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 I (2008) - Vol. 3
Annual Reports

RAPPORT
de la période biennale, 2008-09
I^ière^ PARTIE (2008) – Vol. 3
Rapports annuels

INFORME
del período bienal, 2008-09
I^a^ PARTE (2008) – Vol. 3
Informes anuales

MADRID, SPAIN / ESPAGNE / ESPAÑA 2009

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 I (2008)3"***, which describes the activities of the Commission during the first half of said biennial period.

This issue of the Biennial Report contains the Report of the 16th Special Meeting of the Commission (Marrakech, Morocco, November 17-24, 2008) 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 2008 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, I^{ière} Partie (2008)"***, 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 16ème Réunion Extraordinaire de la Commission (Marrakech, Maroc, 17-24 novembre 2008) 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 2008 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, Iª Parte (2008)"***, 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 Decimosexta Reunión Extraordinaria de la Comisión (Marrakech, Marruecos, 17-24 de noviembre de 2008), 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 2008 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]

[1] Reports received and distributed for the 2008 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 5 to ANNEX 10 of the 2008 Commission Report).

[2] Rapports reçus et diffusés pour les réunions annuelles de l'ICCAT de 2008. 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 5 à l'ANNEXE 10 du Rapport de la Commission de 2008).

[3] Informes recibidos y distribuidos durante las reuniones anuales de ICCAT de 2008. 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 5 al ANEXO 10 del Informe de la Comisión de 2008).

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

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

Henriette L. Nsilulu[1], David Quinssungo[2]

SUMMARY

*The major scombridae caught in Angola are: yellowfin tuna (*Thunnus albacares*), skipjack tuna (*Katsuwonus pelamis*), bigeye tuna (*Thunnus obesus*), albacore (*Thunnus alalunga*) and small tunas, such as little tunny (*Euthynnus alletteratus*), Atlantic bonito (*Sarda sarda*), and chub mackerel (*Scomber japonicus*). These resources are exploited by the artisanal fishery and the semi-industrial and the industrial fleet.* Istiophoridea *and* xiphiidae *are caught in the waters of Angola mainly by sport fishing. In 2007, the total catch was approximately 5,796.4 t along the coast of Angola. The tuna catches by gear vary around 5,398 t by hand line, 322.4 t from traps and 76 t by purse seine, trawl and others. During this year, 16 samples were conducted for* Auxis thazard *measuring a total of 698 fish and nine samples of* Euthynnus alletteratus *measuring 839 fish. These catches are taken from artisanal, semi-industrial and local industrial. The types of gear which are normally used for the targeted species are purse seine, trawl, hand line, traps and also longline for foreign vessels. As regards the sport and recreational fishing in Angola, the data are controlled by the association of this fishery and these are available at the sport fishing web site of Angola (www.ipescas.nexus.ao).This association carries out international and regional tournaments. Statistical data are obtained from the National Fisheries and Protection of Resources Directorate (Direction Nationale de Pêche et Protection de Ressources, DNPPR), the Consultancy of Plans and Statistics (Cabinet d'Études de Plans et Statistiques, GEPE), the National Institute of Fishery Research (Institut National de Recherches de Pêches, INIP), the Fisheries Research Centre (Centres de Recherches de Pêches, CIPs) and the Artisanal Fisheries Institute (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*). Ces ressources sont exploitées par la flottille artisanale et par la flottille semi-industrielle et industrielle. Les istiophoridés et les xiphiidés sont pêchés dans les eaux angolaises principalement par la pêche sportive. Durant l'année 2007, la prise totale se situe entre 5.796,4 t le long de la côte angolaise. Les prises de thonidés par engins de pêche varient de 5.398 t pour la ligne, 322,4 t provenant des madragues et 76 t de la senne, des chaluts et autres. Durant cette année, 16 échantillonnages ont été effectués, dont 7 échantillonnages pour l'espèce* Auxis thazard*, avec 698 poissons mesurés au total et 9 échantillonnages pour l'espèce* Euthynnus alletteratus *avec 839 poissons mesurés. Ces prises proviennent de la pêche artisanale, semi-industrielle et industrielle locale. Les types d'engins utilisés normalement pour les espèces cibles sont la senne, le chalutage, la ligne à main, la madrague et aussi les palangres pour les embarcations étrangères. 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 pêche sportive de l'Angola (www.ipescas.nexus.ao). Cette pêcherie organise des compétitions*

[1] INIP, Ilha de Luanda, CP 2601 henrim60@yahoo.com.
2 CIP, Benguela, davidquissungo@hotmail.com

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 CIP (Centres de Recherches de Pêches) et de l'IPA (Institut de Pêches Artisanales).

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*) y caballa (*Scomber japonicus*). 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. Durante 2007, la captura total ascendió a 5.796,4 t en las aguas frente a la costa angoleña. Las capturas de túnidos por arte ascienden a 5.398 t para la liña, 322,4 para las almadrabas y 76 t para el cerco, el arrastre y otros artes. Durante este año, se realizaron 16 muestreos de los cuales siete para la melva (*Auxis thazard*), con 698 ejemplares medidos en total, y nueve para la bacoreta, donde se midieron 839 ejemplares. Estas capturas proceden de la pesca artesanal, semiindustrial o industrial local. Los tipos de artes utilizados normalmente para las especies objetivo son cerco, arrastre, liña de mano, almadraba y también palangre para las embarcaciones extranjeras. En lo que se refiere a la pesca deportiva y de recreo en Angola, los datos son controlados por la asociación de esta pesquería y están disponibles en la página web de la pesca deportiva de Angola (www.ipescas.nexus.ao). Se celebran competiciones regionales e internacionales. Los datos estadísticos los recopila la Dirección Nacional de pesca y protección de recursos (Direction Nationale de Pêche et Protection de Ressources- DNPPR), el Gabinete de Estudios de Planes y Estadísticas (Cabinet d'Études de Plans et Statistiques- GEPE), el Instituto Nacional de Investigación Pesquera (Institut National de Recherches de Pêches-INIP), el Centro de Investigación Pesquera (Centres de Recherches de Pêches- CIPs) y el Instituto de Pesca Artesanal (Institut de Pêches Artisanales - IPA).*

Introduction

L'Angola est un pays avec une superficie de 1.246.700 km^2 et la longueur de la côte est de 1.650 km à partir de 5ºS à 17º15 S de latitude de l'Océan Atlantique Sud-Est. 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 et le courant de l'Angola (Moroshkin *et al.* 1970). La Zone Exclusive Economique est de 200 milles nautiques.

Le secteur de la pêche occupe la troisième place économiquement après le secteur du pétrole et du diamant. Le poisson est la principale source de protéine animale du pays 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. La majorité de la population exerce la pêcher artisanale pour l'autosuffisance.

1ère Partie (Information sur les pêcheries, la recherche et les statistiques)

Chapitre 1: Information annuelle sur les pêcheries

La diversité spécifique des 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 des petits thonidés et le groupe des grands thonidés.

Le groupe des 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) dans le cadre de la pêche semi industrielle et industrielle. Elles sont davantage capturées dans les eaux angolaises pendant les mois d´octobre et de janvier selon K. Lankester (2002) dans le rapport de « EU-Angola Agreement », septembre 2002.

Le groupe des grands thonidés est constitué principalement des espèces:

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

Ces espèces se trouvent en haute mer le long de la marge de la plateforme et leur exploration est effectuée par les embarcations de grande portée pendant une période définie (pêche industrielle).

Pour le moment, les embarcations de grande portée qui exploitent les grands thonidés sont des embarcations étrangères qui pêchent sous leur pavillon dans la Zone Economique Exclusive des eaux angolaises. La pêche artisanale est pratiquée normalement à bord de pirogues de longueur inferieure ou égale à 14 m, propulsées à la rame ou par des petits moteurs hors-bords de 15-40 CV.

1.1 Types d'engins

Les types d'engins normalement utilisés pour les espèces cibles sont les sennes, chaluts, cannes, lignes à main, madragues et aussi les palangres pour les embarcations étrangères.

1.2 Prises

Durant l'année 2007, on a capturé 5.796,4 tonnes le long de la côte et ces prises proviennent de la pêche artisanale, semi-industrielle et industrielle de petits pélagiques **(Tableau 1)**.

Les prises par engins de pêche sont représentées au **Tableau 2**.

Les embarcations étrangères pêchent sous leur pavillon dans la Zone Exclusive Economique dans les eaux angolaises, ce qui fait que nous ne disposons pas de données à déclarer à l'ICCAT pour les grands thonidés.

Chapitre 2: Recherche et statistiques

En 2007, les données étaient collectées par le système d'échantillonnage pour la pêcherie semi-industrielle. L'échantillonnage est réalisé normalement une fois par semaine. Durant cette année, on a réalisé sept échantillonnages pour l'espèce *Auxis thazard* et neuf échantillonnages pour l'espèce *Euthynnus alletteratus*.

Les **Tableaux 3a** et **3b** illustrent le nombre de poissons échantillonnés par mois et par espèce. Au total, 1.537 poissons ont étaient mesurés, dont 698 poissons de l'espèce *Auxis thazard* et 839 de l'espèce *Euthynnus alletteratus.*

La **Figure 1** nous indique les classes de fréquences de tailles de l'auxide (*Auxis thazard*) et de la thonine commune (*Euthynnus alletteratus*) capturés durant l'année 2007. La classe de taille de l'auxide varie de 22 cm à 53 cm de longueur à la fourche, présentant un mode à 24 cm, 37 cm alors que celle de la thonine commune varie de 30 cm à 62 cm, présentant un mode de 43 cm. Les **Tableaux 1, 2** nous montrent la distribution des fréquences de taille de la longueur à la fourche mensuelle ainsi que le nombre d'échantillonnage réalisés par mois pour l'auxide et la thonine commune.

On a analysé biologiquement 70 poissons de l'espèce auxide, dont 31 poissons de sexe femelle et 39 poissons de sexe mâle et 140 poissons de l'espèce thonine commune, avec 66 femelles et 74 mâles (**Figures 2a** et **b**).

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). Des compétitions internationales et régionales sont organisées.

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

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

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

Il est un peu difficile de mettre en œuvre les mesures de conservation et de gestion de l'ICCAT une fois que les bateaux se trouvent en haute mer et ne déchargent pas aux ports de l'Angola 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 réaliser le contrôle, après quoi ils octroient la licence de pêche.

Tableau 1. Prises de thonidés (tonnes) de la pêche artisanale, semi-industrielle et industrielle durant l'année 2007.

Espèce	*Artisanale*	*Semi-indust + indust locale*	*Total*
Euthynnus alletteratus	4.085	280	4.365
Sarda sarda	931	0,4	931,4
Auxis thazard		95	95
Thunnus albacares	382	23	405
Total	**5.398**	**398,4**	**5.796,4**

Tableau 2. Prises de thonidés (tonnes) par engins de pêche durant l'année 2007.

Espèce	*Lignes*	*Madragues*	*Sennes + chaluts+ autres*	*Total*
Euthynnus alletteratus	4.085	227	53	4.365
Sarda sarda	931	0,4		931,4
Auxis thazard		95		95
Thunnus albacares	382		23	405
Total	**5.398**	**322,4**	**76**	**5.796,4**

Tableau 3a. Distribution de fréquences de tailles de la longueur à la fourche mensuelle de l'auxide (*Auxis thazard).*

Classe (cm)	*Jan.*	*Fév.*	*Oct.*	*Nov.*	*Déc.*	*Total*
22		11				11
23		107				107
24		121				121
25		16				16
26		6				6
27		1				1
28		1				1
29						0
30						0
31						0
32			5			5
33			18	1		19
34			25	4		29
35			21	7		28
36			18	17		35
37			27	19		46
38			28	9		37
39			16	4		20
40	5		16			21
41	11		11	1	1	24
42	18		7	6	5	36
43	10		3	13	6	32
44	4			14	18	36
45				14	12	26
46	1			9	9	19
47				9	4	13
48				5	2	7
49						0
50						0
51						0
52				1		1
53				1		1
N	49	263	195	134	57	698
n	1	1	2	2	1	7
W	0.060	0.060	0.620	0.736	0.080	
c	0.350	1.000	2.200	3.500	1.000	

N : nombre de poissons mesurés.
n : Nombre d'échantillonnages réalisés.
W : Poids de l'échantillon en tonnes.
c : Prises échantillonnées en tonnes.

Tableau 3b. Distribution de fréquences de tailles de la longueur à la fourche mensuelle de la thonine commune (*Euthynnus alletteratus).*

Classe (cm)	*Jan.*	*Mars*	*Sept.*	*Oct.*	*Nov.*	*Déc.*	*Total*
30				1			1
35				1			1
39		3					3
40		17		2		1	19
41	5	37		2	5	3	52
42	15	68		6	5	4	98
43	30	68		17	18	12	145
44	18	44		28	23	23	136
45	20	22		31	28	25	126
46	16	14		16	32	14	92
47	6	6		7	18	5	42
48	2	4		4	13	6	29
49	2	1		6	5	2	16
50	3	1		6	4		14
51	2	1		5	1	1	10
52	2			2	1		5
53	2			4			6
54	2			7			9
55	2		1	4	1		8
56	2		1	2			5
57		1	3	5			9
58							0
59			3	1			4
60	2		2	2			6
61			1				1
62				1			1
N	131	287	11	160	154	96	839
n	1	2	1	2	2	1	9
W	0.250	0.271	0.060	1.100	0.740	0.125	
c	1.000	2.100	0.150	1.764	3.500	1.500	

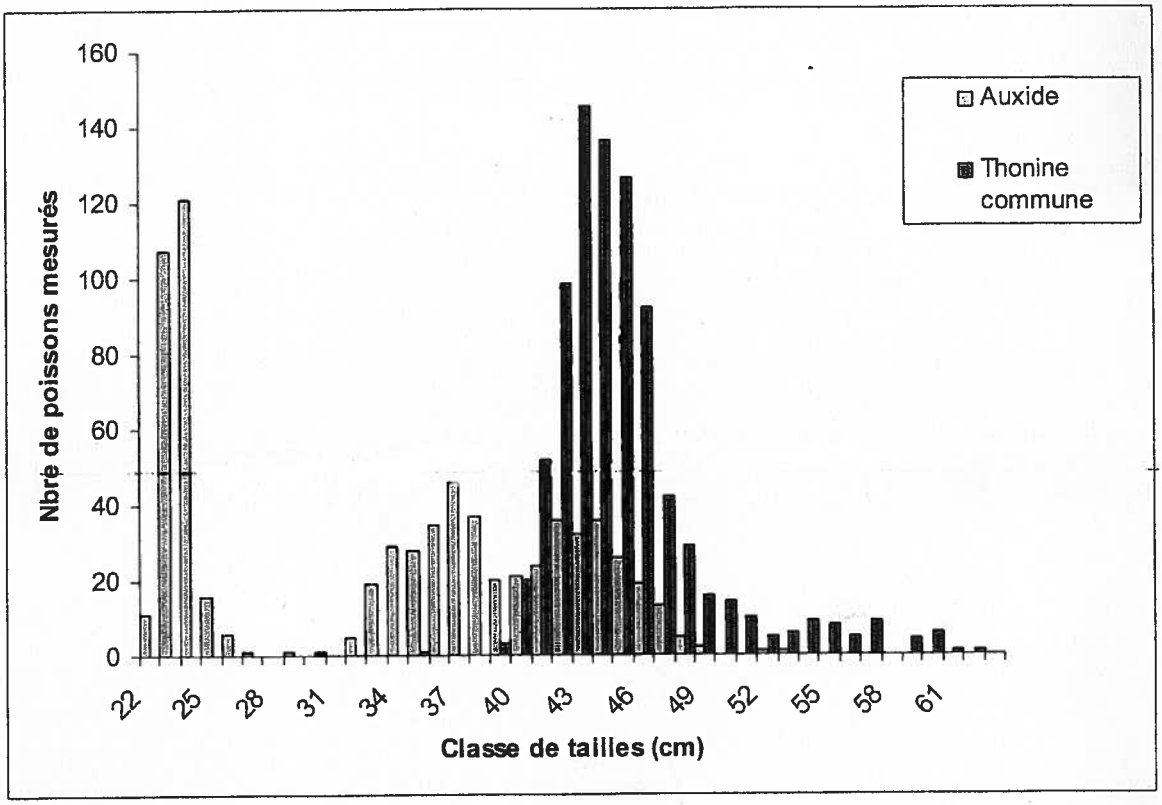

Figure 1. Les classes de fréquence de tailles de Auxide *(Auxis thazard)* et de la thonine commune *(Euthynnus alletteratus)*.

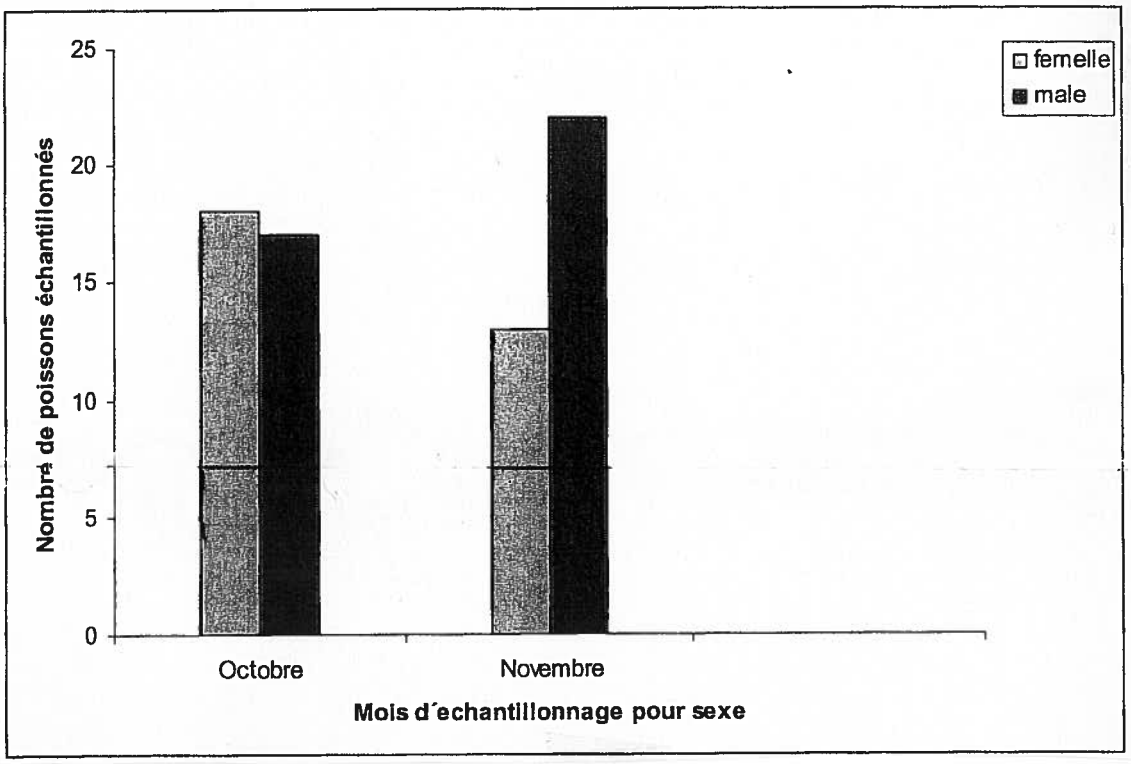

Figure 2a. Nombre de poissons échantillonnés pour sexe de l'espèce Auxide.

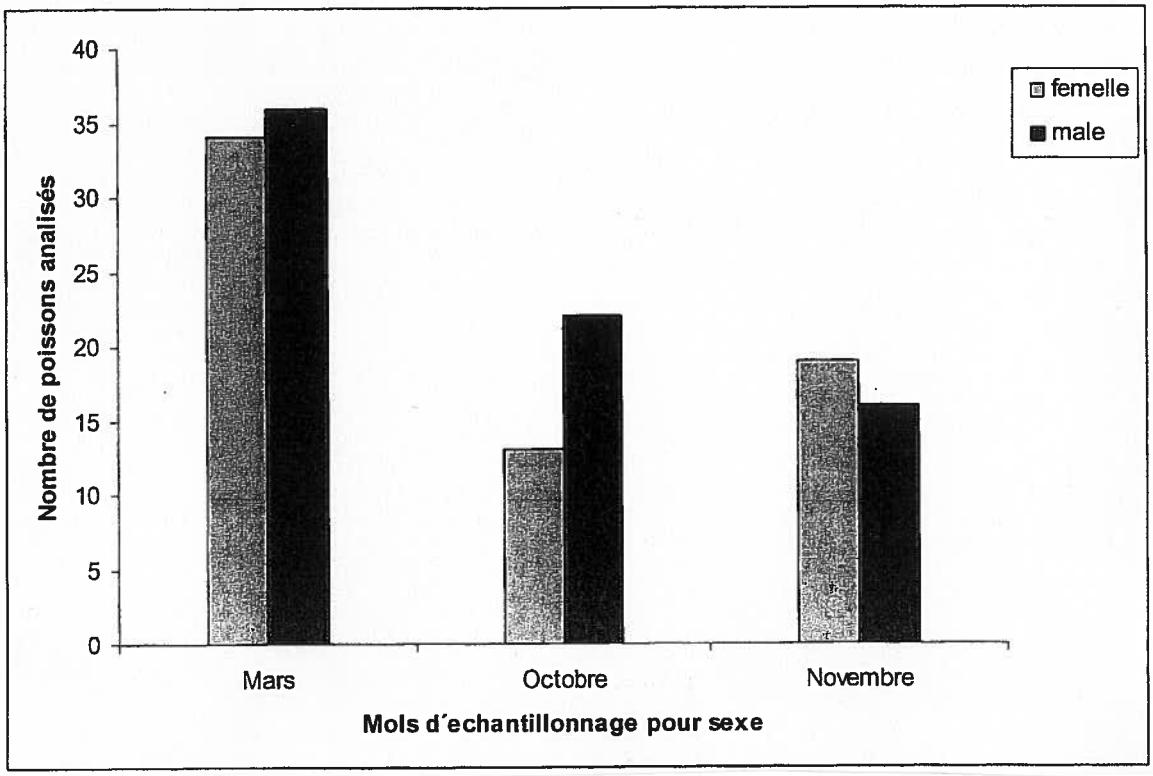

Figure 2b. Nombre de poissons échantillonnés pour sexe de l'espèce thonine commune.

ANNUAL REPORT OF BRAZIL
RAPPOT ANNUEL DU BREZIL
INFORME ANUAL DE BRASIL

Paulo Travassos and Fábio Hazin

SUMMARY

In 2007, the Brazilian tuna longline fleet consisted of 96 boats (84 national and 12 chartered), registered in 7 different ports. There was an increase of about 5% in the total number of vessels from 2006, when 91 vessels were operating. The number of bait-boats remained the same as in 2005 (41, all national), and were based in the same ports (Rio de Janeiro, Itajaí, and Rio Grande). In 2007, the number of purse-seine boats (adapted from sardine fishing boats) was 8, showing a decrease of about 40%, from 2006. The Brazilian catch of tunas and tuna-like fishes was about 47,000 t (live weight), in 2007, representing an increase of 13% from 2006, when about 41,500 t were caught. The majority of the catch again was taken by bait-boats (26,410.2 t), with skipjack tuna being the most abundant species (22,750.2 t), accounting for 86% of the bait-boat catches. Total catch of the tuna longline fishery (10,620 t) was about 5% smaller than 2006, with swordfish being the most abundant species (3,801.5 t), accounting for about 36% of the longline catches. Research continued on the incidental catches of seabirds and was aimed mainly at monitoring by-catch and testing mitigation measures. In June 2006, Brazilian NPOA-Seabirds was launched by IBAMA and it is now being implemented. Experiments with torilines in southern Brazil reduced the capture of seabirds by more than 50%, including those species with the highest catch rates such as black-browed albatross and white-chinned petrel. In 2007, a cooperative research on billfishes and sharks with US scientists continued to be developed, including collection of spines, vertebrae and gonads, for age and growth and reproduction studies, as well as habitat utilization, through PSAT tags, and gear selectivity, by the use of circle hooks, hook timers and TDRs. The results of the experiment on the use of circle hooks in the longline fishery indicated a higher catch rate of target species, and a significant reduction of by-catch, including turtles. Similar researches have also been conducted on tuna species, particularly on yellowfin and bigeye tunas. A new research project aimed at reducing the by-catch in the tuna fisheries, entitled MADE-Mitigating Adverse Ecological Impacts of Open Ocean Fisheries, in cooperation with EC, will begin in 2008. Besides the catch and effort data regularly collected from Brazilian tuna fisheries, in 2007, a total of 50,293 fish were measured at sea, by observers on board, as well as during landing.

RÉSUMÉ

En 2007, la flottille palangrière thonière du Brésil se composait de 96 bateaux (84 nationaux et 12 affrétés), immatriculés dans sept ports différents. Le nombre total de navires a augmenté de près de 5% par rapport à 2006, année où 91 navires étaient opérationnels. Le nombre de canneurs est resté similaire à celui de 2005 (41, tous nationaux), qui étaient tous basés dans les mêmes ports (Rio de Janeiro, Itajaí, et Rio Grande). En 2007, le nombre de senneurs (adaptés des navires de pêche à la sardine) s'élevait à 8 unités, présentant une diminution de 40% environ par rapport à 2006. La prise brésilienne de thonidés et d'espèces apparentées a totalisé près de 47.000 t (poids vif) en 2007, soit un accroissement de 13% par rapport à 2006, année où près de 41.500 t ont été capturées. La plupart des prises ont de nouveau été obtenues par les canneurs (26.410,2 t), le listao étant l'espèce la plus abondante (22.750,2 t), représentant 86% des prises des canneurs. La prise totale de la pêcherie palangrière de thonidés (10.620 t) s'est élevée à près de 5% de moins qu'en 2006, l'espadon étant l'espèce la plus abondante (3.801,5 t), avec 36% environ des prises à la palangre. La recherche s'est poursuivie sur les prises accidentelles d'oiseaux de mer et elle visait essentiellement au suivi des prises accessoires et aux tests de mesures d'atténuation. En juin 2006, le NPOA-oiseaux de mer du Brésil a été lancé par l'IBAMA et est désormais mis en œuvre. Des expériences avec des lignes tori, réalisées dans le sud du Brésil ont réduit la capture des oiseaux de mer de plus de 50%, y compris des espèces enregistrant les taux de capture les plus élevés tels que l'albatros à sourcils noirs et le

puffin à menton blanc. En 2007, un programme de recherche en coopération sur les istiophoridés et les requins, mené avec des scientifiques américains, a continué à être développé, lequel incluait la collecte d'épines, de vertèbres et de gonades, aux fins d'études sur l'âge, la croissance et la reproduction, ainsi que sur l'utilisation de l'habitat, au moyen de marques PSAT et la sélectivité des engins, par l'utilisation d'hameçons circulaires, de minuteurs d'hameçons et d'enregistreurs de temps et de profondeurs. Les résultats de l'expérience sur l'utilisation des hameçons circulaires dans la pêcherie palangrière ont indiqué un taux de capture élevé d'espèces cibles et une considérable réduction des prises accessoires, notamment des tortues. Des recherches similaires ont également été menées sur les espèces de thonidés, en particulier sur l'albacore et le thon obèse. Un nouveau projet de recherche visant à la réduction des prises accessoires dans les pêcheries de thonidés, dénommé MADE (Mitigating Adverse Ecological Impacts of Open Ocean Fisheries), réalisé en coopération avec la CE, commencera en 2008. En plus des données de prise et d'effort régulièrement collectées des pêcheries brésiliennes de thonidés, en 2007, un total de 50.293 poissons ont été mesurés en mer par les observateurs embarqués à bord et pendant les débarquements.

RESUMEN

En 2007, la flota palangrera atunera de Brasil constaba de 96 buques (84 nacionales y 12 fletados), registrados en siete puertos diferentes. Se produjo un incremento de aproximadamente el 5% en el número total de buques con respecto a 2006, año en el que operaron 91 buques. El número de barcos de cebo vivo permaneció igual que en 2005 (41, todos nacionales), con base en los mismos puertos (Río de Janeiro, Itajaí y Río Grande). En 2007, el número de cerqueros (adaptados de los buques de pesca de sardinas) fue ocho unidades, lo que supone un descenso de aproximadamente el 40% con respecto a 2006. La captura brasileña de túnidos y especies afines fue de 47.000 t (peso en vivo) en 2007, lo que representa un incremento del 13% respecto a 2006, año en el que se capturaron 41.500 t. La mayoría de la captura fue realizada de nuevo por los barcos de cebo vivo (26.410,2 t), siendo el listado la especie más abundante (22.750,2 t), respondiendo del 86% de las capturas de la pesquería de cebo vivo. La captura total de la pesquería de palangre de túnidos (10.620 t) fue un 5% menor que en 2006, siendo el pez espada la especie más abundante (3.801,5 t), que respondió del 36,9% de las capturas de palangre. La investigación sobre capturas incidentales de aves marinas ha continuado y se ha centrado sobre todo en el seguimiento de la captura fortuita y en probar medidas de mitigación. En junio de 2006, el IBAMA inició el PAN-Aves marinas de Brasil que se está implementando actualmente. Los experimentos con líneas espantapájaros en el sudeste de Brasil mostraron una reducción de más del 50% en la captura de aves marinas, también en las especies con las tasas de captura más elevadas como el albatros ceja negra y el petrel mentón blanco. En 2007 ha continuado desarrollándose un importante esfuerzo de investigación en régimen de colaboración con científicos estadounidenses, que se ha centrado en istiofóridos y tiburones y que incluye la recogida de espinas, vértebras y gónadas, para estudios de reproducción, edad y crecimiento, así como de utilización del hábitat, mediante marcas PSAT, y selectividad del arte, mediante el uso de anzuelos circulares, temporizadores de anzuelo y registradores de tiempo y profundidad (TDR). Los resultados del experimento sobre la utilización de anzuelos circulares en las pesquerías de palangre indicaban que se producían tasas de captura de especies objetivo más elevadas y una reducción importante de la captura fortuita, lo que incluye las tortugas. Se han realizado investigaciones similares en las especies de túnidos, sobre todo para el rabil y patudo. En 2008 comenzará un nuevo proyecto de investigación que tiene como objetivo reducir la captura fortuita en las pesquerías de túnidos, el proyecto se llama MADE – Mitigating Adverse Ecological Impact of Open Ocean Fisheries (Mitigación del impacto ecológico negativo de las pesquerías en mar abierto), en colaboración con la CE. Además de los datos de captura y esfuerzo recopilados regularmente en las pesquerías atuneras brasileñas, los observadores embarcados midieron en 2007 un total de 50.293 ejemplares en el mar así como durante los desembarques.

Part I (Information on Fisheries, Research and Statistics)

Section 1: Annual Fisheries Information

In 2007, the Brazilian tuna longline fleet consisted of 96 vessels registered in the following ports: Rio Grande (1), Itajaí (6), Santos (8), Itaipava (40), Recife (3), Cabedelo (2), and Natal (35). Of these 96 longliners, 84 were national and 12 were foreign chartered vessels. There was an increase of about 5% in the total number of vessels from 2006, when 91 vessels were operating. The number of bait-boats operating in 2005 was 41, the same from 2006. These 41 vessels (100% national) were based in the same ports (Rio de Janeiro, Itajaí, and Rio Grande). In 2007, the number of purse-seine boats (adapted from sardine fishing boats) was 8, showing a decrease of about 40%, from 2006 (14).

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 46,965.0 (live weight), in 2007 (Table 1), representing an increase of 13.2% from 2006 (41,490.6 t). The majority of the catch again was taken by bait-boats (26,410.2 t; 56.2%), with skipjack tuna being the most abundant species (22.750.2t), accounting for 86.1% of the bait-boat catches. Catches of this species decreased by 1.1%, from 2006. With a total catch of 1,353.2t, yellowfin tuna was the second dominant species in the bait-boat fishery.

Total catch of the tuna longline fishery (10,619.6t) was about 4.7% smaller than 2006, with swordfish being the most abundant species (3,801.4t), accounting for 35.8% of the longline catches. Blue shark and yellowfin tuna, accounting for 21.2% (2,249.0t) and 14.6% (1,552.1t) of the catches, were, respectively, the second and third most caught species. With a total catch of 927.3t, bigeye tuna was the fourth most abundant species in the longline fishery, accounting for 8.7%.

The total catch of white marlin and blue marlin was, respectively, 52.2t and 252.9t, representing a decrease of about 41.8% and 15.0%, from 2006, when the catches of these species were 89.7t and 297.6t. This same trend was observed to the catches of sailfish, which decreased by 15.2% from 2006 (139.3t), reaching 118.2t in 2006. This strong decrease in the catches of marlin species was mainly associated to the end of fishing operations of foreign chartered vessels (from 30 vessels, in 2006, to 12, in 2007).

Data collected from observers on board, indicated the following amount of discards: 24.4t live and 18.8t dead for white marlin, and 57.9t live and 0.2t dead for blue marlin.

Concerning the purse seine fishing boats, which are based in the south and target skipjack tuna, the total catch in 2007 was 443.7t, with skipjack tuna accounting for 90.8% of this figure.

Part of Brazilian catches result from the fishing activities of small scale fishing fleet based mainly in Itaipava-ES (southeast coast). Although made of relatively small boats (~15m), 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 others surface gears. In 2007 this fleet caught 8,260.5t, with yellowfin tuna, dolphinfish, and swordfish accounting for 27.9% (2,312.8t), 42.5% (3,511.0t), and 4.2% (346.0t) of the catches, respectively **(Table 1)**.

Research continued on the incidental catches of seabirds and was aimed mainly at monitoring b-catch and testing mitigation measures. In June 2006, Brazilian NPOA- Seabirds was launched by IBAMA and it is now being implemented. In 2007, the by-catch rate was 0.142 seabirds/1,000 hooks (56,460 hooks) in the warm months (December-May) and 0.542 seabirds/1,000 hooks (184,570 hooks) in the cold months (June-November), in the southern range of the fishery, below 20^{o}S. Tests with single torilines in southern Brazil reduced the catch of seabirds by more than 50%, including those species with the highest catch rates, such as Black-browed albatross and White-chinned petrel.

Section 2: Research and Statistics

Several institutions directly assisted the Special Secretariat of Fisheries and Aquaculture (SEAP) in processing and analyzing data from 2006: *Universidade Federal do Pará*- UFPA (Federal University of Pará), located in the 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, *Instituto de Pesca de São Paulo* (São Paulo Fishery 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 Environment and Renewable Natural Resources- IBAMA), continued to conduct several research and statistics activities on tuna species caught by Brazilian boats.

Besides the catch and effort data regularly collected from Brazilian tuna fisheries, in 2007, a total of 50,293 fishes were measured at sea and while landing. The distribution of fish measured by species was: yellowfin= 6,319; bigeye= 8,059; albacore= 4,552; swordfish= 19,912; blue marlin= 778; white marlin= 809; sailfish= 381; skipjack= 2,702; blue shark= 4,890; and shortfin mako= 287, plus 1,604 of several other species.

Data have also been collected from several recreational fisheries based off southeast Brazil, mainly in Rio de Janeiro and São Paulo, where sport tournaments are conducted by local yacht clubs.

In 2007, a cooperative research on billfishes and sharks with US scientists continued to be developed, including collection of spines, vertebrae and gonads, for age and growth and reproduction studies, as well as habitat utilization, through PSAT tags, and gear selectivity, by the use of circle hooks, hook timers and TDRs. Part of these results were presented during the 2007 ICCAT Sailfish Data Preparatory Meeting, which happened in May. The results of the experiment on the use of circle hooks in the longline fishery indicated a higher catch rate of target species, and a significant reduction of by-catch, including turtles. Similar researches have also been conducted on tuna species, particularly on yellowfin and bigeye tunas. A new research project aimed at reducing the by-catch in the tuna fisheries, entitled MADE- Mitigating Adverse Ecological Impacts of Open Ocean Fisheries, in cooperation with EC, will begin in 2008.

Research on the incidental catches of seabirds continued, aiming mainly at testing and implementing mitigation measures to reduce the incidental catch of seabirds by the longline fishery, through partnerships between the Special Secretariat of Fisheries and Aquaculture (SEAP), seabird conservation institutions (Projeto Albatroz and NEMA), and universities. The results from these research and statistics activities are expected to help in the reduction of the impact of tuna longline fishing activities on seabirds species caught by Brazilian fishing boats.

The monitoring of sea turtle by-catch in the longline fishery and research on mitigation measures, mainly by the use of circle hooks (18/0 10º offset), have continued in 2007. During this year, 2,471,887 hooks were monitored and 1,243 sea turtles were caught, resulting in a total CPUE (turtles/ 1,000 hooks) of 0.50. The main species caught were: loggerhead, *Caretta caretta* (n= 743/ CPUE= 0.3), leatherback, *Dermochelys coriacea* (n= 246/ CPUE= 0.1), olive ridley, *Lepidochelys olivacea* (n= 123/ CPUE= 0.05) and green turtle, *Chelonia mydas* (n= 2/ CPUE= 0.0008). Besides these, more 129 turtles were caught but not identified. Concerning the circle hook experiment, 65,488 hooks (half circle and half J) were tested in 2007 and 110 turtles were caught, 100 of them being loggerhead (72 on J hook and 28 on circle hook) and 10 leatherback (8 on J hook and 2 on circle hook). These data suggest that circle hooks are very efficient to reduce sea turtle by-catch. Nevertheless, it is important to note that these are raw data which still need to be statistically tested.

Part II (Management Implementation)

Section 3: Implementation of ICCAT Conservation and Management Measures

No new management measure was implemented in 2007. In order to adequately comply with ICCAT recommendations, the Brazilian government has implemented several rules regulating Brazilian tuna fishery, which remain in force, including the mandatory release of all specimens of white marlin and blue marlin that are still alive by the time of boarding; the prohibition of sale of any white and blue marlins caught; the mandatory filling-in and submitting of fishing logbooks of all Brazilian tuna fisheries; the mandatory use of VMS for boats larger than 15m; the mandatory presence of observers on board; among others.

Table 1. Total catch (t) by species and fishing gear of Brazilian tuna fishing vessels in 2007.

Species	*HL*	*UN*	*LL*	*BB*	*PS*	*SP*	*Total*
YFT	21.7	2,540.8	1,552.1	1,353.2	0.0	0.0	5,467.8
ALB	0.0	20.6	221.7	292.9	0.0	0.0	535.2
BET	7.0	9.6	927.3	649.5	0.0	0.0	1,593.4
SKJ	4.9	1,033.3	0.0	22,750.1	402.9	0.0	24,191.2
BLF	0.0	0.0	0.3	232.7	0.0	0.0	233.1
TUN	58.3	0.0	210.7	223.3	0.0	0.0	492.3
SWO	0.5	350.6	3,801.5	0.0	0.0	0.0	4,152.5
SAI	0.0	59.8	58.4	0.0	0.0	5.0	118.2
WHM	0.0	7.8	44.5	0.0	0.0	0.2	52.2
BUM	0.0	104.2	148.7	0.0	0.0	8.9	252.9
SPF	0.0	0.0	3.9	0.0	0.0	0.0	3.9
BIL	0.0	0.0	2.7	0.0	0.3	0.0	3.0
DOL	0.0	3,621.4	474.9	173.8	0.0	0.0	4,270.1
WAH	0.0	53.0	14.7	0.0	7.6	0.0	75.3
FRI	0.0	0.0	0.0	173.7	28.7	0.0	202.4
BRS	0.0	563.2	0.0	0.0	0.0	0.0	563.2
KGM	0.0	33.4	0.0	0.0	0.0	0.0	33.4
OFH	0.0	34.5	109.7	560.9	1.5	0.0	706.5
BSH	0.0	9.1	2,249.0	0.0	0.0	0.0	2,258.1
RSK	0.0	14.6	169.8	0.0	0.0	0.0	184.4
BTH	0.0	3.1	64.6	0.0	0.0	0.0	67.7
SPN	0.0	0.8	118.7	0.0	0.0	0.0	119.5
MAK	0.0	4.6	140.5	0.0	0.0	0.0	145.1
TIG	0.0	0.0	6.1	0.0	0.0	0.0	6.1
OCS	0.0	13.3	0.4	0.0	0.0	0.0	13.8
CVX	4.3	917.0	299.5	0.0	2.7	0.0	1,223.6
Total	**96.8**	**9,394.8**	**10,619.6**	**26,410.2**	**443.7**	**14.1**	**46,965.0**

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

Angelo Mouzouropoulos[1] and Beverly Wade[2]

SUMMARY

Belize is progressing in attaining its objective of becoming a Contracting Party of all RFMOs in whose Convention areas its fishing vessels are operating. Currently, Belize is a Contracting Party of (ICCAT) and (IOTC). It is a Cooperating non-Contracting Party of IATTC and will become a Contracting Party thereof latest by when the "Antigua Convention" to which Belize has acceded on June 12, 2007 comes in to force, which is expected in 2009. Belize is a Cooperating non-Contracting Party of NEAFC and a Cooperating non-Member of WCPFC. Belize is also engaged in the negotiations for the formation of SPRFMO. All Belize's fishing vessels which are licensed to target tuna or tuna-like species in the ICCAT Convention area are longliners. The total number of tuna longliners operating in the ICCAT Convention area was 11 in 2006 and 12 in 2007. The total catches of tuna and tuna-like species amounted to 201.52 t in 2006 and 1406.47 t in 2007. Yellowfin tuna continues to be the dominant specie amounting to 71% of the total catch in 2006 and 83% of the total catch in 2007. The average size of Belizean vessels in 2006 and 2007 was 116 GRT. Blue shark and mako shark are the most common non-tuna species in Belize´s longline fishery in the ICCAT Convention area, followed by sailfish and blue marlin. The compiled data, including Task I and Task II, as well as the number of fishing vessels, were reported to the ICCAT Secretariat on May 5, 2008, within the specified timeframe and are summarized below. 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 regulations (inter alia the Belize High Seas Fishing Act 2003 and Disciplinary 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 avance dans la réalisation de son objectif de devenir Partie contractante de toutes les ORGP dans les zones de Convention desquelles ses navires de pêche sont en opération. Actuellement, le Belize est Partie contractante de l'ICCAT et de la CTOI. Il est Partie non-contractante coopérante de la CIATT et deviendra Partie contractante de cette organisation lorsque la « Convention Antigua » à laquelle le Belize a accédé le 12 juin 2007 entrera en vigueur, ce qui devrait se faire en 2009. Le Belize est une Partie non-contractane coopérante de NEAFC et un non-membre coopérant de WCPFC. Le Belize a également entamé des négociations pour la formation de SPRFMO. Tous les 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 nombre total de palangriers opérant dans la zone de la Convention ICCAT s'élevait à 11 en 2006 et à 12 en 2007. Les prises totales de thonidés et d'espèces apparentées se sont chiffrées à 201,52 t en 2006 et 1.406,47 t en 2007. L'albacore continue à être l'espèce dominante, représentant 71% de la prise totale en 2006 et 83% de la prise totale en 2007. La taille moyenne des navires béliziens en 2006 et 2007 était de 116 TJB. 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, ainsi que le nombre de navires de pêche, ont été déclarées au Secrétariat de l'ICCAT le 5 mai 2008, dans les délais prescrits et sont résumés ci-après. 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 et réglementations nationales (entre autres la Loi

[1] Director General, International Merchant Marine Registry of Belize, Head Delegate of Belize to ICCAT.
[2] Fisheries Administrator, Fisheries Department, Head Scientist of Belize to ICCAT.

sur la pêche en haute mer du Belize de 2003 et les réglementations disciplinaires), l'Accord d'application de la FAO, l'Accord sur les Stocks de poissons, l'IPOA-IUU, ainsi que les Résolutions et Recommandations adoptées par l'ICCAT et d'autres ORGP pertinentes.

RESUMEN

Belice está avanzando en la consecución de su objetivo de convertirse en Parte contratante de todas las OROP en cuyas zonas de Convención operan sus buques pesqueros. Actualmente, Belice es Parte contratante de ICCAT y de la IOTC. También es Parte no contratante colaboradora de la IATTC y se convertirá en Parte contratante de ésta más adelante, cuando entré en vigor el Convenio de Antigua, al que accedió Belice el 12 de junio de 2008, cuya entrada vigor está prevista en 2009. Belice 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. Todos los buques pesqueros de Belice con licencia para dirigir su actividad a los túnidos y especies afines en la zona del Convenio de ICCCAT son palangreros. El número total de palangreros atuneros que operaron en la zona del Convenio de ICCAT en 2006 ascendió a 11 en 2006 y a 12 unidades en 2007. Las capturas totales de túnidos y especies afines ascendieron a 201,52 t en 2006 y a 1.406,47 en 2007. El rabil sigue siendo la especie predominante, ya que respondió del 71% de la captura total en 2006 y del 83% en 2007. El tamaño medio de los buques de Belice en 2006 y 2007 se situó en 116 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, que incluyen datos de Tarea I y Tarea II y el número de buques pesqueros, se comunicaron a la Secretaría de ICCAT el 5 de mayo de 2008, dentro de los plazos especificados, y dicha información se resume a continuación. Belice sigue realizando un seguimiento, controlando y vigilando su flota pesquera en alta mar para garantizar que las actividades de estos buques cumplen plenamente su legislación y reglamentos nacionales (entre otros el Acta de pesca en alta mar de Belice de 2003 y las reglamentaciones disciplinarias), así como 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 I: Annual Fisheries Information

1.1 Annual catch by species, gear in the ICCAT Convention Area

The **Table 1** shows the annual catch and effort data by gear and species for the Belize long line fleet which operated in the ICCAT Convention Area over the past 2 years (Source: Fishing Logs and Fishing Vessel Voyage Reports).

As you will observe, yellowfin tuna has been the dominant catch specie. The catches have increased in 2007 because our vessels only commenced fishing in November 2006. Thus the catches in 2007 reflect a full year of operation.

Our catches for albacore, bigeye tuna and swordfish are within the quota levels set for 2007.

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

The Belize longline fishing fleet in 2007 in the ICCAT Convention area consisted of 12 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. We have not licensed any purse seine vessels to operate in this Convention Area.

Table 3 shows the area of operation of our tuna longline fleet during 2006-2007.

[3] Director General, International Merchant Marine Registry of Belize, Head Delegate of Belize to ICCAT.
[2] Fisheries Administrator, Fisheries Department, Head Scientist of Belize to ICCAT.

Table 4 shows our catches of non-target, associated and dependent species including sharks.

1.3 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. IMMARBE is dedicated to providing "an efficient, cost effective quality ship registration service and to enforce national laws and international Conventions which have been ratified by Belize in the interests of safety at sea and the protection of the environment." It is a Gold Corporate Sponsor of Belize's Audubon Society which became the first Belizean Member of the World Conservation Union, the world's largest environment organization based in Switzerland.

For your guidance, Belize has been placed on the IMO White List in November 2001. Since 2006, IMMARBE's Quality Management System which has attained accreditation to the new ISO 9001:2000 incorporates Fishing Vessel Administration and is audited annually by external auditors. Furthermore, its quality measures involving the de-registration of some 1,584 vessels of all types, the Port State Control 3 year rolling detention ratios for the Belize registered fleet have improved dramatically e.g. in the US Coast Guard from 23.08% in 2001 to 0.0% in 2005. As the result, in 2006 our Ship Registry (IMMARBE) qualified for the U.S. Coast Guard's Quality Shipping for the 21st Century (QUALSHIP 21) program. In 2007/2008, it re-qualified for this prestigious designation. It is one of the 14 Flag States Flag States/Ship Registries in the world holding this award in 2008 and the only one in Central America.

Section II: 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 sea or in port, plant checks, requesting the assistance of other Governments/Organizations as necessary. We do not currently have any at sea observer programs.

2.2 Research Activities

We do not currently conduct any 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 our format for such reporting, which includes a detailed Fishing Log and Fishing Vessel Voyage Report showing information regarding positions, time/dates, sets, catches by species including weights, start times, number of hooks, size etc., details of discards and by-catches etc., species unloaded, names of ports or details of transshipments (if any).

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

- Our operational effort level is verified by VMS. The coverage was 100% in 2007.
- Our operational catch level for 2007 was verified by mates' receipts and sales invoices and/or purchase contracts. This included species and size by weight in 2007. However, in 2008 we have introduced the requirement of measurement by length for 25% of the daily catches of each species.

PART II (Management Implementation)

Section 3: Implementation of ICCAT Conservation and Managements Measures

Details of our High Seas Fishing Act 2003 and our Fishing Vessel Licensing system were included in our Annual Report for 2005. All our fishing vessels which are operating in the ICCAT Convention Area are compliant with ICCAT Conservation and Management Measures as well as our national laws and regulations. Furthermore, there are no Belize registered fishing vessels on the IUU List of any RFMO worldwide.

3.1 Recommendations and Resolutions on Closed Seasons

- With regard to Recommendation 06-05 on Establishing a Multi-Annual Recovery Plan for Bluefin Tuna in the Eastern Atlantic and Mediterranean, paragraphs 14-16, we are not engaged in this fishery and none of our LSTLFVs have been licensed to target bluefin tuna in the Convention Area.

- With regard to Recommendation 06-06 Concerning the Western Atlantic Bluefin Tuna Rebuilding Program, paragraph 12, we are not engaged in this fishery and none of our LSTLFVs have been licensed to target bluefin tuna in the Convention Area.

- With regard to Recommendation 07-01 on Mediterranean Swordfish, paragraph 1, we are not engaged in this fishery and none of our LSTLFVs have been licensed to target Mediterranean Swordfish in the Convention Area.

3.2 Recommendations and Resolutions on Data and Minimum Size

- With regard to Recommendation 96-14 on the topic of Compliance in the Bluefin Tuna and North Atlantic Swordfish Fisheries paragraph 1; we have not licensed any vessel to target Bluefin Tuna in the Convention Area. With respect to North Atlantic Swordfish, whereas we have been allocated quotas for this species, we have not yet licensed or authorized any of our fishing vessels to target it in the Convention Area. However, we intend to do so, latest in 2009.

- With regard to Recommendation 97-01 to Improve Compliance with Minimum Size Regulations paragraph 2, during 2007 and prior years our fishing vessels were required to report size by weight. However, in 2008 we introduced the requirement of measurement by length for 25% of the daily catches of each species. Also, with regard to Paragraphs 2 and 3, none of our vessels are licensed to fish bluefin tuna in the Convention area.

- With regard to Recommendation 98-14 on the Application of Three Compliance Recommendations, on 29th September we submitted our completed ICCAT Reporting Table for 2008 together with Part I of our National Report.

- With regard to Resolution 01-16 on the Deadlines and Procedures for Data Submission and in accordance with Paragraph 1, our Task I and Task II as well as our list of fishing vessels licensed to operate in the Convention area were reported to the Secretariat on 5th May 2008 within the specified timeframe. In compliance with Paragraph 2, Part I of our Annual Report together with the relevant ICCAT Reporting Table on Compliance was submitted to the Secretariat on 29th September 2008.

- With regard to Recommendation 03-13 Concerning the Recording of Catch by Fishing Vessels in the ICCAT Convention Area, our fishing vessel Owners/operators are required to submit data of their fishing operations based on our format for such reporting which includes a detailed Fishing Log and Fishing Vessel Voyage Report showing information regarding positions, time/dates, sets, catches by species including weights, sizes by weight and length,, start times, number of hooks etc., details of discards, by-catches etc., species unloaded, names of ports or details of transshipments.

3.3 Resolutions and Recommendations on Capacity Limits

- With regard to Recommendation 93-04 on Supplementary Regulatory Measures for the Management of Atlantic Yellowfin Tuna, all our vessels which are currently licensed to target yellowfin tuna in the Convention Area have fished within the catch limits allocated to each vessel and in compliance with this Recommendation.

- With regard to Recommendation 98-03 on the Bigeye Tuna Conservation Measures for Fishing Vessels Larger than 24 meters length overall, paragraph 1 of this Recommendation does not apply to us because in accordance with paragraph 3 our catches are below 2000 t per annum.

- With regard to Recommendation 04-01 on a Multi-Year Conservation and Management Program for Bigeye Tuna, we caught less than 2,100 t in 2000 and consequently, in accordance with paragraph 7, paragraphs 2 and 4 of this Recommendation do not apply to us.

3.4 Resolutions and Recommendations on Statistical Documents

- With regard to Resolution 94-05 concerning the Effective Implementation of the ICCAT Bluefin Tuna Statistical Document Program (paragraph g), none of our vessels operating in the ICCAT Convention area are engaged in this fishery.

- With regard to Recommendation 01-21 Concerning the ICCAT Bigeye Tuna Statistical Document Program, we have issued Statistical Documents for exports of bigeye tuna caught in the WCPFC Convention Area by two Belize registered fishing vessels totaling 88,670 kg which were landed in Busan, Korea. We have not issued any statistical documents for the export of bigeye tuna to countries that are Members of ICCAT.

- With regard to Recommendation 01-22 Establishing a Swordfish Statistical Document Program we have issued Statistical Documents for exports of swordfish caught in the IATTC Convention Area by 10 Belize registered fishing vessels totaling 85,384 kg which were exported to Pontevedra, Malaga and Vigo in Spain.

  We have issued a Statistical Document for the export of swordfish caught in the ICCAT Convention Area by 1 Belize registered vessel totaling 21,060 kg which were landed in Montevideo, Uruguay.

  We have issued a Statistical Document for the export of swordfish caught in the IOTC Convention Area by 1 Belize registered vessel totaling 6000 kg which were landed in Singapore.

- With regard to Recommendation 07-10 on an ICCAT Bluefin Tuna Catch Document Scheme, as already stated, we are not engaged in this fishery.

3.5 Resolutions and Recommendations on other Measures Relating to Individual Species

- With regard to Recommendation 06-09 to Further Strengthen the Plan to Rebuild Blue Marlin and White Marlin Populations, none of our vessels target these species, nor have we caught any by way of bycatch.

- With regard to Resolution 03-10 on the Sharks Fishery (paragraph 2), we do minimize waste and discards from shark catches in accordance with Article 7.2.2(g) of the Code of Conduct for Responsible Fisheries. Furthermore, we only have two vessels targeting shortfin mako and blue shark. We have a NPOA-Sharks which complies with the Standards of the FAO – IPOA.

- With regard to Resolution 03-11 on Sea Turtles, we do encourage the release of marine turtles that are incidentally caught alive in our fishing activities generally and have commenced requiring specific data for the incidental by-catch of sea turtle. We have not received any reports in 2007 from any of our fishing vessels of any interaction with sea turtles.

- With regard to Resolution 03-04 relating to Mediterranean Swordfish, we have not licensed any of our fishing vessels to target Mediterranean Swordfish in the Convention area.

- With regard to Recommendation 05-05 Concerning the Conservation of Sharks caught in association with Fisheries Managed by ICCAT, we have reduced our catch of South Atlantic shortfin mako shark from 71 t in 2006 to 17 t in 2007 and of South Atlantic blue sharks from 423 t in 2006 to 236 t in 2007.

- With regard to Resolution 05-08 on Circle Hooks, currently, none of our vessels licensed to operate in the Convention Area utilize circle hooks.

- With regard to Resolution 06-08 on Fishing Bluefin Tuna in the Atlantic Ocean, we are not engaged in this fishery.

- With regard to Recommendation 07-06 on the Supplemental Recommendation by ICCAT Concerning Sharks, paragraph 3, we do not conduct any scientific research for North Atlantic shorfin mako and porbeagle shark in the Convention area neither do we catch these species.

3.6 Resolutions and Recommendations Concerning Trade Sanctions

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

3.7 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 we wish to re-state that in 2003, we successfully implemented VMS Reporting on all our fishing vessels which operate on the high seas, irrespective of their length. It is based on Inmarsat, utilizing Inmarsat C, Inmarsat Mini C and Inmarsat D+ equipment. Our provider is Pole Star Space Applications Limited who utilized an automatic, real time internet based service called Purplefinder Vessel Management Solutions. This reporting system complies with the aforementioned Recommendation. For example, the margin of error is +/- 20 meters with a confidence level of 99%.

- With regard to Recommendation 07-08 Concerning Data Exchange Format and Protocol in relation to the VMS for the Bluefin Tuna Fishery in the ICCAT Convention Area, as stated in our email of 8th April 2008 to the Secretariat, Belize does not have any fishing vessels which are licensed to target the abovementioned specie. Consequently, none of our vessels will be reporting under the system which you have implemented.

3.8 General Recommendations and Resolutions

- With regard to Recommendation 07-10, paragraph 7, we conduct Port Inspections for the purpose of ensuring compliance, surveillance on a regular basis or as a result of an investigation by: boarding at sea or in port, plant checks, observer teams, requesting the assistance of other Governments/organizations as necessary.

- With regard to Resolution 99-07 on Improving Recreational Fishery Statistics, this is practiced in our national waters. All fishing boats engaged in such activities are obliged to respect all our national fisheries regulations. The catches in any annual tournaments are reported by the organizers to the Fisheries Department. Belize is currently cooperating with OSPESCA in the production of a report on sports fishing. Also, in June 2008 we introduced our Yachting Codes which contain guidelines for recreational fishing both in national waters and on the high seas

- With regard to Resolution 01-18 to further define the scope of IUU Fishing, we have instructed all our vessel owners and operators and other concerned parties to refrain from engaging in transactions and transshipment of tunas and tuna-like species caught by vessels carrying out illegal, unregulated and unreported fishing activities, which include, inter alia, any fishing not in compliance with relevant ICCAT conservation and management measures in the Convention Area or in other areas. Furthermore, this is expressed as a condition in all our Licenses and authorizations.

- With regard to Recommendation 03-12 Concerning the Duties of Flag States in Relation to their Vessels Fishing in the ICCAT Convention area, we are fully compliant with the requirements in this Recommendation.

- With regard to Recommendation by ICCAT to adopt Additional Measures against Illegal, Unreported and Unregulated Fishing, these are contained in our ISO 9001 2000 compliant Quality Management System and will be reflected in our National Plan of Action for IUU which will be submitted to FAO shortly.

- With regard to Recommendation 06-11 Establishing a Program for Transshipment, we do 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, we have implemented a program to control transshipment at sea from fishing vessels to our 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, we have 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

– Our commitment and effective policies in combating IUU fishing are well known to all in the industry. In view of our achievements, in November 2007, the FAO requested us to write a case study on the reform of our fishing activities on the High Seas for use as a template to assist other developing nations. We were also invited/participated in the Expert Consultation on the Development of a Comprehensive Global Record of Fishing Vessels in Rome, Italy, 25th - 28th February 2008 and The Expert Workshop on Flag State Responsibilities in Vancouver, Canada – 25th-28th March 2008.

– We have submitted to the FAO our list of fishing vessels together with the information required per paragraphs 1 and 2 of Article VI of the FAO "Compliance Agreement". We are updating their records on a monthly basis. At the Expert Consultation on the Development of a Comprehensive Global Record of Fishing Vessels in Rome, Italy, 25th – 28th February 2008, Belize was commended for being the only party to fully comply with the reporting requirement in the FAO “Compliance Agreement”.

– We have submitted to all RFMOs in whose Convention areas our fishing vessels/refrigerated cargo vessels are operating, our catch and effort statistics/Transshipment Reports together with such other data and information as are required by their respective Resolutions. Apart from ICCAT, the other RFMOs are: IOTC, IATTC, NEAFC, WCPFC and SPRFMO which is in the process of being established.

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

Year	*Effort*	*N. ALB (t)*	*S. ALB (t)*	*YFT (t)*	*BET (t)*	*SWD (t)*	*Total*
2006	50061		54.43	143.04	4.05		201.52
2007	267511	21.	31.94	1164.13	60.16	128.46	1406.47

Table 2: Number of active longline fishing vessels licensed to operate within the ICCAT Area over a 2 year period.

Year	*Base Port*	*Operational status*	*LOA class (m)*	*GT class (t)*	*Major target species*
2006	TTO/Montevideo	Operational	20-(10 vessels) 30- (1 vessel)	50- (10 vessels) 300 – (1 vessel)	Yellowfin tuna Albacore Bigeye tuna Blue shark Mako Shark
2007	TTO/Montevideo	Operational	20- (11 vessels) 30- (1 vessel)	50- (11 vessels) 300 – (1 vessel)	Yellowfin tuna Albacore Bigeye tuna Blue shark Mako Shark

Table 3. Fishing patterns (catch by area).

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

Table 4. Estimated total catches (t) of non-target, associated and dependent species.

Year	*Blue shark*	*Mako shark*	*Sailfish*	*Blue marlin*
2006	421.81	71.22		
2007	236.45	17.44	12.07	3.78

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

B. Lester[1], S. Smith[2], J. Neilson[3], S. Campana[4], L. Hunt[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 2007 was 571.4 t. A total of 444 licensed fishermen participated in the directed bluefin fishery using rod and reel, handlines, electric harpoon and trap nets to harvest 491.7 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 2007 was 1296 t with landings reaching 1266 t. The tonnage taken by longline was 999 t while 267 t were taken by harpoon. Only 55 of the 77 licensed swordfish longline fishermen landed fish in the 2006 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 2007, other tunas accounted for nearly 18% of commercial large pelagic species landed. Yellowfin tuna (276 t) was the most important other tuna species landed, followed by bigeye and albacore. Porbeagle is the only shark species for which there is a directed longline fishery and catches were only 93 t in 2007. 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 have been 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 recently increased its long-term funding for large pelagics research, particularly for bluefin tuna. Enhanced research is planned for 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 are planned to augment those already completed off Georges Bank, targeting the foraging assemblage off the Grand Banks of Newfoundland. Canada also has an active research and stock assessment program on large pelagic sharks underway.

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 2007 s'est élevé à 571,4 t. Un total de 444 pêcheurs titulaires de licences ont participé à la pêcherie dirigée sur le thon rouge à la canne et moulinet, à la ligne à main, au harpon électrique et aux filets de madrague et ont capturé 491,7 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 1.296 t au titre de 2007, avec des débarquements atteignant 1.266 t. Le tonnage capturé à la palangre se chiffrait à 999 t, tandis qu'un volume de 267 t était capturé au harpon. Sur les 77 titulaires de

[1] Fisheries and Oceans Canada, Resource Management Branch, Ottawa, ON, K1A 0E6.
[2] Fisheries and Oceans Canada, Science, Biological Station, St. Andrews, NB, E5B 2L9.
[3] Fisheries and Oceans Canada, Science, Biological Station, St. Andrews, NB, E5B 2L9.
[4] Fisheries and Oceans Canada, Science, Bedford Institute of Oceanography, Dartmouth, NS, B2Y 4A2.
[5] Fisheries and Oceans Canada, Resource Management, Dartmouth, NS, B2Y 1J3.

permis de pêche de l'espadon à la palangre, seuls 55 ont débarqué du poisson en 2007. 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 2007, les autres thonidés constituaient près de 18% des débarquements commerciaux de grands pélagiques. L'albacore (276 t) était la principale espèce thonière dans les débarquements, suivie du thon obèse et du germon. Le requin-taupe commun est la seule espèce de requins pour laquelle il existe une pêcherie palangrière dirigée, comptant des captures de seulement 93 t en 2007. 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 ou non été capturé. 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 participé 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 de St Laurent à l'aide de la microchimie des otolithes. Le Canada a récemment accru son financement à long terme en faveur de la recherche sur les grands pélagiques, notamment sur le thon rouge. Des programmes de recherche approfondis sont prévus sur les déplacements et les migrations du thon rouge 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 devraient venir complémenter celles qui se sont finalisées 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 compte également un programme actif de recherche et d'évaluation des stocks de grands requins pélagiques, actuellement en cours.

RESUMEN

El atún rojo se captura en aguas canadienses de junio a noviembre, 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 canadienses para 2007 fue de 571,4 t. Un total de 444 pescadores con licencia participaron en la pesquería dirigida al atún rojo, utilizando caña y carrete, liñas de mano, arpones eléctricos y almadrabas para capturar 491,7 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 2007 fue de 1.296 t, con desembarques de 1.266 t. Los palangreros capturaron 999 t y 267 t se capturaron con arpón. Solo 55 de los 77 pescadores con palangre con licencia para pescar pez espada desembarcaron esta especie en la pesquería de 2006. 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 2007, los otros túnidos respondieron de casi el 18% de los desembarques de grandes pelágicos comerciales. El rabil (276 t) fue la especie desembarcada más importante, seguido del patudo y el atún blanco. El marrajo sardinero ha sido la única especie de tiburón objeto de una pesca dirigida con palangre, con unas capturas que se situaron en tan sólo 93 t en 2007. 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 han desarrollado

activamente estudios sobre determinación de la edad del atún rojo y el origen del atún rojo capturado en la parte meridional del Golfo de San Lorenzo, utilizando microquímica de otolitos. Recientemente Canadá ha incrementado su financiación a largo plazo destinada a la investigación sobre grandes pelágicos, especialmente para el atún rojo. Se ha programa un incremento de los trabajos de investigación centrados en las migraciones y el movimiento del atún rojo mediante campañas de marcado PSAT (sobre todo en zonas no cubierta por investigaciones anteriores) y en la supervivencia tras la captura y origen natal. Para el pez espada, se han programado estudios de marcado PSAT para complementar los que ya se ha realizado en las aguas del Banco George, centrados en la agrupación trófica de las aguas de los Grandes Bancos de Terranova. Canadá también está desarrollando actualmente un programa activo de investigación y evaluación de stocks sobre grandes tiburones pelágicos.

Part I (Information on Fisheries, Research and Statistics)

Section 1: Annual Fisheries Information

1.1 Bluefin tuna

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 the 2007 calendar year was 571.4 t. The Canadian nominal landings of Atlantic bluefin tuna in 2007 were 491.7 t **(Table 1)**. The 79.7 t shortfall from the 2007 fishery will be carried over in deriving the 2008 Canadian quota. (Canada also harvested 4.4 t of bluefin tuna under a charter for France, St. Pierre et Miquelon (SPM)).

All traditional bluefin tuna fishing areas produced catches of tuna in 2007 **(Table 2)**, however, some landings were not accompanied by geographic data at the required scale for dividing catch into individual fishing areas within western Nova Scotia. These data were classified as 'unspecified' in **Table 2**, and therefore, areas within the western Nova Scotia fishing area (with the exception of the St. Margaret's Bay trap fishery) must be considered a minimum. 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 2007 (280 t, or 57 % of total caught quota). The Gulf of St. Lawrence fish weighed about 341 kg (round), on average. Fish captured in the Hell Hole fishery weigh about 168 kg (round), on average.

Additional catches **(Table 2)** were also taken from the St. Margaret's Bay traps (4.9 t), from the rod and reel fishery off northeastern Nova Scotia (51t), and from coastal fishing areas off Halifax and Liverpool, Nova Scotia (23 t). Throughout the Scotian Shelf, 17 t were taken by electric harpoon. Again in 2007, catches on the Tail of the Grand Banks of Newfoundland were low (14t). The Newfoundland fishery has shown marked fluctuations in recent years, due primarily to decreased effort as a result of market considerations.

In 2007, 444 licensed fishermen participated in the directed bluefin fishery, one offshore longline licence was authorized to direct for other tuna with a small bluefin by-catch provision, and four fish-trap licence holders in St. Margaret's Bay used 7 bluefin tuna trap net 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 their own 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 2007 was 1348 t. Canada's adjusted quota for 2007 was 1296.2 t. Canadian nominal landings in 2007 were 1,266.2 t **(Table 1)**, resulting in an underage of 30.0 t. The 2007 dead discard estimate was 60.8 t which

will be deducted from the initial catch limit in 2009. (Canada also harvested 82.0 t of swordfish under a charter for SPM).

The Canadian tonnage taken by longline was 998.8 t (or 79 % of the catch), while 267.4 t were taken by harpoon **(Table 4)**. The mean round weight of fish caught by longline and harpoon was 70 kg and 101 kg, respectively **(Table 4)**. Only 55 of the 77 licensed swordfish longline fishermen landed fish in the 2007 fishery **(Table 4)**. This number is slightly higher than 2006 but is still lower than the mid-1990's when all, or nearly all, of the swordfish longline licenses were active **(Table 4)**. The reduced effort in recent years is a result of a combination of factors including the reduced quota, increased opportunities for fishing other species, relatively low market value, and the introduction of the ITQ system for this fishery. Although a total of 962 fishermen are eligible for harpoon licenses, only 76 were active in 2007 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 2007, however, the other tunas accounted for more than 18% 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 slightly from last year with 2007 landings reaching 276 t. Bigeye tuna and albacore landings were also down slightly from 2006 to levels of 141.6 t and 22.2 t respectively. (An additional 2.2 t of bigeye and 3.2 t of albacore was landed by the Canadian vessel fishing for SPM.) Fifty eight of the 78 licensed other tuna fishermen were active in 2007.

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 has been permitted to direct for other tunas and retain bluefin tuna by-catch under certain conditions in order to reduce dead discards. In addition, bluefin tuna vessels are authorized to catch and retain an incidental by-catch 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 by-catch 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 were down by nearly 50 percent over the previous year to a level of 93.1 t in 2007. Blue shark catches were also down to 1.1 t in 2007, while shortfin mako harvests remained relatively stable at 70.4 t **(Table 1)**. (An additional 1.4 t of shortfin mako was harvested by the Canadian vessel fishing for SPM.)

In 2007, 27 exploratory shark fishing licences were authorized to land porbeagle and/or blue shark, with all other sharks, including shortfin mako restricted to a by-catch **(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, there are also more than 1000 recreational shark licences that are 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 by-catch. 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. Enhanced research is planned for 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 are planned 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.

2.1 Bluefin tuna research

Highlights of the 2007 scientific research program at the Biological Station (St. Andrews) included the following activities:

1) Using funds from the Bluefin Year Program, a program of biological sampling of bluefin tuna in the southern Gulf of St. Lawrence was continued in 2007. Biological samples were collected from 22 giant bluefin tuna, and distributed to collaborating researchers (Smith *et al.* 2007). This activity continued in 2008, using national funding only.

2) Canada, along with several other ICCAT member countries, has been 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.* 2008).

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.

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 2007, when 8 fish were tagged off the Northern edge of Georges Bank. Additionally, two fish were tagged in the southern Gulf of St. Lawrence by that research team. In 2008, a further 18 bluefin were 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 at the time of writing.

5) In collaboration with researchers from Dalhousie University, Stanford University and the Prince Edward Island and the Gulf Nova Scotia Fishermens' 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.* 2008). For 2008, 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

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) 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 accepted for publication in *Reviews: Methods and Technologies in Fish Biology and Fisheries*. Since then, a further 19 swordfish have been marked and released off southwestern Nova Scotia in 2007. In 2008, in collaboration with the Nova Scotia Swordfishermen's Association, the research effort moved to the waters off the Grand Banks, where 9 swordfish were tagged. In this case, the fish were captured using longline sets of short duration, whereas harpooning had been used in the earlier studies. Fine-scale oceanographic data were also collected during the charter, allowing for an examination of catch (species and size) composition with respect to oceanographic features such as temperature fronts.

3) 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 2007 and 2008, and further development is expected in 2009.

4) Canada undertook a study of the foraging of swordfish in Canadian waters, in conjunction with staff of the Large Pelagics Research Centre at the University of New Hampshire. Data were collected from harpoon vessels that saved entire stomach contents, and by observers on board longliners, who used digital cameras to record stomach contents.

5) A Ph.D. student at Memorial University of Newfoundland and Labrador is in the second year of her dissertation research, examining patterns of by-catch in the Canadian pelagic longline fishery.

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 2007:

1) Implementation of a fishery-independent survey for porbeagles in Atlantic Canada. The survey used standardized methods and gear to provide a baseline estimate of population abundance and size composition against which future survey estimates can be compared. A second survey is planned for 2009.

2) Continuation of satellite tagging of porbeagles to locate 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) A study comparing the growth rate and age/size at maturity of the current porbeagle population with that present before the advent of commercial fishing was completed. The results indicate that growth has increased slightly, and that age at maturity has declined slightly, in response to lower current population density.

4) The collection of data to determine catch rate, size composition and sexual maturity of all sharks caught at recreational shark tournaments.

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.
6) Satellite tagging of blue sharks released at sea that were incidentally harvested during large pelagic fisheries for swordfish and tunas. The results are currently being analyzed to determine post-release survival rates.

7) A stock assessment and Recovery Potential Assessment was prepared for shortfin makos in Canadian waters.

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 also strongly promotes 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. Canada co-hosted (with ICCAT) a Workshop on the Precautionary Approach for Western Bluefin Tuna (Gavaris *et al.* 2008).

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. These plans are compiled 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 Conditions of License (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 2007 quota was set at 571.4t (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 2007 quota was set at 1374.9 t (see 1.2 above), and there is 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. In 1998 - 2007, 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 2007. A multi-year management plan for both swordfish and other tunas was published in 2005. 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 by-catch, 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 2007, 5% observer coverage (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 such that in certain 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 Document Programs for bluefin tuna, swordfish and bigeye. Programs for swordfish and bigeye tuna were introduced in 2003 for all exports.

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 Statistical Documents once copies are returned from Japan.

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 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.

References

Block, B.A., Lawson, G.L., Boustany, A.M., Stokesbury, M.J.W., Castleton, M., Spares, A., Neilson, J.D., and Campana, S.E. 2009. Preliminary results from electronic tagging of bluefin tuna (*Thunnus thynnus*) in the Gulf of St. Lawrence, Canada. Collect. Vol. Sci. Pap. ICCAT, 64(2): 469-479.

Gavaris, S., Hazin, F., Neilson, J.D., Pallares, P., Porch, C. Restrepo, V.R., Scott, G., Shelton, P., and Wang, Y. (editors). 2009. Proceedings of the Joint Canada-ICCAT 2008 Workshop on the Precautionary Approach for Western Bluefin Tuna. Collect. Vol. Sci. Pap. ICCAT, 64(2): 353-379.

Neilson, J.D. and Campana, S.E. 2008. A validated description of age and growth of western Atlantic bluefin tuna. Can. J. Fish. Aquat. Sci. 65: 1523-1527.

Secor, D.H., Wingate, R.L., Neilson, J.D., Rooker, J.R., and Campana, S.E. 2009. Growth of Atlantic bluefin tuna: direct age estimates. Collect. Vol. Sci. Pap. ICCAT, 64(2): 405-416.

Smith, S.C., Neilson, J.D. and Paul, S.D. 2008. 2007 Summary of ongoing Canadian bluefin tuna sampling activities supported by the ICCAT Bluefin Year Program. Collect. Vol. Sci. Pap. ICCAT, 62(4): 1202-1205.

Table 1. Canadian landings (tonnes round weight) of large pelagic fish species, 1997-2007.

Species	*1997*	*1998*	*1999*	*2000*	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*
Swordfish	1089.5	1115.1	1118.5	967.8	1078.9	959.3	1284.9	1203.3	1557.9	1403.6	1266.2
Bluefin tuna	504.5	596.0	576.1	549.1	523.7	603.7	556.6	536.9	599.7	732.9	491.7
Albacore tuna	30.8	23.2	38.8	121.7	51.0	112.7	55.7	27.1	52.1	27.3	22.2
Bigeye tuna	165.7	119.6	262.8	327.0	241.2	279.3	181.6	143.1	186.6	196.1	141.6
Yellowfin tuna	100.1	56.6	21.8	105.2	125.3	70.4	72.7	303.5	239.5	292.9	276.0
Unspec. tuna	0.0	0.0	0.0	0.5	0	.1	0.4	0.2	1.3	0.0	0.6
Blue shark	10.9	4.5	53.5	18.4	0.4	5.1	6.0	0.3	11.4	4.4	1.1
Shortfin mako	110.1	69.5	70.4	77.8	69.3	78.2	73.3	79.5	90.9	71.4	70.4
Porbeagle	1339.4	1007.8	958.2	902.3	498.6	236.6	142.4	231.5	202.2	192.2	93.1
Unspec. sharks	42.5	37.3	17.6	10.7	19.7	21.1	13.4	11.3	14.7	8.3	8.1
Marlin[1]	8.3	7.9	4.8	5.3	3.2	2.1	1.4	1.7	4.7	3.1	2.2

[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, 1996-2007.

Bluefin fishing area (west to east)	*1996*	*1997*	*1998*	*1999*	*2000*	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*
Western NS												
o Bay of Fundy	32	55	36	38	18	31	13	10	5	3	4	7
o Georges Bank									3	18	15	6
o Hell Hole	147	101	152	182	74	182	125	188	60	18	128	38
o SWNS (coastal)	60	84	106	93	113	61	114	28	40	0	101	23
o St. Marg's Bay	90	59	68	44	16	16	28	84	32	9	3	5
o Unspecified[3]									141	224	100	95
NE Nova Scotia	41	69	82	26	7	25	35	7	11	21	45	60
G of St. Lawren.	111	101	115	164	236	149	205	192	239	251	312	226
Newfoundland	95	30	21	10	71	51	68	33	5	26	11	14
Offshore	22	6	16	18	13	7	16	14	0.5	30	14	17
Year-end adj[1]	-	-	-	1	1	<1	<1	<1	-	<1	<1	<1
Total Landings	**598.0**	**504.5**	**596.0**	**576.1**	**549.1**	**523.7**	**603.6**	**556.6**	**536.9**	**599.7**	**732.9**	**491.0**
Discards[2]	-	6.0	16.3	10.7	46.0	13.2	36.9	14.0	14.6	0.0	2.0	0.72*
Canadian quota	*613.5*	*552.6*	*600.7*	*577.7*	*569.5*	*553.0*	*594.7*	*580.0*	*645.9*	*731.8*	*755.1*	*571.4*

[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 SCRS/1999/077).
[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 2007.

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	54	76	56	16	1059
St. Margaret's Bay[2]	24	7	-	-	-	-	-	-
Quebec	54	31	0	0	0	0	2	0
Total	777	444	77	55	78	57	28	1119

[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 1995-2007 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.

	1996	*1997*	*1998*	*1999*	*2000*	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*
Number of vessels landing fish												
Longline	77	60	49	53	61	63	46	44	45	48	51	55
Harpoon	112	105	109	66	92	84	71	89	86	86	78	76
Landings (t)												
Longline	646	1000	875	1101	873	957.6	922	1138[3]	1116	1365.0	1200.3	998.8
Harpoon	93	89	240	18	95	121.3	38	147	87	192.9	203.3	267.4
Total	739	1089	1115	1119	968	1078.9	959	1285	1203	1557.9	1403.6	1266.2
Discards (t) [1]	-	5.0	51.7	34.6	49.9	26.4	32.7	78.6	44.8	106.3	38.0	60.8
Average weight (kg)												
Longline	69	70	61	56	58	69	72	63	70	69	74	75
(# sampled)	(9077)	(14438)	(13447)	(19630)	(12991)	(13611)	(12859)	(17298)	(15368)	(20333)	(15541)	(14246)
Harpoon	161	131	126	109	111	102	117	108	121	117	108	102
(# sampled)	(561)	(652)	(1911)	(147)	(830)	(1287)	(413)	(1364)	(658)	(1646)	(2275)	(2327)
% small fish by number landed[2]												
<125 cm	3	5	3	3	3	2	<1	2	<<1	<<1	<<1	<<1
<119 cm	<1	2	<1	<<1	<<1	<1	<<1	<1	<<1	<<1	<<1	<<1
% of catch sampled	97	100	95	100	100	100	100	100	100	100	100	96

[1] Discarded dead from swordfish longline fishery: no estimates prior to 1997; 1997 actual tonnage observed by at-sea Observers; 1998-2006 estimate for entire fishery based on Observer coverage (see SCRS/1999/077).
[2] Minimum size under regulation in bold: <25 kg round weight or <125 cm LJFL with 15% tolerance (by number) from 1991- 1995, and again in 2006 Regulation changed to <119 cm LJFL with no tolerance from 1996-2003.

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

Vanda Monteiro

SUMMARY

The catch of tunas and tuna-like species in 2007 is estimated at 12,384 t. Tuna fishing is one of the oldest activities in Cape Verde and uses hand line gear in the artisanal fishery and pole and line in the industrial or semi-industrial fishery. This fishery has considerable socio-economic importance as it supplies the canneries and thereby helps reduce the trade deficit through exports, and employs a significant number of people who take part in this activity. Besides supplying the national market, tunas are exported fresh, frozen or canned. Billfishes are caught mainly in Cape Verde waters by sport fishing vessels. There is no directed shark fishery in Cape Verde, but often these are taken as by-catches with other species. Sport fishing was practiced very little but with the development of the tourist industry, there is an ever increasing demand for this activity. There is a need for the countries to regulate this fishing in order to better monitor this activity. The Cape Verde artisanal fleet, based on the last general census in 2005, is comprised of 766 vessels with outboard motors and 270 vessels without motors, with an average of three fishers per boat. There is also an industrial and semi-industrial fleet of about 80 larger vessels with inboard motors which carry an average of 12 fishers per vessel. There is a foreign fleet authorized to fish in the Cape Verde EEZ within the framework of fishing agreements (European Union and Asian vessels). Generally, the species caught by this fleet are sharks, bigeye tuna, swordfish and yellowfin tuna. Monitoring of the fisheries is one of the priorities of Cape Verde research aimed at studying the state of the tunas and to identify alternatives for their fishing. Due to various problems, the Statistical Bulletin, which should be published annually, has been delayed. Work to be carried out includes: (i)data improvement, with the support from the JDIP; (ii) periodic assessments of the state of the tuna stocks in the Cape Verde EEZ, with assistance from ICCAT experts; (iii) better monitoring and control of data quality of the foreign fleet; and (iv) periodic socio-economic studies on the fishery.

RÉSUMÉ

La capture des thonidés et espèces apparentées, en 2007, est estimée à 12.384 t. La pêche aux thonidés est une des plus anciennes au Cap-Vert, avec ligne à main dans le cas de la pêche artisanale et senneurs et ligne/canne dans la pêche industrielle ou semi-industrielle. Cette pêcherie est très importante en raison de son poids socio-économique, de l'approvisionnement des conserveries et la réduction du déficit de la balance commerciale à travers les exportations, outre le nombre important de personnes qui prennent part à cette activité. En plus du marché national, les thonidés sont dirigés vers l'exportation à l'état frais, congelé et en conserve. Les poissons de la famille Istiophoridae *sont pêchés principalement dans les eaux du Cap-Vert par des embarcations de pêche sportive. Au Cap-Vert, il n'existe pas de pêche dirigée sur les requins mais fréquemment on enregistre des captures accessoires avec d'autres espèces. La pêche sportive était, il y a quelques années, une activité peu pratiquée mais, avec le développement du tourisme, elle est devenue la cible d'une demande de plus en plus intense. Le pays a besoin de réglementer en la matière pour mieux gérer sa pratique. La flotte artisanale capverdienne est constituée, selon le dernier recensement général de 2005, de 766 barques avec moteur hors-bord, et 270 barques sans moteur, avec une moyenne de 3 pêcheurs/barque. À cela, on ajoute une flottille de pêche industrielle et semi-industrielle d'environ 80 embarcations, plus grandes, avec moteur intérieur et une moyenne de 12 pêcheurs/unité. La flotte étrangère munie de licence, opère dans la ZEE du Cap-Vert dans le cadre d'accords de pêche (embarcations de la Communauté européenne et d'Asie). D'une manière générale, les espèces les plus capturées par cette flotte sont les requins, les thons obèses, les espadons et les albacores. Le suivi pour connaître l'état des thonidés et identifier des alternatives a été une des priorités de notre recherche. En raison de diverses difficultés, le Bulletin Statistique des Pêches, qui est supposé être annuel, est en retard. On prévoit : (i) une amélioration des données, avec l'appui du Projet JDIP; (ii) la réalisation d'évaluations périodiques des stocks de thonidés, dans notre ZEE, avec*

l'aide des experts de l'ICCAT; (iii) un meilleur contrôle et suivi de la qualité des données de la flotte étrangère; (iv) mla réalisation d'études socio-économiques périodiques sur la pêcherie.

RESUMEN

La captura de túnidos y especies afines en 2007 se estimó en 12.384 t. La pesca de túnidos es una de las prácticas más antiguas de Cabo Verde, con liña de mano en la pesca artesanal y con cerco y liña/caña en la pesca industrial o semi-industrial. Esta pesca tiene gran importancia debido a su relevancia socioeconómica y al suministro a las conserveras. También es importante ya que reduce el déficit de la balanza de pagos gracias a las exportaciones y por el gran número de personas que participan en esta actividad. Fuera del mercado nacional, los túnidos se dirigen a la exportación en forma de producto fresco, congelado o en conserva. Los istiofóridos se pescan principalmente en aguas de Cabo Verde en embarcaciones de pesca deportiva. En Cabo Verde no existe pesca dirigida a los tiburones, pero frecuentemente se capturan de forma fortuita junto con otras especies. La pesca deportiva era una actividad poco practicada hasta hace poco, pero con el desarrollo del turismo se ha convertido en objeto de una demanda cada vez más intensa. El país necesita reglamentar esta actividad para gestionar mejor su práctica. La flota artesanal de Cabo Verde está constituida, según el último censo de 2005, por 766 barcos con motores fuera borda, 270 barcos sin motor, con una media de 3 pescadores por barco. Además, cuenta con una flota de pesca industrial y semiindustrial de cerca de 80 embarcaciones más grandes, con motor intraborda y una media de 12 pescadores por barco. La flota extranjera con licencia opera en la ZEE de Cabo Verde en el marco de acuerdos de pesca (embarcaciones de la Unión Europea y de Asia). De forma general, las especies más capturadas por la flota extranjera son los tiburones, patudo, pez espada y rabil. Una de nuestras prioridades en materia de investigación ha sido el seguimiento para conocer mejor el estado de los recursos de túnidos e identificar alternativas. Debido a varios problemas, el Boletín Estadístico de Pesca, que debería publicarse anualmente, ha sufrido un retraso. Se prevé: (i) mejorar los datos, con el apoyo del JDIP; (ii) realizar evaluaciones periódicas de los stocks de túnidos, en nuestra ZEE, con ayuda de expertos de ICCAT; (iii) realizar un mejor control y seguimiento de la calidad de los datos de la flota extranjera y (iv) realizar estudios socioeconómicos periódicos sobre la pesquería.

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

Le Cap-Vert est un archipel d'origine volcanique, constitué par dix îles, avec une ligne de côte de 1.020 km et une Zone Economique Exclusive (ZEE) de 734.265 km^2. Cette situation est favorable au développement de la pêche artisanale qui exploite plusieurs espèces pélagiques et démersales.

La pêche aux thonidés est une des plus anciennes au Cap-Vert, pratiquée avec la ligne à main dans la pêche artisanale et à la senne et ligne/canne dans la pêche industrielle ou semi-industrielle. Cette pêcherie représente une grande importance pour le pays, due à son poids socio-économique. Cela est dû à l'approvisionnement des conserveries et à la réduction du déficit de la balance commerciale à travers les exportations. De plus, en tant que secteur d'emploi, elle engage un nombre considérable de gens. Ce contexte socio-économique justifie largement le fait que l'accompagnement, l'état de la ressource et l'identification des alternatives de pêche soient des priorités de recherche au sein de l'Institut National de Développement des Pêches (INDP).

Au Cap-Vert, il n'existe pas de pêche dirigée de requins. En l'absence de séries de données statistiques officielles des captures, il faudrait admettre que les stocks se trouvent sous-exploités, mais on doit tenir compte de la fragilité des capacités nationales de fiscalisation et possibilités de captures étrangères non-déclarées dans la ZEE du Cap-Vert. De plus, les requins entrent fréquemment dans la composition des captures accessoires des palangriers. Dans la sous-région Ouest-Africaine, ces ressources sont intensément surexploitées, ce qui dégage une tendance à l'augmentation de l'effort de pêche dans la ZEE du Cap-Vert par des navires qui opèrent dans la sous-région.

La pêche sportive au Cap-Vert était une activité peu pratiquée mais, avec le développement du tourisme, elle est devenue la cible d'une demande de plus en plus intense. Le pays a besoin d'une règlementation plus claire et très développée en la matière, de façon à mieux discipliner l'exercice de cette activité, étant donné qu'il existe une certaine concurrence avec les pêcheurs artisanaux et aussi pour garantir une utilisation responsable des

ressources et des régions côtières. Il est nécessaire de clarifier les règlements et de discipliner l'activité, tout en assurant la protection de l'environnement marin et la durabilité des ressources.

Le Bulletin statistique des pêches, qui est supposé avoir une périodicité annuelle, connait depuis quelques années un retard dans sa publication. Dans ce contexte, le Cap-Vert se réjouit de l'appui accordé à l'Institut National de Développement des Pêches dans le cadre du Projet d'amélioration des données (JDIP).

Chapitre 1 : Information annuelle sur les pêcheries

La pêche thonière 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*).

Le niveau d'exploitation de la ressource ciblée par cette pêcherie est en-deçà du maximum soutenable pour que son exploration appropriée puisse représenter un axe important de développement de l'économie nationale.

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

1.1 Captures

La capture des thonidés et espèces similaires en 2007 est estimée à 12.384 tonnes (**Figure 1**). Les poissons de la famille *Istiophoridae* sont pêchés dans les eaux du Cap-Vert, principalement par les bateaux de l'Union Européenne (UE) et par la pêche sportive.

Les requins sont toujours présents dans les captures en tant qu'espèces accessoires, même dans des campagnes de recherche dirigées sur d'autres espèces. La flotte étrangère de palangriers de surface dispose de licence seulement pour pêcher des thonidés, le requin étant une pêche accessoire, malgré des captures aussi élevées.

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

1.2 Flotte et engins de pêche

La flotte artisanale Cap-Verdienne est constituée, selon le dernier recensement général de 2005, de 766 barques avec moteur hors-bord et 270 barques sans moteur, avec une moyenne de 3 pêcheurs/barque. À cela on ajoute une flottille de pêche industrielle et semi-industrielle d'environ 80 embarcations, plus grandes, avec moteur intérieur et une moyenne de 12 pêcheurs/unité.

Le nombre d'embarcations artisanales présente une tendance stable et le taux de motorisation s'est développé, atteignant 73% en 1999 et 74% en 2005. Les barques possèdent une capacité d'action et d'autonomie très réduite.

Les embarcations de pêche industrielle sont des unités de plus grandes tailles, plusieurs d'entre elles sont obsolètes, appartenant principalement à des opérateurs privés. Il s'agit majoritairement de thoniers, de senneurs et de langoustiers.

En 2005, l'INDP a recensé 3.108 pêcheurs, avec une tendance à la baisse.

1.3 Flotte étrangère

Dans le cadre des accords de pêche, il existe une flotte étrangère qui opère dans la ZEE du Cap-Vert (**Figure 2**). Les embarcations appartiennent, en majorité, aux pays de l'UE et à des pays asiatiques qui opèrent dans la région comprise entre 10º à 20º N et 20º à 30º W, y compris la ZEE du Cap-Vert.

L'analyse des demandes des embarcations étrangères autorisées montre qu'habituellement les thonidés sont l'espèce ciblée. D'une manière générale, les espèces les plus capturées par la flotte étrangère sont les requins, le thon obèse, l'espadon et l'albacore.

Les palangriers asiatiques pêchent essentiellement l'albacore et le thon obèse. Seules quelques embarcations déclarent les captures effectuées.

Chapitre 2 : Recherche et statistiques

L'objectif de la recherche est de formuler des recommandations pour une exploitation optimale et durable des ressources halieutiques, de façon à atteindre des objectifs économiques et sociaux établis dans les politiques de développement.

La responsabilité de toutes les questions relatives aux espèces de grands migrateurs au Cap-Vert incombe à l'INDP et à la DGP, ces deux institutions appartenant au Ministère de l'Environnement, du Développement Rural et des Ressources Marines (MADRRM).

La collecte des données statistiques des pêches est réalisée auprès des ports de débarquement, par des enquêteurs de l'INDP. Ces données sont ensuite digitalisées, traitées et analysées. Des échantillonnages de fréquences de taille sont réalisés pour toutes les espèces de thonidés pêchés au Cap-Vert.

Un Bulletin statistique est publié toutes les années mais pour des raisons diverses, ces dernières années sa publication a été retardée.

Le Cap-Vert fournit régulièrement des informations pour actualiser les statistiques et les évaluations de stocks au niveau de l'ICCAT. Il est prévu:

i) une amélioration des données, avec l'appui du JDIP;
ii) la réalisation d'évaluations périodiques des stocks de thonidés, dans notre ZEE, avec l'aide des experts de l'ICCAT;
iii) un meilleur contrôle et suivi de la qualité des données de la flotte étrangère;
iv) la réalisation d'études socio-économiques périodiques sur la pêcherie.

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 2006, a suspendu l'interdiction de capturer des exemplaires d'albacore et de thon obèse de moins de 3,2 kg. Il a également maintenu la réserve d'une région exclusive pour les activités de la pêche artisanale à l'intérieur des trois milles nautiques ainsi que l'interdiction pour la flotte étrangère de réaliser des activités de pêche à l'intérieur des 12 milles nautiques.

En ce qui concerne les requins, la pêche de requins à des fins uniques du prélèvement des ailerons nageoires est interdite dans la ZEE du Cap-Vert. Toute cette réglementation est incluse dans la Résolution 3/2005 du 21 février.

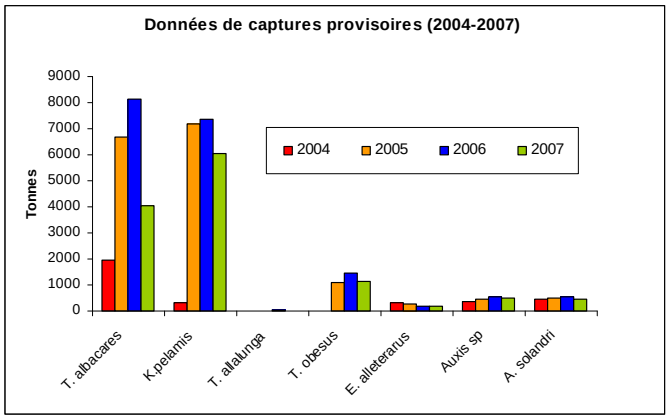

Figure 1. Données provisoires de captures, 2004-2007. (Source : B .E. INDP et Calvo Pesca).

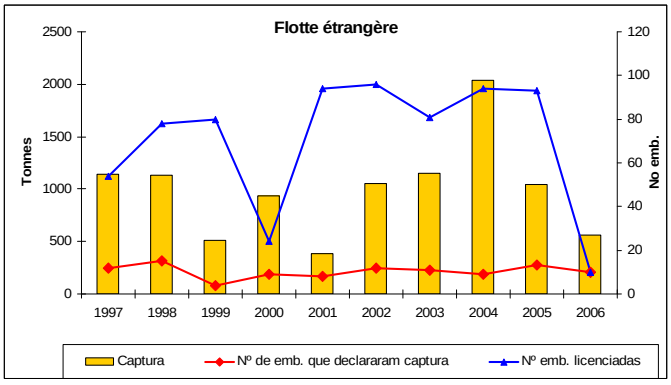

Figure 2. Flotte étrangère. (Source : DGP).

ANNUAL REPORT OF CHINA
RAPPOT ANNUEL DU LA CHINE
INFORME ANUAL DE CHINA

Song Liming, Zhu Guoping, 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-six (36) Chinese tuna longliners operated in 2007, with a total catch of 10,836.3 t (round weight) of tuna and tuna-like species, and sharks, which is more than that of 2006 (9,906.6 t). The target species were bigeye tuna and bluefin tuna, and their catches amounted to 7,399 t and 72 t, respectively, in 2007. Bigeye tuna was the major target species in the Chinese catch, accounting for 68.3% of the total, which was 199 t (2.8%) higher than that of 2006 (7,200 t). Yellowfin tuna, swordfish, and albacore were taken as by-catch. The catch of yellowfin tuna increased from 1,085 t in 2006 to 1,124 t in 2007. The catch of swordfish was 558 t, which represented a 59.6% increase from the previous year. The catch of albacore was 94 t, which represented a 221.3% 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 observers program for the tuna fishery in ICCAT waters since 2001. In 2007, one observer was dispatched on board a Chinese Atlantic tuna longline fishing vessel from December 2007 to April 2008. The observer 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. The observer collected data on target species and non-target species (particularly sharks, sea turtles). 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 Branch of Distant Water Fisheries 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 authorized Chinese fishing vessels operating on the high seas of the world's 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 Observers 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 2007 s'élevait à 36, avec une prise totale de 10.836,3 t comprenant des thonidés, des espèces apparentées et des requins (en poids vif), chiffre plus élevé qu'en 2006 (9.906,6 t). Le thon obèse et le thon rouge sont les espèces cibles, leurs prises ayant atteint respectivement 7.399t et 72 t en 2007. Le thon obèse était la principale espèce cible dans la prise chinoise, représentant 68,3% du total. Toutefois, la prise s'est élevée à 199 t (2,8%), chiffre plus élevé que celui de 2006 (7.200 t). L'albacore, l'espadon et le germon ont été capturés en tant que prise accessoire. La prise d'albacore a augmenté, passant de 1.085 t en 2006 à 1.124 t en 2007. La prise d'espadon s'est située à 558 t, soit une augmentation de 59,6% par rapport à l'année précédente. La prise de germon s'est élevée à 94 t, soit une réduction de 221,3% 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 2007, un observateur a été embarqué à bord de la flottille palangrière chinoise ciblant les thonidés dans l'Atlantique de décembre 2007 à avril 2008. L'observateur a travaillé à bord du navire de pêche pendant 4

[1] Shanghai Ocean University, 999 Huchenghuan Road, Lingang New Town, Shanghai 201306, P. R. China.

mois. 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 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, pêchant en haute mer dans les océans du monde. La flottille chinoise de pêche de thonidés en haute mer est tenue d'être équipée d'un système de VMS depuis le 1er octobre 2006. Le BOF respecte strictement le Programme national d'observateurs et le 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 seis (36) palangreros atuneros chinos operaron en 2007, con una captura total de 10.836,3 t, lo que incluye túnidos y especies afines y tiburones (en peso en vivo), captura que se sitúa por encima de la de 2006 (9.906,6t). Las especies objetivo fueron patudo y atún rojo, y sus capturas ascendieron a 7.399 t y 72 t, respectivamente, en 2007. El patudo fue la principal especie objetivo en la captura china, y respondió del 68,3% del total, sin embargo, se capturaron 199 t (2,8%) más que en 2006 (7.200 t). El rabil, pez espada y atún blanco se capturan de forma fortuita. La captura de rabil se incrementó pasando de 1.085 t en 2006 a 1.124 t en 2007. La captura de pez espada ascendió a 558 t, lo que supone un incremento del 59,6% en comparación con el año anterior. La captura de atún blanco se situó en 94 t, lo que supone un descenso del 221,3% 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 2007 se embarcó un observador a bordo de un palangrero atunero chino en el Atlántico desde diciembre de 2007 hasta abril de 2008. El observador trabajó a bordo del buque pesquero durante cuatro meses. 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 2007, 36 tuna longliners operated and caught 10,836.3t of tunas and tuna-like species in total, 929.7t more than that of 2006. The target species were bigeye tuna, and bluefin tuna, and took yellowfin tuna, swordfish, and albacore as by-catch. The highest CPUE of both bigeye tuna and yellowfin tuna occurred in the first quarter **(Figure 1 and 3)**. The lowest CPUE of bigeye tuna occurred in the third quarter in 2004, 2006, and 2007 and in the fourth quarter in 2005, respectively **(Figure 1 and 3)**. The lowest CPUE of yellowfin tuna occurred in the third quarter in 2004, 2005, and 2006, and in the fourth quarter in 2007, respectively **(Figure 1 and 3)**. It is indicated that the

CPUEs of bigeye tuna and yellowfin tuna in 2004 were the highest during the last four years (**Figure 1)**. In 2004, the fishing effort was highest in December and was the lowest in July **(Figure 2)**. In 2005, the fishing effort was highest during the fourth quarter **(Figure 2)**. Fishing effort was highest in the first quarter in 2006 and 2007 **(Figure 2 and 4)**. Fishing effort was lowest in the third quarter in 2004 and 2007 **(Figure 2 and 4)**. The monthly fishing effort in 2004 was the lowest of the last four years **(Figure 2)**.The fishing gear used was deep water longline, with 17-19 hooks per basket. The branch line was 49-53 meters long. The length of the main line between the two branch lines was 46-51 meters. **Table 1** shows the species composition of the catch in the total Atlantic since 2000. China submitted its Catch Reporting Tables to ICCAT for 2007.

1.1 Albacore

Albacore were caught as by-catch by the Chinese fleet in the Atlantic Ocean. The total Albacore catch in 2007 was estimated at about 94t, a 221.3% decrease from the previous year (302t); among which 59t were caught in the North Atlantic Ocean and 35t in the South Atlantic Ocean.

1.2 Bluefin tuna

The total catch of bluefin tuna by the Chinese longline fleet was 72t in the North Atlantic Ocean in 2007, with an increase from the previous year (42 t in 2006).

1.3 Tropical tunas

Tropical tuna in the statistics include bigeye tuna and yellowfin tuna in the Atlantic Ocean. The total catch of bigeye tuna in 2007 amounted to 7,399 t, which was 2.8% higher than that of 2006 (7,200 t), while the catch of yellowfin tuna was 1,124 t, which was 3.5 % lower than that of 2006(1,085 t).

1.4 Swordfish

The total catch of swordfish in 2007 was 558 t, which represent a 50% increase from the previous year (372 t). Of this amount, 85 t (72 t in 2006) were caught in the North Atlantic Ocean and 473t (300t in 2006) were caught in the South Atlantic Ocean.

1.5 Sharks

The total catch of blue shark and shortfin mako in 2007 amounted to 943 t and 157.3 t, respectively. The data were submitted to ICCAT for the first time in compliance with the ICCAT resolution.

Section 2: Research and Statistics

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

Size frequency data of main tuna species are scheduled to submit to the ICCAT Secretariat before the opening of stock assessment conducted in September 2008. In addition, scientific observer report shall be submitted to SCRS plenary in September 2008.

BOF required that all the fishing companies operating in the Atlantic Ocean must report their fisheries data on a monthly basis to the Branch of Distant Water Fisheries of China Fisheries Association (BDWF-CFA) and the TTWG in SHOU in order to comply with the catch limits. BOF also required fishing companies to report incidental catch of sea turtles and sea birds if their fishing boats happened to catch 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 and Implementation)

Section 3: Implementation of ICCAT Conservation and Management Measures

3.1 Catch quota and minimum size limit

In order to comply with the catch limits on bigeye tuna, eastern bluefin tuna, northern and southern swordfish, blue marlin and white marlin, adopted by ICCAT, the catch limits were allocated to the relevant fishing companies or fishing vessels by BDWF-CFA at the beginning of the year. BOF required that all the Chinese fishing companies operating in the Atlantic Ocean to report their catch data monthly to the BDWF-CFA and the TTWG in SHOU. If the catch was over the catch limit allocated to this company based on their monthly catch report, BOF would not issue the "Statistical Document" to this company unless this company submitted the amortization plan.

According to the statistics, the catch of Chinese tuna fleet in 2007 has not exceeded the quota adopted by ICCAT. The Chinese tuna fleet has strictly followed the minimum size criteria established by ICCAT for conservation and protection of juvenile tunas.

3.2 Tuna Statistical Document Program

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

3.3 Fishing vessel management

BOF began to implement the license system of distant water fishery in 2003. Chinese fishing vessels that intend to operate on the high seas must apply for a fishing license according to fishing license permit regulation since June 2003. As a responsible fisheries nation, China continually inputs more effort towards strengthening tuna fisheries management. The main measures taken include:

- Implementation of a fishing license system

BOF has issued "High Seas Fishing Permit" to all legal fishing boats operating on the high seas of world oceans. The "fishing permit" explicitly specifies the fishing area, main target species and quota, and fishing time permitted, so that the harbor nations can easily check these if the boat enters their harbor.

- Data collection and report system

BOF required that all fishing companies submit their fisheries data every month to the BDWF-CFA and TTWG in SHOU. A pilot logbook data submission system was initiated in IOTC waters three years ago. Detailed information about catch and fishing effort has been collected. In 2007, BOF required that all fishing boats should fill logbook and took into consideration the implementation of a logbook system by the fishing vessels or company as one of the main conditions for renewing the fishing permits and licenses

BOF was emphasizing to improvement of the data report system, and the submission of fisheries statistics to regional tuna fisheries management organizations as required.

- Implementation of the VMS program

BOF has implemented VMS program and requires that all the large scale tuna longliners must install the VMS equipments since Oct.1st 2006.

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 Pacific, Atlantic and Indian Oceans soon after. National observer program has been funded by Chinese Government.

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

A national scientific observer has been dispatched on board a Chinese Atlantic tuna longline fishing fleet since December, 2007. The observer had worked on board the fishing vessel for eight months. The area covered was 05°37′N ~ 12°01′N, 29°00′W ~ 36°51′W. The observer collected the data of target species and non-target species (sharks, sea turtles, especially).

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

References

Dai, Xiaojie and Xu, Liuxiong. 2004. National Fisheries Report of China in ICCAT water in 2003.

ICCAT. 2005. Reporting form for compliance in 2004. Party/Entity/Fishing entity: CHINA, People's Republic.

ICCAT. 2008. Report for biennial period, 2006-07 Part II (2007) Vol. 1

Song, Liming and Zhao, Liling. 2003. SCRS National Report of China in 2003. SCRS/NAT/007.

Song Liming, Xu Liuxiong and Dai Xiaojie. 2005. National Fisheries Report of China in ICCAT waters in 2004.

Song, Liming, Xu, Liuxiong, Dai, Xiaojie, Zhou, Yingqi. 2007. Annual Fisheries Report of China in ICCAT waters in 2005.

Zhou, Yingqi, Song, Liming, Xu, Liuxiong and Dai, Xiaojie. 2006. Annual Fisheries Report of China in ICCAT waters in 2005.

Table 1. Catch of tunas and tuna-like species (in round weight, t), 2000-2007.

Species	*2000*	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*
Bluefin tuna	79.6	68.1	39.1	19.3	41.0	23.7	42	72
Yellowfin tuna	1674.2	1055.8	696.7	1049.7	1305.2	1185.5	1085	1124
Bigeye tuna	6563.5	7210	5839.5	7889.7	6555.3	6200.2	7200	7399
Swordfish	365.6	302	513.2	669.1	333.6	199.2	372	558
Albacore	104.7	82.7	225.7	181.6	144.3	206.5	302	94
Skipjack	0	0	0	0	0	0	0	0
Blue Shark	----	----	----	----	----	----	----	943
Short mako	152.8	----	----	----	----	----	----	157.3
Blue marlin	23.2	91.6	87.8	88.5	58.4	96.3	99	65
White marlin	2.4	19.8	22.8	7.6	6.5	8.6	5.6	9.9
Sailfish	7.4	8.1	11.7	4.7	4.5	7.8	16	8.1
Other	234.2	532.4	590.3	137.4	173.1	1040.9	785	406
Total	9207.6	9370.4	8026.8	10048	8621.7	8968.7	9906.6	10836.3

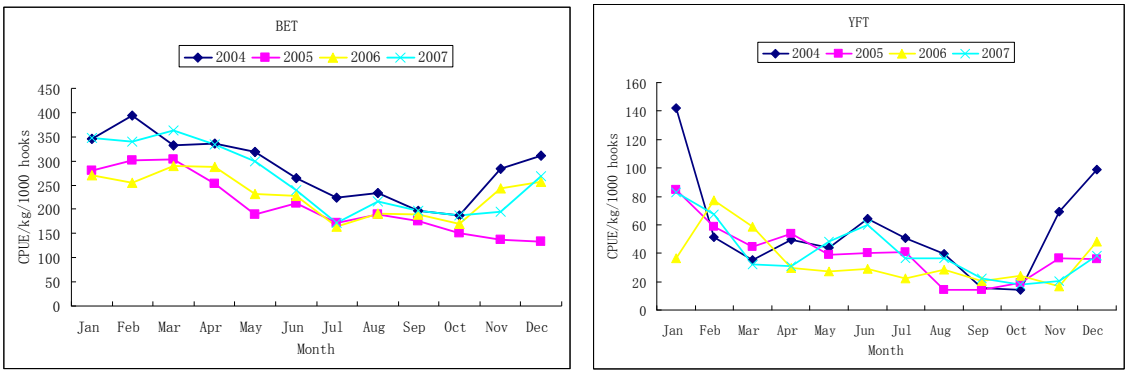

Figure 1. The monthly CPUE (kg /1000 hooks) distribution of bigeye tuna (left) and yellowfin tuna (right) caught by Chinese tuna longline fleet in the ICCAT waters from 2004 to 2007.

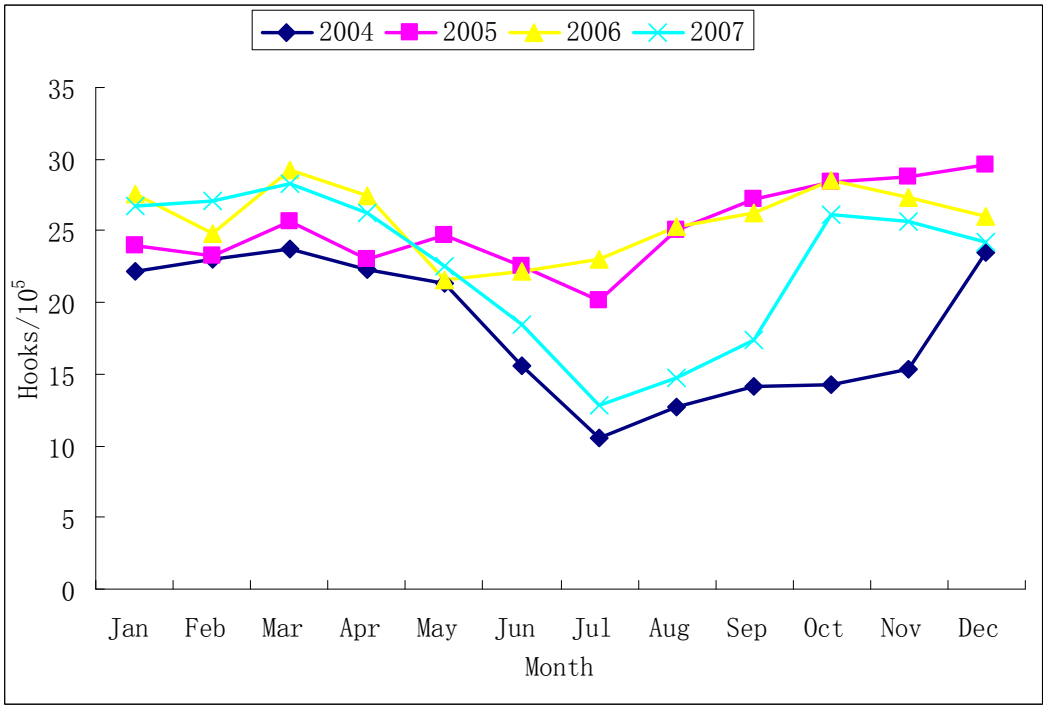

Figure 2. The monthly fishing effort (hooks) of Chinese tuna longline fleet in the ICCAT waters from 2004 to 2007.

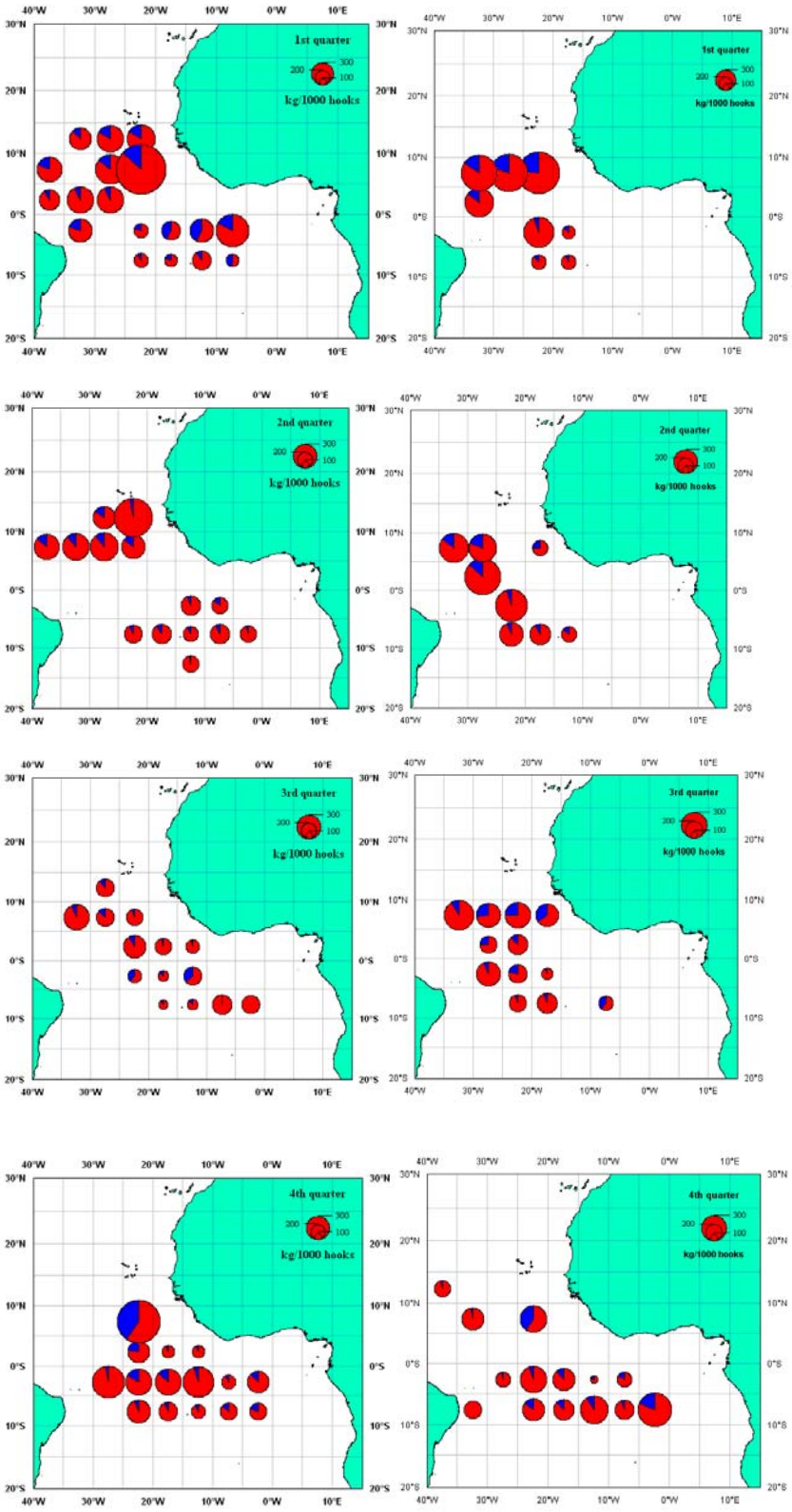

Figure 3. The CPUE distribution of BET (in red) and YFT (in blue) by 5º×5º and quarter in 2006 (left) and 2007 (right).

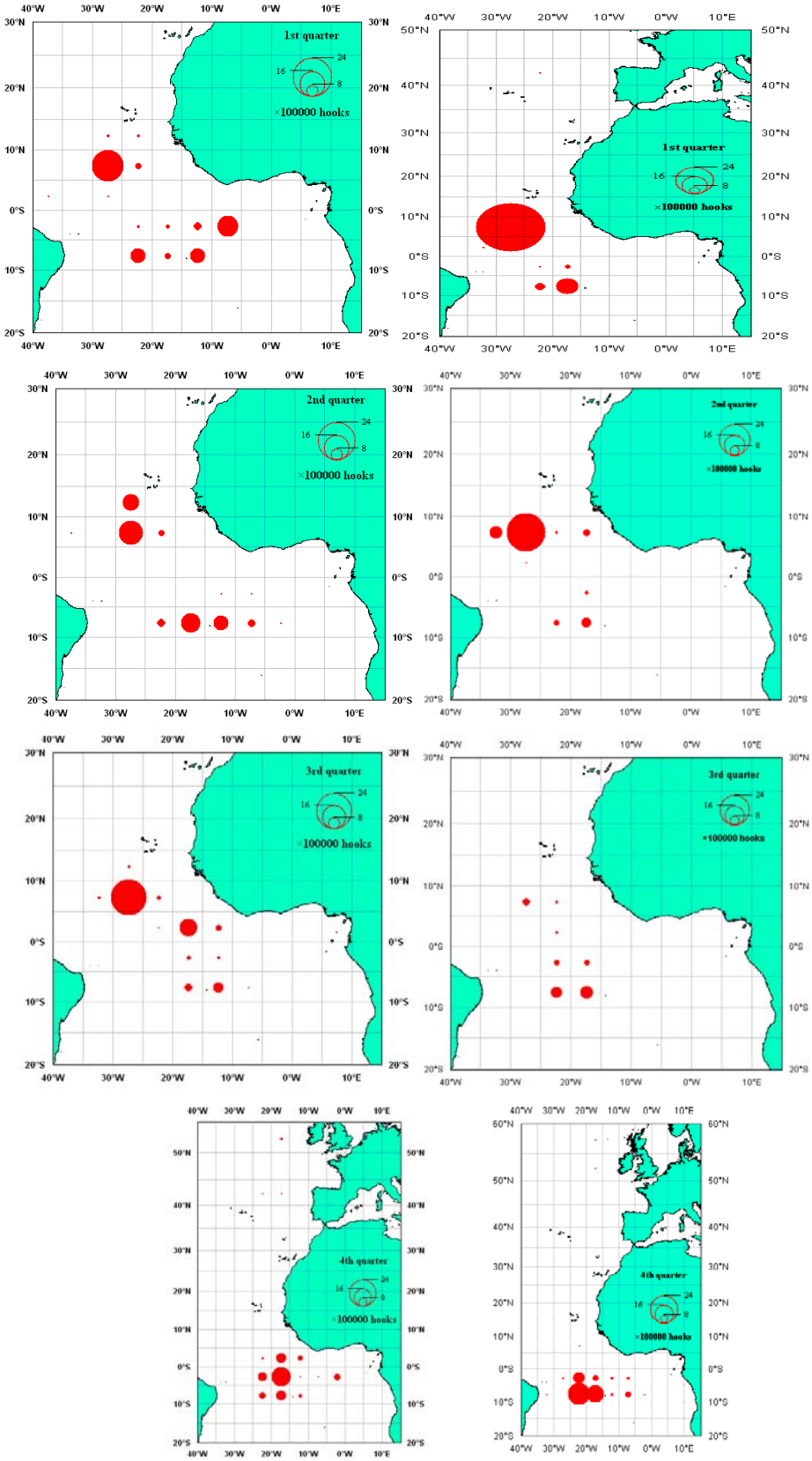

Figure 4. The fishing efforts distribution by 5º×5ºand quarter in 2006 (left) and 2007 (right).

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

N'Da Konan, Dédo Gnégoury René[1]

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

Chapitre 1 : Information annuelle sur les pêcheries

La Côte d'Ivoire dispose d'un réseau hydrographique dense composé de fleuves, rivières, retenues d'eaux hydroélectriques et hydro-agricoles, de plans d'eau lagunaire et surtout d'une zone littorale maritime de 550 km de long.

La pêche industrielle maritime, tout comme celle artisanale maritime, principales activités pratiquées dans la zone littorale, représentent au niveau national, une source d'alimentation pour la population, contribuent à l'édification du tissu industriel du pays, procurent de nombreux emplois et concourent à l'équilibre de la balance commerciale grâce aux exportations. Le présent rapport fait la synthèse des données relatives aux grands pélagiques, particulièrement les thons au port de pêche d'Abidjan, à travers les activités des thoniers (français, ghanéens, guinéens, espagnols et assimilés), celles des piroguiers aux filets maillants dérivants sur les côtes ivoiriennes.

1.1 La pêche industrielle

La Côte d'Ivoire, bien que dépourvue de thoniers, joue un rôle très important dans la gestion des thonidés de l'Atlantique. La recherche halieutique marine et lagunaire y est assurée par le Centre de Recherches Océanologiques (CRO) et le Laboratoire d'Environnement et de Biologie Aquatique (LEBA) de l'Université d'Abobo-Adjamé. Comme les années antérieures, au cours de l'année 2007, la pêche industrielle thonière a été suivie par le CRO en partenariat avec l'Institut français de Recherche pour le Développement (IRD) et l'Institut Espagnol d'Océanographie (IEO).

Les débarquements de thons au port de pêche d'Abidjan, durant l'année 2007, ont été essentiellement assurés par des senneurs français et espagnols. A ces bateaux se sont ajoutés ceux battant pavillon d'autres pays dont particulièrement le Ghana. Au total, 32 bateaux ont débarqué ou transbordé au port de pêche d'Abidjan en 2007 (**Tableaux 1** et **2**). Ces bateaux se répartissent comme suit : 17 espagnols, 6 français, 7 ghanéens et 2 de Guinée Conakry.

L'activité thonière au cours de l'année 2007 a donné pour toutes les flottilles confondues un résultat de 110.238 tonnes contre 142.482 tonnes de thons débarqués en 2006.

Parallèlement au thon des conserveries, les senneurs débarquent du thon destiné au marché local appelé communément "Faux Poisson" dont le tonnage de 2007 est de 23.647 tonnes. Cette quantité est supérieure à celles de 2006 (19.082 tonnes) et de 2005 (20.751 tonnes) (**Tableaux 3** et **4**). Ce faux poisson correspond aux thons refusés par les usines parce que trop petits, trop salés ou trop abîmés pour la transformation. Dans ces conserveries, l'on ne traite que l'albacore (*Thunnus albacares*), le listao (*Katsuwonus pelamis*), le patudo (*Thunnus obesus*) et le germon (*Thunnus alalunga*). Les prises accessoires constituent l'autre grande partie du Faux poisson. On y retrouve principalement l'auxide (*auxis thazard*), la thonine (*Euthynnus alletteratus*), le poisson banane (*Elagatis bipinnulata)*, le baliste, le barracuda et le thon blanc ou Wahoo (*Acanthocymbium solandri*). Au nombre des poissons porte-épée, il n'a pas été relevé d'espadon (*Xiphias gladius*) dans les prises accessoires. Les prises de marlin bleu (*Makaira nigricans*) et de voiliers (*Istiophorus albicans*) sont incluses au **Tableau 5**.

1.2 Les pêcheries artisanales

Une équipe de trois enquêteurs opère quotidiennement sur les deux sites de récolte de données. Sur le plateau continental ivoirien, il existe une pêcherie artisanale qui exploite les thons et autres grands pélagiques. C'est une

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

[1] Université d'Abobo-Adjamé/ 02 Bp 801Abidjan 02(Côte d'Ivoire). E-mail :ndakonanci@yahoo.fr ; Email : rymer_zak@yahoo.fr

pêcherie piroguière aux filets maillants dérivants qui a débuté en 1984. Depuis 1988, cette pêche artisanale fait l'objet d'un suivi régulier qui est actuellement amélioré dans le cadre du « programme Billfish » de l'ICCAT. Les principaux groupes de poissons débarqués sont : les istiophoridés (voiliers et marlins), les *Xiphiidés* (espadons), les requins et les petits thonidés. Les pêcheurs utilisent des pirogues qui pêchent de nuit au filet maillant dérivant à proximité d'Abidjan d'où ils peuvent facilement écouler leurs captures. La zone de pêche se situe à environ 5 à 10 milles de la côte au-delà du plateau continental qui est peu étendu. Le coup de filet dure une nuit et les poissons sont directement vendus chaque matin au port de pêche d'Abidjan et dans d'autres débarcadères annexes. Les espèces de poissons porte-épée débarquées, et de loin les plus abondantes, sont : marlin bleu (*Makaira nigricans*), marlin blanc (*Tetrapturus albidus*), voilier (*Istiophorus albicans*) et espadon (*Xiphias gladius*). Les requins composés essentiellement de requins soyeux (*Carcharhinus falciformis*), requins marteaux sans creux (*Sphyrna zygaena)*, requin marteaux avec creux (*S. lewini*) et requins makos (*Isurus spp*) viennent quantitativement en deuxième position (**Tableau 6**). Les thonidés tels que l'albacore (*Thunnus albacares*), le listao (*Katsuwonus pelamis*) l'auxide (*Auxis thazard*) et la thonine (*Euthynnus alletteratus*) sont accessoirement débarqués quand, de manière accidentelle, les gros poissons comme le patudo (*Thunnus obesus*), des raies manta (*Manta Spp*), des wahoo (*Acantthocybium solandri*), des coryphènes (*Coryphena sp)*, des tortues (*Chelonia mydas, dermochelys coriacea*) et quelques dauphins sont capturés par les pêcheurs artisanaux. Le **Tableau 7** contient les captures totales pondérales annuelles des grands pélagiques par la pêche piroguière au filet maillant dérivant.

1.3 Les conserveries

L'activité thonière au cours de l'année 2007 a donné pour toutes les flottilles confondues un résultat de 110.238 tonnes de thons. La réouverture de SCODI en 2006 a fait passer de deux à trois les conserveries opérant en Côte d'Ivoire ; les deux autres sont Castelli et Pêche Et Froid.

Comparativement à l'année 2005 (les chiffres de 2006 n'ayant pas été communiqués par l'UE), il y a eu une petite amélioration du résultat en 2007 au niveau des thons de conserveries et d'exportation (110.238 tonnes en 2007 contre 97.870 tonnes en 2005).

Chapitre 2 : Recherche et statistiques

Un travail régulier de suivi scientifique est effectué en Côte d'Ivoire. Ce suivi comprend le recueil des statistiques de capture et d'effort de pêche.

La Côte d'Ivoire, bien que dépourvue de thoniers, joue un rôle très important dans la gestion des thonidés de l'Atlantique. Son système repose sur une enquête détaillée par jour, auprès des patrons thoniers lors de chaque débarquement, complété par les captures effectives de diverses sources (usines, armements, manifeste du port). Ce travail de collecte des données, exécuté par sept enquêteurs et une opératrice de saisie est supervisé par un technicien supérieur halieute. Tous les renseignements sont saisis sous logiciel AVDTH, codés, et mis sous support informatique, puis centralisés après traitement, vérification et correction. La gestion des données se fait en collaboration avec l'IRD et l'IEO.

En pêche artisanale maritime, trois types de recueil de données sont exécutés : le recensement du parc piroguier et des engins de pêche, le relevé de l'effort de pêche et l'enquête portant sur les captures, sur les fréquences de taille et sur les prix. Compte tenu du manque de moyens financiers, le recensement de la flottille piroguière est concentré autour d'Abidjan. Il est mené par les enquêteurs de la pêche artisanale. Les informations collectées concernent les points d'attache et d'origine de la pirogue, l'équipage, l'activité, la puissance du moteur, les engins utilisés, etc. Le relevé de l'effort de pêche est effectué au niveau des deux principaux points de débarquement. Il est effectué par les trois enquêteurs (deux au quai principal et un au nouveau quai). A partir des enquêtes effectuées par ceux-ci et pour chaque quai, nous déterminons les captures spécifiques et les fréquences de taille.

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

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

Afin de mettre en œuvre les recommandations de l'ICCAT, la Côte d'Ivoire, prend de plus en plus, toutes les dispositions pour réglementer la pêche thonière dans sa ZEE. Entre autres dispositions, il y a l'établissement

d'un système de suivi, de contrôle et de surveillance de toutes les activités de pêche. Il y a également une inspection au port et l'identification de tout navire menant des activités de pêche illicites et ceci aux fins d'une gestion convenable de ses ressources halieutiques.

Chapitre 4 : Schémas et activités d'inspection

La Côte d'Ivoire dispose d'un schéma d'inspection mis en place au port. Tous les débarquements nationaux comme étrangers font l'objet d'un suivi et d'une inspection.

Tableau 1. Thoniers européens et assimilés et leurs caractéristiques.

Thoniers	*Pavillon*	*Type*	*Capacité*	*Année*
Albacora 10	Panama	Senneur	800 – 1200 T	1977
Albacora 9	Panama	Senneur	800 – 1200 T	1976
Albacora Caribe	Panama	Senneur	800 – 1200 T	1990
Alboniga	Espagne	Senneur	400 – 600 T	1988
Almadraba uno	Espagne	Senneur	600 – 800 T	1975
Avel Viz	Français	Senneur	400 – 600 T	1984
Bermeotarak Tres	Espagne	Senneur	800 – 1200 T	1988
Cap Saint Paul	France	Senneur	400 – 600 T	1982
Cap saint Pierre 2	France	Senneur	400 – 600 T	1979
Egaluze	Espagne	Senneur	400 – 600 T	1983
Galerna	Ant. Hol	Senneur	800 – 1200 T	1979
Germon	Maroc	Senneur	800 – 1200 T	1979
Kurtxio	Espagne	Senneur	600 – 800 T	1975
Matxikorta	Espagne	Senneur	600 – 800 T	1975
Montecelo	Cap Vert	Senneur	800 – 1200 T	1980
Montefrisa 9	Cap Vert	Senneur	800 – 1200 T	1984
Père Briant	France	Senneur	600 – 800 T	1974
Sant Yago Uno	Guatemala	Senneur	800 – 1200 T	1991
Sant Yago Dos	Guatemala	Senneur	800 – 1200 T	1993
Santa Maria	France	Senneur	400 – 600 T	1982
Txirrine	Espagne	Senneur	400 – 600 T	1971
Txori-Eder	Espagne	Senneur	600 – 800 T	1976
Via Harmattan	France	Senneur	600 – 800 T	1973

Tableau 2. Thoniers ghanéens et assimilés et leurs caractéristiques**.**

Thoniers	*Pavillon*	*Type*	*Capacité*	*Année*
Agnes N°1	Ghana	Senneur	800 – 1200 T	1975
Antilla	Ghana	Cargo	-	-
Aurora 2	Ghana	Cargo	3000 T	-
Bermeotarak Cuatro	Ghana	Senneur	800 – 1200 T	1980
Belouga	Guinée K.	Senneur	400 – 600 T	1974
Electra	Ghana	Cargo	1400 T	-
Marine 703	Ghana	Senneur	400 – 600 T	1974
Marine 707	Ghana	Senneur	400 – 600 T	1975
Mervent	Guinée K.	Senneur	400 – 600 T	1974
Panofi Master	Ghana	Senneur	600 – 800 T	1988

Tableau 3. Récapitulatif des résultats de l'année 2006 (t : tonne ; U : Usine ; FT : Faux thons).

Pavillons	*Marées*	*Thons Usines (t)*	*Faux thons (t)*	*Total (U+FT)*
Espagnols et assimilés	136	73.601	5.789	79.390
Français	52	23.264	1.365	24.629
Ghanéens et Guinéens	34	26.539	11.928	38.467
Total	**222**	**123.404**	**19.082**	**142.482**

Tableau 4. Récapitulatif des résultats de l'année 2007 (t : tonne ; U : Usine ; FT : Faux thons).

Pavillons	*Marées*	*Thons Usines (t)*	*Faux thons (t)*	*Total (U+FT)*
Espagnols et assimilés	143	76.425	7.556	83.981
Français	42	17.185	1.064	18.249
Ghanéens et Guinéens	19	16.628	15.027	31.655
Total	**204**	**110.238**	**23.647**	**133.885**

Tableau 5. Prises accessoires : captures des poissons porte-épée marlin bleu (*Makaira nigricans*) et de voilier (*Istiophorus albicans)* (en kg) de 2001 à 2007.

Année	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*
Marlin bleu	53.690	65.543	75.590	71.822	67.034	46.685	150.440
Voilier	12.257	23.177	18.032	6.835	12.207	14.754	51.930

Tableau 6. Captures annuelles (tonnes) de poissons porte-épée et requins par les filets maillants dérivants, en Côte d'Ivoire, de 1988 à 2007.

Années	*Effort effectif*	*Voiliers T. albicans*	*M. bleus M. nigricans*	*M.blanc T. albidius*	*Espadons X. gladius*	*Requins Divers*	*Total (tonne)*
1988	2.908	65,6	130,3	-	12,22		208,1
1989	2.430	54,5	82,0	-	6,77		143,3
1990	2.920	57,9	88,1	-	7,52		153,5
1991	4.981	38,2	105,1	-	18,02	55,7	217,0
1992	6.196	68,8	79,2	-	13,05	101,4	262,5
1993	7.707	39,5	139,5	-	14,42	90,1	283,5
1994	12.756	54,4	211,6	-	19,98	110,9	396,9
1995	14.141	66,3	176,7	-	18,78	106,6	368,4
1996	14.478	90,6	157,4	0,7	25,76	103,4	377,9
1997	12.874	65,1	222,1	1,8	17,66	91,1	397,8
1998	10.328	35,3	182,4	0,9	25,12	55,6	299,3
1999	15.244	80,1	275,5	5,4	25,72	58,1	444,8
2000	12.145	44,5	205,9	1,2	20,10	47,4	319,1
2001	13.994	47,0	196,0	2,4	18,90	68,4	332,7
2002	13.061	65,4	77,9	1,8	19,00	63,2	227,3
2003	27.464	121,0	109,0	3,0	43,00	101,4	377,4
2004	36.779	72,6	114,7	0,9	28,60	48,1	264,9
2005	20.395	93,03	107,0	1,0	31,00	73,0	305,03
2006	19.993	78,21	177,64	0,78	39,48	59,81	355,92
2007	14.698	51,93	150,44	0,82	17,41	75,81	296,01

Tableau 7. Captures annuelles (tonnes) de petits thonidés par les filets maillants dérivants en 2005 et 2007.

Année	*Total Sorties*	*Sorties enquêtées*	*Albacore*	*Listao*	*Thonine*	*Auxide*
2005	17.056	4.223	175,4	1.259,4	269,9	3,8
2006	19.396	18.698	482,44	1.565,3	298,3	170,5
2007	20.005	14.698	216,18	1.816,59	404,31	135,08

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

Vlasta Franičević [1], Vjekoslav Tičina[2]

SUMMARY

The total Croatian catch of tuna and tuna-like fishes in 2007 was 825.31 metric tons (t). 100% of the catch is comprised of bluefin tuna. Almost the entire catch have been caught by purse seine and transferred into floating cages for growing purposes. Only 8.45 t have been caught by handline and 0.31 t by longline. Additionally 1,139.21 t of bluefin tuna have been imported in Croatia in 2007 from France, Italy and Morocco for growing purposes. The number of licensed vessels actively fishing for tuna and tuna like species in 2007 was 39. During 2007-2008, within the framework of the ICCAT Bluefin Year Program (BYP), logistical efforts were made to increase the probability to spot and to collect conventional and electronic tags from bluefin tuna taken into bluefin farms in the Adriatic Sea. In addition, research on the influence of tuna aquaculture facilities on wild fish populations has been initiated. A national sampling program targeting bluefin tuna harvested from aquaculture facilities has been carried out in accordance with ICCAT Rec. 06-07. Within the framework of this sampling program, collection of Task II data has been done. The national statistical data collection system has been improved and an observer program at the bluefin tuna farms has been established. Inspection activities have been also been enforced. The Recommendation by ICCAT to Establish a Multi-Annual Recovery Plan for Bluefin Tuna in the Eastern Atlantic and Mediterranean [Rec. 06-05], the Recommendation by ICCAT on Bluefin Tuna Farming [Rec. 06-07], the Recommendation by ICCAT on Additional Measures for Compliance of the ICCAT Conservation and Management Measures [Rec. 06-15], the Recommendation by ICCAT on an ICCAT Bluefin Tuna Catch Documentation Program [Rec. 07-10], the Recommendation by ICCAT Concerning Data Exchange Format and Protocol in Relation to the Vessel Monitoring System (VMS) for the Bluefin Tuna Fishery in the ICCAT Convention Area [Rec. 07-08], and the Recommendation by ICCAT on Mediterranean Swordfish [Rec. 07-01] have been transposed to national legislation (Official Gazette No.26/07, No.30/07, No.123/07, No. 69/08 and No. 117/08).

RÉSUMÉ

La prise totale croate de thonidés et d'espèces apparentées s'est élevée en 2007 à 825,31 t. La totalité de la prise était constituée de thon rouge. Presque toute la capture a été réalisée à la senne et a été transférée dans des cages flottantes aux fins d'engraissement. Seules 8,45 t ont été capturées à la ligne à main et 0,31 t à la palangre. En outre, 1.139,21 t de thon rouge ont été importées en Croatie en 2007 en provenance de la CE-France, la CE-Italie et du Maroc aux fins d'engraissement. Le nombre de navires titulaires de licence pêchant activement des thonidés et des espèces voisines en 2007 s'élevait à 39. En 2007/2008, dans le cadre du Programme d'Année Thon rouge (BYP), des efforts logistiques ont été déployés en vue d'accroître la probabilité de détecter et de collecter des marques conventionnelles et électroniques sur des thons rouges capturés dans des établissements d'engraissement dans la Mer Adriatique. De plus, un programme de recherche a été lancé sur l'influence des établissements d'aquaculture de thonidés sur la population des poissons en liberté. Un programme d'échantillonnage national visant le thon rouge mis à mort dans les établissements d'aquaculture a été réalisé conformément à la Recommandation de l'ICCAT sur l'engraissement du thon rouge [Rec. 06-07]. Dans le cadre de ce programme d'échantillonnage, on a procédé à la collecte des données de la Tâche II. Le système national de collecte de données statistiques a été amélioré et un programme d'observateurs a été instauré dans des établissements d'engraissement de thon rouge. Des activités d'inspection ont également été instaurées. La Recommandation de l'ICCAT visant à l'établissement d'un

[1] Ministry of Agriculture, Fisheries and Rural Development, Directorate of Fisheries, Croatia, Ivana Mažuranića 30, 23000 Zadar, E-mail: mps-uprava-ribarstva@zd.htnet.hr
[2] Institute of Oceanography and Fisheries, Croatia, Šetalište I.Meštrovića 63, 21000 Split, E-mail: ticina@izor.hr

programme pluriannuel de rétablissement pour le thon rouge de l'Atlantique est et de la Méditerranée [Rec. 06-05], la Recommandation de l'ICCAT sur l'engraissement du thon rouge [Rec. 06-07], la Recommandation de l'ICCAT sur des mesures additionnelles visant à l'application des mesures de conservation et de gestion de l'ICCAT [Rec. 06-15], la Recommandation de l'ICCAT sur un programme de l'ICCAT de documentation des captures de thon rouge [Rec. 07-10], la Recommandation de l'ICCAT concernant un format et un protocole d'échange des données en ce qui concerne le système de surveillance des navires (VMS) dans la zone de la convention ICCAT pour la pêche du thon rouge [Rec. 07-08] et la Recommandation de l'ICCAT sur l'espadon de la Méditerranée [Rec. 07-01] ont été transposées dans la législation nationale (Bulletin officiel Nº26/07, Nº30/07, Nº123/07, Nº69/08 et Nº117/08.

RESUMEN

La captura total de Croacia de túnidos y especies afines en 2007 fue de 825,31 t. El 100% de la captura fue atún rojo. Casi toda la captura ha sido realizada por cerqueros y transferida a jaulas flotantes para su engorde. Sólo 8,45 t han sido capturadas con liña de mano y 0,31 t con palangre. Además, en 2007 se han importado a Croacia 1.139,21 t de atún rojo procedente de de Francia, Italia y Marruecos y destinado al engorde. El número de buques con licencia que pescaron activamente túnidos y especies afines en 2007 ascendió a 39 unidades. Durante 2007/2008, en el marco del Programa Año del Atún rojo (BYP) se han hecho esfuerzos logísticos para aumentar la probabilidad de detectar y recopilar marcas convencionales y electrónicas de atunes rojos llevados a instalaciones de engorde de atún rojo en el Adriático. Además, se ha iniciado una investigación sobre la influencia de las instalaciones de acuicultura de túnidos en la población salvaje. Se ha llevado a cabo, de conformidad con la [Rec. 06-07] un programa de muestreo nacional que se dirige al atún rojo sacrificado en las instalaciones acuícolas. En el marco de este programa de muestreo se ha realizado la recopilación de los datos de Tarea II. Se ha mejorado el sistema nacional de recopilación de datos estadísticos y se han establecido programas de observadores en las instalaciones de engorde de atún rojo. También se han realizado actividades de inspección. La Recomendación de ICCAT sobre el establecimiento de un Plan de recuperación plurianual para el atún rojo en el Atlántico este y Mediterráneo [Rec. 06-05], la Recomendación de ICCAT sobre medidas adicionales para el cumplimiento de las medidas de conservación y ordenación de ICCAT [Rec. 06-15], la Recomendación de ICCAT sobre el programa ICCAT de documentación de capturas de atún rojo [Rec. 07-10], la Recomendación de ICCAT respecto al formato y protocolo de intercambio de datos en relación con el sistema de seguimiento de buques (VMS) para la pesca del atún rojo en la zona del Convenio ICCAT [Rec. 07-08] y la Recomendación de ICCAT sobre el pez espada del Mediterráneo [Rec. 07-01] se han transpuesto a la legislación nacional (Boletines oficiales nº 26/07, 30/07, 123/07, 69/08 y 117/08).

Part I (Information on Fisheries, Research and Statistics)

Section 1: Annual Fisheries Information

Total Croatian catch of tuna and tuna-like fishes in 2007 was 825.31 metric tons (t). 100 % of the catch is comprised of bluefin tuna. Almost total catch have been caught by purse seine and transferred into floating cages for growing purposes. Only 8.45 metric tons (t) have been caught by handline and 0.31 t by longline. Additionally, 1139.21 t of bluefin tuna have been imported in Croatia in year 2007 from France, Italy and Morocco for growing purposes. The number of licensed vessels actively fishing for tuna and tuna like species in 2007 was 39.

Section 2: Research and Statistics

During 2007/2008, within the framework of the BYP, logistical efforts were made in order to increase probability to spot and to collect conventional and electronic tags from bluefin tuna taken into bluefin farms in the Adriatic Sea.

The national sampling program targeting bluefin tuna harvested from aquaculture facilities has been carried out in accordance with the *Recommendation by ICCAT on Bluefin Tuna Farming* [Rec. 06-07]. Within the framework of this sampling program, collection of Task II data has been done.

Croatia continues to support research activities related to tuna stock management. In addition, research on influence of tuna aquaculture facilities on wild fish population has been initiated.

The national statistical data collection system has been improved based on the *Recommendation by ICCAT to Establish a Multi-Annual Recovery Plan for Bluefin Tuna in the Eastern Atlantic and Mediterranean* [Rec. 06-05].

An Observer Programme has been established at bluefin tuna farms based on the Article 51 of Recommendation 06-05.

Part II (Management and Implementation)

Section 3: Implementation of ICCAT Conservation and Management Measures

The *Recommendation by ICCAT to Establish a Multi-Annual Recovery Plan for Bluefin tuna in the Eastern Atlantic and Mediterranean* [Rec. 06-05], the *Recommendation by ICCAT on Bluefin Tuna Farming* [Rec. 06-07] and the *Recommendation by ICCAT on Additional Measures for Compliance of the ICCAT Conservation and Management Measures* [Rec. 06-15] have been transposed to national legislation *Ordinance on Bluefin Tuna (Thunnus thynnus) Catch, Farming and Marketing* (Official Gazette No.123/07). Articles 8, 14 and 15 of the Recommendation by ICCAT 06-05 have been transferred into national legislation at the beginning of bluefin tuna fishing season (Official Gazette No.26/07 and 30/07) in order to establish measures regarding minimum size and closed season.

The *Recommendation by ICCAT on an ICCAT Bluefin Tuna Catch Documentation Program* [Rec. 07-10] and the *Recommendation by ICCAT on Mediterranean Swordfish* [Rec. 07-01] have been transposed to national legislation (Official Gazette No. 69/08 and No. 117/08). Provisions of the *Recommendation by ICCAT Concerning Data Exchange Format and Protocol in Relation to the Vessel Monitoring System (VMS) for the Bluefin Tuna Fishery in the ICCAT Convention Area* [Rec. 07-08] have been incorporated in the VMS system currently installed in Croatia, and preparatory activities are in place for the submission of records to the Secretariat in the pre-established format. Following overall activities on the VMS setup for all vessels over 15 m in Croatia, the system software is currently being tested for data transmission.

Section 4: Inspection Schemes and Activities

Following the internal changes within the state administration bodies responsible for stock management, inspection and control, Croatia is currently in the process of further strengthening of inspection services through acquisition of specialized inspection vessels and hiring of new personnel.

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

Damaso Mba Nsuga[1]

SUMMARY

Tuna fishing activities have been carried out in Equatorial Guinea since the 1980s. With regard to statistical data on the catches of tunas and tuna-like species, the collection of such data continues to be deficient. The Ministerio de Pesca y Medio Ambiente (Ministry of Fishing and Environment) and FAO are in negotiations to carry out a new assessment of the fishing resources in Equatorial Guinea waters. An artisanal marine area has been established at a distance of four nautical miles from the coast to try to conserve the spawning area of the species. The number of tuna vessels, mainly tuna longliners, that fish in the national fishing grounds has been limited (60) to avoid over-fishing.

RÉSUMÉ

L'activité de pêche des thonidés a été développée dans les années 1980 dans la République de Guinée équatoriale. En ce qui concerne les données statistiques de capture de thonidés et d'espèces apparentées, la collecte de ces données est toujours insuffisante. Le Ministère de la Pêche et de l'Environnement et la FAO sont en cours de négociation afin de réaliser une nouvelle évaluation des ressources halieutiques dans les eaux de la Guinée équatoriale. Une zone artisanale maritime a été établie à une distance de quatre milles nautiques de la ligne de marée basse afin d'essayer de favoriser la reproduction des espèces. Il a également été établi un nombre déterminé de navires thoniers (60), de préférence palangriers thoniers, qui opèrent dans les lieux de pêche du pays afin d'éviter la surpêche.

RESUMEN

En la República de Guinea Ecuatorial, la actividad de pesca de túnidos se desarrolla desde los años 80. En cuanto a datos estadísticos de captura de túnidos y especies afines, la recopilación de dichos datos sigue siendo deficiente. El Ministerio de Pesca y Medio Ambiente y la FAO están en negociaciones para llevar a cabo una nueva evaluación de los recursos haliéuticos en aguas de Guinea Ecuatorial. Se ha establecido una zona artesanal marítima a una distancia de cuatro millas náuticas de la línea de bajamar para intentar conservar la reproducción de las especies. También se ha establecido una cantidad determinada de barcos atuneros (60), preferentemente atuneros palangreros, que faenan en los caladeros del país para evita la sobrepecsa.

Parte I (Información sobre pesquerías, investigación y estadísticas)

Sección 1: Información anual sobre pesquerías

La actividad de pesca de túnidos en la República de Guinea Ecuatorial, se desarrolla desde los años ochenta (80) con el otorgamiento de licencias de pesca industrial atuneras a los armadores extranjeros, en el mar territorial y la Zona Económica Exclusiva cuya dimensión es de 314.000 Km^2. En el pasado año, 2007, el Ministerio de Pesca y Medio Ambiente, a través de su Dirección General de Recursos Pesqueros, otorgó un total de dieciocho (18) licencias de pesca industrial atunera a empresas extranjeras. En dichas empresas la captura principal según sus manifiestos, que envían a la Dirección General de Recursos Pesqueros, consiste en las siguientes especies:

[1]M.Sc. Ingeniero Superior de Pesca Industrial, Director General de Recursos Pesqueros, Ministerio de Pesca y Medio Ambiente, C/ Presidente Nasser-S/N, Malabo. E-mail: damabansuga@yahoo.es, Tel. +240 250 354, +240 631 629, Fax: +240 093 313.

YFT (Rabil), BET (Patudo), SKJ (Listado), FRI (Melva), SWO (Pez espada), BLT (Melvera), BON (Bonito atlántico), etc.

Sección 2: Estadísticas e investigación

La recopilación de datos estadísticos de captura de túnidos en nuestro país sigue siendo deficiente a pesar del apoyo del Proyecto de Mejora de Datos ICCAT/Japón, por falta de cuadros competentes en la materia, a pesar de que el Ministerio de Pesca y Medio Ambiente designó en su día un responsable de dichas actividades pero falta su iniciativa y propuestas al Ministerio para comenzar dichas actividades.

A través del Decreto nº 50/2005, de fecha 07 de marzo, se crea la Sociedad Nacional de Pesca Marítima de Guinea Ecuatorial (SONAPESCA). Dicha compañía está inoperativa por falta de medios de trabajo, en especial las embarcaciones de pesca, ya que actualmente está en proyecto de compra de ocho (8) barcos para la pesca de bajura y seis (6) para la pesca de altura.

No existe ninguna investigación realizada recientemente en nuestras aguas jurisdiccionales, estamos negociando una posible evaluación de recursos pesqueros en el mar territorial y la Zona Económica Exclusiva (ZEE) de nuestro país.

Parte II (Implementación de la ordenación)

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

No existe control a nivel de la pesca atunera artesanal por falta de medios y personal capacitados para realizar dichos trabajos, pero el Ministerio está realizando esfuerzos para implementar un sistema de control, seguimiento y vigilancia tanto para la pesca artesanal, como para la pesca semi-industrial e industrial de nuestro país.

En el año 2007, este Departamento Ministerial había dado dos (2) permisos de pesca deportiva cuyas capturas no se controlaban normalmente.

ANNUAL REPORT OF THE EUROPEAN COMMUNITY*
RAPPORT ANNUEL DE LA COMMUNAUTE EUROPEENNE
INFORME ANUAL DE LA COMUNIDAD EUROPEA

Part I (Information on Fisheries, Research and Statistics)

Section 1: Annual Fisheries Information

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 2007 was about 167115 tonnes (summary table in Annex 1)[1].

Chapter 1 of the EC national 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 and Implementation)

Section 3: Implementation of ICCAT Conservation and Management Measures

3.1 At 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) n° 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 41/2007 of 21 December 2006 fixing for 2007 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 and modified by Council Regulation 643/2007 as regards the Bluefin tuna Recovery Plan.

The Council Regulation (EC) 1559/2007 of 17 December 2007 which implements into Community law the above-mentioned Plan was also adopted in 2007 and was transmitted to ICCAT in January last. This regulation imposes additional obligations on the EC fleet in the implementation of the Plan.

The transposition of ICCAT Recommendation 07-10 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. The ICCAT Secretariat has received on 7 October 2008 the EC report on the implementation of ICCAT Recommendation 07-10.

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

1 The Annexes are available from the Secretariat.

Statistical Document Programmes

The information received from the Member States in the context of implementing these programmes, which indicated a clear interest in the correct application of the programmes, were transmitted to the ICCAT Executive Secretary so that they could be circulated to other ICCAT Parties.

This information concerned in particular the prohibition of landings of swordfish, justified by the non compliance with various provisions of the statistical document programmes.

Trade flows between other Contracting Parties have been identified, which could relate to the laundering of illegal tuna catches due to their specific features:

1) The fish is being imported for processing purposes under a false declaration of origin and its actual origin remains unknown,

2) The species declared on importation are not suitable for processing purposes,

3) The prices declared at the time of the importation are close to the prices of species which are submitted to ICCAT conservation and management measures,

4) Exports from the processing Contracting Party of processed fish (fillets) of unspecified species to another Contracting Party, which is the main market for unprocessed and processed products of the species referred to under 3.

The data on these trade flows have been provided to the ICCAT Secretary together with comments, as summarized above, in order to draw the attention of the Parties concerned."

3.2 Compliance

− Catch limits

In 2007, the European Community has in general respected all the catch limits adopted by ICCAT except for Bluefin tuna, swordfish, Blue and white marlin.

− Minimum size (see Annex 2 – Compliance tables)

The European Community overall respects the minimum size for bluefin tuna in Mediterranean, in particular in relation to farming activities.

With regard to swordfish, the number of under-size fish in catches exceeding the tolerance fixed by ICCAT has been reduced from the levels observed in precedent years. 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 1442 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 2007, 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.

- Bluefin Tuna Farming Report

In 2007, the European Community implemented the Recommendation by ICCAT on Bluefin Tuna farming. The Community data is included in Annex 6.

3.3 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.

3.4 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) n° 2847/93 of 12 October 1993 establishing a control regulation for the compliance with the common Community fisheries policy, EU Official Journal n° L261 of 20.10.93, 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 has also:

- Prohibited the use of driftnets to catch highly migratory species since 1 January 2002; obligatory Community log book,
- Established on-board scientific observer for long line vessels (juvenile catches),
- 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) 1185/2003, regarding the practice of shark fining,
- Adopted Council Regulation (EC) N° 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,
- Launched the consultation for a Regulation to prevent, deter and eliminate IUU fishing (Regulation adopted on 29 September 2008).

The European Community has also strengthened its control regime, centered on three main principles which it considers as priority issues: the improvement of post-landing controls, the control of third country vessels operating in Community waters and cooperation between the Member States and the European Commission.

Finally, the Community Fisheries Control Agency[2] has entered into force and become operational. The main tasks of the Agency is to organise operational coordination of fisheries control and inspection activities by the Member States and to assist them to cooperate so as to comply with the rules of the Common EU Fisheries Policy in order to ensure its effective and uniform application. Besides these core activities the Agency has horizontal attributions notably in the area of training of inspectors and inspection techniques and methodologies in view of harmonising the implementation of the Common Fisheries Policy at Community level.

As well as strengthening the effectiveness of control and monitoring, the Agency's activities will improve the flow of information between and among the Member States and the Commission. It will also lead to better relations between the EU and its international partners by centralising contact points and promoting more uniform control and inspection methods.

The establishment of the Agency does not affect this distribution of responsibilities. The Member States are primarily responsible for control and enforcement of the rules of the Common Fisheries Policy (CFP) whilst the Commission is responsible for the monitoring and enforcing of the correct application of these rules by Member States.

Section 4: Inspection Schemes and Activities

4.1 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.

4.2 Implementation and results (2007)

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;

[2] Regulation (EC) No. 768/2005 establishing a Community Fisheries Control Agency.

- 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.

In-port results:

- Atlantic: 259 inspections (10 infringements)
- Mediterranean: 88 inspections (35 infringements)

At sea results (patrol vessels in Mediterranean and four in Atlantic):

- Atlantic: 41 inspections including of other flags (7 infringements)
- Mediterranean: 29 inspections including of other flags (5 infringements)

Aerial surveillance:

- 281 in the Atlantic
- 210 in the Mediterranean

At the national level in Spain, inspection activities in 2007 were primarily focussed on bluefin tuna in the Mediterranean Sea and in the North Atlantic Ocean. Additionally, Spain has also concentrated on the control of swordfish 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.

Air controls: No infringements detected.

Landing controls: Landing controls were done in cooperation between the National marine, the CROSS and the land teams of control and special attention was given to minimum size, loogbooks. Some infractions were detected. Vessels were verbalized and sanctioned.

Statistical documents were controlled.

As regards at-sea inspections, it should be noted that one serious infringement was detected and appropriate investigations and follow-up were undertaken. Furthermore 34 vessels were verbalized.

The daily catch monitoring by the French authorities led to the closure of the bluefin tuna fishery in the Atlantic Ocean a being closed by decree of 27 August 2007.

Tropical tunas: To ensure the respect of the moratorium in the Gulf of Guinea during the period 1 to 30 November 2007 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 the following resources:

- Human, naval and aerial resources (numerous administrations),
- Significant development of the inspectors' training (specialization as regards fishing),

- 423 patrol vessels and 18 aircraft,
- 35,856 on-land inspections,
- 159,364 at sea inspections,

Portugal

- Human, naval (Navy), and aerial resources,
- In the continental area there were multiple at sea and at port inspections.
- 156 joint inspection missions undertaken (113 continental area, 20 Madeira, 23 Azores),
- The Azores Autonomous Regional authority undertook 410 inspections,
- Some infractions were detected and vessels were verbalized
- Landing controls (swordfish, tunas) through to marketing (minimum sizes, value, statistics, etc.); obligation to pass through the auction (fresh fish),
- Control of tuna consignments intended for the processing industry.

Greece

The control of fishing and trade of tunas is carried out by Port Authorities and particularly 156 inspection vessels and 7 aircraft were engaged in the controlling of fishing activities among other tasks.

In 2006, numerous inspections of fishing vessels took place by port authorities and as a result in two cases that all concern Greek fishing (no foreign fishing vessels caught fishing illegally in Greek waters). Administrative penalties and fines as well as a suspension of fishing activities for 30 days were imposed on two vessels for infringements.

The tuna farming was inspected and monitored by local and central services. The sampling data had been collected and declared.

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.

The fishing activities of vessels fishing under charter agreements for highly migratory species and sharks are monitored by MFA HQ and relevant port fisheries offices using a combination of the satellite Vessel Monitoring System and documentary checks of EC logbooks, landing declarations and sales notes.

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, 0 detected infringements,
- The Irish Air Corps CASA maritime patrol aircraft also carried out missions,
- Fishery patrols of the Irish Naval Service monitored 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.

Cyprus

During 2006, Cyprus deployed the following resources for monitoring and controlling fishing activities:

- Human resources: the Fisheries Inspectorate Service (22 Fisheries Inspectors), the Naval Service (10 persons) and a specialized personnel (two persons) which operates the Vessel Monitoring System.
- 6 patrol vessels.

During 2007, 1500 inspections on Cyprus vessels took place. There were no violations reported regarding illegal tuna fishing activities by Cyprus fishing vessels. Inspections were carried out of foreign fishing involved in Tuna farming harvesting activities.

Other Member States

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

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 2007 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 compliance with the binding provisions of Community legislation which includes, in particular, the ICCAT recommendations.

In 2007, the bluefin tuna was a top priority. Inspectors paid closer attention to the control of the vessels documents (logbook), the control of the catch record, the use of the statistical document and to the landing procedures and transport of the fish. Throughout the year, particular attention was paid to the detection of the juvenile bluefin tuna.
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.

Concerning bluefin tuna, all Member States of the European Community have established a specific catch data recording system, which allows the monitoring of the utilization of the catch quota.

Section 5: Other Activities

5.1 Satellite-based VMS established by the European Community

The European Community introduced a satellite based Vessel Monitoring System (VMS) in 1998. This system is applied to all vessels exceeding 15 metres in length overall since 1 January 2005.

More detailed information on the EC satellite based VSM was reported to ICCAT in the 2006 EC Annual Report.

5.2 Community financial assistance for fisheries control

The Community has been providing financial assistance to Member States for fisheries control since 1991. This policy is based on the fact that policing involves high costs, particularly on action at sea, and that such policing

in no few occasions involves co-operation amongst Member States, constant training needs, investment in technology and Information Technology (IT) networks and heavy expenditure on patrol vessels & aircraft used for control.

With this objective in mind, three Council Decisions have been adopted providing for Community financial support for Member States' expenditure on fisheries inspection (Decisions 89/631/EC, 95/527/EC and 2004/465/EC). Each decision provides for a financial envelope covering a multi-annual time-frame.

The Commission thereafter adopts each year a Decision on the eligibility of expenditure for the year concerned (providing for financial assistance for Member States that have foreseen expenditure on fisheries control in their yearly fisheries Control Programme)"

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

The total amount of catches taken from the ICCAT quotas allocated to France (on behalf of St. Pierre & Miquelon) amount to 110.8 t of tuna and tuna-like species for 2007. The quotas allocated to the islands do not permit the exploitation of a unit by local equipment, the French catches of tuna and tuna-like species are carried out by a chartered fishing vessel (30m longliners). However, as a result of a project for a polyvalent vessel under construction, fishing for the French quotas under French flag will commence in 2009. This vessel will target swordfish, albacore and bigeye and will catch more bluefin tuna as by-catch. Tuna fishing is regulated by means of fishing licences issued by the representative of France in the south of the islands. For artisanal island vessels (less than 12m), the licenses indicate the possibility of catching tunas only to prevent an excessive by-catch. In effect, local vessels have a limited sphere of action. Twelve vessels have been granted licenses to fish bluefin tuna on the available quota. This locat fleet activity, carried out in the waters under French jurisdiction by means of floating lines (a maximum of two hooks) for the local fleets, continues to be a traditional sideline activity (cod). No catches have been reported in 2007 for the species under ICCAT mandate in the exclusive economic zone of St. Pierre & Miquelon. Vessels are subject to catch declaration obligations and, at times, carry observers onboard. All the landings are monitored, as are all the total of products exported. France has control measures through several administrations (Maritime Affairs, Customs, Police, etc.). Fishing control campaigns, both at sea and on land are regularly carried out. Special attention is given, in particular, to the landings of tunas at the port of St. Pierre. The "Procès-verbaux" often established are transmitted 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 110,8 tonnes de thonidés et espèces apparentées pour l'année 2007. Les quotas attribués à l'archipel ne permettant pas 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 polyvalent est en construction et permettra à partir de 2009 d'exploiter les quotas français sous pavillon français. Ce navire ciblera l'espadon, le germon et le patudo et pêchera plus accessoirement du thon rouge. 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 capture de thonidés uniquement pour prévenir une exceptionnelle prise accessoire. En effet, les unités locales ont un rayon d'action limitée. Douze 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 2007 sur les espèces gérées par la CICTA dans la zone économique exclusive de Saint-Pierre et Miquelon. Les navires sont soumis à obligations de déclarations de 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'autorité judiciaire.

RESUMEN

En 2007, las capturas totales realizadas sobre las cuotas de ICCAT asignadas a Francia (en nombre de San Pedro y Miquelón) ascienden a 110,8 t de túnidos y especies afine. 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 2009, explotar las cuotas francesas bajo pabellón francés. Se dirigirá al pez espada, el atún blanco y el patudo y pescará atún rojo de forma accesoria. 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. Doce barcos han recibidos licencias para pescar atún rojo sobre 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 2007, 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 sont de 110,8 tonnes pour la campagne 2007. En 2006, les captures françaises totales de thonidés et espèces apparentées dans l'Océan Atlantique avaient été nulles. Elles s'élevaient à 64 tonnes en 2005 et à 87 tonnes en 2004.

Les quotas attribués à l'archipel ne permettent pas 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 2007, 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, 12 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 créées 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)

Aucune capture de thon rouge n'a été enregistrée en 2006 par les 12 navires titulaires de licences de pêche pour cette espèce.

La France, au titre de Saint-Pierre et Miquelon, disposait pour l'année 2007 d'un quota global de 16,8 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 2,8 tonnes en 2007. Ainsi, conformément à la recommandation [06-06], la France devrait disposer d'un quota de 18 tonnes pour la campagne 2008.

1.2 Germon (stock de l'Océan Atlantique nord)

Le quota français 2007 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 10 tonnes en 2007 (nulles en 2006 – 2,12 tonnes en 2005 – 7,06 tonnes en 2004).

Compte tenu des possibilités de reports de captures, ce quota sera de 300 tonnes en 2008.

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 et 2008. Suite à une demande de la France, acceptée par la CICTA, de révision du calcul de ses reports de sous-consommation, le quota 2007 était fixé à 92,7 tonnes.

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 48,46 t en 2005 et 35,65 t en 2004, ainsi qu'un report de 13,25 t de 2004 à 2006 et 18,74 t de 2005 à 2007.

Les captures 2007 se sont élevées à 98 tonnes. Le quota 2008 sera de 94,4 tonnes.

1.4 Autres espèces

Les autres espèces généralement capturées à la palangre sont le thon obèse (5,7 t en 2005, 28,3 t en 2004) et les requins (2,6 t en 2005, 7,01 t en 2004). Conformément à la mesure de gestion en vigueur (2004-01), 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 2007 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 valable du 29 mai 2008 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 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 Secrétaire 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.

Les captures n'étant pas intégralement débarquées en France, la France ne dispose pas de la totalité des déclarations dans ce type de montage. Ainsi, la rédaction de la tâche II est 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 aux navires de pêches 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 limitée 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 déclarations de captures et embarquent également ponctuellement des observateurs à leur bord. Compte tenu de l'exiguïté de l'archipel, tous les débarquements font l'objet d'un contrôle, de même que la totalité des produits exportés.

Chapitre 4 : Schémas et activité d'inspection

La France dispose de moyens de contrôle de 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'autorité judiciaire.

4.1 Bilan des contrôles effectués en 2007 :

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

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

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 seiners fishing off the EEZ of Ghana exploit these tuna species. Other minor tuna-like species, particularly black skipjack (*Euthynnus alletteratus*) are also exploited by the fleets. The total number of vessels registered to fish for tuna resources within the EEZ of Ghanaian waters is 30, comprised of 20 baitboats and 10 purse seiners. Some of these vessels (i.e. baitboats) have changed ownership and names but are still Ghanaian registered. The Marine Fisheries Research Division (MFRD) of the Ministry of Fisheries is the government agency responsible for tuna research and statistics in Ghana.

Section 2: Research and Statistics

2.1 The resources

During the year under review, skipjack catches have been the most abundant followed by yellowfin and bigeye, respectively. Tuna baitboats use anchovy (*Engraulis encrasicolus*) and other small pelagics as bait for their operations. In addition, both fleets employ large numbers of Fish Aggregating Devices (FADs) in capturing the resources whilst collaborating with each other and often sharing the catch during fishing operations. This collaborative action has been the norm since the late 1990s.

2.2 Catches

Catches of the tuna species in 2007 rose to approximately 68,000 t from 51,510 t in 2006. This increase of approximately 22.5% can be attributed to the increase in nominal effort (i.e. days at sea) from 3,736 in 2006 to 5,653 in 2007 and also the numbers of FADS deployed in the year. Purse seiners and baitboats contributed 64.4% and 35.6% of the overall catch, respectively. Skipjack landings were 68%, yellowfin 19%, and bigeye 13% **(Table 1, Figure 1)**.

In the year under review, yellowfin catches dropped by 4% from the previous year. However, percentage increases were observed for bigeye (29%) and skipjack (31%), respectively.

2.3 Research and statistics

Port sampling of the three major species of tuna was carried out at Tema to determine, among others, length frequency distribution to be used for stock assessment purposes. Data (Task I, II and III) for 2007 were duly forwarded in July 2008 to ICCAT during the Joint Yellowfin and Skipjack Stock Assessment Session in Florianopolis, Brazil. Logbook recovery has improved with the introduction of the new AVDTH program introduced by the ICCAT/Japan Data Improvement Project (JDIP) in 2005.

An observer program to monitor catches of the various fleets harvesting tunas in Ghana was carried out between the months of August and October 2007. Observations indicated that higher catch rates were seen from purse seiners fishing off FADs. However, the majority of fish sampled were off FADs and relatively small (40-65cm) with fishing was concentrated within a narrow strip off the eastern Gulf of Guinea. Efforts to reduce further

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

mortality rates of small fish caught off FADs are been addressed from analysis of the recent area-time closure initiated by ICCAT.

2.4 Billfish Program

Beach sampling of billfishes continued off the western coast of Ghana. Catch (t) and effort (trips) data were collected.

Table 1. Baitboat and purse seine landings (t) for the years 2006 and 2007.

Gear/Species	*Yellowfin tuna*		*Skipjack tuna*		*Bigeye tuna*	
Year	*2006*	*2007*	*2006*	*2007*	*2006*	*2007*
Baitboat	7,200	5,540	17,339	15,423	4,288	1,720
Purse seine	5,540	7,415	15,423	30,285	1,720	2,914

Table 2. Catch data (t) for sailfish, for the year 2002-2004, adjusted during the Sailfish Data Preparatory Meeting in May 2008. Data are shown below.

Year	*Old value*	*New value*
2002	592	529
2003	566	551
2004	521	503

2007	*Jan*	*Feb*	*Mar*	*Apr*	*May*	*Jun*	*Jul*	*Aug*	*Sept*	*Oct*	*Nov*	*Dec*	*Total*
SAI	124.22	58.83	2.77	8.17	7.84	18.26	0.61	0.90	2.33	7.05	13.33	165.49	420
BUM	14.98	16.76	13.95	20.89	16.47	14.79	21.25	14.36	10.80	20.62	398.16	119.91	683
SWO	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
WHM	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	11,133	13,582	1,755	2,094	2,428	9,473	1,363	1,526	3,621	2,594	2,564	18,128	70,201

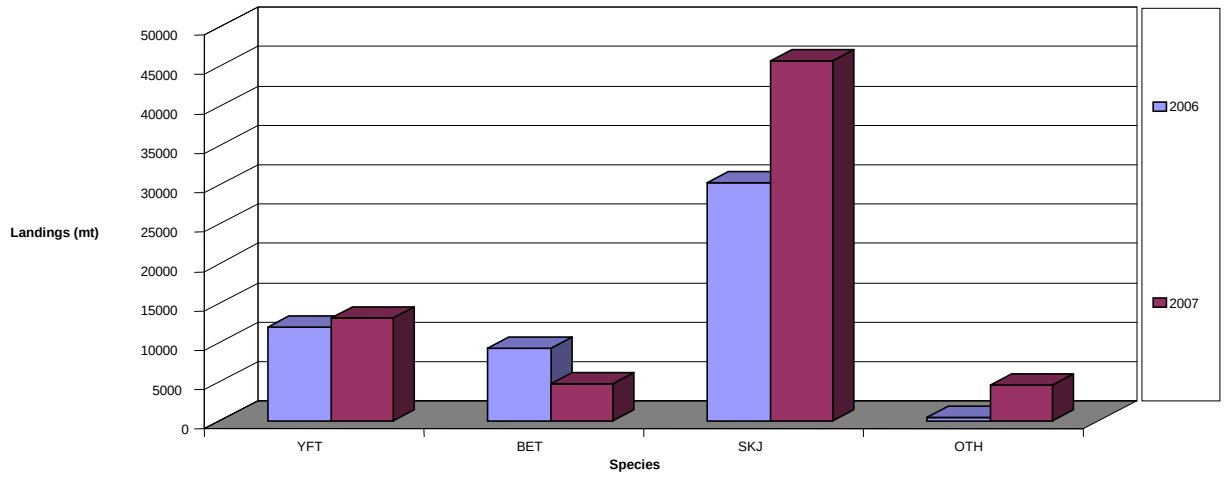

Figure 1. Comparison of landings of the principal tuna species, 2006-2007.

ANNUAL REPORT OF ICELAND
RAPPORT ANNUEL DE LA ISLANDE
INFORME ANNUAL DE ISLANDIA

SUMMARY

In 2007 there were no bluefin tuna fisheries by Icelandic vessels. 2008 was the first year that Icelandic vessels fished actively for eastern bluefin tuna. Only one vessel applied for a license to fish the Icelandic quota of 51.53 tons in 2008. The vessel fished jointly with Libyan vessels a total of 50 tons in the Mediterranean Sea. The catches were transferred live to a Turkish farm facility. 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 or re-exports of bluefin tuna to or from Iceland in 2007 or the first half of 2008.

RÉSUMÉ

En 2007, les navires islandais n'ont pris part à aucune pêcherie de thon rouge. C'est en 2008 que les navires islandais ont pour la première fois activement pêché le thon rouge de l'Est. Seul un bateau a sollicité une licence pour pêcher le quota islandais de 51,53 t en 2008. Le navire a pêché conjointement avec des navires libyens un total de 50 t en Méditerranée. Les prises ont été transférées vivantes dans un établissement d'engraissement turc. 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 ni de réexportation de thon rouge à destination ou en provenance de l'Islande en 2007 ni au cours du premier semestre de 2008.

RESUMEN

En 2007, los buques islandeses no capturaron atún rojo. El año 2008 fue el primer año en el que los buques islandeses pescaron activamente atún rojo del Este. Sólo un buque solicitó una licencia para pescar la cuota islandesa de 51,53 t en 2008. El buque pescó conjuntamente con buques libios un total de 50 t en el Mediterráneo. Las capturas se trasfirieron vivas a una instalación de engorde turca. 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 realizadas por otras pesquerías comerciales. Ni en 2007, ni en la primera mitad de 2008 se produjeron importaciones o reexportaciones de atún rojo 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 2007. The Icelandic catches of eastern bluefin tuna in 2008 were 50 tons. This was the first year that Icelandic vessels fished for the Icelandic quota that amounted to 51.53 tons. Only one vessel applied for a license the vessel fished jointly with Libyan vessels in the Mediterranean Sea. The catches were transferred live to a Turkish farm facility.

Section 2: Research and Statistics

An observer from the Directorate of Fisheries in Iceland was present onboard the vessel for the whole fishing operation.

Due to the nature of the joint fishing operations statistics on effort were unavailable. This will receive special consideration by the Icelandic authorities for following allocations of fishing licenses.

Size-frequency data were unavailable since all catches were transferred live to farming.

All discards of dead fish are banned by Icelandic Fisheries laws; no landings of by-catch were recorded in the logbooks.
In addition to the bluefin tuna catches, the Icelandic authority's submitted data on by-catches of three shark and shark-like species by Icelandic vessels: Greenland shark, porbeagle and picked dogfish, all catches within the Icelandic EEZ. Since there are no direct fisheries for 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 reviewed each year as needed. A new regulation was issued in June 2008. 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.

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. Strengthening of trade measures are pending at the relevant Ministries and other authorities. The Directorate of Fisheries has been notified of the trade documentation scheme and entrusted with the implementation regarding catches.

Section 4: Inspection Schemes and Activities

No bluefin tuna were landed in Iceland in 2007 or 2008, 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 monitored.

ANNUAL REPORT OF JAPAN[1]
RAPPORT ANNUEL DU JAPON
INFORME ANNUAL 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 was 90-95% prior to 2005. The current coverage rates for 2006 and 2007 are estimated to be about 86% and 58%, respectively. Because of the low coverage, statistics for 2007 in this report are preliminary. In 2006 and 2007, the number of fishing days was 26,200 days and 25,500 days, respectively, which was about 80% compared to the average value in the recent ten-year period. The catch of tunas and tuna-like fishes (excluding sharks) is estimated to be 28,596 t and 35,365 t, respectively, which is 90-110% of the average catch for the recent ten years. The most important species was bigeye tuna, representing 52% of the total tuna and tuna-like fish catch in 2007. The next dominant species was yellowfin, comprising 16% in weight, and the third species was bluefin tuna (10%). Observer trips on longline boats in the Atlantic were conducted and a total of 422 fishing days were monitored. The Fisheries Agency of Japan (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, and requires all tuna vessels operating in the Atlantic Ocean to submit catch information every day (bluefin tuna) and every ten days (other tunas) period by radio or facsimile. All Japanese longline vessels operating in the Convention area are equipped with satellite tracking devices (VMS) onboard. In accordance with ICCAT recommendations, the FAJ has taken measures to prohibit the catch of undersized fish of several tuna species and the false import of Atlantic bluefin tuna, swordfish and bigeye tuna. Implementations of time and area closures in a part of the East Atlantic, the Mediterranean and the Gulf of Mexico have been regulated by a Ministerial Order. Each species statistical or catch document program 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 2005. Le taux de couverture actuel pour 2006 et 2007 est estimé à près de 86% et 58%, respectivement. En raison de la faible couverture, les statistiques de 2007 sont préliminaires. En 2006 et 2007, il y a eu environ 26.200 et 25.500 jours de pêche, soit près de 80% par rapport à 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 28.596 t et 35.365 t, respectivement, soit 90-110% de la prise moyenne de ces dix dernières années. L'espèce la plus importante était le thon obèse qui représentait 52% du total de la prise de thonidés et d'espèces voisines en 2007. Les espèces dominantes suivantes étaient l'albacore qui représentait 16% en poids et la troisième espèce était le thon rouge (10%). Les observateurs embarqués à bord de palangriers ont réalisé des sorties dans l'Atlantique et au total 422 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 informations sur les prises d'autres thonidés, tous les dix jours, par radio ou facsimile. Tous les palangriers japonais

[1]National Research Institute of Far Seas Fisheries, 5-7-1, Orido, Shimizu-ku, Shizuoka, Shizuoka-Pref., 424-8633, Japan.

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 capture 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 détache 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 procède à des inspections aléatoires 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. La cobertura final de cuadernos de pesca de la flota palangrera japonesa ha sido del 90-95% antes de 2005. Se estima que la cobertura actual para 2006 y 2007 ha sido de aproximadamente el 86% y el 58% respectivamente. Dada la baja cobertura, las estadísticas de 2007 de este informe son preliminares. En 2006 y 2007, hubo 26.200 y 25.500 días de pesca, respectivamente, lo que se sitúa en aproximadamente un 80% en comparación con el valor medio de los últimos diez años. La captura de túnidos y especies afines (excluyendo tiburones) se estima en 28.596 t y 35.365 t, respectivamente, lo que supone el 90-110% de la captura media del periodo de los últimos diez años. La especie más importante fue el patudo, que respondió del 52% de la captura total de túnidos y especies afines en 2007. La siguiente especie dominante fue el rabil, que respondió del 26% en peso, y la tercera especie fue el atún rojo (10%). Se llevaron a cabo mareas con observadores en el Atlántico y se hizo el seguimiento de 422 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 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 promulgada por orden ministerial. Se ha llevado a cabo el programa de documento estadístico 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. Other two types of fishery, baitboat and purse seine fisheries, stopped fishing in the Atlantic in 1984 and 1992, respectively. Therefore, the longline fishery is discussed further.

1.2 Statistical coverage

The National Research Institute of Far Seas Fisheries (NRIFSF) has been in charge of compiling fishery statistics from logbooks submitted by commercial tuna fishermen as well as biological data. The final coverage of the logbook from the Japanese longline fleet operating in the Atlantic has been very good (90-95 %) prior to 2005. To reach this level, however, it takes almost two to three years after the completion of a respective calendar year. The current coverage rates, which completed collation in electronic form for 2006 and 2007, are estimated to be about 86% and 58%, respectively. Because of the low coverage, statistics of 2007 in this report are preliminary. Therefore, caution is required when readers compare the values in 2007 to other years.

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 in a designated format on swordfish released live as well as blue marlin, white marlin and other marlins.

1.3 Trend of fishing effort

The number of the Japanese longliners that operated in the Atlantic in the 2006 and 2007 calendar year was estimated to be 201 and 174, respectively (**Table 1** and **Figure 1**). In 2006 and 2007, the fishing days were 26,200 days and 25,500 days, respectively, which were about 80% compared to the average value in the recent ten-year period, suggesting that the fleet spent a lesser amount of time in the Atlantic in recent years.

The annual geographic distribution of longline fishing effort in 2006 and 2007 (**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, hardly any fishing effort was observed in the waters off southern America. 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 in the inter-subtropical areas between 20°N and 20°S. In the previous two areas, fishing has taken place from the 4th quarter to the 1st quarter, while the tropical fishing grounds are fished all year round.

1.4 Catch trend

The 2006 and 2007 of calendar year catches of tunas and tuna-like fishes (excluding sharks) in the Atlantic Ocean and the Mediterranean Sea by the Japanese fishery is estimated to be 28,596 t and 35,365 t, respectively (**Table 2**). Although the total amount of fishing effort in 2006 and 2007 was 81% and 79%, respectively (**Table 1**) of the past average for the last ten years (1998-2007), the total catches excluding discards and sharks in 2006 and 2007 were as 90% and 112% of the average catch for the same years (**Table 2**). The most important species was still bigeye tuna, representing 52% of the total tuna and tuna-like fish catch in 2007. The next dominant species was yellowfin tuna, which represented 26% in weight, while the third species was swordfish (9%). The remaining species were mainly comprised of bluefin tuna, blue marlin and swordfish. The decline of catch in recent years was likely due to a decrease in the bigeye catch. In 2006 and 2007, the bigeye catches were 85% and 95%, respectively, of the past average catches (**Table 2**). In 2006, the bigeye catch was 82% of the past average catches (**Table 2**). Albacore catches decreased slightly (98%) and southern bluefin catches showed a decline (42%). On the other hand, yellowfin tuna and swordfish increased markedly, 123% and 122%, respectively. In 2007, albacore catches decreased markedly (44%) and southern bluefin indicated a decline, down to 4%. Yellowfin tuna and swordfish catches continued to increase, by 106% and 113%, respectively. There was no swordfish catch in the North Atlantic between February 2000 and 2003 as all catches of this species were discarded. The area breakdown of the catches by species is also shown in **Table 3** for the recent two years (2006-2007).

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, these distributions for bigeye tuna coincide 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 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 the catch composition by species.

1.5 New developments or shifts in the fishery

No new development or drastic change of the trend was observed in recent years. 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 was once recovered to some extent in 2003 and remained at about the same level (**Figure 1**). In 2007, partly because the bluefin quota was allocated to fewer boats and fishing was good for yellowfin tuna in the Gulf of Guinea, some concentrated catches of yellowfin and, to a lesser extent, swordfish appeared to occur.

Section 2: Research and Statistics

The NRIFSF is in charge of data collection and compilation of Atlantic tuna fishery necessary for the scientific researches on Atlantic tuna and billfish stocks. The required statistical data have been routinely reported to the ICCAT Secretariat and the 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 almost final 2006 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, seven observer trips on longline boats in the Atlantic were conducted between September 2007 and February 2008. A total of 422 fishing days were monitored. One bluefin tuna was tagged by an electric satellite tag, which had popped off six months after release. This year's activities, which have not yet started, will be conducted in eight trips between October 2008 and March 2009.

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: Meeting of the Working Group on Stock Assessment Methods (Madrid, Spain, February 18 to 22, 2008), World Symposium for the Study into the Stock Fluctuation of Northern Bluefin tunas (Santander, Spain, April 22 to 24, 2008), 2008 Atlantic Bluefin Tuna Stock Assessment (Madrid, Spain, June 23 to July 4, 2008), 2008 ICCAT Joint Yellowfin and Skipjack Stock Assessments (Florianopolis, Brazil, July 21 to 29, 2008). In total, seven 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 by facsimile to FAJ. In addition, all tuna vessels fishing for Atlantic bluefin tuna are required to report the catch weight of bluefin tuna of 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 the 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) onboard and such installation started 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

The 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 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 are applied to the 2007 Fishing Year, which starts on August 1, 2007 and ends on July 31, 2008.

3.1.4 The number of fishing vessels

The FAJ has submitted the list of all the tuna fishing vessels that are licensed to fish for tuna and tuna-like species in the Convention area based on the 2002 recommendation to establish 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 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 from operating in the Mediterranean from June 1 to July 31 by a Ministerial Order in accordance with the 1993 ICCAT recommendation. However, this order was amended in August 2007 to comply with Recommendation 06-05 on extension of time and 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 implement 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 imports.

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

The FAJ has reported the data collected by the program to the Executive Secretary on a bi-annual 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 to collect 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 Executive Secretary on a bi-annual basis.

3.8 Implementation of the ICCAT Swordfish Statistical Document (SWOSD) Program

From January 1, 2003, the Japanese Government started to collect SWOSDs for fresh and frozen product in accordance with the 2001 Recommendation.

The FAJ has reported the data collected by the program to the Executive Secretary on a bi-annual 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. 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, their import is not permitted by the Japanese Government.

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 Dispatching 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 landings at Japanese ports

All Japanese tuna fishing vessels that land their catches 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 limits. For Atlantic bluefin tuna, inspection of 100% of the landings is implemented.

4.3 Management of transshipment

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 the FAJ. Submission of this report was 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 vessel's noon position, the number and weight of the catch by species, the quantities of gear used, surface water temperature, etc. The information on the catch report submitted is examined and compiled into the database by NRIFSF.

5.2 Collection of biological data collected on board longline vessels

The information necessary for stock analyses, such as length, weight and sex of fish caught, is collected by fishermen as a voluntary measure.

5.3 Measures to reduce incidental catch of sea turtle, seabirds and sharks

The FAJ issued administrative guidance and conducted educational programs for fishermen to use fishing gears and other tools to reduce incidental the catch of sea turtles, 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 happen, they are required to use Tori-poles and other devices to avoid seabirds from approaching the hooks and bait in accordance with the relevant measures adopted by regional tuna fisheries management organizations. In other areas, fishermen are also encouraged to use these devices. 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 by 31 items, including species, fresh/frozen and type of product.

5.5 Effort limitation

The number of Japanese tuna longline vessels that can operate in the western Atlantic and in the eastern Atlantic including the Mediterranean for bluefin tuna was 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 FAJ to instruct the relevant fishing vessels to shift fishing grounds, if necessary. The number of longline vessels fishing for bigeye tuna has been limited 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 operations 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 FAJ to avoid their use for operations that may diminish the effectiveness of international conservation measures.

5.7 Legislation for the enhancement of the conservation and management of tuna stocks

A new law was enacted in June 1996 with the objective of implementing measures necessary to enhance the conservation and management of tuna stocks and to develop international cooperation for the conservation and management of tuna stocks. This law establishes that the Government of Japan may restrict the imports of tuna and tuna products from a 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 activities of IUU vessels whose products enter the Japanese market. All importers and persons in charge of carrier vessels are required to report detailed information on the fishing vessels that caught and transport their tuna.

5.8 Scrapping of IUU vessels

To implement the Japan-Chinese Taipei Action Programs to eliminate IUU fishing vessels, the Japanese Government budgeted for scrapping IUU tuna longline vessels of Japanese origin during 2001-2003. The total amount of the budget for this three-year program was about US$28 million (3.3 billion Japanese Yen). Forty-three (43) IUU vessels were scrapped by the end of 2003.

5.9 Legalization of IUU vessels

In accordance with the 2002 ICCAT resolution concerning cooperative actions to eliminate illegal, unreported and unregulated fishing activities by large-scale tuna longline vessels (LSTLVs), Japan consulted with Vanuatu and Seychelles, as well as Chinese Taipei, and established the following new measures in order to dispose the remaining IUU tuna longline fishing vessels, and 69 IUU LSTLVs have been committed to comply with the following cooperative management schemes:

- Cooperative management schemes to legalize these vessels have been concluded between the fisheries authorities of the flag States (Seychelles and Vanuatu) and Japan, and the vessels participating in the scheme were placed under proper management.

- Measures to have the fishing vessels in question obtain Japan’s licenses for large-scale longline vessels and freeze those licenses were taken for the purpose of reinforcing and complementing the cooperative management scheme mentioned above as well as preventing an increase in overall fishing capacity.

Those 69 vessels no longer operate in the Atlantic.

5.10 Establishment of OPRT

The Organization for Promotion of Responsible Tuna Fisheries (OPRT) was established in December 2000 in Tokyo, Japan. The organization consists of the representatives from fishermen, importers, distributors, processors and consumers. One of the main tasks of the OPRT is to compile and analyze the import data of tunas and provide them to OPRT member flag States as feedback for their verification of the reported catch data. Another OPRT task is to inform Japanese retailers and consumers of the products caught by IUU fishing vessels. The representatives from the fishermen of Japan and Chinese Taipei are the founding members of OPRT. The fishermen of Korea, Philippines, Indonesia, China, Ecuador and the Seychelles joined OPRT.

Table 1. Annual number of Japanese tuna boats operated in the Atlantic and Mediterranean, 1981-2007.

	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	213	290	136	-	-
2006	201	262	130	-	-
2007*	174	255	146	-	-
Average (1998 - 2007)	209	322	147	-	-
2006 / average	96%	81%	89%		
2007 / average	83%	79%	100%	-	-

*2007 values are preliminary.

Table 2. Catches (t) of tuna and tuna-like fishes taken by the Japanese longline fishery, 1981-2007.

Year	*Bluefin*	*Southern bluefin*	*Albacore*	*Bigeye*	*Yellow-fin*	*Sword-fish*	*Blue marlin* [*1]	*Black marlin*	*White marlin*	*Sail-fish* [*2]	*Spear-fish*	*Others*	*Sub-total*	*Sharks*	*Bluefin discards*	*Sword-fish discards*	*Grand Total (including sharks but excluding discards)*
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	38,664
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	319	1,141	16,440	4,871	1,812	510	2	40	69	78	485	28,891	2,254	-	0	31,145
2007[*3]	2,355	29	497	18,443	9,340	3,264	909	5	19	145	57	303	35,365	2,687	-	0	38,052
Ave (1998 - 2007)	3,243	735	1,125	19,338	4,544	1,534	620	2	41	54	55	562	31,854	1,398	-	-	33,252
2006 / Ave.	86%	43%	101%	85%	107%	118%	82%	116%	99%	127%	142%	86%	90%	161%			93%
2007[*3] / Ave	81%	4%	44%	95%	206%	213%	147%	271%	47%	268%	104%	54%	111%	192%			114%

[*1] Blue marlin and black marlin were not separated until 1993. [*2] Sailfish and spearfish were not separated until 1993. [*3] 2007 values are preliminary.

Table 3. Area breakdown of Task I catches (t) taken by the Japanese longline fishery for 2006 and 2007. ICCAT area definition is used for tunas and billfishes. For other species, north and south, and east and west are separated at 5° N and 30° W, respectively. Mediterranean Sea is separated from both west-east and north-south area division.

2006[*1]

Species	*West*	*East*	*North*	*South*	*Medit.*	*Total*
Bluefin	376	1,896	2,272	0	556	2,828
Southern bluefin	0	319	0	319	0	319
Albacore	668	474	809	333	0	1,141
Bigeye	3,855	12,585	7,309	9,131	0	16,440
Yellowfin	455	4,416	1,879	2,992	0	4,871
Swordfish [*2]	352	1,460	688	1,124	0	1,812
White marlin	16	25	29	12	0	40
Blue marlin	111	399	209	301	0	510
Black marlin	0	2	0	2	0	2
Sailfish	4	64	11	57	0	69
Spearfish	57	21	61	17	0	78
Blue shark	495	1,463	1,434	525	0	1,958
Other sharks	71	224	151	145	0	296
Other fishes	73	412	149	336	0	485
Total	6,534	23,760	15,001	15,293	556	30,850

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

2007[*3]

Species	*West*	*East*	*North*	*South*	*Medit.*	*Total*
Bluefin	277	1,612	1,889	0	466	2,355
Southern bluefin	0	29	0	29	0	29
Albacore	211	286	261	236	0	497
Bigeye	3,787	14,656	7,527	10,916	0	18,443
Yellowfin	309	9,031	1,128	8,212	0	9,340
Swordfish [*4]	287	2,974	800	2,461	3	3,264
White marlin	4	15	8	11	0	19
Blue marlin	105	804	188	721	0	909
Black marlin	0	4	0	4	0	5
Sailfish	2	143	8	137	0	145
Spearfish	31	26	36	21	0	57
Blue shark	445	1,989	1,531	902	4	2,437
Other sharks	41	209	95	155	0	250
Other fishes	52	251	126	177	0	303
Total	5,551	32,312	13,880	23,982	473	38,336

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

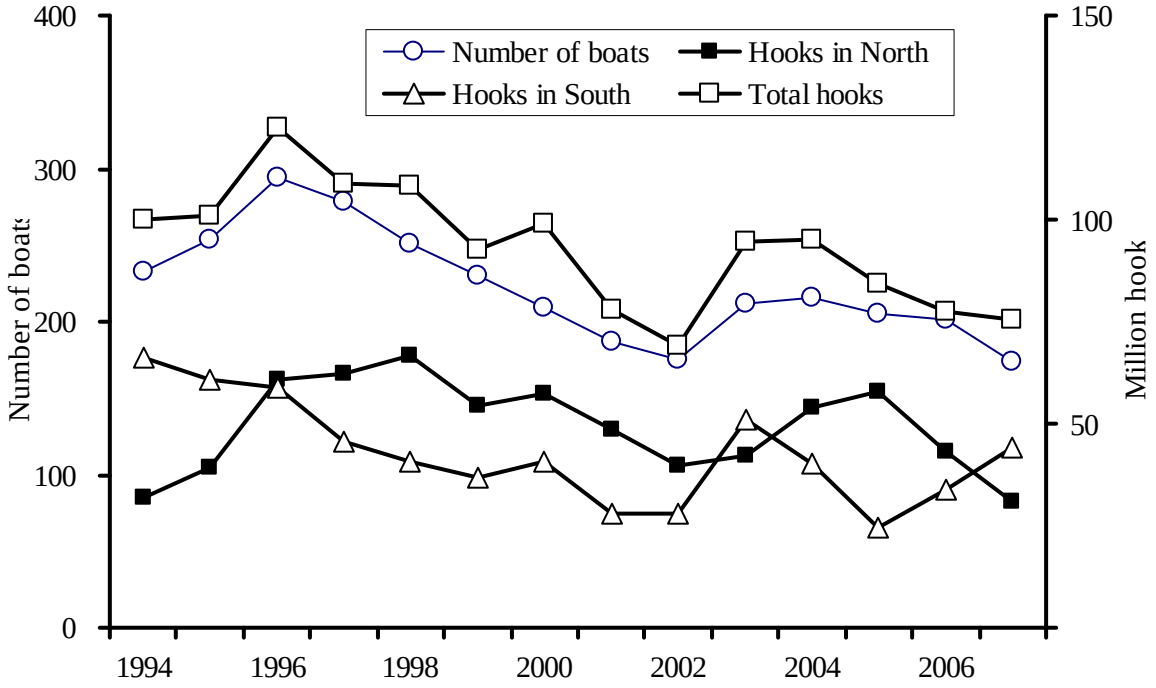

Figure 1. Trends in fishing effort (number of boats that operated and number of hooks used) exerted by the Japanese longline fishery, 1994-2007. The values of 2007 were repeated the figures of 2006.

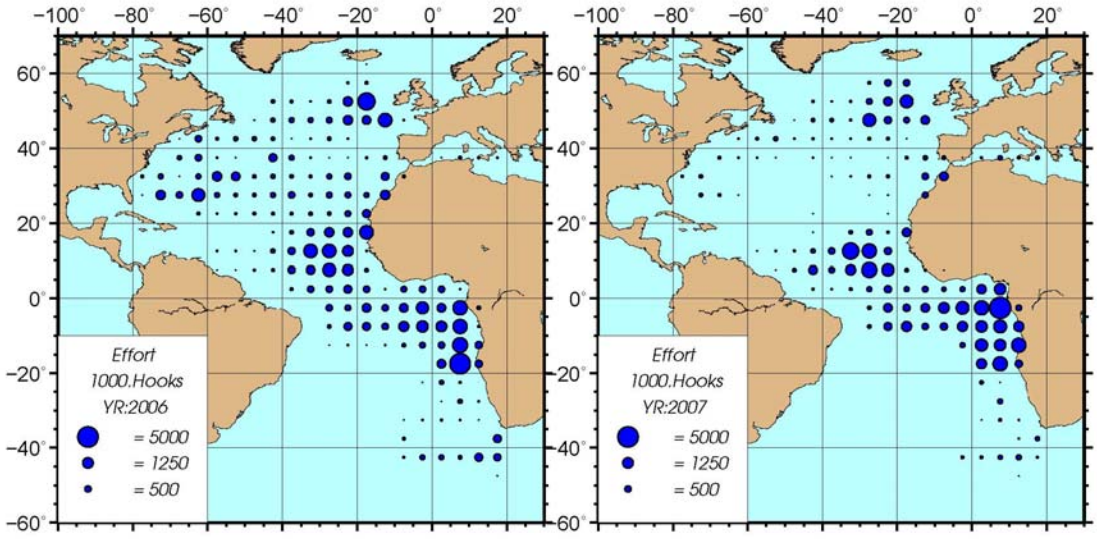

Figure 2. Geographic distribution of Japanese longline effort (number of hooks) in the Atlantic, for 2006 (left panel) and 2007 (right panel). The right figure was based on preliminary data. Therefore, use caution when comparing the two panels.

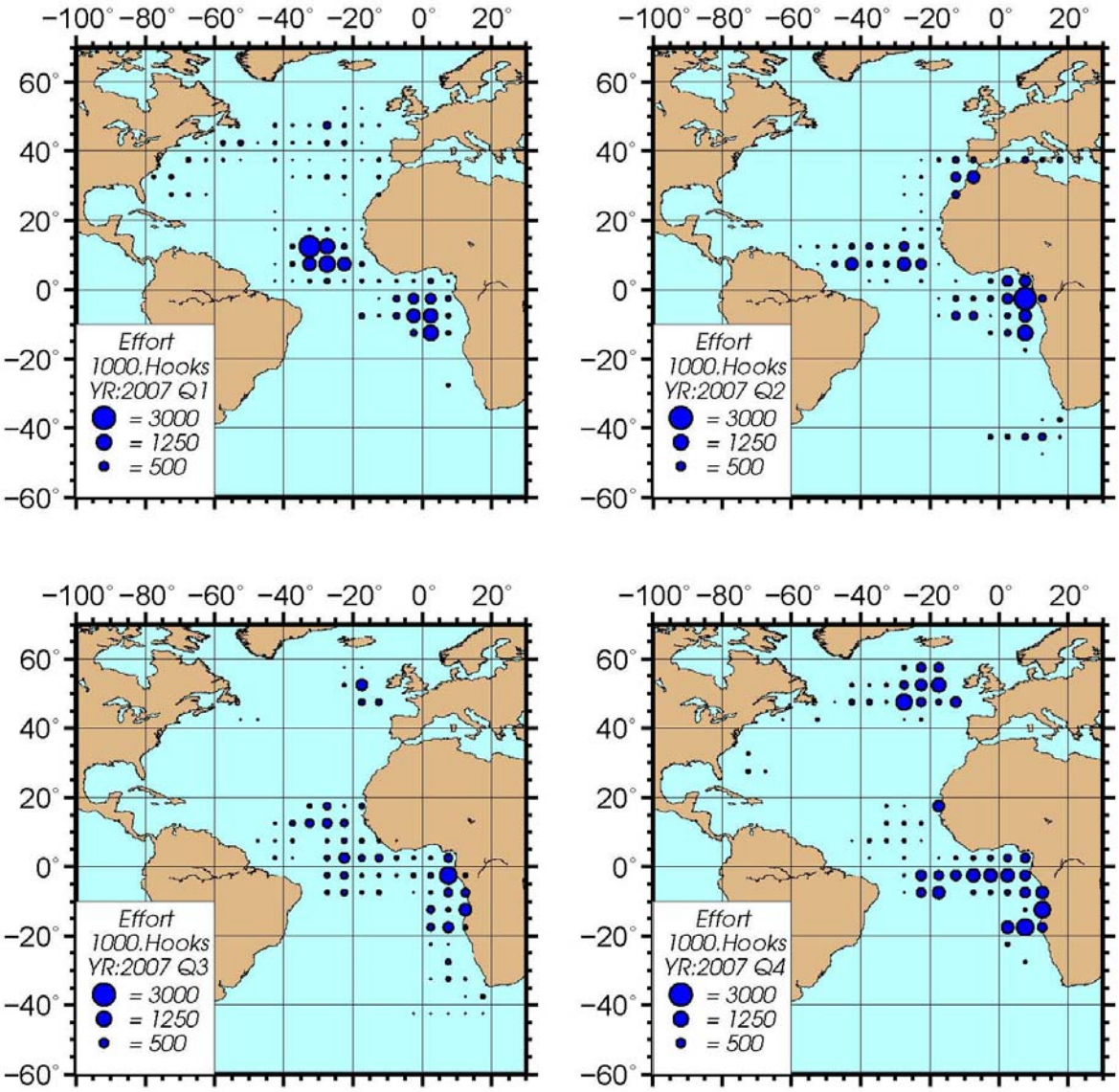

Figure 3. Quarterly distribution of Japanese longline effort (in number of hooks) in the Atlantic for 2007. All panels were based on preliminary data.

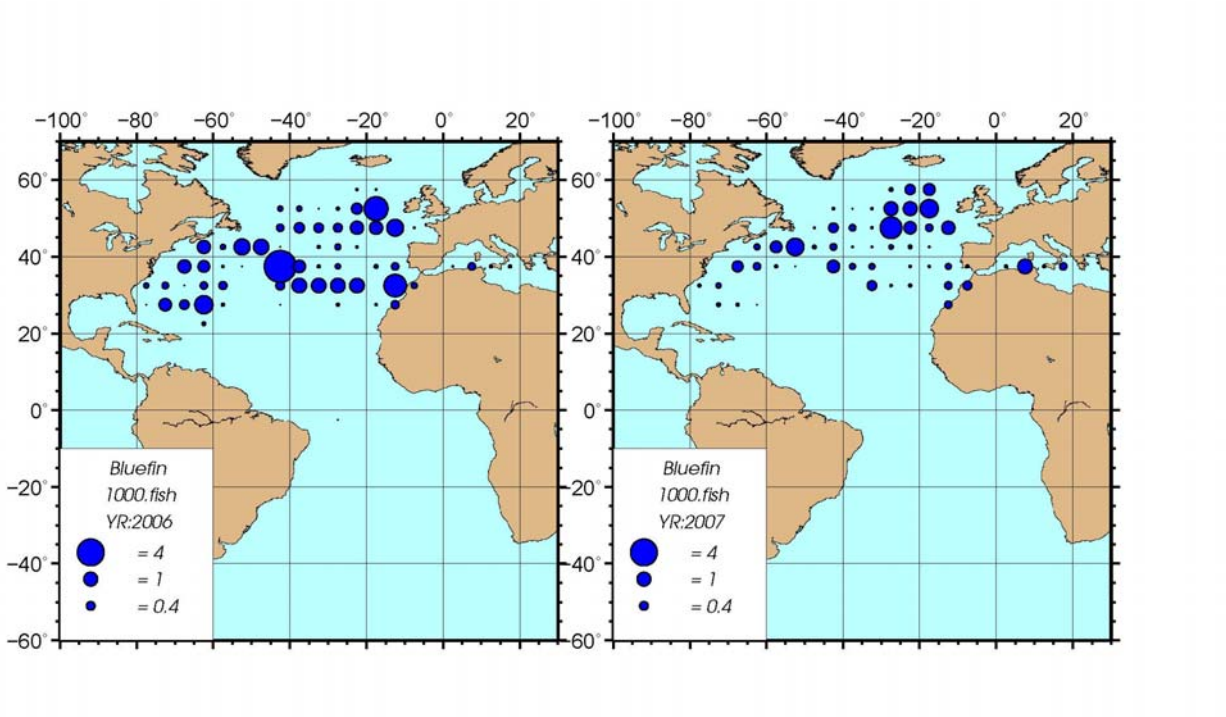

Figure 4. Geographic distribution of bluefin tuna catches (in number) in the Atlantic for 2006 (left) and 2007 (right panel). The right figure was based on preliminary data.

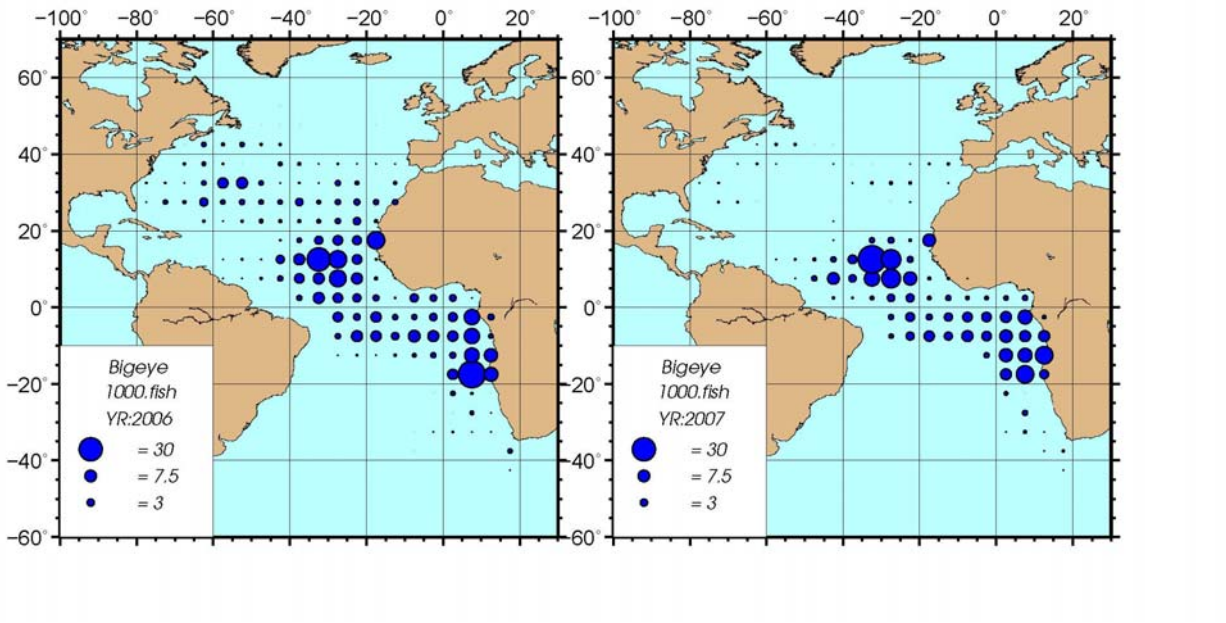

Figure 5. Geographic distribution of bigeye tuna catches (in number) in the Atlantic for 2006 (left) and 2007 (right panel). The right figure was based on preliminary data.

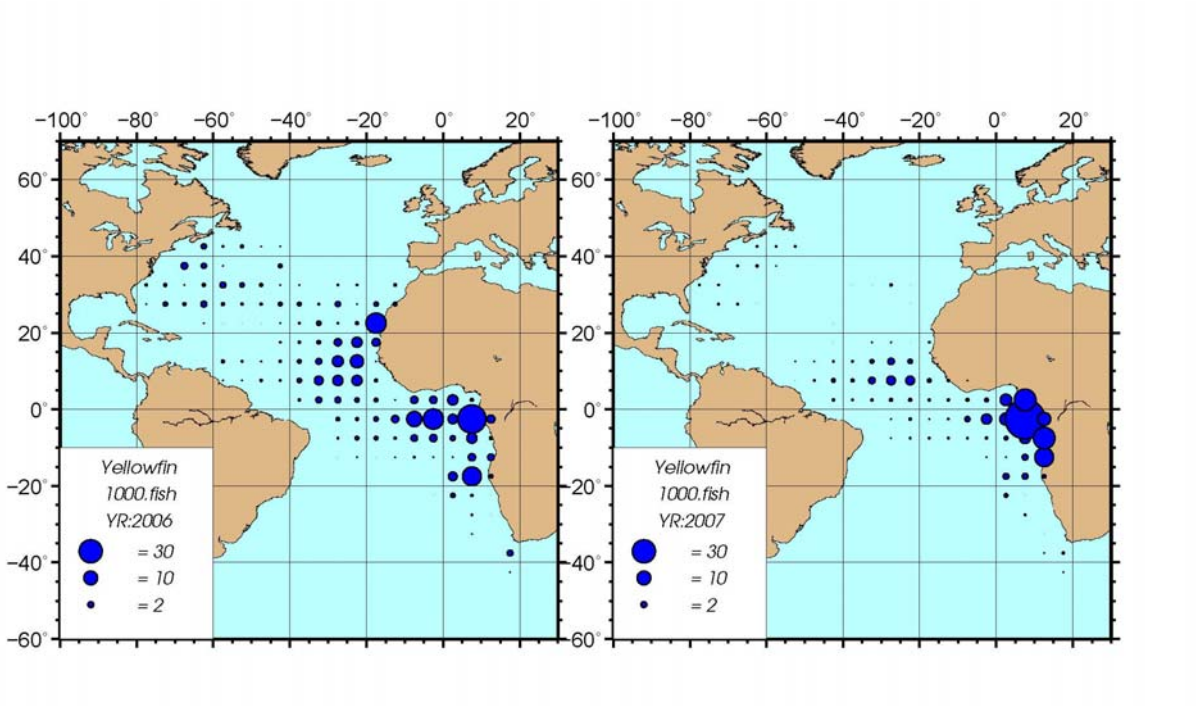

Figure 6. Geographic distribution of yellowfin tuna catches (in number) in the Atlantic for 2006 (left) and 2007 (right panel). The right figure was based on preliminary data.

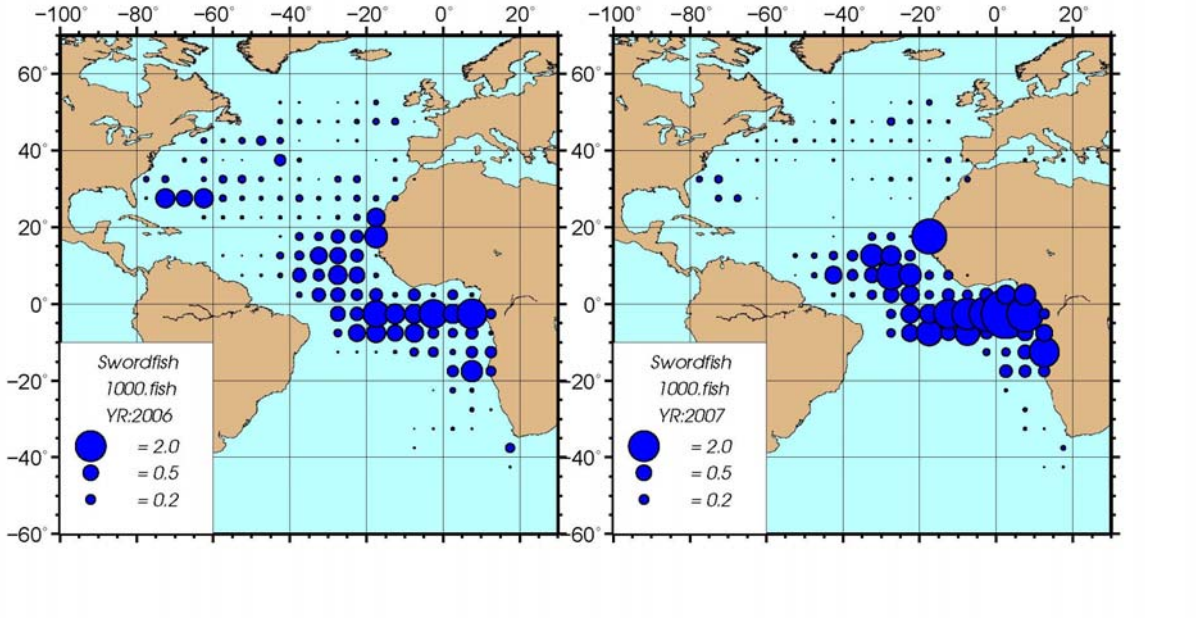

Figure 7. Geographic distribution of swordfish catches (in number) in the Atlantic for 2006 (left) and 2007 (right panel). The right figure was based on preliminary data.

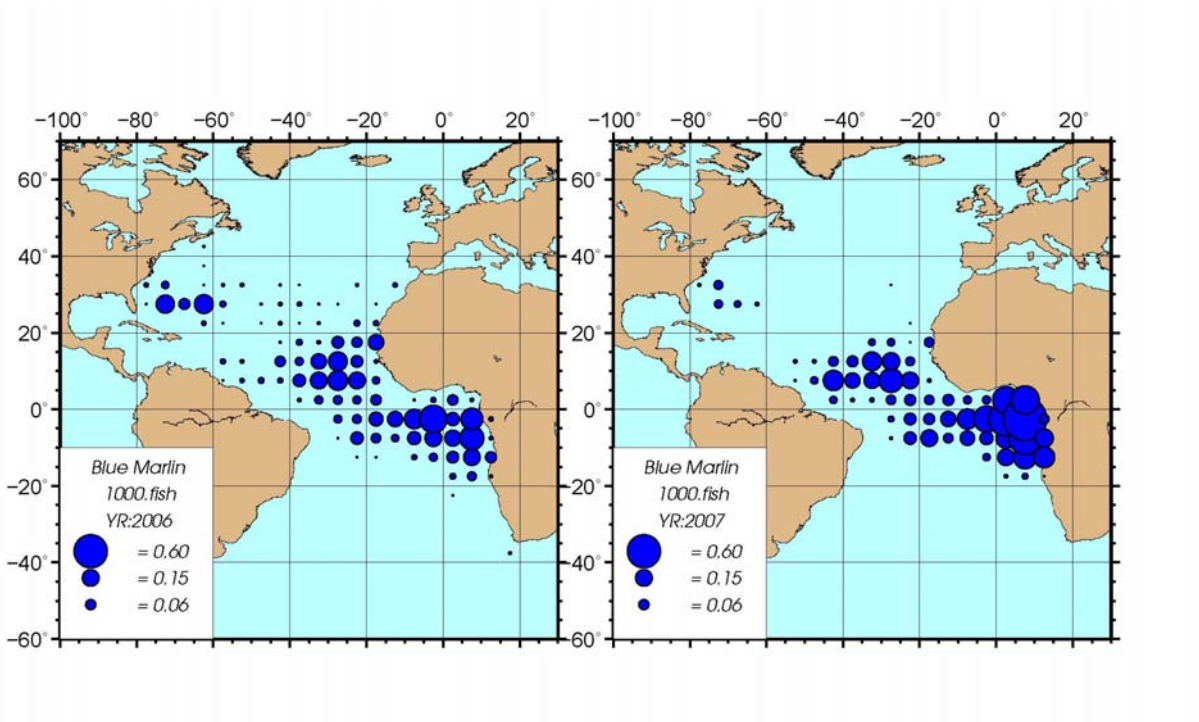

Figure 8. Geographic distribution of blue marlin catches (in number) in the Atlantic for 2006 (left panel) and 2007 (right panel). The right figure was based on preliminary data.

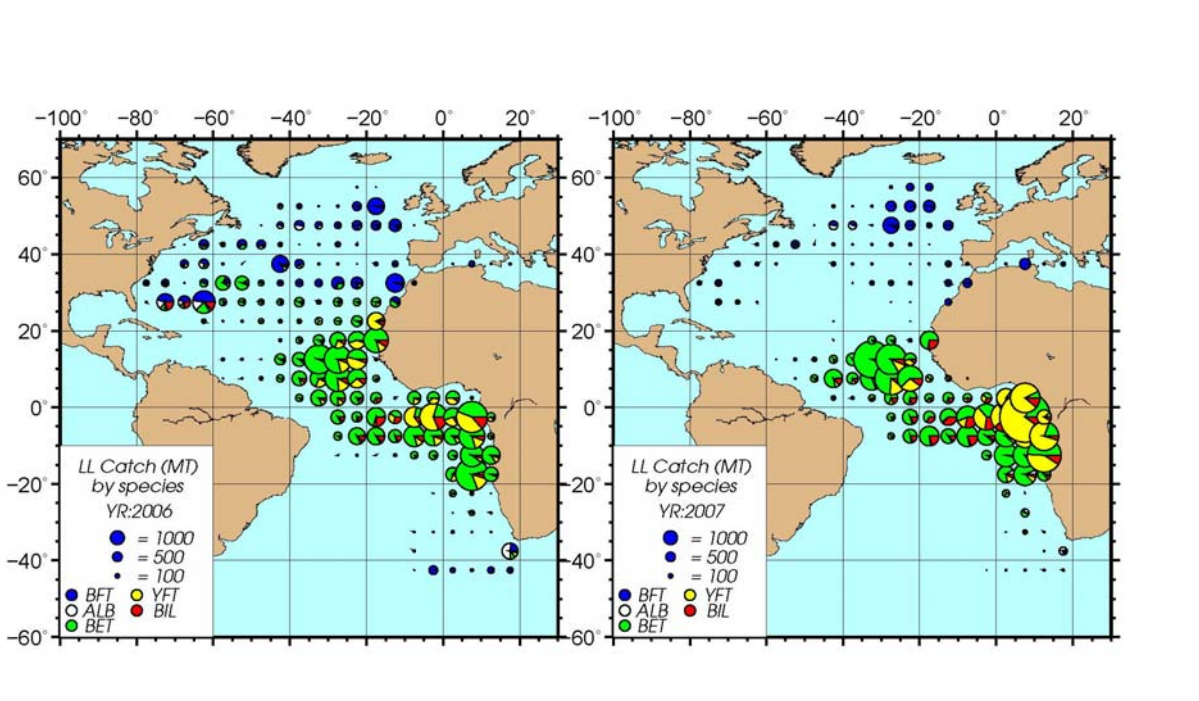

Figure 9. Species composition in the Japanese longline catches (in weight) for 2006 (left panel) and 2007 (right panel). The species are categorized into five groups: BFT (bluefin and southern bluefin), ALB (albacore), BET (bigeye), YFT (yellowfin) and BIL (swordfish and all billfishes). The right figure was based on preliminary data.

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

Seon-jae Hwang, Doo Hae An, Dae-Yeon Moon 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 Oceans, 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 t. Since the mid-1990s, even though 54 longliners were registered in the IOTC area, many registered vessels migrated between the Indian and Atlantic Oceans, 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.

In 2002 and 2003, no Korean tuna longliners operated in the Atlantic Ocean. Tuna purse seiners were chartered from Turkey in 2004 and 2005 and operated in the Mediterranean where they targeted bluefin tuna. Some longliners which were targeting bigeye tuna and yellowfin tuna have also operated in the Atlantic Ocean since 2004. Recent annual catches of tuna and tuna-like species by Korean tuna longliners and purse seiners in ICCAT areas ranged from 2,607 t to 3,437 t (averaged 2,927 t) from 2004 to 2007. The major species were comprised of bigeye tuna (48%), yellowfin tuna (21%), bluefin tuna (19%) and albacore (3%). 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 in the Atlantic Ocean since 2004.

In 2007, one Korean purse seiner (chartered from Malta) and 20 Korean longliners operated in the ICCAT area. The total catch was 3,437 t, which was an increase from the previous year. Almost 77% of the 2007 total catch was comprised of two species, 2,136 t of bigeye tuna (62%) and 507 t of yellowfin tuna (15%). In particular, yellowfin tuna catches increased sharply from 283 t in 2006 to 507 t in 2007.

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 2007 in the central Atlantic Ocean (12.5˚N ~7.5˚S, 0˚~45˚W). However, the fishing grounds have fluctuated annually depending on the fishing conditions for the target species and oceanographic conditions **(Figure 1)**.

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 the collection of catch and fishing effort statistics from the Korean tuna longliners and purse seiners chartered from Malta operating in the Atlantic Ocean in 2007. The requested Task I and II data were provided to the ICCAT Secretariat.

*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 conventions 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 to collect reliable catch data including biological samples, which were unobtainable through the regular data collection system.

In 2007, six observers were deployed 12 times on Korean distant-water fishing vessels by NFRDI's observer program. Of the 12 observation periods, one observer was deployed on a tuna purse seine vessel that operated in the Libyan EEZ to catch bluefin tuna in the Mediterranean. To reduce the by-catch of seabirds and sea turtles by tuna longline fishery, guidebooks and posters summarizing information of these species were distributed to fishing vessels including the tuna longliners.

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. The 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 is about 68% of 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 round weights by the ICCAT conversion factors.

Part II (Management Implementation)

Section 3: Implementation of ICCAT Conservation and Management Measures

To implement the recommendations adopted by ICCAT, Korea introduces them 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 Korean longline and purse seine fisheries in the Atlantic Ocean, 1985-2007.

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

( ) = Estimated by ICCAT Secretariat (ICCAT Report 1994. Vol. 2).
※ = Estimated by Korean Distant Water Fishery Information System.

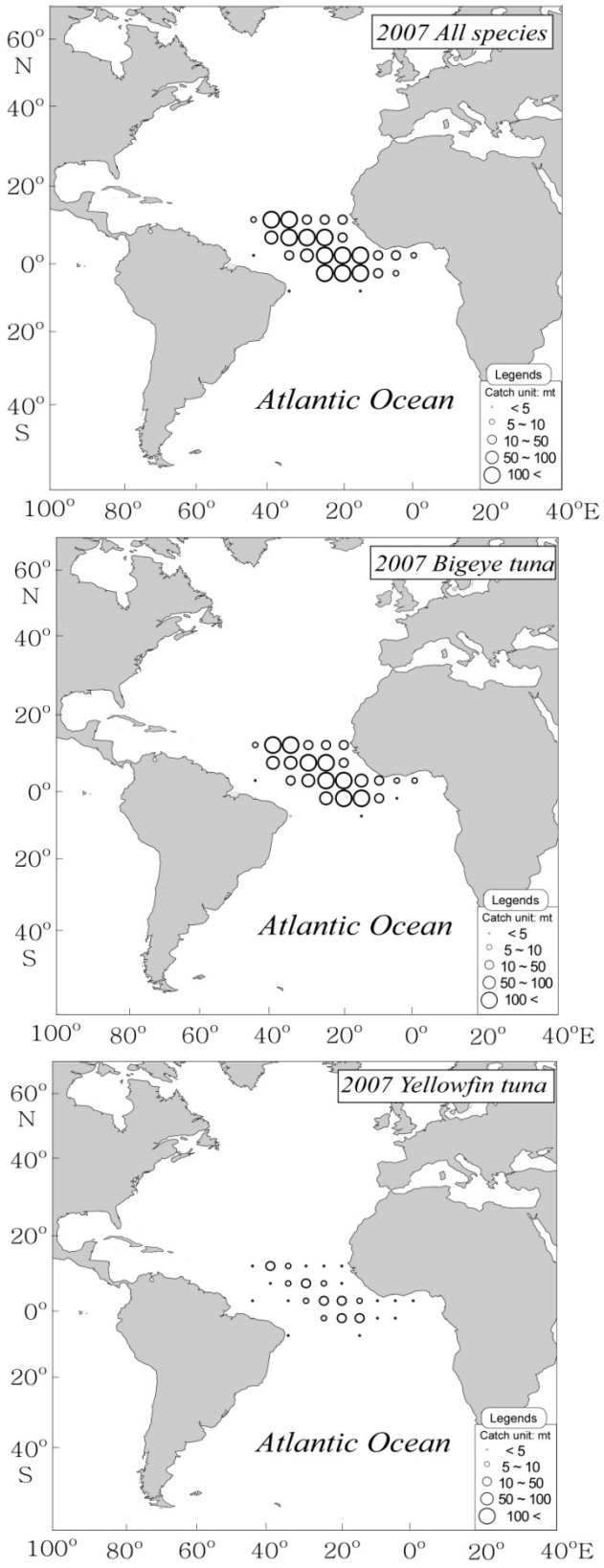

Figure 1. Catch distribution of Atlantic tuna and tuna-like species by the Korean longline fishery in 2007. (Catches of bluefin tuna by purse seiners in the Mediterranean Sea are not included).

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

General Authority of Marine Wealth

SUMMARY

In the 2007 fishing season. bluefin tuna was the only species targeted by the Libyan fishing fleet, using two types of fishing gear, longline (LL) and purse seine (PS). The total number of vessels engaged in the operations was 40 (4 longliners and 36 purse seiners). There were no traps in operation. No other tuna species were targeted by the Libyan fishing fleet in 2007. The total catch of bluefin tuna was 1,358.23 tons (158.23 t by longline and 1,200 t by purse seine). The fishing operations for bluefin tuna took place mostly in Libya's territorial waters. The ICCAT conservation measures were respected and observers were placed on board each licensed fishing vessel to monitor and control fishing operations.

RÉSUMÉ

Au cours de la saison de pêche 2007, le thon rouge était la seule espèce ciblée par la flottille de pêche libyenne, utilisant deux types d'engin: la palangre (LL) et la senne (PS). Le nombre total de navires prenant part aux opérations s'élevait à 40 unités (4 palangriers et 36 senneurs). Aucune madrague n'était en opération. En 2007, la flottille de pêche libyenne n'a ciblé aucune autre espèce thonière. La prise totale de thon rouge s'est chiffrée à 1.358,23 t (158,23 t capturée par les palangriers et 1.200 t par les senneurs). 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 2007, el atún rojo fue la única especie a la que se dirigió la flota pesquera libia, utilizando dos tipos de arte: palangre (LL) y cerco (PS). El número total de buques que participó en las operaciones se situó en 40 (4 LL y 36 PS). No hubo almadrabas operativas. La flota pesquera libia no dirigió su actividad a otras especies de túnidos en 2007. La captura total de atún rojo ascendió a 1.358,230 t (158,23 t con palangre y 1.200,0 con cerco). 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-BFT) which is a highly migratory species along the Libyan coast during the annual period between, 1st of March and 30th of June. During the 2007 fishing season, only two types of fishing gears were used, longline and purse seine. There was no fixed traps activity during 2007 fishing season.

1.2 Fishing effort trends

A total of 40 fishing vessels were active during the 2007 season (4 longliners and 36 purse seiners) The number of the longliners was less, compared to previous years. However, the opposite was the case for purse seine. There were seven longliners and 18 purse seiners in operation during the 2006 season.

1.3 Catch trend

The total catch of bluefin tuna in Libyan waters during 2007 was 1,358.23 tons. Data on bluefin tuna catches during the period 2003-2007 were submitted accordingly **(Table 1)**.

Section 2: Research and Statistics

The collection of bluefin tuna fishery data is necessary for scientific research. The required statistical data have been collected by scientific observers on board only the longline vessels during 2007.

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** and **2**.

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 their fishing activity is concentrated in Libyan 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 licensing, monitoring, control and inspection of bluefin tuna fishing activities. The control measures adopted by ICCAT, Rec. 06-05, have been transposed into this decision by the GAMW.

The action taken by Libya concerning this section is reported in more detail in the Libyan report on the implementation of Rec. 06-05 in the 2008 fishing season, which has been transmitted to ICCAT Secretariat.

Section 4: Inspection Schemes and Activities

Libya requires all fishing vessels that fished in its territorial waters during the 2007 season to have on board two observers (one from the fishing authority and one from the Coast Guard), and their missions are to monitor and control the fishing activity.

Table 1. Bluefin tuna total initial quota and current catches during 2003-2007.

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

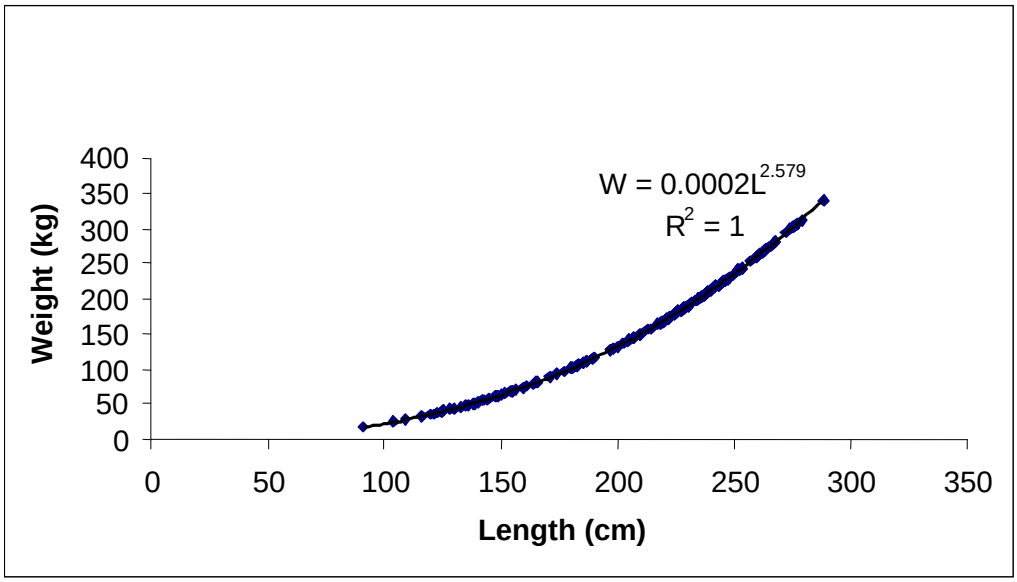

Figure 1. Length-weight relationship of bluefin tuna caught by longline in Libyan waters in 2007.

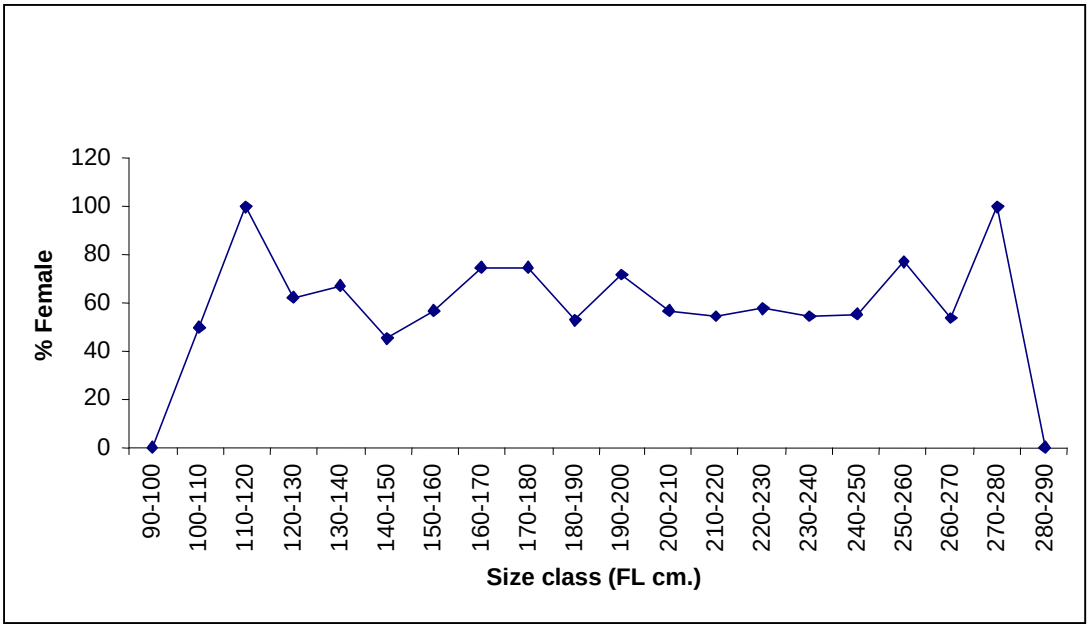

Figure 2. Female % frequency distribution of bluefin tuna caught by longliners in Libyan waters in 2007 (n=197).

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

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

SUMMARY

*Mexican tuna fishing in the Gulf of Mexico in 2007 was carried out bya high seas longline fleet comprised of 30 vessels. The fishing effort was directed at yellowfin tuna (*Thunnus albacares*). However, there was a reported incidental catch of other groups of species, such as other tunas, billfish, or other tuna-like species, sharks and other fish. In 2007, the reported catch of yellowfin tuna was 890 t, In the last 4 years, catches have decreased, with 1,362 t, 1,207 t and 1,050 t and 938 t in 2003, 2004, 2005 and 2006, respectively. Mexico has adhered to the regulatory framework implemented by the International Commission for the Conservation of Atlantic Tunas (ICCAT). With regard to statistical information, work was carried out to improve its quality and quantity and efforts have began to maintain the 100% coverage of fishing trips carrying observers in the Gulf of Mexico and maintain an update of the capacity of PNAAPD observers. At national level, the National Tuna Forum was held aimed at disclosing scientific research related to tuna fishing in Mexico, promoting the exchange and coexistence of opinions and experiences. In 2007, the priorities as regards to research for Mexico have been as follows: the ongoing improvement of database on tuna fishing with longline in the Gulf of Mexico; strengthening scientific research for the administration and sustainable fishing operation; the participation of the updating of the On-board Observers Manual and the hiring of scientific observers of the National Observer Program and the development and formation of the Operation Plan for the development of fishing targeting yellowfin tuna and swordfish in the Gulf of Mexico.*

RÉSUMÉ

*En 2007, la pêche mexicaine de thonidés a été réalisée dans le Golfe du Mexique par une flottille palangrière formée de 30 embarcations qui a dirigé son effort de pêche sur l'albacore (*Thunnus albacares*). On enregistre, néanmoins, des prises accessoires d'autres espèces, comme d'autres thonidés, des makaires, des espèces apparentées, des requins et d'autres poissons. En 2007, la capture d'albacore a totalisé 890 t. Ces quatre dernières années, les captures ont subi une baisse, s'élevant à 1.362 t en 2003, 1.207 t en 2004, 1.050 t en 2005 et 938 t en 2006. Le Mexique se conforme au cadre normatif et régulateur établi par la Commission Internationale pour la Conservation des Thonidés de l'Atlantique (ICCAT). En ce qui concerne l'information statistique, on a renforcé les efforts visant à l'amélioration de la qualité et de la quantité des données et on a déployé des efforts aux fins du maintien de la couverture de 100% des sorties de pêche avec un observateur à bord dans le Golfe du Mexique et du maintien de l'actualisation de la formation des observateurs du PNAAPD. Au niveau national, le Forum National du Thon a été organisé dans l'objectif de divulguer les programmes de recherches scientifiques liés à la pêche de thonidés au Mexique pour promouvoir l'existence et l'échange d'opinions et d'expériences. En 2007, les lignes prioritaires de recherche au Mexique ont porté sur l'amélioration continue de la base de données sur la pêche palangrière de thonidés dans le Golfe du Mexique ; le renforcement de la recherche scientifique pour l'administration et la gestion de la pêche durable ; la participation à l'actualisation du Manuel d'opérations et la formation des observateurs scientifiques du Programme national ainsi que l'élaboration et l'instrumentation du Plan de gestion pour le développement de la pêche ciblant le thon rouge et l'espadon dans le Golfe du Mexique.*

[1] Comisión Nacional de Acuacultura y Pesca. Comisionado Nacional de Acuacultura y Pesca. Av. Camarón Sábalo S/N esq. Tiburón. Col. Sábalo Country Club, C. P. 82100. Mazatlán, Sin., México. rcorrala@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

RESUMEN

*La pesca mexicana de atún con flota palangrera en el Golfo de México durante el año 2007 utilizó 30 embarcaciones que dirigieron su esfuerzo de pesca al atún aleta amarilla o rabil (*Thunnus albacares*). Sin embargo, se capturan de manera incidental otros grupos de especies tales como otros atunes, marlines o especies afines, tiburones y otros peces. En el año 2007 se registró una captura de atún aleta amarilla de 890 t; en los últimos 4 años las capturas han registrado un decremento por el orden de las 1,362 t, 1,207 t, 1,050 t y 938 t en 2003, 2004, 2005 y 2006 respectivamente. México observa el marco normativo y regulatorio establecido por la Comisión Internacional para la Conservación del Atún del Atlántico (ICCAT). En relación a la información estadística, ha intensificado los esfuerzos para mejorar su calidad y cantidad, además que se han encaminado esfuerzos para mantener la cobertura del 100% de los viajes de pesca con observador a bordo en el Golfo de México y mantener la actualización de la capacitación a observadores del PNAAPD. A nivel nacional, se realizó el Foro Nacional del Atún, con el objetivo de divulgar las investigaciones científicas relacionadas con la pesca del atún en México, a efecto de promover la convivencia e intercambio de opiniones y experiencias. Durante el 2007, las líneas prioritarias de investigación en México han sido: la mejora continua de la base de datos de la pesca del atún con palangre del Golfo de México; el fortalecimiento de la investigación científica para la administración y manejo pesquero sustentable; la participación en la actualización del Manual de Campo y la Capacitación de los Observadores Científicos del Programa Nacional y la elaboración e instrumentación del Plan de Manejo para el Desarrollo de la pesca dirigida al atún aleta azul y pez espada en el Golfo de México.*

Parte I (Información sobre pesquerías, investigación y estadísticas)

Sección 1: Información anual sobre pesquerías

En el Golfo de México, la flota palangrera mexicana lleva a cabo la pesca dirigida al atún aleta amarilla o rabil (*Thunnus albacares*), sin embargo se capturan de manera incidental grupos de especies tales como otros atunes, marlines o especies afines, tiburones y otros peces. Esta actividad se ha llevado a cabo desde 1980, concentrándose en aguas oceánicas y limitándose a la Zona Económica Exclusiva (ZEE) en el Golfo de México y mar Caribe.

Desde el año 2003, se ha registrado un decremento gradual en las capturas del atún aleta amarilla de 1,362 t a 890 t en 2007, lo que ha ocasionado una ligera disminución en el número de días de pesca por viaje y un marcado incremento en el número de viajes de pesca, lo que refleja la reducción en el número de lances y número de anzuelos totales por año. La captura de atún aleta amarilla en el Golfo de México por la flota mexicana de 1995 a 2007 y la cobertura de observadores a bordo del Programa Nacional, se presenta en la **Tabla 1**.

Durante el año 2007, la actividad pesquera de la flota palangrera utilizó 30 embarcaciones que dirigieron su esfuerzo de pesca al atún aleta amarilla con palangre americano, anzuelo circular, carnada viva, y actividad nocturna. Un lance típico de pesca incluye: inicio de calado (inicio de tendido de palangre), calado (tendido de palangre), final del calado (conclusión de tendido de palangre), deriva (tendido de palangre), inicio de cobrado (inicio de levantamiento de palangre), cobrado (levantamiento de palangre) y final de cobrado (finalización de levantamiento de palangre). La duración promedio de los lances durante el año 2007, fue de 22 horas 30 minutos y el inicio de calado comenzó en promedio a las 05:30am., y el fin de cobrado finalizó a las 04:42am.

La operación de la flota tiene como centros de operación los puertos de Tuxpan, Veracruz, y Progreso, Yucatán. Se realizaron un total de 3.241 lances, en los que se utilizaron 1’841,751 anzuelos. Se concentra el mayor esfuerzo de pesca durante los meses de mayo, junio y julio. En la **Figura 1** se presenta la distribución espacial del esfuerzo de pesca durante 2007, donde se puede observar su amplio patrón de distribución en la ZEE, con una tendencia de mayor concentración del esfuerzo en la parte suroeste, así como en la parte central del Golfo de México.

La captura total (captura embodegada, liberada viva y descartada muerta) de la flota palangrera mexicana dedicada a la pesca del atún aleta amarilla durante el año 2007, fue de 1.392 t, integrada en su mayoría por la

especie objetivo de pesca (66,54%), y en menor parte a la captura incidental (33,46%), cuya composición estuvo representada principalmente por: la lanceta (*Alepisaurus* spp.), el marlín azul (*Makaira nigricans*), el pez vela (*Isthiophorus albicans*), el pez espada (*Xiphias gladius*), el aceitoso (*Lepidocybium flavobrunneum*), el peto (*Acanthocybium solandri*) y el marlín negro (*Makaira indica*).

De atún aleta amarilla se capturaron un total de 926 t, de las cuales el 96% (890 t) fue embodegada, el 3,25% (30 t) fue liberada viva y el 0,66% (6 t) fue descartada muerta. Esta captura en su mayoría se exportó a Estados Unidos en su calidad de fresco, una minima parte se destinó al consumo local. En la **Tabla 2**, se presenta la composición de la captura total del atún aleta amarilla durante 2007.

Del grupo de otros atunes, se registraron 53 t de captura, de la cual el 99,12% (52 t) correspondieron a captura embodegada, el 0,02% a liberada viva y el 0,86% a descartada muerta. La captura total estuvo integrada principalmente por el peto (22 t), el atún aleta negra (*Thunnus atlanticus*) (12 t), el atún aleta azul (*Thunnus thynnus*) (7 t) y el barrilete (*Katsuwonus pelamis*) (6 t). Este grupo de especies se comercializó en su mayoría para consumo local.

Por otra parte, el grupo de marlines y especies afines registró 210 t de captura, de la cual el 98,69% (207 t) correspondieron a captura embodegada, el 0,96% a liberada viva y el 0,35% a descartada muerta. Las especies que contribuyeron de forma mayoritaria a la captura total fueron marlín azul (91 t), pez vela (46 t), pez espada (35 t) y marlín negro (21 t). La mayoría de estos organismos fueron retenidos para su posterior comercialización.

Del grupo de tiburones se registraron 51 t de captura total, el 70,84% (36 t) correspondieron a captura embodegada, el 27,55% (14 t) a liberada viva y el 1,62% a descartada muerta. Las especies de mayor presencia en la captura total fueron la manta (Manta *spp*.) (13 t), el tiburón puntas negras (*Carcharhinus limbatus* y *C. falsciformis*) (10 t) y el tiburón mako (*Isurus oxyrinchus*) (8 t), principalmente. Cabe mencionar, que en el caso de la manta, casi en su totalidad correspondió a captura liberada viva, del resto de los organismos en su mayoría fueron retenidos para su posterior comercialización.

Para el grupo de otros peces, se registraron 102 t de captura total, de la cual el 27,49% (41 t) fue captura embodegada, el 4,52% (6 t) liberada viva y el 68,00% (102 t) descartada muerta. De este, las especies que mayormente contribuyeron a la captura total fueron la lanceta y el aceitoso, que en su mayoría, por no ser especies sujetas a la comercialización o estar en malas condiciones, son descartadas muertas.

En el caso de los pequeños túnidos, como el bonito (*Sarda sarda*), la sierra (*Scomberomorus maculatus*) y el peto (*Acanthocybium solandri*), la información es obtenida a través de las oficinas de pesca que registran las capturas obtenidas por la flota de pequeña altura con actividad pesquera en la zona costera de los Estados que colindan con el Golfo de México.

Sección 2: Investigación y estadísticas

El Instituto Nacional de Pesca (INAPESCA) a través de la Dirección General de Investigación Pesquera en el Atlántico (DGIPA) tiene a su cargo el proyecto Atún-Golfo de México, cuyo objetivo es llevar a cabo investigaciones científicas del atún aleta amarilla y su captura incidental, en colaboración con el Programa Nacional de Aprovechamiento del Atún y Protección de Delfines (PNAAPD) a través del programa de observadores a bordo, la Comisión Nacional de Acuacultura y Pesca (CONAPESCA) y el sector productivo.

En ese sentido, México ha intensificado los esfuerzos para mejorar la calidad y cantidad de la información estadística, con el objetivo de cumplir oportunamente las solicitudes de la ICCAT en el marco de ordenación, tales como: características de la flota pesquera, capturas nominales, esfuerzo pesquero y estructura de tallas de las especies capturadas incidentalmente.

Adicionalmente, se ha mantenido la cobertura del 100% de los viajes de pesca con observador a bordo en el Golfo de México; un aspecto importante a destacar es la capacitación y actualización a los observadores del PNAAPD. Durante el 2007, en el mes de julio se llevó a cabo un curso que incluyó aspectos como el llenado de los informes de los viajes de pesca (informe del barco, crucero, arte de pesca y equipo de barco, así como del informe diario, informe de muestreo, informe de captura), la biología de las especies (atunes, marlines y especies afines, tiburones, tortugas y otros peces), con especial énfasis en la identificación taxonómica, y la condición sexual de los tiburones. Cabe mencionar que en dicho curso participó personal especializado del INAPESCA.

Por otra parte, anualmente se lleva a cabo el Foro Nacional del Atún cuyo objetivo es divulgar las investigaciones científicas relacionadas con la pesca del atún en México, a efecto de promover la convivencia e intercambio de opiniones y experiencias entre investigadores, estudiantes, sector gubernamental, sector productivo y público en general. En esta ocasión, los trabajos presentados abarcaron temas diversos, que incluyeron principalmente aspectos normativos de la pesca y acuacultura en México, la pesquería del atún en el Océano Pacífico y Golfo de México, la captura incidental y las artes de pesca. Cabe destacar que uno de los resultados de este Foro fue la adopción del compromiso por los asistentes por continuar trabajando en la investigación científica, para aportar estrategias para resolver las problemáticas del recurso atún en ambos litorales y fortalecer la vinculación del trabajo científico con los sectores industrial, gubernamental y educativo.

Durante el mes de octubre de 2007, se llevó a cabo una reunión entre Canadá, Estados Unidos y México, en la que se discutieron diversos temas de la agenda ICCAT relacionados con la especie objetivo de pesca y la captura incidental. A nivel bilateral, se recibió la visita de un investigador del *Southeast Fisheries Science Center* de Miami (NOAA, por sus siglas en inglés), para continuar los trabajos sobre la estandarización de tasas de captura del atún aleta amarilla en la pesca con palangre en el Golfo de México durante el periodo de 1992-2007, basado en el programa de observadores a bordo de México y Estados Unidos, el cual será presentado dentro de la reunión ICCAT de 2008 en la evaluación del stock de rabil, a efecto de contribuir al conocimiento del recurso en el Océano Atlántico.

Observando el Artículo IX, párrafo 2 del Convenio Internacional para la ICCAT, se entregó la información estadística y biológica así como otras informaciones científicas para dar cumplimiento a las Resoluciones 66-01, 96-13, 01-06 y la Recomendación 05-09.

Asimismo, se participó en el Grupo de Especies, particularmente en el grupo de túnidos tropicales con el documento SCRS/2007/165, titulado: "Los túnidos tropicales, su pesca y manejo en el Golfo de México", que incluyó la evaluación de las capturas de túnidos tropicales en embarcaciones palangreras con observador a bordo del Programa Nacional de Observadores (PNAAPD) en el Golfo de México, a través de las capturas y la Captura por Unidad de Esfuerzo (CPUE). De igual manera, se tomó parte del Comité Permanente de Investigación y Estadísticas durante octubre de 2007, en el que se analizaron las actividades en materia de investigación científica e información estadística del atún aleta amarilla y su captura incidental en el Golfo de México.

Así, durante 2007, las líneas prioritarias de investigación fueron las siguientes:

1) Mejora continua de la base de datos de la pesca del atún con palangre del Golfo de México, de 1993 a 2007.
2) Fortalecimiento de la investigación científica para la administración y manejo pesquero sustentable a través de:

   - Análisis de las actividades pesqueras de la flota mexicana palangrera en el Golfo de México;
   - Caracterización espacial y temporal de la captura y esfuerzo dedicado a la pesca del atún aleta amarilla con palangre en el Golfo de México;
   - Análisis de las estructuras de tallas del atún aleta amarilla de 1993 a 2007;
   - Caracterización espacial y temporal de la captura incidental obtenida a través de la pesca dirigida al atún aleta amarilla con palangre en el Golfo de México;
   - Protección de tortugas capturadas incidentalmente, a través del uso de anzuelos circulares y de la promoción de la liberación oportuna;
   - Análisis y evaluación de la carnada utilizada en la pesca del atún aleta amarilla con palangre en el Golfo de México;
   - Diseño del plan de manejo y explotación sustentable del atún aleta azul y el pez espada;

3) Participación en la actualización del manual de campo y la capacitación de los observadores científicos del Programa Nacional.

4) Implementación del plan de manejo para el desarrollo de la pesca dirigida al atún aleta azul y pez espada en el Golfo de México. Durante 2007, se trabajó coordinadamente con el sector industrial para evaluar la implementación del programa de explotación y manejo del atún aleta azul y pez espada en el Golfo de México, a fin de administrar y utilizar de manera responsable y sustentable estos recursos.

Parte II (Implementación de la ordenación)

El 22 de octubre de 2007 entró en vigor la Ley General de Pesca y Acuacultura Sustentables (LGPAS), abrogando la anterior Ley de Pesca que estuvo vigente durante más de 15 años.

Este nuevo ordenamiento general, prevé un marco de coordinación interinstitucional y establece las bases para el ejercicio ordenado de las atribuciones que en materia de pesca y acuacultura corresponden a la Federación, los Estados y los Municipios. De igual manera, reconoce a la pesca y la acuacultura como actividades que fortalecen la soberanía alimentaria y territorial de la Nación, considerándolas de seguridad nacional y prioridad para el desarrollo del País.

La nueva Ley procura las disposiciones necesarias para que las especies de flora y fauna acuáticas sean aprovechadas, protegidas, fomentadas y potenciadas de manera responsable, integral y sustentable a largo plazo. Además, mediante este instrumento se genera que la investigación científica y tecnológica en pesca y acuacultura sea una herramienta fundamental en el conocimiento de los recursos acuáticos, en la determinación e implementación de políticas, instrumentos, medidas, mecanismos y decisiones relativos a la conservación, rehabilitación, protección y aprovechamiento sustentable de dichos recursos y para la toma de decisiones de las autoridades administrativas competentes.

De igual manera, reconoce que la acuacultura debe impulsarse para revertir los procesos de sobreexplotación pesquera, ofrecer alternativas de empleo en el medio rural, incrementar la producción pesquera y la oferta de alimentos que mejoren la dieta de la población mexicana, dedicando un capítulo completo a la regulación de esta actividad, que en el mundo es la segunda de mayor crecimiento y que en nuestro país proporciona miles de empleos y es una importante opción a futuro para el sector en materia económica y de sustentabilidad.

Por otra parte, esta nueva ley contempla la regulación específica en materia de pesca deportiva, reconocida como una destacada fuente de ingreso de divisas al país y generadora de empleos vinculados con el sector turístico.

Al conjugarse en la LGPAS la regulación de la acuacultura y la pesca deportiva con las demás modalidades de la pesca, se procura la unificación integral del sector pesquero y acuícola. Destaca entre sus aportaciones el reconocimiento como instrumentos de la política pesquera, los Programas de Ordenamiento Pesquero, los Planes de Manejo Pesquero y las Concesiones y Permisos.

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

3.1 Limites de captura y tallas mínimas

3.1.1 Recomendación sobre el cumplimiento en las pesquerías de atún rojo y pesquerías de pez espada del Atlántico Norte [Rec. 96-14]

México no ha excedido los límites de captura para dichas especies en el año pesquero previo. Durante 2007, se trabajó en el diseño e implementación del programa de explotación y manejo del atún aleta azul y pez espada en el Golfo de México, a fin de administrar y utilizar de manera responsable y sustentable las cuotas de captura asignadas a México para estos recursos.

3.1.2 Recomendación para incrementar el cumplimiento de las regulaciones de talla mínima [Rec. 97-01]

A través de la Norma Oficial Mexicana NOM-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 sólo incluye atún rojo, pez espada, pez vela, marlín, entre otras) de su captura nominal obtenida durante un año calendario.

Asimismo, en el compromiso por llevar a cabo una pesca responsable, continua vigente la disposición para lograr la recuperación de especies, evitando las capturas dirigidas a los stocks de atún rojo reproductor en el Atlántico en zonas de desove del Golfo de México.

3.2 Sobre cumplimiento

3.2.1 Recomendación de ICCAT sobre la aplicación de tres recomendaciones sobre cumplimiento [Rec. 98-14]

Anualmente se comunican a la Comisión, como parte del Informe Anual, las estadísticas sobre las capturas para las pesquerías. La información correspondiente a los datos de la Tarea I y la Tarea II, los Informes anuales, y en consecuencia, las Tablas de Información, se han hecho llegar en tiempo y forma.

3.2.2 Resolución de ICCAT sobre fechas límite y procedimientos de presentación de datos [Res. 01-16]

México mantiene su compromiso de entregar la información y datos para las pesquerías en tiempo y forma.

3.3 Otras recomendaciones

3.3.1 Recomendación de ICCAT sobre el registro de capturas realizadas por barcos en la zona del Convenio ICCAT [Rec. 03-13]

La normatividad mexicana establece que a efecto de verificar la legal procedencia 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, es obligación de los permisionarios y concesionarios de pesca de túnidos 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.

3.3.2 Recomendación sobre las medidas de regulación suplementarias para la ordenación del rabil del Atlántico [Rec. 93-04]

Se mantienen vigentes las disposiciones de la NOM-023-PESC-1996, la cual establece el régimen de pesca para el atún aleta amarilla capturado 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 susceptibles de ser capturadas de manera incidental.

Este instrumento regulatorio establece, entre otras disposiciones, las características del sistema de pesca (uso de embarcaciones con una eslora de 37 m, operando un palangre atunero de superficie a la deriva por embarcación) para el aprovechamiento del atún aleta amarilla, 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.

3.3.3 Recomendación de ICCAT sobre el establecimiento de un programa para el trasbordo [Rec. 06-11]

De conformidad con lo previsto en la fracción XIV del artículo 41 de la Ley General de Pesca y Acuacultura Sustentables, para realizar actividades de trasbordo en aguas de jurisdicción federal se requiere de permiso. En los últimos años y hasta la fecha, no se han expedido permisos a embarcaciones nacionales que operen al amparo de permiso alguno para llevar a cabo dicho tipo de actividades.

3.3.4 Resolución de ICCAT sobre tortugas marinas [Res. 03-11]

El Gobierno de México lleva a cabo diligencias para la protección y conservación de las tortugas marinas, para tal fin mantiene diversos proyectos de investigación y experimentación sobre captura incidental de esta especie en las principales pesquerías, principalmente en la pesquería con palangre y el uso de anzuelos circulares. De igual manera, en la legislación mexicana se han establecido disposiciones para fomentar la liberación de éstas como en las pesquerías de tiburón, atún y camarón, donde son capturadas incidentalmente. Asimismo, se llevan a cabo talleres de capacitación de los pescadores sobre el uso de instrumentos y mecanismos para eliminar la captura incidental de tortugas marinas en las pesquerías de atún y otras.

3.3.5 Recomendación de ICCAT sobre un programa plurianual de ordenación y conservación de patudo [Rec. 04-01]

En México no se desarrolla esta pesquería en la zona del Convenio.

3.3.6 Recomendación de ICCAT respecto a establecer un Programa de Documento Estadístico ICCAT para el Pez Espada [Rec. 01-22] y Recomendación de ICCAT sobre el programa ICCAT de documentación de capturas de atún rojo [Rec. 07-10]

La NOM-023-PESC-1996, 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 rojo.

Para tal propósito, se difundió entre las autoridades competentes el nuevo documento de captura y las instrucciones para el atún rojo cumplimentado (BCD) establecido mediante la Recomendación 07-10 y el certificado de reexportación de atún rojo validado (BFTRC), mismo que entraría en vigor a partir de 2008 y que reemplazara a las Recomendaciones 92-01, 93-03, 96-10, 97-04, 98-12 y 06-15 y las Resoluciones 93-02, 94-04 y 94-05 sobre el Programa de documento estadístico ICCAT para el atún rojo. 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.

Para el caso del Programa Estadístico para el Pez Espada, como ya se señaló con anterioridad, en 2007 se trabajó en el diseño del programa para la explotación y manejo del pez espada en el Golfo de México, a la luz de las cuotas de captura asignadas a México. Para el próximo año se espera empezar a implementar este Programa derivado de la asignación y otorgamiento de los permisos correspondientes para esta especie.

Sección 4: Actividades y esquemas de inspección

4.1 Recomendación de ICCAT respecto al formato y protocolo de intercambio de datos en relación con el sistema de seguimiento de buques (VMS) para la pesca del atún rojo en la zona del Convenio ICCAT [Rec. 07-08]

Las embarcaciones atuneras mexicanas no dirigen su esfuerzo de pesca al atún rojo y de igual manera no realizan operaciones de pesca en la zona del Convenio de ICAAT. No obstante, desde el año 2004, el Gobierno de México puso en operación el Sistema de Localización y Monitoreo Satelital para Embarcaciones Pesqueras, el cual permite entre otras cosas conocer la localización exacta de la ruta tomada por la embarcación a lo largo de su viaje, así como la zona de pesca; mejorar la información para la investigación técnica y científica pesquera; mejorar la administración de los recursos pesqueros, y verificar el respeto a las vedas, así como a las áreas de captura restringidas o prohibidas y el grado de incidencia o reincidencia de embarcaciones.

El uso del Sistema de Localización y Monitoreo Satelital de Embarcaciones Pesqueras, es obligatorio para todos los concesionarios y permisionarios que realicen actividades de pesca, excepto deportivo-recreativa y esta regulado por la Norma Oficial Mexicana NOM-062-PESC-2007.

4.2 Recomendación para adoptar medidas adicionales contra la pesca ilegal, no declarada y no reglamentada. [Rec. 03-16]

México ha establecido diversas disposiciones para luchar contra la pesca ilegal, no declarada y no reglamentada, aplicando así el Plan de Acción Internacional de la FAO para prevenir, desalentar y eliminar la pesca ilegal, no declarada y no reglamentada.

Se tiene establecido un procedimiento legal de matriculación de embarcaciones, mismo que es compatible con las disposiciones establecidas por la Organización Marítima Internacional. Las embarcaciones pesqueras que enarbolan el Pabellón de México deben de disponer de un permiso de pesca otorgado por el gobierno de México. En dicho permiso se establecen las condiciones que dicho buque debe observar para garantizar una pesca responsable. Las embarcaciones pesqueras con bandera mexicana que participan en pesquerías reguladas por organismos regionales de ordenación pesquera asumen cabalmente las disposiciones adoptadas en dichos acuerdos.

A través del Programa Nacional de Observadores a bordo, se da seguimiento a las actividades pesqueras de los buques que enarbolan su pabellón. La operación de éste facilita al Gobierno de México supervisar que las operaciones que realiza cada embarcación cumplan con la legislación nacional vigente así como con las normas establecidas en el marco de los acuerdos internacionales que regulan la pesquería y en los cuales México participa y/o coopera.

México ha establecido disposiciones para regular el acceso a sus puertos. Las disposiciones legales prohíben que embarcaciones pesqueras de bandera extranjera desembarquen en puertos mexicanos productos pesqueros provenientes de la pesca comercial, excepto en caso de siniestro o en casos en que expresamente se autorice y se cubran ciertos requisitos

Sección 5: Otras actividades

5.1 Resolución sobre la mejora de estadísticas de las pesquerías de recreo [Rec. 99-07]

La Comisión Nacional de Acuacultura y Pesca es la responsable de la evaluación y administración de los recursos objetivo de la pesca deportiva. Además, la nueva Ley General de Pesca y Acuacultura Sustentable le instruye ahora el fomento y promoción de esta importante actividad turística y deportiva.

Esta misma legislación respeta la histórica reserva de nueve especies marinas, dentro de las primeras 50 millas de mar territorial, para el uso exclusivo de la pesca deportiva. Todas ellas altamente migratorias: cuatro tipos de marlines (blanco, rayado, azul y negro), el pez vela, el pez espada, el pez dorado, el sábalo y el pez gallo.

El ejercicio de la pesca deportiva en México obedece límites de captura, los cuales se basan en criterios científicos expresos en la Norma Oficial Mexicana 017.

Con el propósito de concretar un ordenamiento pesquero de esta actividad, así como de fomentar y promover su práctica, la CONAPESCA ha presentado el Programa Nacional de Pesca Deportiva 2008-2012, el cual se conforma de una serie de políticas enmarcadas en el impulso de la competitividad de la pesca deportiva nacional e internacionalmente; una administración integral y sustentable; una mejora regulatoria y un nuevo marco legal nacional. Este Plan ha sido elaborado con la participación directa de los actores y usuarios de la actividad.

Finalmente, México reitera su compromiso por trabajar en la ICCAT para alcanzar medidas y métodos que permitan realizar una pesca responsable a través de instrumentar las acciones que apuntan a alcanzar una rendimiento máximo sostenible, apoyar disposiciones dirigidas al enfoque precautorio, regulación de la capacidad de la flota y el combate a la pesca ilegal, no regulada y no documentada; asimismo, se ha externado la preocupación por la votación por correspondencia y el establecimiento de medidas en materia de comercio para promover la aplicación adecuada de las medidas de ordenación, entre otras.

Tabla 1. Captura total (toneladas métricas) y cobertura del muestreo en la pesca con palangre del atún aleta amarilla (*Thunnus albacares*) en el Golfo de México, de 1995 a 2007.

	1995	*1996*	*1997*	*1998*	*1999*	*2000*	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*
Captura (t)	1.126	771	826	788	1.283	1.390	1.084	1.133	1.362	1.207	1.050	938	890
Tasa de muestreo de las actividades pesqueras	100%	100%	ND	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Número de los peces muestreados	27.504	8.097	5.040	8.074	ND	24.266	22.693	32.461	36.875	33.684	29.488	26.255	24.908

ND= Dato No Disponible

Tabla 2. Estadísticas por trimestre de la captura total (en toneladas) del atún aleta amarilla (*Thunnus albacares*) en el Golfo de México, 2007.

	Trimestre				
CAPTURA TOTAL	I	II	III	IV	TOTAL
Captura embodegada	166	259	233	233	890
Liberada viva	4	5	15	6	30
Descartada muerta	1	1	2	2	6

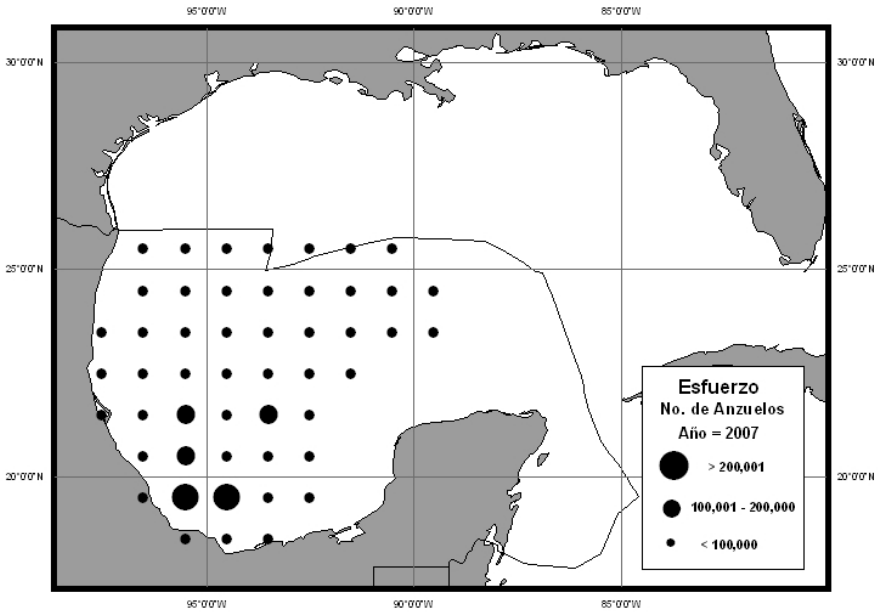

Figura 1. Distribución geográfica del esfuerzo de la flota palangrera mexicana (no. de anzuelos) en el Golfo de México, para 2007. El mapa se elaboró utilizando el número de anzuelos totales concentrados por cuadrante de 1° de Latitud por 1° de Longitud).

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

Taoufik El Ktiri[1], Dr. M'hamed Idrissi[2]

SUMMARY

Fishing for tunas and tuna-like species has considerable socio-economic importance. This actively requires important investments and creates considerable employment. These fisheries continue to assure an average annual production on the order of 10,000 t in recent years. Catches in 2007 amounted to 12,585 t. The major species caught along the Moroccan coast are bluefin tuna, swordfish, bigeye tuna, yellowfin tuna, albacore, small tunas and some shark species. The fishing zones differ from one species or group of species to another. Multiple fishing gears are used, mainly trap, hand line, troll (sporadically), drift net (whose use is currently being discontinued, to be substituted by other gears, such as longline). A farming operation is currently being carried out on the Atlantic coast of Morocco. As regards catches, there has been an 8% overall drop in 2007 as compared to 2006, due to the decrease in the quantities landed, particularly for some species such as swordfish (-22%), bigeye tuna (-27%), where there has been a reported increase in catches of yellowfin tuna (+7%), bluefin tuna (+28%), Atlantic black skipjack, plain bonito and sharks. For the major species (bluefin tuna, swordfish, tropical tunas and small tunas) catches are broken down by area and by gear for the 1996 and 2007 period. The management and conservation measures on these resources and their fisheries, such as those adopted by ICCAT, are based essentially on the following aspects: minimum size limits, limit on fishing effort, monitoring of fishing activities at sea and on land at landing. These measures are strengthened by the implementation of a tracking system and satellite monitoring of the fishing vessels (DRS/GPS). The collection of statistics on fishing and effort is carried out practically in an exhaustive manner by the fisheries administration structure (Department of Fisheries and the National Office on Fishing), located all along the Atlantic and Mediterranean coasts of Morocco. Monitoring is also carried out by the Office of Foreign Exchange, as concerns the exports of the fishing products. Work to reconstruct the historical series of the statistics is currently on-going, in particular, concerning fishing effort, which will improve the Task II data in the near future. As regards scientific work, the Institut National de Recherche Halieutique, INRH (National Research Institute on Fishing) through its five Regional Centers covering the entire Moroccan coast, reinforced the collection of biological data on the major species (bluefin tuna and swordfish). The Regional Center of the INRH in Tangiers serves as the coordination center for the collection of all these data. In the last few years the monitoring of other species has started, in particular, the tropical tunas (bigeye tuna, among others), with an expansion of the research work towards areas located in the south of Morocco. Considerable progress has also been reported in the collection of biological data, as shown by the series of scientific documents presented by Moroccan scientists to the various SCRS meetings for the assessment of the tuna stocks. The biological studies also cover aspects related to bluefin tuna reproduction. A scientific program was initiated in 2008 in collaboration with the INRH and the University of Bari (Italy) and the results will be submitted to the SCRS at the next assessment sessions. The optimization of this program will depend on the funds that are allocated to it, particularly those available at ICCAT.

RÉSUMÉ

La pêche des espèces de thonidés et des espèces apparentées revêt une importance socioéconomique. Nécessitant d'importants investissements et créant beaucoup d'emplois, ces pêcheries continuent d'assurer une production annuelle moyenne de l'ordre de 10.000 tonnes durant les dernières années. La production de l'année 2007 s'élève à 12.585 tonnes. 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. Les zones de pêche diffèrent d'une espèce ou groupe d'espèces à un autre. Les engins de pêche sont multiples, notamment les madragues, la ligne à main, la senne tournante (sporadiquement), le

[1] Département des Pêches Maritimes.
[2] Institut National de Recherche Halieutique / Centre Régional de Tanger.

filet maillant dérivant (en cours d'éradication et de substitution par d'autres engins notamment la palangre). Une opération d'engraissement est actuellement mise en place sur la côte atlantique du Maroc. Sur le plan de la production, en comparaison avec l'année 2006, les quantités débarquées en 2007 ont globalement chuté de 8%, une chute due à la baisse des quantités débarquées pour certaines espèces, notamment l'espadon (-22%), le thon obèse (-27%) alors qu'une augmentation a été enregistrée pour l'albacore (+ 7%), le thon rouge (+ 28%), la thonine, la palomette et les squalidés. Pour les espèces principales (thon rouge, espadon, thonidés tropicaux et thonidés mineurs), les captures sont ventilées par zone, par engin pour la période 1996 et 2007. Les mesures de gestion et de conservation de ces ressources et de leurs pêcheries, telles qu'elles sont adoptées par l'ICCAT, se basent essentiellement sur les aspects suivants : les limites de taille minimale, la limitation de l'effort de pêche, le contrôle des activités de pêche, à la fois en mer et à terre au débarquement. Ces mesures sont renforcées par la mise en place d'un système de repérage et de suivi par satellite des navires de pêche (DRS/GPS). 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 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. Un travail de reconstitution des séries historiques des statistiques est en cours, notamment en ce qui concerne l'effort de pêche, qui pourraient améliorer les données de la Tâche II dans un futur proche. 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 des données biologiques des principales espèces (thon rouge et espadon). Le Centre Régional de l'INRH à Tanger sert de coordinateur de collecte de toutes ces données. Au cours de ces dernières années, d'autres espèces ont commencé à être suivies, notamment celles des thonidés tropicaux (thon obèse, entre autres), avec une extension des travaux de recherche vers les zones situées au sud du Maroc. Un grand progrès a été ainsi enregistré en matière de collecte de données biologiques, tel qu'en témoigne la série de documents scientifiques soumise par les chercheurs marocains aux différentes sessions du SCRS à des fins d'évaluation de stocks de thonidés. Les études biologiques couvriront également les aspects liés à la reproduction du thon rouge, un programme spécifique a été lancé à cet effet en 2008 en collaboration entre l'INRH et l'Université de Bari (Italie) et dont les résultats seront communiqués au SCRS lors des prochaines sessions d'évaluation. L'optimisation de ce programme dépendra des fonds qui lui seraient alloués, notamment à travers ceux domiciliés à l'ICCAT.

RESUMEN

La pesca de túnidos y especies afines reviste una gran importancia socioeconómica, requiere importantes inversiones y crea muchos puestos de trabajo. Durante los últimos años, estas pesquerías han seguido teniendo una producción anual media del orden de 10.000 t. La producción de 2007 asciende a 12.585 t. Las principales especies explotadas a lo largo de las costas marroquíes son atún rojo, pez espada, patudo, rabil, atún blanco, pequeños túnidos y escualos. Las zonas de pesca difieren entre las diversas especies o grupos de especies. Los artes de pesca son múltiples, pero se utilizan sobre todo almadrabas, liña de mano, cerco (esporádicamente) y redes de enmalle a la deriva (que se están erradicando para sustituirlas por otros artes, sobre todo palangre). Actualmente está operando una instalación de engorde en la costa atlántica marroquí. En cuanto a la producción, en comparación con 2006, las cantidades desembarcadas en 2007 han descendido globalmente un 8%, un descenso debido a la reducción de los desembarques de algunas especies, sobre todo pez espada (-22%), patudo (-27%), mientras que se ha registrado un incremento para el rabil (+7%), el atún rojo (+28%), bacoreta, tasarte y escualos. Para las principales especies: atún rojo, pez espada, túnidos tropicales y pequeños túnidos, las capturas se han desglosado por zona y arte para el periodo 1996 a 2007. Las medidas de conservación y ordenación de estos recursos y de sus pesquerías, tal y como han sido adoptadas por ICCAT, se basan sobre todo en los siguientes aspectos: límites de talla mínima, limitación del esfuerzo de pesca y control de las actividades de pesca, tanto en mar como en tierra en el momento del desembarque. Estas medidas se han reforzado mediante la implementación de un sistema de localización y seguimiento de los buques de pesca vía satélite (DRS/GPS). 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. También se lleva a cabo, en una fase ulterior, un control realizado por la Oficina de Cambio que se centra en las exportaciones de productos pesqueros. Se está realizando un trabajo de recuperación de series históricas de estadísticas, sobre todo en lo que se refiere al esfuerzo pesquero. Con esta tarea se podrían mejorar los datos de la Tarea II en un futuro próximo. En el plano científico, el Instituto Nacional de Investigación Pesquera (Institut National de Recherche Halieutique, INRH), a través de sus centros regionales (cinco), que cubren todo el litoral marroquí, ha reforzado la recopilación de datos biológicos de las principales especies (atún rojo y pez espada). El Centro regional del INRH en Tánger ejerce las funciones de coordinador de la recopilación de todos estos datos. Durante los últimos años, se ha comenzado a realizar un seguimiento de otras especies, sobre todo de túnidos tropicales (patudo, entre otras), con una ampliación de los trabajos de investigación hacia las zonas situadas 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 presentados al SCRS por los investigadores marroquíes en las diferentes sesiones de evaluación de los stocks de túnidos del SCRS. Los estudios biológicos cubrirán también los aspectos vinculados con la reproducción del atún rojo; en este sentido, en 2008 se ha puesto en marcha un programa específico de colaboración entre el INRH y la Universidad de Bari (Italia) cuyos resultados se comunicarán al SCRS durante las próximas sesiones de evaluación. La optimización de este programa dependerá de los fondos que le sean asignados, sobre todo a través de los fondos que se centralizan en ICCAT.

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

Chapitre 1 : Information annuelle sur les pêcheries

1.1 Exploitation des thonidés

Les principales espèces de thonidés exploitées par les pêcheurs marocains sont :

- le thon rouge,
- le thon obèse,
- l'espadon,
- l'albacore,
- le germon,
- les thonidés mineurs (listao, bonite, melva, etc.) ainsi que bien d'autres espèces.

Ces espèces sont exploitées par un armement national diversifié constitué de navires de pêche armés à la senne, à la palangre et à la ligne à main. Les 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. Quelques unités artisanales capturent le thon rouge en Méditerranée durant les mois de juin à septembre. Des espèces de thons mineurs sont capturées en Méditerranée.

L'espadon est capturé essentiellement en Méditerranée en raison du faible quota attribué au Maroc pour le stock Atlantique-Nord. 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 la ZEE nationale.

1.3 Techniques de pêche

Les thonidés et espèces voisines sont pêchées essentiellement par quatre techniques de pêche :

- La madrague : Cet engin cible principalement le thon rouge et les thonidés mineurs. En 2007, quinze 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, I 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. (Longueur inférieure à 7m et TJB < 2 tnx).

  Cette activité de pêche avec cet engin cible les grandes tailles du thon rouge et parfois même le thon obèse dans les régions du Sud. Elle est presque continue durant toute l'année, avec un arrêt d'activité de deux à trois mois par an.

  Quelques individus d'espadon sont capturés mais de manière occasionnelle. D'autres espèces sont capturées, notamment la bonite.

- Senne tournante : Cette technique de pêche est utilisée par les senneurs 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.

  Aussi, y a-t-il lieu de signaler qu'en 2007, un navire de type senneur a mené des activités de pêche sur le thon rouge dans les eaux méditerranéennes internationales (Méditerranée orientale) avec une production déclarée de 510 t.

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

  Il est important de signaler que la plupart de ces navires sont de petites tailles (14-16m LHT) et ont comme principal port d'attache ceux de la Méditerranée.

  L'utilisation de cet engin est en net recul en raison de l'approche de la date butoir de son élimination des côtes marocaines.

1.4 Engraissement des thonidés

L'engraissement des thonidés est une activité en cours de développement au Maroc. Actuellement, une seule unité de ce genre a été autorisée à mener ce type d'activité en Atlantique (Sidi-Ifni). Ce projet dispose de son propre navire de pêche (thonier-senneur) et d'un navire remorqueur.

Les espèces qui seront engraissées, dans un premier temps, sont le thon obèse et le thon albacore (yellowfin tuna).

Les activités d'engraissement de thon rouge ne débuteront que lorsque le nouveau plan d'aménagement de la pêcherie du thon rouge sera finalisé.

Il est à signaler que l'accord qui a été donné par le Département des Pêches Maritimes à ces promoteurs, sous forme de cahier des charges, inclus de nombreuses dispositions adoptées par l'ICCAT.

Chapitre 2 : Recherche et statistiques

Les statistiques générales de la pêche aux thonidés et espèces apparentées sont données au **Tableau 1.**

Les données de capture du thon rouge, durant la période 1998-2007 (Tâche I) figurent au **Tableau 2**.

Les données de capture de l'espadon, par métier et par zone, durant la période 1998-2007 (Tâche I) sont reportées au **Tableau 3**.

Les données de capture des thonidés mineurs, par métier et par zone, pour l'année 200**7** (Tâche I) sont reportées au **Tableau 4**.

Les captures du voilier, makaire bleu, thon obèse, thon germon et thon albacore, réalisées en 2007, par métier et par zone (Tâche I) sont ventilées au **Tableau 5**.

L'évolution des captures des squalidés et requins pour la période 1998-2007 (en t) est reportée au **Tableau 6**.

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.*

Le **Tableau 7** récapitule les captures par zones et par espèces (t).

Les fréquences de tailles échantillonnées du thon rouge capturé par les madragues de l'Atlantique nord marocain en 2007 sont incluses au **Tableau 8.**

Les prises par taille du thon rouge capturé par les madragues de l'Atlantique nord marocain en 2007 sont incluses au **Tableau 9.**

Les fréquences de tailles de l'espadon capturé par le filet maillant dérivant (FMD) en Méditerranée marocaine en 2007 sont répertoriées au **Tableau 10**.

Les prises par tailles de l'espadon capturé par le filet maillant dérivant (FMD) en méditerranée marocaine en 2007 sont répertoriées au **Tableau 11.**

2.1 Taux de mortalité accidentelle des oiseaux de mer et taux de capture accidentelle des tortues marines

Il ressort des enquêtes menées sur le terrain auprès des marins pêcheurs des palangriers spécialisés, ce qui suit :

- 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, 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 le plus souvent les oiseaux de mer ;

- 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 h);

- Les prises accidentelles d'oiseaux de mer sont de l'ordre d'un oiseau par 20 jours de pêche ;

- Les prises accidentelles de tortues de mer sont d'une unité par 20 jours de pêche également.

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 :

- 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 ;

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

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.

2.2 Activités de recherche

Sur le plan de la recherche halieutique, l'INRH, à travers ses structures régionales de recherche le long du littoral marocain, a poursuivi en 2007 ses programmes de recherche sur les thonidés et les espèces apparentées, tout en les renforçant davantage. Le suivi biologique des thonidés constitue ainsi l'un des programmes prioritaires de l'INRH.

Le programme d'échantillonnage biologique concerne deux principales espèces de thonidés, les plus importantes économiquement; il s'agit de l'espadon (*Xiphias gladius*) et du thon rouge (*Thunnus thynnus*).

En raison de leur coût très élevé, d'une part, et de la difficulté d'accès au matériel biologique, d'autre part, l'échantillonnage biologique des thonidés se limite essentiellement aux mensurations de taille et de poids individuels, données nécessaires pour les analyses des structures démographiques et les évaluations des stocks.

Les séries historiques des prises par tailles disponibles couvrent la période allant de 1998 jusqu'en 2007. Ces données concernent principalement les pêcheries de l'espadon et du thon rouge de l'Atlantique, de la Méditerranée et des zones d'influence du Détroit de Gibraltar.

En raison de leur commercialisation directe en mer, les captures du thon rouge par les madragues de l'Atlantique ont toujours été sous-échantillonnées. Les données de tailles relatives à cette espèce, obtenues à travers les embarquements des années antérieurs, couvrent seulement un faible effectif d'individus et ne peuvent donc pas être utilisées pour estimer la capture totale par taille. Néanmoins, grâce au programme de suivi des déchets du thon rouge capturé par les madragues, lancé par le Centre Régional de l'INRH à Tanger en 2006, les données de prise par taille du thon rouge pour cette pêcherie, ont pu être reconstituées pour les années 2006 et 2007. Le document SCRS/2008/096 présente les résultats préliminaires de ce programme.

L'échantillonnage des tailles des thonidés a été axé jusqu'ici sur les pêcheries traditionnelles de l'espadon et du thon rouge, développées principalement en Méditerranée et la zone d'influence du Détroit de Gibraltar. Les nouvelles pêcheries palangrières développées ces dernières années sur la côte atlantique sud marocaine, notamment dans la région maritime de Dakhla, ne sont pas encore couvertes par le réseau actuel d'échantillonnage, en raison notamment de l'éloignement de ces pêcheries et les moyens limités mis à la disposition du Centre Régional de l'INRH de Tanger. Ces pêcheries visent principalement l'espadon et deux espèces de thonidés majeurs à affinité tropicale, à savoir le thon obèse (*Thunnus obesus*) et l'albacore (*Thunnus albacares*).

Un effort d'échantillonnage considérable devrait donc être orienté vers les pêcheries du Sud pour collecter les données de poids et /ou de taille individuels relatives aux trois espèces susmentionnées, requises pour les évaluations des stocks dans le cadre de l'ICCAT. Du point de vue pratique, le Centre Régional de l'INRH à Dakhla serait appelé à jouer un rôle clé dans le suivi biologique de ces pêcheries.

Une autre pêcherie de thonidés importante qui n'est pas couverte par le réseau d'échantillonnage biologique, est celle pratiquant la senne et qui cible le thon rouge dans la région maritime d'El Jadida. Cette pêcherie présente la particularité d'exploiter des individus plus petits que ceux capturés par les madragues. L'activité de pêche est très saisonnière et ne dépasse pas généralement 2 à 3 mois. L'échantillonnage biologique de cette pêcherie sera assuré par le Centre de Tanger à partir de l'année 2008.

Cependant, l'échantillonnage des captures du thon rouge dans la pêcherie à la senne pourrait être confronté à des problèmes liés notamment aux nouvelles mesures réglementaires adoptées par l'ICCAT en 2006. Ces dernières consistent notamment à interdire la pêche du thon rouge par la senne dans tout l'Atlantique Est et la Méditerranée, durant la période comprise entre le 1er juillet et le 31 décembre de chaque année, et la fixation d'une taille marchande minimale pour cette espèce à 30 kilogramme.

Soucieux de l'importance des connaissances sur la biologie de reproduction du thon rouge, l'INRH a mis en place un programme à cet effet. Il sera exécuté en collaboration avec l'Université de Bari (Italie), à partir de la campagne de pêche 2008.

IIème partie (Mise en œuvre de la gestion)

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

3.1 Limites de taille minimale

Conformément aux Recommandations de l'ICCAT, le Département des Pêches Maritimes interdit la capture des poissons sous-taille et ce, aux termes d'un Arrêté Ministériel, modifiant et complétant l'Arrêté du 03 octobre 1988 fixant la taille marchande minimale des espèces pêchées dans les eaux marocaines. Ce projet est en cours d'amendement pour y inclure la nouvelle taille commerciale minimale de thon rouge (Rec. ICCAT 06-05) qui a été notifiée aux opérateurs par lettre circulaire.

3.2 Limitation de l'effort de pêche

En application de la note circulaire 3887 du 18 août 1992, les investissements en matière de construction navale ont été suspendus depuis cette date afin d'assurer une compatibilité entre effort de pêche et le niveau de l'état des stocks. Par ailleurs, la circulaire n° 001 du 01/02/2005 fixant les conditions d'octroi et de prorogation des autorisations de reconversion, de refonte et de remplacement des navires de pêche permet d'apporter certaines modifications techniques aux navires de pêche actifs.

Toutefois, il est à signaler que le segment des madragues, au regard de ses particularités (engin de pêche artisanal, aléatoire et fixe), n'est pas concerné par le gel et dans le cadre du respect des niveaux de quota de thon rouge attribués par l'ICCAT au Royaume du Maroc. A cet égard, de nouveaux accords de principe pour le calage de nouvelles unités ont été délivrés à des opérateurs.

Actuellement, 1.877 navires côtiers ciblent de manière sporadique, et dans la ZEE marocaine, toutes les espèces de thonidés et les espèces apparentées dont 145 unités ont une longueur hors tout (LHT) supérieure à 24 m et 17 unités ont une LHT égale à 24 m. Quant à la flotte artisanale, composée de barque ayant une LHT inférieure ou égale à 7 m, elle cible également mais de manière sporadique les espèces thonières et les espèces apparentées.

Chapitre 4 : Schémas et activités d'inspection

4.1 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 d'un observateur scientifique dont la mission est le contrôle des tailles, espèces, le tonnage et la collecte des données biologiques. Ainsi, 100% des madragues sont couvertes par un observateur scientifique du Département des Pêches Maritimes. A la fin de la saison de pêche, généralement 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.

Chapitre 5 : Autres activités

5.1 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.

5.2 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'Economie 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 de captures de thonidés et espèces apparentées (en tonnes métriques).

Espèces	*Total (t)*
Albacore (YFT)	102
Germon (ALB)	96
Thon obese (BET)	700
Thon rouge (BFT)	3.059
Thonine (LTA)	371
Listao (SKJ)	1.592
Bonite à dos rayé (BON)	1.140
Melva (FRI)	170
Palomette (BOP)	806
Espadon (SWO)	1.959
Makaire Bleu (BUM)	00
Voilier de l'Atlantique (SAI)	00
Squalidés et requins	2.590
Total	**12.585**

Tableau 2. Données de capture du thon rouge, durant la période 1998-2007 (Tâche I) (en tonnes métriques).

BFT	*Engin*	*1998*	*1999*	*2000*	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*
Atl	Trap	1.615	852	1.540	2.330	1.670	1.305	1.098	1.518	1.744	2.417
Atl	PS	692	709	660	150	884	490	855	871	179	00
Atl	LL	0	0	0	0	0	02	08	16	273	1
Atl	Gill	34	30	28	17	11	00	00	00	00	00
Méd	Hand	634	600	650	195	407	570	597	80	187	19
Méd	Gill	18	6	6	9	14	20	00	00	00	00
Méd	PS	0	0	0	0	0	170	222	12	3	515
Méd	LL	0	0	0	0	0	0	00	00	00	107
Méd	Trap	35	30	39	307	0	0	00	00	00	00
Tot-Atl		**2.341**	**1.591**	**2.228**	**2.497**	**2.565**	**1.797**	**1.961**	**2.405**	**2.196**	**2.418**
Tot-Méd		**687**	**636**	**695**	**511**	**421**	**760**	**819**	**92**	**190**	**641**
Total		**3.028**	**2.227**	**2.923**	**3.008**	**2.986**	**2.557**	**2.780**	**2.497**	**2.386**	**3.059**

Tableau 3. Données de capture de l'espadon, par métier et par zone, durant la période 1998-2007 (Tâche I) (en tonnes métriques).

SWO	*Engin*	*1998*	*1999*	*2000*	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*
Atl	Trap	2	13	3	7	4	7	3	0	8	8
Atl	PS	10	11	22	9	1	1	1	0	0	0
Atl	Gill	179	60	51	243	64	98	76	9	0	0
Atl	LL	0	35	38	264	154	223	255	325	333	229
Méd	LL	323	259	205	754	1.149	1.670	1.954	1.801	1.455	1.107
Méd	Gill	2.905	2.979	2.503	2.266	2.230	1.629	1.299	722	603	615
Méd	PS	0	0	0	4	0	0	0	0	0	0
Méd	Hand	0	0	0	0	0	0	0	0	0	0
Méd	Trap	0	0	0	2	0	1	0	0	0	0
Tot-Atl		**191**	**119**	**114**	**523**	**223**	**329**	**335**	**334**	**341**	**237**
Tot-Méd		**3.228**	**3.238**	**2.708**	**3.026**	**3.379**	**3.300**	**3.253**	**2.523**	**2.057**	**1.722**
Total		**3.419**	**3.357**	**2.822**	**3.550**	**3.602**	**3.629**	**3.588**	**2.857**	**2.398**	**1.959**

Tableau 4. Données de capture des thonidés mineurs, par métier et par zone, pour l'année 2007 (Tâche I) (en tonnes métriques).

Espèces		*Bacorette (LTA)*	*B. Sarda (BON)*	*Listao (SKJ)*	*Melva (FRI)*	*Palomette (BOP)*	*Total*
Atl	Trap	0	114	4	71	0	189
Atl	Hand	0	178	179	9	0	366
Atl	Gill	0	142	63	1	2	208
Atl	LL	39	538	1.194	43	578	2.392
Atl	PS	1	81	130	11	54	277
Méd	Trap	0	0	0	0	0	0
Méd	Hand	14	24	4	5	0	47
Méd	Gill	0	0	1	1	0	2
Méd	LL	298	56	16	28	168	566
Méd	PS	19	7	1	1	4	32
Tot-Atl		**40**	**1.053**	**1.570**	**135**	**634**	**3.432**
Tot-Méd		**331**	**87**	**22**	**35**	**172**	**647**
Total		**371**	**1.140**	**1.592**	**170**	**806**	**4.079**

Tableau 5. Données de captures du voilier, makaire bleu, thon obèse, thon germon et thon albacore, réalisées en 2007, par métier et par zone (Tâche I) (en tonnes métriques).

2007	*Engin*	*Voilier (SAI)*	*Makaire bleu (BUM)*	*Albacore (YFT)*	*Germon (ALB)*	*Thon obèse (BET)*
Atl	Trap	0	0	0	0	0
Atl	PS	0	0	0	0	0
Atl	Gill	0	0	0	0	0
Atl	LL &Hand	0	0	102	96	700
Méd	LL	0	0	0	0	0
Méd	Gill	0	0	0	0	0
Méd	PS	0	0	0	0	0
Méd	Hand	0	0	0	0	0
Méd	Trap	0	0	0	0	0
Tot-Atl		**0**	**0**	**102**	**96**	**700**
Tot-Méd		**0**	**0**	**0**	**0**	**0**
Total		**0**	**0**	**102**	**96**	**700**

Tableau 6. Evolution des captures des squalidés et requins pour la période 1998-2007 (en tonnes).

Années	*1998*	*1999*	*2000*	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*
Captures	2.245	2.130	3.460	2.200	2.161	2.923	2.996	3.501	2.067	2.590

Tableau 7. Récapitulatif des captures par zones et par espèces (t).

	Atlantique	*Méditerranée*	*Totat :Atl+Méd*
Thon rouge	2.418	641	3.059
Thon obèse	700	0	700
Espadon	237	1.722	1.959
Germon (ALB)	96	00	96
Albacore	102	00	102
Petits thonidés	3.432	647	4079
Squalidés et requins	2.422	168	2 590
Total	**9.407**	**3.178**	**12.585**

Tableau 8. Fréquences de tailles échantillonnées du thon rouge capturé par les madragues de l'Atlantique nord marocain en 2007**.**

FL_5 cm	*Total*
145	
150	1
155	
160	2
165	6
170	
175	3
180	1
185	
190	4
195	
200	2
205	3
210	10
215	28
220	47
225	41
230	25
235	43
240	30
245	34
250	18
255	13
260	4
265	6
270	1
275	1
280	
285	
290	
n	323
Pt échant. (kg)	69.514

Tableau 9. Prises par taille du thon rouge capturé par les madragues de l'Atlantique nord marocain en 2007.

FL_5 cm	*Total*
145	0
150	35
155	0
160	70
165	209
170	0
175	104
180	35
185	0
190	139
195	0
200	70
205	104
210	348
215	974
220	1634
225	1426
230	869
235	1.495
240	1.043
245	1.182
250	626
255	452
260	139
265	209
270	35
275	35
280	0
285	0
290	0
Pt (kg)	2.417.000
N	11.231
Poids moy(kg)	215

Tableau 10. Fréquences de tailles de l'espadon capturé par le filet maillant dérivant (FMD) en Méditerranée marocaine en 2007.

LJ_FL (cm)	*4*	*5*	*8*	
100	1	2	1	4
105	3	11	2	16
110	5	22	2	29
115	6	24	4	34
120	4	26	10	40
125	6	42	9	57
130	10	54	15	79
135	12	52	14	78
140	10	49	22	81
145	4	36	22	62
150	5	32	26	63
155	4	22	16	42
160	3	17	16	36
165	4	21	21	46
170	4	24	12	40
175	2	11	13	26
180	3	16	19	38
185	3	9	16	28
190		12	9	21
195	1	13	10	24
200		6	7	13
205	2	12	4	18
210		3	3	6
215		3	2	5
220		3	2	5
225		3	1	4
230		1		1
235		1		1
n	92	527	278	897
Pt. échant. (kg)	4.406,08	27.765,92	17.138,24	49.310

Tableau 11. Prises par tailles de l'espadon capturé par le filet maillant dérivant (FMD) en Méditerranée marocaine en 2007**.**

				Total 4-5-8	*Total 2007*		
LJ-FL(cm)/mois	4	5	8				
100	21	20	6	47	61		
105	63	110	12	186	242		
110	106	221	12	338	440		
115	127	241	23	391	509		
120	84	261	59	404	526		
125	127	422	53	601	783		
130	211	542	88	842	1095		
135	253	522	82	858	1116		
140	211	492	129	833	1083		
145	84	362	129	575	749		
150	106	321	153	580	754		
155	84	221	94	399	520		
160	63	171	94	328	427		
165	84	211	123	419	545		
170	84	241	70	396	515		
175	42	110	76	229	298		
180	63	161	112	336	437		
185	63	90	94	248	322		
190	0	121	53	173	226		
195	21	131	59	210	274		
200	0	60	41	101	132		
205	42	121	23	186	242		
210	0	30	18	48	62		
215	0	30	12	42	54		
220	0	30	12	42	54		
225	0	30	6	36	47		
230	0	10	0	10	13		
235	0	10	0	10	13		
Pt (kg) ONP	166.516	499.015	180.135	845.666	1.100.460	CE	0,55885721
Pt (kg) ICCAT	93.059	278.878	100.670	472.607	615.000		
N	1.943	5.293	1.633	8.869	11.541		

NB 1: Pour plus d'informations sur les données de la Tâche II, prière contacter le Dr. Idrissi, scientifique principal-Délégation du Maroc auprès de l'ICCAT.

NB 2: Les séries historiques de données de Tâche II du thon obèse, thon rouge et Espadon ont été déjà communiquées par la délégation scientifique du Royaume du Maroc au SCRS.

ANNUAL REPORT OF NORWAY
RAPPORT ANNUEL DE LA NORVÈGE
INFORME ANUAL DE NORUEGA

SUMMARY

In light of the critical stock situation for 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 and aims to put the data on this species into an ecosystem perspective. Comprehensive reviews of the Norwegian fishery from 1920-1980 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 the Study into Stock Fluctuations of Northern Bluefin Tuna Including the Historic Period". Norway has participated in all major scientific meetings concerning Atlantic bluefin tuna in 2007 and 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 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 été 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 ces dernières décennies. La Norvège a pris part à toutes les principales réunions scientifiques concernant le thon rouge de l'Atlantique en 2007 et 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 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. Noruega ha participado en todas las principales reuniones científicas sobre atún rojo del Atlántico en 2007 y 2008.*

Part I (Information on Fisheries, Research and Statistics)

Section 1: Annual Fisheries Information

The Royal Norwegian Ministry of Fisheries and Coastal Affairs informed ICCAT about a regulation adopted 3 May 2007. In light of the critical stock situation for 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.

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 northwestern 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) model is under development, based on official Norwegian catch statistics and detailed individual bluefin tuna data for the period 1950-1970. Norway had two oral presentations at the "World Symposium for the Study into Stock Fluctuations of Northern Bluefin Tuna (*Thunnus thynnus* and *Thunnus orientalis*) Including the Historic Period" 22-24 April 2008 in Santander, Spain. The titles of the presentations were: (1) The Norwegian bluefin tuna fishery for the period 1920-1986, and (2) Possible mechanisms and explanations for the drastic decline and disappearance of Atlantic bluefin tuna in the Norwegian fisheries since the early 1960s: What went wrong and what can we do? Norway has participated in all major international scientific meetings concerning Atlantic bluefin tuna in 2007 and 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 Norwegian vessels to fish and land bluefin tuna in Norway's territorial waters, in the Norwegian Economic Zone and in international waters. Due to this prohibition the implementation of additional measures adopted by ICCAT is not applicable.

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 about 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.

In light of the prohibition against fishing of bluefin tuna, implementation of ICCAT measures relating to inspection is not applicable.

Section 5: Other Activities

Norway has no other tuna fishery related activities.

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 eight 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 bigeye, 239 tons yellowfin and 12 tons swordfish). 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 Observer Program to monitor transshipment at sea of ICCAT member countries. 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, and 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 la collecte et la vérification standard des données pour les 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 pays membres 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 pescar cualquier año. La captura de Filipinas en la zona del Convenio ICCAT ascendió a 2.067 t (1.816 t de patudo, 239 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 los países miembros 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 mt or about 50 % of the total tuna catch). The municipal sector on the other hand takes about 110,735 mt of oceanic and neritic tunas.

The Philippines at present 28 fishing vessels authorized to fish in the Atlantic Ocean. However, 2 of these vessels have been delisted from the Philippine registry of vessels, these are: Sun Tai No. 1 and Sun Tai No. 2.

In 2006, we have 28 fishing vessels that are authorized 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 2006 totaled 2,067.07 tons and broken down by species as follows: Big-eye (1815.8 tons), Yellowfin (239.3 tons) and Swordfish (12 tons).

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. But in view of financial constraint the system has not yet been established but hopefully in the near future when funds become available.
As mentioned in our National Report last year, the Philippines is implementing the approved Philippine Tuna Management Plan providing for management measures such as control of fishing capacity, regulation on the catching of immature fish through mesh size regulation, regulation 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, big-eye and swordfish. We are also doing this in IOTC, WCPFC and CCSBT.

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

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 a by-catch. The purse seine specialized fishing for tunas belonging to a tropical group was resumed late in 2006, and is now at the stage of formation. The vessels are engaged in fishing at regular intervals and in experimental mode of operation. In Russia, work related to research of tunas and other species of tuna fishery is 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 operations. In the framework of ICCAT, Russia participates in the work of Panel 1 "Tropical Tunas". Research carried out in 2008, in addition to the collection and processing of current fishery and biological materials, was aimed at the analysis of retrospective data on a "small tunas" group, and the study of the morphology of oceanic and neritic-oceanic sharks of 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 opératives et formulent les propositions et les recommandations requises pour l'opération 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, 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 de la morphologie 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 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 atuneros. En el seno de ICCAT, Rusia participa en los trabajo de la Subcomisión 1, "Túnidos tropicales". La investigación realizada en 2008, además de la recopilación y procesamiento de materiales biológicos y pesqueros actuales tenía como

objetivo el análisis de datos retrospectivos sobre un grupo de "pequeños túnidos" y el estudio de la morfología de los tiburones oceánicos y nerítico-océanos del océano Atlántico.

Part I (Information on Fisheries, Research and Statistics)

Section 1: Annual Fisheries Information

In 2007 specialized purse seine tuna fishery was carried out in the eastern Equatorial area by two purse seiners. The catch amounted to 1368 t (211 t of yellowfin tuna, *Thunnus albacares*, 1130 t of skipjack, *Katsuwonus pelamis*, 26 t of bigeye tuna, *Thunnus obesus* and 1t of frigate tuna, *Auxis thazard*). No purse fishery was conducted in the first half of 2008. The mean catch per vessel-day amounted to 8.2 t.

The trawl fishing vessels caught 5 t of bullet tuna, *Auxis rochei rochei*, and 259 t of bonito, *Sarda sarda* as by-catch in 2007 in the Central-East Atlantic (CEA). In 2008, according to the preliminary data, the catches taken by trawlers in CEA amounted to 35 t of tunas (23 t of bullet tuna and 12 t of frigate tuna) and 52 t of bonito.

Section 2: Research and Statistics

In 2007 the observers collected biological materials on tuna fishing seiners. They included fish length measurements, weighing, sex and gonad maturity stage determination, and estimating the indices of stomach fullness. The collected material contained mass measurements of 1379 specimens and biological analyses of 718 specimens The following tuna lengths prevailed in the catches of the seiners: skipjack: 40.3-48.9 cm; yellowfin: 48.5-85.5 cm; bigeye: 46.9-75.0 cm.

The population parameters of bullet tuna were researched in the eastern Atlantic Ocean (30°N-10°S): the length structure, reproduction periods and seasonal feeding intensity based on observations during 1973-1990. Data from 20,733 mass measurements and 5,502 biological analyses of the fish from the economic zones of Sierra Leone, Nigeria, Cameroon, Equatorial Guinea, Gabon, Congo, Angola, Morocco and Mauritania were summarized.

The sizes of bullet tuna in catches varied from 21 to 47 cm; the mean length was 32.7 cm. Spawning was observed in March-June in the northern hemisphere and in June-December in the southern hemisphere. Tunas were actively feeding during the entire year.

The morphological structure of sharks was investigated, including relative length of pectoral fins and upper lobe of caudal fins and index of vertebra water content in oceanic and neritic sharks. It was found that within species such as blue shark (*Prionace glauca*), silky shark (*Carcharhinus falciformis*), shortfin mako (*Isurus oxyrinchus*), and scalloped hammerhead (*Sphyrna lewini*), at least two groups exist that differed in the relative length of pectoral fins and upper lobe of caudal fins and the index of vertebra water content. The index of vertebra water content in oceanic sharks may exceed 70%. As a rule, the high index of vertebra water content is positively correlated either to the length of pectoral fins or to the upper lobe of the caudal fin. The length of the upper lobe of the caudal fin and the length of the pectoral fins are in a complex relationship. For instance, in sharks of gen. *Alopias* the body buoyancy is maintained mostly owing to the upper lobe of the caudal fin, while the pectoral fins are relatively short. The opposite case is observed in sharks of the *Carcharhinidae* family– blue shark and oceanic whitetip shark, *Carcharhinus longimanus*. Apparently, in the above-mentioned species the population groups exist, which may be conditionally indicated as "oceanic" and "neritic". The oceanic populations are characterized by a high index of vertebra water content and a larger relative length of either pectoral fins or the upper lobe of the caudal fin. In the neritic species, a lower index of vertebra water content and shorter fins were observed.

The availability of oceanic and neritic population groups allows explaining different types of sharks' migration pattern, which is rather complicated. Some sharks of the same species undertake extended migrations along the continent; others undertake transoceanic migrations, while the rest remain within one local area. Sharks of the neritic populations do not undertake transoceanic migrations and are not distinguished with the high index of vertebra water content and increased fins length.

In assessing the demographic parameters of sharks, it is reasonable to consider oceanic and neritic population groups independently, otherwise the distortion of results is unavoidable.

Part II (Management Implementation)

Section 3: Implementation of ICCAT Conservation and Management Measures

In purse seine fishing for tunas and tuna-like species, 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 24m reported by ship owner as the vessels of specialized purse fishery for tunas. In 2008, seven purse seiners were recorded.

3.2 Vessel Monitoring System (VMS)

In compliance with ICCAT Recommendation on VMS equipment improvement (Rec.04-11) the Satellite Vessel Monitoring System (VMS) was installed onboard all fishing vessels in 2000.

3.3 Closure of the fishing season

In compliance with Rec.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 on board the vessels fishing in ICCAT Convention area carried out monitoring of fishery and collection of fishery and biological data.

3.5 Bigeye tuna

There are no vessels for the 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 amounted below 2100 t.

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

Information was submitted to the Secretariat on the implementation of the ICCAT management regulations by Russian large-capacity vessels for purse seine fishing for tunas in 2007.

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

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

SUMMARY

*In Senegal, tunas are caught mainly by four fleet types: the industrial fishery that mainly targets yellowfin tuna (*Thunnus albacares-*YFT), skipjack tuna (*Katsuwonus pelamis-*SKJ) and bigeye tuna (*Thunnus obesus-*BET). Catches of the major tunas by seven Senegalese baitboats in 2007 are estimated at 3,898 t, comprised of 816 t yellowfin tuna, 2,278 t skipjack tuna, and 804 t of bigeye. The catches have decreased considerably from those in 2006 (6,063 t). The Senegalese longline fishery is comprised of three vessels. In 2007, the total catch of billfish was assessed at 140.02 t, of which 136.70 t corresponded to the target species swordfish* (Xiphias gladius-*SWO), and 160.08 t of sharks. A part of the artisanal fleet uses hand line, troll line, and purse seine net to catch small tunas: Atlantic black skipjack (*Euthynnus alletteratus-*LTA), West African Spanish mackerel (*Scomberomorus tritor-*MWA), plain bonito (*Orcynopsis unicolor-*BOP), Atlantic bonito (*Sarda sardaI-*BON), wahoo (*Acanthoncybium solandri-*WAH), and frigate tuna (*Auxis thazard-*FRI). Billfishes, such as swordfish (*Xiphias gladius-*SWO), Atlantic blue marlin (*Makaira nigricans-*BUM) and sailfish (*Istiophorus albicans-*SAI) are also found in the catches. A new catch series was presented. In effect, the new Système d'Information National sur la Pêche-SINAP (National Information System on Fishing) implemented by CRODT has allowed the revision and centralizing of all the databases into one secure system which integrates harmonized nomenclatures and codes. The total catches of all small tunas all species combined is estimated at 9,836 t in 2007 and total shark catches by driftnet and hand line amounted to 1,773 t. The sport fishery is monitored by two large fishing centers in Dakar and in Mbour. The sport fishing targets swordfish, billfishes and sailfish (swordfish-*Xiphias gladius-*SWO, Atlantic blue marlin-*Makaira nigricans-*BUM, sailfish-*Istiophorus albicans-*SAI) during the fishing season from May to December. In 2007 catches were assessed at 120.84 t for sailfish and 79.66 t for Atlantic blue marlin. The only existing cannery, The Société Nationale des Conserveries du Sénégal, SNCDS (The National Society of Canneries in Senegal), was supplied by foreign baitboats in 2007. A total of 4,948 t was landed. The collection of fishery data and data on effort is carried out regularly at the port for the industrial fishery and at different landing sites for the artisanal fishery. Samples are conducted in landings at the port of Dakar. For industrial fishing 157 samples of multi-specific sizes were carried out on Senegalese baitboats in 2007. Sampling of billfish (sailfish* Istiophorus albicans-*SAI, and Atlantic blue marlin* Makaira nigricans-*BUM) is conducted at the major landing sites in the artisanal fishery. As regards the entry into force of the ICCAT conservation and management measures, Senegal has implemented a follow up control and surveillance system of the fishing activities: inspections are carried out at the port and all vessels performing illegal fishing are identified.*

RÉSUMÉ

*Les thonidés sont exploités essentiellement au Sénégal par quatre types de flottille : La pêche industrielle qui cible essentiellement l'albacore (*Thunnus albacares-*YFT), le listao (*Katsuwonus pelamis-*SKJ) et le patudo (*Thunnus obesus-*BET). Les prises de thons majeurs des sept canneurs sénégalais en 2007 sont évaluées à 3.898 tonnes, dont 816 tonnes d'albacore, 2.278 tonnes de listao et 804 tonnes de patudo. Les captures ont fortement baissé par rapport à l'année 2006 (6.063 tonnes). La pêche palangrière sénégalaise compte trois bateaux. En 2007, les captures totales des poissons porte-épée ont été évaluées à 140,02 tonnes dont 136,70 tonnes pour l'espèce ciblée* Xiphias gladius-*SWO) et celles des requins à 160,08 tonnes. Une partie de la flottille artisanale exploite à la ligne à la main, à la ligne de traîne et à la senne tournante des petits thonidés : thonine (*Euthynnus alletteratus-*LTA) ; maquereau bonite*

[1] Centre de Recherches Océanographiques de Dakar – Thiaroye (CRODT) LNERV, Hann BP 2241 Dakar E-mail : famngom@yahoo.com
[2] Direction des pêches Maritimes. E-mail : sidyndaw@hotmail.com
[3] Institut Sénégalais de Recherches Agricoles (ISRA) BP 3120 Dakar. E- mail : tdiouf@isra.sn ; tdiouf@refer.sn

*(*Scomberomorus tritor-*MWA) ; palomette (*Orcynopsis unicolor-*BOP) ; bonite à dos rayé (*Sarda sarda-*BON) ; thazard bâtard (*Acanthoncybium solandri-*WAH) et auxide (*Auxis *thazard-FRI). Les poissons porte-épée (espadon,* Xiphias gladius-*SWO, marlin,* Makaira *nigricans-BUM, et voilier,* Istiophorus albicans-*SAI) sont aussi pris dans les captures. Une nouvelle série de captures est présentée. En effet, le nouveau Système d'Information National sur la Pêche (SINAP), mis en place au CRODT, a permis la révision et la centralisation de l'ensemble des bases de données dans un système unique, sécurisé et intégrant une harmonisation des nomenclatures et des codifications. Les prises totales des petits thonidés, toutes espèces confondues, ont été estimées à 9.836 tonnes en 2007 et celles des requins capturés à l'aide de filet dormant et de ligne à 1.773 tonnes. La pêche sportive est suivie dans deux grands centres de pêche à Dakar et à Mbour. La pêche sportive cible l'espadon, les marlins et les voiliers pendant la saison de pêche située de mai à décembre (espadon,* Xiphias gladius-*SWO, marlin,* Makaira nigricans-*BUM, voilier,* Istiophorus albicans-*SAI). En 2007, les captures ont été évaluées à 120,84 tonnes pour le voilier et 79,66 tonnes pour le marlin. La seule conserverie existante, la Société nationale des Conserveries du Sénégal (SNCDS), a été approvisionnée par les canneurs étrangers en 2007. Un total de 4.948 tonnes a été débarqué. La collecte des données de pêche et d'effort se fait de manière journalière au niveau du port pour la pêche industrielle et des différents sites de débarquement pour la pêche artisanale. Des échantillonnages sont réalisés lors des débarquements au port de Dakar. En 2007, pour la pêche industrielle, 157 échantillons de tailles plurispécifiques ont été effectués sur les canneurs sénégalais. L'échantillonnage des istiophoridés (voilier,* Istiophorus albicans-*SAI, et marlin bleu,* Makaira nigricans-*BUM) est réalisé dans les principaux centres de débarquement de la pêche artisanale. En ce qui concerne la mise en œuvre des mesures de conservation et de gestion de l'ICCAT, 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 Senegal los túnidos son explotados básicamente por cuatro tipos de flotas: La pesca industrial se dirige principalmente al rabil (*Thunnus albacares-*YFT), listado (*Katsuwonus pelamis-*SKJ) y patudo (*Thunnus obesus-*BET). Las capturas de grandes túnidos de siete cañeros senegaleses en 2007 se estimaron en 3.898 t, de las cuales 816 corresponden a rabil, 2.278 t corresponden al listado y 804 t corresponden al patudo. Las capturas han descendido mucho respecto al año 2006 (6.063 t). La pesca palangrera senegalesa cuenta con tres buques. En 2007 las capturas totales de peces de pico se han estimado en 140,02 t, de las cuales 136,70 t corresponden a la especie objetivo pez espada (*Xiphias gladius-*SWO) y 160,08 t a tiburones. Una parte de la flota artesanal explota con liña de mano, curricán y cerco pequeños túnidos: bacoreta, (*Euthynnus alletteratus-*LTA), carita lusitánico (*Scomberomorus tritor-*MWA), tasarte (*Orcinopsis unicolor-*BOP) y bonito atlántico (*Sarda sarda-*BON), peto, (*Acanthocybium solandri-*WAH) y melva (*Auxis thazard-*FRI). Esta pesquería también explota peces de pico como pez espada (*Xiphias gladius-*SWO), aguja azul (*Makaira nigricans-*BUM) y pez vela (*Istiophorus albicans-*SAI). Se ha presentado una nueva serie de capturas. En efecto, el nuevo Sistema de información nacional sobre la pesca (SINAP), implementado en el CRODT, ha permitido la revisión y centralización de todas las bases de datos en un sistema único, garantizado y que integra una armonización de las nomenclaturas y las codificaciones. Las capturas totales de pequeños túnidos para todas las especies mezcladas han sido estimadas en 9.836 t en 2007 y las de tiburones capturados con palangre y liña en 1.773 t. En cuanto a la pesca deportiva, ésta es objeto de seguimiento por parte de dos grandes centros de pesca en Dakar y Mbour. La pesca deportiva se dirige al pez espada, a los marlines y al pez vela (pez espada-*Xiphias gladius-SWO, *aguja azul-*Makaira nigricans-*BUM, pez vela-*Istiophorus albicans-*SAI) durante la temporada de pesca, desde mayo a diciembre. En 2007, se estimaron unas capturas de 120,84 t de pez vela y 79,66 t de aguja azul.La única conservera que existe, la Société nationale des Conserveries du Sénégal (SNCDS), ha sido abastecida por los cañeros extranjeros en 2007. Se ha desembarcado un total de 4.948 t. La recopilación de datos de captura y esfuerzo se hace diariamente en el puerto para la pesca industrial y en diferentes puntos de desembarque para la pesca artesanal. Durante los desembarques en el puerto de Dakar se realizan muestreos. En 2007, para la pesca industrial se han efectuado 157 muestreos de tallas multiespecíficos en los cañeros senegaleses. El muestreo de istiofóridos (pez vela,* Istiophorus albicans-*SAI, y aguja azul,* Makaira nigricans-*BUM) se realiza también en los*

principales centros de desembarque de la pesca artesanal. Respecto a la implementación de las medidas de conservación y ordenación de ICCAT, 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 Sénégal dispose d'une façade maritime de 718 km (de Saint Louis au nord au Cap- Roxo au sud), d'une zone économique exclusive de 200 miles marins avec un large plateau continental de 23.800 km^2 où se concentrent les principales espèces exploitées par les différentes pêcheries artisanales, sportives et industrielles. Le littoral sénégalais est une zone de forte productivité halieutique (siège d'un upwelling intense). Le Sénégal se trouve sur le parcours migratoire des espèces pélagiques hauturières d'où son importance dans la gestion de cette pêcherie. Cette note est essentiellement axée sur les thonidés et les espèces voisines de l'Atlantique et leur système d'exploitation.

1.1 La pêche industrielle

Les principaux scombridae ciblés par la pêche industrielle au Sénégal sont : l'albacore *Thunnus albacares (YFT),* le listao *Katsuwonus pelamis (SKJ*) et le patudo *Thunnus obesus (BET).*

Par ailleurs, d'autres espèces de petits thonidés côtiers (thonine, auxide, maquereau bonite et bonite à dos rayé), de poissons porte-épée (espadon, marlin et voilier*)* sont également capturées par la pêche thonière.

Les thonidés sont exploités essentiellement par trois types de flottille :

- Une flottille de canneurs ayant Dakar comme port d'attache, où la totalité des captures sont débarquées. Ils sont au nombre de 18 canneurs dont sept canneurs sénégalais, quatre canneurs français, sept canneurs espagnols ;
- Une flottille de senneurs étrangers composée de cinq senneurs français et huit senneurs espagnols dont une partie seulement des captures est débarquée au Sénégal ;
- Une flottille palangrière composée de trois navires de pavillon sénégalais ciblant l'espadon et 29 palangriers étrangers dont 27 palangriers panaméens, un palangrier ghanéen et un palangrier guinéen.

1.1.1 Flottille de canneurs

Les prises de thons majeurs des canneurs sénégalais en 2007 sont évaluées à 3.898 tonnes dont 816 tonnes d'albacore, 2.278 tonnes de listao et 804 tonnes de patudo. Le **Tableau 1** montre les prises par espèce, les efforts et les prises par unité d'effort (PUE) des canneurs sénégalais de 1991 à 2007. La tendance générale est à la baisse. Notons qu'en plus des thons majeurs, un mélange de thonidés tels que la thonine (70 tonnes) et l'auxide ont été aussi débarqués. La **Figure 1** illustre la variation saisonnière des prises de canneurs Sénégalais en 2007.

En ce qui concerne les canneurs français et espagnols, leur part dans les débarquements au Sénégal est évalué respectivement à 2.795 tonnes et 7.208 tonnes.

1.1.2 Flottille palangrière

S'agissant de la pêche palangrière sénégalaise, deux bateaux sur les trois qui composent la flotille ont réellement été en activité en 2007. Le **Tableau 2** illustre la ventilation des prises mensuelles par espèce en 2007. Les captures varient en fonction des espèces et des saisons. Les plus fortes valeurs ont été enregistrées au mois d'août, octobre et novembre. La capture totale des poissons porte-épée a été évaluée à 140, 02 tonnes dont 136,70 tonnes pour l'espèce ciblée *Xiphias gladius* (SWO). La capture totale des requins a été estimée à 160,08 tonnes dont 69,03 tonnes pour le requin peau bleu *Prionace glauca* (BSH), 29,09 pour le requin taupe *Isurus oryrinchus* (SMA), 24,30 tonnes pour le requin marteau *Sphyrna spp* (SPN), 24,52 pour le requin tiburon *Carcharhinus spp* et 13,15 tonnes d'aileron de requins. L'albacore *Thynnus albacares* (YFT) est le seul thon important dans les captures avec 9, 28 tonnes.

La flottille palangrière étrangère surtout panaméenne a débarqué 1.572 tonnes de thons frais de plus 10 kg et 633 tonnes de mélange de divers composé de requin, espadon et autres.

1.2 Les pêcheries artisanales

Les pêcheries artisanales représentent actuellement le sous-secteur le plus important au Sénégal. Avec environ 250.000 tonnes débarquées par an, elle assure les 2/3 des mises à terre. 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 traîne et à la senne tournante des petits thonidés : thonine (*Euthynnus alletteratus*- LTA) ; maquereau bonite (*Scomberomorus tritor*) MAW ; maquereau espagnol (*Scomber japonicus*)- SSM ; palomette (*Orcynopsis unicolor*-BOP) et bonite à dos rayé (*Sarda sarda*-BON) ; thazard bâtard (*Acanthoncybium solandri*-WAH) ; auxide (*Auxis thazard*-FRI) ; Les poissons porte épée (espadon (*Xiphias gladius*-SWO) ; marlin (*Makaira nigricans*-BUM) et voilier (*Istiophorus albicans*-SAI) ont aussi pris dans les captures.

En 2007, une nouvelle série de données est présentée. En effet, le nouveau Système d'Information National sur la Pêche (SINAP), mis en place au CRODT, grâce au financement de la coopération espagnole en 2004 a permis la révision et la centralisation de l'ensemble des bases de données dans un système unique, sécurisé et intégrant une harmonisation des nomenclatures et des codifications. Ce système trouve sa justification dans l'importance et la diversité des données collectées par le CRODT depuis les années 50 et l'inadaptation du matériel informatique actuellement utilisé par rapport aux nouveaux enjeux de la recherche halieutique sénégalaise.

Une estimation basée sur des moyennes des captures de 2004 à 2006 a été établie pour 2007 (**Tableau 3)**. Les prises totales de toutes les espèces confondues de la pêche artisanale ont chuté de 1990 à 1999 ; elles passent de 9.575 à 6.073 tonnes. Mais depuis 2000 la tendance est à la hausse. Il est à noter que la valeur enregistrée en 2003 est la plus forte de toute la série. Cette augmentation est surtout liée à la hausse des captures du maquereau espagnol.

Les requins sont aussi capturés par cette pêcherie à l'aide de filet dormant et de ligne. Le **Tableau 4** présente les statistiques de débarquement de requins par la pêche artisanale de 1990 à 2007. La tendance est à la baisse depuis 2001.

1.2.1 Evolution de la flottille artisanale

La **Figure 2** traduit l'évolution du nombre annuel d'unités opérationnelles recensées pendant la période allant de 1982 à 2006. Ce nombre augmente de façon linéaire au cours de cette période. Il passe de 4.968 en 1982 à 12.619 unités en 2006. L'effort nominal est surtout dirigé sur les démersaux et pélagiques côtiers.

1.3 La pêche sportive

Au Sénégal, les pêcheries sportives sont suivies dans deux grands centres de pêche à Dakar et à Mbour. La pêche sportive cible l'espadon, les marlins et les voiliers : espadon-(*Xiphias gladius*-SWO), marlin (*Makaira nigricans*-BUM), voilier (*Istiophorus albicans*-SAI) pendant la saison de pêche, située de mai à décembre. Cette pêcherie cible également les coryphènes, les thonidés et autres espèces.

Le **Tableau 5** présente l'effort, les prises en nombre et les CPUE des voiliers et marlins de 1996 à 2007 à Dakar. Il ressort de l'analyse que les prises ont augmenté en nombre après une chute enregistrée de 2001 à 2006 pour les deux espèces. Mais en 2007, les prises en nombre ont fortement augmenté avec 1971 pour le voilier et 398 pour le marlin. Le **Tableau 6** montre l'effort, les prises en nombre, les captures moyennes et les CPUE des voiliers et marlins de 1996 à 2007 à Mbour. On note aussi une évolution positive des captures surtout pour le voilier.

Le **Tableau 7** illustre les prises annuelles en tonnes de voilier et marlin de 1996 à 2007. Les captures ont chuté depuis 2000 en passant de 56,56 tonnes et 19,76 tonnes à 19,78 tonnes et 1,56 tonne en 2006 pour respectivement le voilier et le marlin. Cependant, les prises en poids ont fortement augmenté en 2007 atteignant 120,84 tonnes pour le voilier et 79,66 tonnes pour le marlin. Cette hausse du poids total des captures serait due à l'augmentation du poids moyen pour le marlin et des prises en nombre pour le voilier.

1.4 Les conserveries

La seule conserverie existante, la Société nationale des Conserveries du Sénégal (SNCDS), a été approvisionnée par les canneurs étrangers. Un total de 4.948 tonnes a été débarqué avec 1.118 tonnes par les français et 3.830 tonnes par les espagnols.

Chapitre 2 : Recherche et statistiques

Le suivi scientifique régulier des activités de pêche est toujours assuré par le Centre de Recherches Océanographiques de Dakar Thiaroye (CRODT). Ce travail consiste en 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 (usines, armements, Direction des pêches maritimes etc.). En effet, le CRODT dispose au port de pêche de Dakar d'un bureau des statistiques. Le travail de recueil des données est mené par quatre techniciens dont trois chargés des enquêtes et une 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). Nos activités sont financées pour l'essentiel par le budget national appuyées par l'UE à travers l'IEO et l'IRD.

Pour la pêche artisanale les données sont recueillies au niveau de différents sites de débarquement par les enquêteurs. La mise en œuvre du projet japonais d'amélioration de la collecte des données (JDIP) a permis un meilleur suivi et une actualisation des données antérieures des prises accessoires des poissons porte-épée par la pêche artisanale. En effet, les informations disponibles ne donnaient aucune information sur la quantification des captures. Les échantillonnages sont mesurés, ce qui permet de déterminer les quantités en fonction de la taille des espèces.

Les données de prises de la pêche sportive sont recueillies annuellement auprès des centres de pêche. Le projet japonais a permis de résoudre les difficultés liées à l'acquisition des données en vue d'améliorer leur qualité et la couverture statistique.

Des échantillonnages sont également réalisés lors des débarquements au port de Dakar. En 2007, pour la pêche industrielle, nous avons enregistré 157 échantillons de tailles plurispécifiques effectués sur les canneurs sénégalais. Un total de 28.136 poissons a été mesuré. Les mensurations ont été effectuées sur 10.149 albacores, 8.804 patudos, 8.288 listaos, 785 thonines et 110 auxides.

L'échantillonnage des istiophoridés (le voilier-*Istiophorus albicans)* est réalisé dans les principaux centres de débarquement de la pêche artisanale notamment à Soumbédioune, Yoff et Mbour. L'analyse des classes de tailles des individus capturés de 2003 à 2007en fonction du poids montre une évolution positive de la classe modale tendant de plus en plus vers les grandes tailles (**Figure 3**).

Des marques sont également récupérées auprès des armateurs et rassemblées en vue d'être stockées dans une base de données envoyées chaque année au Secrétariat de l'ICCAT. Mais aucune marque n'a été récupérée au cours de ces quatre 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

Les mesures de conservation et de gestion ont été bien suivies et un schéma d'inspection a été mis en place au port de Dakar

Le Sénégal participe aux activités des structures et organismes de coopération en matière de pêche. Cette participation a, entre autre but, l'application de mesures sur les questions suivantes concernant:

- la coopération en matière de pêche, notamment 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 ;
- l'adoption de mesures coordonnées de surveillance et de contrôle des activités des navires de pêche.

La gestion des ressources halieutiques est une prérogative de l'Etat. L'Etat 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'Etat sont contenues dans la loi 98-32 portant code de la pêche maritime et de son décret d'application n°98 -498 fixant les modalités d'application de la loi portant code de la 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 : Schémas et activités d'inspection

Le dispositif de positionnement et de localisation permet de faire face de manière effective à l'ensemble de la problématique de surveillance dont les enjeux reposent sur l'indispensable politique d'aménagement en vue de l'exploitation durable des ressources vivantes de la mer.

L'installation, dans chaque navire autorisé à pêcher, d'une balise reliée à un système de positionnement et de localisation utilisant les communications par satellite permet la transmission par fréquences des données aux services de réception de Toulouse, sa position, les variables de route et de vitesse correspondantes. Les aspects techniques liés à l'exploitation des balises telles que leur configuration et les interventions frauduleuses dans le système sont gérées en partenariat avec la représentation des fournisseurs du système.

La quasi-totalité des navires sénégalais disposent 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.

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

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	-	-	-	-	-	-	-	-	-
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	3,59	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

Tableau 2. Prises mensuelle d'espèces apparentées, de thonidés et requins par la flottille palangrière en 2007.

Espèces	*Mai*	*Juin*	*Juillet*	*Août*	*Septembre*	*Octobre*	*Novembre*	*Décembre*	*Total*
Thonidés majeurs									
Albacore	1,375	0,35	1,03	0,34	2,70	1,55	0,29	1,64	9,20
Patudo	-	-	-	-	-	-	-	0,52	0,52
Listao	-	-	-	-	-	-	-		
Total	1,38	0,35	1,03	0,34	2,70	1,55	0,29	2,16	9,76
Thonidés mineurs									
Bonite à dos rayé	-	-	-	-	-	-	-	0,03	0,03
Palomette	-	-	-	-	-	-	-	0,01	0,01
Total	-	-	-	-	-	-	-	0,04	0,04
Poissons porte épée									
Espadon	13,24	2,41	15,71	24,10	30,22	28,33	3,67	18,19	136,70
Marlin	0,59	-	-	-	-	-	0,14	1,59	2,32
Voilier	-	-	-	-	-	-	-	1,86	1,86
Total	13,82	2,41	15,71	24,10	30,22	28,33	3,80	21,64	140,02
Requins									
Requin marteau			0,28	16,01	3,97	2,04	1,27	7,41	24,30
Requin peau bleue	2,14	4,48	6,51	8,08	6,64	2,06	21,05	18,07	69,03
Requin taupe	0,22	1,11	1,23	5,63	2,17	14,39	1,49	2,86	29,09
Requin tiburon	-	-	0,01	7,95	13,94	2,23	0,17	0,23	24,52
Aileron	0,23	0,45	0,69	3,28	3,60	3,69	1,21	1,12	13,15
Total	2,58	6,04	8,70	39,03	30,31	24,42	25,19	29,69	160,08
Divers	1,03	0,45	1,46	1,48	3,79	4,65	0,02	0,88	13,77

Tableau 3. Prises (en tonnes) des petits thonidés, d'istiophoridés et xiphiidés par la pêche artisanale de 1990 à 2007.

Espèces	*1990*	*1991*	*1992*	*1993*	*1994*	*1995*	*1996*	*1997*	*1998*	*1999*	*2000*	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007**
Scomber japonicus	2.489	967	1.849	1.340	1.297	2.417	1.692	2.234	1.931	1.348	2.772	1.936	8.869	14.173	3.941	5.781	3.428	4.383
Orcynopsis unicolor	16	20	41	29	16	63	60	5	18	24	14	28	6	7	67	85	29	60
Scomberomorus tritor	1.220	520	1.225	1.019	939	1.614	1.318	837	522	491	778	408	584	532	288	489	196	324
Acanthocybium solandri		0	2	64	0	0	1	0	1	5	0	0		7	0	0	1	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	3.826	3.384
Sarda sarda	525	597	345	171	814	732	1.012	1.289	2.213	2.558	286	545	621	195	197	486	2.304	996
Katsuwonus pelamis	5	288	2	0	0	2	1	2	6	4	7	6	287	45	154	341	90	195
Thunnus obesus		3		9	1	0	0		2	2	0	0	3	5	4	4	1	3
Auxis thazard	94	4	0	33	10	0	0	0	0	7	0	4	0	13	285	159	83	176
Thunnus albacares	2	20	23	8	1	1	1	0	1	0	3	0	25	3	10	43	63	39
Istiophorus platyptarus	1.040	466	860	462	162	167	240	555	257	234	782	953	240	673	291	250	256	266
Makaira nigricans	1	4	8		9		2	5	0	0		11	24	32	8	0	5	4
Xiphias gladius	0	6	5	0	1	1	0	0	4	2	242	2	17	2	4	7	7	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**	**10.289**	**9.836**

***** Estimation provisoire 2007 basée sur les moyennes des captures de 2004, 2005 et 2006.

Tableau 4. Prises (en tonnes) de requins par la pêche artisanale de 1990 à 2007**.**

Espèces	*1990*	*1991*	*1992*	*1993*	*1994*	*1995*	*1996*	*1997*	*1998*	*1999*	*2000*	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007**
Carcharhinus spp	388	368	1.034	1.016	1.689	950	1.571	235	805	968	1.713	10.736	1.042	1.387	1.651	5.247	1.035	1.343
Sphyrna spp	0	0	0	0	0	128	188	126	92	96	57	686	36	54	168	311	173	217
Sphyrnidae divers	140	149	151	131	182	1	2	0	2	21	0	778	0	17	0	7	0	2
Mustelus mustelus	398	462	386	437	690	378	596	158	100	155	255	4.015	77	143	109	91	121	9
Rhizoprionod. Acutus	52	9	7	12	5	5	12	0	5	10	20	138	11	23	1	11	16	51
Carcharhinidae divers	1	7	0	0	11	5	15	4	22	4	1	70	3	0	0	154	0	37
Centrophorus spp	44	8	5	11	2	13	1	0	1	3	2	92	7	0	65	33	12	3
Squalidae	3	2	0	0	0	0	0	0	1	1	0	8	0	0	0	5		
Pleurotremes divers	0	0	3	2	25	15	8	1	20	0	0	74	13	64	4	3	2	3
Total	**1.026**	**1.500**	**1.586**	**1.609**	**2.604**	**1.495**	**2.393**	**524**	**1.048**	**1258**	**2.048**	**16.597**	**1.189**	**1.688**	**1.998**	**5.862**	**1.359**	**1.773**

***** Estimation provisoire 2007 basée sur les moyennes des captures de 2004, 2005 et 2006.

Tableau 5. Effort (en nombre de sortie), captures (en nombre), captures moyennes (en tonne) et CPUE (en tonne/sortie) des voiliers et marlins par la pêche sportive de 1996 à 2004 à Dakar.

	Voiliers				*Marlins*		
Année	*Effort*	*Captures*	*Captures moyennes*	*CPUE*	*Captures*	*Capture moyennes*	*CPUE*
1996	545	948	21,804	0,040	0	0	
1997	244	454	10,442	0,043	40	5,200	0,021
1998	894	1.471	33,833	0,040	62	8,060	0,010
1999	738	1.323	30,29	0,041	5	0,650	0,001
2000	1.131	1.753	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	1.971	55,188	0,064	398	66,467	0,052

Tableau 6. Effort (en nombre de sortie), captures (en nombre), captures moyennes (en tonne) et CPUE (en tonne/sortie) des voiliers et marlins par la pêche sportive de 1996 à 2004 à Saly (Mbour).

		Voiliers			*Marlins*		
Année	*Effort*	*Captures*	*Captures moyenne*	*CPUE*	*Captures*	*Captures moyennes*	*CPUE*
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	ND		
2007	369	2345	65,660	0,178	79	13,193	0,036

Tableau 7. Prises annuelles en poids de voilier et marlin de 1996 à 2007 (les tailles ont été converties en poids).

Année	*1996*	*1997*	*1998*	*1999*	*2000*	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*
Voilier	21,80	10.44	33,83	36,06	56,56	14,70	13,82	23,41	18,33	18,68	19,78	120,84
Marlin	0	5,20	8,06	0,06	19,76	2,34	1,43	1.56	1.95	1.69	1.56	79,66

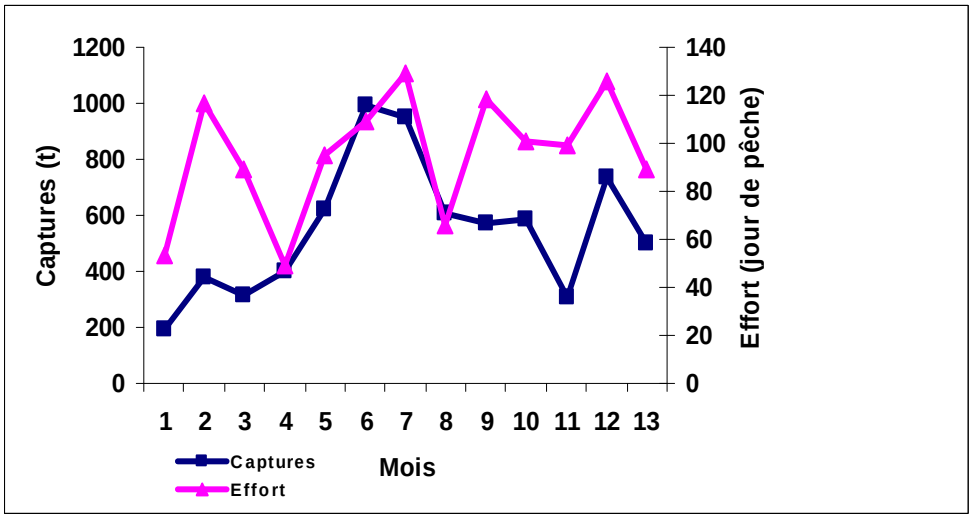

Figure 1. Variation saisonnière des captures en fonction de l'effort de pêche des canneurs sénégalais.

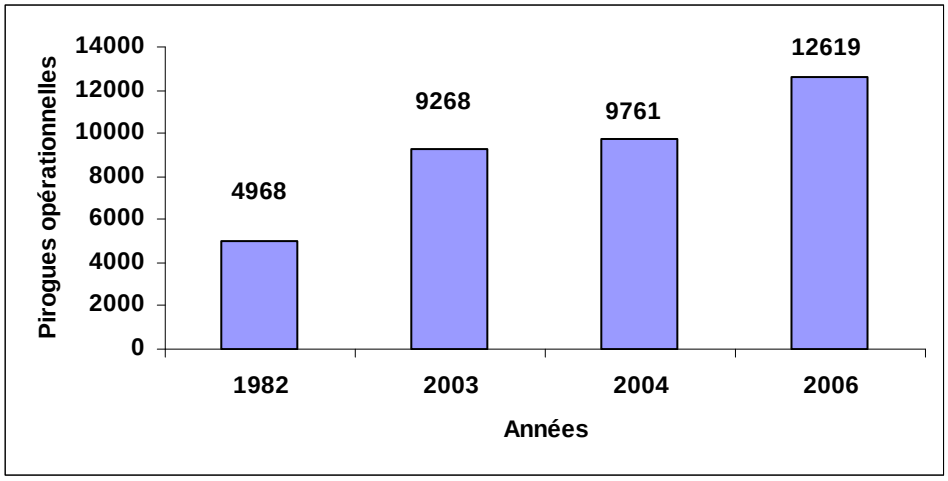

Figure 2. Evolution de l'effort de pêche artisanale de 1982 à 2006.

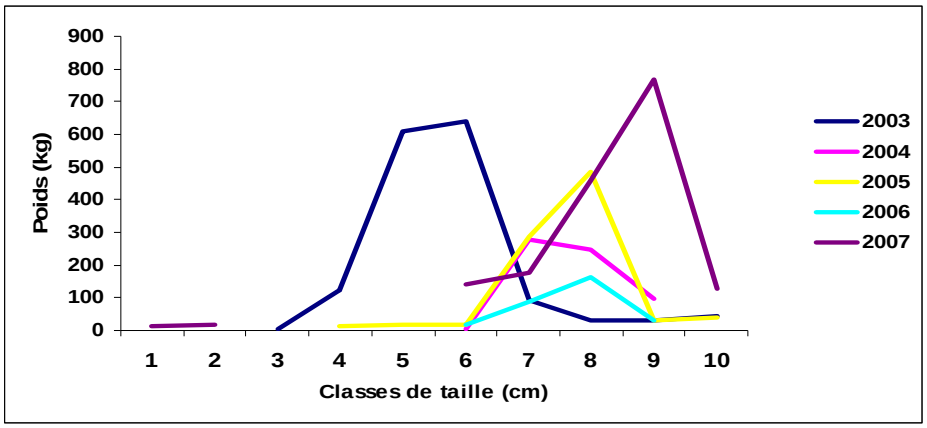

Figure 3. Classe de taille des individus de voilier capturés en fonction du poids de 2003 à 2007.

Classe de taille en cm

1= <120	5= [150-160 [	8 = [180-190 [
2= [120-130 [	6= [160-170 [	9 = [190-200 [
3= [130-140 [	7= [170-180 [	10 = > 200
4= [140-150[		

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

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

SUMMARY

The two main fleets that fish for tuna in SA waters are the poling and tuna longline fleets. The total annual pole fleet catch for albacore (2 023 t in 2007; Table 1) has remained consistently low in recent years, and well below the mean annual catch over the last decade (~ 4 900 t). Reduced catches in last year in the bait-boat fishery were compounded by a number of vessels changing their targeting to yellowfin tuna using rod-and-reel gear, and high fuel prices. Despite the increase in the number of active longline vessels (29 in total), the fishing effort in the Atlantic remained relatively constant (608175 hooks; Table 1) compared to 2006 (603880 hooks) This was due to most of the fishing effort being conducted in the Indian Ocean, where catch rates of the target species are higher. Pelagic shark longline and traditional linefish catch tuna and tuna-like species as by- catch and catches have remained low in 2007 (Table 1). South Africa was unable to meet its data obligations on time, under ICCAT this year as there was little research capacity in 2007/2008 to process the data. South Africa, with the assistance of NGOs and universities, continued to assess the impact of longline fisheries on seabirds, turtles and sharks and to investigate various mitigation and management measures, and in addition, South Africa has also embarked upon a research programme to determine the stock delineation of yellowfin in the boundary region between the Indian and Atlantic oceans.

RÉSUMÉ

Les deux principales flottilles qui pêchent des thonidés dans les eaux sud-africaines sont les flottilles de pêche à la canne et les flottilles palangrières. Le volume total annuel de germon capturé par la flottille de pêche à la canne (2.023 t en 2007, Tableau 1) est demeuré invariablement à un faible niveau au cours de ces dernières années et bien en dessous de la prise annuelle moyenne au cours de la dernière décennie (~ 4,900 t). Les prises réduites réalisées l'année dernière dans la pêcherie de canneurs ont été aggravées par le fait qu'un certain nombre de navires se sont mis à cibler l'albacore à la canne et au moulinet et à cause des prix élevés des combustibles. Malgré l'accroissement du nombre de palangriers actifs (29 au total), l'effort de pêche dans l'Atlantique est demeuré relativement constant (608.175 hameçons, Tableau 1) par rapport à 2006 (603.880 hameçons). Ce phénomène résulte du fait que la plupart de l'effort de pêche est exercé dans l'Océan Indien où les taux de capture des espèces cibles sont plus élevés. La palangre pélagique de requins et la pêche à la ligne traditionnelle capturent des thonidés et des espèces apparentées en tant que prises accessoires ; les prises sont demeurées faibles en 2007 (Tableau 1). Cette année, l'Afrique du Sud n'a pas été en mesure d'honorer en temps opportun ses obligations en matière de données envers l'ICCAT, étant donné qu'elle n'a disposé en 2007/2008 que d'une faible capacité de recherche pour traiter les données. L'Afrique du Sud, avec l'aide d'ONG et d'universités, a continué à évaluer l'impact des pêcheries palangrières sur les oiseaux de mer, les tortues et les requins et à étudier diverses mesures d'atténuation et de gestion. En outre, l'Afrique du Sud a lancé un programme de recherche visant à déterminer la délimitation des stocks d'albacore dans la zone de démarcation entre l'océan Indien et l'océan Atlantique.

RESUMEN

Las dos flotas principales que pescan túnidos en aguas de Sudáfrica son las flotas de palangre y liña. La captura total anual de atún blanco de la flota de liña (2.023 t en 2007, Tabla 1) se ha mantenido constantemente en niveles bajos en los últimos años, y muy por debajo de la captura media anual de la última década (~ 4,900 t). La reducción de las capturas del año pasado en la pesquería de cebo vivo se vio agravada por el hecho de que varios buques cambiaron su estrategia de pesca para dirigirse al rabil con caña y carrete y por los altos precios del

[1] Marine and Coastal Management, P/Bag X2, Roggebaai 8012, Cape Town, South Africa. dclarke@deat.gov.za
[2] Marine and Coastal Management, P/Bag X2, Roggebaai 8012, Cape Town, South Africa. csmith@deat.gov.za

gasóleo. A pesar del incremento en el número de palangreros activos (29 en total), el esfuerzo pesquero en el Atlántico se mantuvo relativamente constante (608.175 anzuelos, Tabla 1) en comparación con 2006 (603.880 anzuelos). Esto se debió a que la mayor parte del esfuerzo pesquero se dirigió al océano Índico, donde las tasas de captura de las especies objetivo son más elevadas. El palangre dirigido a los tiburones pelágicos y la pesquería de liña tradicional capturan túnidos y especies afines de forma fortuita, y las capturas se mantuvieron en niveles bajos en 2007 (Tabla 1).Este año, Sudáfrica no pudo cumplir a tiempo sus obligaciones con respecto a ICCAT, ya que en 2007-2008 se contó con escasa capacidad de investigación para procesar los datos. Sudáfrica, con la ayuda de las ONG y universidades, sigue evaluando el impacto de las pesquerías de palangre en las aves marinas, tortugas y tiburones y continúa investigando diferentes medidas de ordenación y mitigación. Además, Sudáfrica también se ha embarcado en un programa de investigación para determinar la delimitación del stock de rabil en la región limítrofe entre los océanos Índico y Atlántico.

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 total annual pole fleet catch (2023 t in 2007) has remained consistently low in recent years, and well below the mean annual catch over the last decade (~4900 t). Reduced catches in last year in the bait-boat fishery were compounded by a number of vessels changing targeting to yellowfin tuna using rod-and-reel gear, and high fuel prices. However, the nominal CPUE increased from 861 kg.day^{-1} in 2006 to 1132 kg.day^{-1} in 2007 (**Table 1**). A total of 26 traditional poling vessels also fished for Namibia for part of the year of which the catch accrued to Namibia. The poling fleet also reported 13 t of bigeye, and 233 t of yellowfin (a reduction of 211 t; **Table 1**).

The rod and reel component of the poling fishery has continued to increase with 62 numbers of vessels reporting yellowfin catches in 2007 as opposed to ~35 vessels in 2006. The total reported yellowfin catch (dressed weight) increased from 500 t in 2006 to 607 t in 2007. These vessels target yellowfin by fishing in close proximity to hake longliners and trawlers, which act as FADs for this species. Although the yellowfin is caught just within the jurisdiction of ICCAT the fish is likely of Indian Ocean origin. Other reported catches made by this sector includes 1695 t of albacore (an increase of 1371 t; **Table 1**).

The traditional commercial line fishery, which opportunistically target longfin and yellowfin tuna when they are close inshore and when line fish species are not available; reported 64 t of albacore and 82 t of yellowfin in 2007 (**Table 1**). The recreational fishery, including informal charter and sport fisheries, also operates in the vicinity of Cape Town and targets albacore and yellowfin using rod and reel, and spearguns from small fishing vessels (5-10 m). Although catch and effort in the recreational fishery for yellowfin and albacore is not yet quantified, the total catch is considered to be relatively small in comparison to the commercial rod and reel fishery due to bag limits and the non-sale of the catch.

1.2 Tuna/ swordfish longline fishery

Of the 44 rights allocated (18 swordfish-directed rights and 26 tuna-directed rights) only 29 right holders were active in 2007. This increased from last year mainly due to The Department of Environmental Affairs and Tourism (hereafter referred to as the Department) allowing joint venture operations with foreign vessels (as in 2005) with the intention of developing a South African longline fleet. Despite the increase in the number of active vessels the fishing effort in the Atlantic remained relatively constant (608,175 hooks) compared to 2006 (603,880 hooks) (**Table 1**). This is due to most of the fishing effort being conducted in the Indian Ocean, where catch rates of the target species are higher. Catches of the important target species are reflected in **Table 1**.

1.3 Shark longline fishery

The Department made a policy decision in 2004 to terminate its pelagic shark longline fishery in favour of developing tuna and swordfish-directed fisheries where sharks would be managed as by-catch. This decision was made taking into account the global concern regarding the stock status of pelagic sharks. However, the Department had 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 until the Department can

rectify the situation. Seven shark exemption holders were actively fishing for pelagic sharks in 2007, with reported catches of mako and blue shark (dressed weight) at 191 t and 47 t, respectively (**Table 1**). Catches have reduced in recent years as the fishery mainly operates in the Indian Ocean, where catch rates of mako sharks are higher.

Section 2: Research and Statistics

2.1 Poling, rod and reel, and sport fishery

Reporting is a problem in this fishery with Customs and Excise records being a more reliable estimate of total albacore landed. This is made possible as almost all albacore is frozen whole and exported (**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. Port sampling remained at three trips from 2006 to 2007, with only 375 albacore measured. The decrease in port sampling was a result of all the large pelagic research posts in the Department being vacated towards the end of the 2006. The large pelagic research post was subsequently filled in 2007, but the supporting positions remain vacant.

2.2 Tuna/ swordfish longline fishery

Skippers in the tuna/swordfish longline fishery have been required to complete daily logs of catches since 1997. After 2001 the comparison between reported catch statistics and US trade statistics were very similar, indicating good reporting for this sector in recent years (**Table 3**). In the last three years the swordfish marketing has diversified, as a result the reported catch now exceeds the US 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.

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

No research within the Department was conducted on large pelagics for 2007 as the large pelagic and shark researchers' posts was only filled towards the end of 2007. Supporting technician posts still remain vacant.

The Department continued collaborating 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 and 5-day observer reports were introduced this year 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.

Part II (Management and 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 on Compliance.

01-16: Task I and II data were submitted to ICCAT in early September 2007. 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 Manual*.

Other: 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. Less than 2 t of marlins were landed in 2006.

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 2007. Only 207 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 be dumped on the same side as hauling.
- All tuna longline vessels are only allowed to set at night.

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 next year.

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: No research has thus far been conducted on pelagic sharks, however a dedicated shark researcher was appointed in 2007. One of the key priority areas would be to examine whether a shortfin mako nursery exists along the south coast of South Africa.

07-07: Although SA has collected seabird incidental mortality information, this information must still be 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 will be 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 from Japan, South Korea and Philippines in 2007. 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 or black listed vessels are allowed to enter South Africa's EEZ or allowed 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. Transhipments are only allowed in port on the authority of a transhipment 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 transhipped, and where it was caught. Random inspections and monitoring are made on foreign vessel discharges and transhipments. 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 2006 and 2007.

Fishing Sector	*Total Reported*	*Total Reported*	*Reported catch by species per year in t dressed weight except for ALB & poling catches*											
	Effort 2006	*Effort 2007*	*ALB 06*	*ALB 07*	*SWO 06*	*SWO 07*	*YFN 06*	*YFN 07*	*BET 06*	*BET 07*	*BSH 06*	*BSH 07*	*SMA 06*	*SMA 07*
Poling	2509 sea days	1788 sea days	2161	2023	0	0	444	233	6	13	0	0	0	0
Rod & reel	687 sea days	1786 sea days	324	1695	0	0	500	607	0.2	7	0	0	0	0
Handline	unavailable	259 sea days	.	64		0	.	82		0	.	0	.	0
Sport	unavailable	unavailable	.		.		.		.		.		.	
Tuna/Swo LL	603880 hooks	608175 hooks	46	33	141	200	153	94	69	70	27	2	14	13
Shark LL	123524 hooks	229491 hooks	0	0	0	0.1	4	0.5	0	0	63	47	85	191
TOTAL			**2531**	**3815**	**141**	**200.1**	**1101**	**1016.5**	**75.2**	**90**	**90**	**49**	**99**	**204**

Table 2. Annual albacore landings (t) estimated from poling sector logbooks and custom and excise data, 1985-2007.

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

Note: 2007 figure includes catches from the poling and rod and reel fleet.

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 statistics*
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

ANNUAL REPORT OF TUNISIA
RAPPORT ANNUEL DE LA TUNISIE
INFORME ANUAL DE TÚNEZ

SUMMARY

In 2008, the total catches of tunas and tuna-like species (small tunas and swordfish) amounted to 7,082 t, an increase of 16.3% as compared to 2007. The total Tunisian catches of bluefin tuna and swordfish were 2,679 t and 1,011 t, respectively. The entire catch of bluefin tuna was carried out by 42 purse seiners, of which 23 were over 24 m in length, and one longline vessel. The recommendations adopted by ICCAT have been transposed in the national legislation and implemented. All the conservation and management measures concerning bluefin tuna catch and farming are monitored by arrangements that take into account the pertinent ICCAT recommendations. Implementation of the VMS system to monitor the activities of the tuna vessels was started in 2007. Research activities on the biology and the area distribution of bluefin tuna continued to be carried out by the services competent in this matter..

RÉSUMÉ

En 2008, les prises totales de thonidés et d'espèces apparentées (petits thonidés et l'espadon) se sont est élevées à 7082 tonnes avec une augmentation de 16.3 % par rapport à 2007. Les prises totales de thon rouge et d'espadon réalisées par la Tunisie se sont chiffrées respectivement à 2679 tonnes et 1011 tonnes. La totalité de capture de thon rouge a été réalisée par 42 senneurs dont 23 de longueur supérieure à 24 m et un palangrier. Les recommandations exigées de l'ICCAT ont été traduites dans la législation nationale et mises en application. Toutes les mesures de conservation et de gestion concernant la capture et l'engraissement du thon rouge sont régies par des dispositions qui tiennent compte des recommandations pertinentes de l'ICCAT. L'application du système VMS pour le suivi des activités des thoniers a commencé à partir de 2007. Des activités de recherche sur la biologie et la distribution spatiale du thon rouge continuent d'être réalisées par les services compétents en la matière.

RESUMEN

En 2008, la captura total de túnidos y especies afines (pequeños túnidos y pez espada) ascendió a 7082 t, lo que supone un aumento del 16,3% respecto a 2007. Las capturas totales de atún rojo y de pez espada realizadas por Túnez se cifran respectivamente en 2679 t y 1011 t. El total de la captura de atún rojo fue realizado por 42 cerqueros, de los cuales 23 tenían una eslora superior a 24 m y un palangrero. Las recomendaciones exigidas por ICCAT se han traspuesto a la legislación nacional y se han implementado. Todas las medidas de conservación y ordenación sobre la captura y engorde de atún rojo se rigen por disposiciones que tienen en cuenta las recomendaciones pertinentes de ICCAT. A partir de 2007 se ha iniciado la aplicación del VMS para realizar un seguimiento de las actividades de los atuneros. Los servicios competentes en la materia continúan llevando a cabo actividades de investigación sobre la biología y la distribución espacial de atún rojo.

I^{ère} partie (Informations sur les pêcheries, 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. Sa contribution au niveau de l´économie nationale est significative 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. Les madragues qui constituaient le principal engin de capture du thon rouge et des thons mineurs se sont reléguées aux derniers rangs pour être définitivement abandonnées depuis 2003. Les thonidés peuvent être accessoirement pêchés par les filets, la pêche au feu et les chaluts pélagiques.

Les engins employés pour la pêche de l´espadon sont principalement constitués des palangres de surface. Des prises accidentelles de cette espèce sont également réalisées à l´aide des sennes des petits pélagiques et des chaluts de surface.

1.1 Production et activités de pêche

Au cours de 2007, les captures de thonidés et espèces apparentées ont totalisé 5.923 tonnes dont 2.195 tonnes de thon rouge et 1.024 tonnes d´espadon, ce qui représente successivement 37% et 17,3% des captures nationales de thonidés.

1.2 Zone de pêche

Le thon rouge est principalement exploité le long de la côte tunisienne depuis la frontière tuniso-algérienne jusqu'à la frontière tuniso-libyenne avec une abondance plus importante au niveau de la côte orientale du pays.

L´espadon est également pêché tout au long des côtes tunisiennes mais les captures proviennent surtout de la côte orientale du pays.

Les principaux ports de débarquement des thonidés sont Sfax, Mahdia, Sousse et Kélibia.

1.3 Activité d´engraissement du thon rouge

Les quantités de thon rouge vif transférées dans les cages d´engraissement au cours de la saison de 2007 ont totalisé 1.771 tonnes dont 229 tonnes capturées par des bateaux battant pavillon étranger.

Le poids moyen des pièces de thon est passé de 71 kg à 90,5 kg pendant les opérations d'engraissement.

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 dans le cadre du projet de recherche contractuel entre le laboratoire des ressources vivantes de l'Institut National des Sciences et Technologies de la Mer et le Ministère de tutelle. Un programme de recherche est donc défini tenant compte des objectifs de l'ICCAT en matière de gestion rationnelle des pêcheries thonières méditerranéennes.

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

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

En application des mesures comprises dans le plan de gestion de la Rec. 02-08, la campagne de pêche au thon rouge s'est déroulée durant la période autorisée, moyennant une flottille comprenant 38 unités de pêche au thon. Les quantités pêchées n'ont pas accusé de dépassement du quota national.

Les opérations relatives au transfert du thon rouge dans les cages et au prélèvement aux fins d'engraissement ont été réalisées sous le contrôle d'agents relevant de l'autorité compétente.

Des réunions de programmation et de sensibilisation ont été organisées à l'échelle centrale et régionale avec les pêcheurs et les opérateurs d'établissements d'engraissement de thon rouge avant le démarrage de la saison de pêche et pendant le déroulement de la campagne pour assurer une meilleure compréhension des mesures de conservation de thon rouge, la mise à jour des fiches statistiques et pour donner des informations sur les directives de l'ICCAT sur la gestion des activités de pêche et d'engraissement.

L'administration compétente, par le biais de ses services décentralisés dans les régions de pêche, a veillé au respect des différentes mesures de gestion prescrites en matière de pêche du thon rouge.

3.1 Tailles des captures

A ce propos, des contacts directs ont été 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 éviter la capture des individus de petite taille.

Les captures réalisées au cours de la saison de pêche ont été d'une taille supérieure à celle prescrite par la réglementation en vigueur.

3.2 Saison de pêche

Les autorisations de pêche de thon rouge ont été accordées en janvier 2007. La période pêche s'est prolongée jusqu'au mois de juin 2007, étant signalé que la flotte de pêche de thon a observé une durée d'arrêt total au cours de la période du 1er juillet au 31 décembre.

3.3 Total annuel de captures

Ce total avoisine le quota national au titre de l'année 2007 (2.333 tonnes).

Chapitre 4 : Schémas et activités d'inspection

4.1 Inspection dans les zones de pêche

Cette tâche est assurée par les services actifs de la surveillance côtière. Ce contrôle couvre, en particulier, les activités exercées par les bateaux de pêche dans les eaux sous juridiction nationale.

4.2 Inspection dans les ports

Cette tâche est remplie par les gardes-pêches 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.

4.3 Inspection au niveau des établissements d'engraissement

Cette inspection est assurée moyennant un suivi par les gardes-pêches des écritures faites par les exploitants pour tenir à jour les documents statistiques élaborés conformément aux modèles établis.

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 2007, the total catch of tuna and tuna-like fishes (including small tunas and swordfish) amounted to 9,936 t, a 70 % decrease compared to 2006. Turkey's total catch of bluefin tuna, albacore, Atlantic bonito and swordfish were 918 t, 852 t, 5,965 t, and 423 t, respectively. The entire bluefin catch was caught by 77 purse seiners, the majority of which have an overall length of 30-50 m and 20-300 GRT. Fishing operations for bluefin took place mostly in the southern territorial waters of Turkey and harvesting was considerably poor until early June. The Recommendations and Resolutions imposed by ICCAT were transposed into national legislation and implemented. All the conservation and management measures regarding bluefin tuna fisheries and farming are regulated by national legislation through notifications, considering ICCAT's related regulations. Pilot implementation of the Vessel Monitoring System was carried out in 2007 by the bluefin tuna fleet. The Fisheries Information System has been updated in order to meet the requirements of data exchange at the national and regional level. Major research activities in 2007 focused on bluefin tuna and albacore.

RÉSUMÉ

Dans le courant de 2007, la prise totale de thonidés et d'espèces apparentées (petits thonidés et espadon compris) s'est élevée à 9.936 t, soit une diminution de 70% par rapport à 2006. Les prises totales de thon rouge, de germon, de bonite à dos rayé et d'espadon réalisées par la Turquie se sont chiffrées respectivement à 918 t, 852 t, 5.965 t et 423 t. La totalité des captures de thon rouge a été réalisée par 77 senneurs, dont la majorité ont une longueur hors-tout de 30-50 m et une capacité de 200-300 TJB. Les opérations de pêche de thon rouge ont essentiellement eu lieu dans les eaux territoriales méridionales de la Turquie et les captures ont été assez faibles jusqu'au début du mois de juin. Les recommandations et les résolutions imposées par l'ICCAT ont été traduites dans la législation nationale et mises en œuvre. Toutes les mesures de conservation et de gestion concernant les pêcheries et l'engraissement du thon rouge sont régies par la législation nationale par le biais de notifications, en tenant compte des réglementations pertinentes de l'ICCAT. Une mise en œuvre pilote du Système de suivi des navires (VMS) a été menée en 2007 par la flottille de thon rouge. Le Système d'information des pêcheries a été actualisé afin de répondre aux exigences en matière d'échange des données au niveau national et régional. Les principales activités de recherche se sont concentrées en 2007 sur le thon rouge et le germon.

RESUMEN

Durante el año 2007, la captura total de túnidos y especies afines (incluyendo pequeños túnidos y pez espada) ascendió a 9.936 t, lo que supone un descenso del 70% en comparación con 2006. La captura total de Turquía de atún rojo, atún blanco, bonito atlántico y pez espada fue de 918 t, 852 t, 5.965 t y 423 t, respectivamente. Toda la captura de atún rojo la realizaron 77 cerqueros que en su mayoría tienen una eslora total de 30-50 m y un tonelaje de 20-300 TRB. Las operaciones de pesca dirigidas al atún rojo tuvieron lugar principalmente en las aguas territoriales meridionales de Turquía y la captura fue considerablemente escasa hasta principios 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 a través de notificaciones, que tienen en cuenta las regulaciones relacionadas de ICCAT. En 2007, la flota dirigida al atún rojo realizó la implementación piloto del Sistema de

[1]Ministry of Agriculture and Rural Affairs/ General Directorate of Protection and Control, Akay Cad. No.3, Bakanlıklar- Ankara-Turkey. vahdettink@kkgm.gov.tr

Seguimiento de Buques (VMS). 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 2007 se centraron en el atún rojo y el atún blanco.

Part I (Information on Fisheries, Research and Statistics)

Section 1: Annual Fisheries Information

In 2007, total catch of tuna and tuna-like fishes (including small tunas and swordfish) was 9,936 t, a 70 % decrease compared to 2006.

1.1 Albacore

Albacore, which historically used to be by-catch from bluefin tuna fishery in the past, has increasingly been caught by gillnets 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.

1.2 Atlantic bonito

Bonitos play a major role in Turkish fishery. Bonito fishing is intensively carried out in Black Sea and Marmara Sea using purse seines, gillnets, encircling nets and hand lines. The total catch in 2007 was 5,965 t (**Table 1**). There has been a considerable decrease in catch quantity since 2005.

1.3 Bluefin tuna

Turkey's total catch of bluefin tuna in 2007 was 918 t, an increase compared to the previous year (806 t in 2006). Almost all of the catch was caught by purse seiners. There are six bluefin tuna farms in Turkey. Almost all of the total purse seine catch was transferred into floating cages for fattening. A gradual decline was observed in the average size of bluefin tuna caught by Turkish vessels.

Ministry of Agriculture and Rural Affairs (MARA) issued bluefin tuna fishing licenses to 77 fishing vessels in 2007, 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, 97 vessels were licensed as tug boats transporting bluefin tuna cages. The total number of bluefin tuna purse seiners, by tonnage for the period 2003-2007, is presented in **Table 2**.

Most of the Turkish bluefin tuna fishing vessels, which started fishing in early May, operated in the south of Turkey, while a minor number of vessels operated around Cyprus and Egypt in the Mediterranean Sea. The harvesting was considerably poor until early June. The peak period which had been seen in early May in previous years moved into mid-June in 2007. In May, the fishing vessels remained in the harbours and sheltered in protected areas half of the time due to adverse weather conditions. The main fishing activities started in early June and MARA stopped fishing on 27 June 2007.

1.4 Swordfish

Swordfish fishery in Turkey is carried out in Aegean Sea and eastern Mediterranean Sea. While swordfish fishing is carried out using harpoon in northern Aegean Sea, such fishing is carried out by longline in the eastern Mediterranean Sea. The total catch in 2007 was 423 t (**Table 1**). Compared to previous years the fishery trend has not changed since 2000.

1.5 Other tunas

Bullet tuna and Atlantic black skipjack fisheries are carried out in the Aegean Sea and the eastern Mediterranean Sea using purse seines, gill nets and encircling gillnets. In 2007, the total catches of Atlantic black skipjack and

bullet tuna amounted to 785 t and 993 t, corresponding to a 36% and 4% decrease, respectively, when compared to the previous year.

Section 2: Research and Statistics

2.1 Research

Specific research activities on the bluefin tuna fishery and biology have been carried out by Istanbul University, Faculty of Fisheries. Other on-going researches investigating the effects of bluefin tuna farms to the environment have been carried out by Aegean University, Faculty of Fisheries.

A tuna larval survey (TUNALEV II) was conducted from 19-22 July 2007 in the eastern Mediterranean Sea, where bluefin tuna, albacore, Atlantic black skipjack and bullet tuna larvae were caught. Research on tuna larvae production in this area will continue in the coming years.

In 2006 and 2007, biological samples (gonads, stomach, dorsal spines and otoliths) were obtained from the fishery for analyses of reproduction, age and growth of the albacore. The Trabzon Fisheries Research Center has initiated a research project for the monitoring of the Atlantic bonito fishery.

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. Task I and Task II data were regularly reported to the ICCAT Secretariat.

2.3 Fisheries Information System

The Fisheries Information System (FIS), which was developed for Turkey to create the applications and procedures needed to improve fisheries management, establishes a new data system to collect and to analyze fishery data. By this system, it will be possible to minimize the errors in fishery statistics in the future.

The FIS comprises a combination of resources organized to collect, process, transmit, and disseminate the relevant fisheries data. The system is comprised of modules interacting to introduce and extract data to/from a centralized database. This database allocates all of the information collected from the different information sources. The main property of this database is therefore its capacity to relate to all of the data contained within the different programmed modules. Technical work has continued to update and integrate the current vessel registry system into FIS which comprises data on landings, logbooks, vessel monitoring system, sale notes, observer and control forms, first buyer notification, and storage notification.

In addition to this, for the collection of landing data at ports for the first time, 30 landing port offices have been constructed. Data to be collected from these ports will be transferred to the central FIS.

Part II (Management Implementation)

Section 3: Implementation of ICCAT Conservation and Management Measures

In deference to 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 the 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.

Ministerial Communication of 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 the 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 and large bonito

Bonito and large 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 2007 catch quota for bluefin tuna was set at 918 metric tons. In order to monitor and supervise the fishing quota, the catch amount and the catch point shall be reported to MARA, particularly by the 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 shall 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 Atlantic black skipjack, bullet tuna and albacore

Fishing for Atlantic black skipjack 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, Atlantic black skipjack 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 8 kg is prohibited (Official Gazette 21.08.2008-No.26974).

3.3 Vessel Monitoring System (VMS)

A satellite based VMS has been established. The application of VMS launched in 2007 with vessels registered for bluefin tuna fishing. The vessels registered for bluefin tuna fishing are required to have a transmitting VMS on and submit regular position reports.

3.4 Licensing and fishing methods

Use of airplanes or helicopters for the purpose of bluefin tuna spotting is prohibited. Mesh size in the bag part of the bluefin tuna nets shall not be less than 44 mm (Official Gazette 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 which 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 Tuna Fishing, all bluefin tuna fishing vessels are obliged to host observers on board not less than 20% of the fishing period. Based on this Communication and ICCAT Recommendation 06-05, MARA assigned observers to bluefin tuna fishing vessels during the 2007 fishing season (May-June).

Seven observers from the Fisheries Department of MARA were onboard different fishing vessels in two groups, for a two-week period. The observers reported on the fishing operations and social conditions of the crew. Six observers reported that they had remained on board and closely watched the fishing, transfer and towing operations, but information on the amount of bluefin tuna caught could only be estimated by the captain of the vessel. One of the senior observers having a scuba diving license reported that he had a chance to observe underwater operations during the transfer of bluefin tuna from the net to the towing cage.

The amount and average weight of the fish captured determined by watching slow-motion video recordings of bluefin tuna transferred from the fishing net to the cage and the sale of the fish is realized based on this count and the estimated average weight information.

Section 4: Inspection Schemes and Activities

The Ministry of Agriculture and Rural Affairs and the Coast Guard Command have an effective role in fisheries control and inspection. Nonetheless, Police, Gendarmerie, Customs Offices, Forestry Offices, and Municipalities are also authorized constitutionally.

MARA works with its organizations in 81 provincials and the Coast Guard Command performs its duties by means of 156 Coast Guard boats, 11 air platforms and 63 ports on the Turkish coasts. The Coast Guard Command carries out its inspections in both territorial and international waters. MARA has assigned 10 ports and landing points to ensure the efficiency of inspections of bluefin tuna operations in accordance with ICCAT Recommendation 06-05. Those ports and landing points have been announced to fishermen and concerned authorities in April 2007.

Table 1. Catches (t) of tunas and tuna-like species (2000-2007).

Species	*2000*	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*
Atlantic bonito	12,000	13,460	6,286	6,000	5,701	70,797	29,690	5,965
Bluefin tuna	1,070	2,100	2,300	3,300	1,075	990	806	918
Swordfish	370	360	370	350	386	425	410	423
Albacore	0	0	0	0	27	30	73	852
Atlantic black skipjack	0	0	0	0	568	507	1230	785
Bullet tuna	0	0	0	0	284	1020	1031	993

Table 2. The total number of bluefin tuna purse seiners by tonnage (2000-2007).

Tonnage (as GRT)	*2000*	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*
<50	1	1	-	1	3	1	1	2
51-100	1	1	1	4	1	7	4	2
101-200	3	3	1	7	9	16	8	4
201-300	17	17	21	27	40	50	42	44
301-400	1	-	2	3	7	8	6	7
>400	3	3	3	8	8	14	14	18

Table 3. Length and weight prohibitions, by species.

Species	*Minimum Length (cm)*	*Minimum Weight (kg)*
Bluefin tuna *(Thunnus thynnus)*		30*
Atlantic Bonito *(Sarda sarda)*	25	
Swordfish *(Xiphias gladius)*	130**	
Albacore *(Thunnus alalunga)*	60**	
Atlantic black skipjack *(Euthynus alletteratus)*	45**	

*An 8% exception will be applied for the bluefin tuna catch weighing between 8-30 kg., for by-catch purposes. (Official Gazette 21.08.2008-No.26974).
** (Official Gazette of 23.05.2007-No.26350).

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 UK Overseas Territories engaged in ICCAT during 2007 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. Bermuda has witnessed a small increase in its catch levels. An increase in wahoo landings accounted for the majority of this increase. St. Helena has seen a 28% reduction in catches in comparison with last year. The UK Overseas Territories do not have any registered fishing vessels over 24 metres targeting tuna or tuna-like species in the Atlantic. In 2007, the Bermuda Government embarked on a two year project to more fully evaluate the pelagic fishery resources within its Exclusive Economic Zone and to assess the economic viability of longline fishing in Bermuda. A U.S. longliner was contracted for a two month period (February and March) to fish the outer regions of the Bermuda Exclusive Economic Zone. Catches of swordfish and albacore tuna were encouraging. All of the catch remained the property of the vessel and this catch is included in the 2007 US catch statistics. All applicable ICCAT conservation and management measures are implemented into the national law. Given the low amount of fishing activity there has been no inspection activity to report apart from the occasional monitoring of landed catches.

RÉSUMÉ

Le niveau des activités de pêche menées en 2007 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. Les Bermudes ont connu une faible augmentation des niveaux de capture. L'augmentation des débarquements de thazard bâtard représentait la plupart de cet accroissement. Sainte Hélène a observé une réduction de 28% des captures par rapport à l'année dernière. 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. En 2007, le Gouvernement des Bermudes a entrepris un projet sur deux ans visant à l'évaluation exhaustive des ressources des pêcheries pélagiques dans sa Zone Economique Exclusive et à l'évaluation de la viabilité économique de la pêche palangrière aux Bermudes. Un palangrier américain a été engagé pour une période de deux mois (février à mars) afin de pêcher dans les régions extérieures de la Zone Economique Exclusive des Bermudes. Les prises d'espadon et de germon étaient encourageantes. Toutes les prises sont restées la propriété du navire et elles ont été incluses dans les statistiques de capture des Etats-Unis pour 2007. 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, aucune activité d'inspection n'a été déclarée, à l'exception du contrôle occasionnel des prises débarquées.

RESUMEN

Durante 2007, 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 son las actividades deportivas y artesanales. Bermudas ha sido testigo de un pequeño aumento en sus niveles de captura. Un aumento en los desembarques de peto corresponde a la mayoría de este aumento. Santa Helena ha observado una reducción en las capturas del 28% en relación con el año anterior. 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. En 2007, el Gobierno de Bermudas inició un proyecto de dos años para evaluar de forma más completa los recursos de la pesquería pelágica que se encuentran en su Zona Económica Exclusiva y para evaluar la viabilidad económica de la pesca con palangre en Bermudas. Se contrató a un palangrero estadounidense para pescar durante dos meses (febrero

a marzo) en las regiones más externas de la Zona Económica Exclusiva de Bermudas. Las capturas de pez espada y atún blanco fueron alentadoras. Toda la captura era propiedad del buque y esta captura está incluida en las estadísticas de captura de Estados Unidos de 2007. Todas las medidas aplicables de conservación y ordenación de ICCAT están implementadas en las leyes nacionales. Dado el escaso nivel de actividad pesquera no se ha realizado ninguna actividad de inspección sobre la que informar aparte del seguimiento ocasional de las capturas desembarcadas.

BERMUDA

Part I (Information on Fisheries, Research and Statistics)

Section 1: Annual Fisheries Information

The Bermuda commercial fishing fleet consisted of 206 vessels during the year 2007 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.

Section 2: Research and Statistics

The total catch of tuna and tuna-like species by the Bermuda domestic fleet in 2007 was approximately 178 metric tonnes (t). This represents an increase in landings of 44 t over the previous year. An increase in wahoo landings, from 86 t in 2006 to 123.5 t in 2007, accounted for the majority of this increase. 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

There has been limited development of longline fishing in Bermuda; therefore, quotas for swordfish, albacore tuna and bluefin tuna have not been fully utilized. In 2007, the Bermuda Government embarked on a two year project to more fully evaluate the pelagic fishery resources within the Exclusive Economic Zone and to assess the economic viability of longline fishing in Bermuda. A U.S. longliner was contracted for a two month period (February and March) to fish the outer regions of the Bermuda Exclusive Economic Zone. Catches of swordfish and albacore tuna were encouraging. All of the catch remained the property of the vessel and this catch is included in the 2007 U.S .catch statistics.

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. The types of bait used are live, dead and artificial. A maximum of 10 boats fished full-time complementing a crew of 24 persons.

Section 2: Research and Statistics

Fish landings into the Fisheries Corporation over the period January 2007 to December 2007 totaled some 420.98 metric tonnes (t) of fish. Of this amount, some 57% of the species consisted of tuna, 3% of wahoo, 26% of skipjack, <0.5% of shark, 0.6% 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 2007 over a total of 1758 fishing days are shown in **Table 2**.

Data of fish catches within the St Helena Exclusive Fishing Zone are submitted to the ICCAT Secretariat on an annual basis.

Part II (Management Implementation)

Section 3: Implementation of ICCAT Conservation and Management Measures

ICCAT Conservation and Management Measures are implemented where appropriate under the Fishery Limits Ordinance which makes provision for the regulation of fishing and for other matters connected thereto. Under the Ordinance, fishing by fishing boats, whether St Helenian or foreign, are prohibited unless authorised by a licence granted by the Governor. A licence under this section will authorise fishing subject to such conditions as appear to be necessary.

Foreign vessels are licensed for longline fishing only - the use or carriage of nets is not allowed within the fishery limits of St. Helena and its Dependencies.

There was no take-up of foreign vessel licensing during 2007 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 license.

Section 4: Inspection Schemes and Activities

Fish landings from the local fleet are made predominantly into the one establishment i.e. the St Helena Fisheries Corporation. The Fisheries Corporation is responsible for providing catch statistics to the Government Directorate of Fisheries. Because of the centralized landings, catches are monitored by staff of the Directorate of Fisheries for control purposes.

Table 1. Catch composition of Bermuda catches in 2007.

Species	*Weight (t)*
Yellowfin tuna	30
Bluefin tuna	0
Bigeye tuna	0.5
Blackfin tuna	7
Albacore tuna	<0.25
Atlantic black skipjack tuna	4.5
Skipjack tuna	<0.25
Wahoo	123.5
Blue marlin	2
White marlin	0.5
Swordfish (North Atlantic)	3
Shark	6.5
Total	**~ 178**

Table 2. Main ICCAT species caught by St. Helena in 2007.

Species	*Weight (t)*
Yellowfin tuna	177
Albacore tuna	45
Bigeye tuna	18
Skipjack tuna	110
Shark	<0.5
Marlin	3

ANNUAL REPORT OF THE UNITED STATES
RAPPORT ANNUEL DES ESTATS-UNIS
INFORME ANUAL DE ESTADOS UNIDOS

U.S. Department of Commerce, NOAA Fisheries

SUMMARY

Total (preliminary) reported U.S. catch of tuna and swordfish, including dead discards, in 2007 was 11,991 metric tons (t), a decrease of about 10% from 13,437 t in 2006. Estimated swordfish catch (including estimated dead discards) increased from 2,508 t in 2006 to 2,665 t in 2007, and provisional landings from the U.S. fishery for yellowfin decreased in 2007 to 5,559 t from 7,090 t in 2006. U.S. vessels fishing in the northwest Atlantic landed an estimated 848 t of bluefin in 2007, an increase of 234 t compared to 2006. Provisional skipjack landings increased by 5.3 t to 66.4 t from 2006 to 2007, estimated bigeye landings decreased by 469 t compared to 2006 to an estimated 523 t in 2006, and estimated albacore landings increased from 2006 to 2007 by 132 t to 531.6 t. Participants in the U.S. Southeast Fisheries Science Center's Cooperative Tagging Center (CTC) and the Billfish Foundation Tagging Program (TBF) tagged and released 3,647 billfishes (including swordfish) and 583 tunas in 2007. The United States has a scientific observer program for its pelagic longline fleet that has been in place since 1992. From 15 April through 15 June, 2007 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 410 longline sets were observed (302,886 hooks) from 31 vessels which accounted for approximately 67% of the trips during that period.

RÉSUMÉ

En 2007, les États-Unis ont déclaré un total (provisoire) de captures de thonidés et d'espadon (rejets morts inclus) de 11.991 t, soit une diminution d'environ 10% par rapport au chiffre de 2006 (13.437 t). Les captures estimées d'espadon (rejets morts compris) ont augmenté, passant de 2.508 t en 2006 à 2.665 t en 2007. Les débarquements provisoires de la pêcherie étasunienne d'albacore ont diminué en 2007, passant de 7.090 t en 2006 à 5.529 t en 2007. Les bateaux étasuniens pêchant dans l'Atlantique nord-ouest ont débarqué en 2007 un total estimé de 848 t de thon rouge, soit une hausse de 234 t par rapport à 2006. Les débarquements provisoires de listao se sont accrus de 5,3 t par rapport à 2006, pour passer à 66,4 t. Les débarquements estimés de thon obèse ont diminué de 469 t par rapport au chiffre de 523 t estimé en 2006. Les débarquements estimés de germon ont augmenté de 132 t par rapport à 2006, s'établissant à 531,6 t en 2007. En 2007, les participants au Cooperative Tagging Center (CTC) du Southeast Fisheries Science Center et du programme de marquage de la Fondation Istiophoridés (TBF) ont marqué et remis à l'eau 3.647 istiophoridés (espadons compris) et 583 thonidés. Les États-Unis disposent, depuis 1992, d'un programme d'observateurs scientifiques pour la flottille palangrière pélagique. Du 15 avril jusqu'au 15 juin 2007, 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 destinées à mieux caractériser l'interaction entre la flottille palangrière et les thons rouges pendant la saison du frai. Au total, 410 opérations de pêche à la palangre ont été observées (302.886 hameçons) à partir de 31 bateaux, soit près de 67% des sorties réalisées au cours de cette période.

RESUMEN

En 2007, la captura total (preliminar) estadounidense declarada de túnidos y pez espada, incluidos los descartes muertos, fue de 11.991 t, lo que representa un descenso de cerca del 10% respecto a las 13.437 t de 2006. La captura estimada de pez espada (incluyendo los descartes estimados de peces muertos) se incrementó pasando de 2.508 t in 2006 a 2.665 t en 2007, y los desembarques provisionales de las pesquerías estadounidenses de rabil descendieron en 2007 pasando de 7.090 t en 2006 a 5.529 t en 2007. En 2007, los buques

estadounidenses que pescan en el Atlántico noroccidental desembarcaron una estimación de 848 t de atún rojo, lo que supone un incremento de 234 t en comparación con 2006. Los desembarques provisionales de listado experimentaron un incremento de 5,3 t en 2007 con respecto a 2006, con 66,4 t; y los desembarques estimados de patudo experimentaron un descenso de 469 t con respecto a 2006, con una cifra estimada de 523 t en 2007. Los desembarques estimados de atún blanco se incrementaron en 2007 en 132 t hasta llegar a 531,6 t. Los participantes del Southeast Fisheries Science Center's Cooperative Tagging Center (CTC) y del programa de marcado de Billfish Foundation, marcaron y liberaron 3.647 istiofóridos (incluyendo pez espada) y 583 túnidos en 2007. Estados Unidos cuenta con un programa de observadores científicos para su flota de palangre pelágico que lleva funcionando desde 1992. Desde el 15 de abril hasta el 15 de junio de 2007, 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 410 lances de palangre (302.886 anzuelos) de 31 buques que realizaron aproximadamente el 67% de las mareas durante ese periodo.

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 2007 was 11,991 metric tons (t), a decrease of about 10% from 13,437 t in 2006. Estimated swordfish catch (including estimated dead discards) increased from 2,508 t in 2006 to 2,665 t in 2007, and provisional landings from the U.S. fishery for yellowfin decreased in 2007 to 5,529 t from 7,090 t in 2006. U.S. vessels fishing in the northwest Atlantic landed in 2007 an estimated 848 t of bluefin, an increase of 234 t compared to 2006. Provisional skipjack landings increased by 5.3 t to 66.4 t from 2006 to 2007, estimated bigeye landings decreased by 469 t compared to 2006 to an estimated 523 t in 2006, and estimated albacore landings increased from 2006 to 2007 by 132 t to 531.6 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 5,529 t in 2007, from the 2006 landings estimate of 7,090 t (Appendix Table 2.1-YFT)[1]. The 2007 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 & reel catches of recreational anglers in the NW Atlantic (2,726 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 US longline fleet operating in the Gulf of Mexico (1,377 t). Nominal catch rate information from logbook reports (longline catch per 1,000 hooks) for yellowfin by general fishing areas is shown in Appendix Figure 2.1-YFT.

Skipjack tuna. Skipjack tuna are also caught by U.S. vessels in the western North Atlantic but it is a minor component of the U.S. total tuna landings. Total reported skipjack landings (preliminary) increased from 61 t in 2006 to 66.4 t in 2007 (Appendix Table 2.1-SKJ). Estimates of recreational harvests of skipjack continue to be reviewed and could be revised again in the future. Appendix Figure 2.1-SKJ 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 2007 decreased by approximately 468 t from

[1] Appendices available at the Secretariat.

991 t in 2006 to 523 t (Appendix Table 2.1-BET). Note that like yellowfin, the estimates of rod & reel catch are considered provisional and may be revised based on results of a future review of recreational harvest estimates. Appendix Figure 2.1-BET presents nominal catch rates (longline catch per 1,000 hooks) estimated from logbook reports.

2.1.2 Temperate tuna fishery statistics

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 restrict total U.S. landings and to conform to ICCAT recommendations. U.S. 2007 provisional estimated landings and discards from the northwest Atlantic (including the Gulf of Mexico) were approximately 758 t and 90 t, respectively. Those estimated landings and discards represent an increase of 234 t from the 2006 estimates, and are about the same as the 2005 estimates. The 2007 landings by gear were: 28 t by purse seine, 23 t by harpoon, 634 t by rod and reel, and 151 t by longline (including discards) of which 81 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 2007 rod and reel fishery off the northeastern U.S. (including the North Carolina winter fishery) for landings in several size categories were 52 fish < 66 cm, 6110 fish 66-114 cm, 6565 fish 115-144 cm and 1549 fish 145-177 cm (an estimated 0.2, 155, 239, and 112 t, respectively). Note that additional rod and reel landings of bluefin >177 cm SFL, monitored through a sales reporting system, are included in Appendix Table 2.2-BFT.

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 rate information from U.S. longline logbook reports are shown in Appendix Figure 2.1-ALB. Estimated total catches of albacore were 532 t in 2007, an increase of 132 t from 2006 (Appendix Table 2.2-ALB).

2.1.3 Swordfish fishery statistics

For 2006, the provisional estimate of U.S. vessel landings and dead discards of swordfish was 2,665 t (Appendix Table 2.3-SWO). This estimate represents an increase from the 2006 estimate of 2,058 t. The provisional landings, excluding discard estimates, by ICCAT area for 2007 (compared to 2006) were: 407 t (284 t) from the Gulf of Mexico (Area 91); 1,685 t (1,128 t) from the northwest Atlantic (Area 92); 27 t (88 t) from the Caribbean Sea (Area 93); and 334 t (372 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, NOAA Fisheries port agents, and mandatory daily logbook reports submitted by U.S. 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 17,426 fish discarded dead in 2006. For the North Atlantic, the estimated tonnage discarded dead in 2007 is 146 t, of which 144 is estimated due to longline gear. Overall, the estimates of dead discarded catch increased by about 27 t compared to the 2006 levels, and decreased from about 10% to 9% of the landed catch.

Total weight of swordfish sampled for sizing U.S. landings by longline, trawl, and handline was 3,639 t, 10 t, and 205 t in 2007. The weight of sampled swordfish landings in 2006 was 98%, 91%, and 96% of the U.S. total reported annual landings of swordfish for longline, trawl, and handline, respectively. Again, incorporation of late reports into the estimated 2007 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 5-68 t per year within the period 1996-2007.

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 discarded by-catch of the U.S. commercial tuna and swordfish longline fisheries. The Final Consolidated Atlantic Highly Migratory Species Fishery Management Plan (HMS FMP) was implemented in October 2006. The Plan allows billfish that are caught by recreational gear (rod and reel) to be landed only if the fish is larger than the minimum size specified for each species covered by the Plan. Recreational landings of each billfish species can be estimated using: (a) the SEFSC Recreational Billfish Survey (RBS) which provides the number of billfish caught during tournaments held along the southeastern U.S. coast (south of 35^0 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 which provides estimates of recreational billfish harvest 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); (e) non-tournament landed billfish and swordfish that are reported electronically or called-in; and/or (e) a coastal sportfishing survey of the Texas recreational fishery (TPW). Studies conducted indicate that use of a time-series running average from the U.S. general marine recreational fishing survey (MRFSS) in combination with data from the RBS or other surveys may provide the most reliable estimates of overall recreational catch and landings for marlins. These methods have been applied for white marlin and sailfish.

Due to concerns over estimates of rod and reel catches landings of marlins, estimates for 2003 and 2004 were reviewed by a scientific committee convened to advise on the appropriateness of the methods and data used and to recommend future improvements needed to reduce uncertainty in the estimates. The preliminary estimates of 2007 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 60ºW longitude (Area 92), and the Caribbean Sea (Area 93) are: 10 t for blue marlin, 0.9 t for white marlin, and 0.03 t for sailfish. The estimates for 2006 were: 17 t for blue marlin, 1.1 t for white marlin, and 0.08 t for sailfish.

In addition to restrictions on U.S. recreational harvest, the Management Plan also imposed regulations on commercial fisheries by prohibiting retention and sale of the three species at U.S. ports. For this reason, there are no U.S. commercial landings for any of the three Atlantic species. However, estimates of by-catch mortality 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 the historical by-catch of blue marlin, white marlin, and sailfish was detailed in SCRS/96/97-Revised. This procedure was implemented for estimating by-catch mortalities from the U.S. longline fleet. Revisions to historical landings of billfish previously reported to ICCAT were based on review of the estimates conducted at the 1996 ICCAT Billfish Workshop held in Miami, FL (USA). Estimates of the billfish by-catch discarded dead in the U.S. commercial longline and other commercial fisheries for 2007 were 38 t for blue marlin, 7 t for white marlin, and 7 t for sailfish. The estimated 2006 U.S. discarded dead by-catch was 35 t, 9 t, and 5 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 sixgill, bigeye 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.

Stock assessments for shortfin mako and blue sharks were conducted by the ICCAT SCRS in 2005. A porbeagle shark stock assessment was completed by the Canadian Department of Fisheries and Oceans in 2005. Regulations for pelagic sharks were modified because of the porbeagle, and other, shark stock assessments. Amendment 2 to the HMS FMP implemented changes to shark management including reducing the quota for porbeagle sharks from 92 t/year to 1.7 t/year. Other regulation changes affecting pelagic sharks in Amendment 2 included changing seasons from trimesters to an annual season and requiring that all sharks be landed with all fins attached to the carcass through offloading.

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 2007 (data for 2007 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 2005-2007 (Appendix Table 2.1.6a-SHK). Recreational catches in numbers estimated from the MRFSS survey during 1981-2007 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 the last two years of data, most notably in 2006, as a result of an unusually high estimate for thresher sharks (Appendix Table 2.6a-SHK). Estimates of pelagic longline dead discards also fluctuated between 1987 and 2007, 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 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 (preliminary) 2007 value was the largest since 2001 (Appendix 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 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 Table 2.6c-SHK). Most of the landings were attributable to the recreational fishery, whose 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 5,600 fish in 1998 to almost 80,000 fish in 1985, when recreational catches peaked (Appendix 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 were continued in 2007 and 2008. 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 SCRS assessments of the status of the resource (SCRS/2008/086). In addition to the regular 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 mesoscale structures to sample for larval bluefin tuna during the time period 1-8 May, 2008. Transects were selected to provide high resolution physical and biological mapping of larval scombrids in relation to rapidly changing current flows and gyre movement. The larvae are being sorted and preliminary results are expected to be made available to SCRS in 2009.

Scientists from the Virginia Institute of Marine Science continue to investigate the stock composition of small bluefin tuna caught off the northeastern U.S. and larger bluefin caught in the Gulf of Mexico and off Canada. Genetic markers derived from young of the year bluefin caught in the Mediterranean Sea and the Gulf of Mexico are being used to assign origin.

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 continue to study the 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). As more samples are analyzed, it is possible that this type of information will feed directly into stock assessments.

Scientists at Stanford University and the TAG-A-Giant research team continued to deploy electronic tags in the western Atlantic in 2007 and 2008 (n=67 deployments). Three additional bluefin were fitted with pop-up satellite archival tags in the Mediterranean Sea off the coast of France. These efforts brought the total number of electronic tags deployed on Atlantic bluefin by the TAG team to nearly 1000. Tagging in the Gulf of St. Lawrence revealed a strong linkage between fish there and the Gulf of Mexico spawning grounds (SCRS/2008/092), corroborating findings from otolith studies. 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 models eastern and western Atlantic bluefin tuna stocks simultaneously but includes different growth, movement, maturity and natural mortality parameters for each stock, season and age group. The model includes four areas and quarterly time steps (SCRS/2008/097). Model revision and simulation testing are now underway.

Researchers at the University of New Hampshire continue to engage in ecological analyses seeking to identify the underlying dynamics of Atlantic bluefin migration, maturity schedules and reproduction, age and growth, and forage relationships. In 2006, the UNH-DFO electronic tagging program included release of 26 PSATs on giant bluefin (24 in Canadian waters, 2 by US longliners), and 10 in 2007 (all in Canadian waters), and continuation of the Tag a Tiny juvenile tagging program in 2007, when over 25 miniature PSATs, or X-tags, were deployed on juvenile bluefin in the New England region, and implanted archival tagging of school bluefin continues. A study is also underway on shifts in oceanographic regimes and possible impacts on bluefin tuna and their prey.

Scientists at the National Marine Fisheries Service have developed a VPA model 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). The new model was applied to bluefin tuna stocks in collaboration with scientists from other ICCAT nations during the 2008 assessment meeting.

From early March through mid June 2008, the National Marine Fisheries Service conducted extensive observations of the pelagic longline fishery in the Gulf of Mexico, as a continuation of a similar effort

undertaken in 2007. Roughly 75% of known fishing trips and a higher percentage of total effort was observed. During that sampling more than 3,305 yellowfin, about 3,774 swordfish, 347 bluefin, 97 shortfin mako and 32 bigeye were observed. Fifty of the bluefin were landed, 201 were released dead, 72 were released alive and 24 broke off. Various tissues were taken from the bluefin including otoliths, gonads and muscle. Contracts were awarded to conduct research on bluefin stock structure, growth, gender determination and reproduction.

At the same time as the extended coverage observer program, the National Marine Fisheries Service has been assessing the efficacy of new technologies and changes in fishing practices in reducing the by-catch mortality of bluefin tuna in the directed yellowfin tuna fishery in the Gulf of Mexico. The 2008 pilot study was a continuation of research conducted in April, 2007 to examine "weak link" concepts which would allow bluefin tuna to escape capture on pelagic longlines, while retaining yellowfin tuna. Results to-date are encouraging, suggesting that retention of yellowfin is not reduced. There are plans to continue this research in 2009.

2.2.2 Swordfish research

In late 2007, the National Marine Fisheries Service issued an Exempted Fishing Permit to three U.S. vessels in order to allow them to fish in portions of areas currently closed to pelagic longlining off the coast of the Southeastern U.S. In addition, NMFS contracted with Nova Southeastern University to conduct a study on these vessels in order to evaluate the catch rates of target and bycatch species inside the closed areas compared to open fishing areas. Evaluation of bycatch reduction and immediate mortality reduction using 18/0 non-offset circle hooks on various species (particularly undersize swordfish) may also be possible. The vessels began conducting the study in February of 2008 and are expected to continue until spring of 2009.

The National Marine Fisheries Service also continues to tag swordfish with pop-up tags to better understand their behavior. Ten and three swordfish were released with these tags in 2007 and 2008, respectively. In addition, 172 swordfish have been released with conventional tags in 2007 and 2008.

2.2.3 Tropical tunas research

U.S. scientists participated in the ICCAT SCRS Yellowfin and Skipjack stock assessment session of the Tropical Species Group, held in Florianopolis, Brazil, 21-29 July, 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 have 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 on 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 Albacore research

U.S. National Marine Fisheries Service scientists continue to be involved in the development of alternative, more detailed statistical-based models, in efforts to evaluate more fully the relationship between this species' population dynamics and associated fishery operations (i.e., areas of uncertainty in an overall stock assessment). In addition, research is being conducted to improve the implementation of the stochastic approach being used currently to estimate catch-at-age for northern albacore. It is envisioned that these analyses will be completed in time for the 2009 albacore assessment.

2.2.5 Mackerels and small tunas research

In 2008, scientists from the National Marine Fisheries Service carried out assessments of king mackerel for two stocks that are exploited in U.S. waters (in the southeastern United States and in the Gulf of Mexico). The assessment was subjected to peer review through the SEDAR process. Results are available from: http://www.sefsc.noaa.gov/sedar/Sedar_Workshops.jsp?WorkshopNum=16

2.2.6 Shark research

The ICCAT Shark Species Group conducted a data preparatory meeting for assessment of blue sharks and shortfin makos in Punta del Este, Uruguay, in June 2007. Scientists from the U.S. delegation contributed 4 working documents for this meeting on catches and indices of relative abundance of pelagic sharks and acted as rapporteurs for several sections of the meeting report. A cooperative shark research project between Brazil (Universidade Federal Rural de Pernambuco) and the U.S. (NOAA Fisheries and the University of Florida's Florida Museum of Natural History) has been initiated. 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 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. Five pop-off satellite archival tags have also been deployed to date (2 oceanic whitetip sharks, 2 bigeye threshers and a longfin mako) in U.S. Atlantic waters.

2.2.7 Billfish research

The NMFS SEFSC again played a substantial role in the ICCAT Enhanced Research Program for Billfish in 2007, 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 2007 were documented in SCRS/07/144. Highlights include 11 at-sea sampling with observers on Venezuelan industrial longline vessels through September 2007. 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 targeting 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 2007 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. Program participants in Venezuela, Grenada, and Barbados continued to assist in obtaining information on tag-recaptured billfish, as well as numerous sharks, in the western Atlantic Ocean during 2007; a total of 97 tag recovered billfish and sharks were submitted to the Program Coordinator in 2007. Age, growth, and reproductive samples (Bermuda) from several very large billfish were obtained during 2007.

A study was initiated by the Virginia Institute of Marine Science (VIMS) on U.S. longline vessels in late 2006 to evaluate post release survival of sailfish in the western Atlantic Ocean. These data were published during 2007. In addition, 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, 2007. The SEFSC also finalized PSAT research of sailfish and blue marlin in the eastern and western north Atlantic during 2007. Several of these papers were also published in peer review journals during 2007. Preliminary results of this work were presented to an international symposium on the use of electronic tags to monitor the movements of marine species in San Sebastian, Spain, in the fall of 2007.

The cooperative billfish research between U.S. and Brazilian scientists that was initiated in 2005 continued in 2006 and 2007. Additional research in Brazil will also focus on PSAT tagging of billfish and the collection of biological materials 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 inter-sessional ICCAT meeting on tagging in Madrid during 2007.

2.2.8 Seabird research

The Southeast Fisheries Science Center, through contractor David Lee, has developed a draft “prioritized list” of seabirds in the Western North Atlantic. The list was a follow-up on the 2007 Marine Bird Workshop and has been circulated among attendees at the workshop for comment. A seabird manual with summary information about more than 60 WNA seabirds is being developed by David Lee for use by observers, Councils, managers, and other interested parties. This work could potentially complement the activities of the ICCAT Ecosystem Sub-committee gathering information to assess the vulnerability of seabird populations. A Virginia Polytechnic Institute team is exploring various alternative statistical techniques for estimating the seabird by-catch of the U.S. pelagic longline data.

The University of Washington Sea Grant Program continues to develop a streamer line system for application to world high-seas pelagic longline fisheries as the cornerstone of seabird by-catch mitigation in these extensive, multi-national fisheries targeting tuna and billfish worldwide. The design will focus on: (1) engineering widely applicable and easy to use deployment, retrieval and rigging systems, as well as towed devices that minimize the fouling of streamer lines on gear to maximize practical application by crews; and (2) identifying optimal streamer line materials, configuration, and performance standards that minimize seabird attacks on baited hooks. Testing will entail measuring the behavioral response of “worst case” seabirds to alternative designs in “worst case” locations in cooperation with partner scientists and organizations. Research results will be directly applicable to ICCAT's implementation of its seabird resolution (Res. 02-14).

The IUCN Marine Programme continues a Hawaii-based project to assess the efficacy and practicability of alternative weight designs to improve vessel crew safety and reduce the by-catch of sensitive species groups in pelagic longline fisheries. Placing weights near hooks in pelagic longline fisheries can reduce seabird, sea turtle, shark and billfish by-catch. However, vessels that do not use a wire leader on branch lines, such as in the Hawaii-based longline swordfish fishery, do not place weights close to the hook, or use any weights on their branchlines, in part, due to safety concerns: If branchlines break during hauling, which frequently occurs when sharks are caught and bite off the terminal tackle, the weight can fly back at the vessel at extremely high velocity, infrequently causing serious injury, and in very rare cases, killing crew. A dockside trial and research fishing trip on a Hawaii longline swordfish vessel was conducted to assess the efficacy and commercial viability of two experimental designs of safer weights. Results from the dockside trial indicate that the two experimental weights present a substantially reduced risk of injury to crew relative to conventionally employed line weights. Results from one experimental fishing trip demonstrated that an experimental weight performed as designed, however, the sample size was too small to demonstrate a significant difference in weight behavior after lines brake during gear retrieval between the control and experimental weight. Additional research and development is needed to overcome identified practicality issues (threading one of the experimental weights onto the line, gear tangling due to absence of a swivel), and durability of the experimental weights, while keeping the per-unit cost low enough to be economical and competitive with conventional lead center swivels. All problems encountered with the two experimental leads are likely possible to overcome. With additional research and development, it will be possible to develop a simple, inexpensive, and durable safer lead weights for use in pelagic longline gear. Research results could be directly applicable to ICCAT's implementation of its seabird resolution (Res. 02-14).

For additional information on the U.S Plan of Action for reducing seabird by-catch, see Appendix 2.2.8.

2.2.9 Tagging

Participants in the Southeast Fisheries Science Center’s Cooperative Tagging Center (CTC) and the Billfish Foundation Tagging Program (TBF) tagged and released 3,647 billfishes (including swordfish) and 583 tunas in 2007. This represents a decrease of [38.0%] for billfish and an increase of [14.9%] for tunas from 2006 levels. There continues to be several electronic tagging studies involving bluefin tuna and billfish in the Atlantic Ocean and adjacent waters during 2007. These are discussed in the bluefin and billfish research sections above. There were 26 billfish recaptures from the CTC and TBF projects in 2007. This represents a decrease of 31.6% from 2006. These recaptures were 19 sailfish, two white marlin and five swordfish. A total of 12 tunas were recorded as recaptures in 2007. These were all bluefin. This recapture level was a decrease of 33.3% from the 2006 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.

2.2.10 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 2007 (see Appendix Figure 2.2-Observers). 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 2006 ranged from 2.5% in 1992 to 10.8% in 2007. The targeted sampling fraction of the U.S. pelagic longline fleet was increased in to 8% in 2002.

A total of 10,252 sets (7,434,6117 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 2007. During the period, observers recorded over 362,423 fish (primarily swordfish, tunas, and sharks), in addition to marine mammals, turtles, and seabirds during this time period. Document SCRS/04/168 provided a more detailed summary of the data resulting from observer sampling between 1992 and 2002. From 15 April through 15 June, 2007 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 410 longline sets were observed (302,886 hooks) from 31 vessels which accounted for approximately 67% of the trips during that period.

− Southeast U.S. shark gillnet fishery observer coverage

The directed shark gillnet fishery operates year round in coastal waters off the US 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 bycatch 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 2007, a total of 5 drift and 112 sink gillnet vessels were observed on 11 trips and 29 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 77-99% shark, 1-99% teleosts and 1-3% batoids.

− U.S. 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. Observations of the Atlantic shark directed bottom longline fishery have been conducted since 1994-2004 by the Commercial Shark Fishery Observer Program, Florida Museum of Natural History, and the University of Florida, (Gainesville, FL). Since 2005, responsibility for the fishery observer program was transferred to National Marine Fisheries Service, Southeast Fisheries Science Center, Panama City Laboratory. All vessels that have an active directed shark permit and fish with bottom longline gear are selected for coverage. Consequently, observers also board trips that target a combination of shark and grouper, and shark and tilefish. In 2007, the shark bottom longline observer program covered a total of 42 trips on 25 vessels with a total of 264 hauls observed. Depending on target, the catch was comprised of 12-96% shark, 3-87% teleost, and 1-2% batoids.

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 [Rec. 98-07]; [Rec. 02-07]; [Rec. 06-06]

Recommendation 06-06 revised the annual western bluefin tuna quota for the United States to 1,190.12 t, including 25 t to account for by-catch related to directed longline fisheries in the vicinity of the management area boundary. Recommendation 06-06 also eliminated the dead discard allowance, and limits the amount of underharvest that is carried forward to the next year, i.e., not to exceed 50 percent of a Contracting Party's current initial Total Allowable Catch. Accordingly, underharvest from the 2006 fishing year (1 June 2006 through 31 May 2007) was applied to the 2007 fishing year (1 June 2007 through 31 December 2007) resulting in an adjusted 2007 fishing year quota of 1,629.2 t. The 2007 quota was distributed over this 7-month period because effective January 2008, the U.S. bluefin tuna fishery is now managed on a calendar year basis. Application of the Recommendation 06-06 resulted in an adjusted quota of 1,668.9 t for the 2008 fishing year (1 January 2008 through 31 December 2008). 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 2007 calendar year, the United States landed an estimated 848.7 t of bluefin tuna, which includes an estimated 90.5 t of dead discards.

3.1.2 Recommendation by ICCAT to Establish a Multi-annual Recovery Plan for Bluefin Tuna in the Eastern Atlantic and Mediterranean [Rec. 06-05]; [Rec. 07-04]; [Rec. 07-05]

As discussed in Section 3.3, the United States has implemented the Bluefin Tuna Catch Documentation Program (Rec. 07-10) 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 [Res. 06-08]

Resolution 06-08 requests CPCs to refrain from increasing effort by large-scale tuna longline vessels North of 10 degrees North 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 [Rec. 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 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. The United States is also working to resolve uncertainty pertaining to estimation methodologies for rod and reel catches and landings of marlins. Preliminary 2008 calendar year data indicate landings of 42 blue marlin and 19 white marlin from recreational fishing activities. Preliminary 2007

calendar year data from all data sources indicate landings of 59 blue marlin and 39 white marlin from recreational fishing activities. Please refer to the U.S. Compliance Table for final aggregate U.S. landings.

The United States implemented a mandatory reporting program for billfish landed by recreational anglers who are not participating in registered tournaments in March 2003. In addition, the United States has taken steps to improve statistical information collection on recreational fishing in the Commonwealth of Puerto Rico and the U.S. Virgin Islands. These efforts have resulted in qualitative information that indicates that billfish landings may have been underestimated in past years. Efforts to produce quantitative historical estimates of non-tournament billfish landings for both U.S. mainland and Caribbean ports have been problematic due to estimation techniques that are subject to imprecision and bias. To increase the accuracy of landing estimates, the United States has worked to improve data collection in Puerto Rico, and to increase enforcement activities in response to reports of illegal sales, unregistered tournaments, and fishing by non-permitted anglers. This effort resulted in the registration of all identifiable tournaments in Puerto Rico during 2007.

3.1.5 Recommendation to Establish a Rebuilding Program for North Atlantic Swordfish [Rec. 06-02]

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. The United States is providing 1,345 t of unused quota each year for 2007 and 2008 from the 2003-2006 management periods for use by developing states. 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 will manage 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 2006 fishing year and 2007 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. Information on compliance with the minimum size is provided in the U.S. compliance tables. The United States codified 2007 and 2008 swordfish quotas, as identified in paragraph 3 c), in the fall of 2007.

3.1.6 Recommendation on South Atlantic Swordfish [Rec. 06-03]

This recommendation establishes 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 underharvest to be carried forward by the United States each of these years. The United States landed 0.0 t of South Atlantic swordfish in 2006. Landings for 2007 are provided in the compliance tables.

3.1.7 Recommendation on the Southern Albacore Catch Limits [Rec. 07-03]

The United States was subject to a catch limit of 100 t in 2007; 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 2006 and landings for the 2007 calendar year are provided in the U.S. Compliance tables.

3.1.8 Recommendation on North Atlantic Albacore Catch Limits [Rec. 03-06]; [Rec. 06-04]; [Rec. 07-02]

The 2003 recommendation, which applied for 2004 through 2006, was extended to cover 2007 by Recommendation 06-04. The United States was allocated a landings quota of 607 t for 2006, which is a level consistent with average landings for the United States during the mid-1990s. The United States landed 396 t during the 2006 calendar year. The 2007 calendar year landings are given in the U.S. Compliance tables. 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 underharvest to 25 percent of the initial U.S. catch quota.

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 2008 submission indicated that there were 245 vessels authorized to harvest North Atlantic albacore in the convention area.

3.1.9 Recommendation by ICCAT on the Bigeye Tuna Conservation Measures for Fishing Vessels Larger than 24M Length Overall [Rec. 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 U.S. was below 2000 t for the prescribed five-year period.

3.1.10 Recommendation on Bigeye Tuna Conservation Measures [Rec. 02-01]; [Rec. 03-01]; [Rec. 04-01]

No catch limits apply to the United States, since 1999 catch was less than 2,100 t. The United States has implemented a higher minimum size than that required by ICCAT, which provides additional protection for juvenile bigeye tuna. 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 987 t in calendar year 2006, and 2007 calendar year landings are given in the U.S. Compliance tables.

3.1.11 Recommendation on Yellowfin Size Limit [Rec. 72-01]; [Rec. 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 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 [Rec. 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 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 effort and catches. In 2004, the U.S. also implemented circle hook requirements in the pelagic longline fishery in which yellowfin are caught which contributes to reducing post-release mortality of small, and the United States has maintained a minimum size for retaining yellowfin despite the repeal of a minimum size by ICCAT.

3.1.13 Resolution on Atlantic sharks [Res. 01-1]; [Res. 03-10]; [Res. 07-06]

The 2001 shark resolution calls for the submission of catch and effort data for porbeagle, shortfin mako, and blue sharks; encourages the release of live sharks to the extent possible; encourages the minimization of waste and discards in accordance with the Code of Conduct for Responsible Fisheries; and calls for voluntary agreements not to increase fishing targeting Atlantic porbeagle, shortfin mako, and blue sharks until an assessment can be conducted. The 2003 shark resolution requested ICCAT parties and cooperating parties to provide the SCRS by-catch committee 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 2002, pursuant to the 2000 Shark Finning Prohibition Act, the United States banned the practice of finning nationwide (67 FR 6194, 11 February, 2002), to reduce discards and waste associated with finning. 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 has managed sharks in the Atlantic Ocean under domestic fishery management plans (FMP) since 1993. The 1993 FMP, among other things, established a fishery management unit for Atlantic sharks,

prohibited shark finning by requiring that the ratio between wet fins/dressed carcass not exceed 5 percent, and established other commercial and recreational shark management measures. The 1999 Atlantic Highly Migratory Species FMP established further management measures for Atlantic sharks, including a limited access permit system, recreational retention limits, reduced commercial quotas, and expansion of the prohibited shark list to 19 species. In 2003, the United States again amended its shark management measures and addressed, among other issues, commercial quotas, quota management and administration, a time/area closure for sandbar and dusky shark nursery and pupping areas, and vessel monitoring system requirements for shark vessels to facilitate enforcement of closed areas.

A new Consolidated Fishery Management Plan (FMP) was completed in 2006, which among other actions, contained measures to enhance U.S. data collection efforts by improving identification of dressed shark carcasses. These measures prohibit removal of the second dorsal and anal fin from sharks prior to landing, and require all U.S. shark dealers to attend shark identification workshops. At present, NMFS has proposed an amendment to the 2006 FMP, which would restructure U.S. shark management and includes proposed provisions to require fishermen to land sharks with fins on and to prohibit the take of porbeagle sharks.

To date, the United States has not conducted a stock assessment on porbeagle sharks. NMFS has reviewed the 2005 Canadian Stock Assessment and Recovery Assessment report on porbeagle sharks, which indicates that they are overfished and overfishing is not occurring. NMFS has deemed the Canadian Assessment to be the best available science and appropriate to use for U.S. domestic management purposes.

NMFS recently modified domestic shark management measures consistent with several stock assessments by implementing Amendment 2 to the HMS FMP. Revised management measures for Atlantic sharks in domestic waters as a result of this FMP, include, but are not limited to: requiring all sharks to be landed with all fins attached, revised quotas and retention limits in commercial and recreational fisheries, revised prohibited species for the commercial and recreational sectors, and establishing a shark research fishery. The quota for porbeagle sharks was reduced from 92 t/year to 1.6 t/year in Amendment 2 to the HMS FMP.

Consistent with 07-06 and other recommendations, the United States continues to submit all Task I and Task II data for sharks on an annual basis and has catch limits in place for pelagic sharks, including, Atlantic porbeagle, shortfin mako, and blue sharks. Furthermore, U.S. scientists are actively engaged in shark research, including research that may identify potential nursery areas for pelagic sharks. U.S. scientists participate in all ICCAT sanctioned shark assessment meetings.

3.1.14 Recommendation by ICCAT [Rec. 05-05] to Amend Recommendation 04-10 Concerning the Conservation of Sharks Caught in Association with Fisheries Managed by ICCAT [Rec. 04-10]; [Rec. 05-05]; [Rec. 06-10]

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 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 makos, 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.

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 prohibited the practice of finning nationwide and the possession or landing of shark fins without the corresponding carcass (67 FR 6194, 11 February, 2002). At present, NMFS is proposing an Amendment to the 2006 FMP which proposes to require fishermen to land sharks with all fins 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. Recommendation 06-10 scheduled the next assessment for shortfin mako and blue sharks for 2008. U.S. scientists are participating in this assessment.

3.2 Closed seasons

3.2.1 Domestic time/area closures for ICCAT species

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 1**). 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 2**). These closures were implemented for the protection of spawning aggregations of gag grouper, and the HMS management measures will expire on 1 June, 2010, consistent with Gulf of Mexico Fishery Management Council recommendations. Both of these reserves are located shoreward of the Desoto Canyon Closed Area (Figure 3.2.2). The Madison-Swanson Marine Reserve is 115 nm^2 in size, and the Steamboat Lumps marine reserve is 104 nm^2 in size. 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). A proposed rule for the SAFMC's Amendment 14A to the Snapper Grouper Fishery Management Plan was published on 16 July, 2008 (73 FR 40824). In the proposed rule, the SAFMC is proposing to implement eight Type II 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 has 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.

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. 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 Ban on imports

3.3.1 Trade restrictive recommendations [Rec. 02-17] and [Rec. 03-18]

No trade restrictive measures were passed by the Commission at the 2007 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 by ICCAT Concerning Trade Measures [Rec. 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 relevant information through a combination of programs, including the bluefin tuna catch documentation program, bigeye and swordfish statistical document programs, and through domestic Customs programs.

3.3.3 Bluefin Tuna Catch Documentation Program [Rec. 07-10]

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. This program repeals the pre-existing statistical document program and now tracks bluefin tuna landings and international trade using a bluefin tuna catch document. The U.S. program continues to require that bluefin tuna are 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 is due 1 October, 2009 and will cover the time period from 1 July, 2008 through 30 June, 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 [Rec. 00-22]; [Rec. 01-21]; [Rec. 01-22]; [Rec. 03-19]

The U.S. Bluefin Tuna Statistical Document program, which was implemented in the 1990s, was replaced in 2008 by the Bluefin Tuna Catch Documentation program (see above). 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. The last statistical document reports for swordfish and bigeye tuna were submitted to the ICCAT Secretariat on 30 September, 2008 for the period covering January 2008 through June 2008.

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. The United States achieved 11.7 percent observer coverage expressed as a proportion of reported hooks, and 10.8 percent as a proportion of reported sets of Atlantic pelagic longline fishing effort for highly migratory species during calendar year 2007. 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, D.C. Observers for U.S. vessels in ICCAT fisheries are deployed from regional programs in Miami, Florida and Panama City, Florida.

3.5 Vessel monitoring

3.5.1 Recommendation Concerning Minimum Standards for the Establishment of a Vessel Monitoring System (VMS) in the ICCAT Convention Area [Rec. 03-14]; [Rec. 04-11]; [Rec. 07-08]

The United States implemented a fleet-wide VMS requirement in the Atlantic pelagic longline fishery effective 1 September, 2003 (June 25, 2003, 68 FR 37772), consistent with the terms of recommendations 03-14 and 04-11. The United States is in compliance with these recommendations. 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 for bottom longline vessels operating near a time/area closure 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 only applies to vessels fishing for bluefin tuna in the Eastern Atlantic Ocean and Mediterranean Sea.

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 [Res. 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 23 pelagic longline vessels over 24 meters in overall length in 2007. The U.S. submission is provided in the Appendix 3.6.1.

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 [Rec. 03-12]

The United States currently implements all elements of this measure. A list detailing the enforcement actions taken on ICCAT species is provided in Appendix 3.6.2.

3.6.3 Recommendation to Establish a List of Vessels Presumed to Have Carried Out Illegal, Unreported, and Unregulated Fishing Activities [Rec. 06-12]

The United States generally prohibits the landing of any foreign fishing vessels in its ports. Rulemaking to clarify domestic procedures for denying port access to vessels is ongoing and will be implemented in 2009.

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 [Rec. 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 already fully 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 3.6.2, NOAA Enforcement Actions Taken on ICCAT Species.

3.6.5 Recommendation by ICCAT on Additional Measures for Compliance with the ICCAT Conservation and Management Measures [Rec. 06-15]

Under the United States Bluefin Tuna Statistical Document and domestic management programs, the United States is able to closely monitor domestic landings and exports of Atlantic bluefin tuna to ensure that exports do not exceed landings. Each commercially harvested Atlantic bluefin tuna landed in the United States is tagged with a uniquely numbered tail tag, and reported to NMFS within 24 hours of landing. Landings are tracked to ensure the U.S. fishery remains within its quota. Unique tail tag numbers must remain with Atlantic bluefin tuna carcasses until consumed, and are required for exports of domestically landed Atlantic bluefin tuna. In addition, U.S. regulations require that statistical documents accompany all imports of bluefin tuna.

3.6.6 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 [Rec. 07-09]

As with Recommendation 06-12, the United States generally prohibits the landing of any foreign fishing vessels in its ports. The United States currently implements the elements of this measure.

3.6.7 Resolution by ICCAT Further Defining the Scope of IUU Fishing [Res. 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, 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.

3.6.8 Recommendation by ICCAT to Adopt Additional Measures Against Illegal, Unreported and Unregulated (IUU) Fishing [Rec. 03-16]

This recommendation requires CPCs to take the necessary measures to prohibit landings, placing in cages for farming, and/or transshipment of tunas or tuna-like species that were caught by fishing vessels engaged in IUU fishing activity. The United States has taken several steps to implement this recommendation. First, under new domestic authority to combat IUU fishing, the United States is required to produce a biennial report that lists countries which the United States has identified as having vessels engaged in IUU fishing activity. Under this authority, the United States is developing regulatory procedures to certify whether identified countries are taking appropriate corrective action to address IUU fishing activity. Lack of progress by such nations to address IUU fishing may lead to prohibitions on the importation of certain fisheries products into the United States and other measures.

Additionally, as an increasing number of Regional Fishery Management Organizations have adopted IUU vessel lists and call upon member countries to deny port access and services to vessels identified on such lists, the United States is currently designing a system that will implement its obligations to apply these measures.

3.7 Other recommendations

3.7.1 Recommendation by ICCAT on Vessel Chartering [Rec. 02-21]; [Rec. 03-21]

A final rule was published on 6 December, 2004 (69 FR 70396), to implement recommendation 02-21 concerning vessel chartering. NMFS is currently considering an administrative modification to the vessel chartering regulations. Recommendation 03-21 implemented monitoring measures for contracting parties, including maintaining up to date records of fishing vessels entitled to fly its flag and/or authorized to fish species managed by ICCAT in the convention area, which is an integral component of vessel chartering arrangements. The United States is complying with these recommendations by collecting all relevant information for monitoring before issuing the permits necessary to engage in vessel chartering arrangements. The United States issued 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 [Rec. 03-13]

The United States requires all commercial fishing vessels over 24 m in length to maintain logbooks specified by NMFS. For information on the implementation of this recommendation relative to recreational fishing vessels, see the section below entitled *Resolution on Improving Recreational Fishery Statistics* [Rec. 99-07].

3.7.3 Resolution on Improving Recreational Fishery Statistics [Rec. 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. Currently, 100 percent of billfish tournaments are selected 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.

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 [Rec. 02-22]

The United States submitted the list of vessels required, pursuant to this recommendation, to the Secretariat in June, 2008. At that time, there were 238 U.S. vessels that met the appropriate criteria.

3.7.5 Resolution on Sea Turtles [Res. 03-11]

The 2003 resolution on sea turtles encourages ICCAT parties and cooperating parties 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 addition to the above activities, the United States has undertaken extensive research activities in its longline fleet for ways to reduce sea turtle interactions and increase survivability of sea turtles incidentally caught in longline fisheries. Results from U.S. research in the Atlantic Ocean have shown that larger circle hooks significantly reduce turtle catches in the pelagic longline fishery (e.g. with mackerel bait, the number of loggerhead turtles caught was reduced by 65%). Unlike “J” hooks, which are often swallowed, circle hooks often become anchored in the mouth, and therefore hook extraction is easier and safer for sea turtles. A number of devices tools are being used to remove line, hooks, or the barb or eye of hooks on boated turtles. Long handled line cutters and long handled de-hookers are used to remove gear from turtles too large to be boated. The Epperly Biopsy Pole is used with a stainless steel corer to take tissue samples for genetics. Short handled de-hookers are used to remove hooks from animals that are boated. A dip net is used to bring small (<50 kg) turtles aboard. Mouth openers and gags are used on boated turtles to allow access to internally lodged hooks. U.S. gear experts have presented this by-catch reduction technology and data from the research activities at approximately 15 international events that included fishing communities and resource managers between 2002 and mid-2005.

In 2004 (6 July, 2004; 63 FR 40734), the United Stated codified regulations that implemented measures to reduce sea turtle by-catch in Atlantic PLL fisheries for highly migratory species. These measures pertain to the entire U.S. Atlantic pelagic longline fishery, and include: mandatory bait specifications depending on fishing locale, 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. While exhibiting annual fluctuations, the U.S. pelagic longline fleet has seen a significant overall decline in the number of sea turtle interactions since implementation of the circle hook regulations in mid-2004. U.S. pelagic longline leatherback sea turtle interactions have ranged from an estimated 1,362 in 2004 to 368 in 2005 to 415 in 2006; loggerhead sea turtle interactions have fluctuated from an estimated 734 in 2004, to 283 in 2005 to 561 in 2006. As new technological solutions are discovered, the United States will continue to help share these innovations with other fishing nations.

3.7.6 Recommendation by ICCAT Establishing a Programme for Transshipment by Large-Scale Longline Fishing Vessels [Rec. 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. No U.S. action is necessary on this recommendation, as current U.S. regulations prohibit transshipment of HMS products in the convention area.

3.7.7 Recommendation by ICCAT on Compliance with Statistical Reporting Obligations [Rec. 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 has been compliant with its statistical reporting obligations for 2006 and 2007.

3.7.8 Recommendation by ICCAT on Bluefin Tuna Farming [Rec. 06-07]

Atlantic bluefin tuna have not been farmed in U.S. waters. The U.S. Bluefin Tuna Statistical Document program applies to farmed as well as wild-caught product, so statistical documents are required for imports of all farmed product. In a rulemaking scheduled to be implemented in 2008, the United States is considering options for ensuring that farmed products are only imported from farms listed on the ICCAT record of farming facilities.

3.7.9 Electronic Statistical Document Program [Rec. 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 U.S. 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 US is a party. These requirements have been communicated to U.S. Customs and Border Protection through a Concept of Operations document. Once the Concept of Operations is approved by Customs, NMFS will begin the process of issuing regulations to implement the electronic collection of trade data for the subject seafood products. 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.

3.7.10 Recommendation by ICCAT on Reducing Incidental By-catch of Seabirds in Longline Fisheries [Rec. 07-07]

The U.S. does not have any vessels actively participating in ICCAT-managed fisheries south of 20 degrees S longitude. A description of U.S. implementation of other measures called for in the recommendation can be found in Appendix 2.2.8

3.7.11 Non-applicable resolutions and recommendations

The following recommendations were not addressed, as the U.S. does not participate in the relevant fishery or does not participate in specific activities covered by the recommendations:

- [Rec. 03-04] Recommendation by ICCAT Relating to Mediterranean Swordfish
- [Rec. 07-01] Recommendation by ICCAT on Mediterranean Swordfish
- [Rec. 96-14] Recommendation by ICCAT Regarding Compliance in the Bluefin Tuna and North Atlantic Swordfish Fisheries
- [Rec. 97-01] Recommendation by ICCAT to Improve Compliance with Minimum Size Regulations

- [Rec. 99-03] Recommendation on the Establishment of a Closed Area/Season for the Use of Fish-Aggregation Devices

3.7.12 U.S. Enforcement Actions

A summary of U.S. enforcement actions taken in ICCAT fisheries is provided in Appendix 3.6.2.

Section 4: Other activities

Recent U.S. management action for Atlantic HMS 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.

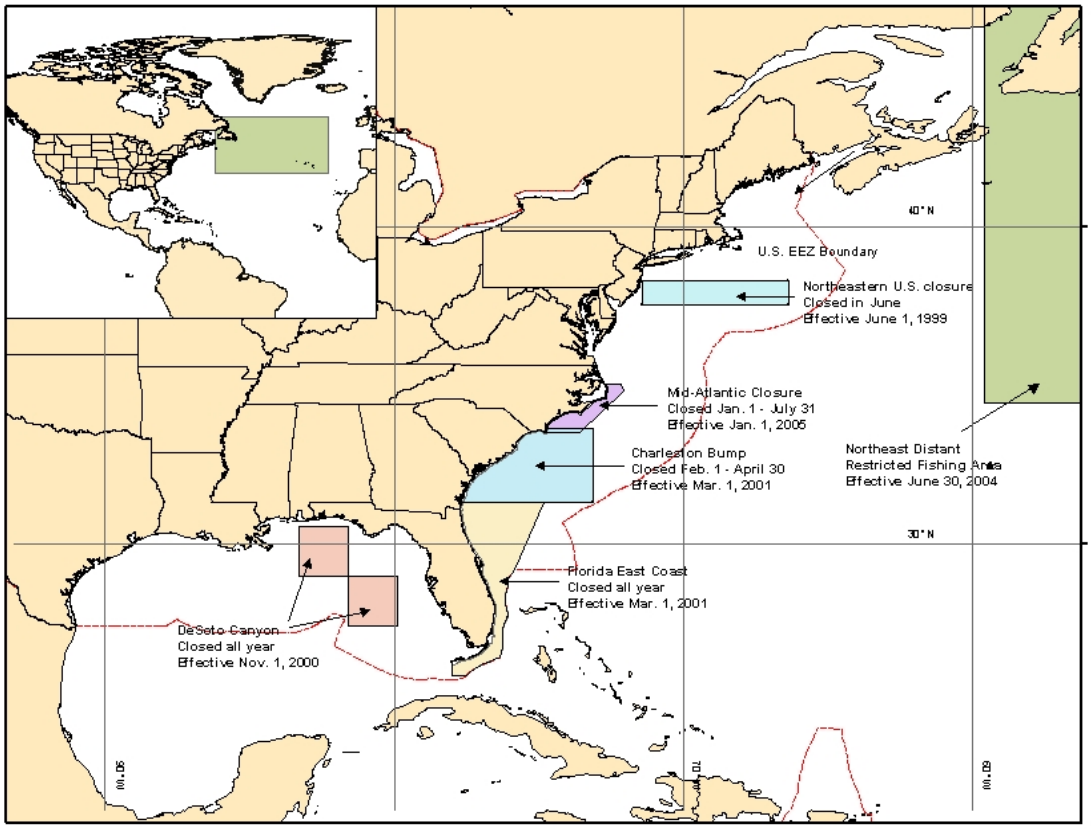

Figure 1. Existing U.S. time/area closures in HMS fisheries. Inset shows extent of the Northeast Distant restricted fishing area. All closures except the Mid-Atlantic are applicable to PLL gear only. The Mid-Atlantic Closure is applicable to bottom longline gear only. Note: The Northeast Distant (NED) 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, and Caribbean bottom longline closures not included.

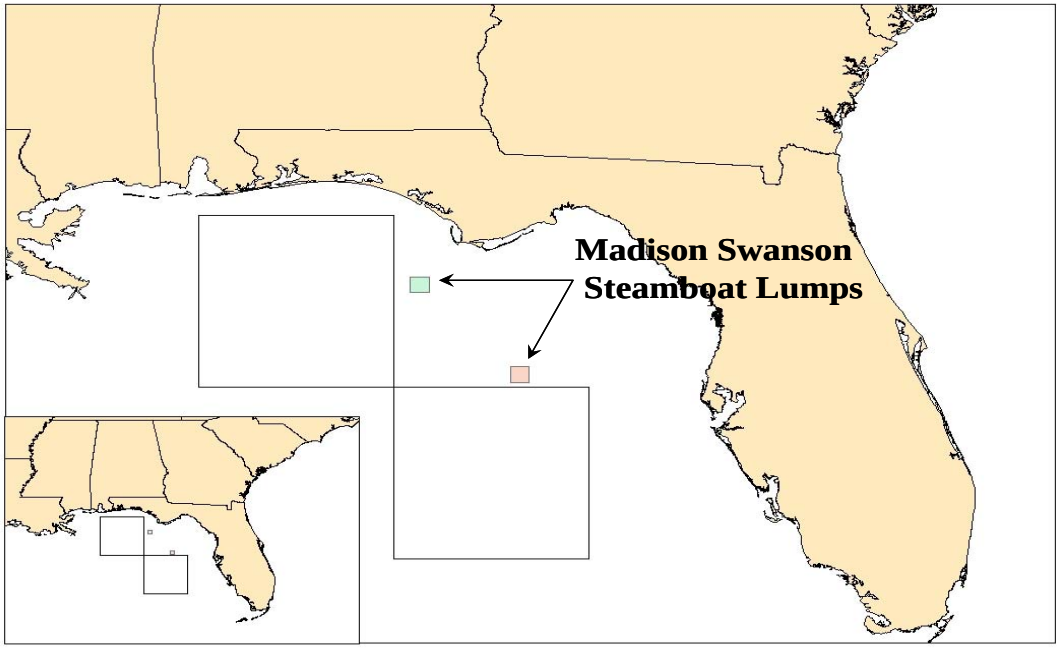

Figure 2. Madison-Swanson (upper left) and Steamboat Lumps (lower right) Marine Reserves. The Desoto Canyon closure is also shown for reference.

ANNUAL REPORT OF URUGUAY
RAPPORT ANNUEL DE L'URUGUAY
INFORME ANUAL DE URUGUAY*

SUMMARY

In 2007, the Uruguayan tuna fleet continued fishing using surface longline, although with a lesser number of vessels than in 2006 (9). The total catch (provisional) landed and reported in 2007 by this fleet was approximately 1,000 t, which represents a decrease of 500 t with respect to the previous year. Various activities were carried out related to statistics, research and management. Some of these activities were carried out jointly with other governmental institutions. The Programa Nacional de Observadores-PNOFA (National Observers Plan) continued, which covers approximately 65% of the fleet's activities. Within this program, work was initiated aimed at teaching and informing those who work in fishing and the vessel boat owners. As for other species, statistical monitoring of catch and effort statistics continued. This work was carried out using information from the fishing logbooks from the longline fleet and data from the Observers Program as concerns yellowfin (Documents SCRS/2008/109, SCRS/2008/110, SCRS/2008/111). Blue shark and shortfin mako were tagged and work was initiated in stock identification using genetic techniques. The Uruguayan National Plan for the Conservation of Sharks was finalized and the results published. Other biological research work is being carried out on pelagic shark species as was recommended by the Shark Species Group at its last inter-sessional meeting. Work is currently being done to carry out the Plan and developing the Plan´s proposals. Also related with this objective and with the proposal made by the Sub-Committee on Eco-Systems, papers were presented to collaborate with the 2008 assessment. A project of satellite transmitters has been started to obtain information on the migratory routes and movements of Caretta caretta *turtles. Experiments have been made using circle hooks in monofiliment longline. This project is carried out in collaboration with the National Oceanographic and Atmospheric Administration (NOAA)/National Marine Fisheries Service (NMFS), Pacific Island Fisheries Science, Honolulu, USA. Implementation of the National Plan of Action to Reduce the Incidental Catch of Seabirds and Sharks in Uruguayan Fisheries has started. National minimum size and catch regulations are still in effect on swordfish, bigeye and yellowfin. Activities have started and meetings held with other state organs (National Naval Prefecture, National Administration of Ports and the National Customs Administration, etc.), to generate more control at Uruguayan ports. A group has being established within DINARA for port monitoring.*

RÉSUMÉ

En 2007, la flottille thonière uruguayenne a continué à opérer à la palangre de surface, mais avec un nombre inférieur de navires par rapport à 2006 (9 bateaux). La capture totale (préliminaire) débarquée et déclarée en 2007 par cette flottille s'est élevée à environ 1.000 t, soit une baisse de 500 t par rapport à l'année antérieure. Diverses activités liées aux statistiques, à la recherche et à la gestion ont été menées à bien. Certaines activités ont été réalisées conjointement avec d'autres institutions gouvernementales. Le Programme national d'observateurs (PNOFA) s'est poursuivi, lequel couvrait approximativement 65% de l'activité de la flottille. Dans le cadre de ce programme, un travail a été lancé, visant à la formation et à la sensibilisation des travailleurs et armateurs halieutiques. Comme cela s'est fait pour les autres espèces, le suivi des statistiques de capture et d'effort s'est poursuivi. Des travaux ont été réalisés avec les informations des carnets de pêche de la flottille palangrière et les données du Programme d'observateurs relatives à l'albacore (SCRS/2008/109, SCRS/2008/110 et SCRS/2008/111). Des marques ont été apposées sur des requins peaux bleues et des requins taupes communs et des travaux d'identification de stocks ont été lancés au moyen de technique génétiques. Le Plan national pour la conservation des requins de l'Uruguay a été finalisé et publié. Divers travaux de biologie avec des espèces de requins pélagiques sont en cours de développement, comme l'avait recommandé le Groupe à sa dernière réunion intersession. On travaille actuellement à l'instrumentalisation du Plan, en mettant en vigueur les mesures

*Andrés Domingo. Dirección Nacional de Recursos Acuáticos (DINARA), Constituyente 1497, Montevideo, Uruguay; adomingo@dinara.gub.uy

proposées dans celui-ci. Dans le cadre de cet objectif et de la proposition qu'a fait sienne le Sous-comité des Ecosystèmes, on a présenté des travaux visant à collaborer avec l'évaluation de 2008. Un projet a été lancé avec des transmetteurs par satellite aux fins de l'obtention d'informations sur les schémas migratoires et les déplacements des tortues Caretta caretta. *Des hameçons circulaires sont en cours d'expérimentation sur des palangres monofilaments. Ce projet est mené en collaboration avec l'Administration Nationale Atmosphérique et Océanographique (NOAA)/ Service National des Pêches Maritimes (NMFS), Sciences halieutiques des îles du Pacifique, Honolulu, Etats-Unis. Le Plan d'action national visant à réduire les captures accessoires d'oiseaux de mer et de requins dans les pêcheries uruguayennes a été lancé. Les normes nationales relatives à la taille minimum de capture pour l'espadon, le thon obèse et l'albacore demeurent en vigueur. Des activités et des contacts ont été établis avec d'autres organismes gouvernementaux (Préfecture nationale navale, Administration nationale des ports et Administration nationale des douanes, etc.) à l'effet d'instaurer davantage de contrôles dans les ports uruguayens. Un groupe a été établi au sein de la DINARA, chargé du contrôle des ports.*

RESUMEN

Durante el año 2007, la flota atunera uruguaya continuó operando con palangre de superficie, aunque con un número menor de barcos que en 2006 (9). La captura total (preliminar) desembarcada y comunicada en el 2007 por dicha flota fue de aproximadamente 1000 t, lo que significó un descenso de 500 t con respecto al año anterior. Se realizaron diversas actividades vinculadas a las estadísticas, investigación y ordenación. Algunas de estas actividades se desarrollaron conjuntamente con otras instituciones gubernamentales. Se continuó con el Programa Nacional de Observadores (PNOFA), el cual cubrió aproximadamente el 65 % de la actividad de la flota. Dentro de este programa se inició un trabajo dirigido a la educación y sensibilización de los trabajadores y armadores pesqueros. A lo igual que en otras especies se continuó con el seguimiento de las estadísticas de captura y esfuerzo. Se realizaron trabajos, con información de los cuadernos de pesca, de la flota de palangre y datos del Programa de Observadores referidos al YFT (SCRS/2008/109, SCRS/2008/110, SCRS/2008/111). Se colocaron marcas en tiburones azules y en el marrajo sardinero y se han iniciado trabajos en identificación de stock mediante técnicas genéticas. Se finalizó y publicó el Plan Nacional para la Conservación de Tiburones de Uruguay. Se vienen desarrollando diversos trabajos de biología con especies de tiburones pelágicos como recomendó el grupo en la última reunión intersesiones. Actualmente se trabaja en la instrumentación del Plan, efectivizando las medidas propuestas en el mismo. Vinculado con este objetivo y con la propuesta que lleva adelante el subcomité de ecosistemas, se presentaron trabajos para colaborar con la evaluación del 2008. Se ha iniciado un proyecto con transmisores satelitales para obtener información sobre rutas migratorias y movimientos de las tortugas Caretta caretta. *Se están desarrollando experimentos con anzuelos circulares, en palangre de monofilamento. Este proyecto se realiza en colaboración con la National Oceanographic Atmospheric Administration (NOAA)/National Marine Fisheries Service (NMFS), Pacific Island Fisheries Science, Honolulu, USA. Se comenzó a implementar el "Plan de Acción Nacional para Reducir la Captura Incidental de Aves Marinas y Tiburones en las Pesquerías Uruguayas". Continúan vigentes las normas nacionales referidas a tallas mínimas de captura para pez espada, patudo y rabil. Se han iniciado actividades y convocatorias hacia otros organismos estatales (Prefectura Nacional Naval, Administración Nacional de Puertos y Administración Nacional de Aduanas, etc.), a efectos de generar mayores controles en los puertos de Uruguay. Se ha iniciado la conformación de un grupo dentro de la DINARA destinado al control de puerto.*

Parte I (Información sobre pesquerías, investigación y estadísticas)

Sección 1: Información sobre la pesquería

Durante el año 2007, la flota atunera uruguaya continuó operando con palangre de superficie con un menor número de barcos que en el año 2006 (9 barcos), estos barcos operaron con base a dos puertos (La Paloma y Montevideo). La mayor parte de la flota son barcos menores de 24 m de eslora y tienen menos de 200 TRB. El esfuerzo se realizó principalmente en aguas territoriales uruguayas e internacionales adyacentes, aunque algunos barcos congeladores se desplazaron hacia áreas del noreste. Se calaron 865.984 anzuelos, un 32% menos que el

año anterior, este descenso se debió a conflictos entre algunos actores del sector (armadores, patrones de pesca y marineros), lo cual ocasionó el descenso de las actividades de algunos barcos de la flota durante todo el año, lo cual se arrastró desde 2006.

La captura total (preliminar) desembarcada y comunicada en el 2007 por dicha flota fue de 1000 t, lo que significó un descenso de 500 t con respecto al año anterior. De este total 464 t correspondieron a pez espada, un 26% menos que en el 2006, correspondiendo al 46% del total de la captura. Los desembarques de tiburón azul fueron del orden de las 348 t. Estas dos especies (SWO, BSH) significaron el 81% de las capturas de la flota. (**Tabla 1**).

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 tallas chicas capturados vivos.

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 2007 se realizaron diversas actividades vinculadas a las estadísticas, la investigación y la ordenación. Algunas de estas actividades se desarrollaron conjuntamente con otras instituciones gubernamentales, la Universidad de la República del Uruguay y organizaciones no gubernamentales. 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. Se iniciaron actividades conjuntas con la NOAA de Estados Unidos y Universidades de Venezuela y Brasil

2.1 Investigación

La investigación se desarrolló principalmente a partir de la información proveniente del Programa de Observadores, si bien también se utilizaron datos de los partes de pesca.

2.1.1 Programa de observadores

El PNOFA cubrió aproximadamente el 65 % de la actividad de la flota durante el 2007, valor un 45% mayor que en el año anterior **(Figura 1)**. Este programa se desarrolla desde el año 1998 y ha permitido recabar una importante cantidad de información relacionada con todos los aspectos de la pesquería y la biología de las especies capturadas.

Durante el 2007 se observaron unos 556.000 anzuelos. 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. Las características de los observadores sumadas a su formación ha permitido generar una información muy amplia dentro del programa.

Dentro de las actividades del PNOFA se inició un trabajo dirigido a la educación y sensibilización de los trabajadores y armadores pesqueros. Conjuntamente con el "Proyecto Albatros y Petreles" se han editado y distribuido en los diferentes barcos pesqueros los boletines "Atlántico Sur" 1 al 5, los cuales brindan información relevante sobre diferentes aspectos de la actividad del PNOFA relacionados con las aves marinas, las tortugas marinas, los mamíferos marinos, los tiburones y las especies objetivo de la pesquería.

2.1.2 Pez espada

En el marco del PNOFA se continuó con la recopilación de datos de talla por sexo. Se colectaron muestras de tejido destinadas a estudios genéticos, los cuales se están desarrollando de forma experimental en los laboratorios de la DINARA. Se inició en el 2007 el "Programa de Marcado", utilizando las marcas que provee ICCAT. Ya se han comunicado los primeros datos a la Secretaría. Se inició la colecta de gónadas para la realización de trabajos reproductivos.

2.1.3 Atunes tropicales

Al igual que en otras especies se continuó con el seguimiento de las estadísticas de captura y esfuerzo. Se presentaron tres trabajos, referidos al YFT, para la Reunión de evaluación realizada en Florianópolis, Brasil (SCRS/2008/109, SCRS/2008/110, SCRS/2008/111) con información biológica y series estandarizadas de

CPUE de la flota de palangre de Uruguay y series estandarizadas con datos conjuntos de Uruguay y Brasil. Dentro del Programa de Marcado de especies Pelágicas, que se inició a mediados del 2007, se marcaron algunos individuos de YFT, se va a continuar con esta tarea.

2.1.4 Tiburones

Se presentaron 4 trabajos (SCRS/2008/141, SCRS/2008/142, SCRS/2008/143, SCRS/2008/144), dos de los cuales presentaban series estandarizadas de CPUE de *Prionace glauca* e *Isurus oxyrhinchus* y los otros dos con datos de biología y distribución de diversas especies.

Se colocaron marcas en tiburones azules desde el inicio del programa de marcado, aproximadamente 320, las cuales fueron reportadas a la Secretaría. También se colocaron unas pocas marcas (6), en el tiburón marrajo dientuso. Se han iniciado trabajos en identificación de stock mediante técnicas genéticas.

Se finalizó la elaboración del Plan Nacional para la Conservación de Tiburones de Uruguay, el cual se publicó durante el 2008. Actualmente se viene trabajando en la instrumentación del Plan. Se vienen desarrollando diversos trabajos de biología con especies de tiburones pelágicos como recomendó el grupo en la última reunión intersesional.

2.1.5 Aves marinas

Actualmente se trabaja en la instrumentación del Plan, efectivizando las medidas propuestas en el mismo. Se han desarrollado algunos trabajos conjuntos con el "Proyecto Albatros y Petreles de Uruguay" y "Birdlife", vinculados a la investigación y mitigación de la captura incidental de estas especies, los cuales se piensan continuar en los próximos años. A través de estos proyectos se han iniciado experiencias para el uso de Líneas espantapájaros y pesos en las líneas para evitar las capturas incidentales.

2.1.6 Tortugas marinas

En los últimos años se han desarrollado trabajos conjuntos con investigadores brasileros, los cuales se continuaron en el 2007-2008. 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.

Se continúa con los análisis moleculares de tortugas *Caretta caretta* y se iniciaron en conjunto con la NOAA trabajos con marcas satelitales en esta especie **(Figura 2).**

Hasta la fecha, se ha logrado rastrear exitosamente a 5 individuos de *Dermochelys coriacea*, a los cuales se les colocaron transmisores SRDL, fabricados por el SMRU de la Universidad de St. Andrews (Escocia).

Más información, imágenes y resultados de este proyecto pueden ser consultados en los siguientes sitios:

•http://www.seaturtle.org/tracking/?project_id=86 – Mapas de las Tortugas Rastreadas desde Uruguay
•http://www.panda.org/about_wwf/where_we_work/latin_america_and_caribbean/our_solutions/marine_turtle_programme/projects/leatherback_tracking_project/tracking_logs/index.cfm - Información general sobre el proyecto
•http://www.panda.org/about_wwf/where_we_work/latin_america_and_caribbean/our_solutions/marine_turtle_programme/projects/leatherback_tracking_project/index.cfm - Mapas de todas las Tortugas Rastreadas

Se están desarrollando experimentos con anzuelos circulares, ya se finalizó un experimento en palangre de multifilamento, y se ha iniciado otro en palangre de monofilamento. Este proyecto se realiza en colaboración con la National Oceanographic Atmospheric Administration (NOAA)/National Marine Fisheries Service (NMFS), Pacific Island Fisheries Science, Honolulu, USA (Testing of Fishing Gear to Reduce Sea Turtle By-catch, And Training in Turtle-Safe Best Practices in Uruguayan's Longline Fisheries).

2.1.7 Cetáceos

Se continuó con la investigación en este grupo, analizando información de distribución e interacción con la flota de palangre.

Parte II (Implementación de la ordenación)

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

Se comenzó a implementar el "Plan de Acción Nacional para Reducir la Captura Incidental de Aves Marinas y de Tiburones en las Pesquerías Uruguayas". Ya se han comenzado a utilizar las líneas espantapájaros y se pretende evaluar su efectividad en toda la flota atunera. Se iniciaron trabajos tendientes a aplicar medidas para el desembarque de los tiburones con sus aletas adheridas al cuerpo.

Entre las normas nacionales sobre ordenación continúan vigentes las referidas a tallas mínimas de captura para pez espada (25 k, 15% tolerancia), patudo y rabil (3,2 k). 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 hacia otros organismos estatales (Prefectura Nacional Naval, Administración Nacional de Puertos y Administración Nacional de Aduanas, etc.), a efectos de generar mayores controles en lo puertos de Uruguay. En este sentido se prevé iniciar en el 2009 un proyecto sobre identificación de especies pelágicas con técnicas moleculares, destinado al control de barcos de tercera bandera.

Tabla 1. Número de buques en actividad de la flota atunera uruguaya y capturas de atunes y especies afines retenidas por especie y comunicadas por Uruguay, período (2002-2006).

Año	*Buques*	*SWO*	*BET*	*YFT*	*ALB*	*BIL*
2002	9	768	56	80	92	1
2003	10	850	59	95	108	19
2004	12	1105	40	204	120	4
2005	12	843	62	644	32	11
2006	12	620	83	218	93	19
2007	9	464	22	35	34	5

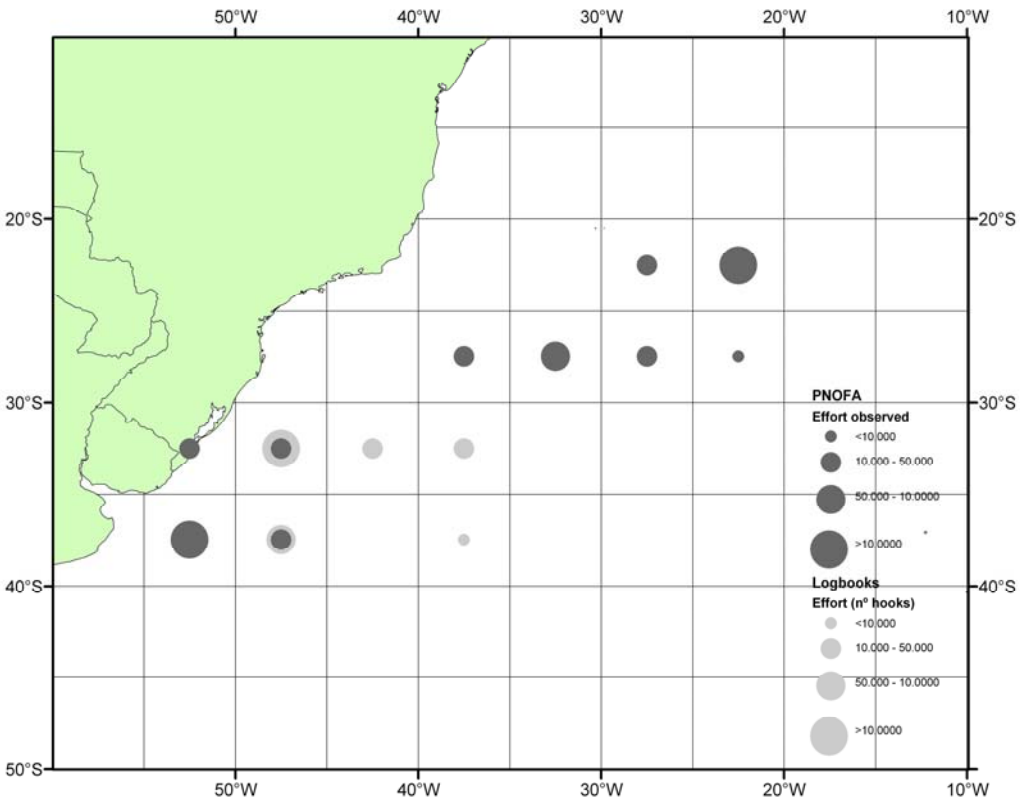

Figura 1. Esfuerzo de la flota y del Programa de observadores durante el 2007 en áreas de 5° x 5°.

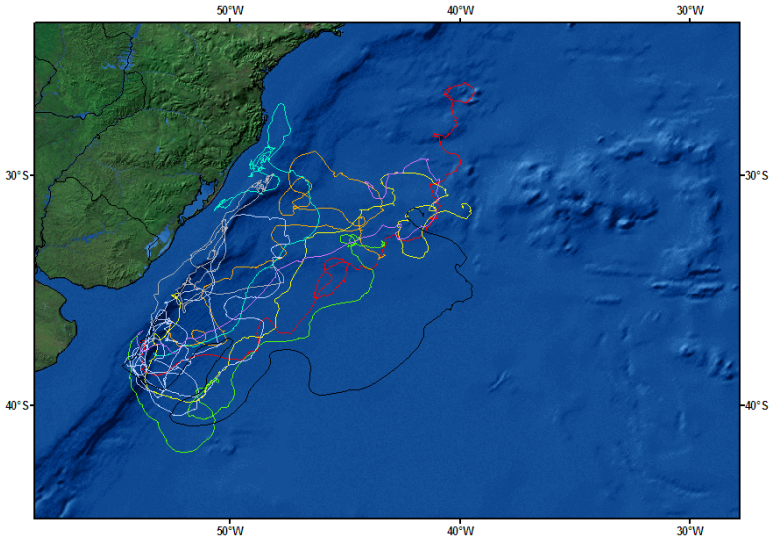

Figura 2. Muestra los recorridos realizados por 10 tortugas *Caretta caretta* marcadas trasmisores satelitales.

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

The Venezuelan fleet targeting pelagic resources in 2007 was comprised of 48 industrial vessels: 33 longliners, seven purse seiners and eight baitboat. There were also 33 artisanal vessels that use gillnets and 47 that use longline. During this year, landings of tunas and tuna-like species reached 7,122 t. Tunas comprised 90% of the landings, with yellow fin tuna the predominant species (55%), followed by skipjack and black fin with 13% and 10%, respectively. Incidental catches were mainly comprised of marlins, among which white marlin represented 3.5% and blue marlin 3%; and sharks, which represented 1.4 % of the landings. 61.1% of the landings were from purse seiners, while baitboats landed 16.1%, longliners 15.9% and artisanal vessels 6.9%. During 2007 research on fisheries of large pelagics continued, which included tunas, billfish and sharks. Also, the program of scientific observers on board industrial long line vessels was maintained.

RÉSUMÉ

En 2007, la flottille vénézuélienne ciblant les ressources pélagiques était composée de 48 unités industrielles : 33 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 7.122 t. 90% de ceux-ci étaient composés de thonidés, parmi lesquels l'albacore était prédominant (55%) et le listao et le thon à nageoires noires représentaient 13% et 10% respectivement. Les prises accidentelles étaient composées de makaires, parmi lesquelles des makaires blancs (3,5%) et des makaires bleus (3%), ainsi que de requins dont les débarquements ont représenté 1,4%. 61,1% des débarquements ont été réalisés par la pêcherie de senneurs, 16,1% par les canneurs, 15,9% par les palangriers et 6,9% par les pêcheurs artisanaux. En 2007, les programmes de recherche sur la pêcherie de grands pélagiques se sont poursuivis. Ils englobent 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.

RESUMEN

La flota venezolana orientada a los recursos pelágicos estuvo conformada en 2007 por 48 unidades industriales: 33 palangreros, 7 cerqueros y 8 cañeros; y se registran además 33 embarcaciones artesanales que operan con redes de enmalle y 47 con palangre. Ese año se registraron desembarques de túnidos y afines de 7.122 t. El 90% de estos lo representan los atunes, entre los cuales el más importante fue el aleta amarilla con 55%, mientras que el bonito listado y el aleta negra alcanzaron 13 % y 10 %, respectivamente. La captura incidental estuvo conformada por marlines, entre los que se destacan la aguja blanca con 3,5 % y la aguja azul con 3 %, y tiburones cuyos desembarques representan el 1,4 %. El 61,1% de los desembarques provinieron de la pesquería de cerco, 16,1% de la de caña, 15,9 de palangre y 6,9% de las pesquerías artesanales. En 2007 continuaron las investigaciones sobre la pesquería de los grandes pelágicos; éstos incluyen los atunes, marlines y tiburones; y se mantuvo el programa de observadores científicos a bordo de embarcaciones industriales de palangre.

Parte I (Información sobre pesquerías, investigación y estadísticas)

En Venezuela, la agencia oficial de Investigación, el Instituto Nacional de Investigaciones Agrícolas (INIA) es el encargado de ejecutar los programas de investigación agrícola, incluyendo el sector pesca. El Instituto Socialista

de la 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 cuenta con la participación del INSOPESCA y con la cooperación de diversas instituciones nacionales e internacionales tales como la Universidad de Oriente, ICCAT e IRD.

Sección 1: Información anual sobre pesquerías

1.1 Pesquerías de cerco

La flota pesquera venezolana está conformada por 30 embarcaciones de cerco, 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 (**Figura 1**).

Los desembarques realizados por la flota cerquera experimentaron un descenso al pasar de 6.934,2 t en 2006 a 4.357,2 t en el 2007. El atún aleta amarilla, *Thunnus albacares*, representó el 53,7 % de los desembarques de la flota, y el listado, *Katsuwonus pelamis*, 18,5 %. 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 27,8 % de la captura. El esfuerzo ejercido por estas embarcaciones en el 2007 fue de 1.283 días, superior en un 19 % al ejercido en el 2006 (**Tabla 2**).

1.2 Pesquerías de caña

La flota cañera venezolana estuvo conformada en 2007 por 8 unidades de pesca y faenan en las mismas áreas que la flota de cerco (**Figura 2**). Los desembarques realizados por esta flota fueron de 1.141 t, obteniéndose niveles inferiores en un 36% con respecto al año 2006. En esta flota las especies más importantes en la captura fueron el aleta amarilla, *T. albacares*, con 83,3 % y el listado, *K. pelamis*, con 10 %; mientras que el atún ojo gordo, *T. obesus* y el atún aleta negra, *T. atlanticus*, contribuyeron con el 6,5 % de los desembarques totales de la flota, la cual ejerció un esfuerzo de 922 días de mar (**Tabla 3**).

1.3 Pesquerías de palangre

El número de embarcaciones de palangre pelágico venezolanos que operaron en el Océano Atlántico en 2007 fue de 33 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 (**Figura 3**).

Los desembarques realizados por la flota de palangre pelágico fueron de 1.137,2 t en el 2007 (**Tabla 4**). El atún aleta amarilla, *T. albacares*, fue el más importante de los desembarques, representando el 53,9 % de los mismos, mientras que para los otros túnidos como el atún albacora, *T. alalunga* y atún ojo gordo, *T. obesus*, el porcentaje de captura fue de 20,2 %. Los marlines representaron el 9,4 % de los desembarques de la flota, de los cuales los mayores porcentajes correspondieron al pez vela con un 5,5 %. 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 486,9 t, compuestos fundamentalmente por peces de la familia Istiphoridae entre los cuales destacan el pez vela *Istiophorus albicans* con un 38,2 % de los desembarques y la aguja azul, *Makaira nigricans*, con el 37,9 %. En menor proporción se capturan túnidos, mientras que los desembarques de tiburones de varias especies representan el 4,6 % (**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 el 2007, se continuó con los muestreos biológicos de las diferentes especies desembarcadas en puertos de los estados Sucre, Anzoátegui, Vargas y Nueva Esparta y la recolección de datos de captura y esfuerzo de las diferentes pesquerías. Se muestrearon 14.643 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 380 viajes, el porcentaje de cobertura global fue del 97,9 %, mientras que por tipo de pesquería, los porcentajes fueron de: 100 % en cerco y en caña mientras que en palangre fue de 96,9 %.

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 el 2007 se efectuaron 11 cruceros con observadores científicos en embarcaciones palangreras industriales, con una cobertura de alrededor del 5% 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 captura 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 registra 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 con la información a la Secretaria de la CICAA. En el año 2007 se registraron un total de 117 ejemplares etiquetados. Durante el 2007 se continuó con la recolección de muestras biológicas de aguja azul y aguja blanca procedentes de ejemplares etiquetados. Estos muestreos se utilizan en los estudios de edad y crecimiento que se llevan a cabo por científicos de la Universidad de Oriente así como de otros países miembros.

En el PIIM-VZLA se mantuvo el monitoreo de los torneos de pesca deportiva en el litoral central de Venezuela (área del Placer de La Guaira), realizándose seis de ellos durante 2007, en los cuales todas las especies de marlines son etiquetadas y liberadas. Se destaca el hecho que la CPUE de las tres principales especies de peces de pico combinadas, ha mostrado un crecimiento sostenido desde finales del los años 80 hasta el presente, pasando de 0,2 a 2,1 ejemplares por barco-día en 2007.

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 nuevo Decreto con Rango, Valor y Fuerza de Ley 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, de Ejecutar y Desarrollar la política nacional en materia de Pesca y Acuicultura y presentar ante el órgano rector las propuestas de normas técnicas de ordenamiento de carácter imperativo y obligatorio cumplimiento.

La nueva Ley mediante bases jurídico-institucionales fortalece las funciones de Vigilancia y Control del INSOPESCA. En tal sentido, se contempla la creación, mantenimiento y organización del Registro Nacional de Pesca y Acuicultura, para realizar la debida regulación, supervisión y control del sector pesquero nacional.

Con los articulados referidos a Protección de los Recursos, Armonización de Criterios y el Criterio de Precaución, analizará las tecnologías y artes disponibles o desarrolladas, analizará los criterios aplicables en la materia de pesca y acuicultura con los países de la región, en particular lo que se refiere a especies altamente migratorias como lo son los túnidos y especies afines.

Continúa vigente la regulación del año 2003 relacionada con la pesca y comercialización en todo el territorio nacional de las especies pertenecientes a la familia *Istiophoridae* y *Xiphiidae*, a través de la Providencia

Administrativa Nº 69. Esta Providencia también establece la prohibición de la pesca en la zona de regulación demarcada para todas las embarcaciones distintas a las artesanales procedentes de Playa Verde, señala las características que deben tener las embarcaciones comerciales artesanales que empleen redes de ahorque en la zona bajo regulación e incorpora el registro por ante el INSOPESCA, de las personas jurídicas que se dediquen a la comercialización de tales especies.

Durante el año 2006 el INSOPESCA inició el proceso de convocatoria de empresas especializadas en servicios de control y monitoreo, a fin de proceder, de acuerdo con la normativa nacional, a realizar el proceso de licitación para el montaje de un sistema de baliza satelital. Actualmente se coordina la instalación de un equipo, a manera de ensayo, en una embarcación palangrera atunera, es el primer paso para extender la instalación del sistema a toda la flota atunera en lo que resta del año 2008, esperando finalizar la instalación en el año 2009.

Se continúa con las coordinaciones para establecer el Plan Nacional de Acción para la Conservación de Tiburones, no obstante se comenzaron a realizar actividades de seguimiento en las pesquerías artesanales Costa Afuera en el Nororiente del País. Se han celebrado diferentes reuniones de coordinación con las instituciones nacionales de investigación a fin de conseguir financiamiento para la puesta en marcha de este Plan.

Se ha continuado con la labor de los Comités Locales de Seguimiento (CLOSE) de la pesquería de atún, a fin de realizar la discusión de la aplicación de políticas a nivel regional, así como de los planes de desarrollo. En este sentido, se han analizado determinados casos de incorporación a la flota pesquera artesanal polivalente las cuales podrían, en determinada época del año, participar en la pesquería de atún con palangre. De igual manera, se prosigue con el control de las descargas en puerto, tal como lo dispone la Ley de Pesca y Acuicultura.

Tabla 1. Composición de la flota industrial venezolana en el océano atlántico, según la capacidad de carga. Año 2007.

Tamaño		*LL*	*BB*	*PS*	*Total*
0	50	4			4
51	100	14			14
101	150	12	1		13
151	200	3	3		6
201	250		2		2
251	300				
301	350		1		1
351	400		1		1
401	450				
451	500			1	1
501	550				
551	600				
601	650			6	6
	Total	33	8	7	48

Tabla 2. Captura (t) y esfuerzo (días de pesca) de la flota cerquera venezolana en el océano Atlántico centro occidental durante el año 2007.

	I	*II*	*III*	*IV*	*Total*	*%*
YFT	1.366,2	683,9	192,3	98,7	2.341,1	53,7
SJK	95,9	118,6	181,8	410,0	806,3	18,5
FRI	28,4	4,9	6,9	9,6	49,8	1,1
ALB	126,0	68,4	3,6	0,0	198,0	4,5
BET	35,4	33,6	33,2	117,9	220,1	5,1
BLF	229,3	84,3	60,7	367,6	741,9	17,0
Total	1.881,3	993,6	478,5	1.003,8	4.357,2	100,0
EFF	323	298	307	355	1.283	

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 2007.

	I	*II*	*III*	*IV*	*Total*	*%*
YFT	198,1	259,6	389,9	103,2	950,8	83,3
SKJ	51,7	45,0	0,0	17,8	114,5	10,0
FRI	0,0	1,8	0,0	0,0	1,8	0,2
ALB	0,0	25,9	0,0	0,0	25,9	2,3
BET	0,2	12,7	0,0	0,7	13,7	1,2
BLF	2,4	32,0	0,0	0,0	34,4	3,0
Total	252,4	377,1	389,9	121,7	1141,1	100,0
EFF	226	260	294	142	922	

Tabla 4. Captura (t) y esfuerzo (anzuelos) de la flota palangrera atunera venezolana en el océano Atlántico durante el año 2007.

	I	*II*	*III*	*IV*	*Total*	*%*
YFT	152,1	174,1	192,8	94,1	613,0	53,9
ALB	17,8	33,4	38,2	56,9	146,3	12,9
BET	30,4	12,0	20,3	21,2	83,9	7,4
BLF	0,3	0,0	0,1	0,0	0,4	0,0
WAH	2,8	5,8	9,1	9,5	27,2	2,4
DOL	2,2	1,5	2,8	2,6	9,2	0,8
WHM	8,3	3,2	5,8	6,7	24,0	2,1
BUM	4,8	3,0	4,6	8,8	21,2	1,9
SAI	7,4	16,7	22,9	15,0	62,1	5,5
SWO	7,0	4,2	7,1	0,9	19,2	1,7
SPF	2,7	3,5	5,8	2,7	14,7	1,3
BSH	5,1	1,6	5,7	5,1	17,5	1,5
SMA	3,4	1,3	2,7	3,7	11,1	1,0
CCL	3,9	4,9	11,8	5,6	26,1	2,3
OTH SHK	4,1	3,0	10,9	2,8	20,8	1,8
OTH	8,8	12,9	10,8	8,0	40,4	3,6
Total	261,1	281,0	351,4	243,8	1.137,2	100,0
F	787.133	784.796	673.572	822.778	3.068.279	

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	Esfurezo

Tabla 5. Captura (t) y esfuerzo (viajes) en la pesquería artesanal de peces de pico con redes de enmalle en el litoral central año 2007.

Especies	*I*	*II*	*III*	*IV*	*Total*	*%*
BUM	65,6	76,7	13,2	28,9	184,4	37,9
WHM	3,5	2,0	13,6	9,0	28,0	5,7
SAI	24,8	80,6	38,2	42,3	185,9	38,2
SWO	4,6	2,9	2,5	1,1	11,1	2,3
DOL	7,4	6,0	2,4	1,8	17,6	3,6
SHK	10,5	5,3	3,6	2,9	22,3	4,6
YFT	3,3	1,2	1,5	0,6	6,6	1,4
ALB	2,8	0,3	0,8	0,8	4,7	1,0
BON	0,8	0,0	0,0	0,0	0,9	0,2
BON	10,4	0,2	0,1	8,6	19,4	4,0
WAH	1,9	1,3	1,2	1,6	6,1	1,2
Total	135,7	176,4	77,0	97,8	486,9	100,0
Viajes	1.203	935	1.023	1.222	4.383	

Tabla 6. Muestreos biológicos de túnidos y especies acompañantes en la pesquería de túnidos en el océano Atlántico occidental, año 2007.

Spp.	*BB*	*%*	*PS*	*%*	*LL*	*%*	*GN*	*%*	*Total*	*%*
YFT	167	72,6	1057	33,9	730	43,1			1.954	13,3
SKJ	52	22,6	961	30,8					1.013	6,9
FRI			144	4,6					144	1,0
ALB			107	3,4	468	27,7			575	3,9
BET	4	1,7	377	12,1	44	2,6			425	2,9
BLF	7	3,0	470	15,1					477	3,3
WAH					32	1,9			32	0,2
SAI					125	7,4	5545	57,0	5.670	38,7
BLF									0	0,0
BUM					25	1,5	2485	25,5	2.510	17,1
SWO					87	5,1	507	5,2	594	4,1
WHM					56	3,3	1193	12,3	1.249	8,5
SPF					31	1,8				
DOL					46	2,7				
SHK					48	2,8				
TOT	230	100	3116	100,0	1692	100,0	9730	100,0	14.643	100,0
%	1,6		21,3		11,6		66,4		100	

SP= especie
BB= cañaa
PS= cerco
GN= red de enmmale

Tabla 7. Campañas de embarcaciones industriales atuneras en el océano Atlántico centro occidental. Año 2007. TR: Total Realizadas, C: Controladas.

Mes	*PS*		*BB*		*LL*		*Total*	
	TR	*C*	*TR*	*C*	*TR*	*C*	*TR*	*C*
E	1	1	5	5	2	2	8	8
F	3	3	11	10	19	19	33	32
M	6	6	10	10	24	22	40	38
A	2	2	7	7	17	17	26	26
M	4	4	10	10	28	23	42	37
J	3	3	10	10	26	24	39	37
J	5	5	11	11	25	22	41	38
A	5	5	10	10	21	17	36	32
S	2	2	9	9	28	28	39	39
O	4	4	12	12	17	14	33	30
N	4	4	8	8	14	16	26	28
D	7	7	6	6	4	14	17	27
Total	46	46	109	108	225	218	380	372
% Cobertura		100,0		100,0		96,9		97,9

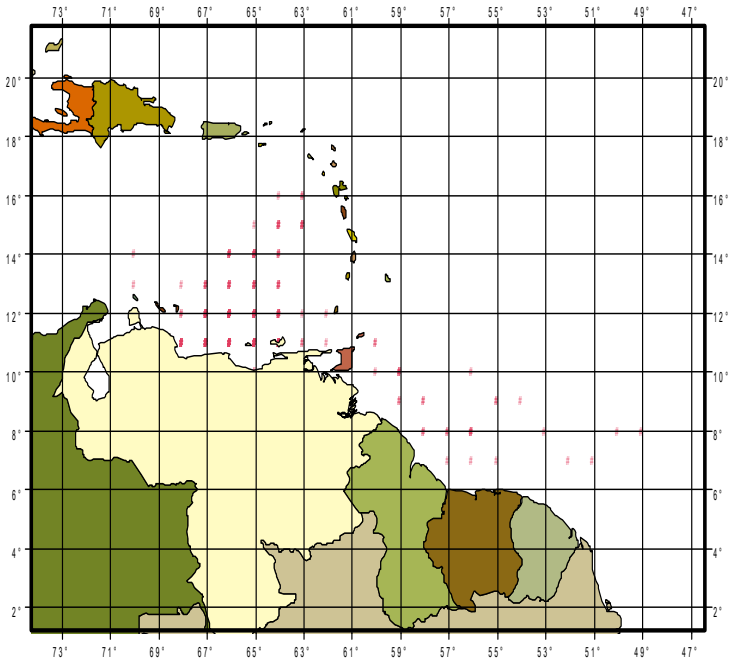

Figura 1. Área de pesca de las embarcaciones cerqueras venezolanas. Año 2007.

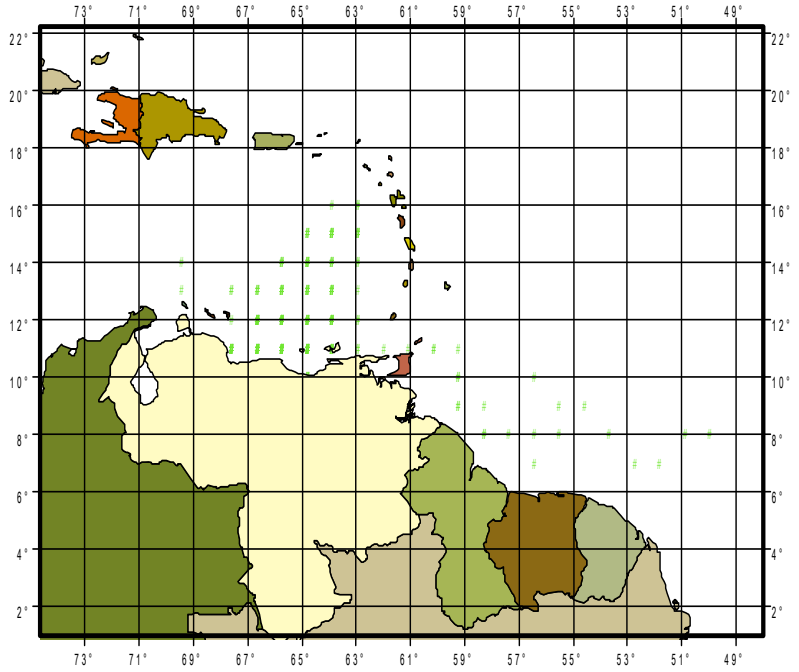

Figura 2. Área de pesca de las embarcaciones cañeras venezolanas. Año 2007.

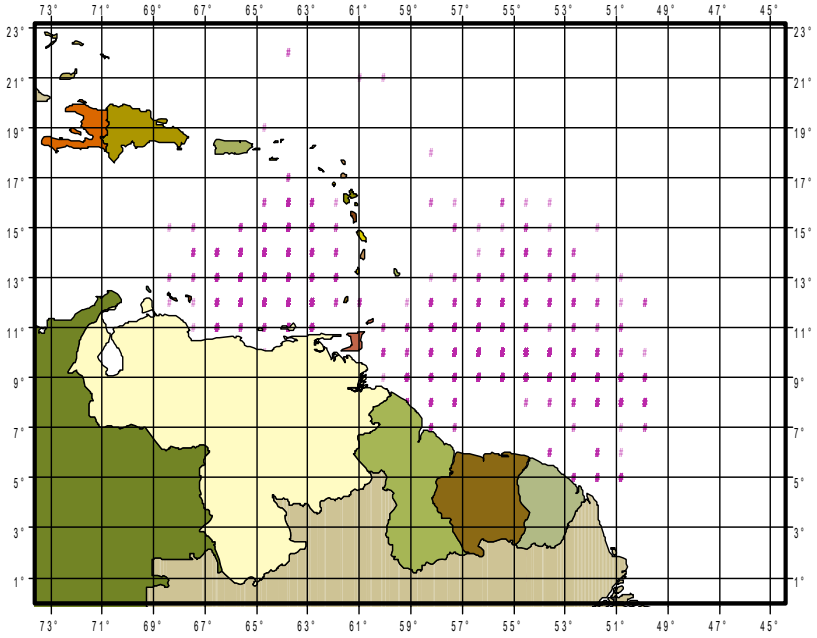

Figura 3. Área de pesca de las embarcaciones palangreras venezolanas. Año 2007.

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 [1] RAPPORT ANNUEL DU TAÏPEI CHINOIS INFORME ANUAL DE TAIPEI CHINO

Fisheries Agency, Council of Agriculture[2]

Part I (Information on Fisheries Research and Statistics)

Section 1: Annual Fisheries Information

1.1 General overview

The longline fleet of Chinese Taipei started to fish tuna and tuna-like species in the Atlantic Ocean in early 1960s. During those days, the fishery targeted on albacore and yellowfin, and ever since the development of deep-longline operations in the late 1980s in the tropical Atlantic Ocean, some of the fishing efforts were shifted to target mainly on bigeye. Albacore, bigeye and yellowfin constituted of more than 4/5 of the annual catch in recent years **(Table 1)**.

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)**. Swordfish is mainly a by-catch species to the fishery.

The number of vessels in the longline fishery has significantly declined from 205 in 1998 to 75 in 2006. Simultaneously, there has been 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. In accordance with ICCAT Recommendation 06-01, Chinese Taipei was permitted to reinstate its bigeye-targeted longline vessels, with a ceiling of not more than 64 in 2007. The total number of authorized longline vessels in the Atlantic Ocean was 109 in 2007 with preliminary catches of 34,416 t. More detailed information on the major tuna species is described as follows:

1.2 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. The annual catch of South Atlantic albacore fluctuated between 10,000 t and 18,000 t in the last decade but has significantly decreased to 12,293 t in 2006 and 13,146 t in 2007 due to a decrease in fishing effort. The catch of North Atlantic albacore in 2007 was 1,297 t, a decrease of 1,060 t from 2006. Total catch of the two stocks combined in 2007 was estimated to be 14,443 t, a decrease of 207 t from 2006.

1.3 Bluefin tuna

Chinese Taipei longline fleet has been targeting the eastern Atlantic Ocean and Mediterranean bluefin stock on a seasonal basis since 1993, with little change in the fishing pattern, in terms of season (from April to June every year) and operational mode. The catch of bluefin tuna was 277 t in 2005 and 9 t in 2006. In 2007, no vessel applied for fishing bluefin tuna and no catch was reported.

---

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

[2] No. 1, Fishing Harbour N. 1st Road, Chien Cheng District, Kaohsiung, Taiwan 80672.

1.4 Tropical tunas

The catches of bigeye tuna and yellowfin tuna in 2007 were estimated to be about 12,116 t and 1,947 t, respectively, showing a significant increase of 9,151 t and 687 t, respectively from that of the previous year (2,965 t and 1,260 t in 2006). The increase of catches was due to reinstatement of fishing possibilities and the number of bigeye-targeted vessels to 64 in 2007 by the Commission in 2006, in recognition of Chinese Taipei´s efforts in rectifying management shortfalls.

1.5 Swordfish

Following the reduction of catch limits under the sharing arrangement as adopted by ICCAT in 1998, the catch of swordfish by Chinese Taipei was also reduced. The preliminary estimate of the swordfish catch was 774 t in 2007, comprised of 103 t from the North Atlantic Ocean and 671 t from the South Atlantic Ocean.

1.6 Billfish species

Billfish are by-catch species in the fishery of Chinese Taipei. The preliminary catch estimates of Chinese Taipei vessels operating in the Atlantic Ocean for white marlin, blue marlin and other marlins were 54 t, 233 t and 184 t, respectively, in 2007.

1.7 Sharks

Sharks are by-catch species in the fishery of Chinese Taipei. Based on the best knowledge 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 2,678 t in 2006 and 2,890 t in 2007.

Section 2: Research and Statistics

2.1 Data collection and processing system

Routine collection and compilation of data for tuna and tuna-like species has been conducted for all longline fisheries in the Atlantic Ocean, including large and small-scale vessels. The Task I and Task II data for all tuna and tuna-like species within the competence of ICCAT, as well as the number of fishing vessels, have been reported to the ICCAT Secretariat in accordance with ICCAT requirements.
Task I data were compiled: (1) from information from the logbooks of the Chinese Taipei tuna longline fishery; (2) from monthly traders' sales records of the Chinese Taipei tuna longline fishery; (3) from information of tuna export data from the Organization for the Promotion of Responsible Tuna Fishery (OPRT); and (4) from the verification on settlement of fish sales from the Fisheries Agency, Council of Agriculture.

As for Task II catch and effort data, all the data are complied based on logbooks, which are required to be submitted to the authorities. In the logbooks, information including daily positions, number of hooks, catches of the main tuna and tuna-like species by number and weight, bait, and sea surface temperature, is required to fill in. All logbook information was screened for its correctness and compiled. The Task I data were then used as a reference in the production 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 data base were created based on these size data, in conjunction with Task I and II catch data, by the Chinese Taipei scientists.

2.2 Research

In the past, the domestic research program has been 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 the observer program, more data and biological samples were made available for research. Currently, research relating to tunas include: stock assessments, DNA studies on bigeye, swordfish, and albacore (and other incidental catch species), size samples by sex for swordfish, conversion factors for the major tuna species, shark fin ratio, shark by-catch 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 and US$1,469,000 in 2005, 2006 and 2007, respectively.

Research results were presented at the regular meetings and inter-sessional working group meetings of SCRS. The scientific papers presented in recent ICCAT meetings were as following:

- Incidental catches of seabirds in the Atlantic Ocean from Taiwanese observer data of 2002-2005. (SCRS/2007/031).
- Standardized catch per unit effort of bigeye tuna in the Atlantic Ocean for the Taiwanese longline fishery by general additive model (SCRS/2007/063).
- Summary of bigeye tuna catch status of the Chinese Taipei longline fleet in the Atlantic Ocean. (SCRS/2007/068).
- Preliminary estimation of the length-weight relationship of Atlantic bigeye tuna from Taiwanese observer data (SCRS/2007/088).
- Standardized northern Atlantic albacore (*Thunnus alalunga*) CPUE, from 1967 to 2005, based on Taiwanese longline catch and effort statistics (SCRS/2007/093).
- Standardized CPUE of South Atlantic albacore (*Thunnus alalunga*) based on Taiwanese longline catch and effort statistics dating from 1967 to 2005 (SCRS/2007/094).
- Assessment of South Atlantic albacore resource based on 1959-2005 catch and effort statistics from ICCAT (SCRS/2007/095).
- The impact of Taiwanese longline fisheries on seabirds in the Atlantic Ocean (SCRS/2008/030).
- Preliminary estimates of blue and mako sharks by-catch and CPUE of the Taiwanese longline fishery in the Atlantic Ocean (SCRS/2008/153).

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, a comparison of systematic errors between data sampling systems will be made on the Task II catch/effort data and size data to improve the accuracy of scientific information.

2.4 Port sampling

Owing that most of far seas longliners of Chinese Taipei unload their catches at overseas ports, launching of a port sampling program at major foreign landing 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 the fishing seasons. For the Atlantic Ocean, the pilot sampling program was conducted in November 2006 in Port of Spain. Port sampling cooperation has been entered with the canneries in Port of Spain, Trinidad and Tobago to collect samplings and size measurements at the cannery pier side at the time of offloading since 2006. From December 2006 to December 2007, tuna length data from 7,480 albacore were collected from 13 albacore-targeted vessels, among which 6,280 included weight data in addition to the length data. The port sampling program planned to collect albacore tuna length data with weight data in 2008.

2.5 Observer program

The first pilot observer program was launched in 2001 where the focus was put in the Indian Ocean. In 2002-2003, the program was extended to cover all three oceans, with deployment of two observers to each ocean, and the number of observers was increased to nine in 2004. For the Atlantic Ocean, there were four observers in 2004, and increased to five in 2005, of which three were placed on board bigeye vessels and the remaining two onboard albacore vessels. In accordance with the ICCAT Recommendation 05-02, 100% compliance observer was required to be deployed on the 15 bigeye tuna fishing vessels authorized to fish in the Atlantic Ocean. The compliance observers served the function of scientific observers. In 2007, there were 20 observers placed on fishing vessels in the Atlantic Ocean. They included 14 observers on bigeye vessels, which required 10% coverage under ICCAT Recommendation 06-01.

The observers were required to collect fishery data and size measurements on target species and by-catch species. Biological samples of bigeye, albacore, swordfish and by-catch/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. Because the number of observers increased significantly from 2005, the budgets for the observer program for 2005 and the following years were further increased to US$750,000 in 2005, US$859,000 in 2006, and US$2,073,111 in 2007.

Part II (Management Implementation)

Section 3: Implementation of ICCAT Conservation and Management Measures

3.1 Vessel Monitoring System and Daily Catch Report

All the longline vessels of Chinese Taipei operating in the Atlantic Ocean are required to install VMS with a workable spare set since 2003. The data from VMS has been used to resolve the position of logbook to improve the logbook data quality. Additionally, the daily catch of each bigeye-targeted vessel is required to be reported to the Fisheries Agency through VMS or radio since 2006. The daily catch through VMS is incorporated into the statistical system for quicker collection of catch data as well as improvement of MCS functions.

The bigeye-targeted vessels submit daily catch and effort data to Fisheries Agency through VMS. There are two advantages to this system: the first is to substantially shorten the time for obtaining catch data from fishing vessels, and the second is to effectively manage quota and catch limit by individual one. With this system, the government can have a clearer picture of the fishing activities of vessels and be able to monitor the use of quota or catch limit in a more effective manner. In addition, the daily catch received through VMS can be processed and aggregated into Task II in a much shorter period of time, and readily made available for stock assessment.

3.2 An automatic imaging system for observers on tuna longline vessels

Chinese Taipei launched an experimental Automatic Imaging System (AIS) program to collect length data at sea from 2005. The program developed an easy assembled system that can take fishes pictures on tuna longline vessels and applied image processing technique to calculate the length of fish. The digital images, fish length, vessels position and harvesting date can be saved in digital modules. In 2008, this program will install AIS modules on fishing vessels for durable test and operating procedures development. The length data collected by AIS will be crosschecked with the figures recorded by observers, to adjust the numerical accuracy of AIS modules. These messages are helpful in fishery resources survey and management.

Table 1. Catch estimate (in round weight, t) for Chinese Taipei tuna longline fishery operated in the Atlantic Ocean during 1998-2007.

YR	*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	49,076
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	55,238
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

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.

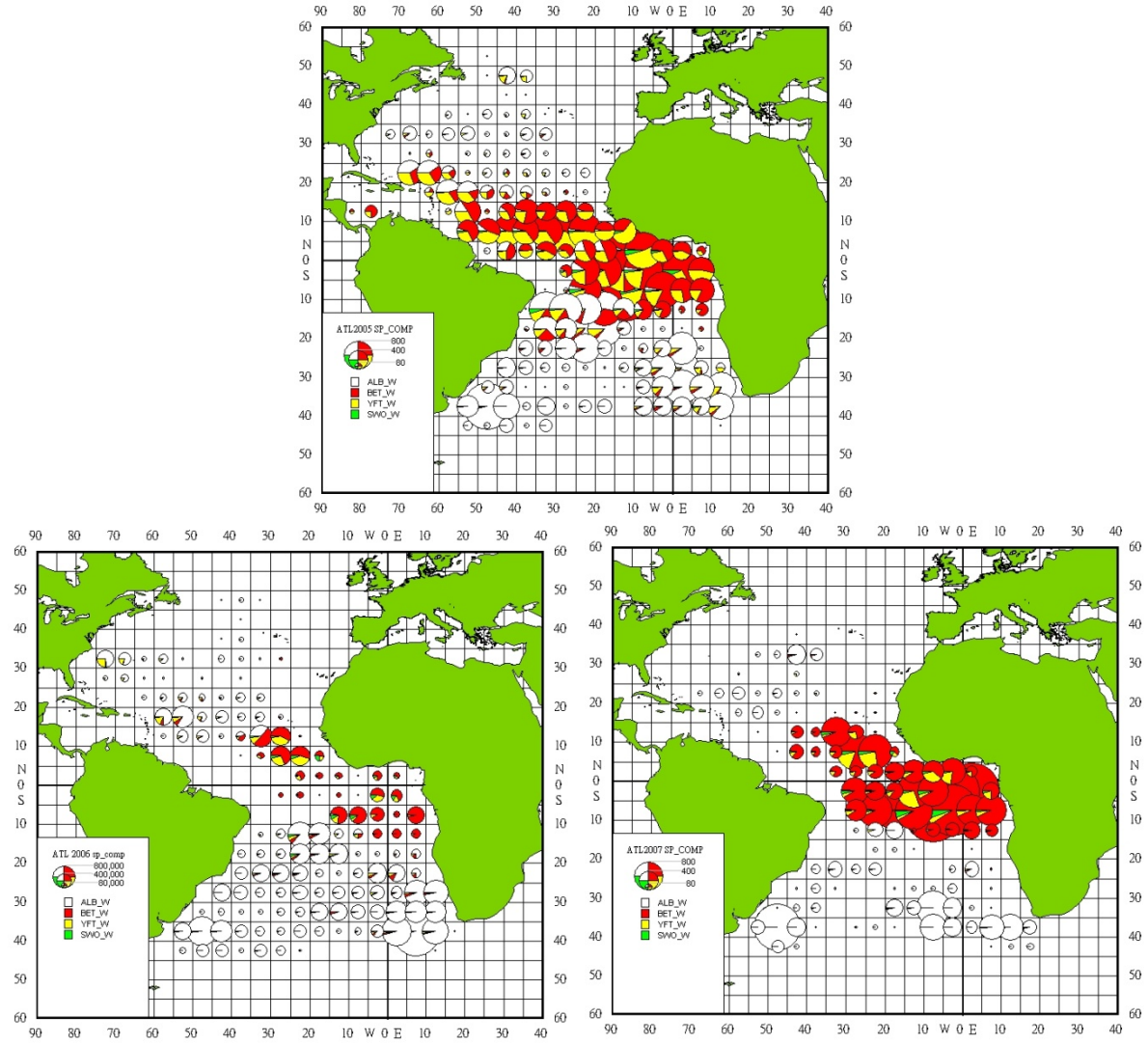

Figure 1. Distribution of catch and catch composition of the main tuna species in the Atlantic Ocean of 2005 (top), 2006 (left, preliminary data) and 2007(right, preliminary data).

ANNUAL REPORT OF GUYANA
RAPPORT ANNUEL DE LA GUYANA
INFORME ANUAL DE GUYANA

Ingrid Peters[1]

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 2007, a total of 987,793 kg of shark and 602,093 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 se déroule près des côtes, dans la Zone Economique Exclusive, et cible plusieurs 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 2007, un total de 987.793 kg de requins et de 602.093 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 (*Scianidae, Ariidae, Sparidae, *etc.). En esta pesquería los escómbridos y los tiburones son capturas fortuitas estacionales. En 2007, se capturó un total de 987.793 kg de tiburones y 602.093 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

Probably due to global climatic changes, Guyana, which is below sea level, experienced sporadic flooding for the third consecutive year. This has had some negative impact on fishing, as well as data collection activities. The landing sites along the coast for artisanal vessels were inaccessible to fishers, and this may have contributed to the reason for the observed low fisheries production.

The Ministry is discussing transforming the national Fisheries Department into a semi-autonomous.

In response to the query by ICCAT concerning two Guyanese-registered vessels (Tri Ocean # 626 and Tri Ocean 616), fishing in the ICCAT Convention Area, investigations by Guyana confirmed that the vessels had been registered by Guyana's Maritime Administration Department without consultation with the Fisheries Department. However, the matter was resolved even before the information had reached ICCAT at its 2007 Commission meeting. ICCAT was advised early in 2008 about the findings of the national investigation.

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.

[1] Fisheries Department, Guyana.

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, 16m (52 ft) long and 4-6m (13.1-19.6 ft) wide at the mouth. The mesh size gradually tapers from 8cm at the mouth to 1 cm at the funnel end.

Caddell or demersal longline fishing vessels range 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 2m outwards. Each vessel carries between 4-5 wooden trays with each tray having 2-6 main lines.

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 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 July-January. At the end of the season (July-January) the vessels would land approximately 129,870 kg of dressed sharks per month.

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.

1.4 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 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 donor agencies to address this task.

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 multimillion dollar fishing activity, and

contributed 1 % to the overall export of total fish products from Guyana at a value of US$ 2,093,089.00 for 2007.

Part II (Management Implementation)

Section 3: Implementation of ICCAT Conservation and Management Measures

Guyana's Coast Guard is responsible for monitoring all of the fishing activities within Guyana's Exclusive Economic Zone with the assistance from the Fisheries Department. However, it should be noted that the primary focus for the Guyana Coast Guard for 2007 is the combat of anti-piracy, poaching and criminal activities.

In 2007, the Guyana Coast Guard was able to conduct 14 fisheries surveillance trips (3 aerial reconnaissance and 11 at sea). Four (4) apprehensions were made (two Venezuelan trawlers and two (2) local vessels for smuggling illegal fuel).

Table 1. Artisanal vessel by gear types, 2007.

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**

Table 2. Scombrids and shark production by species (kg), 2007.

Scombrids		*Sharks*	*Total*
Scomberomorus brasiliensis	*Scomberomorus cavalla*	Unidentified shark species	
276,502	325,591	987,793	**1,589,886**

ANNUAL REPORT OF NETHERLANDS ANTILLES
RAPPORT ANNUEL DES ANTILLES NÉERLANDAISES
INFORME ANUAL DE ANTILLAS HOLANDESAS

SUMMARY

The main particular thing to be highlighted in the year 2.007 is that there was only one purse seine under the flag of the Netherlands Antilles during this year and her activity was not significant, as the vessel was stopped for almost half of the year due to a major overhaul. There were no long liners in our register and the only activity was in the tropical area by one purse seine but in a short period of time.

RÉSUMÉ

Le principal aspect à souligner en ce qui concerne l'année 2007 est qu'il n'y avait qu'un seul senneur sous pavillon des Antilles néerlandaises au cours de l'année. Son activité n'a pas été très importante étant donné que le navire a été arrêté pendant près d'un semestre en raison d'une révision majeure. Aucun palangrier ne figure sur notre registre et la seule activité a été réalisée dans la zone tropicale par un seul senneur pendant une brève période.

RESUMEN

Lo principal a destacar en el año 2007 ha sido que durante este año sólo ha faenado un cerquero bajo pabellón de Antillas Holandesas y que su actividad no ha sido significativa, ya que el buque ha estado parado casi la mitad del año para una revisión. No hay palangreros en nuestro registro y la única actividad se produjo en la zona tropical por parte de un cerquero pero durante un corto periodo.

Part I (Information on Fisheries, Research and Statistics)

Section 1: Annual Fisheries Information

The catches in 2.007 were distributed as shown in **Table 1**.

Catches in year 2.006 are included in **Table 2**.

Section 2: Research and Statistics

Catch data was analyzed in order to comply with management measures applicable for the vessel type and flag state, being all data in order with the recommendations. The big eye catches were 8% of the total catch and well below the maximum allowed quota. The catches of yellow fin were 42% of the total catch and skip jack catches were 48%.

Catch size and species composition sampling in port has been carried out in collaboration with the *Instituto Español de Oceanografía*-IEO (Institute of Oceanography) of Spain in the main transhipment base of the purse seine vessels operating in 2007, that is Abidjan (Côte d'Ivoire)

The vessel only operated 188 days of the year, being the rest of the days stopped for a major overhaul. 49% of the year the vessel was not operational.

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.

For this purpose and as we announced in the last meeting of ICCAT held in Antalya (Turkey), VMS monitoring system was implemented and in effect since December 2.007.

The vessel complied with the recommendation 04-01 regarding conservation measures for big eye tuna.

For the year 2008, a catch reporting system has been established in order to follow the catches and discharges in 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 not discharges of tuna or tuna like species to be analyzed in the country.

Section 5: Other Activities

5.1 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.
- To follow strictly all the recommendations issued by ICCAT for their fishery.
- To submit a monthly report of catches to the fishing Authorities.
- To submit a "Transhipment Declaration" each time a transhipment is carried out.
- To submit a "Discharge Declaration" each time a discharge is carried out.
- Every year, to submit a list of "Fishing Licenses" that are issued to the vessel by third countries, in order to fish in the EEZ of different countries.
- To apply for an International Fishing Permit issued by the Government of Netherlands Antilles that allows the vessel to operate in the high seas of the Atlantic Ocean and in the ICCAT Convention area.

Table 1. Catches of tunas and tuna-like species in 2007.

Yellowfin	*Skipjack*	*Bigeye*	*Other tuna like*	***Total***
1.368	1.587	252	106	**3.313**

Table 2. Catches of tunas and tuna-like species in 2006.

Yellowfin	*Skipjack*	*Bigeye*	*Other tuna like*	***Total***
2.249	3.290	379	177	**6.095**

REPORTS OF OBSERVERS FROM INTERGOVERNMENTAL ORGANIZATIONS /

RAPPORTS DE OBSERVATEURS D'ORGANISATIONS INTER-GOUVERNEMENTALES /

INFORMES DE OBSERVADORES DE ORGANIZACIONES INTERGUBERNAMENTALES

ANNUAL REPORT OF CARICOM
RAPPORT ANNUEL DU CARICOM
INFORME ANUAL DE CARICOM

S. Singh-Renton[1], Derrick Theophile[2], Paul Phillip[3], and Patricia Hubert-Medar[4]

SUMMARY

Available data on landings for 2007 for tuna and tuna-like fisheries are reported on behalf of The Commonwealth of Dominica, Grenada, and St. Lucia. The nature of fishing operations, as well as the species composition of tuna and tuna-like fish landings in these islands, remained similar in 2007 to that reported during 2005-2006. During the fourth CRFM Scientific Meeting held in June 2008, the CRFM Large Pelagic Fish Resource Working Group completed a review of the fisheries in CRFM Member States to determine the relative importance of each resource, and to identify and prioritize associated management and hence also assessment needs. This information was used to develop a plan to guide the LPWG's regional research and assessment activities in the short and medium term, which included preparations for assessments of Serra Spanish mackerel and blackfin tuna to be completed in 2010.

RÉSUMÉ

Le présent document inclut les données disponibles sur les débarquements de thonidés et d'espèces apparentées, au titre de 2007, au nom du Commonwealth de Dominique, de la Grenade et de Sainte Lucie. En 2007, la nature des opérations de pêche ainsi que la composition spécifique des débarquements de thonidés et d'espèces apparentées de ces îles sont restées similaires à celles déclarées en 2005-2006. A la Quatrième Réunion Scientifique du CRFM, tenue au mois de juin 2008, le Groupe de travail sur les ressources de grands pélagiques du CRFM (LPWG) a procédé à l'examen des pêcheries des Etats membres du CRFM en vue de déterminer l'importance relative de chaque ressource et d'identifier et d'établir l'ordre de priorité des besoins y afférents en matière de gestion et donc d'évaluation. Ces informations ont été utilisées pour développer un plan visant à orienter les activités régionales de recherche et d'évaluation du LPWG, à court et moyen terme, dont la préparation pour les évaluations de thazard serra et de thon à nageoires noires qui doivent être réalisées en 2010.

RESUMEN

Se comunican los datos sobre desembarques disponibles para 2007 de las pesquerías de túnidos y especies afines en nombre de Dominica, Granada y Santa Lucía. La naturaleza de las operaciones pesqueras, así como la composición por especies de los desembarques de túnidos y especies afines en estas islas ha sido en 2007 similar a la comunicada para 2005-2006. Durante la cuarta reunión científica del CRFM celebrada en junio de 2008, el Grupo de

[1]Caribbean Regional Fisheries Mechanism (CRFM) Secretariat, Third Floor, Corea's Building, Halifax Street, St. Vincent and the Grenadines, West Indies. E-mail: ssinghrenton@vincysurf.com
[2] Fisheries Division, Roseau, Dominica, West Indies.
[3]Fisheries Division, St. George's, Grenada, West Indies.
[4]Fisheries Department, Castries, St. Lucia, West Indies.

trabajo sobre recursos pesqueros de grandes pelágicos del CRFM finalizó una revisión de las pesquerías en los Estados miembros del CRFM para determinar la importancia relativa de cada recurso y para identificar y priorizar la ordenación asociada y las necesidades en cuanto a evaluaciones. Esta información se utilizó para desarrollar un plan para la investigación regional y las actividades de evaluación del Grupo de trabajo a corto y medio plazo, que incluía preparación para las evaluaciones de serra y atún aleta negra que se llevarán a cabo en 2010.

Part I (Information on Fisheries, Research and Statistics)

The report provides available 2007 landing statistics and updated information on the nature and development of large pelagic fisheries for the following CARICOM Member States: Commonwealth of Dominica, Grenada, and St. Lucia.

In 2007-08, the Caribbean Regional Fisheries Mechanism (CRFM), founded by the Caribbean Community (CARICOM), continued its efforts to coordinate research and assessment of key fishery resources harvested by CRFM Member States. The CRFM Large Pelagic Fish Resource Working Group (CRFM LPWG) was established for the specific purpose of coordinating large pelagic fish research and assessment activities. In June 2008, the CRFM LPWG held its fourth on-site meeting during which several issues were addressed. Those issues of primary interest to ICCAT concerned: (i) the development of a short to medium term plan for assessing the status of two commercially important small tuna resources in 2010, (ii) options for enhancing collaboration with ICCAT, and (iii) review of the ICCAT proposal to deliver a data training workshop in the Caribbean early in 2009.

Section 1: Annual Fisheries Information

The current nature of tuna and tuna-like fishing operations in the three islands remain as described in the CARICOM report submitted to ICCAT in 2005. Fishing operations continue to be multi-gear and to harvest a variety of large pelagic species, including tuna and tuna-like species.

A review of the development of the longline fleets of CRFM States was conducted by the CRFM LPWG in June 2008 (CRFM, in prep.). This review indicated that an artisanal form of longlining was introduced to Grenada in the 1980s, through assistance programmes funded by Cuba and subsequently by Venezuela. These efforts led to the practice of a non-mechanized form of longlining, in which the gear was usually stored in boxes. In later years, there was a further adaptation by some local fishers who began storing two short longlines onto reels attached at the rear of their small, undecked vessels. In addition, a number of larger vessels about 9 to 15 m LOA and equipped for longline fishing were introduced into Grenada and St. Lucia with assistance from the Japanese government during the early 1990s. These developments have broadened the types of longlining operations conducted in these two islands from the 1990s onwards. Nonetheless, the large pelagic fisheries of the Commonwealth of Dominica, Grenada, and St. Lucia continue to have a substantial artisanal component. Trolling and handline gears continue to be widely used, and are the preferred gears for fishing operations utilizing fish aggregating devices (FADs). In recent years, the use of FADs has made fishing operations more cost-efficient in the islands. CRFM (in prep.) provides some further details of the development of large pelagic fishing operations in the three islands covered in this report, as well as of Barbados, St. Vincent and the Grenadines and Trinidad and Tobago.

In the case of small-scale operators, large pelagic fishing is opportunistic and all fish caught are usually retained. Fish that cannot be sold commercially is usually kept by fishers for personal consumption or given away to family and friends, also for consumption purposes. Recreational fisheries exist in the islands, but their true nature and extent are not well known, and routine monitoring of recreational fishing operations has not yet commenced.

Section 2: Research and Statistics

2.1 Statistics

Table 1 provides currently available best estimates of commercial landings of tuna and tuna-like species in 2007 in the Commonwealth of Dominica, Grenada, and St. Lucia. In 2007, both the Commonwealth of Dominica and Grenada reported increases in the landings of yellowfin tuna and skipjack tuna, with decreases observed in both islands for blackfin tuna. Grenada also reported increased landings of Atlantic sailfish and blue marlin. Other observed annual changes in landings were negligible.

2.2 Overview of June 2008 CRFM LPWG meeting activities of relevance to ICCAT

2.2.1 Review of large pelagic fisheries in CRFM Member States

In 2008, a key activity undertaken by the CRFM LPWG was a review of large pelagic species fished by CRFM Member States, with the aim of quantifying the extent of importance of the various large pelagic fish resources harvested and of identifying at least the key management and hence assessment issues in need of urgent attention in the short to medium term (CRFM, in prep.). To support this exercise, the LPWG had developed and circulated a data reporting form to be completed by Member States during the inter-sessional period, prior to the June 2008 meeting of the Working Group. The data reporting form was designed to gather information on species catches and fleet sizes. Given that few countries had submitted the required information, the LPWG review relied on data submitted directly to the CRFM Secretariat by countries, as well as other sources of data such as the FAO, ICCAT, and Sea Around U.S. databases.

Examination of the aggregate landings by species for the period 1990-2006 highlighted the relative importance of a range of species, including several tuna and billfish species that are already assessed actively and on a regular basis by ICCAT. For the species not actively assessed by ICCAT, the LPWG also considered other information to evaluate management needs that should be addressed through assessment activities at the regional level: (i) the trends in species landings, (ii) the number of countries involved in harvesting each species, (iii) local scientists' understanding and estimation of the relative importance of each fishery resource, and (iv) the contributions of previous regional assessment activities. Based on its review, the LPWG identified the need to undertake assessments of dolphinfish (*Coryphaena hippurus*), Serra Spanish mackerel (*Scomberomorus brasiliensis*) and blackfin tuna (*Thunnus atlanticus*) during the period 2009-2010. Acknowledging the inclusion of Serra Spanish mackerel and blackfin tuna in the ICCAT mandate, the LPWG proposed a joint meeting in 2010 with ICCAT's Working Group on Small Tunas for the primary purpose of ensuring successful completion of the Serra Spanish mackerel and blackfin tuna assessments.

2.2.2 Options for enhanced collaboration with ICCAT

The LPWG noted that although ICCAT small tuna scientists had not been able to participate in its 2008 meeting, CRFM should routinely extend an invitation to these scientists to attend future LPWG meetings. Similarly, the LPWG also reiterated the importance of active participation in ICCAT scientific meetings by those CARICOM States that are also ICCAT Contracting or Co-operating Parties. In addition, the LPWG reiterated the need for CRFM Member States to improve the quality of data being reported to ICCAT.

2.2.3 ICCAT-Funded Data Training Workshop

The LPWG noted the aims of the proposed ICCAT-funded Data Training Workshop, tentatively scheduled for early 2009, and confirmed that the most basic format was appropriate for CRFM States at this time. Besides improving statistical reporting to ICCAT, it is expected that the ICCAT Data Training Workshop would also assist the LPWG preparations for planned regional assessments of Serra Spanish mackerel and blackfin tuna in 2010.

Table 1. The 2007 tuna and tuna-like fish landings (mt) of The Commonwealth of Dominica, Grenada, and St. Lucia.

Country	*Common Name*	*Scientific Name*	*2007*
Commonwealth of Dominica	Yellowfin tuna	*Thunnus albacares*	103.3
	Skipjack tuna	*Katsuwonus pelamis*	32
	Blackfin tuna	*Thunnus atlanticus*	29
	Wahoo	*Acanthocybium solandri*	14
	King mackerel	*Scomberomorus cavalla*	0.2
	Tuna unspecified		2
	Atlantic sailfish	*Istiophorus albicans*	3
	Swordfish	*Xiphias gladius*	0.3
	Blue marlin	*Makaira nigricans*	59
	Atlantic bonito	*Sarda sarda*	16
	Cero mackerel	*Scomberomorus regalis*	0.003
	Atlantic black skipjack	*Euthynnus alletteratus*	0.01
Grenada	Yellowfin tuna	*Thunnus albacares*	633.1
	Skipjack tuna	*Katsuwonus pelamis*	25.9
	Blackfin tuna	*Thunnus atlanticus*	291.3
	Bigeye tuna	*Thunnus obesus*	9.8
	King mackerel	*Scomberomorus cavalla*	3.2
	Wahoo	*Acanthocybium solandri*	63.7
	Atlantic bonito	*Sarda sarda*	6.8
	Albacore*	*Thunnus alalunga*	20.3
	Atlantic sailfish	*Istiophorus albicans*	174.4
	Blue marlin	*Makaira nigricans*	49.3
	White marlin		11.5
	Swordfish	*Xiphias gladius*	26.5
	Sharks unspecified		22.3
St. Lucia	Yellowfin tuna	*Thunnus albacares*	82
	Skipjack tuna	*Katsuwonus pelamis*	89
	Blackfin tuna	*Thunnus atlanticus*	151
	Albacore	*Thunnus alalunga*	2
	King mackerel	*Scomberomorus cavalla*	2
	Wahoo	*Acanthocybium solandri*	211
	Atlantic black skipjack	*Euthynnus alletteratus*	0.03
	Cero mackerel	*Scomberomorus regalis*	0.4
	Atlantic sailfish	*Istiophorus albicans*	
	Blue marlin	*Makaira nigricans*	46
	White Marlin		
	Swordfish	*Xiphias gladius*	0.3
	Blacktip shark	*Carcharhinus limbatus*	0.1
	Oceanic whitetip shark	*Carcharhinus longimanus*	0.2
	Sand tiger shark	*Carcharias taurus*	0.6
	Nurse shark	*Ginglymostoma cirratum*	2.2
	Lemon shark	*Negaprion brevirostris*	0.4
	Great hammerhead	*Sphyrna mokarran*	0.7
	Tiger shark	*Galeocerdo cuvier*	0.4

*Albacore catches for Grenada contain a mix of albacore and other unspecified tuna species.