que el esfuerzo permisible se notificará anualmente mediante avisos publicados en el Diario Oficial de la Federación.
04-01. Recomendación de ICCAT sobre un programa plurianual de ordenación y conservación de patudo.

Para el caso de México, no se desarrolla esta pesquería en la zona del Convenio.

3.4 Documentos estadísticos

01-21 y 01-22 Recomendación sobre el Programa de Documento estadístico ICCAT para el patudo (párrafo 6);
Recomendación respecto a establecer un Programa de Documento Estadístico ICCAT para el pez espada (párrafo 6).

Además de contar con la NOM-023, en la cual se establece que todos los embarques de atún rojo, que se destinen a la exportación, deben presentar los documentos con los que se acredite su legal procedencia y acompañarse del certificado de ICCAT de exportación de atún aleta roja, se difundieron entre las autoridades competentes los cambios en dichos formularios, así como los realizados en los certificados para exportación de pez espada y patudo. Cabe mencionar que no existen exportaciones de atún rojo de la zona del Atlántico, toda vez que la captura es mínima y se trata de captura incidental.

Asimismo se actualizaron los sellos y firmas de los funcionarios facultados para expedir los certificados de exportación de las especies mencionas.

3.5 Otras medidas relacionadas con especies individuales

01-22 Recomendación para un mayor reforzamiento del plan de recuperación de las poblaciones de aguja azul y aguja blanca.

03-10 Resoluciones de ICCAT sobre tiburones sobre las pesquerías de tiburones párrafo 2

Desde 2004, México desarrolló e implementa su Plan Nacional para la Conservación de Tiburones y tiene como objetivo asegurar la ordenación, el aprovechamiento sostenible y conservación a largo plazo de los tiburones, rayas y especies afines en aguas de jurisdicción federal. Los objetivos específicos son:

- Asegurar que las capturas sean sostenibles.
- Evaluar las amenazas a las poblaciones.
- Identificar y proteger los hábitats críticos.
- Identificar y proteger a las especies particularmente vulnerables o amenazadas.
- Identificar y desarrollar marcos efectivos para la investigación, ordenación y educación entre todos los interesados.
- Minimizar la captura incidental de tiburones, rayas y especies afines en otras pesquerías.
- Minimizar los desechos y descartes de la captura.
- Fomentar el aprovechamiento integral.
- Contribuir a la protección de la diversidad biológica y la estructura y función del ecosistema.
- Mejorar y sistematizar la información biológica de las especies.
- Mejorar la información de las capturas, esfuerzo, desembarques y comercio por especie.

La aplicación del PANMCT se basa en directrices que contemplan el desarrollo de cinco programas específicos: 1) Investigación; 2) Difusión, Educación y Capacitación; 3) Inspección y Vigilancia; 4) Sistema de Información; y 5) Colaboración Interinstitucional.

03-11 Resolución sobre tortugas marinas.

Se ha promovido mediante talleres de capacitación, el uso de instrumentos y mecanismos para eliminar 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.

03-04 Recomendación sobre el pez espada del mediterráneo

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 no realiza esta pesquería en dicha área.

05-08 Resolución sobre anzuelos circulares

Se realizan investigaciones y pruebas sobre los anzuelos circulares de tamaño apropiado en las pesquerías palangreras pelágicas comerciales, en México se impulsado el uso intensivo de ganchos circulares para liberación oportuna de tortugas marinas capturadas incidentalmente en la pesquería del atún aleta amarilla en el Golfo de México entre el sector productivo.

De igual manera, se han realizado platicas y distribuido videos sobre el uso de ganchos para reducir la captura incidental en la pesquería del atún aleta amarilla en el Golfo de México, cuyo material fue proporcionado por la Administración Nacional Atmosférica y Oceánica (NOAA), por sus siglas en inglés, así como se ha ofrecido capacitación a los observadores a bordo de la flota sobre aspectos biológicos y taxonómicos de las tortugas, además de subrayar la importancia sobre la obtención de registros claros y precisos. En el marco del mecanismo de cooperación que se mantiene entre México y EUA (Mex-US Golfo) se impulsa la investigación sobre transferencia de tecnología para la liberación oportuna de tortugas capturadas incidentalmente.

06-08 Resolución sobre la pesca de atún rojo en el Océano Atlántico.

México no realiza esta pesquería en dicha área.

07-06 Recomendación suplementaria sobre tiburones.

En el Golfo de México y Mar Caribe, México no se cuenta con una flota industrial o semi-industrializada para la pesca de tiburón. No obstante, 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.

A la fecha, se cuenta con una Base de Datos de los Observadores Científicos a bordo de la Flota Atunera del Golfo de México, con la cual se realizan análisis de los patrones de distribución de la captura incidental de tiburones en esa pesquería con palangre.

De igual manera, se desarrolla el subprograma de marcado el cual tiene por objetivo determinar la distribución, patrones de migración, abundancia y tiempo de residencia en áreas específicas de las especies de elasmobranquios.

3.5 VMS

03-14/04-1 Recomendación respecto a las normas mínimas para el establecimiento de un Sistema de Seguimiento de Barcos en la zona del Convenio ICCAT.

Se instalaron desde 2006 dispositivos de localización satelital en 398 embarcaciones operando en el Golfo de México y el Caribe, incluyendo las embarcaciones atuneras de más de 24 m de eslora.

3.6 General

97-10 Recomendación esquema revisado de inspección

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.

99-07 Resolución sobre la mejora de estadísticas de las pesquerías de recreo

México destina exclusivamente 9 especies a la pesca deportiva: 6 de ellas pertenecen a los denominados "Picudos" (contándose 4 especies distintas de Marlin; 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.

01-18 Resolución acerca del alcance de la pesca IUU

De manera permanentes existe la disposición de utilizar la guía de pesca como un medio idóneo en las actividades de inspección y vigilancia para el combate de la pesca y movilización ilegal de productos pesqueros así como el incremento de las operaciones de inspección y vigilancia en aguas de jurisdicción nacional a través de unidades de superficie de la CONAPESCA y la Secretaría de Marina-Armada de México.

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 atiende cabalmente su compromiso porque los barcos de 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 un forma efectiva sus responsabilidades con respecto a tales barcos, incluyendo el seguimiento y control de sus actividades pesqueras; esforzándose porque sus barcos no pesquen 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.

03-16 Recomendación para adoptar medidas adicionales contra la pesca ilegal, no declarada y no reglamentada

Por otra parte, se ha publicado una Norma Oficial 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.

06-11 Recomendación sobre el establecimiento de un programa para el transbordo

La normatividad mexicana establece disposiciones para regular los transbordos así como para la descarga en puertos mexicanos. La Ley establece que se debe contar con un permiso para transbordar 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.

ANNUAL REPORT OF MOROCCO[1]
RAPPORT ANNUEL DU MAROC
INFORME ANUAL DE MARRUECOS

SUMMARY

Catches of tunas and tuna-like species reached 13,391 t in 2008. The major species exploited in waters off the Moroccan coasts were bluefin tuna, swordfish, bigeye tuna, yellowfin tuna, albacore, small tunas as well as 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 (Department of Fishing and the National Office on Fishing) located all along the Atlantic and Mediterranean coasts of Morocco. In addition, the Currency Exchange Office also controls the exports of the fishing products. As regards scientific research, the National Fishing Institute (Institut National de Recherche Halieutique-INRH), through its five regional centers which cover the Moroccan coast, has reinforced the collection of biological data of the major species (bluefin tuna and swordfish). The regional INRH Center in Tangiers coordinates the collection of all these data. In recent years, the monitoring of other species has started, particularly on tropical tunas (bigeye tuna, among others) with an expansion of research work towards the areas located 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 in recent years by the Moroccan scientists at the various SCRS meetings for stock assessment purposes.

RÉSUMÉ

La pêche des espèces de thonidés et des espèces apparentées a atteint une production de 13 391 tonnes au cours de l'année 2008. 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 et des espèces de squales. 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 ainsi été 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 2, soumis par les chercheurs marocains aux différentes sessions du SCRS, à des fins d'évaluation de stocks de thonidés.

RESUMEN

La pesca de túnidos y especies afines alcanzó una producción de 13.391 t para el año 2008. 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 escualos. La recopilación de datos estadísticos de pesca y 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, en una fase ulterior, la Oficina de Cambio realiza también un 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

[1]Service de l'Application de la Réglementation et de la Police Administrative - Division de la Protection des Ressources Halieutique/DPMA-Département des Pêches Maritimes and M'hamen Idrissi, Institut National de Recherche Halieutique-Centre régional de Tanger.

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 en el Sur de Marruecos. Por tanto, se han constatado importantes progresos en materia de recopilación de datos biológicos, tal y como atestigua la serie de documentos científicos, así como los datos de la Tarea II, presentados estos últimos años por los investigadores marroquíes en las diferentes sesiones del SCRS para la evaluación de los stocks de túnidos.

Ière partie (Informations 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 constituées d'espèces diversifiées dont le poids individuel varie de 30 à 250 kg pour les thonidés majeurs et l'espadon, et des tailles plus petites pour les thonidés mineurs.

1.2 Zones de pêche

Le thon rouge, le thon obèse et les thonidés mineurs (bonite, melva, listao) 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. Toutefois, il a été observé le développement d'une pêcherie artisanale et industrielle en Atlantique Sud, 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.

Les navires de type thonier pêchent dans les eaux internationales en Méditerranée.

1.3 Techniques de pêche

Les thonidés et espèces voisines sont pêchés essentiellement par quatre (4) techniques de pêche :

- La madrague

Cet engin cible principalement le thon rouge et les thonidés mineurs. En 2008, 16 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 *Sarda sarda* et la bonite en quantités très faibles.

- Ligne à main

Elle est utilisée principalement par une importante communauté de pêcheurs artisanaux qui comptent dans leur flottille une centaine de barques artisanales opérant au niveau du détroit de Gibraltar et le long des côtes méditerranéennes et atlantiques, de longueur inférieure à 7 m et de tjb < 2 tnx.

Cette activité de pêche, utilisant cet engin de pêche, cible 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 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. Généralement, leur poids se situe entre 30 et 60 kg.

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 quatre (4) navires de type thonier, spécialisés dans la capture du thon rouge vivant dans les eaux internationales en Méditerranée.

- Filet maillant dérivant

Le filet maillant dérivant est un engin de pêche qui est encore utilisé pour la pêche de l'espadon, à la fois en Atlantique et en Méditerranée par des navires de type « palangrier » et ce lors des migrations de cette espèce à travers les côtes marocaines.

L'utilisation de cet engin enregistre un recul en raison de l'approche de la date butoir de son élimination des côtes marocaines, fixée à janvier 2012, tel que prévu par le plan d'action national portant sur l'élimination progressive et définitive de cet engin des eaux marocaines, appuyé par le projet de Loi interdisant son utilisation qui est en cours d'examen au niveau du parlement marocain et par les mesures d'accompagnement prévues à cet effet.

1.4 Engraissement des thonidés

L'engraissement des thonidés est une activité soumise à une limitation de la capacité à celle des fermes inscrites sur la liste ICCAT ou autorisées et déclarées à l'ICCAT (trois(03) fermes seulement) au 1er juillet 2008. Actuellement, **une seule unité** de ce genre a été autorisée à mener ce type d'activité en Atlantique (Sidi-Ifni). N'ayant pas encore démarré pour des raisons techniques, ce projet dispose de son propre navire de pêche (thonier-senneur) et d'un navire-remorqueur.

Aussi, deux autres projets inscrits dans les registres spécifiques de l'ICCAT n'ont-ils pas encore procédé à l'installation des équipements appropriés.

Chapitre 2 : Statistiques et recherche

Les statistiques générales (tonnes métriques) sont détaillées dans le **Tableau 1.**

2.1 Pêcherie du thon rouge

Les données de capture du thon rouge, durant la période 1999-2008 (Tâche I), sont mentionnées au **Tableau 2**.

2.2 Pêcherie de l'espadon

Les données de capture de l'espadon, par métier et par zone, durant la période 1999-2008 (Tâche I), sont reportées dans le **Tableau 3**.

2.3 Pêcherie des petits thonidés

Les données de capture des thonidés mineurs, par métier et par zone, pour l'année 2008 (Tâche I) sont reportées dans le **Tableau 4**.

2.4 Autres espèces

Les captures du voilier, makaire bleu, thon obèse, thon germon et thon albacore, réalisées en 2008, par métier et par zone (Tâche I), sont ventilées dans le **Tableau 5**.

L'évolution des captures des squalidés et requins pour la période 1999-2008 (en tonnes) est reportée dans le **Tableau 6**, à titre indicatif.

Il est à signaler que les espèces suivantes sont celles qui peuplent les eaux marocaines :

Heptranchias perlo, Hexanchus griseus, Centrophorus granulosus, Centrophorus squamosus, Centrophorus uyato, Centroscymnus coelolepis, Centroscymnus crepidater, Dalatias licha, Deania calcea, Etmopterus spinax, Scymnodon ringens, Squalus acanthias, Squalus blainvillei, Squatina aculeata, Squatina squatina, Squatina oculata, Eugomphodus taurus, Odontaspis ferox, Alopias vulpinus, Cetorhinus maximus, Carcharodon carcharias, Isurus oxyrinchus, Lamna nasus, Galeus melastomus, Scyliorhinus canicula, Scyliorhinus stellaris, Galeorhinus galeus, Mustelus asterias, Mustelus mustelus, Carcharhinus leucas, Carcharhinus longimanus, Carcharhinus obscurus, Prionace glauca, Sphyrna lewini, Sphyrna mokarran, Sphyrna zygaena.

2.5 Tableau récapitulatif des captures par zones et par espèces (t)

Le Tableau récapitulatif des captures par zones et par espèces (t) est présenté en tant que **Tableau 7**.

2.6 Données de la Tâche II

Voir CD ci-joint : elles concernent l'espadon SWO de l'Atlantique, l'espadon SWO de la Méditerranée, le thon rouge BFT de l'Atlantique Est, le thon obèse BET de l'Atlantique ; il s'agit de donnée de capture / effort, d'échantillonnage biologique de taille, les captures par taille ; ce sont des séries historiques reconstituées pour la période 2004 - 2008.

NB : Données déjà transmises au Secrétariat de l'ICCAT le vendredi 28 août 2009 par courrier électronique. Il serait judicieux lors des réunions des groupes d'espèces (septembre 2009) de procéder à une vérification de ces bases données, entre les scientifiques et le Secrétariat de l'ICCAT pour s'assurer qu'il n'y a pas d'erreurs qui pourraient survenir lors des transferts de données.

2.7 Taux de mortalité accidentelle des oiseaux de mer & taux de capture accidentelle des tortues de mer

Il ressort des enquêtes menées sur le terrain en 2008 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 200 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 90 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 trois 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 20 jours de pêche.

Dans cette zone, les techniques qui sont adoptées pour éviter les prises accidentelles de ces espèces sont des méthodes pratiques qui se résument comme suit :

- Lorsqu'une tortue de mer est prise par un palangrier, elle est vite remise à l'eau ;

- Les marins pêcheurs procèdent, lors de l'apparition ou la présence d'oiseaux près des filets, à des vibrations de cet engin de pêche de telle sorte à les effrayer ;

- D'autres marins pêcheurs utilisent la technique dite du « tuyau » qui consiste à asperger avec un jet d'eau la surface qui entoure le filet de telle sorte à faire fuir les oiseaux ;

Concernant les enquêtes menées dans la partie située au nord d'Agadir et au niveau des côtes méditerranéennes, il apparaît que les navires spécialisés rencontraient très rarement des tortues marines ou des oiseaux de mer. Les techniques pratiquées pour éviter ces prises sont identiques à celles décrites ci-dessus.

2.8 Activités de recherche

Les efforts des dernières années, menées par l'équipe de l'INRH – Tanger en termes de suivi scientifique des activités d'exploitation au sein des différentes pêcheries marocaines des espèces de thonidés et espèces apparentées, semblent avoir été couronnés de succès. En témoignent les opérations régulières de l'échantillonnage biologique du thon rouge, de l'espadon, du thon obèse, d'une part, et les séries de données de capture/effort, de structures démographiques (taille, poids), les captures par taille, reconstituées pour les cinq dernières années d'autre part, comme en témoignent aussi les documents scientifiques par lesquels l'équipe scientifique marocaine contribue activement chaque année à l'amélioration des connaissances biologiques et d'exploitation des principales espèces d'intérêt pour l'ICCAT.

Tout en s'engageant à œuvrer davantage à doubler d'effort pour l'acquisition de données indispensables pour mener à bien les activités de la communauté scientifique de l'ICCAT en termes d'évaluation des stocks de thonidés et espèces apparentées, l'équipe scientifique du Maroc a une forte intention d'élargir ses activités de recherche pour couvrir d'autres aspects, notamment la biologie de croissance, de reproduction, de régime alimentaire, de parasitologie et de pathologie concernant ces espèces. Pour ce faire, l'INRH a construit des laboratoires au sein de son complexe scientifique de Tanger (dont le Centre Régional chargé pour tout genre d'études concernant les pêcheries thonières et le Laboratoire de recherche en pathologie et parasitologie des animaux aquatiques) ; ces laboratoires sont destinés à abriter aussi bien les équipements et matériels appropriés à chacune de ces disciplines que de personnel spécialisé.

Pour pallier aux handicaps financiers qui empêcheraient la concrétisation de ces objectifs, le SCRS/ICCAT, ainsi que les bailleurs de fonds soucieux de l'avenir des stocks de thonidés, est invité vivement à appuyer le Maroc dans ses efforts.

IIe partie (Mise en œuvre de la gestion)

Chapitre 3 : Mise en œuvre des mesures de conservation et de gestion de la CICTA

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 (Recommandation 06-05 de l'ICCAT) 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 nº 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 pêcherie 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 1er 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.

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 croisés 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 (t).

Espèces	*Total*
Albacore (YFT)	00
Germon (ALB)	99
Thon obèse (BET)	802
Thon rouge (BFT)	2 478
Thonine (LTA)	21
Listao (SKJ)	1 309
Bonite à dos rayé (BON)	1 561
Melva (FRI)	262
Palomette (BOP)	498
Espadon (SWO)	2 387
Makaire Bleu (BUM)	00
Voilier de l'Atlantique (SAI)	00
Squalidés et requins	3 974
Total	13 391

Tableau 2. Données de capture du thon rouge (en tonnes), durant la période 1999-2008 (Tâche I).

BFT	*Engin*	*1999*	*2000*	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*
Atl	Trap	852	1540	2330	1670	1305	1098	1518	1 744	2 417	1947
Atl	PS	709	660	150	884	490	855	871	179	00	00
Atl	LL	0	0	0	0	02	08	16	273	1	00
Atl	Gill	30	28	17	11	00	00	00	00	00	00
Méd	Hand	600	650	195	407	570	597	80	187	19	00
Méd	Gill	6	6	9	14	20	00	00	00	00	00
Méd	PS	0	0	0	0	170	222	12	3	515	00
Méd	LL	0	0	0	0	0	00	00	00	107	528
Méd	Trap	30	39	307	0	0	00	00	00	00	3
Tot-Atl		1591	2228	2497	2565	1797	1961	2405	2196	2418	1947
Tot-Méd		636	695	511	421	760	819	92	190	641	531
Total		2227	2923	3008	2986	2557	2780	2497	2386	3059	2478

Tableau 3. Données de capture de l'espadon (en tonnes), par métier et par zone, durant la période 1999-2008 (Tâche I).

SWO	*Engin*	*1999*	*2000**	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*
Atl	Trap	13	3	7	4	7	3	0	8	8	2
Atl	PS	11	22	9	1	1	1	0	0	0	00
Atl	Gill	60	51	243	64	98	76	9	0	0	00
Atl	LL	35	38	264	154	223	255	325	333	229	428
Méd	LL	259	205	754	1149	1670	1954	1801	1455	1107	1370
Méd	Gill	2979	2503	2266	2230	1629	1299	722	603	615	587
Méd	PS	0	0	4	0	0	0	0	0	0	00
Méd	Hand	0	0	0	0	0	0	0	0	0	00
Méd	Trap	0	0	2	0	1	0	0	0	0	00
Tot-Atl		119	114	523	223	329	335	334	341	237	430
Tot-Méd		3238	2708	3026	3379	3300	3253	2523	2057	1722	1957
Tot		3357	2822	3550	3602	3629	3588	2857	2398	1959	2387

Tableau 4. Données de capture des thonidés mineurs (en tonnes), par métier et par zone, pour l'année 2008 (Tâche I).

Espèces		*Bacorette (LTA)*	*B. Sarda (BON)*	*Listao (SKJ)*	*Melva (FRI)*	*Palomette (BOP)*	*Total*
Atl	Trap	00	7	00	2	00	9
Atl	Hand	00	282	150	25	00	457
Atl	Gill	00	204	52	4	1	261
Atl	LL	02	806	982	106	357	2253
Atl	PS	00	120	107	42	33	302
Méd	Trap	00	00	00	00	00	00
Méd	Hand	1	38	3	10	00	52
Méd	Gill	00	00	1	7	00	8
Méd	LL	16	86	13	60	104	279
Méd	PS	2	18	1	06	3	30
Tot-Atl		2	1419	1291	179	391	3282
Tot-Méd		19	142	18	83	107	369
Total		21	1561	1309	262	498	3651

Tableau 5. Captures du voilier, makaire bleu, thon obèse, thon germon et thon albacore (en tonnes), réalisées en 2008, par métier et par zone (Tâche I).

2008	*Engin*	*Voilier (SAI)*	*Makaire bleu (BUM)*	*Albacore (YFT)*	*Germon (ALB)*	*Thon obèse (BET)*
Atl	Trap	00	00	00	00	00
Atl	PS	00	00	00	00	00
Atl	Gill	00	00	00	00	00
Atl	LL &Hand	00	00	00	99	802
Méd	LL	00	00	00	00	00
Méd	Gill	00	00	00	00	00
Méd	PS	00	00	00	00	00
Méd	Hand	00	00	00	00	00
Méd	Trap	00	00	00	00	00
Tot-Atl		00	00	00	99	802
Tot-Méd		00	00	00	00	00
Tot		00	00	00	99	802

Tableau 6. Évolution des captures des squalidés et requins pour la période 1999-2008 (en tonnes).

Années	*1999*	*2000*	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*
Captures	2130	3460	2200	2161	2923	2996	3 501	2 067	2 590	3974

Tableau 7. Tableau récapitulatif des captures par zones et par espèces (en tonnes).

	Atlantique	*Méditerranée*	*Total :Atl+Méd*
Thon rouge	1947	531	2 478
Thon obèse	802	00	802
Espadon	430	1 957	2 387
Germon (ALB)	99	00	99
Albacore	00	00	00
Petits thonidés	3 282	369	3 651
Squalidés et requins	3 716	258	3 974
Total	10 276	3 115	13 391

ANNUAL REPORT OF NORWAY
RAPPORT ANNUEL DE LA NORVÈGE
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SUMMARY

In light of the critical stock situation of Atlantic bluefin tuna, Norway has adopted 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. Norway continuously works on historical data, including detailed Task I and Task II data and aims to put the data on this species into an ecosystem perspective. Comprehensive reviews of the Norwegian fishery from 1920 to 1980 and plausible causes related to the drastic decline of bluefin tuna in Norwegian waters in recent decades were presented and documented at the "World Symposium for Study into Stock Fluctuations of Northern Bluefin Tuna Including the Historic Period". Norway has participated in all major international scientific meetings concerning Atlantic bluefin tuna in 2008.

RÉSUMÉ

Compte tenu de la situation critique des stocks de thon rouge de l'Atlantique, la Norvège a adopté une mesure interdisant aux navires norvégiens de pêcher et de débarquer du thon rouge dans les eaux territoriales norvégiennes, dans la Zone Economique de la Norvège ainsi que dans les eaux internationales. La Norvège réalise des travaux constants sur les données historiques, y compris les données détaillées de la Tâche I et de la Tâche II, et vise à placer les données sur cette espèce dans un contexte écosystémique. Le « Symposium mondial pour l'étude des fluctuations des stocks de thon rouge du nord, y compris les périodes historiques » a fourni l'occasion de présenter et de documenter des études exhaustives sur la pêcherie norvégienne de 1920 à 1980 et sur les raisons plausibles du déclin dramatique du thon rouge dans les eaux norvégiennes au cours de ces dernières décennies. La Norvège a pris part à toutes les principales réunions scientifiques concernant le thon rouge de l'Atlantique en 2008.

RESUMEN

Dada la crítica situación del stock de atún rojo del Atlántico, Noruega ha adoptado una prohibición para los buques noruegos, que tienen prohibido pescar y desembarcar atún rojo en aguas territoriales noruegas, en la Zona Económica noruega y en aguas internacionales. Noruega trabaja de forma continua en los datos históricos, lo que incluye datos detallados de Tarea I y Tarea II, y tiene como objetivo poner los datos sobre esta especie en una perspectiva ecosistémica. Las amplias revisiones de la pesquería noruega desde 1920 a 1980 y las posibles causas relacionadas con el drástico descenso del atún rojo en aguas noruegas en las décadas recientes fueron presentadas y documentadas en el Simposio mundial para el estudio de la fluctuación de los stocks de atún rojo septentrional (Thunnus thynnus y Thunnus orientalis) incluyendo los periodos históricos. En 2008 Noruega ha participado en todas las reuniones científicas importantes sobre atún rojo del Atlántico.

Part I (Information on Fisheries, Research and Statistics)

Section 1: Annual Fisheries Information

A single individual of Atlantic bluefin tuna (300 kg and 2.6 m) was caught as by-catch on board a Norwegian trawler fishing for blue whiting west of Ireland on 25 February 2008. One Atlantic blue marlin (62 kg and 2.65 m) was caught as by-catch on board a small herring gillnet vessel in the north western part of Norway on 29 August 2008.

Section 2: Research and Statistics

Norway continuously works on historical data for bluefin tuna, and aims to put the data into an ecosystem perspective. A Virtual Population Analyses (VPA) has been developed based on official Norwegian catch statistics and detailed individual bluefin tuna data for the period 1950-1970. Information about bluefin tuna science and management has been presented in newspapers, discussed on radio and aired on television. Norway has participated in all major international scientific meetings concerning Atlantic bluefin tuna in 2008.

Part II (Management Implementation)

Section 3: Implementation of ICCAT Conservation and Management Measures

Bluefin tuna is the only 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 on 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 adapted 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.

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 nearly 3,000 inspections of Norwegian and foreign vessels operating in Norwegian waters. Vessels over 24 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 de 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, presenta una extensión de 75,517 km^2 (29,208 millas cuadradas), Panamá forma un eslabón entre la América Central y la América del Sur, y posé 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 extiende a unas 200 millas náuticas de ancho sobre la cual la República de Panamá ejerce soberanía y derechos soberanos, al igual que en el lecho de 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 se desarrolló el 95% de la actividad pesquera, además, encontrándose el 80% de la población del país.

La pesca está distribuida en dos grandes sectores: la pesca industrial y la artesanal. Existe igualmente una flota de buques con licencia internacional que pescan en la zona de alta mar. Entre los rubros de mayor interés podemos mencionar: la pesca del camarón blanco, pesca de anchoveta y arenque y la pesca de especies demersales de carácter comercial, pelagicas y de fondo.

En Panamá, la pesca ribereña del Caribe en el Océano Atlántico está sectorizada hacia zonas como: Bocas del Toro, Colón y la Comarca de San Blas, siendo la plataforma continental corta y pronunciada sólo permite la pesca de especies asociadas a los arrecifes, aunque se puede desarrollar una pesqueria industrial de camarón es de baja intensidad. En esta areas 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 pesqueria de la región del Caribe. Sin embargo, en los últimos años se ha registrado un aumento en la sobre explotación del recurso, lo cual ha llevado a establecer la regulación de permisos y hasta la implementación de vedas para algunas de estas especies.

Como la pesqueria de esta zona es muy limitada, en los últimos años (2000 hasta la fecha) se han establecido actividades asociadas a estas áreas como lo son el cultivo de cobia y corvina y pargos en jaulas flotantes

1.1 Información sobre la pesca nacional

Entre 1990 y 1995, se reduce la flota de buques palangreros japoneses y coreanos por causa de la rentabilidad en la pesca de túnidos, reportando bajas en el registro panameño, el cual se compensa con el cambio de buques de Taiwán a banderas de registro abierto, particularmente la de Panamá.

Durante este tiempo nuevas regulaciones internacionales para la pesca de ciertas especies surgen en el seno de Organizaciones Regionales de Ordenación Pesquera especialmente en ICCAT, quien en 1994, recomendó una restricción sobre las capturas del atún rojo en el Atlántico, incluido el Mediterráneo. Igualmente en ese mismo año estableció el Programa de Documento Estadístico para el Atún Rojo oficialmente validado. La actividad de los buques de registros abiertos en el Mediterráneo se convierte rápidamente en un problema y ya en 1992 la ICCAT, se había comunicado oficialmente con Panamá señalado que buques de su pabellón pescaban en contravención con las medidas de conservación de esa organización.

En 1995, la ICCAT advirtió a la República Panamá y a otros países, que buques de su pabellón fueron identificados con prácticas pesqueras contrarias a las medidas de ordenación.

* No summary provided. / Aucun résumé soumis. / No se ha facilitado el resumen.

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. La Dirección de Consular y Naves aprueba el documento Estadístico para el Atún Rojo y se autoriza la firma del mismo al Cónsul de Panamá en Islas Canarias.

A finales de 1997 se establece la obligatoriedad de obtener una Licencia de Pesca previa a la inscripción en el registro de la Marina Mercante y se prohíbe pescar en el Mediterráneo y la pesca dirigida a la captura de atún rojo y atún blanco del Norte o del Sur en el Atlántico. Por ello, más de mil buques pesqueros de bandera panameña no aplicaron para la obtención de la licencia de pesca correspondiente y se les elimina 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 se exige un sistema de localización satelital (VMS), como uno de los requisitos para obtener la licencia de pesca y se adopta el esquema de ICCAT para inspección en puerto.

En 1999, Panamá, logra levantar las sanciones comerciales que se le habían impuesto desde 1998, por los países miembros de ICCAT, que impedía la importación de atún de barcos de bandera panameña.

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 Nº 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 (OROPs), 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.

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 cuanto a la flota nacional en el Océano Atlántico, está conformada por 2 buques cerqueros y 71 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.

Con relación a la pesca deportiva, en esta no están claramente normada no existe una estadística de pesca, ya que la misma no esta regulada excepto en algunos puntos para el área del Pacífico, en el Caribe se realiza en áreas como Bocas del Toro y Volcán reefs en Colón. Basada en las normativas ya existente en otras zonas de pesca para yates de paseo. La pesca se realiza por captura y liberación de especies como lo es para el caso del pez espada (*Xiphias gladius*).

Sección 2: Investigación y estadística

Sistema de Información Pesquera: Actualmente la Autoridad Marítima de Panamá (AMP) reporta 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 Autoridad de los Recursos Acuáticos de Panamá (ARAP) cuenta con la Dirección General de Investigación y Desarrollo la cual, se encarga de verificar las captura 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, que apoya investigaciones de las especies del atún tropical, con el objetivo de cerrar su ciclo biológico. Igualmente, el Plan de Acción del Pacifico Sudeste y el Plan de Acción del Caribe son programas de mares regionales del Programa de Naciones Unidas para el Medio Ambiente (PNUMA), 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 los stocks de los recursos pesqueros en las plataformas continentales. Todo ello contribuye para una mejor toma de decisión en cuanto al manejo sostenible de los recursos pesqueros y los ecosistemas.

Parte II (Implantación de la ordenación)

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

La pesca de Atún Rojo en la República de Panamá, no es una actividad regulada, ya que esta especie no se distribuye hacia aguas con jurisdicción de Panamá. Teniendo en cuenta las medidas de conservación y ordenación que mantiene ICCAT, la República de Panamá, no otorga Licencias de Pesca de atún rojo, ni mucho menos a aquellos barcos de apoyo y transporte en el Mediterráneo. Sin embargo, en el año 2009 se establece obligatoriedad el cumplimiento de esta norma.

Dentro de las medidas de ordenación, sobre patudo (*Thunnus obesus*) Panamá si ha cumplido no sobrepasando su cuota establecida para buques cerqueros. Ni mucho menos ha rebasado sus cuotas para cada una de las distintas pesquerías.

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, 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 para obtener la licencia de pesca y se adopta el esquema de ICCAT para inspección en puerto. Sin embargo, Panamá si cumple con el VMS, para los barcos pesqueros desde 1999, y para los barcos de apoyo a la pesca 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, las cuales se han hecho obligatorias.

Observadores científicos: La Autoridad Pesquera tiene atribuciones para incluir a bordo de las naves de pesca, observadores científicos o inspectores, según corresponda. Esta disposición es de obligatorio cumplimiento con respecto a las naves nacionales que operan 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. Asimismo, Panamá forma parte del Programa de Observadores de la CIAT, el cual es implementado para las embarcaciones que se dedican a la captura de atún.

El Estado panameño a través de la Autoridad competente certificara 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 Autoridad competente.

Observadores en barcos de transporte respondían a la marina mercante y a pesar que existía una norma no se cumplía pero desde 2009 se establece obligatorio el cumplimiento de la norma y se ha evitado el transporte en alta mar,

Sección 4: Actividades de esquema e inspección

Los trasbordos en alta mar están prohibidos, por lo que no están contemplados dentro de nuestras leyes marítimas o aduanales según Decreto Ejecutivo Nº 49 de 19 de octubre de 2009 y Resolución ADM 1791 de 20 de diciembre de 2001.

En Panamá, existen puertos internacionales con característica para el trasbordo o desembarque, sin embargo, pocos buques realizan esta actividad en puertos panameños. Además, en nuestro país no existen legislaciones que regulen casos de trasbordos.

Sección 5: Otras actividades

Otras actividades de captura se ha presentado en Tareas I y II.

ANNUAL REPORT OF PHILIPPINES
RAPPORT ANNUEL DES PHILIPPINES
INFORME ANUAL DE FILIPINAS

SUMMARY

Tuna fisheries in the Philippines continue to contribute significantly to the fish production of the country. In 2007, the catch of oceanic tunas reached 250,000 tons or about 50 % of the total fish production of the country. The Philippines have 28 Philippine flagged fishing vessels authorized to fish in the ICCAT Convention area and are listed in the ICCAT Registry of Vessels. Of these 28 fishing vessels only 8 fishing vessels are authorized to fish in any given year. The catch of the Philippines in the ICCAT Convention area totaled 2,067 tons (1,816 tons big-eye, 239 tons yellowfin and 12 tons sword fish). The Philippines is involved in the Philippines Data Collection Project funded by the Western and Central Pacific Fisheries Commission (WCPFC) 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 a participant in the ICCAT Regional Observers Program to monitor transshipment at sea of ICCAT Contracting Parties. Although a small player in the ICCAT, it is contributing a modest amount to implement the program. The Philippines also continue to implement the ICCAT Statistical Document Program for bluefin, bigeye, swordfish since 2002 including those of the WCPFC and CCSBT.

RÉSUMÉ

Les pêcheries thonières des Philippines continuent à contribuer dans une grande mesure à la production halieutique du pays. En 2007, la prise de thonidés océaniques a atteint 250.000 t, soit près de 50 % production halieutique totale du pays. Les Philippines disposent de 28 navires de pêche sous pavillon philippin autorisés à pêcher dans la zone de la Convention de l'ICCAT qui sont inscrits dans le Registre ICCAT des navires. Sur ces 28 navires de pêche, seuls 8 d'entre eux sont autorisés à pêcher au cours de toute année donnée. La prise des Philippines dans la zone de la Convention de l'ICCAT a totalisé 2.067 t (1.816 t de thon obèse, 239 t d'albacore et 12 t d'espadon). Les Philippines participent au Projet de collecte des données des Philippines, qui est financé par la Commission de la pêche dans le Pacifique central et occidental (WCPFC) et qui vise à renforcer le système de collecte de données pour traiter des questions de conservation et de gestion des stocks de poissons grands migrateurs en établissant une collecte et vérification standard des données des pêcheries thonières de la région. Les Philippines prennent part au Programme régional d'observateurs de l'ICCAT destiné au suivi des transbordements en mer par les Parties contractantes de l'ICCAT. Bien qu'elles soient une petite partie prenante à l'ICCAT, les Philippines apportent une modeste quantité aux fins de la mise en œuvre de ce programme. Les Philippines continuent également à mettre en œuvre le Programme de Documents Statistiques de l'ICCAT pour le thon rouge, le thon obèse et l'espadon depuis 2002, y compris les programmes de la WCPFC et de la CCSBT.

RESUMEN

Las pesquerías de túnidos en Filipinas continúan contribuyendo de forma significativa a la producción de pescado del país. En 2007, la captura de túnidos oceánicos ascendió a 250.000 t o aproximadamente el 50% de la producción total de pescado del país. Filipinas cuenta con 28 buques 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 28 buques pesqueros, sólo 8 están autorizados a pescar en cualquier año. La captura de Filipinas en la zona del Convenio ICCAT ascendió a 2.067 t (1.816 t de patudo, 239 t de rabil y 12 t de pez espada). Filipinas está implicada en el Proyecto de recopilación de datos en Filipinas financiado por la Comisión de Pesca del Pacífico central y occidental (WCPFC) para reforzar el sistema de recopilación de datos con el fin de solucionar los temas relacionados con la conservación y ordenación de los stocks de peces altamente migratorios estableciendo una recopilación y verificación estándar de los datos para las pesquerías de túnidos de la región. Filipinas participa en el Programa

Regional de Observadores de ICCAT para hacer un seguimiento de los transbordos en el mar de las Partes contratantes de ICCAT. Aunque es un pequeño participante en ICCAT, contribuye con una modesta cantidad a la implementación del programa. Filipinas continúa también implementando desde 2002 el Programa de documento estadístico para el atún rojo, el patudo y el pez espada, incluyendo los de la WCPFC y la CCSBT.

Part I (Information on Fisheries, Research and Statistics)

Section 1: Annual Fisheries Information

Having fishing vessels operating in the Atlantic Ocean, Indian Ocean and the western and central Pacific Ocean, the tuna fisheries in the Philippines continue to provide significant contribution to the total fish production in the country. As mentioned in previous reports the tuna fisheries in the Philippines are divided into two sectors, the municipal and commercial sectors. The municipal fisheries sector use vessels less than 3 GRT and the commercial sector employing vessels more than 3 GRT and are prohibited to fish in municipal waters 15 kilometers from the shoreline. In 2007, the commercial sector contributes majority of the catch of oceanic tunas (252,000 metric tons or about 50% of the total tuna catch).The municipal sector on the other hand takes about 110,735 t of oceanic and neritic tunas.

Section 2: Research and Statistics

The statistics for tuna in the Philippines are gathered by the Bureau of Agricultural Statistics of the Department of Agricultural. In view of the provisions of the Philippine Fisheries Code of 199, Philippine fishing vessels are required to submit fish caught reports every month and failure to so will mean the none renewal of the their Commercial Fishing and Vessel 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 (IPDCP) 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 and 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. On October 19, 2009 in observance of the Fish Conservation Week celebration, the BFAR launched a Vessel Monitoring System (VMS). The contract between the DA-BFAR and Collete Localisation Sattelite (CLS) in the establishment and operation in the Philippine Vessel Monitoring System will be signed the third week of November this year. The full operation of the VMS will commence before the end of the year.

As mentioned in Philippines's Annual Report last year, they are 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 o fish Aggregating Devices (FAD) by limiting the number per fishing vessel, etc.

Section 4: Inspection Schemes and Activities

The Philippines is a participant to the Regular Observer Program of the Commission for the monitoring of 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, bigeye and swordfish. Philippines is also doing this in IOTC, WCPFC and CCSBT.

4.1 Fisheries Information of Philippine vessels in the Atlantic Ocean

In 2008, Philippines had twenty eight (28) fishing vessels that are authorized and registered to fish in the ICCAT Convention area. However, only 8 vessels are authorized to fish in the area in any given year. The catches of these vessels for 2008 totaled 2,265 tons and are broken down by species as follows:

Bigeye	1,874	tons
Yellowfin	219	tons
Swordfish	62	tons

ANNUAL REPORT OF RUSSIA
RAPPORT ANNUEL DE LA RUSSIE
INFORME ANUAL DE RUSIA

A.A. Nesterov[1], D.V. Bokhanov, V.Z. Gaikov

SUMMARY

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 by-catch. The purse seine specialized fishing for tunas belonging to the tropical group was resumed late in 2006, and is now at the stage of development. The vessels are engaged in fishing at regular intervals and in an experimental mode of operation. In Russia, work related to research on tunas and other species of the tuna fishery are carried out by the Atlantic Research Institute of Marine Fisheries and Oceanography (AtlantNIRO), Kaliningrad, and by 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 2008-2009, in addition to the collection and processing of current fishery and biological materials, was aimed at the analysis of retrospective data on the "small tunas" group, and the study of oceanic and neritic-oceanic sharks population parameters in the Atlantic Ocean.

RÉSUMÉ

La Russie mène deux types de pêche dans la zone de la Convention de l'ICCAT : la pêche au chalut et la pêche à la senne où les thonidés sont présents dans les captures. 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 2006 et se trouve en ce moment au stade de développement. Les navires pêchent à intervalles réguliers et leur mode d'opération est expérimental. En Russie, les travaux liés à la recherche sur les thonidés et les autres espèces de la pêcherie thonière sont assumés par l'Institut de Recherche Atlantique des Pêcheries Marines et de l'Océanographie (AtlantNIRO), Kaliningrad, et par l'Institut de Recherche Fédéral Russe des Pêcheries et d'Océanographie (VNIRO), Moscou. Ces institutions recueillent les statistiques sur les captures 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 ». La recherche réalisée en 2008-2009, en plus de la collecte et du traitement des données halieutiques et biologiques actuelles, visait à analyser les données rétrospectives sur le groupe des « thonidés mineurs », et sur l'étude des paramètres de population des requins océaniques et néritiques-océaniques de l'Océan Atlantique.

RESUMEN

Rusia realiza 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. A finales de 2006 se retomó la pesca de cerco especializada en túnidos tropicales, que actualmente está en fase de desarrollo. Los buques se dedican a la pesca en intervalos regulares y en operaciones experimentales. 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*

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captura, analizan 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 trabajo de la Subcomisión 1, "Túnidos tropicales". La investigación realizada en 2008-2009, además de la recopilación y procesamiento de materiales biológicos y pesqueros actuales tenía como objetivo el análisis de datos retrospectivos sobre el grupo de "pequeños túnidos" y el estudio de los parámetros de población de los tiburones oceánicos y nerítico-océanos del océano Atlántico.

Part I (Information on Fisheries, Research and Statistics)

Section 1: Annual Fisheries Information

In 2008 specialized purse-seine tuna fishery was carried out in the eastern Equatorial area by two purse seiners. The catch amounted to 428 t (42 t of yellowfin tuna, *Thunnus albacares*, 386 t of oceanic skipjack, *Katsuwonus pelamis*). No information on the purse fishery is available for the first half of 2009.

The trawl fishing vessels caught 36 t of bullet tuna, *Auxis rochei rochei*, and 106 t of bonito, *Sarda sarda* as a by catch in 2008 in the central-East Atlantic (CEA). In the first half of 2009, according to the preliminary data, the catches taken by trawlers in this area amounted to 18 t of bullet tuna and 24 t of bonito.

Section 2: Research and Statistics

Distribution, size, sex and length-weight structure of oceanic whitetip shark, *Carcharhinus longimanus* (Poey, 1861) within 25°N-10°S, 40°W-9°E were studied on the basis of the domestic long-line fishery data for 1964-2005.

According to the data of the oceanic whitetip shark distribution, the optimal water temperature in the inhabited layer 0-150 m was in the range from 18.2°C to 21.0°C. The length structure of the oceanic whitetip shark in catches was represented by specimens from 51 cm to 242 cm in length (the fish length from the mouth tip to the caudal fin fork - FL). The length grouping 105-165 cm prevailed, and the mean length was 149.5 cm. The ratio of males and females in catches was equal to 1.2. The length-weight relationship was described by the equation $y=0.0001x^{2.5143}$, where y is a body weight in kg, x – FL in cm.

To reveal the sexual dimorphism in bullet tuna, the comparison of 58 males and females from Morocco zone was fulfilled using 25 morphological and 6 meristic characteristics. The material of trawl catches in 2006-2007 sampled in the Exclusive Economic Zone (EEZ) of the Kingdom of Morocco (21-28°N, 11-17°W) was used. The statistic analysis results indicated that according to these researched characteristics the sexual dimorphism of this species is absent.

Analysis of the tuna species composition in Russian catches for the species regulated by ICCAT indicated that the highest absolute values of Atlantic black skipjack, *Euthunnus alletteratus* and Auxis tuna by-catch were observed in the purse fishery. The proportion of Atlantic black skipjack in the total trawl catches during 1999-

2006 amounted to 0.4% on average, bullet tuna -1.9%, frigate tuna, (*Auxis thazard)* - 0.8%. In the purse seiners catches during 1976-2007 the proportion of Atlantic black skipjack was 12.4%, bullet tuna - 1.0%, frigate tuna - 10.1%.

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, 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 24 m reported by the ship owners as the vessels of the specialized purse fishery for tunas. In 2008, seven purse seiners were recorded.

3.2 Vessel Monitoring System (VMS)

In compliance with the 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 Recommendation 04-01 no purse fishery was carried out from 1 to 30 November in the area indicated in the Recommendation.

3.4 Observers program

After 2001 the observers onboard the vessels fishing in ICCAT Convention area have carried out monitoring of fishery and collection of fishery and biological data. In 2008 observers onboard the vessels were absent.

3.5 Bigeye tuna

There are no vessels in a specialized fishery for bigeye tuna in Russia. In compliance with Recommendation 04-01, the annual by-catch of bigeye tuna in the Russian purse fishery was less 2100 t.

To improve the quality of statistics, the observers on trawling vessels operating in the Convention area collect materials on tuna and tuna-like species by-catch on an annual basis.

Section 4: Inspection activities

Russia has implemented the ICCAT management regulations regarding large-capacity vessels for purse seine fishing for tunas.

ANNUAL REPORT OF SENEGAL
RAPPORT ANNUEL DU SÉNÉGAL
INFORME ANUAL DE SENEGAL

Fambaye Ngom Sow,[1] Sidy Ndaw[2] et Taib Diouf[3]

SUMMARY

*In 2008, the Senegal's industrial fleet was comprised of seven baitboats that mainly target the major tropical tunas: yellowfin tuna (*Thunnus albacares-*YFT*), *skipjack tuna (*Katsuwonus pelamis-*SKJ*) *and bigeye tuna (*Thunnus obesus-*BET*). *Catches in 2008 amounted to 5,143 t, comprised of 550 t of yellowfin tuna, 3,667 t of skipjack tuna, and 926 t of bigeye tuna. The catches of these major tunas increased as compared to 2007 (3,898 tons). As regards the longline fishery, only two vessels were active in 2008; their total catch is estimated as 725 t, comprised of 440 t of sharks, 138 t of swordfish, 38 t of yellowfin and 18 t of billfish. With regard to the artisanal fleet, a part of this fishery catches small tunas using hand troll, and purse seine: Atlantic black skipjack (*Euthynnus alletteratus*); Spanish mackerel (*Scomberomus tritor*); plain bonito (*Orcynopsis unicolor*) and Atlantic bonito (*Sarda sarda*); wahoo (*Acanthoncybium solandri*); frigate tuna (*Auxis thazard*). Billfishes: Swordfish (*Xiphias gladius*), Atlantic blue marlin (*Makaira nigricans*) and sailfish (*Istiophorus albicans*) are also caught. The total catch of small tunas and billfish, for all species combinied, amounted to 5,040 t in 2008. Catches decreased as compared to (9,836 t). The sport fishery mainly targets swordfish (*Xiphias gladius*), blue marlin (*Makaira nigricans*) and sailfish (*Istiophorus albicans*)during the fishing season that runs from May to December. This fishery also targets dolphinfish, tunas and other species. Catches for 2008 are estimated at 109 t for sailfish and 96 t for blue marlin. The Center of Oceanographic Research of Dakar Thiaroye (Centre de Recherches océanographiques de Dakar Thiaroye-CRODT) is in charge of the research and statistics on the tunas landed regularly by national and foreign vessels (mostly French and Spanish)that use Dakar as their base port. The statistical data collection is based on daily detailed surveys on the tuna vessel owners at each landing, supplemented with the catch data from various sources: (vessel owners, Directirate of Marine Fishing, etc.). Sampling is carried out on landings at the port of Dakar by a team of three samplers. In 2008, there were 218 multi-species size samples taken on Senegalese boatboats.The number of samples is higher than that of 2007 (157 samples). There were 527 samples taken from foreign vessels, 33 of these on French purse seiners, 208 on Spanish baitboats and 286 on Spanish purse seiners. Sampling of billfish (mostly sailfish,* Istiophorus albicans*) is also carried out at the major landing centers of artisanal fishing. Size frequency data are collected on fish caught by the artisanal fishery. With regard to the ICCAT conservation and management measures, these are closely monitored by Senegal. Sénégal has implemented a monitoring, control and surveillance scheme of all the fishing activities; inspections are carried out at port and all vessels that carry out illegal fishing activities are identified.*

RÉSUMÉ

*En 2008 la flottille industrielle du Sénégal se composait de sept canneurs qui ciblent essentiellement les thons tropicaux majeurs : l'albacore (*Thunnus albacares-*YFT*), *le listao (*Katsuwonus pelamis-*SKJ*) *et le patudo (*Thunnus obesus-*BET*). *En 2008, les prises sont évaluées à 5.143 t, dont 550 t d'albacore, 3.667 t de listao et 926 t de patudo. Les captures de ces thons majeurs ont augmenté par rapport à l'année 2007 (3.898 tonnes). Pour ce qui concerne la pêche palangrière, seuls deux navires ont été en activité en 2008 ; leur prise totale est estimée à 725 t, dont 440 t de requins, 138 t d'espadon, 38 t d'albacore et 18 t de marlin. Quant à la flottille artisanale, une partie cette pêcherie exploite à la ligne à la main, à la ligne de traîne et à la senne tournante des petits thonidés : thonine (*Euthynnus alletteratus*) ; maquereau bonite (*Scomberomus tritor*) ; palomette (*Orcynopsis unicolor*) et bonite à dos rayé (*Sarda sarda*) ; thazard bâtard (*Acanthoncybium solandri*) ; auxide (*Auxis thazard*). Les*

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*poissons porte-épée (espadon (*Xiphias gladius*) ; marlin (*Makaira nigricans*) et voilier (*Istiophorus albicans*) sont aussi capturés. Les prises totales des petits thonidés et poissons porte-épée, toutes espèces confondues, s'élèvent à 5.040 t en 2008. Les captures ont diminué par rapport à 2007 (9.836 t). La pêche sportive cible essentiellement l'espadon (*Xiphias gladius*), le marlin (*Makaira nigricans*) et le voilier (*Istiophorus albicans*) pendant la saison de pêche située de mai à décembre. Elle cible également les coryphènes, les thonidés et autres espèces. Les captures de 2008 sont estimées à 109 t pour le voilier et 96 t pour le marlin. Le Centre de Recherches océanographiques de Dakar Thiaroye (CRODT) est la structure chargée de la recherche et des statistiques sur les thonidés débarqués régulièrement par les navires nationaux et étrangers (surtout français et espagnols) ayant Dakar comme port d'attache. Le système de collecte des statistiques repose sur une enquête détaillée quotidienne auprès des patrons thoniers lors de chaque débarquement, complété par les captures effectives de diverses sources (armements, Direction des pêches maritimes, etc.). L'échantillonnage est réalisé lors des débarquements au port de Dakar par une équipe de trois enquêteurs. En 2008, 218 échantillons de tailles plurispécifiques sont enregistrés sur les canneurs sénégalais. Le nombre d'échantillons enregistré est plus élevé que celui de 2007 (157 échantillons). 527 échantillons ont été enregistrés sur les navires étrangers, dont 33 sur les canneurs français, 208 sur les canneurs espagnols et 286 sur les senneurs espagnols. L'échantillonnage des istiophoridés (surtout le voilier (*Istiophorus albicans*)) est aussi réalisé dans les principaux centres de débarquement de la pêche artisanale. Les données de fréquence de tailles des individus capturés par la pêche artisanale sont collectées. Concernant les mesures de conservation et de gestion de l'ICCAT, elles ont été bien suivies par le Sénégal. Le Sénégal a mis en place un système de suivi, de contrôle et de surveillance de toutes les activités de pêche ; des inspections sont effectuées au port, ainsi que l'identification de tout navire menant des activités de pêche illicite.*

RESUMEN

*En 2008, la flota industrial de Senegal estuvo compuesta por siete barcos de cebo vivo que dirigieron su actividad básicamente a los grandes túnidos tropicales: rabil (*Thunnus albacares-*YFT), listado (*Katsuwonus pelamis-*SKJ) y patudo (*Thunnus obesus-*BET). En 2008, se estimaron unas capturas de 5.143 t, de las cuales 550 t de rabil, 3.667 t de listado y 926 t de patudo. Las capturas de estos grandes túnidos se han incrementado con respecto a 2007 (3.898 t). En lo que concierne a la pesca palangrera, sólo dos buques estuvieron activos en 2008. Su captura total se estimó en 725 t, de las cuales 440 t de tiburones, 138 t de pez espada, 38 t de rabil y 18 t de marlines. En cuanto a la flota artesanal, una parte de esta pesquería explota pequeños túnidos con liña de mano, curricán y cerco de jareta: bacoreta, (*Euthynnus alletteratus*), carita lusitánico (*Scomberomorus tritor*), estornino (*Scomber japonicus*); tasarte (*Orcinopsis unicolor*), bonito atlántico (*Sarda sarda*), peto, (*Acanthocybium solandri*) y melva (*Auxis thazard*). Esta pesquería también explota peces de pico como pez espada (*Xiphias gladius*), aguja azul (*Makaira nigricans*) y pez vela (*Istiophorus albicans*). Las capturas totales de pequeños túnidos y peces de pico, para todas las especies agregadas, ascendieron en 2008 a 5.040 t. Las capturas han experimentado un descenso con respecto a 2007 (9.836 t). La pesca deportiva se dirige sobre todo al pez espada (Xiphias gladius), a la aguja azul (*Makaira nigricans*) y al pez vela (*Istiophorus albicans*) durante la temporada de pesca que va de mayo a diciembre. También se dirige a corífenos, túnidos y otras especies. Para 2008 se estimaron unas capturas de 109 t para el pez vela y 96 t para los marlines. El centro de investigación oceanográfica de Dakar Thiaroye (Centre de Recherches Océanographiques de Dakar Thiaroye - CRODT) es la instancia encargada de la investigación y de la recopilación de estadísticas de túnidos desembarcados regularmente por los buques nacionales y extranjeros (sobre todo franceses y españoles), que utilizan Dakar como puerto base. El sistema de recopilación de estadísticas se basa en una encuesta detallada cotidiana a los patrones de los atuneros en cada desembarque, y se completa con los datos de captura procedentes de diversas fuentes (armadores, Dirección de Pesca Marítima, etc.). El muestreo lo realiza en el momento del desembarque en el puerto de Dakar un equipo compuesto de tres encuestadores. En 2008, se registraron 218 muestras de tallas pluriespecíficas en los barcos de cebo vivo senegaleses. El número de muestras registrado es más elevado que el de 2007 (157 muestras). Se recogieron 527 muestras en buques extranjeros, de las cuales 33 en barcos de cebo vivo franceses, 208 en barcos de cebo vivo españoles y 286 en cerqueros españoles. También se lleva a cabo un muestreo de istiofóridos (sobre todo pez vela-*Istiophorus albicans*) en los principales puntos de*

desembarque de la flota artesanal. Asimismo, se recopilan datos de frecuencias de tallas de los ejemplares capturados por la pesquería artesanal. Respecto a las medidas de conservación y ordenación de ICCAT, éstas han sido cumplidas por Senegal. Senegal ha implementado un sistema de seguimiento, control y vigilancia de todas las actividades de pesca; se realizan inspecciones en puerto y se procede también a la identificación de todos los buques que realizan actividades de pesca ilegal.

I^{ère} Partie (Informations sur les pêcheries, la recherche et les statistiques)

Chapitre 1 : Information annuelle sur les pêcheries

Le littoral sénégalais est une zone de forte productivité halieutique (siège d'un upwelling intense) où se concentrent les différentes ressources exploitées. Les thons font partis des ressources exploitées par les différentes pêcheries. La zone guinéo- sénégalo-mauritanienne se trouve sur le parcours migratoire des espèces pélagiques hauturières ce qui explique l'importance du Sénégal dans la gestion de thonidés de l'Atlantique. Ce rapport fait la synthèse des données relatives aux thonidés et espèces apparentées.

1.1 La pêche industrielle

L'albacore *Thunnus albacares (YFT),* le listao *Katsuwonus pelamis (SKJ*) et le patudo *Thunnus obesus (BET)* sont les principales espèces exploitées par cette pêcherie. Outre les thons majeurs tropicaux, les espèces de petits thonidés côtiers (thonine, auxide, maquereau bonite et bonite à dos rayé), les poissons porte épée (espadon, marlin et voilier*)* sont aussi capturées par la pêche thonière.

En 2008, la flottille thonière est composée de :

- 17 canneurs dont 7 canneurs sénégalais, 3 canneurs français, 7 canneurs espagnols ayant Dakar comme Port d'attache ;
- 6 senneurs espagnols dont une partie seulement des captures est débarquée au Sénégal ;
- 3 palangriers de pavillon sénégalais ciblant l'espadon.

1.1.1 Flottille de canneurs

En 2008, la prise totale de thons majeurs des canneurs sénégalais s'élève à 5143 tonnes, dont 550 tonnes (11 %) d'albacore, 3667 tonnes (71 %) de listao et 926 tonnes (18 %) de patudo. Les captures des thons majeurs ont connu une hausse par rapport à 2007 (3898 tonnes). L'effort de pêche de 2008 est de 1500 jours de mer. **Tableau 1** montre les prises par espèce, les efforts et les prises par unité d'effort (PUE) des canneurs sénégalais de 1991 à 2008. Outre ces thons majeurs, cette flottille a capturé également la thonine et l'auxide avec respectivement 66 tonnes et 124 tonnes. La **Figure 1** montre la variation annuelle des prises et de l'effort de pêche des canneurs sénégalais de 1991 à 2008.

À côté des canneurs sénégalais, la flottille étrangère a débarqué 12028 tonnes dont 1196 tonnes (10 %) pour les canneurs français, 6476 tonnes (54 %) pour les canneurs espagnols et 4356 tonnes (36 %) pour les senneurs espagnols.

1.1.2 Flottille palangrière

En 2008, deux navires sur les trois qui constituent cette flottille ont été en activité. La prise totale est estimée à 725 tonnes. Les requins toutes espèces confondues constituent 440 tonnes, l'espadon 138 tonnes, 38 tonnes pour l'albacore et le marlin 18 tonnes. Le **Tableau 2** présente les prises par espèces des palangriers en 2008. La tendance est à la hausse par rapport aux prises de 2007.

1.2 Les pêcheries artisanales

Les pêcheries artisanales s'intéressent surtout aux petits pélagiques côtiers (80 % des débarquements) et aux démersaux. Cependant, une partie de cette flottille exploite à la ligne à la main, à la ligne de traine et à la senne tournante des petits thonidés : thonine (*Euthynnus alletteratus)* ; maquereau bonite (*Scomberomus tritor*) ; palomette (*Orcynopsis unicolor*) et bonite à dos rayé (*Sarda sarda*) ; thazard bâtard (*Acanthoncybium solandri*) ;

auxide (*Auxis thazard*) ; les poissons porte épée espadon (*Xiphias gladius*) ; marlin (*Makaira nigricans*) et voilier (*Istiophorus albicans*) sont aussi pris dans les captures.

Les prises totales de la pêche artisanale toutes espèces confondues ont chuté en 2008. Les captures sont passées de 9836 tonnes en 2007 à 5040 tonnes en 2008. Le **Tableau 3** illustre l'évolution des captures de la pêche artisanale de 1990 à 2008.

1.3 La pêche sportive

Au Sénégal, la pêche sportive cible l'espadon (SWO-*Xiphias gladius*), les marlins (BUM-*Makaira nigricans*) et les voiliers (SAI-*Istiophorus albicans*) pendant la saison de pêche située de mai à décembre. Elle cible également les coryphènes, les thonidés et autres espèces.

Cette pêcherie est suivie dans deux grands centres de pêche à Dakar et à Mbour. Les **Tableaux 4 et 5** présentent l'effort, les prises et les CPUE des voiliers et marlins de 1996 à 2008 à Dakar et de 1999 à 2008 à Mbour. Il ressort de l'analyse que depuis 2007, les prises connaissent une hausse importante. Le Ta**bleau** 6 illustre les prises annuelles totales de voiliers et marlins de 1996 à 2008.

1.4 Les conserveries

En 2008, 5697 tonnes de thons ont été débarquées au niveau de l'usine de la Société Nationale des Conserveries du Sénégal (SNCDS). 562 tonnes d'albacore, 331 tonnes de patudo et 480 tonnes de listao et 1071 tonnes rabil. Le **Tableau 7** montre la ventilation des approvisionnements par mois, par espèce et par taille.

Chapitre 2 : Recherche et statistiques

Le Centre de Recherches océanographiques de Dakar Thiaroye (CRODT) est la structure chargée de la recherche et des statistiques sur les thonidés débarqués régulièrement 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 quotidienne, auprès des patrons thoniers lors de chaque débarquement, complété par les captures effectives de diverses sources (armements, Direction des pêches maritimes, etc.). En effet, le CRODT dispose au port de pêche de Dakar un bureau des statistiques. Le travail de collecte des données est mené par 4 techniciens, dont trois chargés des enquêtes et un de la saisie des données. L'ensemble des données est saisi, codé et mis sur support informatique ensuite centralisé après vérification et correction. La gestion des données se fait en partenariat avec l'Institut de Recherche pour le Développement (IRD) et l'Institut espagnol d'océanographie (IEO). Les charges de fonctionnement, d'équipement et du personnel sont supportées par les trois structures : le CRODT (budget national), l'IEO et l'IRD (financement UE).

Le CRODT a développé depuis plus d'une trentaine d'années un système d'enquête et de collecte des statistiques de la pêche artisanale 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.

L'échantillonnage est réalisé lors des débarquements au port de Dakar par une équipe de trois enquêteurs. En 2008, 218 échantillons de tailles plurispécifiques sont enregistrés sur les canneurs sénégalais. Le nombre d'échantillons enregistré est plus élevé que celui de 2007 (157 échantillons). 527 échantillons ont été enregistrés sur les navires étrangers dont 33 sur les canneurs français, 208 sur les canneurs espagnols et 286 sur les senneurs espagnols.

L'échantillonnage des istiophoridés (surtout le voilier-*Istiophorus albicans)* est réalisé dans les principaux centres de débarquement de la pêche artisanale. Les données de fréquence de tailles des individus capturés par la pêche artisanale sont collectées. La **Figure 2** présente l'évolution de la classe modale de 2003 à 2008. On note que les voiliers capturés par les pirogues artisanales sont des individus de grandes tailles.

S'agissant de la récupération des marques auprès des armateurs et pêcheurs, aucune marque n'a été récupérée au cours de ces cinq dernières années.

II^{ème} Partie (Mise en œuvre de la gestion)

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

Le Sénégal participe aux activités des structures et organismes de coopération en matière de pêche. Cette participation a, entre autres buts, l'application de mesures sur la gestion commune des stocks ; l'harmonisation et la coordination des systèmes de gestion et d'aménagement des ressources, la détermination des conditions d'accès aux ressources halieutiques et l'adoption de mesures coordonnées de surveillance et de contrôle des activités des navires de pêche.

En vue de veiller à la gestion rationnelle et durable des ressources halieutiques, le Sénégal a mis en place un système de suivi, de contrôle et de surveillance de toutes les activités de pêche ; des inspections sont effectuées au port ainsi que l'identification de tout navire menant des activités de pêche illicite.

Chapitre 4 : Schéma d'inspection

La gestion des ressources halieutiques est une prérogative de l'État. L'État définit à cet effet une politique visant à protéger, à conserver ces ressources et à prévoir leur exploitation durable de manière à préserver l'écosystème marin. L'ensemble des dispositions prises par l'État sont contenues dans la loi 98-32 portant code de la pêche maritime et de son décret d'application n^{o} 98 -498 fixant les modalités d'application de la loi portant code de la pêche.

La pêche industrielle est pratiquée par navires qui sont autorisés à pêcher dans les conditions définies par le Code de la Pêche maritime. Différentes catégories d'autorisation sont mises en œuvre en fonction des types de pêche pratiqués et permettant une classification en zones de pêche de l'espace maritime. Les zones de pêche prescrites en fonction des stocks exploités varient d'une catégorie à une autre.

Une balise reliée à un système de positionnement et de localisation utilisant les communications par satellite est installée dans chaque navire autorisé à pêcher ; ceci permet la transmission par fréquences les données aux services de réception de Toulouse, la position, les variables de route et de vitesse correspondantes.

La quasi-totalité des navires sénégalais dispose d'une balise Argos fonctionnelle à la charge des armateurs qui leur permet ainsi 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.

De plus, grâce au dispositif d'inspection mis en place au port de Dakar, tous les débarquements nationaux comme étrangers sont suivis et inspectés.

Tableau 1. Prises par espèces, efforts et prises par unité d'effort (PUE) des canneurs sénégalais de 1991 à 2007.

Année	*Prises (t) canneurs*				*Effort*	*PUE (t/j)*			
	YFT	*SKJ*	*BET*	**Total**	*(jpec)*	*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	176	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

Tableau 2. Prises mensuelles d'espèces apparentées, de thonidés et requins (en tonnes) par la flottille palangrière en 2008.

Espèces	*Espadon*	*Marlin*	*Requin*	*Requin bleu*	*Requin chagrin*	*Requin mako*	*Requin marteau*	*Requin Renard*	*Aileron*	*Albacore*	*Divers*	*Total*
Poids	138,116	18,301	48,855	133,576	135,051	16,64	103,294	2,5	31,643	38,084	59,213	725,273

Tableau 3. Prises (en tonne) des petits thonidés, d'istiophoridés et xiphiidés par la pêche artisanale de 1990 à 2008.

Espèces	*1990*	*1991*	*1992*	*1993*	*1994*	*1995*	*1996*	*1997*	*1998*	*1999*	*2000*	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*
Orcynopsis unicolor	16	20	41	29	16	63	60	5	18	24	14	28	6	7	67	85	29	240	33
Scomberomorus tritor	1 220	520	1 225	1 019	939	1 614	1 318	837	522	491	778	408	584	532	288	489	196	845	189
Acanthocybium solandri		0	2	64	0	0	1	0	1	5	0	0		7	0	0	1	0	0
Euthunnus alletteratus	4 184	2 955	3 137	3 913	4 238	3 560	1 972	2 734	3 372	1 398	3 336	4 969	2 659	4 394	4 160	2 166	3826	3815	2972
Sarda sarda	525	597	345	171	814	732	1 012	1 289	2 213	2 558	286	545	621	195	197	486	2304	1020	1154
Katsuwonus pelamis	5	288	2	0	0	2	1	2	6	4	7	6	287	45	154	341	90	195	60
Thunnus obesus		3		9	1	0	0		2	2	0	0	3	5	4	4	1	3	35
Auxis thazard	94	4	0	33	10	0	0	0	0	7	0	4	0	13	285	159	83	119	249
Thunnus albacares	2	20	23	8	1	1	1	0	1	0	3	0	25	3	10	43	63	39	4
Istiophorus platyptarus	1 040	466	860	462	162	167	240	555	257	234	782	953	240	673	291	250	256	614	338
Makaira nigricans	1	4	8		9		2	5	0	0		11	24	32	8	0	5	4	0
Xiphias gladius	0	6	5	0	1	1	0	0	4	2	242	2	17	2	4	7	7	6	6
Total	9 575	5 850	7 498	7 049	7 487	8 557	6 298	7 661	8 327	6 073	8 220	8 862	13 335	20 081	9 408	9 811	10289	9836	5040

Tableau 4. Effort, captures, captures et CPUE des voiliers et marlins par la pêche sportive de 1996 à 2008 à Dakar.

	Voiliers				*Voiliers*		
Année	*Effort (nombre de sorties)*	*Captures (nombre)*	*Captures (tonnes)*	*CPUE (tonne/sortie)*	*Captures (nombre)*	*Capture moyenne*	*CPUE (tonne/sortie)*
1997	244	454	10,442	0,043	40	5.200	0,021
1998	894	1471	33,833	0.040	62	8.060	0,010
1999	738	1323	30,29	0.041	5	0.650	0,001
2000	1131	1753	40,319	0,040	152	19,760	0,020
2001	691	151	3,473	0,005	18	2,340	0,003
2002	863	90	2,070	0.002	11	1,430	0,002
2003	855	210	4,830	0.005	12	1,560	0,002
2004	885	108	2,480	0,002	15	1,950	0,002
2005	823	143	3,289	0,004	13	1,690	0,002
2006	856	138	3,174	0,004	12	1,560	0,002
2007	856	1971	55,188	0,064	398	66,467	0,052
2008	675	2014	56,392	0,084	398	66,466	0,098

Tableau 5. Effort, captures, captures et CPUE des voiliers et marlins par la pêche sportive de 1999 à 2008 à Saly (Mbour).

	Voiliers				*Voiliers*		
Année	*Effort (nombre de sorties)*	*Captures (nombre)*	*Captures (tonnes)*	*CPUE (tonne/sortie)*	*Captures (nombre)*	*Capture moyenne*	*CPUE (tonne/sortie)*
1999	350	245	5,635	0,016	ND		
2000	323	706	16,238	0,050	ND		
2001	426	501	11,230	0,026	ND		
2002	306	511	11,753	0,038	ND		
2003	363	808	18,584	0,052	ND		
2004	387	689	15,847	0,040	ND		
2005	352	669	15,387	0,044	ND		
2006	367	722	16,606	0,045	DN		
2007	369	2345	65,660	0,178	79	13,193	0,036
2008	379	1867	52,276	0,138	178	29,726	0,078

Tableau 6. Les prises (en tonnes) de voilier et marlin de 1996 à 2008.

Année	*1996*	*1997*	*1998*	*1999*	*2000*	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*
Voilier	22	11	34	36	57	15	14	23	18	19	20	121	109
Marlin	0	5	8	1	20	2	1	2	2	2	2	80	96

Tableau 7. Tonnage débarqué par mois auprès de la conserverie Société Nationale des Conserveries du Sénégal (SNCDS) en 2008.

Période	*Albacore+10*	*Albacore-10*	*Patudo+15*	*Patudo -15*	*Listao+1,8*	*Listao-1,8*	*Listao -1,5*	*Ravil*	***TOTAL***
Janvier	133 856	2 911	21 064	461	530 985	69 032	29 013	0	787 322
Février	163 655	7 001	34	135	74 017	10 601	2 987	0	258 430
Mars	24 342	2 538	275	7 308	45 861	4 009	2 253	0	86 586
Avril	21 244	6 304	1 832	584	101 840	4 183	142	1 071	137 200
Mai	24 458	0	0	0	0	0	0	0	24 458
Juin	36 851	3 359	15 395	26 032	643 917	7 417	1 261	0	734 232
Juillet	42 508	16 352	59 720	46 427	841 221	30 782	3 597	0	1 040 607
Août	30 303	16 955	53 917	59 791	824 293	30 420	2 203	0	1 017 882
Septembre	3 582	125	6 979	5 317	405 590	23 291	3 685	0	448 569
Octobre	7 120	0	4 799	1 489	24 396	3 491	1 011	0	42 306
Novembre	3 427	74	4 082	1 585	78 685	1 573	0	0	89 426
Décembre	9 754	5 175	4 954	9 102	967 937	28 711	4 746	0	1 030 379
Total	501 100	60 794	173 051	158 231	4 538 742	213 510	50 898	1 071	**5 697 397**
%	8,80	1,07	3,04	2,78	79,66	3,75	0,89	0,02	**100,00**

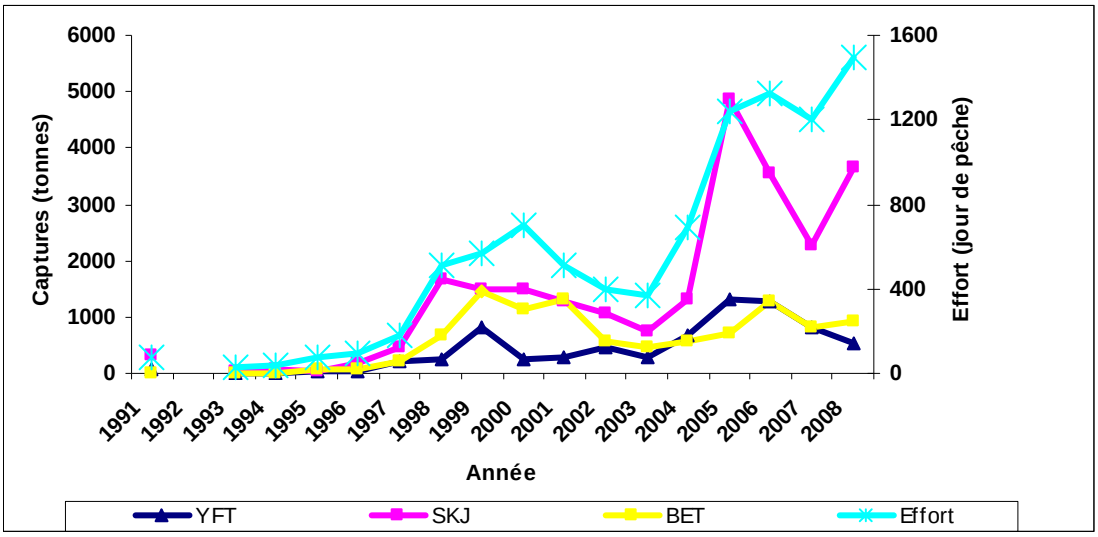

Figure 1. Évolution annuelle des prises des canneurs sénégalais de 1991 à 2008.

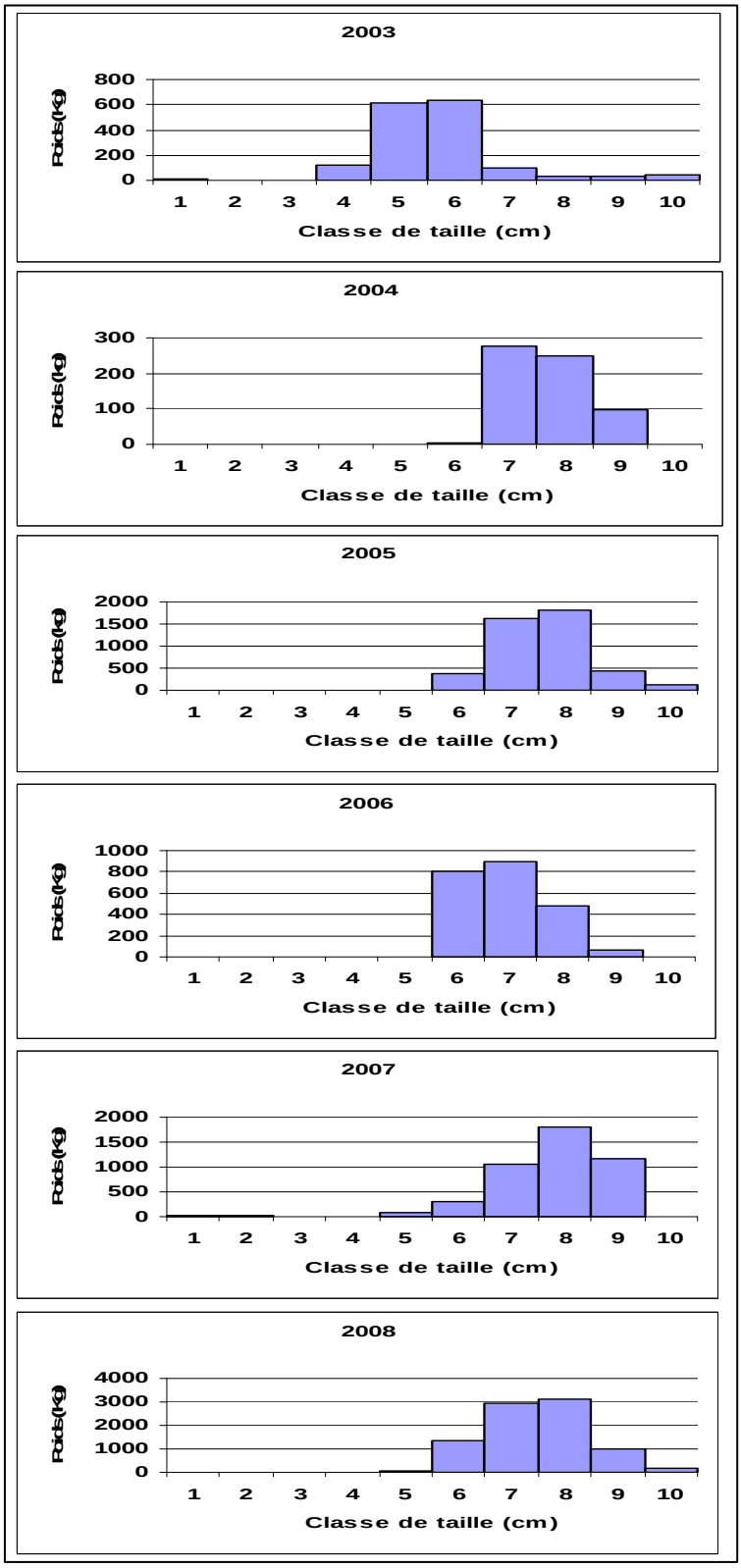

Figure 2. Classe de taille des individus de voilier capturés en fonction du poids de 2003 à 2008.

Classe de taille en cm
1= <120
2= 120-130
3= 130-140
4= 140-150
5= 150-160
6= 160-170
7= 170-180
8 = 180-190
9 = 190-200
10 = > 200

ANNUAL REPORT OF SOUTH AFRICA*
RAPPORT ANNUEL DE L'AFRIQUE DU SUD
INFORME ANUAL DE SUDÁFRICA

Dylan T. Clarke[1] and Craig D. Smith[1]

Part I (Information on Fisheries, Research and Statistics)

Section 1: Annual Fisheries Information

1.1 Poling, rod and reel, and sport fishery

The fishery generally operates between September and May along the west coast of South Africa. The estimated total annual pole fleet (including rod and reel) catch remained low in 2008 (3362 t), and well below the mean annual catch over the last decade (~ 4900 t). Reduced catches, particularly in the baitboat fishery, were compounded by the periodic availability of sub-adult albacore in near-shore waters, recent change of targeting to yellowfin tuna using rod-and-reel gear, and high fuel prices. In addition, a total of 35 South African poling vessels also fished for Namibia for a major part of the year of which the catches accrued to Namibia.

The reported fishing effort continued to decrease from 1788 sea days in 2007 to 1084 sea days in 2008 **(Table 1)**. The nominal CPUE for albacore also decreased from 1132 kg.day^{-1} in 2007 to 884 kg.day^{-1} in 2008 **(Table 1)**. The poling fleet also reported 23 t of bigeye, and 108 t of yellowfin (a reduction of 125 t; **Table 1**).

Despite the increased number of rod and reel vessels geared up to target yellowfin tuna, the season was poor with only 206 t landed compared to 607 t (dressed weight) in 2007. The nominal CPUE also declined from 339 kg.day^{-1} to 183 kg.day^{-1}. Other reported catches made by this sector includes 1023 t of albacore (a decrease of 672 t; **Table 1**) and 2 t of bigeye tuna.

The traditional commercial linefishery, which opportunistically target longfin and yellowfin tuna when they are close inshore and when linefish species are not available; caught 78 t of albacore and 47 t of yellowfin in 2008 **(Table 1)**. 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 data n the recreational fishery for yellowfin and albacore are not yet quantified, the total catch is considered to be relatively small given the expenses involved, restrictive bag limits and the non-sale of the catch.

1.2 Tuna/swordfish longline fishery

The number of active longline vessels decreased from 29 in 2007 to 25 in 2008. The fishing effort in the Atlantic Ocean also declined from 1.2 million hooks in 2007 to 0.8 million hooks in 2008 **(Table 1)**. Despite the decrease in fishing effort, catches of albacore increased from 33 t in 2007 to 107 t in 2008. Similarly, catches of bigeye increased from 70 t in 2007 to 199 t (dressed weight) in 2008 **(Table 1)**. The bulk of the longline fishing effort (3.4 million hooks) remained in the Indian Ocean, where catch rates of the target species were generally higher.

1.3 Shark longline fishery

The Department of Environmental Affairs and Tourism (hereafter referred to as the Department) had still not realized its objective to consolidate the pelagic shark fishery with the large pelagic fishery in 2005 and consequently the pelagic shark fishery are still operating under exemption and is due to be terminated at the end of 2009. Seven shark exemption holders were actively fishing for pelagic sharks in 2008, with reported catches of mako and blue shark (dressed weight) at 127 t and 101 t, respectively **(Table 1)**.

* No summary provided. / Aucun résumé soumis. / No se ha facilitado el resumen.

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Section 2: Research and Statistics

2.1 Poling, rod and reel, and sport fishery

Reporting is a problem in the pole fishery, hence, Customs and Excise records are generally used to obtain a better estimate of albacore catches made. However, the tuna pole season was particularly poor in 2008, whereas the Customs and Excise figure was extremely high **(Table 2)**. The high Customs and Excise figure could be due to various factors including the labelling of re-exported Namibian and foreign-caught albacore and possibly product caught in 2007 that was only exported in 2008. Consequently, a decision was made not to utilize this figure but rather to extrapolate the reported catches taking into account the percentage catch returns submitted **(Table 2)**. There was still no statistical system in place to record recreational catch and effort.

Routine port sampling trips are undertaken to obtain length frequencies of albacore landed by the poling fleet. The increase in port sampling for 2008 (3356 albacore were measured) was the result of a linefish (land-based) observer programme being implemented by the Department towards the end of 2007.

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 U.S. trade statistics were very similar, indicating good reporting for this sector in recent years **(Table 3)**. In the last four years the swordfish market has diversified, as a result the reported catch now exceeds the U.S. import statistics **(Table 3)**. Reporting is considered to cover more than 95% of all swordfish, yellowfin and bigeye catches made by this sector. Although the logbooks have been used to report catches to the RFMOs this will change in future in favour of using landing declarations as monitored by the 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. The intended observer coverage was 20% of all domestic fishing trips and 100% of all foreign charter fishing trips. 14.6% observer coverage was achieved for sets made in the Atlantic Ocean (for domestic fishing trips) in 2008. Through the observer programme it was estimated that only 7 of the swordfish caught were under the legal size limit of 119 cm LJFL, which amounted to 126 kg of undersize swordfish caught in total in the Atlantic Ocean **(Table 4)**.

2.3 Shark longline fishery

Permit holders in the shark longline fishery are also required to complete daily logs of catches. Levels of reporting are good with coverage of approximately 90%. No size frequencies have been collected from this fishery and neither has any observers been placed on any of these vessels.

2.4 Research

As the large pelagic researcher post was only filled towards the end of 2007, very little research took place during 2008. In addition, one research supporting position in the large pelagic section (in the Department) remains vacant and should be filled towards the end of 2009. However various projects were initiated in 2009 including: 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 continues to collaborate with WWF 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 was also gazetted for the above-mentioned by-catch species in 2008 and 5-day observer reports were introduced (in 2008) in order to monitor sea-bird by-catch.

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 of this project are due to be made known by the end of 2009 in the form of an MSc thesis.

Part II (Management Implementation)

Section 3: Implementation of ICCAT Conservation and Management Measures

3.1 Closed seasons

96-02, 98-07, 02-08: South Africa does not catch bluefin tuna (*Thunnus thynnus thynnus*), hence these management measures are not applicable.

3.2 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 (Table 4).

01-16: Task I and II data were submitted to ICCAT on 6 July 2009, for 2008 data. ICCAT reporting tables for south Atlantic swordfish is included in Annual Report. 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, is managed by a TAE (with TAE = no of vessels) as determined by the Minister of Environmental Affairs and Tourism. 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 a weight of 25 kg were reduced to 119 cm LJFL and a weight of 18 kg in order to minimize dumping at sea. An estimate of the total amount of undersize swordfish caught is reported in the compliance form.

3.3 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.

3.4 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.

3.5 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. No reported catches of marlins were recorded/landed in 2008.

01-11: 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 are 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. Furthermore, in expanding the tuna longline fishery the Department has taken a decision to terminate pelagic shark targeting so that shark catches are adequately controlled.

06-03: South Africa has not exceeded her swordfish catch limit of 1 200 t for 2008. Only 142 t landed.

02-14: 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.

Bait and offal are not to dumped on the same side as hauling.

All tuna longline vessels are only allowed to 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. In addition, WWF and Birdlife SA have also provided vessels with tori lines and given instructions on how to use them.

03-10: Although South Africa's shark NPOA is still in draft South Africa has already implemented a number of measures to manage and conserve shark population. The final NPOA is scheduled to be gazetted in 2009.

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 2008 has been provided to ICCAT.

3.6 Trade sanctions

02-17, 03-18: South Africa does not import bigeye tuna from Bolivia and Georgia.

3.7 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.

3.8 General

97-10 (para. 7): Thus far 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 an open access fishery, and 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 shore-based observer programme was established in 2007 to improve 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, transhipments 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.

02-22: All required details of vessels participating in South Africa's tuna/swordfish longline fishing sectors have been submitted to ICCAT.

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 transhipments 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.

Section 4: Inspection Schemes and Activities

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 ICCAT recommendations. This includes foreign vessels requiring an EEZ permit to enter and discharge in South African ports. 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 made on foreign vessel discharges and transshipments. 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. All domestic longline discharges are required to be monitored and inspected by South African authorities. The Statistical Document Programme for swordfish, bigeye tuna and southern bluefin tuna, which was implemented in 2003, is now well established.

Section 5: Other Activities

Surveillance of coastal waters is provided by *ad hoc* spotter plane and navy patrols.

Table 1. Nominal catch and effort data for the most important species landed by large pelagic fishing sectors in 2007 and 2008.

Fishing Sector	*Total reported effort 2007*	*Total reported effort 2008*	*Reported catch by species per year in t dressed weight except for ALB and poling catches*											
			ALB 07	*ALB 08*	*SWO 07*	*SWO 08*	*YFN 07*	*YFN 08*	*BET 07*	*BET 08*	*BSH 07*	*BSH 08*	*SMA 07*	*SMA 08*
Poling	1788 sea days	1084 sea days	2023	958	0	0	233	108	13	23	0	0	0	0
Rod and reel	1786 sea days	1124 sea days	1695	1023	0	0	607	206	7	2	0	0	0	0
Handline	259 sea days	199 sea days	64	78	0	0	82	47	0	0.1	0	0	0	0
Sport	unavailable	unavailable	0	0	0	0	0	0	0	0	0	0	0	0
Tuna/SWO LL	1244040 hooks	870416 hooks	33	107	200	142	94	38	70	199	2	25	13	8
Shark longline	229491 hooks	264925 hooks	0	0	0.1	0	0.5	0	0	0	47	101	191	127
		TOTAL	**3815**	**2166**	**200.1**	**142**	**1016.5**	**399**	**90**	**224.1**	**49**	**126**	**204**	**135**

Table 2. Annual albacore landings (t) estimated from poling and rod and reel and custom and excise data, 1985-2008.

Year	*Logbooks*	*Exported*
1985	6697	
1986	5930	
1987	7275	
1988	6570	
1989	6890	
1990	5280	
1991	3410	
1992	6360	
1993	6743	6881
1994	5268	6931
1995	4246	5213
1996	2856	5635
1997		6708
1998		8412
1999		5101
2000		3610
2001		7236
2002		6507
2003		3470
2004	3170	4561
2005	3144	2685
2006	2161	3365
2007	3718	3818
2008	1981 (3362)	7034

Note: The export figure in 2008 was not used to estimate the total catches made by the bait-boat fleet, as it was too high given the poor season. The estimated figure in parenthesis for albacore in 2008 was extrapolated using the percentage of catch returns received.

Table 3. Comparison of reported South African swordfish catches (t) vs. U.S. import statistics from South Africa (as reflected by U.S. trade statistics).

Year	*Reported catch*	*U.S. import stats.*
1998	394.7	401.7
1999	114.7	1041.5
2000	252.1	909.9
2001	621.7	791.6
2002	1091.1	993.7
2003	807.9	807.9
2004	424	434.2
2005	317	301.1
2006	357	258
2007	383	298.9
2008	462	254.4

Table 4. ICCAT reporting table (Panel 4).

Species	*Catch limit*	*Landings*	*Under catch*	*< 119cm*
S. Atl. Swo	1200t	142t	1058t	0.1t

ANNUAL REPORT OF ST. VINCENT AND THE GRENADINES
RAPPORT ANNUEL DE SAINT-VINCENT-ET-LES-GRENADINES
INFORME ANUAL DE SAN VICENTE Y LAS GRANADINAS

Cheryl Jardine-Jackson[1]

SUMMARY

In this report, local landings of large pelagics during 2008 and high seas fishing fleet landings for 2008 are presented for St. Vincent and the Grenadines (SVG). The local landings correspond to the efforts of a small-scale artisanal fishing fleet. However, the high seas fishing fleet is more industrial in nature. As a small island developing state, SVG must continue 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 réalisés en 2008, ainsi que les débarquements de la flottille de pêche hauturière au titre de 2008 pour St Vincent et les Grenadines. Les débarquements locaux correspondent aux efforts d'une petite flottille de pêche artisanale. Cependant, la flottille de pêche hauturière est à caractère plus industriel. En tant que petit Etat insulaire en développement, Saint Vincent et les Grenadines doit continuer 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 se presentan los desembarques locales de grandes pelágicos y los desembarques de la flota pesquera de altura de San Vicente y las Granadinas para 2008. Los desembarques locales corresponden a los esfuerzos de una flota pesquera artesanal a pequeña escala. Sin embargo, la flota pesquera de altura es de naturaleza más industrial. 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: Annual Fisheries Information

1.1 The local fishing fleet

The local pelagic fishing fleet of St. Vincent and the Grenadines is a predominantly an artisanal one. In 2008 there were approximately 700 registered vessels and 1,600 fulltime fishers. 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 am - 4:00 pm) and up to five 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 St. Vincent and the Grenadines and conduct their fishing activities on the high seas. In 2008 there were 31 vessels fishing in the Atlantic. Tuna and tuna-like species were caught with yellow fin tuna being the main species targeted. The areas of 10º-15ºS and 30º-35ºW, 15º-20ºS and 30º-35ºW and 15º-20ºN and 55º-60ºW were the three main areas for fishing activity in the Atlantic by these vessels in 2003.

In **Table 1** the length and gross tonnage of St. Vincent and the Grenadines high seas fishing vessels are shown. Thirteen (13) vessels in 2008, fishing in the Atlantic, were over 24 meters in length. Of these vessels three three were less that 30 meters, three were between 30-40 meters, eight were between 40-50 meters and four were over 50 meters.

Section 2: Research and Statistics

2.1 Local Statistics

Landings of tuna and tuna-like species by the local artisanal fishing fleet for 2008 decreased for most of these species as compared to 2007. There was an overall decrease of 78 metric tons (t) blackfin tuna *(Thunnus atlanticus)* and wahoo were the only two species that had a slight increase of 3.6 t and 20 t, respectively.

2.2 High seas statistics

The total reported landings of 3,080 t for 31 vessels fishing in the Atlantic in 2008 were less that the 4,368 t in 2007 (Task II). In particular, landings for albacore decreased substantially, from 422 t in 2007 to 202 t in 2008. Interestingly there were no recorded landings for skipjack tuna in 2008 while in 2007 the recorded landings were 206 t.

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. While ho historical data are available for 1992, recent trends show that yellowfin catches for St. Vincent and the Grenadines have reduced from over 2,000 t in 2000 to less that 570 t in 2003. With respect to Atlantic swordfish, billfish and marlin, current high seas vessel licensing agreements do not allow the taking of these species, hence they are not targeted.

Section 4: ICCAT Activities

St. Vincent and the Grenadines participated in the ICCAT Data Training Workshop held at the Grand Coastal Inn, Guyana, in February 2009.

ANNUAL REPORT OF TUNISIA*
RAPPORT ANNUEL DE LA TUNISIE
INFORME ANUAL DE TÚNEZ

Hechmi Missaoui

I^{ère} Partie (Information sur les pêcheries nationales, la recherche et les statistiques)

Chapitre 1 : Information annuelle sur les pêcheries

La pêche des thonidés occupe une place importante dans l'économie de certaines régions côtières tunisiennes. Son apport à l'économie nationale est vital en raison des entrées en devises provenant de la commercialisation sur le marché extérieur des produits pêchés ou engraissés.

Les engins de pêche utilisés pour la capture des thonidés sont représentés essentiellement par les sennes tournantes. Néanmoins, l'espadon est pêché par les palangres de surface, des prises accidentelles de cette espèce sont aussi réalisées à l'aide des sennes des petits pélagiques et des chaluts de surface.

Chapitre 2 : Recherche et statistiques

La recherche sur les grands pélagiques en l'occurrence le thon rouge et l'espadon, dans les zones de pêche traditionnelles, continue à être effectuée.

Un programme de recherche est donc défini. Ce programme tient compte des objectifs de l'ICCAT en matière d'échantillonnage des tailles pour permettre la connaissance de la structure démographique de la prise et du stock et d'une manière générale en matière de connaissance des paramètres biologiques des espèces thonières.

Un programme d'embarquement d'observateurs à bord des navires de pêché a été établi pour assurer la collecte des données et fournir les informations nécessaires sur les captures, les engins de pêché et autres paramètres d'aspect scientifique.

Les captures des thonidés et espèces apparentées ont totalisé 7080 tonnes dont 2679 tonnes de thon rouge et 1011 tonnes d'espadon.

A noter que les quantités pêchés ont accusé un léger dépassement (314 tonnes) par rapport au quota alloué à la Tunisie (quota ajusté de 2364.48 tonnes) et ce, malgré la fermeture de la saison de pêche avant la date fixée par l'ICCAT (28 juin au lieu de 20 juin 2008).

Les quantités de thon rouge vif transférées dans les cages d'engraissement au cours de la campagne de pêche de 2008 ont totalisé 2134.420 tonnes dont 235.940 tonnes capturées par des bateaux battant pavillon étranger.

Le poids moyen des pièces de thon est passé environ de 57 kg à 75 kg pendant les opérations d'engraissement.

II^{ème} Partie (Mise en œuvre de la gestion)

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

L'autorité compétente tunisienne à travers ses services centraux et régionaux dans les régions de pêche, a déployé tous ses efforts pour se conformer à toutes les recommandations de l'ICCAT et à respecter les différentes mesures de gestion prescrites en matière de pêche du thon rouge dont notamment :

3.1 Taille des captures

Publication d'un arrêté ministériel du 21 mai 2008. Ce texte fixe le poids minimal marchand du thon rouge pêché (30 kg) avec la tolérance de 8 % pour les individus dont le poids est entre 10 et 30 kg. Des contacts directs

* No summary provided. / Aucun résumé soumis. / No se ha facilitado el resumen.

ont été également établis avec les capitaines des unités de pêche à la senne tournante avant le démarrage de la campagne de pêche au thon rouge en vue de prendre toutes les précautions nécessaires pour la protection des juvéniles et des espèces sous taille et se limiter à la capture des tailles supérieures à celles prescrites par la réglementation en vigueur.

3.2 Saison de pêche

La saison de pêche et les périodes de fermetures de la pêche de thon rouge ont été notifiées aux opérateurs de pêche et aux autorités de contrôle. Ces mêmes périodes ont été rigoureusement respectées.

3.3 Validation des BCD

En vertu de la mise en œuvre du programme de documentation des captures de thon rouge, les services régionaux habilités ont procédé à la validation des documents de captures du thon rouge et les certificats des réexportations y afférents.

3.4 Communication des prises

L'administration des pêches a accentué ses efforts auprès des opérations pour qu'ils communiquent à temps les quantités de thon rouge pêchées et les zones de pêche.

Chapitre 4 : Schéma et activités d'inspection

4.1 Inspection dans les zones de pêche

Le système de contrôle VMS a été installé à bord des navires de plus de 24 m et a commencé à transmettre les informations à l'ICCAT. Environ un millier de messages ont été communiqués jusqu'à la fin de la campagne.

Le contrôle est aussi assuré par les services actifs de la surveillance côtière. Ce contrôle couvre, surtout, les activités exercées par les navires de pêches dans les eaux sous juridiction nationale.

4.2 Inspection au port

Cette tâche est remplie par les gardes de pêche relevant des services régionaux de la pêche. Un constat réel est opéré au niveau de tous les débarquements des captures enregistrées aux ports en vue de relever les quantités pêchées et en vérifier les tailles.

La loi NO. 94-13 du 31 janvier 1994 stipule dans son article 16 que le débarquement de la totalité des espèces aquatiques y compris le thon rouge doit se faire en présence d'un agent de l'autorité compétente qu'outre la constatation de pêche enregistre les poids des produits.

4.3 Inspection au niveau des établissements d'engraissement

Ce contrôle est assuré moyennant un suivi par les gardes pêches des opérations de transfert et de mise à mort réalisées par les exploitants et permettre la mise à jour des documents statistiques élaborés conformément aux modèles recommandés par l'ICCAT.

ANNUAL REPORT OF TURKEY
RAPPORT ANNUEL DE LA TURQUIE
INFORME ANUAL DE TURQUÍA

Ministry of Agriculture and Rural Affairs,
General Directorate of Protection and Control[1]

SUMMARY

During the course of 2008, the total catch of tuna and tuna-like fishes amounted to 9,829 t. In 2008, Turkey's total catch of bluefin tuna, albacore, Atlantic bonito and swordfish was 879 t, 208 t, 6,448 t, and 386 t, respectively. All bluefin catch was caught by purse seiners, the majority of which have an overall length 30-50 m and tonnage 200-300 GRT. The fishing operation was conducted intensively off Antalya Bay and in the region between Antalya Gazi Paşa and Cyprus. In the Mediterranean, fisheries were conducted in the region between Cyprus-Turkey and in the region Cyprus-Syria. The highest bluefin tuna catch amount was obtained in the second half (second week) of June. The 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 levels. Major research activities in 2008 focused on bluefin tuna and albacore.

RÉSUMÉ

Au cours de 2008, la prise totale de thonidés et d'espèces apparentées s'est élevée à 9.829 t. En 2008, la prise totale turque de thon rouge, de germon, de bonite à dos rayé et d'espadon a totalisé 879 t, 208 t, 6.448 t, et 386 t, respectivement. Toute la prise de thon rouge a été réalisée par des senneurs, dont la plupart avait une longueur hors-tout de 30 à 50 m et entre 200 et 300 de TJB. Les opérations de pêche de thon rouge se sont déroulées intensivement dans la baie d'Antalya et dans la région située entre Antalya (Gazi Paşa) et Chypre. En Méditerranée, les pêcheries se déroulent dans la région située entre Chypre et la Turquie et entre Chypre et la Syrie. Le volume de capture de thon rouge le plus élevé a été obtenu dans la seconde partie du mois de juin (deuxième semaine). 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 respecter les exigences en matière d'échange des données au niveau national et régional. En 2008, les principales activités de recherche se sont concentrées sur le thon rouge et le germon.

RESUMEN

Durante el año 2008, la captura total de túnidos y especies afines ascendió a 9.829 t. En 2008, la captura total de Turquía de atún rojo, atún blanco, bonito atlántico y pez espada fue de 879 t, 208 t, 6.448 t y 386 t, respectivamente. Toda la captura de atún rojo la realizaron cerqueros que en su mayoría tienen una eslora total de 30-50 m y un tonelaje de 200-300 TRB. Las operaciones de pesca tuvieron lugar de forma intensiva en aguas de la bahía de Antalya y en la región entre Antalya Gazi Paşa y Chipre. En el Mediterráneo, las pesquerías se llevaron a cabo en la región entre Chipre y Turquía y en la región Chipre-Siria. La mayor captura de atún rojo se realizó en la segunda mitad (segunda semana) de junio. Las Recomendaciones y Resoluciones adoptadas por ICCAT fueron 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

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tienen en cuenta las regulaciones relacionadas de ICCAT. El sistema de información pesquera ha sido actualizado con el fin de cumplir los requisitos de intercambio de datos a nivel nacional y regional. Las principales actividades de investigación llevadas a cabo en 2008 se centraron en el atún rojo y en el atún blanco.

Part I (Information on Fisheries, Research and Statistics)

Section 1: Annual Fisheries Information

In 2008, the total catch of tuna and tuna-like fishes (including small tunas and swordfish) was 9,829 t, a 1% decrease as compared to 2007.

1.1 Albacore

Albacore, which historically used to be by-catch from the bluefin tuna (BFT) fishery in the past, has increasingly been caught as the target species in recent years. The catch quantity of albacore has increased remarkably from 73 t in 2006 to 852 t in 2007 **(Table 1)**. The fishing season for this species was concentrated between May and July in the eastern Mediterranean Sea. The total catch in 2008 was 208 t.

1.2 Atlantic bonito

Bonitos play a major role in the 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 2008 was 6,448 t. There has been a considerable decrease in catch quantity since 2005.

1.3 Bluefin tuna

Turkey's total catch of bluefin tuna in 2008 was 879 t, a decrease compared to the previous year (918 t in 2007). Almost all of the catch was caught by purse seiners. There are 6 bluefin tuna farms in Turkey. Almost all of the total purse seine catch was transferred into floating cages for fattening.

The Ministry of Agriculture and Rural Affairs (MARA) issued bluefin tuna fishing licenses to 98 fishing vessels in 2008, in accordance with domestic legislation as well as the relevant ICCAT regulations. The majority of the bluefin tuna purse seiners had an overall length of 30-50 m and a tonnage between 200-300 GRT. All of these fishing boats were equipped and monitored with a Vessel Monitoring System (VMS). In addition to the fishing vessels, 96 vessels were licensed as tug boats transporting bluefin tuna cages. The total number of bluefin tuna purse seiners by tonnage for the period 2003-2008 is presented in **Table 2**.

The bluefin tuna fisheries in 2008 started in late May and was completed on 15 June. The fishing operation was conducted intensively off Antalya Bay and in the region between Antalya Gazi Paşa and Cyprus. In the Mediterranean, fisheries were conducted in the region between Cyprus-Turkey and in the region Cyprus-Syria. The highest bluefin tuna catch amount was obtained in the second half (second week) of June. While the harvesting in bluefin tuna farms in the Mediterranean Sea was conducted in October, it was conducted more in December and less in early January for the bluefin tuna farms in the Aegean Sea**.**

1.4 Swordfish

The swordfish fishery in Turkey is carried out in the Aegean Sea and the 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 2008 was 386 t. Compared with previous years, the fishery trend has not changed since 2000.

1.5 Other tunas

The fishery for bullet tuna and little tunny is carried out in the Aegean Sea and the eastern Mediterranean Sea using purse seines, gill nets and encircling gillnets. In 2008, the total catches of little tunny and bullet tuna were 1.072 t and 836 t, corresponding to a 37% increase and 16% decrease, respectively, as compared to the previous year.

Section 2: Research and Statistics

2.1 Research

2.1.1 Albacore research

The albacore biological sampling programme supported by The Scientific and Technological Research Council of Turkey has been continued in 2008. Within this research, 819 individual have been sampled. The most abundant catch species in the stomach contents of albacore are Cephalopods. A total 633 individuals belonging to 14 species are determined. Species determined generally were short in length and slow swimmers (Salman and Karakulak, 2009).

2.1.2 Bluefin tuna research

A tuna larvae survey was conducted between 12 and 18 June 2008 by national support. Although it was planned to continue the survey in 2009 through Bluefin Year Programme support, this research has not been done due to the economic crisis.

The bluefin tuna biological sampling programme has been continued in 2008 with national support. A total of 745 different prey specimens belonging to 47 taxa were identified, including 34 species of fish, 11 of squid, and two of crustaceans. The most important fish and cephalopod prey belonged to the families Myctophidae, Carangidae, Chauliodontidae, Paralepididae, and Octopoda (Karakulak and Salman, 2009).

2.2 Statistics

During the bluefin tuna fishing season, daily bluefin tuna data were collected and assessed in MARA to determine and pre-announce the closure time to the fishing vessels. The 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 the collection and analysis of fishery data. The technical work to update and integrate the current vessel registry system into FIS has been 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 the relevant ICCAT conservation and management measures, MARA introduced the Notification on Regulating Commercial Fishing at Seas and Inland Waters, covering the period 2009-2012, in order to ensure more sustainable fishing activities, improved quality for fishing products, and better conservation of fisheries resources. Essential regulations on bluefin tuna fisheries were directly taken from the ICCAT Recommendations, including Rec. 06-05 and Rec. 06-07 and inserted in domestic regulations.

Fishing for tunas and tuna-like species, bluefin tuna fattening and trade activities were continued to be regulated by MARA through the above-mentioned Notification based on Fisheries Law 1380 as well as the Ministerial Communication on Tuna Fishing, the Ministerial Communiqué on Aquaculture Production (Fattening) of Bluefin Tuna and the Ministerial Communiqué Concerning the Foreign Trade of Bluefin Tuna.

A Ministerial Communication on the bluefin tuna fisheries 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 (Official Gazette 21.08.2008-No. 26974).

3.1.2 Bluefin tuna

Bluefin tuna fishing by purse seiners for the period of 1 July-31 December and by longline vessels over 24 meters for the period of 1 June-31 December is prohibited. However, if the catch quota allocated by ICCAT is exhausted before the closure time, MARA has the authority to extend the time closure (Official Gazette 21.08.2008-No. 26974).

The 2008 catch quota for bluefin tuna was set at 887 metric tons. In order to monitor and supervise the fishing quota, the catch amount and the catch point must be reported to MARA, particularly by fax machine of the fishing vessel after each fishing operation. Furthermore, quota pursuit has been exercised by MARA 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 fishing vessels must return to the shelters/ports and notify the closest provincial administration within three days after the announced closure by MARA (Official Gazette 21.08.2008-No. 26974).

3.1.3 Swordfish

Swordfish by all gear types is banned between 15 October and 15 November throughout the territorial waters. (Official Gazette 21.08.2008-No. 26974).

3.1.4 Little tunny, bullet tuna and albacore

Fishing for little tunny and bullet tuna by entangling nets is permitted throughout the fishing season within territorial waters. Purse seiners are allowed to harvest the mentioned species between 15 April and 15 May in specified areas. (Official Gazette 21.08.2008-No. 26974).

In the Aegean Sea, little tunny and albacore landings are prohibited in certain areas for different purposes, such as protection of spawning areas and juveniles, protection of artisanal fisheries, etc.

3.2 Length and weight prohibitions

The minimum length and weight 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 of 21.08.2008-No.26974).

3.3 Vessel Monitoring System

The vessels registered for bluefin tuna fishing and transport are required to have an operational VMS onboard, transmitting regular position reports.

3.4 Licensing and fishing methods

Use of airplanes or helicopters for the purpose of bluefin tuna spotting is prohibited. The mesh size in the bag part of the bluefin tuna nets must not be less than 44 mm (Official Gazette 21.08.2008-No. 26974).

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 MARA about their location, final destination, planned arrival time, and the amount of product in the cage(s) (Official Gazette 21.08.2008-No. 26974).

3.5 Observers

In accordance with the Ministerial Communication on bluefin tuna fishing, all bluefin tuna fishing vessels were obliged to accommodate onboard observers not less than 20% of the fishing period. Based on this Communication and ICCAT Recommendation 06-05, the Ministry of Agriculture and Rural Affairs (MARA) had assigned observers to the bluefin tuna fishing vessels during the 2008 bluefin tuna fishing seasons. In 2008, six observers from the Fisheries Department of MARA and from Istanbul University were on board the different fishing vessels in three groups, for two weeks.

The observers reported on the fishing, transfer and towing operations. Information on the amount of bluefin tuna caught was mainly based on estimations through watching slow-motion video recordings of bluefin tuna transferred from the fishing net to the cage.

Section 4: Inspection Schemes and Activities

In 2008, control and at-sea/landing inspections during bluefin tuna fishing, transfer and caging operations were carried out by the Coast Guard and MARA staff, respectively. In addition to on-site checks/observations during transfer and caging operations, regular inspections were made by MARA staff in April, July and December. No administrative, punitive or legal actions had to be taken for any cases.

MARA assigned 10 landing ports to ensure the efficiency of inspections of bluefin tuna operations in accordance with ICCAT Recommendation 06-05. Those ports and landing points were announced to fishermen and concerned authorities before the commencement of fishing season in 2008.

References

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Karakulak, F.S., Salman, A., 2009, (*In* press). Diet composition of bluefin tuna (*Thunnus thynnus* L. 1758) in the eastern Mediterranean Sea, Turkey. J. Appl. Ichthyol. 25(6).

Table 1. Catches (t) of tunas and tuna-like species (2000-2008).

Species	*2000*	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*
Atlantic bonito	12,000	13,460	6,286	6,000	5,701	70,797	29,690	5,965	6,448
Bluefin tuna	1,070	2,100	2,300	3,300	1,075	990	806	918	879
Swordfish	370	360	370	350	386	425	410	423	386
Albacore	0	0	0	0	27	30	73	852	208
Little tunny	0	0	0	0	568	507	1230	785	1,072
Bullet tuna	0	0	0	0	284	1020	1031	993	836

Table 2. The total number of bluefin tuna purse seiners by tonnage (2000-2008).

Tonnage (as GRT)	*2000*	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*
<50	1	1	-	1	3	1	1	2	2
51-100	1	1	1	4	1	7	4	2	3
101-200	3	3	1	7	9	16	8	4	13
201-300	17	17	21	27	40	50	42	44	50
301-400	1	-	2	3	7	8	6	7	9
>400	3	3	3	8	8	14	14	18	21

Table 3. Prohibitions of length and weight by species.

Species	*Minimum length (cm)*	*Minimum weight (kg)*
Bluefin tuna *(Thunnus thynnus)*		30*
Atlantic bonito *(Sarda sarda)*	25	

* For incidental catch purposes, a maximum of 5% bluefin tuna catch weighing between 10 and 30 kg is authorized (Official Gazette of 21.08.2008-No.26974)

ANNUAL REPORT OF THE UNITED KINGDOM (OVERSEAS TERRITORIES)
RAPPORT ANNUEL DU ROYAUME-UNI (TERRITOIRES D'OUTRE-MER)
INFORME ANUAL DEL REINO UNIDO (TERRITORIOS DE ULTRAMAR)

SUMMARY

The level of fishing activity of the United Kingdom (Overseas Territories) engaged in ICCAT during 2008 has not altered significantly from previous years. The level of catches overall remain relatively low with the focus of the fishing industry being artisanal or sport related. The total catch for Bermuda decreased from the previous year by 21.75 t and the total catch for St. Helena decreased by 111.6 t. The UK Overseas Territories do not have any registered fishing vessels over 24 metres targeting tuna or tuna-like species in the Atlantic. 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. There is no new scientific information or data to be submitted in addition to task and compliance data already submitted to ICCAT.

RÉSUMÉ

Le niveau des activités de pêche menées en 2008 par le Royaume-Uni (Territoires d'outre-mer) dans le cadre de l'ICCAT n'a guère changé par rapport aux années antérieures. Globalement, le niveau des captures demeure relativement faible, l'industrie de la pêche portant son intérêt sur la pêche artisanale ou sportive. La prise totale des Bermudes a diminué de 21,75 t par rapport à l'année antérieure, et la prise totale de Ste Hélène a diminué de 111,6 t. Les territoires d'outre-mer du Royaume-Uni ne comptent sur leur registre aucun navire de pêche de plus de 24 mètres ciblant les thonidés ou les espèces apparentées dans l'Atlantique. Toutes les mesures de conservation et de gestion applicables de l'ICCAT sont mises en œuvre dans la législation nationale. Compte tenu du faible volume d'activité de pêche, les activités d'inspection à déclarer sont également limitées. Chaque territoire effectue les inspections et le suivi de l'application conformément à la législation nationale interne. Il n'y a pas de nouvelles données ou informations scientifiques à transmettre en plus des données des Tâches et des données concernant l'application qui ont déjà été soumises à l'ICCAT.

RESUMEN

Durante 2008, el nivel de actividad pesquera de los Territorios de Ultramar del Reino Unido que participan en ICCAT no ha sufrido cambios importantes respecto a años anteriores. El nivel de capturas globales permanece relativamente bajo y el objetivo de la industria pesquera se centra en actividades deportivas y artesanales. La captura total de Bermudas ha descendido respecto al año anterior en 21,75 t y la captura total de Santa Helena descendió en 111,6 t. Los Territorios de Ultramar del Reino Unido no cuentan con ningún buque pesquero registrado de más de 24 m que se dirija a los túnidos y especies afines en el Atlántico. Todas las medidas aplicables de conservación y ordenación de ICCAT están implementadas en las leyes nacionales. Dado el escaso nivel de actividad pesquera hay limitadas actividades de inspección que comunicar. Cada territorio lleva a cabo inspecciones y el seguimiento del cumplimiento de conformidad con sus leyes nacionales. No hay datos o información científica nuevos que presentar además de los datos de cumplimiento y Tarea I y Tarea II presentados ya a ICCAT.

BERMUDA

Part I (Information on Fisheries, Research and Statistics)

Section 1: Annual Fisheries Information

The Bermuda commercial fishing fleet consisted of 204 vessels during the year 2008 with approximately one-third of the vessels actively fishing for tuna and tuna-like species. Most of the fishing effort is carried out in the inner 50 km (including two offshore banks) of the Bermuda Exclusive Economic Zone while longline vessels fish further offshore.

The Bermuda domestic fleet is made up predominantly of fiberglass commercial fishing vessels. A small number of vessels are configured for pelagic longlining.

There has been limited development of longline fishing in Bermuda; therefore, quotas for swordfish, albacore tuna and bluefin tuna have not been fully utilized. The bluefin tuna quota has not been used for approximately 10 years.

Section 2: Research and Statistics

The total catch of tuna and tuna-like species by the Bermuda domestic fleet in 2008 was approximately 156.25 metric tonnes. This represents a decrease in landings of 21.75 metric tonnes (t) from the previous year. A decrease in yellowfin tuna landings, from 30 t in 2007 to 15 t in 2008, accounted for the majority of this decrease. Details of the catch composition are presented in **Table 1**.

Conventional tagging of blue marlin, white marlin, yellowfin tuna, blackfin tuna and sharks by charter fishing vessels is ongoing as is the opportunistic collection of scientific data on billfish, wahoo, yellowfin tuna and blackfin tuna species. Data collection provides material for research programs, which when appropriate, can be applied in fisheries management.

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.

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

Nil.

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 2008 to December 2008 totaled some 309.38 metric tonnes of fish. Of this amount, some 71% of the species consisted of tuna, 6% of wahoo, 15% of skipjack, <0.5% of shark, 1% of marlin 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 2008 over a total of 1634 fishing days shown 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 are not allowed within the fishery limits of St. Helena and its dependencies.

There was no take-up of foreign vessel licensing during 2008 although the opportunity to do so still exists. All foreign vessels taking up licenses to fish within St. Helena's EEZ are required to have on board a Vessel Monitoring System as part of the conditions of the licence.

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 centralised landings, catches are monitored by staff of the Directorate of Fisheries for control purposes.

Section 5: Other Activities

Nil

VIRGIN ISLANDS

Part I (Information on fisheries, research and statistics)

Section 1: Annual Fisheries Information

While the commercial fishing fleet of the Virgin Islands (UK) remained of comparable size to previous years, only one vessel targeted species of ICCAT interest. This vessel's effort accounted for 51% of the swordfish (*Xiphias gladius)* and all of the yellowfin tuna (*Thunnus albacares*) catch in 2008. The 48" fibreglass vessel utilised 300 hooks on five sets and carried out 26 days of fishing during 2008. Additional catches were the result of three tournaments targeting tuna/tuna-like species, and sport-fishing activity.

As a result of sport-fishing activity, on the July 19 and 22, unspecified billfish of weights 136 kg and 205 kg, respectively, were caught and released. The catch was made by a local vessel (53' Viking) trolling using five lines during a nine and eight hour tour (respectfully).

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. During the 2008 fishing season some 10 metric tonnes (t) of tuna and tuna-like species were landed and 1.3 t were imported by the government managed fishing complex, details of which can be found in **Table 3**.

The lack of targeted efforts during most of the eight months traditionally regarded as the "Tuna season" in the Virgin Islands resulted in a marked decrease in landings. While local consumers prefer yellow fin tuna, the preference for more affordable species such as blackfin and bigeye were noted. As such, economic factors contributed greatly to the choice in importations made by the BVI Fishing Complex to address the shortage of landings. It is assumed that additional importations were made by other commercial businesses, however records of such importations currently are not readily available by custom records and the details gathered remain unknown.

Part II (Management Implementation)

Section 3: Implementation of ICCAT Conservation and Management Measures

The Territory continues its efforts to better utilise 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.

Section 4: Inspection Schemes and Activities

Limited.

Section 5: Other Activities

Nil

Table 1. Catch composition of Bermuda catches in 2008.

Species	*Weight (t)*
Yellowfin tuna	15
Bluefin tuna	0
Bigeye tuna	0.25
Blackfin tuna	6.25
Albacore tuna	<0.25
Atlantic black skipjack tuna	4.5
Skipjack tuna	<0.25
Wahoo	117
Blue marlin	2.25
White marlin	0.5
Swordfish (North Atlantic)	4
Shark	6
TOTAL	**~156.25**

Table 2. Main ICCAT species caught by St. Helena in 2008.

Species	*Weight (tt)*
Yellowfin tuna	97
Albacore tuna	94
Bigeye tuna	28
Skipjack tuna	45
Shark	<0.5
Marlin	3

Table 3. Summary of landings of tuna and tuna-like species within the Virgin Islands (UK) during 2008.

Code	*Scientific Name*	*Common Name*	*Weight (t)*
BLF	*Thunnus atlanticus*	Blackfin tuna	0
YFT	*Thunnus albacares*	Yellowfin tuna	0.3
SWO	*Xiphias gladius*	Swordfish	5.9
WHA	*Acanthocybium solandri*	Wahoo	1.3
KGM	*Scomberomorus cavalla*	King mackerel	0.4
BON	*Sarda sarda*	Atlantic bonito	0.1
SAI	*Istiophoridae albicans*	Sailfish	0
WHM	*Tetrapturus albidus*	White marlin	0
BUM	*Makaira nigricans*	Blue marlin	0
BIL	*Istiophoridae*	Other/Unclassified billfish	0.3
	Thunnus spp.	Other/Unclassified tuna	1.8
	Isurus oxyrinchus	Short-finned mako	0.1
Total landed			**~10.2**
Imports	*Xiphias gladius*	Imported swordfish	0.9
	Mixed species (though mostly bigeye)	Imported tuna	0.4

ANNUAL REPORT OF THE UNITED STATES OF AMERICA
RAPPORT ANNUEL DES ETATS-UNIS D'AMÉRIQUE
INFORME ANUAL DE ESTADOS UNIDOS DE AMÉRICA

U.S. Department of Commerce, NOAA-Fisheries[1]

SUMMARY

Total (preliminary) reported U.S. catch of tuna and swordfish, including dead discards, in 2008 was 8,322 metric tons (t), a decrease of about 30% from the 12,107 t in 2007. Estimated swordfish catch (including estimated dead discards) decreased from 2,682 t in 2007 to 2,530 t in 2008, and provisional landings from the U.S. fishery for yellowfin decreased in 2008 to 2,407 t from 5,529 t in 2007. U.S. vessels fishing in the northwest Atlantic caught in 2008 an estimated 937 t of bluefin, an increase of 88 t compared to 2007. Provisional skipjack landings increased by 0.7 t to 67 t from 2007 to 2008, estimated bigeye landings decreased by 39 t compared to 2007 to an estimated 488 t in 2008, and estimated albacore landings decreased from 2007 to 2008 by 283 t to 248 t. Tuna, billfish, and shark tagging efforts continued in 2008. The United States has a scientific observer program for its pelagic longline fleet that has been in place since 1992. From March 9 through June 9, 2008 the longline 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 670 longline sets were observed (504,384 hooks) from 33 vessels which accounted for approximately 75% of the trips during that period. The United States continued efforts to implement and enforce all applicable conservation and management measures.

RÉSUMÉ

La prise totale (préliminaire) de thonidés et d'espadon, déclarée par les Etats-Unis en 2008 (rejets compris) s'est élevée à 8.322 t, soit une diminution de près de 30 % par rapport à 2007 (12.107 t). La prise estimée d'espadon (rejets morts estimés compris) a diminué, passant de 2.682 t en 2007 à 2.530 t en 2008, et les débarquements provisoires de la pêcherie américaine d'albacore ont diminué en 2008 (2.407 t) par rapport à 2007 (5.529 t). Les navires américains pêchant dans l'Atlantique Nord-Ouest ont réalisé, en 2008, une capture estimée de 937 t de thon rouge, soit une augmentation de 88 t par rapport à 2007. En 2008, les débarquements provisoires de listao ont augmenté de 0,7 t par rapport à 2007, se situant à 67 t. Les débarquements estimés de thon obèse ont diminué de 39 t par rapport à 2007 (488 t estimées en 2008). Les débarquements estimés de germon se sont également réduits, passant de 283 t en 2007 à 248 t en 2008. Les efforts de marquage de thonidés, d'istiophoridés et de requins se sont poursuivis en 2008. Depuis 1992, les Etats-Unis disposent d'un Programme d'observateurs scientifiques pour sa flottille palangrière pélagique. Du 9 mars au 9 juin 2008, le Programme d'observateurs de la flottille palangrière pélagique a accru sa couverture de la flottille palangrière opérant dans le Golfe du Mexique. L'objectif de cet accroissement visait à collecter des données visant à mieux caractériser les interactions entre la flottille palangrière et le thon rouge durant la saison du frai. Au total, 670 opérations à la palangre ont été observées (504.384 hameçons), réalisées par 33 navires, soit près de 75% des sorties réalisées au cours de cette période. Les Etats-Unis ont poursuivi les efforts aux fins de la mise en œuvre et de l'exécution de toutes les mesures de conservation et de gestion applicables.

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RESUMEN

En 2008, la captura total (preliminar) estadounidense declarada de túnidos y pez espada, incluidos los descartes muertos, fue de 8.322 t, lo que representa un descenso de cerca del 30% respecto a las 12.107 t de 2007. La captura estimada de pez espada (incluyendo los descartes estimados de peces muertos) descendió pasando de 2.682 t en 2007 a 2.530 t en 2008, y los desembarques provisionales de la pesquería estadounidense de rabil descendieron en 2008 pasando de 5.529 t en 2007 a 2.407 t en 2008. En 2008, los buques estadounidenses que pescan en el Atlántico noroccidental capturaron una estimación de 937 t de atún rojo, lo que supone un incremento de 88 t en comparación con 2007. Los desembarques provisionales de listado experimentaron un incremento de 0,7 t con respecto a 2007, llegando a las 67 t en 2008; y los desembarques estimados de patudo experimentaron un descenso de 39 t con respecto a 2007, con una cifra estimada de 488 t en 2008. Los desembarques estimados de atún blanco descendieron de 2007 a 2008, de 283 t hasta 248 t. Los esfuerzos de marcado dirigidos a los túnidos, istiofóridos y tiburones han continuado en 2008. Estados Unidos cuenta con un programa de observadores científicos para su flota de palangre pelágico que lleva funcionando desde 1992. Desde el 9 de marzo hasta el 9 de junio de 2008, el programa de observadores de palangre pelágico aumentó la cobertura de la flota de palangre que opera en el Golfo de México. El objetivo de este aumento era recopilar datos para describir mejor la interacción entre la flota de palangre y el atún rojo durante la temporada de puesta. Se observaron en total 670 lances de palangre (504.384 anzuelos) de 33 buques que realizaron aproximadamente el 75% de las mareas durante ese periodo. Estados Unidos continúa esforzándose para implementar y ejecutar todas las medidas aplicables de conservación y ordenación.

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

Section 1: Annual Fisheries Information

Total (preliminary) reported U.S. catch of tuna and swordfish, including dead discards, in 2008 was 8,322 t, a decrease of about 30 % from 12,107 t in 2007. Estimated swordfish catch (including estimated dead discards) decreased from 2,682 t in 2007 to 2,530 t in 2008, and provisional landings from the U.S. fishery for yellowfin decreased in 2008 to 2,407 t from 5,529 t in 2007. U.S. vessels fishing in the northwest Atlantic caught in 2008 an estimated 937 t of bluefin, an increase of 88 t compared to 2007. Provisional skipjack landings increased by 0.7 t to 67 t from 2007 to 2008, estimated bigeye landings decreased by 39 t compared to 2007 to an estimated 488 t in 2008, and estimated albacore landings decreased from 2007 to 2008 by 283 t to 248 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 decreased to 2,407 t in 2008, from the 2007 landings estimate of 5,529 t (**Table 1**). The 2008 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 & reel catches made by recreational anglers. A high proportion of the estimated landings were due to rod and reel catches of recreational anglers in the northwest Atlantic (657 t). Estimates of U.S. recreational harvests for tuna and tuna-like species continue to be reviewed and this may result in the need to report additional revisions to the available estimates in the future. In the case of commercial landings, the highest proportion of estimated landings corresponded to the U.S. longline fleet operating in the Gulf of Mexico (756 t). 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 also are 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 66.5 t in 2007 to 67.1 t in 2008 (**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 catches and landings (preliminary) for 2008 decreased by approximately 39 t from 527.3 t in 2007 to 488.5 t (**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. Albacore are landed by U.S. vessels; however, historically, albacore has not been a main focus 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 throughout the 1990s, 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 248 t in 2008, a decrease of 284 t from 2007 (**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. To varying degrees, these regulations are designed to manage total U.S. landings to conform to ICCAT recommendations. U.S. 2008 provisional estimated landings and dead discards from the northwest Atlantic (including the Gulf of Mexico) were approximately 764 t and 173 t, respectively. Those estimated landings and dead discards represent an increase of approximately 88 t from the 2007 estimates, and are the highest since the 2005 estimates. The 2008 landings by gear were: 30 t by harpoon, 658 t by rod and reel, and 248 t by longline (including discards) of which 112 t were from the Gulf of Mexico.

In response to 1992 regulations limiting the allowable catch of small fish by U.S. fishermen, in conformity with ICCAT agreements, enhanced monitoring of the 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 2008 rod and reel fishery off the northeastern U.S. (including the North Carolina winter fishery) for landings in several size categories were 59 fish < 66 cm, 3030 fish 66-114 cm, 6253 fish 115-144 cm and 982 fish 145-177 cm (an estimated 0.2, 61, 291, and 79 t, respectively). Note that additional rod and reel landings of bluefin >177 cm SFL, monitored through a sales reporting system, are included in **Table 5**.

2.1.3 Swordfish fishery statistics

For 2008, the provisional estimate of U.S. vessel landings and dead discards of swordfish was 2,530 t (**Table 6**). This estimate represents a decrease from the 2007 estimate of 2,682.8 t. The provisional landings, excluding discard estimates, by ICCAT area for 2008 (compared to 2007) were: 386 t (404.8 t) from the Gulf of Mexico (Area 91); 1,774 t (1,696.9 t) from the northwest Atlantic (Area 92); 58 t (26.9 t) from the Caribbean Sea (Area 93); and 311 t (333.9 t) from the North Central Atlantic (Area 94A).

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 15,421 fish discarded dead in 2008. For the North Atlantic, the estimated tonnage discarded dead in 2008 is 199.3 t, of which 183.4 is estimated due to longline gear. Overall, the estimates of dead discarded catch decreased by about 20.9 t compared to the 2007 levels, which corresponded to approximately 8% of the commercially landed catch.

Total weight of swordfish sampled for sizing U.S. commercial landings by longline, trawl, and handline was 2,235 t, 7 t, and 73 t in 2008. The weight of sampled swordfish landings in 2008 were 95%, 91%, and 86% of the U.S. total reported annual landings of swordfish for longline, trawl, and handline, respectively. Again, incorporation of late reports into the estimated 2008 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 1996-2008.

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 by-catch of the U.S. commercial tuna and swordfish longline fisheries. The U.S. Fisheries Management Plan (FMP) 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 FMP. Recreational landings of each billfish species can be estimated using: (a) the Southeast Fisheries Science Center (SEFSC) Recreational Billfish Survey (RBS) which provides the number of billfish caught (and landed) during tournaments held along the southeastern U.S. coast (south of 35^{o}N latitude), in the Gulf of Mexico, and U.S. Caribbean Sea regions (i.e., U.S. Virgin Islands and Puerto Rico); (b) the Large Pelagics Recreational Survey (LPS) conducted by the National Marine Fisheries Service (NMFS) which provides estimates of recreational harvest of highly migratory species (including billfish), from waters along the northeastern U.S. (north of 35^{o} N latitude); (c) Marine Recreational Fishery Statistics Survey (MRFSS); (d) a Headboat survey (large multi-party charter boats); and (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 2008 U.S. rod and reel landings for these billfish species, combining the geographical areas of the Gulf of Mexico (Area 91), the northwestern Atlantic Ocean west of the 60^{o} W longitude (Area 92), and the Caribbean Sea (Area 93) are: 13.4 t for blue marlin, 1.5 t for white marlin, and 3.3 t for sailfish. The estimates for 2007 were: 10 t for blue marlin, 0.9 t for white marlin, and 0.03 t for sailfish.

In addition to restrictions on U.S. recreational harvest, the Fisheries Management Plan also imposed regulations on commercial fisheries by prohibiting retention and sale of the three species. For this reason, there are no U.S. commercial landings for any of the three Atlantic species. However, estimates of dead discards in the U.S. longline fleet are made using the data from mandatory pelagic logbooks and scientific observer data collected on this fleet. The procedure for estimating by-catch of blue marlin, white marlin, and sailfish was detailed in SCRS/1996/097-Revised. This procedure was implemented for estimating by-catch mortalities from the U.S. longline fleet and all other commercial gears combined. 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, Florida. Estimates of the billfish by-catch discarded dead in the U.S. commercial longline and other commercial 2008 were 37.6 t for blue marlin, 9.7 t for white marlin, and 9.4 t for sailfish. The estimated 2007 U.S. discarded dead by-catch was 42.1 t, 7.4 t, and 7.7 t, respectively for the three species.

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 (*Heptranchias 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 1 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 of sharks by U.S. longline fishermen holding permits to land and sell swordfish caught in the Atlantic and dead discards of sharks in the U.S. longline fleet targeting tunas and tuna-like species are monitored and reported to ICCAT. There are also additional catches and landings of Atlantic pelagic sharks across the range of

U.S. fleets that harvest them, including recreational fisheries, that are updated annually. These total catches are updated herein through 2008 (data for 2008 are preliminary and subject to change). Commercial landings of pelagic sharks in weight steadily increased from the early 1980s, peaked in 2004, and declined in 2005-2008 (Appendix 2 Table 2.6a-SHK)[2]. Recreational catches in numbers estimated from the MRFSS survey during 1981-2008 peaked to a maximum of 93,000 fish in 1985, and showed a declining trend since that year, fluctuating between about 42,600 fish in 1986 to about 3,800 fish in 2001. Catches increased in 2006 and 2007, mostly as a result of an unusually high estimate for thresher sharks, but reached a minimum in the last year of data, 2008 (Appendix 2 Table 2.6a-SHK). Estimates of pelagic longline dead discards also fluctuated between 1987 and 2008, but generally declined from a maximum of 30,500 fish in 1993 to a minimum of about 1,200 fish in 2003. Total catches ranged from about 12,600 fish in 1981 (no commercial landings or discard estimates were available for that year) to about 95,000 fish in 1985, as a result of the peak in recreational landings that year.

Blue shark (*Prionace glauca*) commercial landings were generally very low (Appendix 2 Table 2.6b-SHK). Recreational catches in numbers ranged from 0 fish in several years to over 20,000 fish in 1987. Pelagic longline discards reached 29,000 fish in 1993, but otherwise oscillated between a minimum of about 400 fish in 2006 to a maximum of about 19,000 fish in 1996. In general, there was a decreasing trend in estimated dead discards of blue sharks, but the 2007 and 2008 values showed an increase to pre-2002 levels (Appendix 2 Table 2.6b-SHK). The trends in recreational catches and dead discards were very similar from 1992 to 1997. Total catches ranged from 0 fish in 1982 (a year in which no commercial or recreational landings were reported) to about 43,500 fish in 1993, the year in which dead discard estimates peaked (Appendix 2 Table 2.6b-SHK).

Shortfin mako (*Isurus oxyrinchus*) commercial landings never exceeded 11,000 fish according to available estimates and assumptions about average weights (Appendix 2 Table 2.6c-SHK). Most of the landings were attributable to the recreational fishery, whose estimated catches in numbers peaked in 1985 to about 80,000 fish, and ranged from less than 1,400 fish to over 31,000 fish in the remaining years. Pelagic longline discards of shortfin makos were negligible since the meat of this species is highly valued. Total catches ranged from about 3,400 fish in 1991 to almost 80,000 fish in 1985, when recreational catches peaked (Appendix 2 Table 2.6c-SHK).

Catches of other pelagic species, such as longfin mako (*Isurus paucus*), oceanic whitetip shark (*Carcharhinus longimanus*), porbeagle (*Lamna nasus*), bigeye thresher (*Alopias superciliosus*), and thresher shark (*Alopias vulpinus*) were very small. Total catches of thresher sharks peaked at about 5,200-5,600 fish in 1984, 1999 and 2007, and showed a high peak in 2006, as a result of an unusually high estimate of recreationally caught thresher sharks. A maximum of about 1,500 fish was estimated to have been landed by the commercial fishery in 1997, the maximum estimate of dead discards from the pelagic longline fishery was about 700 fish in 1989, and never exceeded about 630 fish thereafter. Total catches of longfin makos in any given year were under 450 fish. Very few longfin makos were landed by the commercial fishery, there were no reported catches from recreational fisheries, and only some fish were reported discarded dead from 1992 to 1995. Very few oceanic whitetip sharks were landed by the commercial fishery, except for two peaks of about 1,250 and 1,800 fish in 1983 and 1998, respectively, but otherwise total catches never exceeded 450 fish. Total reported catches of porbeagle, and especially bigeye thresher, were also very low.

2.2 Research activities

2.2.1 Bluefin tuna research

As part of its commitment to the Bluefin Year Program, research supported by the United States has concentrated on ichthyoplankton sampling, growth and reproductive biology, methods to evaluate hypotheses about mixing and movement patterns, spawning area fidelity, stock structure investigations and population modeling analyses.

Ichthyoplankton surveys in the Gulf of Mexico during the bluefin spawning season continued in 2008 and 2009. Data resulting from these surveys, which began in 1977, are used to develop a fishery-independent abundance index of spawning for western Atlantic bluefin tuna. This index has continued to provide one measure of bluefin abundance that is used in the assessments of the status of the resource. In addition to this survey which occurs over a fixed spatial grid, adaptive sampling was carried out in 2008 to better understand larval distribution in relation to oceanographic features. Neuston and bongo samples were taken across the Loop Current and adjacent

[2] The Appendices are available from the Secretariat.

mesoscale structures to sample larval bluefin tuna during the time period May 1-8, 2008. The selection of sampling stations was based upon daily satellite analysis (SST and ocean color) with transects being positioned in response to rapidly moving frontal boundaries. Transects were selected to provide high resolution physical and biological mapping of larval scombrids in relation to rapidly changing current flows and gyre movement.

Scientists from the Virginia Institute of Marine Science (VIMS) continue to investigate genetic markers derived from young bluefin tuna. Slight, but significant differences exist between young-of-the-year caught in the Mediterranean Sea and the Gulf of Mexico for several nuclear microsatellite loci and the mitochondrial control region. Assignment testing using these loci is not very conclusive, resulting in correct assignments to samples of known origin only about 75% of the time. Other work at VIMS has demonstrated very significant differences in non-metabolized organochlorine pollutants between eastern and western bluefin. These can be used to determine where a fish has gained its biomass. About 60% of young school bluefin tuna from the U.S. mid-Atlantic have signatures characteristic of the Med, consistent with the otolith chemistry work discussed below.

Scientists from the University of Maryland initiated a study to age bluefin tuna sampled from the Gulf of Mexico and elsewhere. Part of this research was conducted jointly with Canadian scientists who have developed validated age readings. A new growth model was fit for recent year-classes (after 1970) for western captured, western-origin Atlantic bluefin tuna, which results in expected lengths that differ substantially from the model adopted by SCRS for fish ages 12 and older (SCRS/2008/084). Future priority on age determinations may be given to samples from the Mediterranean population and historical samples from the Gulf of Mexico population.

Scientists from Texas A&M University and the University of Maryland completed an initial analysis on stock structure of bluefin tuna using otolith chemistry particularly focusing on large bluefin from the Gulf of Mexico and the Mediterranean Sea. This research is greatly facilitated through continued collaboration with Canadian, Italian, and Spanish scientists. Results from stable isotope analysis of otoliths provide strong evidence for natal homing by two populations of Atlantic bluefin tuna each with discrete centers of origin (Mediterranean Sea and Western Atlantic). On the other hand, high rates of mixing occurred for juveniles (age 2-5 years) collected in U.S. waters, where a little over 50% of individuals within those age classes are of Mediterranean Sea origin. With continued support and directed sampling, it should be feasible to use this type of information as input in future stock assessments.

Scientists from Stanford University and the Tag-A-Giant research team continued to deploy electronic tags in the western Atlantic in 2008 (n=29 deployments). Tagging in the Gulf of St. Lawrence (GSL) in collaboration with Canadian scientists and fishermen revealed strong linkages between Canadian fish and the Gulf of Mexico (GOM) spawning grounds. A GOM habitat utilization model is being finalized that can predict probable bluefin tuna breeding areas based on dynamic oceanography. The model, being developed in collaboration with University of California scientists, can also estimate the time and areas in the GOM where bluefin tuna are expected to be most vulnerable to longline fisheries relative to yellowfin tuna, which is a primary target of GOM longline fisheries. Tissue samples collected by observers in the GOM are being used to conduct microarray research on maturation and gender. In collaboration with scientists from the University of British Columbia, a new stock assessment model is being developed (Multi-Stock Age-Structured Tag-Integrated stock assessment model, or MAST) that incorporates electronic tagging data and models eastern and western Atlantic bluefin tuna stocks simultaneously. MAST can include different growth, maturity and natural mortality parameters for each stock, and movement rates are modeled by season and age group. Model revision and simulation testing are underway, and MAST is expected to be published within the next few months. The Stanford genetics team has developed 29 new microsatellite loci to potentially improve population assignment.

Researchers at the Large Pelagics Research Center, UNH conducted biological sampling for maturity schedules and reproduction, age and growth, energetics and forage relationships. In 2008 the joint LPRC-DFO program included 37 PSAT deployments on adult bluefin in four regions. Twenty-one juvenile bluefin were released with mini PSATs off Cape Cod, MA and a collaborative archival tagging program continued with AZTI Tecnicalia. Other work includes development of an individual-based, coupled physical-biological model designed to represent bluefin population dynamics, which will facilitate the tracking of individual growth, maturation, reproduction and mortality, including species-specific migratory and spawning behaviors. LPRC also successfully conducted several multibeam sonar trials and (imaged individual fish of 60-85 kilos in schools). The sonar trials were supplemented with aerial documentation.

Scientists at the National Marine Fisheries Service continued to work with Scientists from the University of British Columbia to further test the efficacy of a formulation of the SCRS two-stock VPAs that estimates the

degree of intermixing between two stocks based on conventional tagging data, electronic tagging data, and new data on the proportion of the catch that comes from each stock (as deduced from genetic and otolith microconstituent analyses). In collaboration with other national scientists, initial runs of this new model were performed during the 2008 stock assessment meeting.

As it did in 2007, the National Marine Fisheries Service expanded the observer coverage of the pelagic longline fishery in the Gulf of Mexico from March 9 through mid June 9, 2008. Approximately, 75% of known pelagic longline fishing trips carried a scientific observer on board. Biological samples were taken from boarded bluefin tuna including otoliths, gonads, and muscle. Contracts were awarded to conduct research on bluefin stock structure, growth, gender determination and reproduction. The enhanced Gulf of Mexico observer coverage was also implemented from March 30 through June 12, 2009, where over 80% of longline trips were observed.

The National Marine Fisheries Service has been developing new technologies and testing changes in fishing practices to reduce the by-catch mortality of bluefin tuna in the directed yellowfin tuna longline fishery in the Gulf of Mexico. During 2008, 72 experimental longline sets were deployed with two types of circular hooks: 1) a 16/0 circular hook with no offset (4.0 mm steel wire) commonly used by the yellowfin tuna fleet operating in the area, and 2) a 'weaker' 16/0 circular hook with no offset made of 3.65 mm steel wire (same material used for 15/0 circular hooks). Although the results are considered preliminary and the sample sizes were small, researchers conducting the experiment found that large bluefin tuna were able to straighten the weak hooks and escape, while the same hooks retained yellowfin tuna. Based on these initial results, an experimental cruise was planned and conducted during the 2009 summer season.

2.2.2 Swordfish research

Scientists from the NOAA SEFSC, the University of Miami and Nova Southeastern University developed procedures for sampling genomic DNA from live billfishes and swordfish. They examined the collection of surface mucous and compared it to muscle tissue samples from four species, including Atlantic swordfish (*Xiphias gladius*). Purified DNA from mucous was comparable to muscle and was suitable for many common genetic studies. These nondestructive and less invasive procedures will likely promote increased survival of released specimens.

Studies are also ongoing by scientists at Texas A&M University at Galveston and the University of South Carolina FISHTEC Genetics laboratory to determine the genetic population structure of Atlantic swordfish. These studies include examination of nuclear and mitochondrial DNA as well as DNA microsatellites. The results corroborate the existing three stock hypothesis used by ICCAT (N-ATL, S-ATL, MED). However, the authors also suggest that their techniques are suitable to examine the temporal and spatial scales of mixing across management boundaries, given the availability of sufficient samples.

A three year collaboration with the Canadian Department of Fisheries and Oceans, the Canadian swordfish harpoon fleet, and the University of New Hampshire began in 2005 and concentrated tagging effort on fish in the Georges Bank area. Recently, tagging effort has shifted to the Grand Banks off Newfoundland. To date, results of tag deployments suggest a more complex stock structure than was previously understood and indicate that swordfish appear to exhibit fidelity to their feeding sites.

2.2.3 Tropical tunas research

U.S. scientists participated in the ICCAT SCRS yellowfin and skipjack stock assessment sessions held in Florianopolis, Brazil, July 21-29, 2008. U.S. scientists also participated in the Tropical Species Group meeting (Madrid, Spain Sept. 24-26, 2008) where the recent work of the Group in evaluating alternative measures to protect juvenile tropical tunas was continued.

In 2008, U.S. scientists presented several papers to the SCRS consisting of indices of abundance and length-frequencies of yellowfin and skipjack tuna from U.S. fisheries. U.S. scientists have also pursued research to develop demographically-based prior distributions for the intrinsic rate of population increase for tropical tunas. These prior distributions were essential input into Bayesian and non-Bayesian surplus production modeling conducted during the 2008 skipjack tuna assessment.

U.S. scientists from the University of Miami's Rosenstiel School of Marine and Atmospheric Science collaborated with EC scientists an EU-funded FEMS project regarding management strategy evaluations related to tropical tuna fisheries. U.S. scientists have continued to conduct cooperative research with scientists from

Mexico, combining observer data collected from each nation's longline fleets in the Gulf of Mexico, pursuing the development of indices of abundance for species of concern to ICCAT as well as descriptive analyses of that fishery. U.S. and Mexican scientists collaboratively calculated abundance indices for the 2008 yellowfin tuna stock assessment using the combined database. U.S. scientists also collaborated with EU scientists to calculate skipjack abundance indices from the Azorean baitboat fishery as well as in the estimation of potential trends in catchability in the European purse seine fleet.

2.2.4 Mackerels and small tunas research

King mackerel. A domestic stock assessment of king mackerel in the U.S. Gulf of Mexico and South Atlantic was conducted in 2008. Many new or revised data inputs were submitted to the assessment process, and had important implications. Scientists from the National Marine Fisheries Service (NMFS) Panama City laboratory provided new estimates of batch fecundity and spawning frequency for king mackerel (*Scomberomorus cavalla*) in U.S. waters. Their batch fecundity estimates indicated that king mackerel have greater reproductive potential than had previously been reported.

Scientists from NMFS/SEFSC Miami and the SEFSC Cooperative Tagging Center reviewed and summarized the available mark-recapture data for king mackerel as of 2008. The data supported the assumption of two main migratory groups, one off the U.S. South Atlantic coast and one in the Gulf of Mexico. Also, tag recaptures corroborated that the South Florida east coast and Florida Keys are an area of mixing for both stocks, particularly during the winter months. However, the data also showed that not all the population migrates during the winter months, at least in the Gulf of Mexico.

Additional work regarding stock structure was also reported in 2008 by scientists from the University of West Florida and NMFS SEFSC Panama City. They used otolith shape parameters to estimate the stock identity of king mackerel harvested in three regions around southern Florida in winter 2006/07. Their results indicated a longitudinal gradient existed in Atlantic stock contribution to winter mixed stock fisheries with highest Atlantic contribution in southeastern Florida and lowest in southwestern Florida.

Scientists from NMFS SEFSC Miami and Panama City laboratories provided updated sex and stock-specific von Bertalanffy growth models for king mackerel using a model that accounted for truncation in the length-at-age samples due to minimum size restrictions.

Scientists from NMFS SEFSC and the Instituto Nacional de Pesca in Mexico also collaborated to provide historical estimates of catch, effort and size-composition from Mexican king mackerel fisheries. These data were considered critical by the independent reviewers of the king mackerel assessment, who emphasized that such collaboration should continue.

In addition, many updated catch rate/abundance series were provided in 2008 from directed fisheries, bycatch fisheries, and fishery independent sources.

Spanish mackerel. A domestic stock assessment of Spanish mackerel (*Scomberomorus maculatus*) in the U.S. South Atlantic was conducted in 2008. New and/or revised data inputs were submitted to the assessment process. A summary follows.

Scientists from NMFS Panama City laboratory provided a review of Spanish mackerel age compositions data, including an overview of the temporal and spatial distributions, as well as distributions by fishery and gear for samples collected in Atlantic waters.

Scientists from the Florida Fish and Wildlife Conservation Commission, North Carolina Division of Marine Fisheries and NMFS SEFSC-Beaufort Laboratory provided new estimate of length composition and condition of released Spanish mackerel from at-sea headboat observer surveys in the U.S. South Atlantic. This report provided valuable information on the size and mortality of discarded fish from the recreational fishery, which has not been previously available.

In addition, many updated catch rate/abundance series were provided in 2008 from directed fisheries, by-catch fisheries, and fishery independent sources.

2.2.5 Shark research

Following a data preparatory meeting held in 2007, The ICCAT Shark Species Group conducted a stock assessment of pelagic sharks in Madrid, Spain, in September 2008. In addition to contributing seven working documents to the meeting, scientists from the U.S. delegation (NMFS SEFSC and University of Miami's RSMAS) were centrally involved in the assessments and completion of the final report). The ICCAT Shark Species Group also met jointly with the International Council for the Exploration of the Sea (ICES) Working Group on Elasmobranch Fishes in Copenhagen, Denmark, in June 2009 for an assessment of Atlantic porbeagle shark. Scientists from the U.S. delegation (NMFS SEFSC and University of Miami's RSMAS) also were centrally involved in the assessments and completion of the final report.

A cooperative shark research project between Brazil (Universidade Federal Rural de Pernambuco) and the U.S. (NMFS SEFSC Panama City Laboratory and the University of Florida's Florida Museum of Natural History) was initiated in 2007. The main goal of this cooperative project is to conduct simultaneous research on pelagic sharks in the North and South Atlantic Ocean. Central to conducting the research is development of fisheries research capacity in Brazil through graduate student training and of stronger scientific cooperation between Brazil and the U.S. Electronic equipment (hook-timer recorders [HTR] and temperature and depth recorders [TDRs]) was sent from the U.S. to Brazil for deployment aboard commercial longline fishing vessels to investigate preferential feeding times of pelagic sharks and associated fishing depths and temperatures for potential use in habitat-based models and estimation of catchability. To date, one fishing survey has been conducted, with 17 sets on a commercial pelagic longline fishing vessel during April and May 2009; each set made use of 300 HTRs. In this first survey only HTRs were used; the deployment of the TDRs is scheduled for the next survey. A total of 772 individuals, represented by 22 species were caught. The target species, swordfish (*Xiphias gladius*), was the most commonly fish caught, (n = 297, 38.5%). Sharks (*Carcharhinus longimanus* (n = 7), *Prionace glauca* (n = 23), *Sphyrna* spp. (n = 5), *Isurus oxyrinchus* (n = 4), *Alopias* spp. (n = 3), *Carcharhinus signatus* (n = 2), and *Pseudocarcharias kamoharai* (n = 7)) represented 6.6% of the total catch. A total of 415 activated HTRs were recovered with fish (or identifiable fish parts) on the leader. Time at hooking varied among species. Almost all blue sharks were hooked at night (96%) with only one animal hooked during daylight hours. All shortfin makos caught on leaders with HTRs were caught at night, as well as the crocodile sharks. Thresher and hammerhead sharks showed no clear preference between daylight and nighttime feeding. Only one oceanic whitetip shark was caught during the night, and this animal was hooked just prior to sunrise. Future work will consist of another 15 surveys in 2009 and 2010 to collect fishery TDR and HTR data. Additionally, the use of pop-up satellite archival tags (PSATs) on blue, shortfin mako, and other pelagic sharks is intended to provide critical knowledge on daily horizontal and vertical movement patterns, depth distribution, and effects of oceanographic conditions on the vulnerability of these pelagic sharks to pelagic longline fishing gear. Six pop-off satellite archival tags have been deployed to date (2 oceanic whitetip sharks, 3 bigeye threshers and 1 longfin mako) in U.S. Atlantic waters. Archival satellite pop-up tags were also attached to three female blue sharks and two female shortfin mako sharks by pelagic longline fishing vessels in the southwestern Atlantic Ocean. Data collected by these tags are still being analyzed; however, preliminary findings will be presented at regional and national conferences.

As part of the training component of this cooperative Brazil-US research project, an international course entitled: "A practical course in demographic methods and ecological risk assessment using spreadsheets" was taught by Dr. Enric Cortés at the Florida Museum of Natural History, University of Florida, Gainesville, July 13-17, 2009. The course included students mostly from Brazil, but also from Argentina, Colombia, Venezuela, Uruguay, Portugal, Spain, and the United States.

2.2.6 Billfish research

The NMFS SEFSC once again played a substantial role in the ICCAT Enhanced Research Program for Billfish in 2009, with U.S. scientists acting as general coordinator (Dr. David Die) and coordinator for the western Atlantic Ocean (Dr. Eric Prince). Major accomplishments in the western Atlantic in 2008 were documented in SCRS/2008/171. Highlights include 11 at-sea sampling with observers on Venezuelan industrial longline vessels through September 2008. Of the trips accomplished, 4 observer trips were on Korean type vessels fishing under the Venezuelan flag. Most of these vessels are based out of Cumana and target tuna, swordfish, or both at the same time. Biological sampling of swordfish, Istiophorids, and yellowfin tuna for reproductive and age determination studies, as well as genetics research were continued during the 2008 sampling season. These included 536 blue marlin, 588 white marlin, and over 1,000 sailfish and spearfish. Shore-based sampling of billfish landings for size frequency data, as well as tournament sampling was obtained from Venezuela, Grenada, U.S. Virgin Islands, Bermuda, Barbados, and Turks and Caicos Islands. During 2008, 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. A total of 59 tags were recovered from billfish and sharks and were submitted to the Program Coordinator. Age, growth, and reproductive samples from several very large blue marlin (over 1000 lbs) were obtained during 2008.

A new international collaboration was formalized by the NOVA Southeastern University (Dr. Mahmood Shivji) on billfish genetics in 2008. Collaborators include Southeast Fisheries Science Center, Venezuela (Instituto Oceanografico, Universidad de Oriente), Uruguay (Recuros Pelagicos, Direccion Nacional de Recuros 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 new paper describing some of the preliminary work has been accepted in a peer review journal and will be published in 2009. In addition, the SEFSC continues to conduct pelagic longline research to evaluate gear behavior, and the effects of gear modification on catch rate and survival of target and non-target species. The first of a series of peer review papers on this topic was published in the fall, 2008. The SEFSC also finalized PSAT research of sailfish and blue marlin in the eastern and western north Atlantic during 2008. Several of these papers were also published in peer review journals during 2008. Preliminary results of this work were presented in an international symposium on the use of electronic tags to monitor the movements of marine species held in San Sebastian, Spain, in the fall of 2008.

The cooperative billfish research between U.S. (Virginia Institute of Marine Science) and Brazilian scientists that was initiated in 2005 continued in 2006 and 2007. This research will also focus on PSAT tagging of billfish and the collection of biological materials (including larvae) for ageing and molecular genetic analyses. The Fishery Management Group of the University of Miami is carrying out research on Atlantic billfish on three areas, population parameter estimation, population modeling and development of socio-economic indicators. Others at the University of Miami's Rosenstiel School and elsewhere are conducting research on early life history, reproductive biology and ecology of billfishes, as well as age and growth estimation. U.S. scientists attended an intercessional ICCAT meeting on tagging in Madrid during 2008.

2.2.7 Seabird research

Seabirds make up a small component of the observed non-fish by-catch of the U.S. pelagic longline fleet in the western North Atlantic. From 1992 through 2008, the seabird by-catch observed by the Pelagic Observer Program (POP) consisted of 125 birds seen in regular POP operations and 17 additional birds seen in POP-assisted "experiments" that had special coverage. The reported number caught per year varied from 0 in 1996 to 33 in 1997, and the average annual observed bird by-catch was 7.4. The low by-catch rate in observed sets made estimation of the total seabird by-catch of the fleet based on observer data problematic. Research at the NMFS/SEFSC in the current year has focused on the exploration of alternative methods of total bird by-catch estimation. In work for the SEFSC conducted at Virginia Polytechnic Institute, nine alternative methods were explored to estimate the seabird by-catch for the years of observations. In each case, observations from all years were used to estimate the by-catch for each year. Total estimates from five of the nine methods were similar, varying from 2464 to 2891 birds for all years and averaging 144 to 169 per year. Of the other methods, one yielded much lower estimates and the other three yielded exceptionally high estimates. The estimate for 2008 from the five methods with similar totals and averages varied from 3 to 21 (3, 3, 4, 21, 21). See Appendix 3 for more information from this study.

U.S. scientists participated in the 2009 meeting of the ICCAT Sub-Committee on Ecosystems, where the six-stage framework methodology adopted at the 2007 meeting was advanced (see Report of the 2009 Inter-sessional Meeting of the Sub-committee on Ecosystems, Recife, Brazil, June 8-12, 2009).

The area of the outer continental shelf off the Outer Banks of North Carolina supports what likely is the highest diversity of oceanic seabirds anywhere in the Western North Atlantic with many species present in any season of the year. In a survey addressing the conservation issues associated with planned exploratory drilling, Lee (1999) found an exceptionally high diversity (49 species) of seabirds off the North Carolina Outer Banks on the shelf break where the 30-, 40-, 50-, and 100-fathom (~ 54.9, 73.2, 91.4, and 182.9-meter) bathymetric contours meet. The birds were sighted in ship-board surveys covering a relatively small area referred to as "The Point", which is centered at about 35°32'N.

The U.S. pelagic longline fishery operates in the area of the outer continental shelf off the Outer Banks of North Carolina which supports what likely is the highest diversity of oceanic seabirds anywhere in the western North Atlantic, as well as more broadly in the western North Atlantic Ocean and Gulf of Mexico. In an analysis of

seabird by-catch reported by the Pelagic Observer Program (POP), Winter *et al.* (2009 draft) noted that the incidents of seabird by-catch were highly aggregated spatially. Fifty-six of the 60 observed sets with seabird by-catch, comprising 120 of 124 birds reported by observers (outside of experiments) from 1992 through 2007, were located between 66.4°W and 78.9°W (~21% of the longitude range of all observed sets), and between 31.6°N and 41.0°N (~19% of the latitude range of all observed sets). The Point is roughly centered in this latitudinal range and near its western longitudinal limit.

Effective June 18, 2009, the NMFS, designated the Cape Hatteras a Special Research Area (CHSRA) based on concerns of high pilot whale by-catch over the past five years. Fishermen planning to fish within this area with longline gear are required to carry an on-board observer if requested to do so. Because this area is of high seabird diversity, the increased observer coverage might provide increased confidence in the data that already suggest that imperiled seabirds foraging in the area are not a part of the longline by-catch. For more information, see http://sero.nmfs.noaa.gov/pr/PelagicLonglineTakeReductionPlan_000.htm.

The National Marine Fisheries Service is collaborating with the U.S. Fish and Wildlife Service and bird conservation organizations to improve the information on birds at sea in the Western North Atlantic. NMFS representatives have attended workshops of the Atlantic Marine Bird Conservation Cooperative since 2007, participating in breakout groups to discuss fishery by-catch, oil spill recoveries, tracking, seabird surveys, and other issues and opportunities. Collaborative efforts between NOAA and other groups are increasing the number of cruises that include experienced bird observers. A recently-formed Black-capped Petrel Group is generating a plan that includes tracking and is seeking funding.

2.2.8 Tagging

Participants in the Southeast Fisheries Science Center's Cooperative Tagging Center (CTC) and The Billfish Foundation (TBF) Tagging Program (TBF) tagged and released 6,987 billfishes (including swordfish) and 424 tunas in 2008. This represents an increase of 91.5% for billfish and a decrease of 26.8% for tunas from the 2007 levels. There continues to be several electronic tagging studies involving bluefin tuna and billfish in the Atlantic Ocean and adjacent waters during 2008. These are discussed in the bluefin and billfish research sections above. There were 29 billfish recaptures from the CTC and TBF projects in 2008. This represents an increase of 12% from 2007. These recaptures were 18 sailfish, eight swordfish, one white marlin, and one striped marlin. A total of four tunas were recorded as recaptures in 2008, three of which were yellowfin and one was a bluefin tuna. This recapture level was a decrease of 66.6% from the 2007 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.

2.2.9 Fishery observer deployments

Domestic longline observer coverage. In accordance with ICCAT recommendations, randomized observer sampling of the U.S. large pelagic longline fleet was continued into 2009 (see **Figure 5**). 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 through 2008 ranged from 2.5% in 1992 to 13.5% in 2008. The targeted sampling fraction of the U.S. pelagic longline fleet was increased in to 8% in 2002.

A total of 11,566 sets (8,427,180 hooks) were recorded by observer personnel from the Southeast Fisheries Science Center (SEFSC) and Northeast Fisheries Science Center NEFSC programs from May of 1992 to December of 2008. During the period, observers recorded over 398,978 fish (primarily swordfish, tunas, and sharks), in addition to marine mammals, turtles, and seabirds during this time period. Document SCRS/2004/168 provided a more detailed summary of the data resulting from observer sampling between 1992 and 2002. From March 9th through June 9th, 2008 the longline 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 670 longline sets were observed (504,384 hooks) from 33 vessels which accounted for approximately 75% of the trips during that period.

Shark gillnet fishery observer coverage. The directed shark gillnet fishery operates year round in coastal waters off the U.S. southeast coast. Sharks are the primary target species but at times other species are targeted within the same trip. Gillnets are set either in a drift, strike, or sink fashion. On-board observers have conducted observations of this fishery from 1993-1995 and 1998-present and reports of the catch and by-catch from these observations are available. All vessels that have an active directed or indirect shark permit and fish with gillnet gear are selected for coverage. In 2008, a total of 68 drift, and 134 sink gillnet sets were observed on 5 trips and 41 trips, respectively. No vessels were observed making strikenet sets for sharks. Trips targeted primarily sharks but trips targeting Spanish and king mackerel, kingfish, and multiple teleost species were also observed. Depending on gear and target, total observed catch composition varied from 12-99% shark, 1-86% teleosts and 1-3% batoids.

Shark bottom longline observer coverage. The shark bottom longline fishery is active 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 shark incidentally. Recent amendments to the Consolidated Atlantic Highly Migratory Species Fishery Management Plan based on updated stock assessments have eliminated the major directed shark fishery in the U.S. Atlantic. The amendments implement a shark research fishery, which allows the U.S. National Marine Fisheries Service (NMFS) to select a limited number of commercial shark vessels on an annual basis to carry observers 100% of trips to collect life history data, and data for future stock assessments. Furthermore, the revised measures affect quotas, drastically reduce retention limits, and modify the authorized species in commercial shark fisheries. Specifically, commercial shark fishermen not participating in the research fishery are no longer allowed to land sandbar sharks, which have been the main target species for most fishermen. Additionally, commercial fishermen are required to maintain shark fins naturally attached to the shark carcass through landing. The revised measures also affect authorized species in recreational shark fisheries; modify time/area closures for commercial shark vessels deploying bottom longline gear; and modify 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. Observer coverage from 1994 through 2004 was coordinated by the Commercial Shark Fishery Observer Program (CSFOP), Florida Museum of Natural History, University of Florida, Gainesville, FL (Morgan *et al.* 2009). In 2005, responsibility for the fishery observer program was transferred to National Marine Fisheries Service (NMFS), Southeast Fisheries Science Center (SEFSC), Panama City Laboratory. From January to December 2008, a total of 53 shark directed trips with a total of 57 hauls were observed, Sharks comprised 95% of the catch, followed by teleosts (4.0%), invertebrates (0.4%), and batoids (0.5%).

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 Program for West Atlantic bluefin tuna (06-06; 08-04)

Recommendation 08-04 revised the annual western Atlantic bluefin tuna quota for the United States to 1,034.9 t for 2009 and 977.44 t for 2010, respectively, including 25 t to account for by-catch related to directed longline fisheries in the vicinity of the management area boundary. Consistent with Recommendation 08-04, the United States has implemented a 2009-2010 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. Recommendation 08-04 maintained the existing limit on the amount of under-harvest that may be carried forward to the next year, (i.e., not to exceed 50 percent of a Contracting Party's current initial Total Allowable Catch) for 2009 and 2010, but lowers the allowable carry forward to 10 percent after 2010. Since 2008, the fishery has been managed on a calendar year basis. Accordingly, under-harvest from the 2008 fishing year (1 January 2008 through 31 December 2008) was applied to the 2009 fishing year (1 January 2009 through 31 December 2009) resulting in an adjusted 2009 fishing year quota of 1,462.4 t. The United States must report dead discard estimates to ICCAT annually and account for this mortality as part of the quota specification calculation process. During the 2008 calendar year, the United States landed an estimated 937 t of bluefin tuna, which includes an estimated 173 t of dead discards. Also, in conformance with 08-04, the United States prohibits directed fishing for Atlantic bluefin tuna in the Gulf of Mexico.

3.1.2 Recommendation to Establish a Multi-annual Recovery Plan for Bluefin Tuna in the Eastern Atlantic and Mediterranean (06-05; 07-05)

As discussed in Section 3.3, the United States has implemented the Bluefin Tuna Catch Documentation Program (Rec. 07-10), as amended in 2008 (Rec. 08-12) 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 North of 10 degrees North latitude and between 35 degrees and 45 degrees West longitude from the 1999/2000 level. Consistent with resolution 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 bluefin tuna since 1999/2000 through implementation of a limited access program and fishing gear restrictions.

3.1.4 Recommendation to Establish a Plan to Rebuild Blue Marlin and White Marlin Populations (06-09)

Phase I of the ICCAT rebuilding plan requires countries to reduce commercial landings of Atlantic white marlin captured in pelagic longline and purse seine fisheries by 67 percent and reduce blue marlin landings by 50 percent from 1996 or 1999 landings (whichever is greater) through 2010. The United States has prohibited all commercial retention of billfish since 1988. For its part of the rebuilding program, the United States agreed to maintain regulations that prohibit all landings of marlins by U.S. pelagic longline fishermen, and to continue 10% scientific observer coverage levels of billfish tournaments through 2010. The United States currently meets or exceeds these observer requirements. The United States also agreed to limit annual landings by U.S. recreational fishermen to 250 Atlantic blue and white marlins, combined. Catch and release rates in the U.S. recreational fishery for Atlantic 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.

A final rule was published in October 2006 that codified the ICCAT 250 marlin limit and established procedures to remain within the limit; prohibited the retention of 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 1 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 substantially reduce marlin mortality.

All registered Atlantic billfish tournaments are selected to report landings and effort information to the National Marine Fisheries Service. 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 2009 calendar year data (not inclusive of all data sources) indicate landings of 29 blue marlin and 26 white marlin from recreational fishing activities. Preliminary 2008 calendar year data from all data sources indicate landings of 58 blue marlin and 59 white marlin from recreational fishing activities. Please refer to the U.S. Compliance Table for final aggregate U.S. landings.

3.1.5 Recommendation to Establish a Rebuilding Program for North Atlantic Swordfish (06-02, 08-02)

Recommendation 06-02 established a catch limit of 3,907 t ww for the United States for 2007 and 2008, and included a provision allowing up to 200 t of U.S. North Atlantic swordfish quota to be caught between 5 degrees North latitude and 5 degrees South latitude, and a provision to transfer 25 t to Canada. The recommendation also limited carryover of unused quota to 50 percent of the baseline quota. Recommendation 08-02 extended the provisions of Recommendation 06-02 through 2009. The United States provided 1,345 t of unused quota each year for 2007 and 2008 from the 2003-2006 management periods for use by developing states. Per the extension of Recommendation 06-02 (via Recommendation 08-02), the United States provided an additional 1,345 t of under-harvested North Atlantic swordfish to developing states in 2009. The United States transitioned from a 1 June – 31 May fishing year management cycle to a calendar year fishing year management cycle in 2007. Due to the switch to calendar years, 2007 was an abbreviated fishing year, from 1 June, 2007 through 31 December, 2007. Starting 1 January, 2008, the United States began managing NSWO and SSWO on a calendar year management cycle. During the 2006 fishing year (1 June, 2006- 31 May, 2007), there was an underage that was

added to the landings quota for the 2007 fishing year. Landings and discard estimates for the 2007 fishing year and 2008 calendar years are provided in the U.S. Compliance tables. The United States has a minimum size of 33 lb (15 kg) dressed weight, and a required minimum size of 29" (73 cm) cleithrum to caudal keel length or 47" (119 cm) lower jaw fork length, which are designed to correspond to the 119 cm minimum size limit, with zero tolerance. In 2008, 1.55% (by weight) of fish under this minimum size was harvested. This small over harvest is due to the occasional take of swordfish which are above the minimum length and therefore legal to land, but turn out to be below the corresponding minimum weight.

3.1.6 Recommendation on South Atlantic Swordfish (06-03)

Recommendation (06-03) established catch allocations for the United States of 100 t ww each year for the period 2007-2009, inclusive, and allowed up to 100 t ww of under-harvest to be carried forward by the United States each of these years. The United States landed 0.0 t of South Atlantic swordfish in 2007 and 2008.

3.1.7 Recommendation on the Southern Albacore Catch Limits (07-03)

The United States was subject to a catch limit of 100 t in 2008; however, the United States does not have a directed fishery for southern albacore. U.S. landings of southern albacore tuna were 0 t in calendar year 2007 and 2008.

3.1.8 Recommendation on North Atlantic Albacore Catch Limits (03-06; 06-04; 07-02)

Recommendation 06-04 extended the terms of Recommendation 03-06 through 2007. Under Recommendation 06-04, the United States was allocated a landing quota of 607 t for 2007, which is a level consistent with average landings for the United States during the mid-1990s. The United States landed 531.7 t during the 2007 calendar year. Recommendation 07-02 applies for 2008 and 2009 and sets the annual U.S. landings quota at 538 t. The recommendations provided that overages/underages of annual catch limits should be deducted from, or added to, specific future catch limits, and the 2007 recommendation limits carryover of under-harvest to 25 percent of the initial U.S. catch quota. The United States landed 248 t during the 2008 calendar year.

In addition, pursuant to ICCAT's recommendation concerning the limitation of fishing capacity on North Atlantic albacore (1998), the United States submits the required reports providing a list of U.S. vessels operating in the fishery on an annual basis. The 2009 submission indicated that there were 221 vessels authorized to harvest North Atlantic albacore in the Convention area.

3.1.9 Recommendation by ICCAT on Bigeye Tuna Conservation Measures for Fishing Vessels Larger than 24m Length Overall (98-03)

The operative paragraphs of Recommendation 98-03, paragraphs 1 and 2, do not apply to the United States per paragraph 3, as the annual average catch of bigeye tuna by the United States was below 2000 t for the prescribed 5 year period.

3.1.10 Recommendation on Bigeye Tuna Conservation Measures (04-01; 08-01)

No catch limits apply to the United States since 1999 catch was less than 2,100 t. To provide additional protection to the bigeye tuna stock, particularly the juvenile component, the United States has implemented a minimum size for this stock (which exceeds that formerly required by ICCAT of 3.2 kg). This minimum size of 27 inches (approximately 6.8 kg) applies to all U.S. fisheries landing bigeye tuna, both commercial and recreational. The United States landed 522.3 t in calendar year 2007 and 488 t in 2008.

3.1.11 Recommendation on Yellowfin Size Limit (72-01; 05-01)

In 2005, ICCAT repealed the minimum size limit of 3.2 kg that had been in place since 1972. The United States maintains a minimum size limit of 27 inches fork length (approximately 6.8 kg) in both recreational and commercial fisheries for yellowfin tuna.

3.1.12 Recommendation by ICCAT on Supplemental Regulatory Measures for the Management of Atlantic Yellowfin Tuna (93-04)

The United States has implemented a number of regulatory measures that ensure consistency with Recommendation 93-04, which prohibits increases in effective fishing effort for Atlantic yellowfin tuna over

1992 observed levels. The United States implemented a limited access program for pelagic longline vessels in 1999, which has resulted in a decrease in the number of vessels commercially permitted to fish for Atlantic tunas by approximately 70 percent from the early 1990s. The United States also implemented a retention limit of three fish per angler per trip in the recreational and charter/headboat fisheries in 1999. In 2000 and 2001, the United States closed three large areas to pelagic longline fishing in the U.S. Atlantic EEZ (including the Gulf of Mexico), which had demonstrable yellowfin tuna effort and catches. In 2004, the United States also implemented circle hook requirements in the pelagic longline fishery in which yellowfin tuna are caught, which contributes to reducing post-release mortality of incidentally caught yellowfin tunas, and, as noted above, the United States has maintained a minimum size for retaining yellowfin tuna despite the repeal of a minimum size by ICCAT.

3.1.13 Resolution on Atlantic Sharks (03-10)

Resolution 03-10 requested ICCAT parties and cooperating parties to provide the SCRS by-catch committee scheduled to meet in 2004 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 ICCAT parties and cooperating parties, in accordance with the Food and Agriculture Organization's (FAO) International Plan of Action (IPOA) for the Conservation and Management of Sharks. In conformance with this resolution, the United States provides shark data to the Secretariat, as appropriate. In addition, we adopted a National Plan of Action for the Conservation and Management of Sharks in February 2001, consistent with the International Plan of Action for Sharks.

3.1.14 Recommendations on Atlantic sharks (04-10; 05-05; 06-10; 07-06; 08-07)

The original 2004 Recommendation established a timeline for review of the shortfin mako population assessment and development of recommendations for management alternatives (2005), as well as reassessment of blue sharks and shortfin mako (2007) by SCRS. Following the 2005 assessment, Recommendation 04-10 was amended via Recommendation 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. The United States currently tracks the annual quota for pelagic sharks, which includes landings of shortfin mako, to ensure that catches of these species are under the 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. 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. In 2006, Recommendation 04-10 was further amended via Recommendation 06-10 to require a stock assessment and management alternatives for shortfin mako sharks and blue sharks in time for the 2008 annual meeting of the Commission. This assessment was completed by the SCRS in 2008.

Recommendation 04-10 also 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 Recommendation. In addition, the Recommendation 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 05-05 required CPCs to implement the provisions of Recommendation 04-10 for North Atlantic shortfin mako shark populations. The United States continues to fulfill the requirements of these recommendations through data collection programs and a variety of fishery restrictions including the Shark Finning Prohibition Act of 2000. This law prohibits the practice of finning nationwide and the possession or landing of shark fins without the corresponding carcass (67 FR 6194, 11 February, 2002). In 2008, NMFS published Amendment 2 to the 2006 Consolidated Atlantic HMS FMP that, among other things, required all sharks landed in the Atlantic Ocean, including the Gulf of Mexico and Caribbean Sea, to be landed with their fins naturally attached. Additionally, the United States adopted a National Plan of Action for the Conservation and Management of Sharks in February 2001, consistent with the International Plan of Action for Sharks, which calls for management measures to reduce waste to the extent practicable and to protect vulnerable life history stages, such as juveniles. The United States also currently enforces a minimum size limit and bag limits for recreationally caught sharks, commercial trip limits, and has established a time/area closure for shark bottom longline fishing in the mid-Atlantic to protect sharks in the nursery grounds. In 2008, the United States found that shortfin mako sharks are experiencing overfishing and appear to be approaching an overfished status. NMFS currently has proposed measures in the public comment stage (74 FR 36891) to address shortfin mako shark conservation through Amendment 3 to the 2006 Consolidated Atlantic HMS FMP.

In 2007, ICCAT issued Recommendation 07-06 requiring 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. Specifically, CPCs are to submit Task I and Task II data for sharks, take appropriate measures to reduce fishing mortality of porbeagle sharks and North Atlantic shortfin mako sharks, and implement research to identify potential nursery habitat of pelagic sharks. Furthermore, CPCs may conduct research on porbeagle sharks and North Atlantic shortfin mako sharks to submit to the SCRS. Recommendation 07-06 also requires the SCRS to conduct a stock assessment and recommend management advice for porbeagle sharks no later than 2009. Consistent with Recommendation 07-06, the United States significantly reduced the porbeagle shark quota in 2008 in Amendment 2 to the 2006 Consolidated Atlantic HMS FMP and, as noted above, is currently addressing shortfin mako shark mortality reductions in the Amendment 3 to the aforementioned FMP. The United States is actively involved in pelagic shark research and continues to submit all Task I and Task II data for sharks on an annual basis. U.S. scientists participated in the 2009 porbeagle shark assessment.

Recommendation 08-07 requires that all nations release bigeye thresher sharks unharmed and report all data on incidental catches. The United States has prohibited the harvest of bigeye thresher sharks in commercial and recreational fisheries since 1999. Since 2006, bottom longline and gillnet fishermen fishing for sharks have been required to attend workshops to learn how to release sea turtles, protected species, and prohibited shark species in a manner that maximizes survival. NMFS published a final rule on 7 February, 2007 (72 FR 5633), that requires participants in the Atlantic shark bottom longline fishery to possess, maintain, and utilize handling and release equipment for the release of sea turtles, other protected species, and prohibited shark species.

3.2 Closed Seasons

3.2.1 Domestic time/area closures for ICCAT species

The United States takes an ecosystem approach to management of HMS species. As such, the United States implements a number of measures that exceed the standards set in ICCAT recommendations. At present, the Atlantic pelagic longline fishery of the United States is subject to several discrete time/area closures that are designed to reduce by-catch in the pelagic longline fishery by prohibiting pelagic longline fishing for ICCAT species in those areas during specified times. These closures affect offshore fishing areas up to 200 nautical miles (nm) from shore (see **Figure 6**). Those closures are as follows: (1) Florida East Coast: 50,720 nm^2 year-round; (2) Charleston Bump: 49,090 nm^2 from February through April each year; (3) DeSoto Canyon: 32,860 nm^2 year-round; and (4) the northeastern United States: 21,600 nm^2 during the month of June each year. Effective 1 January 2005, the United States implemented a mid-Atlantic shark closed area for bottom longline gear from January through July of each year to protect dusky shark and juvenile sandbar sharks in pupping and nursery areas.

In addition, all HMS gear types are prohibited year-round, except for surface trolling only from May through October, in the Madison Swanson and Steamboat Lumps Marine Reserves **(Figure 7)**. These closures were implemented for the protection of spawning aggregations of gag grouper, and the HMS management measures were originally set to expire on 16 June, 2010, consistent with Gulf of Mexico Fishery Management Council recommendations. However, on 7 November, 2008, the Gulf of Mexico Fishery Management Council requested that the expiration date be removed. On 5 August, 2009 (74 FR 39032), NMFS published a proposed rule that would remove the expiration date for the two reserves. Both of these reserves are located shoreward of the Desoto Canyon Closed Area **(Figure 7)**. The Madison-Swanson Marine Reserve is 115 nm^2 in size, and the Steamboat Lumps marine reserve is 104 nm^2 in size. NMFS has also proposed a new, small time/area closure, called the "Edges 40 Fathom Contour" (5 August 2009, 74 FR 39032), in order to backstop this closure that was implemented by the Gulf of Mexico Fishery Management Council (24 June 2009, 74 FR 30001), which would provide additional protection for spawning gag grouper. The Edges 40 Fathom Contour is a 390 nm^2 gag spawning region located between the Madison-Swanson and Steamboat Lumps closure area, within the Gulf of Mexico. This area is closed to fishing for any Gulf of Mexico Fishery Management Council-managed species from January 1 through April 30 of each year. NMFS is proposing to close this area to all HMS fishing from January 1 through April 30 of each year.

Additionally, on 7 February, 2007, NMFS published a final rule (72 FR 5633) that complements regulations that the Caribbean Fishery Management Council (CFMC) implemented on 28 October, 2005 (70 FR 62073), that closed six small distinct areas off of Puerto Rico and the U.S. Virgin Islands to bottom longline gear, year-round. The purpose of these closed areas is to protect essential fish habitat of reef-dwelling species. These areas are defined in Title 50, section 622.33 (a) of the Code of Federal Regulations.

Finally, NMFS published a final rule on 24 June, 2008 (73 FR 35778) and a correction was published on 15 July 2008 (73 FR 40658), to complement regulations being implemented by the South Atlantic Fishery Management Council (SAFMC). The final rule for the SAFMC's Amendment 14A to the Snapper Grouper Fishery Management Plan was published on 13 January 2009 (74 FR 1621). In the final rule, the SAFMC implemented eight Type II Marine Protected Areas (MPAs) from North Carolina to the Florida Keys. Type II MPAs are closures throughout the year to most gear types except some fishing, such as trolling for HMS and other coastal pelagic species. The SAFMC requested NMFS to backstop these closures because of enforcement issues; many shark and snapper grouper fishermen possess the same permits and the gear is indistinguishable between the two fisheries. Therefore, NMFS has closed the eight MPAs to shark bottom longline gear.

The Northeast Distant Statistical Sampling Area (NED) (2,631,000 nm^2), 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. Pelagic longline vessels may only fish for highly migratory species in this area 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, 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. NMFS published a final rule on 7 February 2007 (72 FR 5633), that requires participants in the Atlantic shark bottom longline fishery to possess, maintain, and utilize the same equipment and follow the same protocols for the safe handling and release of sea turtles and other protected species as required in the pelagic longline fishery. Additionally, on 23 September 2008 (73 FR 54721), NMFS published a final rule that requires U.S. HMS pelagic longline and bottom longline vessels to possess an additional sea turtle control device as of 1 January 2009.

The National Marine Fisheries Service issued Exempted Fishing Permits to three pelagic longline vessels to conduct research in portions of the Charleston Bump and Florida East Coast Closed Areas from 2008 to February, 2010. NMFS is considering extending the expiration date of these permits to allow for the completion of the research. This research, which is being carried out with academic partners, would allow NMFS to determine the relative effectiveness of the closed areas under current fishery conditions and provide data which could help NMFS make determinations about whether modifications to the existing closed areas are warranted.

3.3 Trade and compliance related measures

3.3.1 Trade Restrictive Recommendations (02-17; 03-18)

No trade restrictive measures were passed by the Commission at the 2008 annual meeting. The trade restrictive measures that are currently in effect prohibit the importation of bigeye tuna from Bolivia (02-17) and Georgia (03-18). These measures were implemented by the United States on 6 December 2004 (69 FR 70396).

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 (08-12)

On 2 June, 2008 (73 CFR 31380), the United States published final regulations effective 2 July 2008, implementing the ICCAT bluefin tuna catch documentation program per Recommendation 07-10. This program repealed the pre-existing 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 Recommendation 08-12.

The U.S. program continues to require that bluefin tuna be fitted with a tail tag upon sale to a domestic dealer, and the tag (or tag number in the case of a cut carcass) must remain with the fish, thus tracking bluefin tuna from domestic harvest to international markets. The first annual bluefin tuna catch documentation report was submitted to ICCAT before the October 1, 2009 deadline and covered the time period from July 1, 2008 through June 30, 2009. The United States continues to work towards implementation of an electronic reporting system for imports covered by RFMO consignment document programs.

3.3.4 Swordfish and Bigeye Tuna Statistical Document Programs (00-22, 01-21, 01-22, 03-19)

Statistical document programs for swordfish and frozen bigeye tuna were implemented by the United States in 2005. 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 2009 for the period covering July 2008 through December 2008 and will be submitted in October 2009 for the first half of the 2009 calendar year.

3.3.5 Recommendation to Establish a Process for the Review and Reporting of Compliance Information (08-09)

This measure provides that parties should submit to the Secretariat documented information that indicates possible non-compliance with ICCAT Conservation and Management measures well in advance of the ICCAT meeting and to respond to any allegations received from other parties under this process. The United States will provide any relevant information it collects to ICCAT in accordance with the recommendation and respond as appropriate to any documented issues raised by others concerning U.S. compliance with ICCAT rules.

3.4 Observer programs

The U.S. observer program currently meets two main objectives: monitoring of interactions between fishing gear and protected species (marine mammals, sea turtles, and to a lesser degree, sea birds), and monitoring of fishing effort and catch (estimation of total landings of target species and/or by-catch 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 2008, the United States achieved 13.6 percent observer coverage expressed as a proportion of reported sets and 13.5% as a proportion of reported hooks in 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. NMFS coordinates observer program management through its Office of Science and Technology/National Observer Program at the headquarters office outside of Washington, DC. Observers for U.S. vessels in ICCAT fisheries are deployed from regional programs in Miami, Florida and Panama City, Florida.

The United States hosted the 2009 International Fisheries Observer and Monitoring Conference in Portland, Maine in July 2009 and sponsored the participation of a number of attendees from developing nations. This event was an important opportunity to improve fishery 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. The United States also organized and jointly conducted with the host government two observer training workshops in West Africa (Ghana and Senegal) over the last two years to help develop local capacity for such programs and is planning to organize additional observer trainings in the region.

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)

The United States implemented a fleet-wide VMS requirement in the Atlantic pelagic longline fishery effective September 1, 2003 (June 25, 2003, 68 FR 37772), consistent with the terms of recommendations 03-14 and 04-11. This rule requires all vessels away from port with pelagic longline gear onboard to operate their VMS units. In addition to what is required for these recommendations, the United States issued a rule in December of 2003 (24 December, 2003, 68 FR 74746), requiring 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. This rule was implemented in December 2003 for purposes of domestic Atlantic shark management. 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.

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)

In 2001, ICCAT resolved that minimum management standards should be established for issuance of fishing licenses to tuna longline vessels greater than 24 meters in overall length and that an annual report should be submitted to ICCAT using a specific format. The United States issued permits to 17 pelagic longline vessels over 24 meters in overall length in 2008. The U.S. submission is provided via ICCAT form: COMP-017-LSTLV, and is attached as Appendix 4.

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. Further, a list detailing the enforcement actions taken on ICCAT species is provided in Appendix 5.

3.6.3 Recommendation to Establish a List of Vessels Presumed to Have Carried Out Illegal, Unreported, and Unregulated Fishing Activities (06-12) and Recommendation by ICCAT Amending ICCAT's List of Fishing Vessels Presumed to be engaged in Illegal, Unreported and Unregulated (IUU) Fishing Activities in the ICCAT Convention Area and Other Areas (07-09)

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, and we are developing regulations to clarify domestic implementation of other aspects of this recommendation. The following specific regulations directly address the import of tuna or tuna-like species into the United States from vessels engaged in IUU fishing in the ICCAT Convention area:

> *50 CFR Part 635.41 Products denied entry*
>
> (b) All shipments of tuna or tuna-like species, or their products, in any form, harvested in the ICCAT Convention area by a fishing vessel that is required to be listed, but not listed on the ICCAT record of authorized vessels will be denied entry into the United States.
>
> (c) All shipments of tuna or tuna-like species, or their products, in any form, harvested in the ICCAT Convention area by a fishing vessel listed on the ICCAT record as engaged in illegal, unreported, and unregulated fishing will be denied entry into the United States.
>
> (d) All shipments of tuna or tuna-like species, placed in cages for farming and/or transshipment, harvested in the ICCAT Convention area and caught by a fishing vessel included on the ICCAT list as engaged in illegal, unreported, and unregulated fishing will be denied entry into the United States.

3.6.4 Recommendation by ICCAT to Promote Compliance By Nationals of Contracting Parties, Cooperating Non-Contacting 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 5, NOAA Enforcement Actions Taken on ICCAT Species.

3.6.5 Resolution by ICCAT Further Defining the Scope of IUU Fishing (01-18)

IUU fishing is the focus of growing attention in the United States, due to its adverse impacts on target fish stocks, habitat, fish markets, by-catch, and competition with legal fishing. The United States has taken action to implement this resolution, 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. Specifically, under domestic regulations all shipments of tuna and tuna-like species or their products harvested in the ICCAT Convention area by a fishing vessel listed on the ICCAT IUU list will be denied entry into the United States (see section 3.6.4.) In addition, the U.S. fishing industry has been advised to consult the IUU vessel lists of Regional Fishery Management Organizations before making commercial arrangements with vessels. The U.S. industry has been advised that the penalties for noncompliance may include restricted port access or unloading prohibitions.

3.6.6 Recommendation by ICCAT to Adopt Additional Measures Against Illegal, Unreported and Unregulated (IUU) Fishing (03-16)

This recommendation 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. As noted previously, the United States closely monitors and controls its bluefin tuna and other ICCAT fisheries. In addition, U.S. vessels do not participate in Atlantic bluefin tuna farming operations, and the United States prohibits at sea transshipment.

3.7 Other Recommendations

3.7.1 Recommendation by ICCAT on Vessel Chartering (02-21)

A final rule was published on December 6, 2004 (69 FR 70396), to implement recommendation 02-21 concerning vessel chartering. The United States collects all relevant information for monitoring before issuing the permits necessary to allow chartering to be undertaken and has reported chartering activities to ICCAT. Since the adoption of recommendation 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 highly migratory species, 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 a combination of tournament surveys (the Recreational Billfish Survey), the Large Pelagic Survey (LPS), the Marine Recreational Fishing Statistics Survey (MRFSS), mandatory non-tournament landings reporting requirements for Atlantic blue and white marlins, sailfish, swordfish, and bluefin tuna, as well as 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 highly migratory species has been required since 1999. All tournaments for Atlantic highly migratory species are required to submit landing reports, if selected. 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 to the National Marine Fisheries Service 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 process of improving on the current MRFSS system through the Marine Recreational Information Program (MRIP). MRIP is an improved national system of regional surveys that will replace existing marine recreational fishing data collection programs and provide better regional monitoring of recreational fishing participation, effort, catches, landings and releases of finfish species.

3.7.4 Recommendation by ICCAT Concerning the Establishment of an ICCAT Record of Vessels over 24 Meters authorized to operate in the Convention Area (02-22)

The United States submitted the list of vessels required, pursuant to this recommendation, to ICCAT in June 2009. At that time, there were 180 U.S. vessels that met the appropriate criteria.

3.7.5 Resolution on Sea Turtles (03-11)

The 2003 resolution on sea turtles encourages ICCAT members and cooperating non-members to collect and provide the SCRS with information on interactions with sea turtles in ICCAT fisheries, including incidental catches and other impacts on sea turtles. The measure also encourages the release of all sea turtles that are incidentally caught alive and to share information, including technical measures, to reduce the incidental catch of sea turtles, and to ensure the safe handling of all turtles that are released to improve their survivability. The resolution also calls for the development of data collection and reporting methods for the incidental by-catch of sea turtles and to support efforts by the FAO to address the conservation and management of sea turtles. The United States complies with all of these requests.

In 2004 (6 July, 2004; 63 FR 40734), the United Stated codified regulations to reduce sea turtle by-catch in Atlantic pelagic longline fisheries for highly migratory species. These measures pertain to the entire U.S. Atlantic pelagic longline fishery, and include: 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 are developed.

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 highly migratory species 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 domestic regulations, vessels 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 is intended to address compliance issues with statistical reporting obligations. It requires the Secretariat to identify data gaps, the SCRS to evaluate the impacts of data gaps on stock assessments and formulation of management advice, and for 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 2008.

3.7.9 Recommendation by ICCAT on Bluefin Tuna Farming (06-07)

Atlantic bluefin tuna are not farmed in U.S. waters. The U.S. bluefin tuna catch documentation program applies to farmed as well as wild-caught product and catch documents are required for imports of all farmed product.

3.7.10 Electronic Statistical Document Program (06-16)

The United States continues to implement an electronic system for the collection and dissemination of trade information. The International Trade Data System is a requirement under U.S. domestic legislation aimed at improving the efficiency of import and export processes as well as ensuring compliance with obligations to monitor the origin and safety of products. Given the domestic requirement to collect information from the trade

community (shipper, carriers, brokers, etc.) in an electronic format, the United States is investigating ways to integrate ICCAT's statistical document programs into the internet-based electronic portal. As of September 2008, NMFS has catalogued 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 requirements have been communicated to U.S. Customs and Border Protection through a Concept of Operations document. The Concept of Operations was approved by Customs in July 2009. NMFS has started the process of issuing regulations to implement the electronic collection of trade data for the subject seafood products by issuing an Advanced Notice of Proposed Rulemaking in May 2009 (www.regulations.gov). NMFS will consult with U.S. importers and exporters from ICCAT parties to determine the most efficient means of collecting the required data in electronic format to support admissibility decisions. More detailed information on the U.S. International Trade Data System can be found on the www.itds.gov internet site.

3.7.11 Recommendation by ICCAT on Reducing Incidental By-catch of Seabirds in Longline Fisheries (07-07)

The United States does not have any vessels actively participating in ICCAT-managed fisheries South of 20 degrees South longitude. A description of the U.S. implementation of other measures called for in the recommendation can be found in Appendix 3.

3.7.12 Other resolutions and recommendations

The following were not addressed in this report as the United States does not participate in the relevant fishery or does not participate in specific activities covered by the measures:

[08-03] Recommendation by ICCAT on Mediterranean Swordfish
[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
[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 Scheme 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 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 U.S. enforcement actions taken in ICCAT fisheries is provided in Appendix 5. From October 1, 2008, to September 30, 2009, NOAA OLE agents devoted more than 346 hours to various activities relevant to the protection of several Atlantic HMS species (tuna, swordfish and billfish). The U.S. Coast Guard also enforces HMS fishery regulations. During this same period, the Coast Guard boarded 143 vessels resulting in 7 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 have logged hundreds of hours monitoring for a range of violations. From October 1, 2008 to September 30, 2009, the total Coast Guard Atlantic Ocean and Gulf of Mexico fisheries enforcement focused effort involved 1,896 aircraft patrol hours, 7,998 boat patrol hours, and 45,887 cutter (large vessel) patrol hours. In addition, states and territories of the United States with maritime boundaries relevant to ICCAT species enforcement on the Atlantic Ocean, Gulf of Mexico, and/or Caribbean Sea maintain a total of more than 1,400 officers dedicated to marine conservation law enforcement and reported 9,022 staff hours of focused enforcement of regulations for tuna and tuna-like species.

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 2004 to 2008.

Area	*Gear*	*2004*	*2005*	*2006*	*2007*	*2008*
NW Atlantic	Longline	658.9	394.2	701.7	757.8	460.5
	Gillnet	3.2	0.1	4.7	4.2	0.6
	Handline	213.2	105.1	105.1	113.2	30.1
	Trawl	1.6	0.2	0.7	2.4	0.0
	Troll	0.0	0.0	0.0	6.9	2.4
	Trap	0.0	0.01	0.0	0.0	0.05
	Rod & reel*	3,433.7	3,504.8	4,649.2	2,726	657.1
	Unclassified	10.6	3.8	3.9	7.0	1.4
Gulf of Mexico	Longline	1,811.9	1,210.9	1,128.5	1,379.3	756.5
	Handline	28.3	45.5	49.9	26.2	11.2
	Rod & Reel*	247.1	146.9	258.4	227.6	366.3
	Unclassified	0.0	0.3	0.0	0.0	0.0
Caribbean	Longline	4.5	140.6	179.7	255.6	107.1
	Trap	0.1	0.001	0.4	0.0	0.0
	Gillnet	0.06	0.0003	0.0	0.0	0.04
	Handline	7.0	9.7	7.8	9.1	3.7
	Rod & reel*	78.7	5.5	0.0	12.4	9.7
NC Area 94A	Longline	0.08	0.5	0.0	1.8	0.4
SW Atlantic	Longline	16.8	0.0	0.0	0.0	0.0
	TOTAL	**6,515.7**	**5,568.1**	**7,090.0**	**5,529.5**	**2,407.2**

Rod and reel catches and landings represent estimates of landings based on statistical surveys of the U.S. recreational harvesting sector.

Table 2. Annual landings (t) of skipjack tuna from 2004 to 2008.

Area	*Gear*	*2004*	*2005*	*2006*	*2007*	*2008*
NW Atlantic	Longline	0.1	0.05	0.04	0.0	0.1
	Gillnet	16.7	2.2	0.2	0.07	0.04
	Handline	0.6	0.9	0.2	0.3	0.4
	Trawl	0.2	0.07	0.7	0.005	0.003
	Trap	0.006	0.0	0.3	0.0	0.0
	Pound net	0.0	0.0	0.5	0.0	0.0
	Rod & reel*	27.3	8.1	34.6	27.4	21.0
	Unclassified	0.2	0.01	0.06	0.6	0.5
Gulf of Mexico	Longline	0.3	0.3	0.0	0.0	0.05
	Handline	0.2	0.02	0.0	0.2	0.06
	Rod & reel*	6.3	3.1	6.4	23.9	16.3
Caribbean	Longline	0.3	0.2	0.2	0.02	1.3
	Trap	0.02	0.1	0.05	0.0	0.0
	Gillnet	0.3	0.06	0.02	0.0	0.01
	Handline	9.6	10.9	10.0	13.7	16.0
	Rod & reel*	40.4	3.9	7.7	0.2	11.3
	TOTAL	**102.5**	**29.9**	**61.0**	**66.5**	**67.1**

* 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 2004 to 2008.

Area	*Gear*	*2004*	*2005*	*2006*	*2007*	*2008*
NW Atlantic	Longline	267.0	272.9	469.4	331.9	380.2
	Gillnet	0.0	0.0	0.2	1.0	0.04
	Handline	3.3	6.2	21.5	16.8	6.9
	Harpoon	0.0	0.0	0.2	0.0	0.0
	Trawl	0.9	0.6	0.0	0.4	0.0
	Trap	0.3	0.0	0.0	0.0	0.0
	Troll	0.0	0.0	0.0	0.9	0.8
	Rod & reel*	94.6	165.0	422.3	126.8	70.9
	Unclassified	0.5	0.6	0.8	0.9	2.1
Gulf of Mexico	Longline	20.2	25.2	37.7	37.0	14.0
	Handline	0.2	0.1	1.5	0.01	0.0
	Rod & reel	6.0	0.0	24.3	0.0	0.0
Caribbean	Longline	3.5	6.9	10.5	3.4	8.9
	Handline	0.0	0.04	0.0	0.0	0.0
	Rod & reel	0.06	0.0	0.0	0.0	0.0
NC Area 94A	Longline	5.0	6.9	3.0	8.4	4.6
SW Atlantic	Longline	14.4	0.0	0.0	0.0	0.0
	TOTAL	**416.0**	**484.4**	**991.4**	**527.3**	**488.5**

* 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 2004 to 2008.

Area	*Gear*	*2004*	*2005*	*2006*	*2007*	*2008*
NW Atlantic	Longline	106.6	88.9	84.8	109.9	107.2
	Gillnet	4.9	6.0	2.1	1.0	2.1
	Handline	6.1	3.0	2.6	5.4	0.2
	Trawl	2.7	1.7	1.1	0.3	0.01
	Trap	6.3	1.7	0.5	0.4	0.005
	Troll	0.0	0.0	0.0	0.2	0.2
	Rod & reel*	500.5	356.0	284.2	393.6	125.2
	Unclassified	3.6	9.9	5.6	4.2	2.0
Gulf of Mexico	Longline	9.9	6.9	7.6	15.4	10.2
	Handline	0.0	0.1	0.07	0.0	0.0
Caribbean	Longline	3.2	12.1	10.5	1.2	0.4
	Gillnet	0.005	0.002	0.0	0.0	0.0
	Handline	2.1	1.1	0.4	0.2	0.4
NC Area 94A	Longline	0.2	0.6	0.03	0.3	0.08
SW Atlantic	Longline	0.5	0.0	0.0	0.0	0.0
	TOTAL	**646.6**	**488.0**	**399.5**	**532.1**	**248.1**

* 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 landings and discards (t) of bluefin tuna from 2004 to 2008.

Area	*Gear*	*2004*	*2005*	*2006*	*2007*	*2008*
NW Atlantic	Longline**	63.6	72.7	104.4	70.7	124.7
	Handline	1.5	2.3	0.3	0.0	0.6
	Harpoon	41.2	31.5	30.3	22.5	30.2
	Purse seine	31.8	178.3	3.6	27.9	0.0
	* Rod & reel (>145 cm LJFL)	348.0	170.4	217.2	235.4	305.7
	* Rod & reel (<145 cm LJFL)	370.2	254.4	158.2	398.6	352.2
	Unclassified	0.2	0.0	0.0	0.0	0.3
Gulf of Mexico	Longline**	102.8	118.5	88.1	81.2	111.6
	Rod & reel	0.0	0.0	0.6	0.0	0.0
NC Area 94A	Longline**	13.7	20.3	12.1	12.4	11.5
	TOTAL	**973.0**	**848.4**	**614.8**	**848.7**	**936.7**

* 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 landings (t) of swordfish from 2004 to 2008.

Area	*Gear*	*2004*	*2005*	*2006*	*2007*	*2008*
NW Atlantic	Longline**	1,169.7	1,096.2	1,165.2	1,649.6	1,622.5
	Gillnet	0.05	0.0	0.0	0.2	0.0
	Handline	18.7	34.4	32.5	125.2	83.2
	Harpoon	0.5	0.0	0.3	0.0	0.0
	Trawl	8.3	8.2	3.5	6.5	7.6
	Rod & reel*	24.3	53.1	50.6	65.9	56.7
	Unclassified	0.0	0.5	0.2	0.2	0.2
	Unclassified discards	3.9	4.2	5.1	5.5	4.1
Gulf of Mexico	Longline**	453.0	480.9	328.1	457.7	361.6
	Handline	4.0	0.3	0.1	0.2	1.2
	Rod & reel*	0.5	1.5	2.1	2.3	19.0
	Unclassified	0.0	0.2	0.0	0.0	0.0
	Unclassified discards	0.03	3.9	2.7	5.5	4.6
Caribbean	Longline**	295.9	143.5	88.9	27.8	57.9
	Rod & reel*	0.4	6.6	0.0	0.0	0.0
	Handline	0.006	0.0	0.0	0.0	0.0
	Unclassified discards	0.08	0.7	0.0	0.0	0.0
NC Area 94A	Longline**	599.9	552.2	378.6	338.9	311.6
	Unclassified discards	0.1	1.2	0.0	0.5	0.0
SW Atlantic	Longline**	15.7	0.0	0.0	0.0	0.0
	TOTAL	**2,595.1**	**2,387.6**	**2,057.9**	**2,682.8**	**2,530.3**

* 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.

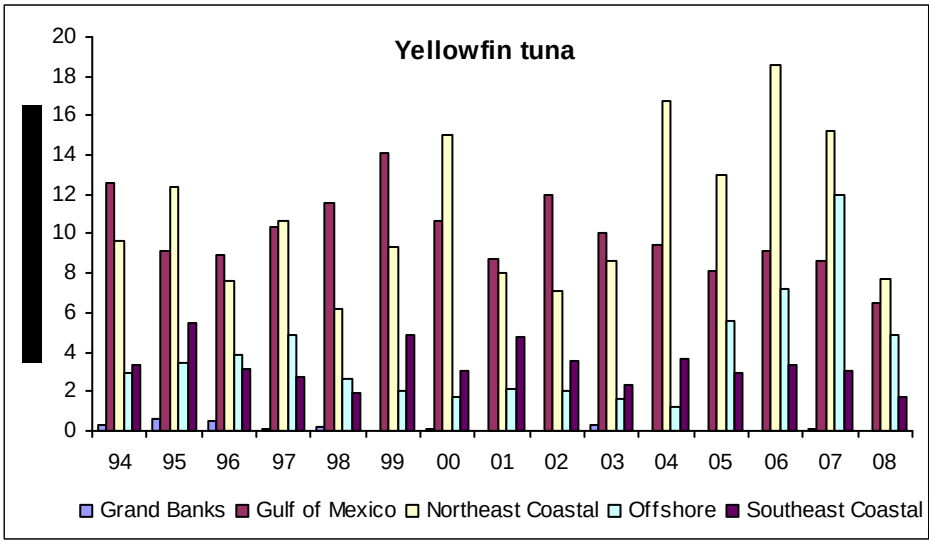

Figure 1. Nominal catch rates for yellowfin tuna in U.S. pelagic longline logbook reports.

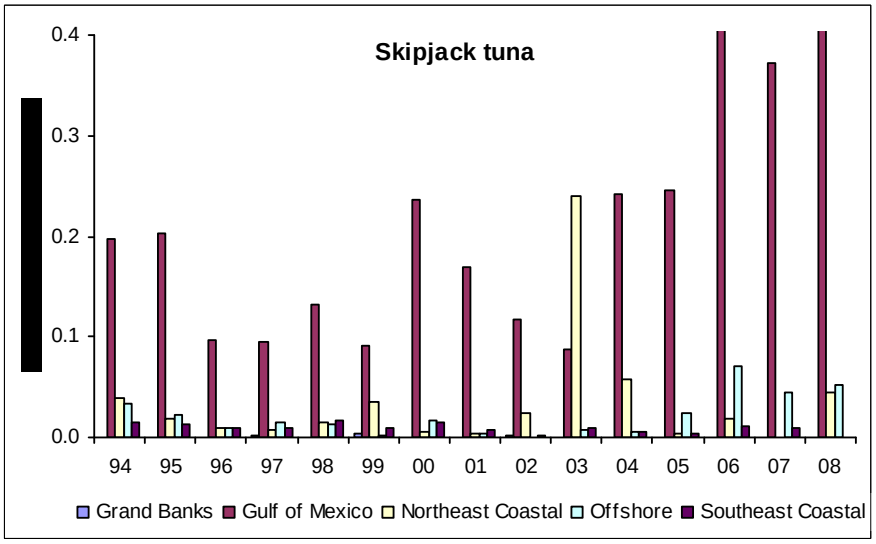

Figure 2. Nominal catch rates for skipjack tuna in U.S. pelagic longline logbook reports.

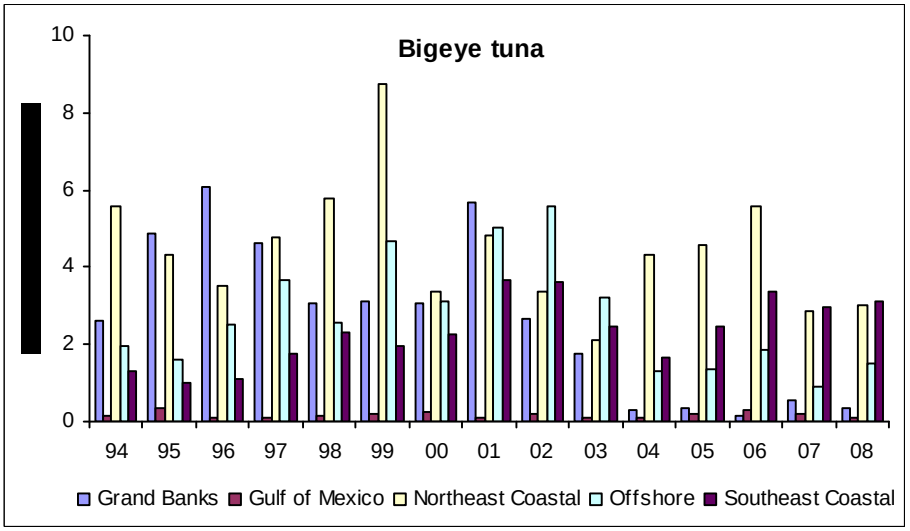

Figure 3. Nominal catch rates for bigeye tuna in U.S. pelagic longline logbook reports.

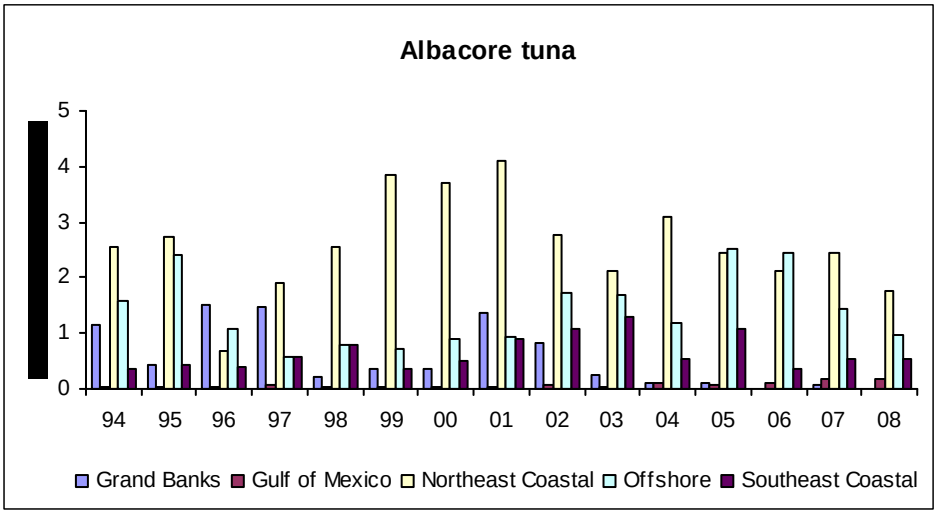

Figure 4. Nominal catch rates for albacore in U.S. pelagic longline logbook reports.

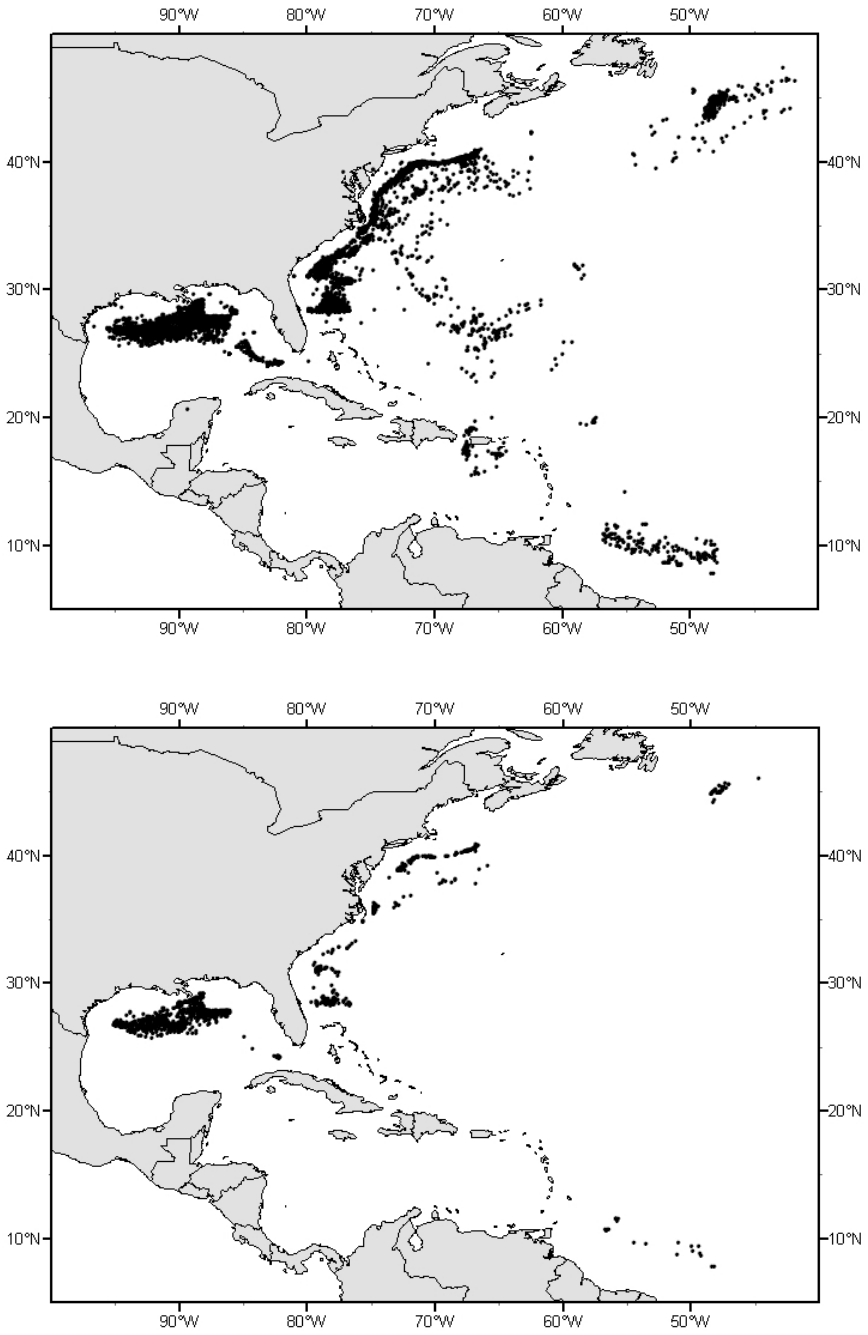

Figure 5. Position of longline sets as reported in pelagic logbooks (upper panel) and observed by the U.S. pelagic observer program (lower panel) in 2008.

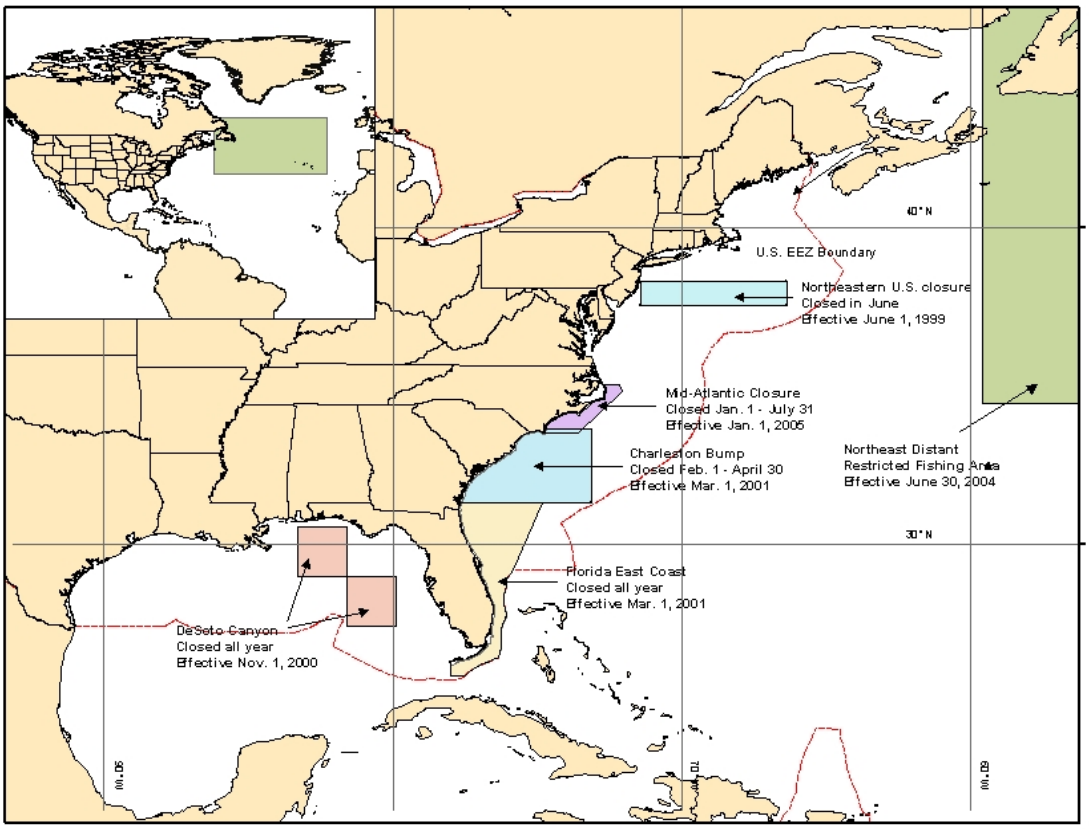

Figure 6. Selected existing U.S. time/area closures in HMS fisheries. Inset shows extent of the Northeast Distant restricted fishing area. The Mid-Atlantic Closure is applicable to bottom longline gear only. Note: the Northeast Distant (NED) was a closed area to all vessels as of 2001. It became the NED Restricted Fishing Area on 30 June, 2004, when it was opened to those participating in the NED experiment. Madison-Swanson, Steamboat Lumps, Edges 40 Fathom Contour, Caribbean bottom longline closures, and South Atlantic MPAs not included.

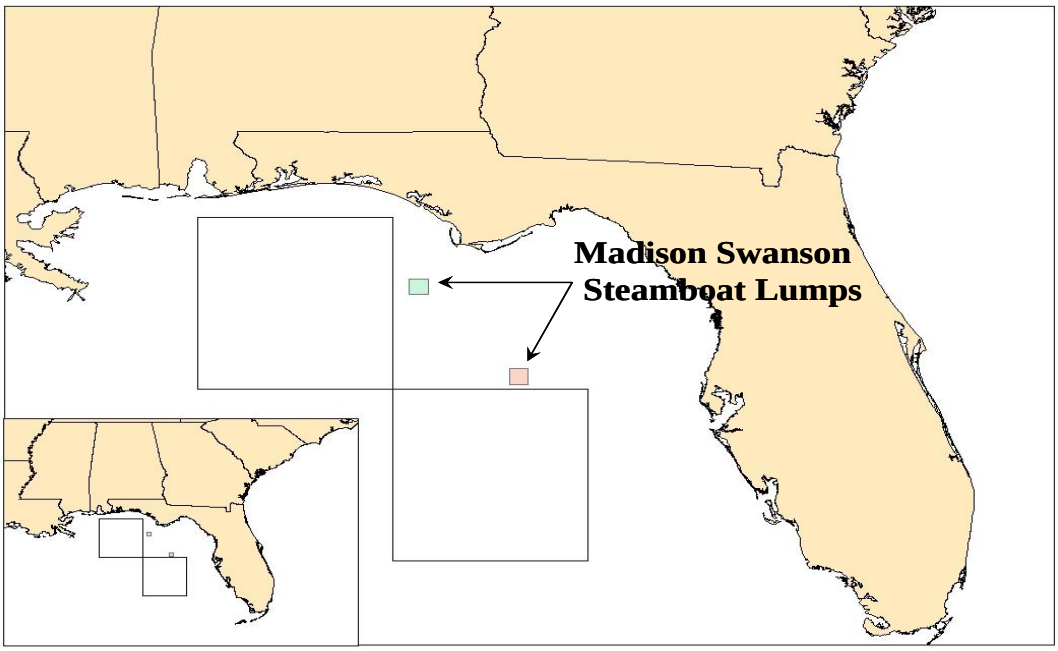

Figure 7. Madison-Swanson (upper left) and Steamboat Lumps (lower right) Marine Reserves. The Desoto Canyon closure is also shown for reference.

ANNUAL REPORT OF URUGUAY*
RAPPORT ANNUEL DE L'URUGUAY
INFORME ANUAL DE URUGUAY

Andrés Domingo[1] y Maite Pons[1]

Parte I (Información sobre Pesquerías, Investigación y Estadísticas)

Sección 1: Información sobre la pesquería

Durante el año 2008, la flota atunera uruguaya continuó operando con palangre de superficie y mantuvo el mismo número de barcos que en el año 2007 (9); estos barcos operaron en dos puertos (La Paloma y Montevideo) como lo hacen desde hace años. La mayor parte de la flota estuvo compuesta por barcos fresqueros menores de 24 m de eslora y con menos de 200 TRB, dirigiendo su esfuerzo principalmente a la captura del pez espada *(Xiphias gladius).* El esfuerzo se realizó mayoritariamente en aguas territoriales uruguayas e internacionales adyacentes y a diferencia del año 2007 los barcos congeladores se desplazaron hacia latitudes mayores, llegando hasta los 45ºS (**Figura 1**). Se calaron alrededor de 700 mil anzuelos, un valor significativamente menor al registrado en el año anterior.

La captura total (preliminar) desembarcada y comunicada en 2008 fue de aproximadamente 1036 toneladas. Se pescaron 370 toneladas de pez espada, las capturas de atunes (YFT, ALB y BET) se detallan en la **Tabla 1**. Los desembarques de tiburón azul *(Prionace glauca)* estuvieron alrededor de las 359 toneladas y los de moro *(Isurus oxyrhinchus)* en las 41 toneladas. El pez espada fue la especie más capturada representando el 38% de la captura total, seguida por el tiburón azul (37%) y los atunes (15%). Como en los últimos años el YFT se mantuvo como la especie más capturada entre los atunes (**Tabla 1**), correspondiendo al 45% de las capturas de este grupo, seguido por el ALB (36%).

La flota continúa realizando descartes de tiburones y otros peces pelágicos, así como de tortugas y aves, y de aquellos ejemplares de atunes y pez espada dañados o de pequeñas tallas capturados vivos.

El descenso en el esfuerzo y la captura se debe a dos factores, por un lado la crisis internacional y el descenso de los valores comerciales de las especies de grandes pelágicos (pez espada y atunes). Por otra parte, hasta los primeros meses de 2008, se continuó con un conflicto gremial que afectó la operativa de la flota.

Sección 2: Investigación y estadísticas

La Dirección Nacional de Recursos Acuáticos (DINARA) del Ministerio de Ganadería, Agricultura y Pesca (MGAP), a través del área de Recursos Pelágicos, 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 y muestreos en puerto. Durante el año 2008 y lo transcurrido de 2009 se realizaron diversas 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 e incluso se ha venido trabajando en conjunto con otros países como Brasil, Estados Unidos y Venezuela. Se continuó con el Programa Nacional de Observadores a bordo de la Flota Atunera (PNOFA) desarrollando las actividades que se venían cumpliendo y ampliando las mismas. En 2009 se empezó con campañas de investigación independientes de la pesquería a bordo del buque de investigación científica "Aldebarán" de la DINARA con el objetivo general de recabar información más detallada sobre las especies, experimentos de diferentes medidas mitigatorias de la captura incidental, dirigidas a aves y tortugas, entre otras.

2.1 Investigación

La investigación se desarrolló principalmente a partir de la información proveniente de los partes de pesca y del PNOFA y durante 2009 se integraron los datos obtenidos en el Buque de Investigación.

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* No summary provided. / Aucun résumé soumis. / No se ha facilitado el resumen.

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2.1.1 Programa de observadores

El PNOFA cubrió aproximadamente el 39% de la actividad de la flota durante 2008, un valor inferior al del año anterior donde se había alcanzado el máximo de cobertura de todo el programa **(Figura 2)**. 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 2008 se observaron unos 248072 anzuelos en 157 lances de pesca (datos preliminares) entre los 32º y 39ºS (**Figura 3**). Los viajes fueron realizados por observadores científicos los cuales han aprobado los cursos que dicta la DINARA y han recibido un entrenamiento adicional en el área de Recursos Pelágicos. Durante julio de 2008 se llevó a cabo un nuevo curso de Observadores donde el equipo del área de Recursos Pelágicos tuvo una activa participación en la formación de los nuevos observadores.

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" se ha editado y distribuido en los diferentes barcos pesqueros el boletín "Atlántico Sur" Nº 5 y 6, que brinda información relevante sobre diferentes aspectos de la actividad del PNOFA relacionados principalmente a las aves marinas, pero con información también sobre otros grupos de especies (tortugas marinas, tiburones, marlines, etc.).

2.1.2 Pez espada

Se colaboró durante la reunión de evaluación de pez espada realizada en Madrid en setiembre de 2009, presentando una serie estandarizada de CPUE para esta especie (Pons y Domingo, 2010). 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 ICCAT.

2.1.3 Atunes tropicales

Al igual que en otras especies se continuó con el seguimiento de las estadísticas de captura y esfuerzo y colecta de muestras biológicas por parte del Programa de Observadores. Se continúa también con el Programa de Marcado. Durante la Reunión de Evaluación de rabil y listado, realizada en Florianópolis, Brasil, en julio de 2008 se presentaron 3 trabajos sobre YFT. Dos trabajos de estandarización de CPUE (uno en conjunto con Brasil) y otro sobre aspectos biológicos en base a datos obtenidos por el PNOFA. (Pons *et al.*, 2009a), (Pons y Domingo, 2009a), (Domingo *et al*., 2009a).

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. Actualmente se están desarrollando estudios de alimentación en dicha especie.

2.1.5 Agujas

Se vienen 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. Durante la Reunión de preparación de datos de pez vela, realizada en Madrid en mayo de 2008, se presentó un trabajo sobre la captura, distribución y composición de tallas de istiofóridos por la flota atunera uruguaya en base a los datos obtenidos por el PNOFA (Domingo *et al.*, 2009b).

2.1.6 Tiburones

Durante la Reunión de Evaluación de Stocks de Tiburones, realizada en Madrid en setiembre de 2008, se presentaron tres trabajos. Uno sobre los aspectos del ciclo reproductivo de la tintorera, y dos con series estandarizadas de la CPUE de la tintorera y del marrajo sardinero por la flota de palangre pelágico de Uruguay (Pons y Domingo, 2009b) y (Pons y Domingo, 2009c).

Durante la Evaluación de *Lamna nasus* en 2009 se presentó un trabajo de estandarización de la CPUE de esta especie (SCRS/2009/093) y otro con información biológica recabada por el programa de observadores (SCRS/2009/089).

Se continuó también con el marcaje de tiburones, se colocaron aproximadamente 250 marcas en tiburón azul y marrajo sardinero, las cuales fueron reportadas a la Secretaría. Además se vienen desarrollando diversos trabajos de biología con especies de tiburones pelágicos.

Se publicó en Aquatic Living Resources (ALR) el artículo "Distribution and population structure of the pelagic stingray *(Pteroplatytrygon violacea)* in the southwest Atlantic" (Forselledo *et al.*, 2008), en el marco de las publicaciones de ICCAT.

Se publicó en 2008 el "Plan de Acción Nacional para la Conservación de los Condrictios en las pesquerías uruguayas" y se viene trabajando en la instrumentación de las medidas propuestas en dicho plan.

2.1.7 Aves marinas

Actualmente se trabaja 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.

Dos líneas principales de investigación se han desarrollado en los últimos años. La primera refiere al seguimiento y evaluación de la problemática de la captura incidental de aves marinas en la flota uruguaya, y la segunda al desarrollo y prueba de medidas de mitigación para su implementación en la flota. Para esto se vienen desarrollando trabajos conjuntos con el "Proyecto Albatros y Petreles de Uruguay (PAP)" y "BirdLife International", vinculados a la investigación y mitigación de la captura incidental de estas especies. Se están haciendo pruebas de medidas de mitigación tanto en la flota pesquera uruguaya como en el barco de investigación de la DINARA.

Durante 2008 se presentó en conjunto con el PAP una evaluación del impacto de la captura incidental y los patrones espaciotemporales para las tres principales especies de aves marinas capturadas por la flota uruguaya (ALR769). Actualmente se está trabajando en un "Ecological Risk Assessment" para las aves marinas capturadas por la flota uruguaya. En el documento SCRS/2009/082 presentado en el Subcomité de ecosistemas durante 2009 se analizó de manera preliminar información para ser tenida en cuenta en la cuantificación de la susceptibilidad. Otros estudios que se comenzaron se enfocan en la composición de edades, sexo y procedencia de las aves capturadas. La investigación en medidas de mitigación incluye pruebas sobre la eficiencia de la utilización de una línea espantapájaros para reducir la captura incidental de aves. También se está probando el efecto al reducir la distancia anzuelo-peso en el ataque de las aves a la carnada y en la captura de las especies objetivo.

2.1.8 Tortugas marinas

En los últimos años se han desarrollado trabajos conjuntos con investigadores brasileños, los cuales se continuaron en 2008-2009 presentando un documento (Pons *et al.*, 2009b), el cual se encuentra actualmente publicado en la revista ALR. Estos trabajos tienen un enfoque regional y han permitido un abordaje de la problemática de la captura incidental de tortugas marinas en forma conjunta y participativa.

También se están desarrollando estudios de alimentación en *Caretta caretta*, estudios genéticos y de seguimiento satelital. El área de Recursos Pelágicos de la DINARA ha 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 y cabezona, para colaborar con el diseño de medidas para reducir la mortalidad por captura incidental en las pesquerías que operan en el Océano Atlántico. Se han presentado diversos estudios en base a los resultados obtenidos hasta el momento (López-Mendilaharsu *et al*. 2008 y López-Mendilaharsu *et al.* 2009)

Observadores especialmente entrenados del Programa Nacional de Observadores a Bordo de la Flota Atunera han colocando 13 transmisores satelitales en tortugas *Caretta caretta* durante 2008 y 2009. Hasta la fecha, se ha logrado rastrear exitosamente a estos individuos, a los cuales se les colocaron transmisores SPLASH y SPOTS, fabricados por Wildlife Computers. Más información, imágenes y resultados de este proyecto pueden ser consultados en el siguiente sitio: http://www.seaturtle.org/tracking/?project_id=441. En la reunión del Subcomité de Ecosistemas llevada a cabo en Recife, Brasil en Junio de 2009, se presentó un trabajo realizado a partir de los datos obtenidos por estos transmisores, SCRS/2009/083.

Se continúa con la colecta y análisis de muestras genéticas de los individuos capturados incidentalmente tanto de *C. caretta* como de *D. coriacea.*

Se siguen desarrollando experimentos con anzuelos circulares, tanto en la flota que utiliza palangre de tipo americano como en el buque de investigación de la DINARA. Este proyecto se realiza en colaboración con la National Oceanographic Atmospheric Administration (NOAA)/National Marine Fisheries Service (NMFS), Pacific Island Fisheries Science, Honolulu, USA.

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 realizaron dos salidas en el B/I "Aldebarán" perteneciente a la DINARA. La primera salida en abril-mayo y la segunda en agosto-setiembre de 2009. En ambas campañas se utilizó palangre pelágico de deriva tipo americano (**Figura 4**). Los objetivos de estas campañas están dirigidos, entre otros, a colectar información independiente de la pesquería, obtener datos biológicos de las especies capturadas (talla, sexo, grado de madurez y contenido estomacal) y extracción de estructuras (vértebras, otolitos y espinas) para el estudio de edad y crecimiento de las mismas. Así como experimentar diversas medidas de mitigación para la captura incidental de aves y tortugas (líneas espantapájaros, anzuelos circulares, etc.).

2.1.11 Prospección atún patudo

Durante 2009 se realizó un proyecto de prospección para determinar la posibilidad de pesca de atún patudo *(T. obesus)* en aguas uruguayas. Para esto, cinco barcos japoneses de aproximadamente 50 m de eslora operaron dentro de las 200 millas de Uruguay, principalmente sobre el talud continental. Durante esta prospección se realizaron 501 lances con un esfuerzo total de 1.190.225 anzuelos, los cuales fueron cubiertos en un 100% por observadores uruguayos del área de Recursos Pelágicos.

Parte II (Implementación de la Ordenación)

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

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 está finalizando una normativa nacional que prohíbe el desembarco de tiburones sin sus aletas parcial o totalmente adheridas al cuerpo.

Entre las normas nacionales sobre ordenación continúan vigentes las referidas a tallas mínimas de captura para pez espada (25 kg, 15% tolerancia), patudo y rabil (3,2 kg). Los muestreos de tallas a bordo del presente año siguen demostrando que los ejemplares de pez espada, rabil y patudo capturados son principalmente adultos de grandes tallas, como es de esperar de una pesquería con palangre en esta área. Se han iniciado actividades y convocatorias para lograr una mayor y mejor colaboración con otros organismos estatales.

Se inició un trabajo de control en puerto de buques de tercera bandera, un grupo dentro de la DINARA (OROPS) se está conformando y realizando 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.

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Tabla 1. Captura de las principales especies declaradas por la flota atunera uruguaya para el periodo 2006-2008 en toneladas.

Año	SWO	ALB	BET	YFT	BSH	SMA	POR
2006	620	93	83	218	232	68	34
2007	464	34	22	35	337	36	3
2008	370	53	27	66	359	41	40

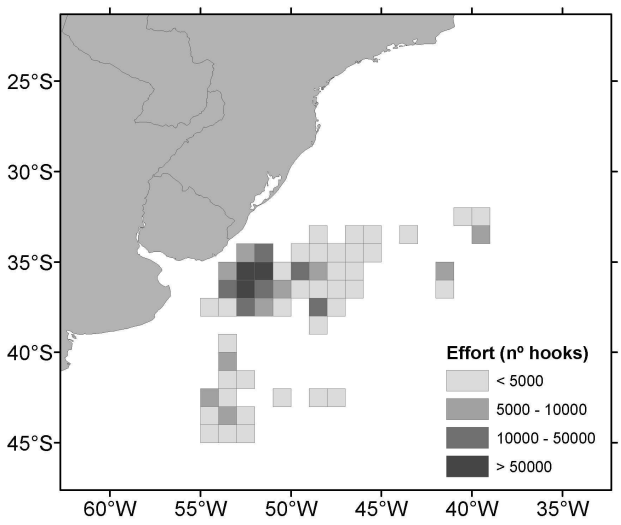

Figura 1. Distribución del esfuerzo en cuadrículas de 1ºx1º realizado por la flota atunera uruguaya durante el 2008.

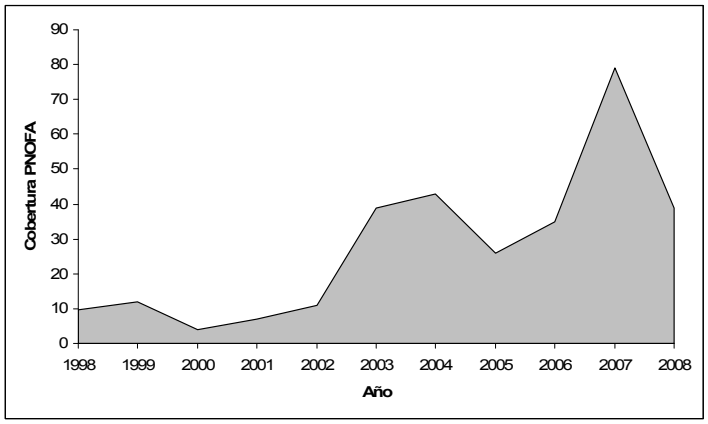

Figura 2. Cobertura del Programa de Observadores (1998-2008) en porcentaje

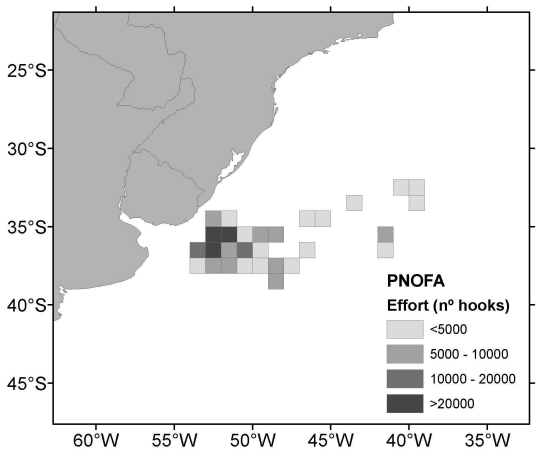

Figura 3. Distribución espacial en cuadrantes de 1ºx1º del esfuerzo realizado por el Programa de observadores durante el 2008.

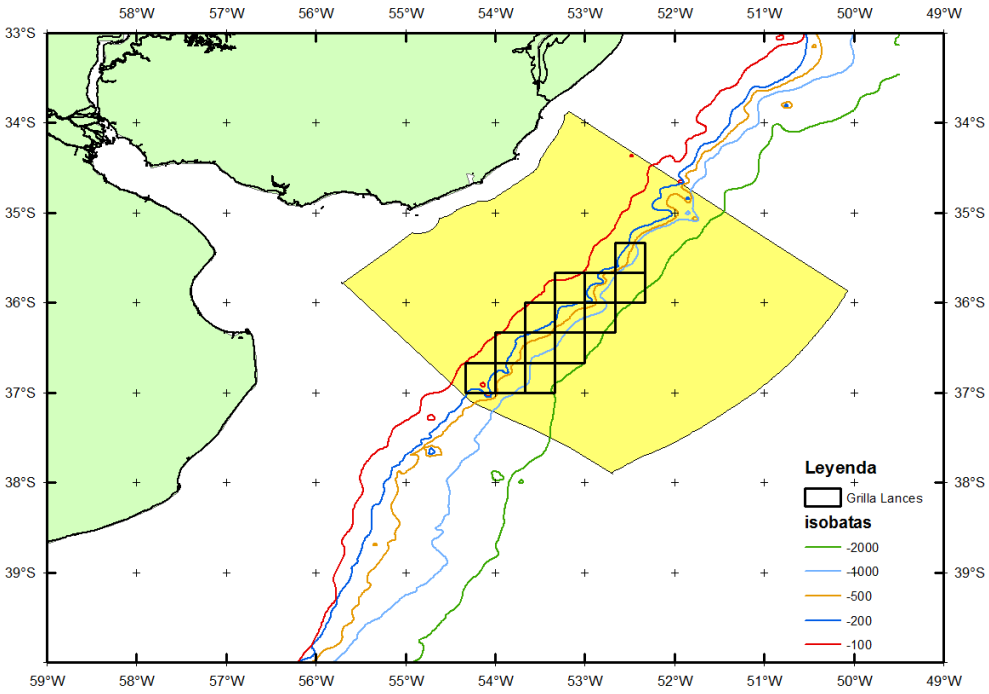

Figura 4. Área donde se desarrollaron los lances durante las campañas de investigación realizadas en el B/I "Aldebarán" durante Mayo y Agosto de 2009

ANNUAL REPORT OF VENEZUELA
RAPPORT ANNUEL DU VENEZUELA
INFORME ANUAL DE VENEZUELA

Instituto Nacional de Investigaciones Agrícolas (INIA)
Instituto Socialista de la Pesca y Acuicultura (INSOPESCA)

SUMMARY

*In 2008, the Venezuelan fleet that targeted the pelagic resources was comprised of 54 industrial vessles: 39 longliners, 7 purse seiners and 8 baitboats. Besides, there were 33 artisanal vessels that operated using drift nets and 47 using longline. This year the landings of tunas and tuna-like species amouted to 5,050 t. Of this amount, 93% were tunas, among which the most important species was yellowfin tuna (*T. albacares*) with 64.8%, while skipjack tuna (*K. pelamis*), blackfin tuna (*T. atlanticus*) and bigeye tuna (*T. obesus*) represented 15%, 4.6% and 4.4%, respectively. The by-catch was comprised of billfishes, among which sailfish (*Istiophorus albicans*) represented 3.0% and blue marlin (Makaira nigricans) 2.3%, and sharks whose landings represented 0.6%. Of the landings, 63% were from the purse seine fishery, 12% from the baitboat fishery,19% from the longline fishery and 6% from the artisanal fisheries. Research continued in 2008 on the large pelagic fishery, which included tunas, billfishes and sharks. The scientific observers program on board industrial longliners continued as well as coverage of the sprot fishing tournaments.*

RÉSUMÉ

*En 2008, la flottille vénézuélienne ciblant les ressources pélagiques était composée de 54 unités industrielles : 39 palangriers, sept senneurs et huit de canneurs. On enregistre également 33 embarcations artisanales qui utilisent les filets maillants et 47 utilisant la palangre. Les débarquements de thonidés et d'espèces apparentées se sont élevés cette année à 5.050 t. Quatre-vingt-treize pour cent de ceux-ci étaient composés de thonidés, parmi lesquels l'albacore (*T. albacares*) était prédominant (64,8%) et le listao (*K. pelamis*), le thon à nageoires noires (*T. atlanticus*) et le thon obèse (*T. obesus*) représentaient 15%, 4,6% et 4,4% respectivement. Les prises accidentelles étaient composées de makaires, parmi lesquels des voiliers (*Istiophorus albicans*) (3%) et des makaires bleus (*Makaira nigricans*) (2,3%), ainsi que de requins dont les débarquements ont représenté 0,6%. Soixante-trois pour cent des débarquements ont été réalisés par la pêcherie de senneurs, 12% par les canneurs, 19% par les palangriers et 6% par les pêcheurs artisanaux. En 2008, les programmes de recherche sur la pêcherie de grands pélagiques se sont poursuivis, englobant les thonidés, les istiophoridés 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.*

RESUMEN

*La flota venezolana orientada a los recursos pelágicos estuvo conformada en 2008 por 54 unidades industriales: 39 palangreros, 7 cerqueros y 8 cañeros; y se registraron además 33 embarcaciones artesanales que operaron con redes de enmalle y 47 con palangre. Ese año se produjeron unos desembarques de túnidos y afines que ascendieron a 5.050 t. El 93% de éstos fueron atunes, entre los cuales el más importante fue el aleta amarilla (*T. albacares*) con el 64,8%, mientras que el bonito listado (*K. pelamis*), el aleta negra (*T. atlanticus*) y la albacora (*T. obesus*) alcanzaron el 15%, el 4,6% y el 4,4%, respectivamente. La captura incidental estuvo conformada por marlines, entre los que destacan el pez vela (*Istiophorus albicans*) con el 3,0% y la aguja azul (*Makaira nigricans*) con el 2,3%, y por tiburones cuyos desembarques representan el 0,6%. El 63% de los desembarques provinieron de la pesquería de cerco, el 12% de la de caña, el 19% de la de palangre y el 6% de las pesquerías artesanales. En 2008 continuaron las investigaciones sobre la pesquería de grandes pelágicos; éstos incluyen los*

atunes, marlines 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.

Parte I (Información sobre pesquerías, investigación y estadísticas)

En Venezuela, la agencia oficial de Investigación, el Instituto Nacional de Investigaciones Agrícolas (INIA) es la encargada de ejecutar los programas de investigación agrícola, incluyendo el sector pesca. El Instituto Socialista Nacional de Pesca y Acuicultura (INSOPESCA) es el organismo responsable de la ordenación y administración de los recursos pesqueros.

Los proyectos de investigación sobre túnidos y peces de pico se llevan a cabo en el Centro de Investigaciones Agropecuarias de los Estados Sucre y Nueva Esparta (CIAE-Sucre/N. Esparta), con sede en la ciudad de Cumaná, y cuentan con la cooperación de diversas instituciones nacionales e internacionales tales como el INSOPESCA, Universidad de Oriente, ICCAT e IRD.

Sección I: Información anual sobre pesquerías

1.1 Pesquerías de cerco

La flota cerquera venezolana está conformada por 28 embarcaciones, de las cuales 7 faenaron en el Océano Atlántico occidental y el resto en el Océano Pacífico oriental, (**Tabla 1**). El área de pesca de los cerqueros venezolanos está comprendida entre los 5° y 15° de LN y 51° y 71° de LW.

Los desembarques realizados por la flota cerquera experimentaron un descenso significativo al pasar de 4.357 t en 2007 a 3.176 t en 2008. El atún aleta amarilla, *Thunnus albacares*, representó el 65,1% de los desembarques de la flota, y el bonito, *Katsuwonus pelamis*, el 21,7%. Otras especies capturadas por la flota fueron atún aleta negra, *Thunnus atlanticus*; carachana negra, *Auxis thazard*; atún albacora, *Thunnus alalunga* y atún ojo gordo, *Thunnus obesus*; las cuales representaron el 13,3% de la captura. El esfuerzo ejercido por estas embarcaciones en 2008 fue de 875 días, experimentando una disminución del 32% en relación al ejercido en el 2007 (**Tabla 2**).

1.2 Pesquerías de caña

La flota cañera venezolana estuvo conformada en 2008 por 8 unidades de pesca y faenan en las mismas áreas que las de la flota de cerco. Los desembarques realizados por esta flota fueron de 607 t, obteniéndose niveles inferiores en un 46,8% con respecto al año 2007. En esta flota las especies más importantes en la captura fueron el aleta amarilla, *T. albacares*, con el 80,6% y el listado, *K. pelamis*, con el 11,5%; mientras que el atún ojo gordo, *T. obesus* y el atún aleta negra, *T. atlanticus*, contribuyeron con el 8% de los desembarques totales de la flota, la cual ejerció un esfuerzo aplicado de 731 días de mar, lo cual representa una disminución del 21% en relación a 2007 (**Tabla 3**).

1.3 Pesquerías de palangre

El número de embarcaciones de palangre pelágico venezolanas que operaron en el Océano Atlántico en 2008 fue de 39 unidades. El área de pesca de estas embarcaciones se extiende desde los 11°-17° N y 61°-75° W en el Mar Caribe y en la parte occidental del Océano Atlántico 5°-17° N y 50°-60° W.

Los desembarques controlados en la flota de palangre pelágico basada en el Puerto de Cumaná, donde descarga el 85% de la flota palangrera nacional, arrojaron un total de 970 t en 2008, un 14,7% por debajo con respecto a 2007, mientras que el esfuerzo aplicado fue de 1.544.398 anzuelos (**Tabla 4**). Se hacen esfuerzos para rescatar datos de captura y esfuerzo del 15% restante de la flota, los cuales no se obtuvieron debido a procesos de reestructuración en los puertos donde tradicionalmente descarga esa parte de la flota

El atún aleta amarilla, *T. albacares*, fue la especie más importante de los desembarques, representando el 73,4% 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 del 14,8%. Los marlines representaron el 7% de los desembarques de la flota, de los cuales los mayores porcentajes correspondieron al pez vela con un 4,2%. Entre los tiburones los principales desembarques por especie fueron el tiburón carite, *Isurus Oxyrinchus* y el tiburón azul, *Prionace glauca*.

1.4 Pesquerías artesanales

1.4.1 Playa Verde (Litoral Central 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 30 embarcaciones con eslora comprendida entre 7 y 10 metros y utilizan como arte de pesca una red de trasmallo a la deriva.

Los desembarques totales realizados por esta flota fueron de 331 t, integrados fundamentalmente por peces de la familia *Istiphoridae* entre los cuales destacan el pez vela, *Istiophorus albicans*, con un 34,2% de los desembarques y la aguja azul, *Makaira nigricans*, con el 31,7%. Los túnidos capturados representaron el 14,5%, mientras que los desembarque de tiburones de varias especies representan el 5,5% (**Tabla 5**).

Sección 2: Investigación y estadísticas

En Venezuela se llevan a cabo investigaciones sobre la pesquería de los grandes pelágicos; éstos incluyen los atunes, marlines y tiburones. En 2008, se continuó con los muestreos biológicos de las diferentes especies desembarcadas en puertos de los estados Sucre, Anzoátegui y Nueva Esparta y la recolección de datos de captura y esfuerzo de las diferentes pesquerías. Se muestrearon 12.560 ejemplares de túnidos y marlines provenientes de las flota de caña, cerco 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 Atlántico occidental bajo las modalidades de caña, cerco y palangre pelágico (**Tabla 7**). La flota industrial realizó 383 viajes, el porcentaje de cobertura global fue del 98,8%, mientras que por tipo de pesquería, los porcentajes fueron de: 86,1% en cerco, 97,2% en caña mientras que en palangre fue del 96,7%.

En el Programa de Investigación Intensiva sobre Marlines en 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 marlines. En 2008 se efectuaron 14 cruceros con observadores científicos en embarcaciones palangreras industriales, con una cobertura del 5,1% del total de los viajes realizados por la flota en ese año. La información registrada por los observadores ha contribuido a las estimaciones de tasas de captura estandarizadas de las diversas especies de marlines 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 marlines y otros grandes pelágicos como pez espada, tiburones, dorado y sierra canalera o peto. La actividad consiste en el registro diario de tallas, peso, e identificación de sexo de todas las especies de marlines y de pez espada desembarcadas. Adicionalmente, en esta comunidad se observó el mayor número de ejemplares con etiquetas, las cuales son registradas por el PIIM-VZLA con toda la información del ejemplar y luego son enviadas a la Secretaría de la CICAA. En el año 2008 se registraron un total de 40 ejemplares etiquetados. Durante este año se continuó con la recolección de muestras biológicas de aguja azul y aguja blanca procedente de ejemplares etiquetados para los estudios de edad y crecimiento 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 Venezuela (área La Guaira), se cubrieron seis torneos anuales, en los cuales se registraron 494 ejemplares de marlines: aguja blanca (274), aguja azul (132) y pez vela (88).

2.1 Normativas para regular la pesquería de atún en el país

El Ministerio Popular para la Agricultura y Tierra es el órgano con competencia en materia de Pesca y Acuicultura, según lo establece el Decreto con Rango Valor y Fuerza de Pesca y Acuicultura de fecha 11 de marzo de 2008, atribuyéndole potestades al Instituto Socialista de la Pesca y Acuicultura INSOPESCA, entre otras competencias, la de Regular el aprovechamiento de los Recursos Hidrobiológicos en función a las estimaciones de su potencialidad, así como a su estado de explotación e importancia social, en armonía con lo dispuesto en los convenios internacionales sobre la materia, suscritos y ratificados por la República.

La legislación pesquera dispone la armonización de criterios aplicables en materia de pesca y acuicultura con los países de la región, en particular, al manejo de los organismos altamente migratorios como lo son los túnidos y especies afines y fomenta la actuación de los diferentes actores vinculados al desarrollo de esas pesquerías a través de los órganos consultivos como lo son los Consejos Consultivos y Comité de Seguimiento del Atún 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.

Se siguen aplicando medidas de vigilancia y control de la norma técnica de ordenación para regular la pesca y comercialización de las especies de la familias *Istiophoridae* y *Xiphiidae* en todo el territorio nacional, dispuestas en la Providencia Administrativa Nº 69 del 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.

Actualmente se conforma el Programa Nacional de Observadores a bordo de embarcaciones atuneras que faenan en el Atlántico, estará integrado por representantes de universidades, institutos tecnológicos y de investigación aplicada, organización de armadores, organizaciones de pescadores, e investigadores de reconocida trayectoria en evaluación de recursos hidrobiológicos nacionales e internacionales. Este programa 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.

Tabla 1. Composición de la flota industrial venezolana en el océano Atlántico, según la capacidad de carga. Año 2008.

Capacidad de carga		*BB*	*LL*	*PS*	*TOTAL*
0	50		29		29
51	100	3	5		8
101	150	2	5		7
151	200	1			1
201	250				
251	300	2		1	3
301	350				
351	400				
401	450				
451	500				
501	550				
551	600			6	6
601	650				
651	700				
701	750				
751	800				
801	850				
851	900				
901	950				
	TOTAL	**8**	**39**	**7**	**54**

Tabla 2. Captura (t) y esfuerzo (días de pesca) de la flota cerquera venezolana en el océano Atlántico centro occidental durante el año 2008.

TRIM	*I*	*II*	*III*	*IV*	*TOTAL*	*TOTAL*
YFT	509,0	558,1	767,4	232,5	2.067,0	65,06
SKJ	123,1	242,0	177,6	145,1	687,9	21,65
FRI	21,2	12,9	11,9	2,1	48,1	1,52
ALB	46,7	16,8	1,4	5,4	70,3	2,21
BET	23,1	30,2	24,2	24,2	101,8	3,20
YFT	47,0	37,5	53,8	63,5	201,8	6,35
TOTAL	**770,0**	**897,6**	**1.036,4**	**472,8**	**3.176,8**	**100,00**
EFF	244,0	227,0	204,0	200,0	875,0	

YFT= Aleta amarilla
SKJ= Bonito listado
FRI = Carachana
BLF= Aleta negra
ALB= Albacora
BET= Ojo gordo
EFF= Esfuerzo

Tabla 3. Captura (t) y esfuerzo (días) de la flota de caña venezolana en el océano Atlántico centro occidental durante el año 2008.

TRI	*I*	*II*	*III*	*IV*	*TOTAL*	*TOTAL*
YFT	60,9	203,2	137,8	87,0	488,8	80,59
SKJ	5,4	31,5	15,6	17,0	69,5	11,46
FRI	0,0	0,4	0,0	0,0	0,4	0,06
ALB	0,0	4,9	0,0	0,0	4,9	0,81
BET	1,8	3,8	8,5	0,1	14,2	2,34
YFT	3,8	17,3	7,5	0,2	28,8	4,74
TOTAL	**71,9**	**261,1**	**169,4**	**104,2**	**606,6**	**100,00**
EFF	158,0	225,0	208,0	140,0	731,0	

Tabla 4. Captura (t) y esfuerzo (anzuelos) de la flota palangrera atunera venezolana en el océano Atlántico durante el año 2008.

ESP	*I*	*II*	*III*	*IV*	*TOTAL*	*%*
YFT	140,9	248,0	167,4	156,0	712,3	73,4
ALB	16,2	34,1	37,9	50,0	138,2	14,2
BET	1,6	1,7	0,8	1,6	5,7	0,6
WAH	0,6	0,4	1,0	2,2	4,3	0,4
DOL	1,4	0,3	0,3	0,3	2,3	0,2
WHM	1,7	0,6	2,9	4,8	10,0	1,0
BUM	2,3	2,7	2,8	7,2	15,0	1,5
SAI	3,8	5,8	14,4	16,6	40,6	4,2
SWO	0,3	1,7	1,4	1,3	4,7	0,5
SPF	1,3	0,3	0,1	0,8	2,5	0,3
BSH	1,9	1,3	1,8	1,8	6,7	0,7
SMA	0,7	0,2	0,7	0,3	1,8	0,2
CCL	2,8	0,0	8,1	5,4	16,3	1,7
SPL	0,5	0,2	0,2	0,2	1,1	0,1
OTH SHK	0,0	0,1	0,6	2,0	2,7	0,3
OTH SP	0,6	0,7	1,8	2,9	6,0	0,6
TOTAL	**176,6**	**298,0**	**242,1**	**253,5**	**970,1**	**100,0**
ANZUELOS	311.873	396.870	403.549	432.106	1.544.398	

WAH	Peto	CCP	Tiburon macuira
DOL	Dorado	ALV	Tiburon zorro
WHM	A. blanca	BSH	Tiburon azul
BUM	Aguja azul	SMA	Tiburon carite
SAI	Pez vela	OTH SHK	Tiburones varios
SWO	P. espada	OTH	Otras especies
SPF	Pez lanza	F	Esfuerzo

Tabla 5. Captura (t) y esfuerzo (viajes) en la pesquería artesanal de peces de pico con redes de enmalle en el litoral central, año 2008.

ESPECIES	*I*	*II*	*II*	*IV*	*TOTAL*	*%*
BUM	29,4	39,5	17,1	18,9	104,8	31,7
WHM	1,9	1,8	7,3	5,2	16,1	4,9
SAI	9,9	39,6	45,5	18,0	113,1	34,2
SWO	1,3	2,4	1,7	0,7	6,2	1,9
DOL	4,0	5,2	2,7	0,8	12,8	3,9
SHK	7,8	4,0	3,5	2,9	18,3	5,5
YFT	1,4	1,1	0,9	0,2	3,7	1,1
ALB	2,6	2,3	3,0	0,3	8,2	2,5
BON	0,4	0,0	0,3	0,0	0,7	0,2
LTA	30,4	0,0	0,0	0,0	30,4	9,2
WAH	1,2	1,6	1,4	0,8	5,0	1,5
BON	6,0	1,9	1,9	1,8	11,6	3,5
TOTAL	**96,4**	**99,5**	**85,4**	**49,6**	**330,9**	**100,0**
SALIDAS	863,0	1008,0	1137,0	834,0	3842,0	1161,2
No. BARCOS	92,0	96,0	96,0	97,0	381,0	115,2

Tabla 6. Muestreos biológicos de túnidos y especies acompañantes en la pesquería de túnidos en el océano Atlántico occidental, año 2008.

SP	*BB*	*%*	*PS*	*%*	*LL*	*%*	*GN*	*%*	*TOTAL*	*%*
YFT	46	43,4	337	29,7	1338	55,68	90	1,0	1.811	14,4
SKJ	56	52,8	570	50,3					626	5,0
FRI			77	6,8					77	0,6
ALB	1	0,9	21	1,9	704	29,3			726	5,8
BET			56	4,9	39	1,623			95	0,8
BLF	3	2,8	72	6,4					75	0,6
WAH					39	1,623	324	3,6	363	2,9
SAI					76	3,163	4.347	48,7	4.423	35,2
SPF					64	2,663				
SPG					3	0,125				
BUM							1.027	11,5	1.027	8,2
SWO							245	2,7	245	2,0
WHM					105	4,37	750	8,4	855	6,8
DOL					13	0,541	1273	14,3	1.286	10,2
SHK					22	0,916	296	3,3	318	2,5
BON							356	4,0	356	2,8
LTA							210	2,4	210	1,7
TOT	**106**	**100,0**	**1.133**	**100,0**	**2403**	**100**	**8.918**	**100,0**	**12.560**	**100,0**
%	**0,8**		**9,0**		**19,1**		**71,0**			**100,0**

SP= Especie PS= Cerco BB= Caña GN= Red de enmalle

Tabla 7. Campañas de embarcaciones industriales atuneras en el océano Atlántico centro occidental. Año 2008. TR: Total Realizadas, C: Controladas.

MES	*PS*		*BB*		*LL*		*TOTAL*	
	TR	*C*	*TR*	*C*	*TR*	*C*	*TR*	*C*
E					3	3	3	3
F	4	4	10	10	27	26	41	40
M	3	3	6	6	21	21	30	30
A	4	4	7	7	21	20	32	31
M	3	2	7	6	28	28	38	36
J	4	4	6	6	23	21	33	31
J	2	2	8	8	20	16	30	26
A	3	2	6	6	23	23	32	31
S	3	2	6	4	24	24	33	30
O	2	2	4	3	26	26	32	31
N	2	1	5	6	32	31	39	38
D	6	5	6	7	28	28	40	40
TOTAL	**37**	**31**	**71**	**69**	**276**	**267**	**383**	**367**
% COBERTURA		86,1		97,2		96,7		95,8

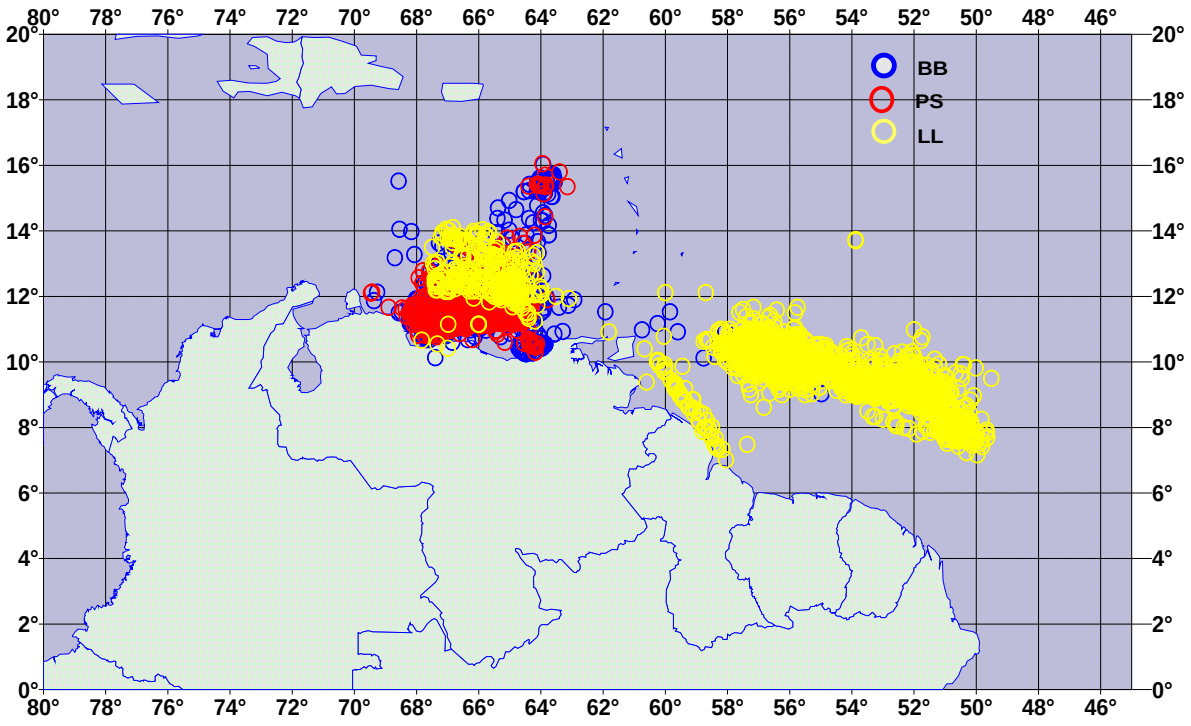

Figura 1. Áreas de pesca de las embarcaciones industriales venezolanas en 2008. BB= caña, PS= cerco y LL= palangre.

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 TAÏPEI CHINOIS
INFORME ANUAL DE TAIPEI CHINO

Fisheries Agency, Council of Agriculture[1]

SUMMARY

The number of Chinese Taipei's longline fishery vessels declined from 201 in 1996 to 109 in 2008. There was also a decline in the overall catches by the fishery, form approximately 52,631 t in 1997 t to 27,407 t in 2008. The fishing fleets targeted mainly on bigeye, yellowfin and albacore, which have comprised the majority (currently about 80%) of the total tunas harvested by Chinese Taipei longline fleet operating in the Atlantic Ocean. For the purpose of improving its statistical data collection system, Chinese Taipei continued to carry out several measures, such as port sampling, observer program, vessel monitoring system and daily catch report and automatic imaging system. A number of researches have been undertaken and financed by the fishery authority of Chinese Taipei. It included stock assessments, DNA studies on bigeye, swordfish, and albacore, sharks by-catch estimation, incidental catch rate of seabirds and sea turtles. To fulfill the implementation of ICCAT conservation and management measures, Chinese Taipei continued to limit on the number of fishing vessels, and apply fishery catch limits and species minimum size into execution in 2008. Besides, measures to reduce by-catch species were applied to ensure its efforts of conservation met those applied by ICCAT. To inspect and manage fishery activities, Chinese Taipei also implemented a number of strategic programs to ensure the effectiveness of ICCAT conservation and management measures and to combat IUU fishing, such as implementation of the management standards for LSTLVs, VMS system, scientific observer program, restriction on the export of fishing vessels, prior approval for operation of foreign flag vessels by Chinese Taipei nationals, port inspection in Cape Town, continuation of dispatching patrol boat in the area of the Atlantic Ocean and fishing capacity reduction program. Chinese Taipei fully complied with the guidelines and requirements as set forth in the ICCAT Regional Observer Program for transhipment at sea.

RÉSUMÉ

En 2008, le nombre total de palangriers du Taipei chinois a été ramené de 201 unités en 1996 à 109 unités en 2008. Une chute a également été observée dans les prises globales de la pêcherie, passant d'environ 52.631 t en 1997 à 27.407 t en 2008. Les flottilles de pêche ont essentiellement ciblé le thon obèse, l'albacore et le germon, qui constituent la plupart de la prise totale (actuellement environ 80%) des thonidés capturés par la flottille palangrière du Taïpei chinois opérant actuellement dans l'océan Atlantique. Afin d'améliorer son système de collecte des données statistiques, le Taïpei chinois a continué à mettre en œuvre plusieurs mesures, telles que l'échantillonnage au port, le programme d'observateurs, un système de suivi des navires, la déclaration quotidienne des captures et un système automatique d'images. Un certain nombre de programmes de recherche ont été entrepris et financés par l'Autorité de la pêche du Taïpei chinois. Il s'agit, entre autres, d'évaluations de stocks, d'études sur l'ADN du thon obèse, de l'espadon et du germon, l'estimation des prises accessoires de requins et le taux de capture accessoire des oiseaux de mer et des tortues marines. Afin de respecter la mise en œuvre des

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mesures de conservation et de gestion de l'ICCAT, le Taïpei chinois a continué en 2008 à limiter le nombre de navires de pêche et a mis en œuvre des limites de capture aux pêcheries et des tailles minimales par espèce. En outre, des mesures visant à réduire la prise accessoire d'espèces ont été appliquées afin de garantir que les efforts de conservation du Taïpei chinois soient conformes à ceux déployés par l'ICCAT. Afin d'inspecter et de gérer les activités de pêche, le Taïpei chinois a également mis en œuvre un certain nombre de programmes stratégiques visant à garantir l'efficacité des mesures de conservation et de gestion de l'ICCAT et à combattre la pêche IUU, à savoir la mise en œuvre de normes de gestion pour les LSTLV, un système VMS, un programme d'observateurs scientifiques, la restriction des exportations des navires de pêche, l'approbation préalable pour les opérations de navires sous pavillon étranger menées par des ressortissants du Taïpei chinois, l'inspection au port dans le port du Cap, le maintien de l'envoi d'un patrouilleur dans la zone de l'océan Atlantique et la réalisation d'un programme de réduction de la capacité de pêche. Le Taïpei chinois a, en outre, rigoureusement respecté les directives et exigences stipulées dans le Programme régional d'observateurs de l'ICCAT pour les transbordements en mer.

RESUMEN

El número de buques en la pesquería de palangre de Taipei Chino descendió desde 201 en 1996 hasta 109 en 2008. Se produjo también un descenso en las capturas globales de la pesquería, desde aproximadamente 52.631 t en 1997 hasta 27.407 t en 2008. Las flotas pesqueras se dirigieron principalmente al patudo, rabil y atún blanco, que componían la mayoría (actualmente cerca del 80%) de la captura total de túnidos de la flota de palangre de Taipei Chino que faena en el Atlántico. Con el fin de mejorar el sistema de recopilación de datos estadísticos, Taipei Chino ha continuado adoptando medidas diversas como el muestreo en puerto, un programa de observadores, un sistema de seguimiento de buques, la comunicación diaria de la captura y un sistema automático de formación de imágenes. Se han emprendido varios proyectos de investigación que han sido financiados por las autoridades pesqueras de Taipei Chino. Estos proyectos incluían evaluaciones de stock, estudios sobre ADN de patudo, pez espada y atún blanco, estimación de la captura fortuita de tiburones, tasa de captura incidental de aves marinas y tortugas. Para cumplir con la implementación de las medidas de conservación y ordenación de ICCAT, en 2008 Taipei Chino ha continuado limitando el número de buques pesqueros y ha implementado límites de captura en las pesquerías así como límites de talla mínima. Además, se han aplicado medidas para reducir la captura fortuita con el fin de garantizar que sus esfuerzos de conservación se corresponden con los aplicados por ICCAT. Para inspeccionar y gestionar las actividades pesqueras, Taipei Chino ha implementado también varios programas estratégicos para asegurar la eficacia de las medidas de conservación y ordenación de ICCAT y para luchar contra la pesca IUU, como por ejemplo la implementación de las norma de ordenación de grandes palangreros, un sistema VMS, un programa de observadores científicos, restricciones a la exportación de buques pesqueros, la aprobación previa para que los ciudadanos de Taipei Chino puedan operar buques con pabellón extranjero, la inspección en puerto en Ciudad del Cabo, el envío del buque patrulla al océano Atlántico y un programa de reducción de la capacidad pesquera. Taipei Chino ha cumplido plenamente las directrices y requisitos establecidos en el Programa regional de observadores de ICCAT para los transbordos en el mar.

Part I (Information on Fisheries, Research and Statistics)

Section 1: Annual Fisheries Information

1.1 General overview

The longline fleet of Chinese Taipei commenced in the early 1960s to catch mainly albacore and yellowfin tuna resources in the Atlantic Ocean. It was not until mid-1980s that a shift of targeting on tropical bigeye tuna was prevailed followed by the deployment of deep-freezer longline vessels. Bigeye, yellowfin, and albacore were the three most important tuna species which comprised the majority (currently about 80%, **Table 1**) of the total tunas harvested by Chinese Taipei longline fleet operating in the Atlantic Ocean.

Bigeye and yellowfin are mainly caught in the area between 15°N and 15°S. Higher composition of albacore has been observed in the area north of 15°N and in the area south of 15°S **(Figure 1)**. Traditionally, swordfish is mainly one of the by-catch species to Chinese Taipei longline fleet.

Following the implementation of vessel reduction program between 2005 and 2007, the number of vessels in the longline fishery has significantly declined from 205 in 1998 to 75 in 2006. Subsequently, there was a decline in the overall catches by the fishery, from about 45,437 t in 1998 to 23,686 t in 2006 **(Table 1)**. In 2006, the number of bigeye-targeted vessels was restricted to 15 vessels under ICCAT Recommendation 05-02, and 42 vessels which were authorized to catch bigeye were required to return to their homeport for fishery layoff. In accordance with the ICCAT Recommendation 06-01, Chinese Taipei was permitted to reinstate the fishing activities of its bigeye-targeted longline vessels, with a ceiling of no more than 64 in 2007, and 60 in 2008 and thereafter. The total number of authorized longline vessels in the Atlantic Ocean was 109 in 2007 with a catch of 34,416 t and 109 in 2008 with a preliminary catch of 27,407 t. More detailed information on major tuna species is described as follows:

1.1.1 Albacore

In the Atlantic Ocean, two stocks of albacore, separated by 5°N, are subject to fishery management. Chinese Taipei longliners have been fishing albacore all year round for quite some time. The annual catch of South Atlantic albacore fluctuated between 10,000 t and 18,000 t in the last decade but significantly decreased to 13,146 t in 2007 and 9,966 t in 2008 due to a decrease in fishing efforts. The catch of North Atlantic albacore in 2008 was 1,107 t, a decrease of 190 t from 2007. The total catch of the two stocks combined in 2008 was estimated to be 11,073 t, a decrease of 3,370 t from 2007.

1.1.2 Bluefin tuna

Chinese Taipei longline fleet has been targeting, the Eastern Atlantic and Mediterranean bluefin stock since 1993, on seasonal basis between April and June annually. The catch of bluefin tuna was 277 t in 2005 and 9 t in 2006. Between 2007 and 2008, no vessel was authorized to fish bluefin tuna and no catch was reported.

1.1.3 Tropical tunas

The catches of bigeye tuna and yellowfin tuna in 2008 were estimated to be about 10,418 t and 1,122 t, respectively, showing a significant decrease of 1,698 t and 825 t, respectively from that of the previous year (12,116 t and 1,947 t in 2007). The decrease of catches was mainly stemmed from a rise of oil price causing a decrease in fishing efforts.

1.1.4 Swordfish

Following the reduction of catch limits under the sharing arrangement as adopted by ICCAT in 1998, the catch of swordfish by Chinese Taipei also reduced. The preliminary estimate of swordfish catch was 809 t in 2008, comprising 82 t from the North Atlantic Ocean and 727 t from the South Atlantic Ocean.

1.1.5 Billfish species

Billfish is traditionally one of the by-catch species captured by Chinese Taipei longline fleet. The preliminary catch estimates of Chinese Taipei vessels operating in the Atlantic Ocean for white marlin, blue marlin, sailfish and other marlins were 38 t, 148 t, 132 t and 17 t, respectively in 2008.

1.1.6 Sharks

Sharks are traditionally also by-catch species captured by Chinese Taipei longline fleet. Based on the best knowledge recovered from the fishery, blue shark was the most dominant species caught in the Atlantic Ocean, followed by mako shark, silky shark and other sharks. The catches of sharks were 2,890 t in 2007 and 2,211 t in 2008. The preliminary catch estimates for blue shark, shortfin mako, silky shark and other sharks were 1,974 t, 148 t, 5 t and 763 t, respectively in 2008.

Section 2: Research and Statistics

2.1 Data collection and processing system

Logbooks are the key source of data collected for large and small-scale longline vessels. These data may need further adjustment, such as comparing with tuna export information, for its validity. All compilation procedures thus established by the tuna statistical center for obtaining Task I and Task II results follows strictly the requirements set by ICCAT.

Task I data are obtained by information from (1) monthly traders' sales records of Chinese Taipei longline fleet; (2) tuna export data from the Organization for the Promotion of Responsible Tuna Fishery (OPRT); (3) the verification on settlement of fish sales from Fisheries Agency; (4) statistical documents reported to Fisheries Agency and (5) the total catch from the recovered logbooks, which may need further adjustment accordingly.

As for Task II catch and effort data, all the data are complied based on logbooks, which are required to submit to the authorities. Information including daily positions from VMS, number of hooks, catches of main tuna and tuna-like species by number and weight, baits, and sea surface temperature, is required to fill in logbooks. Firstly, all logbook information is screened for its validity. Then the Task I data is used as a reference in producing a raised version of the Task II data.

As for the size data in Task II, fishermen are required to measure the first 30 fish they have caught and retained on board, regardless of the species. Those size data have been sent to the ICCAT Secretariat as actual size data. In addition, the catch-at-size database was created by Chinese Taipei scientists based on these size data, in conjunction with Task I and II catch data.

2.2 Research

In the past, domestic research program was focused more on standardization of catch per unit effort on a number of tuna stocks. The research results were presented at the regular meetings and inter-sessional working group meetings of SCRS. Following the implementation of observer program, more data and biological samples were made available for researches. Currently the researches relating to tunas conducted include: stock assessments, DNA studies on bigeye, swordfish, and albacore (and other incidental catch species), size samples by sex for swordfish, conversion factors for major tuna species, shark fin ratio, shark bycatch re-estimation, incidental catch rate of seabirds and sea turtles. For research work on global tuna fisheries, budgets of about US$ 910,000 and US$ 780,000 dollars were allocated for 2003 and 2004, respectively, and further increased to US$ 940,000, US$ 1,400,000, US$ 1,469,000 and US$ 1,675,533 in 2005, 2006, 2007 and 2008, respectively.

In addition to the domestic researches conducted by Chinese Taipei scientists, the government has provided financial support for the scientific research programs implemented by ICCAT. In December 2008, Chinese Taipei donated EUR 5,000 for ICCAT Enhanced Research Program for Billfish. Furthermore, we have provided a voluntary contribution to Bluefin Tuna Research Program of EUR 3,000 in July 2009.

The scientific papers presented at recent ICCAT meetings were as follows:

- Report on the automatic imaging system for the Taiwanese tuna longline fishery from January 2007 to August 2008. (SCRS/2008/182).
- Overview of the Taiwanese observers program for large scale tuna longline fisheries in Atlantic Ocean from 2002 to 2006. (SCRS/2008/193).
- Standardized northern Atlantic albacore (*Thunnus alalunga*) CPUE, from 1967 to 2008, based on Taiwanese longline catch and effort statistics. (SCRS/2009/105).
- Conversion on sampled-CAS into CAA of North Atlantic Taiwanese albacore catch, dating from 1981 to 2008, using knife cutting algorithm. (SCRS/2009/106).
- Standardized CPUE of South Atlantic albacore *(Thunnus alalunga)* based on Taiwanese longline catch and effort statistics dating from 1967 to 2008. (SCRS/2009/107).
- Standardized catch-rates of swordfish *(Xiphias gladius)* for the Taiwanese tuna longline fleet in the North Atlantic Ocean. (SCRS/2009/118).

2.3 Data improvement programs

For improvement of the statistical system, Chinese Taipei has taken the following measures to collect the fishery-independent data. When more data from various sources are available, the comparison of systematic errors between data collection systems will be made on the Task II catch/effort data and size data to improve the accuracy of scientific information.

2.4 Fishing identification and imaging system

Dr. David J. Die (Chairman of the ICCAT Billfish Working Group) visited to Taiwan, from November 3 to 7, 2008 for providing assistance in proper identification of the composition of sailfish and spearfish. To facilitate the preparatory work required for the 2009 sailfish assessment, Chinese Taipei sent the catch ratios of sailfish-spearfish by 5×5 area and fleets characteristics/Task I/Task II/size data to ICCAT Secretariat by E-mail on May 4, 2009, with receipt of confirmation from ICCAT Secretariat on May 5, 2009.

In Addition, methods of using an automatic imaging system were also developed and tested for obtaining better identification and measurement of captured tuna species. The related research results were presented at the regular meetings and inter-sessional working group meetings (SCRS/2008/193; WCPFC-SC5-2009/ST-IP-02).

2.5 Port sampling

Owing to most of the far seas longliners of Chinese Taipei unloading their catches at overseas ports, launching of port sampling program at major foreign lading ports will be helpful for the collection of fishery-independent data. Three pilot sampling trips were made at foreign ports in the three oceans in 2006 during fishing seasons. For the Atlantic Ocean, the pilot sampling program was conducted in November 2006 in Port of Spain, Trinidad and Tobago. Port sampling cooperation was conducted with the canneries in Port of Spain, Trinidad and Tobago to collect samplings and size measurements at cannery pier side at time of offloading since 2006. From December 2006 to December 2008, 15,475 albacore tuna length data were collected from 19 albacore-targeting vessels, among which 14,280 included weight data in addition to length data. The port sampling program planned to collect albacore tuna length data with weight data in 2009.

2.6 Observer program

The first pilot observer program was launched in 2001 where focus was put in the Indian Ocean. In 2002-03, the program was extended to cover all three oceans, with deployment of 2 observers to each ocean, and the number of observers increased to 9 in 2004. For the Atlantic Ocean, there were 4 observers in 2004, increased to 5 in 2005, of which 3 were placed onboard bigeye vessels and the remaining 2 onboard albacore vessels. In accordance with the ICCAT Recommendation 05-02, 100% compliance observer was required to be deployed to the 15 bigeye tuna fishing vessels authorized to fish in the Atlantic Ocean in 2006. The compliance observers also served the function of scientific observers. In 2007 and 2008, there were 20 and 21 observers respectively, placed on fishing vessels in the Atlantic Ocean, including 14 and 17 observers respectively, on bigeye vessels, where 10% coverage was required under ICCAT Recommendation 06-01.

The observers were required to collect fishery data and size measurements on target species and bycatch species. Biological samples of bigeye, albacore, swordfish and bycatch/incidental catch species were also collected. The annual budget input for observer program was increased to about US$ 330,000 in 2004 from US$ 180,000 in 2003.

The government has placed high priority in the observer program with notable increase of budgets, and the budgets of observer programme for 2005, 2006, 2007 and 2008 were further increased to US$ 750,000; US$ 859,000; US$ 2,073,111; and US$ 2,048,394 respectively.

2.7 Vessel Monitoring System and Daily Catch Report

As from 2003, all the longline vessels of Chinese Taipei operating in the Atlantic Ocean were required to install VMS with a workable spare set. The data from VMS has been used to crosscheck the positions on logbook to improve the logbook data quality. Additionally, as from 2006, every bigeye-targeting vessel was required to report its catch to the Fisheries Agency through VMS in the form e-logbook or facsimile. The data from daily e-logbook through VMS is incorporated into the statistical system for quicker collection of catch data as well as improvement of MCS functions.

Reportedly, Chinese Taipei is the first CPC to conduct a pilot e-logbook program. E-logbook system substantially shortens the time for obtaining catch data from fishing vessels, and meanwhile, it provides effective tool for the Fisheries Agency to monitor the quota or catch limit allocated to individual fishing vessel. In addition, the daily catch received through e-logbook can be processed and aggregated into Task II in a much shorter period of time, and readily made available for stock assessment.

Part II (Management Implementation)

Section 3: Implementation of ICCAT Conservation and Management Measures

3.1 Limit on the number of fishing vessels

3.1.1 Bigeye tuna (04-01, 05-02, 06-01, 08-01)

Chinese Taipei limited the number of fishing vessels catching bigeye tuna to 98 in 2005 in compliance with Recommendation by ICCAT on the Bigeye Tuna Conservation Measures (04-01). In order that its fleet size could be commensurate with its fishing possibilities and in compliance with Recommendation 05-02 and to further restructure its global tuna longline fisheries, Chinese Taipei implemented vessels reduction programs from 2005 to 2007, aiming to scrap 183 large-scale tuna longline vessels targeting on bigeye tuna, including 28 vessels from the Atlantic Ocean. In accordance with ICCAT Recommendations 05-02, 06-01 and 08-01, Chinese Taipei limited the number of fishing vessels catching bigeye tuna to 15 in 2006, 64 in 2007 and 60 in 2008, respectively. In 2008, the actual number of bigeye vessels authorized was sixty (60) and the list was duly submitted to ICCAT.

3.1.2 Northern albacore (98-08)

In accordance with the 1998 Recommendation by ICCAT on the Limitation of Fishing Capacity on Northern Albacore (98-08), the number of fishing vessels for catching northern albacore was set at the average number for the period of 1993-1995. Following the limitation of the number of fishing vessels, 14 vessels were authorized to fish northern albacore in 2008 and the list was duly submitted to ICCAT

3.2 Catch limits and minimum sizes

In accordance with the relevant ICCAT Recommendations, catch limits have been set on northern and southern albacore, bigeye tuna, eastern bluefin tuna, northern and southern swordfish, blue marlin and white marlin. Measures to prohibit catch of undersized fish for yellowfin tuna, bigeye tuna, bluefin tuna and swordfish were also enforced.

As for the Recommendation Regarding Compliance with Management Measures which Define Quotas and/or Catch Limits (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. Catch estimates together with the status of overages/underages in 2008 are provided in the compliance table (see **Table 2**).

3.2.1 Bigeye tuna (04-01)

For 2008, the catch of bigeye tuna by Chinese Taipei was limited to14,900 t^2 in accordance with the Rec. 04-01. To ensure the catch of bigeye tuna did not exceed the limit, and to minimize the chances of overuse of the catch 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 the designated port. In order to restructure its global tuna longline fisheries, as mentioned in section 1.1 above, Chinese Taipei took a further reduction program to reduce 23 LSTLVs in 2007, focusing on the fisheries in the Indian and Pacific Oceans.

Measures were taken to require fishermen to comply with the minimum size of 3.2 kg for bigeye tuna caught in this region.

3.2.2 Bluefin tuna (Rec. 08-05)

Although Chinese Taipei was entitled to catch bluefin tuna in the eastern Atlantic and Mediterranean with 68.71 t in accordance with Recommendation 08-05, in 2008 there was no vessel authorized to fish the bluefin and no catch was reported. Further more, Chinese Taipei has adopted a regulation to prohibit vessels from fishing bluefin tuna in the Atlantic Ocean during the 2009 fishing season.

3.2.3 Northern albacore (07-02)

According to Recommendation by ICCAT on North Atlantic Albacore Catch Limits for the Period 2008-2009 (07-02), a catch limit of 3,950 t[3] was set for Chinese Taipei in 2008. Only 1,107 t of northern albacore was caught by the fleet of Chinese Taipei, well below the catch allocated.

3.2.4 Southern albacore (07-03)

According to Recommendation by ICCAT on the southern albacore catch limits for 2008, 2009, 2010 and 2011 (07-03), a catch limit of 29,900 t of southern albacore was set for all countries fishing for the stock. There was no agreement on a sharing arrangement between the active fishing CPC for individual country-base quota. As mentioned above, following the decrease of fishing efforts in the fishery, the catch of south Atlantic albacore also reduced drastically. Overuse of the catch limit was not likely to happen.

3.2.5 North swordfish (06-02, 08-03)

According to Supplemental Recommendation by ICCAT to Amend the Rebuilding Program for North Atlantic Swordfish (06-02), Chinese Taipei was limited to a catch of 270 t in 2008. In addition, restrictions on minimum weight (< 25 kg) and size (lower jaw fork length (LJFL) < 119 cm) of swordfish for vessels operating in this region were applied. Domestic measures were taken to ensure compliance with these measures. According to Recommendation by ICCAT on Mediterranean Swordfish (08-03), 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 2008 by Chinese Taipei.

3.2.6 South swordfish (06-03)

According to Recommendation by ICCAT on the South Atlantic Swordfish Catch Limits (06-03), Chinese Taipei was limited to a catch of 550 t in 2008. The Chinese Taipei may apply carry over against its underage in 2007of the south swordfish catch to 2008 up to 274 t, in addition to the catch limitation of 550 t. Domestic measures were taken to ensure compliance with these recommendations.

3.2.7 Atlantic white marlin and blue marlin (06-09)

According to Recommendation by ICCAT to further strengthen the plan to rebuild blue marlin and white marlin populations (06-09), Chinese Taipei's catch of Atlantic white marlin was limited to 186.8 t and catch of blue marlin to 330 t in 2008. Domestic measures were taken to ensure compliance with these recommendations.

3.3 Measures to reduce incidental catch of sea turtle, seabird and sharks (95-02, 01-11, 03-10, 03-11, 04-10, 05-05, 06-10, 07-06, 07-07, 08-07)

- To disseminate the information of seabird conservation, in recent years, 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.
- Data collection: observers were placed on distant water tuna longline vessels to record the length, species and related information of by-catch since 2000.
- In 2006, Chinese Taipei established the National Plans of Actions (NPOA) for reducing catch of seabirds in longline fisheries and for the management and conservation of sharks.

3.4 Closed seasons (06-05, 06-06, 08-05)

In accordance with the ICCAT Recommendation 06-05 and 06-06 domestic regulations were implemented to prohibit longline vessels to fish for bluefin tuna in the East Atlantic and Mediterranean and West Atlantic for the whole year during the period from 1 June to 31 December. In 2008, no vessel was authorized to fish for the Eastern Atlantic and Mediterranean bluefin tuna.

[2] The 2008 adjusted quota has been reduced by 1,600 t in accordance with the provision of Rec. 04-01.

[3] In 2008, Chinese Taipei transferred 100 t from its catch allocation to St. Vincent & the Grenadines in accordance with the provision of Rec. 07-02.

3.5 Ban on Imports (02-07, 03-18)

According to ICCAT Resolutions/Recommendations (02-17, 03-18), imports of products of bluefin tuna, swordfish, and bigeye tuna caught from those countries under trade restrictive measures were prohibited.

3.6 Implementation of the ICCAT Management Standard for Larger-Scale Tuna Longline Vessels (01-20, 02-22)

Pursuant to the Resolution Concerning a Management Standard for the Large-Scale Tuna Fishery (01-20), the Report of Implementation of the ICCAT Management Standard for Large-Scale Tuna Longline Vessels is herewith attached as **Table 3**.

Likewise, in accordance with the Establishment of an ICCAT Record of Vessels over 24 Meters Authorized to Operate in the Convention Area (02-22), a list of vessels larger than 24 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 (03-14, 04-11)

According to Recommendation by ICCAT Concerning Minimum Standards for the Establishment of a Vessel Monitoring System in the ICCAT Convention Area (03-14) and Recommendation by ICCAT Concerning Implementation of the VMS Recommendation (04-11), 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 six hours.

To ensure uninterrupted reporting of their positions and to prevent fishing vessels from making excuse for reason of malfunction of VMS, all fishing vessels and transport vessels operating in the Atlantic have been required to install a spare set of VMS since 2005, to make immediate replacement in case of machine break down. Staff at the land based monitoring center was instructed to closely monitor the activities of vessels through VMS reporting.

3.8 Observer Program

In 2008, Chinese Taipei dispatched 19 observers onboard the active bigeye vessels, over the 10% observer coverage. In addition, observers with more than 5% observer coverage were place onboard the LSTLVs targeting albacore tuna based on the policy of the Fisheries Agency. They collected fishery data and size measurements on major target and by-catch species. Biological samples of bigeye, albacore, swordfish and by-catch/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

In accordance with Resolution on Calling for Further Actions Against Illegal, Unregulated, and Unreported Fishing Actives by Large-Scale Tuna Longline Vessels in the Convention Areas (99-01), and Supplemental Resolution by ICCAT to Enhance the Effectiveness of the ICCAT Measures to Eliminate Illegal, Unregulated, and Unreported Fishing Activities by Large-Scale Tuna Longline Vessels in the Convention Areas (00-19), forty-eight (48) flag-of-convenience (FOC) vessels that were built in our ship yard completed registration in our registry, among which thirteen (13) of them were operating in Atlantic Ocean. List of vessels that completed the change of re-registration was reported to the Secretariat on July 7, 2003.

To prevent illicit activities happening again, the Fisheries Agency has been exerting its greatest efforts in cracking down any violation under the applicable legal framework. Despite the challenge to the Fisheries Agency in conducting thorough investigation of past fish laundering activities for appropriate enforcement action, efforts sought by the Agency included analyzing the catches of those vessels which were considered to be abnormal based on the VMS report against the catch of suspected vessels, i.e, exceeding the normal catch rate. Between 2004 to 2006, from various information sources and based on the findings of the Fisheries Agency, administrative penalty was imposed on some 30 vessels which were found suspicious of overuse of quota or unauthorized transshipments. For cases of severe offence, in addition to administrative penalties of suspension of fishing license for 6 six months, they were subject to criminal investigation and prosecution. In 2007 and 2008, no IUU fishing activities conducted by Chinese Taipei flagged vessels were detected or reported.

3.9.1 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 regulation, exports of fishing vessels built in Chinese Taipei will in no way breach the conservation and management measures adopted by the relevant RFMOs.

3.9.2 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 Transhipment

As ICCAT established the Program for Transhipment in May 2007 in accordance with the Rec. 06-11, Chinese Taipei started to authorize its bigeye vessels to conduct the at-sea transshipment. In 2008, 60 bigeye vessels were authorized to conduct at-sea transshipment, and 41 bigeye vessels and 46 albacore vessels were authorized to conduct the in-port transhipment. The detailed report on the implementation of Regional Observer Program of ICCAT in 2008 by Chinese Taipei was submitted to the ICCAT Secretariat in due time.

3.11 Statistical Document (03-19, 03-09, 01-21, 94-05, 01-22)

In accordance with ICCAT Recommendation, regulations on the application of Bluefin Tuna Statistical Document were implemented as from 1994. Furthermore, the system for issuing "ICCAT Bigeye tuna Statistical Document" in accordance with the ICCAT recommendation was conducted as from July 1, 2002. In 2008, 470 Statistical Documents were issued for the trading of bigeye tuna and swordfish caught in the Atlantic Ocean. Among which, 67.7% was issued for bigeye tuna, 32.3% for swordfish. Most of the catch was exported to Japan.

3.12 Bluefin Tuna Catch Documentation (08-12)

In accordance with ICCAT Recommendation (08-12), Chinese Taipei established a domestic regulation for the purpose of implementing The ICCAT bluefin tuna catch documentation, in fact, due to no fishing operation, none of the Atlantic Bluefin tuna Catch Documentation (BCDs) had been issued by Chinese Taipei. In addition, 120 kg of Bluefin tuna were imported to Chinese Taipei in 2008.

Section 4: Inspection Scheme and activities

4.1 Inspections

In 2008, port inspections on 62 vessels were carried out in Cape Town, South Africa to ensure the compliance of ICCAT measures by the vessels of Chinese Taipei.

4.2 Patrol boat

In 2008, Chinese Taipei dispatched a training vessel serving the purpose of patrolling to make patrol cruising in the area of the Atlantic Ocean where the presence of our vessels was most frequent and conducted boarding and inspection on 26 vessels.

Section 5. Others activities

5.1 Fishing Capacity Reduction Program

In order that the fleet size can be commensurate with the availability of global fishing possibilities, Chinese Taipei implemented a vessel reduction program by two phases. In phase one, which was completed in 2005, 59 LSTLVs were scrapped. Phase two involved demolishing of further 101 LSTLVs in 2006, 51 of which were scrapped and 50 of which were sunk in our territorial waters to be used as artificial reefs, serving as nursing grounds for restoring fish stocks for our coastal fisheries. In 2007, a further 23 LSTLVs, focusing on the vessels operating in Indian Ocean and Pacific Ocean, were reduced in order to adjust the restructure its fisheries.

5.2 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. From 1998 to 2006, Chinese Taipei had made voluntary contributions of US$ 591,560 to ICCAT. In 2007, Chinese Taipei had made voluntary contribution of € 100,000, as for 2008, Chinese Taipei contributed a total amount of € 108,000 which includes € 5,000 for ICCAT Enhanced Billfish Research Program and € 3,000 for ICCAT Bluefin Tuna Research Program.

Table 1. Catch estimate (in round weight, t) for Chinese Taipei tuna longline fishery operated in the Atlantic Ocean during 1998-2008.

YEAR	*ALB*	*N.ALB*	*S.ALB*	*BET*	*YFT*	*BFT*	*SBF***	*SWO*	*N.SWO*	*S.SWO*	*WHM*	*BUM*	*BIL****	*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	0	809	82	727	38	148	149	27	1,412	2,211	27,407

Note: * : Preliminary data.
** : Catch estimate of SBF has been revised to be consistent with CCSBT database in 2004.
*** : Catch estimate of BIL was including black marlin, sailfish, spearfish and other billfishes.

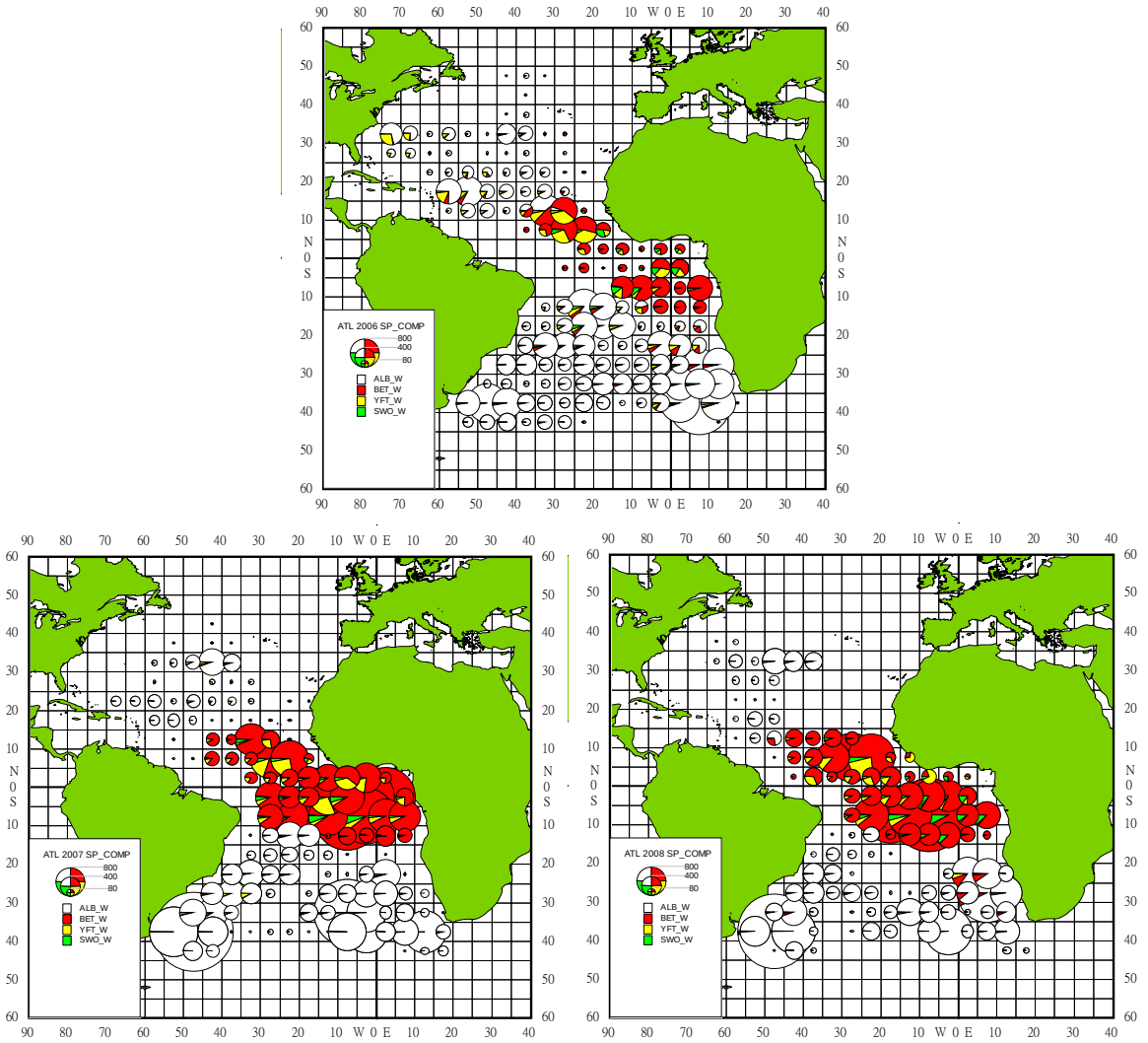

Figure 1. Distribution of catch and catch composition of the main tuna species in the Atlantic Ocean of 2006 (top), 2007 (left, preliminary data) and 2008 (right, preliminary data).

ANNUAL REPORT OF GUYANA
RAPPORT ANNUEL DE LA GUYANA
INFORME ANUAL DE GUYANA

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 2008, a total of 1,179,818 kg of shark and 485,386 kg of scombrids were harvested. Sharks continue to be landed dressed, which poses a real problem for recording shark catches by individual species.

RÉSUMÉ

La pêcherie artisanale de la Guyana 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 pêcherie, les scombridés et les requins sont capturés en tant que prise accessoire et sont de nature saisonnière. En 2008, un total de 1.179.818 kg de requins et de 485.386 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 2008, se capturó un total de 1.179.818 kg de tiburones y 485.386 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 (Information on Fisheries, Research and Statistics)

Section 1: Annual Fisheries Information

The impact of global recession, increase cost of fuel and global climatic changes have had it effects on the fishing sector and may have been contributing factor for the low fisheries production. Guyana is below sea level and experienced sporadic flooding for the fourth consecutive year, thus there is a reduction in landing sites along the coast for artisanal vessels which were used as focal point to drain water off the land.

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 to18 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, 16 m (52 ft) long and 4-6 m (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.

Cadell or demersal longline fishing vessels ranged in size from 6.71 to 9.15 m (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 2 m 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.

There is strong competition within the industry, as there is a ready market. There are three licensed shark processors 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.

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 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 I data have been reported this year. The shark fishery is a multi million dollar fishing activity, and contributed 1% to the overall export of total fish products from Guyana at a value of US$ 2,127,414.00 for 2008.

Part II (Management Implementation)

Section 3: Implementation of ICCAT Conservation and Management Measures

3.1 Plans for expansion

There are no plans to expand the artisanal fishery. The Department of Fisheries is considering a proposal to limit the amount of vessels per gear type as a precautionary approach for conserving the fishery.

Section 4: Inspection Scheme / 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. However, it should be noted that the primary focus for the Guyana Coast Guard in 2008 was to combat anti-piracy, poaching and smuggling of illegal fuel. In 2008, the Guyana Coast Guard was able to conduct one thousand and fifty two (1,052) patrols of which, thirty six (36) were fisheries surveillance patrols done by aerial reconnaissance and sea. Three (3) apprehensions were made for smuggling illegal fuel.

Table 1: Boat count for artisanal vessels by bear type, 2008.

Gear type	*#Vessels*
Gillnet polyethylene (cabin cruiser) 6-8" mesh size	341
Gillnet polyethylene (inboard) 8" mesh size	80
Gillnet nylon 2" mesh size	342
Caddell # 5-9 hooks	55
Chinese seine 4-5 bundles (25-30 lbs. each)	285
Pin seine	26
Total	**1,129**

Industrial and semi-industrial

Gear type	*# of vessels*
Trawlers nets	136
Handline	20
Traps	57

Table 2: Scombrids and shark production by species (kg), 2008.

Scombrids		*Sharks*	*Total*
Scomberomorus brasiliensis	*Scomberomorus cavalla*	Unidentified shark species	
311,795	173,591	1,179,818	**1,665,204**

ANNUAL REPORT OF NETHERLANDS ANTILLES
RAPPORT ANNUEL DES ANTILLES NÉERLANDAISES
INFORME ANUAL DE ANTILLAS HOLANDESAS

Septhen Mambi P. Gr.[1]

SUMMARY

In 2008, there were two purse seiners registered under the flag of the Netherlands Antilles. The vessels operated throughout the year in the tropical area and had their operations based in the port of Abidjan, Côte d'Ivoire. There were no longliners in the Netherlands Antilles register and the only activity was in the tropical area by the two purse seiners mentioned before.

RÉSUMÉ

En 2008, deux senneurs étaient immatriculés sous le pavillon des Antilles néerlandaises. Les navires ont opéré tout au long de l'année dans la zone tropicale, et le port d'Abidjan (Côte d'Ivoire) constituait le port d'attache pour leurs opérations. Aucun palangrier ne figurait sur le registre et la seule activité a été réalisée dans la zone tropicale par les deux senneurs susmentionnés.

RESUMEN

Durante el año 2008 había dos cerqueros registrados con pabellón de Antillas Holandesas. Los buques operaron durante todo el año en la zona tropical y su base era el puerto de Abidján, en Côte d'Ivoire. No hay palangreros en nuestro registro y la única actividad se produjo en la zona tropical por parte de los cerqueros mencionados.

Part I (Information on Fisheries, Research and Statistics)

Section 1: Annual Fisheries Information

The distribution of the catches of tunas and tuna-like species in 2007 and the catches taken in 2008 are given in **Table 1** and **Table** 2, respectively.

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 big eye catches were 10% of the total catch and below the maximum allowed quota. The catches of yellow fin were 46% of the total catch and skipjack catches were 40%.

Catch size and species composition sampling in port has been carried out in collaboration with the *Instituto Español de Oceanografía* (IEO) of Spain at Abidjan (Côte d'Ivoire), the main transhipment base of the purse seine vessels operating in 2008.

The main reason for the increase in catches was due to the fact that in 2007, there was only one purse seiner flagged in the Netherlands Antilles and the vessels remained almost all the year in a shipyard being repaired and overhauled. In 2008, the vessel operated the whole year and a second vessel was also flagged in Netherlands Antilles.

[1] Senior policy worker, Directorate of Economic Affairs, President of the Fishery Commission of the Netherlands Antilles.

Part II (Management Implementation)

Section 3: Implementation of ICCAT Conservation and Management Measures

The Netherlands Antilles 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 04-01 regarding conservation measures for bigeye tuna.

The vessels report their catches to the Fishing Authority on a monthly basis.

Section 4: Inspection Schemes and Activities

The fishing activity of those species under the ICCAT management in the EEZ of the Netherlands Antilles was not relevant. On the other hand, there were no discharges of tuna or tuna like species to be analyzed in the country.

Section 5: Requirements for vessels larger than 24 metres in length

The fishing vessels under the flag of the Netherlands Antilles 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.
- Strictly follow all the recommendations issued by ICCAT for their fishery.
- Submit a monthly report of catches to the fishing Authorities.
- Submit a "Transhipment Declaration" each time a transhipment is carried out.
- Submit a "Discharge Declaration" each time a discharge is carried out.
- Submit, every year, a list of "Fishing Licenses" that is issued to the vessel by third countries, in order to fish in the EEZ of different countries.
- Apply for an International Fishing Permit issued by the Government of the Netherlands Antilles that allows the vessel to operate in the high seas of the Atlantic Ocean and in the ICCAT Convention area.

Table 1. Distribution of catches (in t) of tunas and tuna-like species taken in 2007.

Yellowfin	*Skipjack*	*Bigeye*	*Other tuna-like*	*Total*
1,368	1,587	252	106	3,313

Table 2. Catches (in t) of tunas and tuna-like species taken in 2008.

Yellowfin	*Skipjack*	*Bigeye*	*Other tuna-like*	*Total*
7,351	6,436	1.721	485	15,993

REPORTS OF OBSERVERS FROM INTERGOVERNMENTAL ORGANIZATIONS

RAPPORTS D'OBSERVATEURS D'ORGANISATIONS INTER-GOUVERNEMENTALES

INFORMES DE OBSERVADORES DE ORGANIZACIONES INTERGUBERNAMENTALES

REPORT OF THE CARIBBEAN REGIONAL FISHERIES MECHANISM (CRFM) ON BEHALF OF CARICOM

RAPPORT ANNUEL DU MECANISME REGIONAL DES PECHES DES CARAÏBES (CRFM) POUR LE COMPTE DE CARICOM

INFORME ANUAL DEL MECANISMO REGIONAL DE PESCA DEL CARIBE (CRFM) DE PARTE DE CARICOM

S. Singh-Renton[1], Derrick Theophile [2],
Paul Phillip[3] and Patricia Hubert-Medar[4]

SUMMARY

Available data on 2008 landings of tuna and tuna-like fisheries are reported on behalf of The Commonwealth of Dominica, Grenada, and St. Lucia. While the species composition of tuna and tuna-like fish landings showed no dramatic changes in 2008, these counties reported an increase in the number of persons engaged in fishing and a continuing development of fishing activities around FADs. In 2009, the CRFM Large Pelagic Fish Resource Working Group completed specific tasks in support of ongoing efforts to improve collection and reporting of data on tuna and tuna-like fishing operations conducted by CARICOM and CRFM Member States. Two major donor-funded regional fisheries initiatives, involving CARICOM and CRFM States, entered an active implementation phase during 2008-2009, and include activities intended to improve the overall approach to management of large pelagic fisheries in the participating States.

RÉSUMÉ

Le présent document inclut les données disponibles sur les débarquements de thonidés et d'espèces apparentées, au titre de 2008, au nom du Commonwealth de Dominique, de la Grenade et de Sainte Lucie. Alors que la composition spécifique des débarquements de thonidés et d'espèces apparentées n'a pas connu de grands changements en 2008, ces pays ont signalé une augmentation du nombre de personnes prenant part à la pêche et au développement continu des activités de pêche sous DCP. En 2009, le Groupe de travail sur les ressources de grands pélagiques du CRFM a réalisé des tâches spécifiques en appui aux efforts actuellement déployés aux fins de l'amélioration de la collecte et de la déclaration des données sur les opérations de pêche de thonidés et d'espèces apparentées réalisées par les Etats membres du CARICOM et du CRFM. Deux initiatives majeures sur les pêcheries régionales, financées par des bailleurs de fonds, auxquelles ont pris part les Etats du CARICOM et du CRFM, sont entrées dans une phase de mise en œuvre active en 2008-2009, et incluent des activités visant à améliorer l'approche globale de la gestion des pêcheries de grands pélagiques des Etats y participant.

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[3] Fisheries Division, St. George's, Grenada, West Indies.
[4] Fisheries Department, Castries, St. Lucia, West Indies.

RESUMEN

Se comunican los datos disponibles sobre desembarques para 2008 de las pesquerías de túnidos y especies afines en nombre de la Commonwealth de Dominica, Granada y Santa Lucía. Aunque la composición por especies de los desembarques de túnidos y especies afines no mostró grandes cambios en 2008, estos países comunicaron un aumento en el número de personas involucradas en la pesca y un continuo desarrollo de las actividades pesqueras sobre DCP. En 2009, el Grupo de trabajo sobre recursos pesqueros de grandes pelágicos del CRFM finalizó tareas específicas en apoyo de los esfuerzos que se están llevando a cabo para mejorar la recopilación y comunicación de los datos sobre operaciones pesqueras de túnidos y especies afines que realizan CARICOM y los Estados miembros del CRFM. Dos importantes iniciativas pesqueras regionales financiadas por donantes, en las que participan CARICOM y los Estados del CRFM, empezaron una fase de implementación activa durante 2008-2009, e incluyen actividades destinadas a mejorar el enfoque global de ordenación de las pesquerías de grandes pelágicos en los Estados que participan.

Part I (Information on Fisheries, Research and Statistics)

The report provides available 2008 landing statistics and updated fisheries information for the following CARICOM Member States: Commonwealth of Dominica, Grenada, and St. Lucia.

During 2009, the CRFM has been engaged in collaborative efforts with donor agencies and with ICCAT to assist in various activities aimed at advancing large pelagic fisheries assessment and management in CARICOM and CRFM States. In addition, during the Fifth Annual CRFM Scientific Meeting held in June 2009, the Large Pelagic Fish Resource Working Group (CRFM LPWG) prepared a report to provide clarifications on outstanding ICCAT statistical issues, and also prepared a proposal to request ICCAT funding for establishing a port sampling programme for medium to large vessels operated by four CARICOM States.

Section 1: Annual Fisheries Information

The characteristics of tuna and tuna and tuna-like fisheries in the Commonwealth of Dominica, Grenada and St. Lucia have been described in reports submitted in previous years to ICCAT. A full review of the development of the longline fleets of CARICOM and CRFM States was conducted by the CRFM LPWG in June 2008 (CRFM, 2008). In 2008, the landings of several species increased, such as black fin tuna, skipjack tuna, yellow fin tuna, and some of the billfishes **(Table 1)**. These increased landings are believed to be due to a recent expansion in the number of fishers participating in large pelagic fishing operations. The recent global economic crisis has had a profound negative impact on the economies of these small Caribbean States, which has resulted in a shift to fishing as a source of income for many persons previously employed by other industry sectors such as tourism. Perhaps related to this also, St. Lucia reported a growing number of conflicts among inshore fishers, primarily owing to the theft of fish traps, a gear typically used to catch reef fish resources. In Dominica, there has also been a shift to the use of sturdier vessels (keel boats and pirogues) that are allowing fishers to operate further offshore.
These islands have recreational fisheries that harvest tuna and tuna-like species, but the size of the catches are unknown.

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 in 2008 in the Commonwealth of Dominica, Grenada, and St. Lucia.

2.2 ICCAT Data Training Workshop

This workshop took place in Guyana during 16-20 February 2009, and eight CARICOM States and one Caribbean United Kingdom-Overseas Territory participated. There were representatives from Barbados, Belize, Trinidad and Tobago, St. Vincent and the Grenadines, Guyana, St. Lucia, Dominica, Grenada and the Turks and Caicos Islands. The workshop provided an opportunity for some basic statistical training, training in ICCAT data reporting requirements, and improved understanding of ICCAT database deficiencies in respect of the countries concerned. A detailed report of the training workshop has been prepared by ICCAT.

2.3 Caribbean Large Marine Ecosystem (CLME) project

The CLME project initiative, funded primarily by the Global Environmental Facility (GEF), is intended to assist countries within the Caribbean region to prepare for and to pursue an Ecosystem-Based Approach to Fisheries Management.

In December 2008, CARICOM and CRFM States participated in a CLME Symposium aimed at sharing of information and expertise to consider appropriate strategies for developing the Ecosystem Approach to Fisheries (EAF) Management for various living marine resources occurring within the CLME, including large pelagic fish resources. The EAF approach presented for the region's large pelagic fish resources considered the potential role of ICCAT in the process, bearing in mind ICCAT's current mandate, but also recognizing ICCAT's recent efforts to consider tuna fishery impacts on other ecosystem components (Singh-Renton *et al*., in prep).

The first phase of CLME sub-project activities on large pelagic fish resources is scheduled to commence later in 2009. Primarily, this first phase is expected to examine ways of improving data collection systems within countries, quantifying the economic importance and impact of recreational fisheries, and development of regional management plans for selected species.

2.4 Study on Formulation of Master Plan on Sustainable use of Fisheries Resources for Coastal Community Development in the Caribbean

This initiative is funded primarily by the Japan International Co-operation Agency (JICA) and implementation began in May 2009. Among other aims, the study is intended to explore options for improving approaches to the development and management of large pelagic fisheries, with a primary focus on the artisanal sector and FAD fisheries.

2.5 Overview of 2009 CRFM LPWG Meeting activities of relevance to ICCAT

In 2009, the CRFM LPWG noted the recommendations of the 2008 meeting of the ICCAT SCRS with regard to the LPWG proposal to hold a joint assessment meeting in 2010, and the need to develop, in the first instance, web-based collaboration among the scientists concerned. The progress made during the ICCAT-funded training workshop held in February 2009 was reviewed, and the LPWG identified several tasks to be completed to address the ICCAT Workshop recommendations. In consequence, at its 2009 meeting, the LPWG prepared a proposal to establish a port sampling programme covering the main landing ports for medium and large-scale tuna fishing vessels in Trinidad and Tobago and in Barbados, which service vessels from the following four CARICOM states: Belize, St. Vincent and the Grenadines, Trinidad and Tobago and Barbados. The LPWG also reviewed the available data and information from several CARICOM States, for which ICCAT identified specific inconsistencies in the ICCAT database. Recommended data revisions were then documented for consideration by ICCAT SCRS in 2009. Some of the LPWG meeting time was also devoted to review of the historical data and information on billfish reported by Trinidad and Tobago, and options for rectifying the apparent inconsistencies between these data and the corresponding data stored in the ICCAT database.

References

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Table 1. The 2008 tuna and tuna-like fish landings (t) of the Commonwealth of Dominica, Grenada, and St. Lucia (N/A indicates that values should be non-zero, but data were unavailable at the time of reporting).

Country	*Common name*	*Scientific name*	*2008*
Commonwealth of Dominica	Yellowfin tuna	*Thunnus albacares*	124
	Skipjack tuna	*Katsuwonus pelamis*	45
	Blackfin tuna	*Thunnus atlanticus*	37
	Wahoo	*Acanthocybium solandri*	16
	King mackerel	*Scomberomorus cavalla*	0.3
	tuna unspecified		5
	Atlantic sailfish	*Istiophorus albicans*	4
	Swordfish	*Xiphias gladius*	0.3
	Blue marlin	*Makaira nigricans*	106
	Atlantic bonito	*Sarda sarda*	9
	Cero mackerel	*Scomberomorus regalis*	0.06
	Atlantic black skipjack	*Euthynnus alletteratus*	
Grenada	Yellowfin tuna	*Thunnus albacares*	756
	Skipjack tuna	*Katsuwonus pelamis*	20
	Blackfin tuna	*Thunnus atlanticus*	290
	Bigeye tuna	*Thunnus obesus*	31
	King mackerel	*Scomberomorus cavalla*	N/A
	Wahoo	*Acanthocybium solandri*	N/A
	Atlantic bonito	*Sarda sarda*	N/A
	Albacore*	*Thunnus alalunga*	15
	Atlantic sailfish	*Istiophorus albicans*	216
	Blue marlin	*Makaira nigricans*	54
	White marlin	*Tetrapturus albidus*	17
	Swordfish	*Xiphias gladius*	43
	Shark unspecified		
St. Lucia	Yellowfin tuna	*Thunnus albacares*	106
	Skipjack tuna	*Katsuwonus pelamis*	168
	Blackfin tuna	*Thunnus atlanticus*	179
	Albacore	*Thunnus alalunga*	2
	Bigeye tuna	*Thunnus obesus*	0.05
	King mackerel	*Scomberomorus cavalla*	0.2
	Spanish mackerel	*Scomberomorus maculatus*	0.06
	Wahoo	*Acanthocybium solandri*	171
	Bullet tuna	*Auxis rochei*	0.1
	Atlantic black skipjack	*Euthynnus alletteratus*	0.1
	tuna unspecified		5
	Atlantic sailfish	*Istiophorus albicans*	4
	Blue marlin	*Makaira nigricans*	70
	White marlin	*Tetrapturus albidus*	0.4
	Swordfish	*Xiphias gladius*	1.5
	Blacktip shark	*Carcharhinus limbatus*	16
	Oceanic whitetip shark	*Carcharhinus longimanus*	0.2
	Sand tiger shark	*Carcharias taurus*	3
	Nurse shark	*Ginglymostoma cirratum*	1
	Lemon shark	*Negaprion brevirostris*	0.2
	Great hammerhead	*Sphyrna mokarran*	0.7
	Tiger shark	*Galeocerdo cuvier*	2
	Shortfin mako shark	*Isurus oxyrhincus*	0.3
	Shark unspecified		0.7

*Albacore catches for Grenada contain a mix of albacore and other unspecified tuna species.