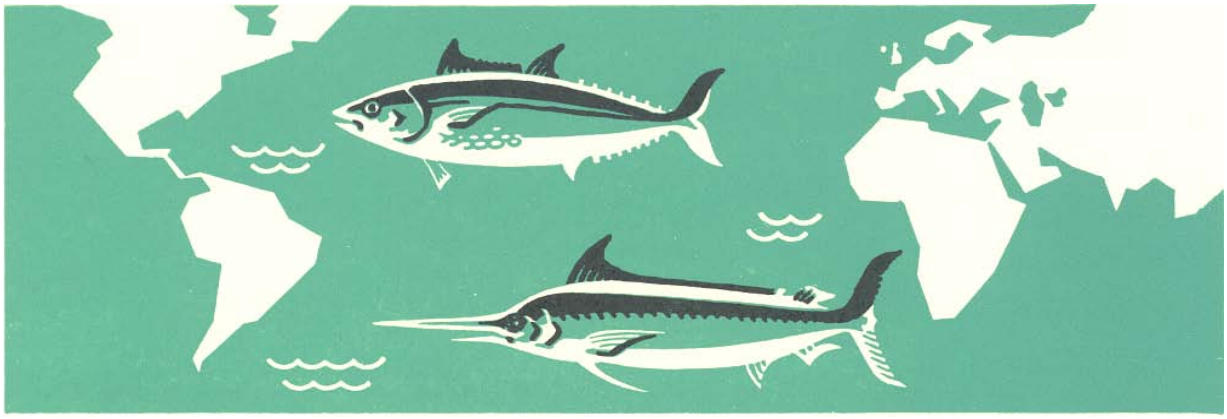
INTERNATIONAL COMMISSION
for the
CONSERVATION of ATLANTIC TUNAS

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, 2010-11
PART I (2010) - Vol. 3
Annual Reports

RAPPORT
de la période biennale, 2010-11
I^{ère} PARTIE (2010) – Vol. 3
Rapports annuels

INFORME
del período bienal, 2010-11
I^{a} PARTE (2010) – Vol. 3
Informes anuales

MADRID, SPAIN / ESPAGNE / ESPAÑA 2011

FOREWORD

The Chairman of the International Commission for the Conservation of Atlantic Tunas presents his compliments to the Contracting Parties of the International Convention for the Conservation of Atlantic Tunas (signed in Rio de Janeiro, May 14, 1966), as well as to the Delegates and Advisers that represent said Contracting Parties, and has the honor to transmit to them the ***"Report for the Biennial Period, 2010-2011, Part I (2010)"***, 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 17th Special Meeting of the Commission (Paris, France, November 17-27, 2010) and the reports of all the meetings of the Panels, Standing Committees and Sub-Committees, as well as some of the Working Groups. It also includes a summary of the activities of the Secretariat and the Annual Reports of the Contracting Parties of the Commission and Observers, relative to their activities in tuna and tuna-like fisheries in the Convention area.

Starting in 2010, the Report will be published in four volumes. ***Volume 1*** includes the Proceedings of the Commission Meetings and the reports of all the associated meetings (with the exception of the Report of the Standing Committee on Research and Statistics-SCRS). ***Volume 2*** contains the Report of the Standing Committee on Research and Statistics (SCRS) and its appendices. ***Volume 3*** includes the Annual Reports of the Contracting Parties of the Commission and the Observers. ***Volume 4*** is published for the first time in the 2010 Biennial Report and includes the Secretariat's Report on Statistics and Coordination of Research, the Secretariat's Administrative and Financial Reports, and the Secretariat's Reports to the ICCAT Conservation and Management Measures Compliance Committee (COC), and to the Permanent Working Group for the Improvement of ICCAT Statistics and Conservation Measures (PWG). Volumes 3 and 4 of the Biennial Report are only published in electronic format.

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

PRÉSENTATION

Le Président de la Commission internationale pour la conservation des thonidés de l'Atlantique présente ses compliments aux Parties contractantes à la Convention internationale pour la conservation des thonidés de l'Atlantique (signée à Rio de Janeiro le 14 mai 1966), ainsi qu'aux délégués et conseillers qui représentent ces Parties contractantes, et a l'honneur de leur faire parvenir le « ***Rapport de la période biennale 2010-2011, Ière Partie (2010) »***, 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 17e réunion extraordinaire de la Commission (Paris, France, 17-27 novembre 2010) et les rapports de toutes les réunions des Sous-commissions, des Comités permanents et des Sous-comités, ainsi que de divers Groupes de travail. Il comprend également un résumé des activités du Secrétariat et les rapports annuels remis par les Parties contractantes à l'ICCAT et les observateurs concernant leurs activités de pêche de thonidés et d'espèces voisines dans la zone de la Convention.

À partir de 2010, le rapport est publié en quatre volumes. Le ***Volume 1*** réunit les comptes rendus des réunions de la Commission et les rapports de toutes les réunions annexes, à l'exception du rapport du Comité permanent pour la recherche et les statistiques (SCRS). Le ***Volume 2*** contient le rapport du Comité permanent pour la recherche et les statistiques (SCRS) et ses appendices. Le ***Volume 3*** contient les rapports annuels des Parties contractantes de la Commission et des observateurs. Le ***Volume 4*** est publié pour la première fois dans le Rapport de 2010 de la période biennale et comprend le rapport du Secrétariat sur les statistiques et la coordination de la recherche, les rapports administratifs et financiers du Secrétariat et les rapports du Secrétariat au Comité d'application des mesures de conservation et de gestion de l'ICCAT (COC) et au Groupe de travail permanent sur l'amélioration des statistiques et des mesures de conservation de l'ICCAT (PWG). Les volumes 3 et 4 du rapport biennal ne sont publiés que sous format électronique.

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

PRÉSENTACIÓN

El Presidente de la Comisión Internacional para la Conservación del Atún Atlántico presenta sus respetos a las Partes contratantes del Convenio Internacional para la Conservación del Atún Atlántico (firmado en Río de Janeiro, 14 de mayo de 1966), así como a los delegados y consejeros que representan a las mencionadas Partes contratantes, y tiene el honor de transmitirles el ***"Informe del Período Bienal, 2010-2011, Iª Parte (2010)"***, 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 Decimoséptima Reunión Extraordinaria de la Comisión (París, Francia, 17-27 de noviembre de 2010), 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.

A partir de 2010, el Informe se publica en cuatro volúmenes. El ***Volumen 1*** incluye las Actas de las Reuniones de la Comisión y los Informes de todas las reuniones relacionadas (con excepción del Informe del Comité Permanente de Investigación y Estadísticas-SCRS). El ***Volumen 2*** el Informe del Comité Permanente de Investigación y Estadísticas (SCRS) y sus apéndices. El ***Volumen 3*** incluye los Informes anuales de las Partes contratantes de la Comisión y de los observadores. El ***Volumen 4*** se publica por primera vez en el Informe Bienal de 2010 e incluye el informe de la Secretaría sobre estadísticas y coordinación de la investigación, los informes Administrativo y Financiero de la Secretaría y los informes de la Secretaría al Comité de Cumplimiento de las Medidas de conservación y ordenación de ICCAT (COC) y al Grupo de Trabajo Permanente para la mejora de las estadísticas y normas de conservación de ICCAT (GTP). Los volúmenes 3 y 4 del Informe Bienal se publican solo en formato electrónico.

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

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

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[1] Reports received and distributed for the 2010 ICCAT annual meetings. Many Reports submitted to the Commission contain detailed information in the appendices. For reasons of economy, these appendices are not included in this publication, but can be requested from the Secretariat in the original language. In addition, Compliance Reporting Tables have been extracted from the Annual Reports and the information contained therein has been assimilated into the Compliance Tables (Appendix 2 to ANNEX 9 of the 2010 Commission Report).

[2] Rapports reçus et diffusés pour les réunions annuelles de l'ICCAT de 2010. Plusieurs rapports soumis à la Commission joignent des informations détaillées dans les appendices. Aux fins d'économie, ces appendices ne sont pas inclus dans ce volume, mais peuvent être sollicités auprès du Secrétariat dans la langue d'origine. En outre, les tableaux de déclaration d'application ont été extraits de ces Rapports annuels et l'information contenue dans ces tableaux de déclaration a été incorporée aux tableaux d'application (Appendice 2 à l'ANNEXE 9 du Rapport de la Commission de 2010).

[3] Informes recibidos y distribuidos para las reuniones anuales de ICCAT de 2010. Muchos informes presentados a la Comisión incluyen información detallada en apéndices. Por razones de economía, dichos apéndices no se incluyen en esta edición, pero pueden solicitarse a la Secretaría en su idioma original. Además, las tablas de transmisión de información sobre cumplimiento se han eliminado de los informes anuales y la información de dichas tablas se ha incluido en las tablas de cumplimiento (Apéndice 2 al ANEXO 9 del Informe de la Comisión de 2010).

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

ANNUAL REPORT OF ALGERIA[1]
RAPPORT ANNUEL DE L'ALGERIE
INFORME ANUAL DE ARGELIA

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

Chapitre 1 : Information annuelle sur les pêcheries

Les captures algériennes totales de thonidés et d'espèces voisines se sont élevées en l'an 2009 à 3053,8 tonnes (t), réparties comme suit :

- Thon rouge 222,8 t
- Espadon 468 t
- Thonidés mineurs 2.363 t

La production du thon rouge enregistrée au cours de cette année a été réalisée au moyen de sept (7) navires battant pavillon japonais de type palangriers. Cette flottille, d'une longueur moyenne de 45 mètres, est intervenue dans les eaux sous juridiction nationale durant la période allant du 27 avril au 24 mai 2009.

Aussi, au cours de l'année 2009, quatre (4) navires thoniers nationaux de type senneurs, d'une longueur variant entre 26 et 30 mètres, ont participé à la campagne de pêche au thon rouge 2009.

Néanmoins, les captures déclarées par les opérateurs nationaux ont été considérées comme étant nulles par notre ministère, en raison du non respect de leurs engagements et de la réglementation nationale en vigueur, notamment en matière d'exercice de la pêche au thon rouge dans les eaux sous juridiction nationale.

Fréquence de taille

L'étude des fréquences de taille réalisée sur des échantillons estimés à 1.022 individus, capturés durant les mois d'avril et mai 2009, a fait ressortir que la taille des spécimens varie dans une gamme allant de 118 à 300 cm avec une taille moyenne d'environ 210 cm. Cependant, l'échantillon considéré est principalement composé d'individus dont la taille varie entre 200 et 220 cm (**Figure 1**)

Fréquences de poids

S'agissant de la variation pondérale des prises de thon rouge, la **Figure 2** montre que, sur un échantillon de 1.022 individus, le poids de cette espèce varie entre 102 et 400 kg, avec une prédominance des individus de 130 à 180 kg.

Relation taille-poids

La **Figure 3** illustre la relation taille-poids du thon rouge échantillonné au cours de l'année 2009.

Sex- ratio

L'étude de sex-ratio global révèle une nette différence en faveur des femelles (58%) par rapport à celui des mâles (42%). Le sex-ratio est représenté dans le **Tableau 1** et représenté par la **Figure 4**.

Par ailleurs, il a été enregistré une dominance des femelles pour les tailles comprises entre 150 et 195cm. Cependant, les plus gros individus en termes de poids sont des mâles, mais le pourcentage demeure moins important que celui des femelles.

[1] No summary provided / Aucun résumé soumis / No se ha facilitado el resumen.

Chapitre 2 : Recherche et statistiques

L'Algérie a mis en place en 2004 un dispositif réglementaire (Décret exécutif n°04-186 du 30 juin 2004) fixant les conditions et modalités de collecte et de transmission des informations et des données statistiques sur les captures et moyens mis en œuvre tant en ce qui concerne les flottilles de pêche que les populations de pêcheurs.

Il s'agit d'un dispositif qui s'appuie sur des agents de collecte de statistiques au niveau des ports de débarquement, qui restituent les canevas renseignés aux antennes de pêche dont ils relèvent.

Les antennes relayent quotidiennement ces données aux Directions de Wilaya qui, à leur tour, les transmettent sur une double base périodique (décadaire et mensuelle) à la Direction Centrale qui consolide, traite et analyse les statistiques recueillies.

Par ailleurs et conformément aux dispositions de l'arrêté du 16 avril 2006, le capitaine de chaque navire est tenu de conserver en permanence, à bord du navire, un journal de pêche qui doit être renseigné du début à la fin de chaque action de pêche.

Le journal de pêche comporte :

- La durée de l'action de pêche ;
- Le ou les engins de pêche utilisés ;
- La ou les zones de pêche ;
- Le nombre d'équipage ;
- Le type et la quantité des captures.

Ces informations permettront à l'agent de collecte de statistiques au niveau des ports structurés de vérifier la fiabilité des données.

En ce qui concerne les navires thoniers, le dispositif spécifique qui a été mis en place s'appuie sur une autre méthode de collecte des données, à savoir l'embarquement de deux contrôleurs sur chaque bateau avec pour mission, entre autres, de renseigner des documents statistiques inspirés des mesures et recommandations de l'ICCAT.

Il s'agit de formulaires de collecte des informations sur les zones de pêche, le nombre d'individus pêchés, les espèces, les tailles, la période de capture, le poids et le sexe de chaque individu capturé.

Néanmoins, ce dispositif de collecte et de traitement de l'information nécessite d'autres améliorations, notamment par la mise en place d'un programme d'échantillonnage biologique afin de compléter notre base de données sur cette ressource et de renseigner tous les formulaires de «Tâche II ».

Quant à la recherche scientifique se rapportant aux thonidés et aux espèces voisines, des travaux de recherche notamment sur les paramètres biologiques, la croissance et l'exploitation du thon rouge sont menées par deux cadres du secteur.

La première étude est effectuée dans le cadre d'une thèse de Magister au niveau de l'Université des Sciences et de Technologie Houari Boumediéne (USTHB) en collaboration avec l'Ecole Nationale des Sciences de la Mer et de l'Aménagement du Littoral (ENSMAL) et la seconde rentre dans le cadre de la préparation d'un master en Espagne.

Par ailleurs, une étude portant sur la pêcherie du thon rouge capturé par les palangriers le long des côtes algériennes est inscrite dans le programme de recherche du Centre National de Recherche et de Développement de la Pêche et de l'Aquaculture (CNRDPA)

Cette étude a pour objectifs principaux la mise en place d'une banque de données et l'estimation de quelques paramètres biologiques et dynamiques.

S'agissant de l'espadon, une étude sur les déplacements de l'espèce « *Xiphias gladius* » le long de la côte algérienne est en cours de finalisation. Cette étude, prise en charge par le CNRDPA, porte essentiellement sur :

- La collecte d'informations biologiques et dynamiques ;

- La connaissance sur l'apparition spatiotemporelle des différentes cohortes (comportement erratique) de l'espadon ;
- La gestion rationnelle des pêcheries espadonnières.

Reste à cartographier les différentes cohortes par région et par année et la finalisation du rapport prévue pour la fin de l'année en cours.

Il y a lieu de rappeler que l'Algérie va se doter, dans le cadre de son programme de développement, au cours de cette fin d'année, d'un navire de recherche scientifique, qui exécutera des campagnes d'évaluation périodiques et régulières ainsi que des travaux de recherches scientifiques.

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

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

L'exercice de la pêche aux grands migrateurs halieutiques par les navires battant pavillon étranger dans les eaux sous juridiction algérienne est régie par les dispositions du décret exécutif n°06-367 du 19 octobre 2006 (journal officiel n°66 du 22-10-2006).

Aussi, le décret exécutif cité ci-dessus règlemente les aspects suivants :

- Les conditions de délivrance du permis de pêche commerciale des grands migrateurs halieutiques ;
- La zone de pêche tolérée ;
- Les modalités de contrôle des opérations de pêche ;
- Les engins de pêche autorisés à être utilisés ;
- Les informations devant être collectées et transmises aux administrations concernées (pêche et Service National des Gardes-côtes).

Concernant la pêche au thon rouge par les nationaux, cette activité est réglementée depuis 2003 par les dispositions du décret exécutif n°03-481 du 13 décembre 2003 fixant les conditions et les modalités d'exercice de la pêche.

Ce dispositif prévoit, entre autres, l'obtention d'une autorisation de pêche pour l'exploitation des différentes espèces halieutiques et un journal de pêche à renseigner par le capitaine du navire.

En ce qui concerne les périodes de fermeture ainsi que la taille minimale marchande du thon rouge, elles sont conformes à celles arrêtées par l'ICCAT.

Par ailleurs et en application de la Recommandation 08-03 de l'ICCAT sur l'espadon de la Méditerranée, une décision fixant la période d'interdiction de la pêche de l'espadon dans les eaux sous juridiction nationale a été élaborée.

Chapitre 4 : Schémas et activités d'inspection

Les activités d'inspection des thoniers étrangers sont réglementées par le décret exécutif n°06-367 du 19 octobre 2006. Elles consistent à embarquer à bord de chaque navire deux contrôleurs, un relevant de l'administration des pêches et le second du Service National des Gardes-côtes et ce, durant toute la campagne de pêche.

Ces contrôleurs ont pour mission de contrôler les zones de pêche, le quota autorisé à être pêché, les tailles minimales marchandes et les espèces capturées, etc.

Aussi, avant et en fin de chaque campagne de pêche aux grands migrateurs halieutiques, des visites d'inspection des navires sont effectuées par une commission locale, constituée de représentants de différentes institutions nationales (pêche, douanes, et Service National des Gardes-côtes).
En ce qui concerne les thoniers nationaux et durant la campagne de pêche 2009, un contrôleur relevant de l'administration des pêches a été embarqué à bord de chaque navire durant toute l'opération de pêche et une visite d'inspection des navires thoniers a été effectuée avant le démarrage de la campagne de pêche.

De plus, dans le cadre du renforcement du suivi et du contrôle des opérations de pêche et conformément aux recommandations de l'ICCAT, les navires thoniers nationaux étaient équipés de balises de détection (VMS).

Tableau 1. Sex ratio global de *Thunnus thynnus*.

	Nombre d'individus	*Pourcentage*
Effectif global	1022	100%
Femelle (F)	590	58%
Mâle (M)	432	42%

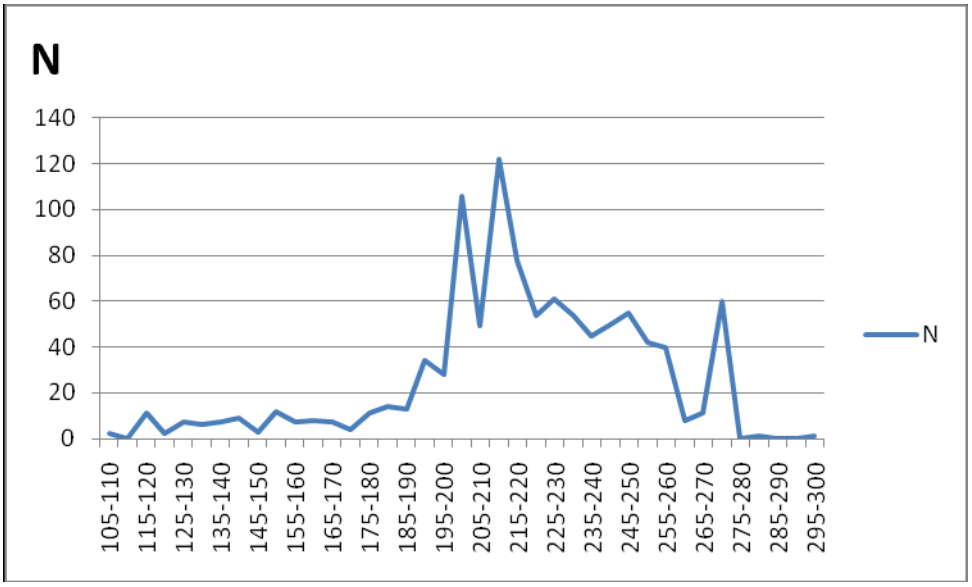

Figure 1. Distribution de fréquence de tailles de *Thunnus thynnus*.

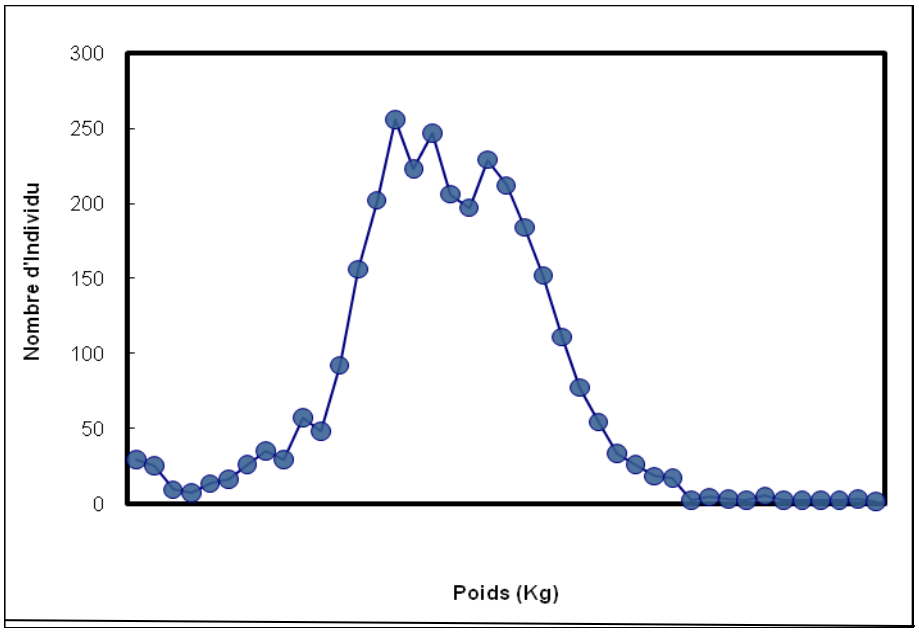

Figure 2. Distribution de fréquence de poids de *Thunnus thynnus*

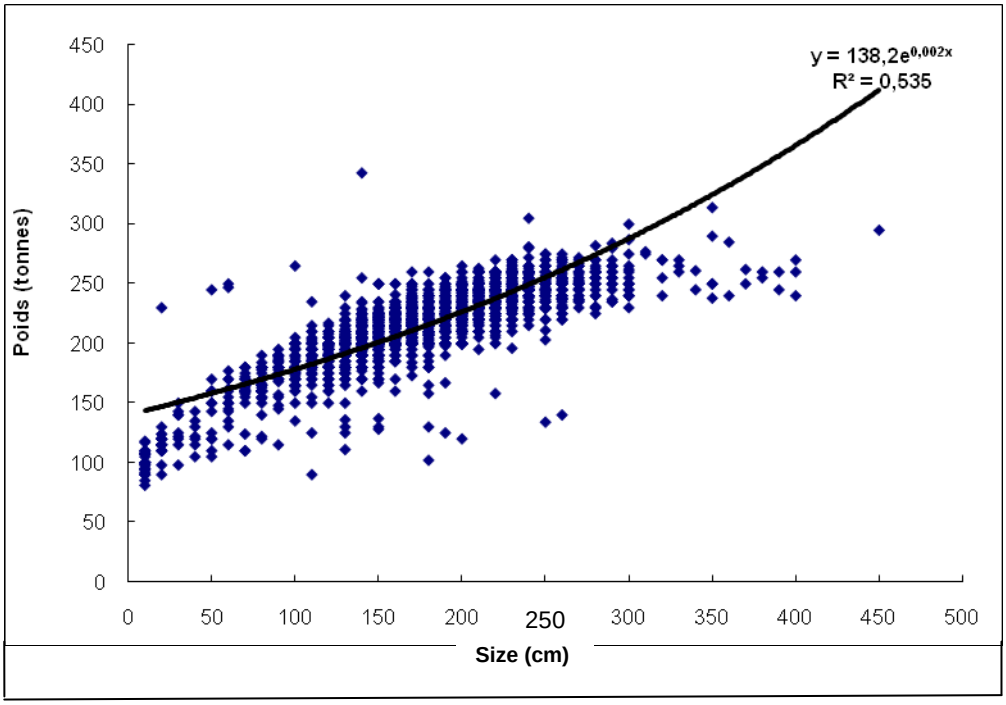

Figure 3. Relation taille-poids.

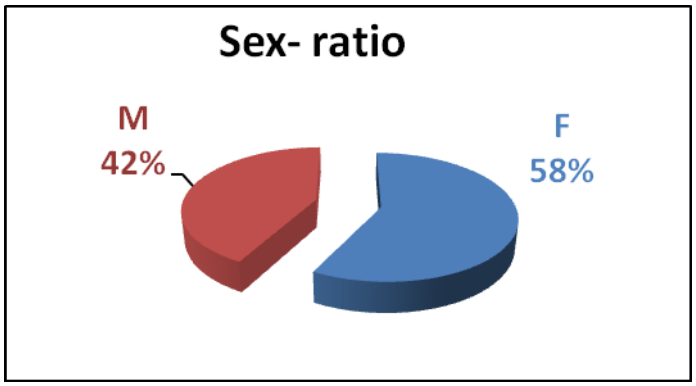

Figure 4. Sex-ratio (pourcentage des femelles et des mâles).

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

Henriette Lutuba Nsilulu[1] et David Quissungu[2]

SUMMARY

*The major scombrid species caught in Angola are: yellowfin tuna (*Thunnus albacares*), skipjack tuna (*Katsuwonus pelamis*), bigeye tuna (*Thunnus obesus*), albacore (*Thunnus alalunga*) and small tunas, such as Atlantic black skipjack (*Euthynnus alletteratus*), Atlantic bonito (*Sarda sarda*), and frigate tuna (*Auxis thazard*). These resources are caught by the artisanal fleet and by the semi-industrial and industrial fleet. Angola does not have any vessels for fishing directed at tunas. Foreign flag vessels fish under their flag in the Exclusive Economic area of Angolan waters. Therefore, Angola does not have any data to report to ICCAT on large tunas. In 2009, 54 foreign vessels reported catches of large tunas. In 2009, 54 foreign vessels were registered to catch large tunas. The total catch of small tunas was about 3,669 tons (t) off the Angolan coast, of which 1,979 t were* Sarda sarda, *1,644 t* Euthynnus alletteratus, *and 46 t* Auxis thazard. *These catches are from the artisanal, semi-industrial and local industrial fleet. The gear types normally used for the target species are seine, trawl, baitboat, hand line, mainly trap, and also longline by the foreign vessels. The Institut National de Recherches de Pêches-INIP (National Institute on Fishing) through its Research Center at Lobito (CIP) is reinforcing the sampling program through the collection of biological data, mainly size frequency data on the major species of small tunas from the traps. In 2009, 22 samplings of small tunas were carried out with a total of 2,419 fish measured. The statistical data are obtained from the Direction Nationale de Pêche et Aquaculture-DNPA (National Directorate of Fishing and Aquaculture), the Cabinet d'Études de Plans et Statistiques-GEPE (Cabinet of Studies of Plans and Statistics), the Institut National de Recherches de Pêches-INIP (National Institute on Fishing), the Centres de Recherches de Pêches-CIPs (Fisheries Research Centers), and the Institut de Pêches Artisanale-IPA (Institute of Artisanal Fishing).*

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 des thonidés mineurs tels que la thonine commune (*Euthynnus alletteratus*), la bonite à dos rayé (*Sarda sarda*), l'auxide (*Auxis thazard*). Ces ressources sont exploitées par la flottille artisanale, semi-industrielle et industrielle. L'Angola ne dispose pas de bateaux ciblant des thonidés et ce sont des embarcations étrangères qui pêchent sous leur pavillon dans la zone exclusive économique dans les eaux angolaises. De ce fait, nous ne disposons pas de données à déclarer à l'ICCAT pour les grands thonidés. Durant l'année 2009, 54 embarcations étrangères étaient enregistrées pour la capture de grands thonidés. La prise totale de thonidés mineurs se situe entre 3669 tonnes le long de la côte angolaise représentant 1979 tonnes pour l'espèce* Sarda sarda, *1644 tonnes pour l'espèce* Euthynnus alletteratus *et 46 tonnes pour l'espèce* Auxis thazard. *Ces prises proviennent de la pêche artisanale, semi-industrielle et industrielle locales. Les types d'engins utilisés normalement pour les espèces cibles sont la senne, le chalut, la canne, la ligne à main, principalement des madragues, et aussi la palangre dans le cas des embarcations étrangères. L'INIP (Institut national de recherche des pêches), par le biais de son Centre de recherche de Lobito (CIP), procède actuellement au renforcement du programme d'échantillonnage en rassemblant des données biologiques, principalement de fréquence de taille des principales espèces des thonidés mineurs provenant de madragues. Durant l'année 2009, 22 échantillonnages de thonidés mineurs ont été effectués avec un total de 2419 poissons mesurés. Les données statistiques sont obtenues à partir de la DNPA (Direction nationale de la pêche et de l'aquaculture), du GEPE (Cabinet d'études de plans et statistiques), l'INIP (Institut national de recherche de pêches), les CIP (Centres de recherches de pêches) et de l'IPA (Institut de la pêche artisanale).*

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[2] CIP. Lobito.

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 la bacoreta (*Euthynnus alletteratus*), el bonito (*Sarda sarda*) y la melva (*Auxis thazard*). Estos recursos son explotados por la flota artesanal y por la flota semi-industrial e industrial. Angola no dispone de barcos para la pesca dirigida a los túnidos. Los buques extranjeros pescan bajo su pabellón en la zona económica exclusiva de las aguas angoleñas. Por lo que no disponemos de datos para declarar a ICCAT en lo que concierne a los grandes túnidos. Durante 2009, 54 embarcaciones extranjeras fueron registradas para la captura de grandes túnidos. Las capturas totales de pequeños túnidos ascendieron a 3.669 t a en aguas frente a la costa angoleña, con 1.979 t de* Sarda sarda, *1.644 t de* Euthynnus alletteratus *y 46 t de* Auxis thazard*. Estas capturas proceden de la pesquería artesanal, semiindustrial e industrial local. Los tipos de artes utilizados normalmente para las especies objetivo son el cerco, arrastre, cebo vivo, liña de mano, principalmente almadrabas y también palangre para las embarcaciones extranjeras. El INIP (Instituto nacional de investigación pesquera), a través de su Centro de investigación de Lobito (CIP) está reforzando el muestreo con la recopilación de datos biológicos, principalmente de frecuencia de tallas de las principales especies de pequeños túnidos procedentes de las almadrabas. Durante 2009, se han efectuado 22 muestreos de pequeños túnidos con un total de 2.419 peces medidos. Los datos estadísticos se obtienen a través de la DNPA (Dirección Nacional de Pesca y Acuicultura), el GEPE (Gabinete de Estudios de Planes y Estadísticas), el INIP (Instituto Nacional de Investigación Pesquera), los CIP (Centros de Investigación Pesquera) y el IPA (Instituto de Pesca Artesanal).*

Introduction

L'Angola est un pays avec une superficie de 1246 700 km^2 et une longueur de côte de1.650 km en suivant la côte de l'Océan Atlantique sud est, à partir de 5º S à 17 º 15 S de latitude. La plateforme continentale (jusqu'à 200 m de profondeur) présente une superficie de 51.000 km^2 (Altunaga,1999). La côte est dominée par deux systèmes de courants qui sont le courant froid de Benguela au sud et le courant de l'Angola au nord (Moroshkin *et al*, 1970). La Zone Economique Exclusive est de 200 milles nautiques partant de la côte.

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

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

Chapitre 1 : Information annuelle sur les pêcheries

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

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

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

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

Ces espèces sont principalement capturées par la pêche artisanale et aussi pêchées comme prises accessoires de la pêche de petits pélagiques (chinchard, sardinelles) tant par la pêche semi industrielle qu'industrielle.
Le groupe de grands thonidés est principalement constitué des espèces :

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

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

Pour le moment, l'Angola ne dispose pas de bateaux pour la pêche dirigée aux thons et les embarcations de grande portée qui exploitent actuellement les grands thonidés sont des embarcations étrangères qui pêchent sous leur pavillon dans la Zone Economique Exclusive des eaux angolaises. C'est pourquoi nous ne disposons pas de données pour déclarer à l'ICCAT au sujet des grands thonidés.

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

Types d'engins

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

Les prises

Pour le moment, l'Angola ne dispose pas de bateaux pour la pêche dirigée aux thons.

Durant l'année 2009, 54 embarcations étaient titulaires de licences pour la capture des grands thonidés et ces embarcations de grande portée qui exploitent actuellement les grands thonidés sont des embarcations étrangères qui pêchent sous leur pavillon dans la Zone Economique Exclusive des eaux angolaises. C'est pourquoi le pays ne dispose pas de données pour déclarer à l'ICCAT. Ces embarcations sont de différentes nationalités mais la majorité sont des flottilles japonaises.

Durant cette année, il a été capturé au total 3.669 tonnes de thonidés mineurs le long de la côte et ces prises proviennent de la pêche artisanale, semi-industrielle et industrielle (**Tableau 1**).

Chapitre 2 : Recherche et statistiques

L'INIP (Institut National de Recherches de Pêches), à travers son Centre de Recherche de Lobito (CIP), est en train de renforcer le programme d'échantillonnage avec la collecte de données biologiques, principalement de fréquence de taille des principales espèces de thons mineurs provenant de madragues. ´

Normalement, cet échantillonnage se réalise une fois par semaine.

Durant l'année 2009, 22 échantillonnages de thons mineurs ont été effectués, dont cinq échantillonnages pour l'espèce *Auxis thazard*, avec un total de 747 poissons qui ont été mesurés et 17 échantillonnages pour l'espèce *Euthynnus alletteratus*, où 1.672 poissons ont été mesurés. La fréquence de taille des individus échantillonnés varie de 21 cm à 52 cm de longueur à la fourche pour l'auxide, avec une taille moyenne de 33 cm et présentant une moyenne de 32 cm, alors que celle de la thonine commune varie de 29 cm à 63 cm, avec une taille moyenne de 45 cm, présentant une moyenne de 48 cm. Aucune analyse biologique n'a été effectuée pour la détermination du sexe et de la maturité durant cette année pour les deux espèces.

La **Figure 1** nous indique les classes de fréquence de taille de l'auxide (*Auxis thazard)* et de la thonine commune (*Euthynnus alletteratus*) capturés durant l'année 2009. Les **Tableaux 2** et **3** nous montrent la distribution de fréquence de taille de la longueur à la fourche mensuelle ainsi que le nombre des échantillonnages réalisés par mois pour l'auxide et la thonine commune.

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

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

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

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

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

Chapitre 4: Schémas et activités d'inspection

Les inspecteurs se déplacent au port de décharge pour effectuer le contrôle ; ils concèdent ensuite la licence de pêche.

Tableau 1. Prises de thonidés (tonnes) de pêche artisanale, semi-industrielle et industrielle durant l'année 2009.

Espèce	*Prises (t)*
Euthynnus alletteratus	1.644
Sarda sarda	1.979
Auxis thazard	46
Total	**3.669**

Tableau 2. Distribution de fréquences de taille de la longueur à la fourche mensuelle de l'auxide (*Auxis thazard*).

Classe (cm)	*FEV*	*MAI*	*JUL*	*OCT*	*TOTAL*
	1				**1**
	2				**2**
21	4				**4**
22	4				**4**
23	14				**14**
24	14				**14**
25	15				**15**
26	25				**25**
27	11	4			**15**
28	9	10	4	1	**24**
29	3	22	3	1	**29**
30	2	112	1	3	**118**
31	0	32	39	4	**75**
32	3	16	77	9	**105**
33	1	2	78	21	**102**
34	4	2	38	28	**72**
35	3	4	33	28	**68**
36	1		10	23	**34**
37			3	7	**10**
38			1	11	**12**
39					
40					
41					
42					
43				1	**1**
44			1		**1**
45					
46					
47					
48					
49					
50					
51					
52				2	**2**
Nombre de poissons mesurés	116	204	288	139	**747**
Nombre d'échantillonnages réalisés	1	1	2	1	**5**
Poids de l'échantillon en tonnes	0.060	0.120	0.300	0.100	
Prises échantillonnées en tonnes	0.150	0.250	0.950	0.600	
Facteur de pondération	3	2.1	3.2	6	

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

Classe (cm)	*JAN*	*FEV*	*MAR*	*AVRIL*	*MAI*	*JUL*	*OCT*	*DEC*	*TOTAL*
29					4				**4**
30					10				**10**
31					32		1		**33**
32					112		1		**113**
33			2		32		4		**38**
34					16		10		**26**
35					2		22		**24**
36					2		31		**33**
37					4		27		**31**
38			2				26		**28**
39	1	1	2				19		**23**
40	13		11	1		1	14		**40**
41	16		8			3	9	1	**37**
42	19	1	7			3	15		**45**
43	7		16	2		4	15	2	**46**
44	16	2	14	3		10	29	8	**82**
45	12	3	15	8		10	22	30	**100**
46	2	5	20	21		14	34	28	**124**
47	1	14	19	14		20	45	45	**158**
48	9	16	12	19		35	28	40	**159**
49	4	18	12	14		23	21	24	**116**
50	0	34	7	17		28	18	16	**120**
51	1	11	7	3		40	9	21	**92**
52		16	3	1		33	8	14	**75**
53		4				15		3	**22**
54			2			19	5	8	**34**
55						18	2	3	**23**
56			2			1	2	2	**7**
57		1				4	1	2	**8**
58			2				3	4	**9**
59			2			2		4	**8**
60									
61			1			1		1	**3**
62									
63								1	**1**
Nombre de poissons mesurés	101	126	166	103	214	284	421	257	**1672**
Nombre d'échantillonnages réalisés	1	2	2	1	1	3	4	3	**17**
Poids de l'échantillon en tonnes	0.120	0.360	0.300	0.150	0.120	0.680	0.950	0.305	
Prises échantillonnées en tonnes	20.000	0.720	0.730	0.5	0.250	2.450	3.050	0.865	
Facteur de pondération	166.6	2	2.4	3.3	2.1	3.6	3.2	2.8	

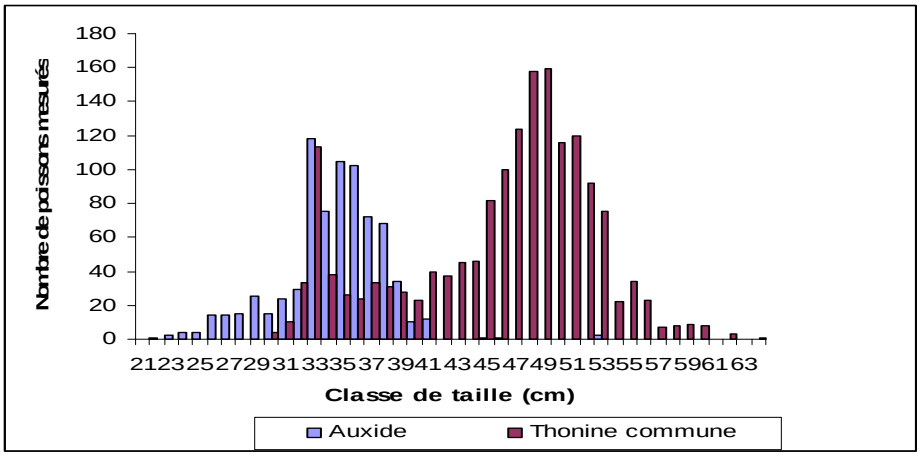

Figure 1. Les classes de fréquence de tailles de l'auxide (*Auxis thazard*) et de la thonine commune (*Euthynnus alletteratus*).

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

Christopher Parker[1]

SUMMARY

In this report the commercial large-pelagic fishing fleet of Barbados is described. A description of the procedures for collecting catch statistics is provided. The majority of the catches of all large-pelagic species under the purview of ICCAT except wahoo are taken by the island's longline fleet. The Fisheries Act of Barbados includes several clauses to ensure that all locally registered fishing vessels have a genuine link with Barbados and mandates that foreign fishing vessels may only fish in the waters of Barbados under license issued by the Chief Fisheries Officer. There are no large-scale fishing vessels in the Barbados fleet and only two vessels greater than 20M overall length, both of which are currently inactive. There is no fishery for bluefin tuna or a directed fishery for albacore in Barbados. The need to collect more detailed information on local commercial fishing activities to facilitate comprehensive reporting to ICCAT, including landings statistics disaggregated to species level, especially for billfish species, is acknowledged and methods proposed to achieve these objectives are outlined. The first phase of this improved data collection programme, namely conducting dockside catch sampling and interviews of boat captains and crews, will be fully in place by the end of 2010. The protocol for regulating and monitoring the transshipment of ICCAT species through Barbados is described. However, no ICCAT species are known to have been transshipped through Barbados in 2009.

RÉSUMÉ

Le présent rapport décrit la flottille de pêche commerciale ciblant les grands pélagiques. Il fournit une description des procédures de collecte des statistiques de capture. La majorité des prises de toutes les espèces de grands pélagiques relevant du mandat de l'ICCAT, exception faite du thazard bâtard, sont réalisées par la flottille palangrière de l'île. La Loi sur la pêche de la Barbade renferme plusieurs clauses visant à garantir que tous les navires de pêche immatriculés localement ont un lien authentique avec la Barbade, et oblige les navires de pêche étrangers qui pêchent dans les eaux de la Barbade à être munis d'une licence délivrée par la Direction supérieure des pêches. La flottille de la Barbade ne compte pas de grands navires de pêche et réunit seulement deux navires de plus de 20 m de longueur hors-tout, tous deux inactifs. La Barbade ne pêche pas le thon rouge et ne cible pas le germon. Le présent document reconnaît la nécessité de recueillir des informations plus détaillées sur les activités de la pêche commerciale locale en vue de faciliter une déclaration exhaustive à l'ICCAT, y compris des statistiques de débarquement par espèce, notamment pour les istiophoridés, et les méthodes proposées pour atteindre ces objectifs sont soulignées. La première phase de ce programme amélioré de collecte de données, à savoir la réalisation d'échantillonnages de la capture au quai et d'interviews des capitaines et de l'équipage des navires, sera entièrement en place d'ici la fin de 2010. Le protocole de réglementation et de suivi des transbordements des espèces relevant de l'ICCAT à travers la Barbade est décrit. Toutefois, il s'est avéré qu'aucune espèce relevant de l'ICCAT n'a été transbordée par le biais de la Barbade en 2009.

RESUMEN

En este informe, se describe la flota de pesca comercial de grandes pelágicos de Barbados, así como los procedimientos para recopilar las estadísticas de capturas. La mayoría de las capturas de todas las especies de grandes pelágicos bajo supervisión de ICCAT (excepto el peto) son realizadas por la flota de palangre de la isla. El Acta de Pesca de Barbados incluye varias cláusulas para garantizar que todos los pesqueros registrados a nivel local tienen un

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vínculo real con Barbados y establece que los buques pesqueros extranjeros sólo pueden pescar en aguas de Barbados si cuentan con licencias expedidas por el Director de Pesquerías. En la flota de Barbados no hay grandes buques pesqueros, y sólo hay dos buques de más de 20 m de eslora total que actualmente están inactivos. En Barbados no hay pesquería de atún rojo ni una pesquería dirigida al atún blanco. Se reconoce la necesidad de recopilar información más detallada sobre las actividades locales de pesca comercial para facilitar información exhaustiva a ICCAT, lo que incluye estadísticas de desembarque desglosadas por especies, sobre todo para los istiofóridos, y se reseñan los métodos propuestos para conseguir estos objetivos. La primera fase de este programa mejorado de recopilación de datos, realizado mediante el muestreo de la captura a pie de muelle y entrevistas con los patrones y la tripulación, estará funcionando plenamente a finales de 2010. También se describe en este informe el protocolo para reglamentar y controlar el transbordo de especies de ICCAT en Barbados. Sin embargo, no se ha tenido conocimiento de transbordos de especies de ICCAT en Barbados en 2009.

Part 1 (Information on Fisheries, Research and Statistics)

Section 1: Annual Fisheries Information

The Barbados commercial pelagic fishing fleet includes three categories of decked vessels, which target pelagic species *viz*. dayboats, iceboats and longliners. Certain groups of species are primarily taken by each vessel type as follows:

1) Dayboats do not carry iceholds and fish primarily for flying fish using gill and dip nets and associated large pelagics primarily dolphinfish (*Coryphaena hippurus*) and wahoo (*Acanthocybium solandri*) using single-hook hand or trolling lines. Fishing trips are limited to less than one day in duration and to within a few miles from shore. In 2009, the Barbados registered fishing fleet included 248 dayboats ranging from 12' to 45' (mean 25.5') overall length.

2) Iceboats are decked vessels that are built along the same hull lines of dayboats but are generally larger and carry ice holds for storing the catch at sea. These vessels mainly target the same species as dayboats using the same gear but can stay at sea for a number of days, usally less than 7, and fish further afield. In 2009, the Barbados registered fishing fleet included 182 iceboats ranging from 22' to 55' (mean 36') overall length.

3) Longliners also carry iceholds but primarily use longline gear to target large highly-migratory pelagic species such as tunas and billfishes. In 2009, the Barbados registered fishing fleet included 35 longliners ranging from 38' to 75' (mean 47.5') overall length. Longliner trips vary in length up to a maximum of around 2 weeks but rarely exceed 10 days. The number of hooks used by each vessel per set ranges from 200 to 750 with each vessel making between 6 to 10 sets per trip.

None of the vessels in the Barbados fishing fleet have on-board ice making or freezing machinery and ice must obtained at the beginning of each trip from dockside facilities. No foreign owned vessels are registered in the Barbados fishing fleet. All Barbadian fishing vessels are home-based and none uses purse seine gear.

In 2009, local catches of the species under ICCATs purview were comparatively low (see **Table 1** for breakdown). In the commercial Barbados fleet, longliners typically land the highest proportion of the island's catch of large highly-migratory species viz tunas, billfishes and swordfish. In 2009, 23 longliners were active and landed around 76% of the island's total catch of these species. The larger proportion of the wahoo catch is typically taken on single hook lines either handheld or deployed as troll lines by the iceboat and dayboat fleets during their flying fish trips. In 2009, little over 16% of the island's total wahoo catch was attributable to longliners. The catch of shark species is more evenly distributed between the fleets and in 2009 longliners landed around 45% of the island's total shark catch. It should be noted that Barbadian fishers do not target sharks as it is not a popular local market species.

Section 2: Research and Statistics

There are about 30 fish landing sites around Barbados not all of which are used year round. The sites are commonly categorized based on the infrastructure present viz. primary (markets), secondary (sheds) and tertiary (no permanent infrastructure). Fishermen are charged tolls for using the market facilities, which are calculated on the basis of the type and respective weights of all fish landed. Landings statistics at the markets are derived from these toll records. At the secondary sites, each shed has a caretaker who is responsible for recording fish landings at the respective site. There are currently eight fish markets on the island but by far the majority of fish catches by weight are landed at the two largest markets at Bridgetown and Oistins (71% and 13.5%, respectively in 2009). Bridgetown has a fishing harbour and Oistins has a jetty. In addition to these necessary docking facilities, the other amenities needed for the operation of longliners and iceboats (e.g. on-shore ice-making and dispensing facilities and onshore freezing facilities to store the catch) are presently only available at these two main fishing ports. As a result, these vessels are forced to land their catches at these sites exclusively. Only occasional landings of these species are made at the smaller market sites mainly by the smaller fishing vessels such as dayboats. As such the landings of large pelagic species are considered to be comprehensively covered. In 2009, 92 % of the landings of ICCAT species were made at Bridgetown and Oistins with the remaining 8% (mainly wahoo) going to the smaller market sites.

Of the large pelagic species only dolphin, wahoo and swordfish are currently recorded at the species level at the landing site. Information from trip records provided by some boat owners on a voluntary basis is used to derive sample species composition, which are used as indices to disaggregate the island's total large tuna catch to the species level. However, boat owners do not typically record billfish catches to the species level. Additionally, due to the difficulties in identifying billfish species from the landed trunks, there is currently no mechanism to disaggregate billfish landsings to species level.

From 2005, the Barbados Fisheries Division has maintained computerized records of fish landings statistics with the Caribbean Fisheries Information System (CARIFIS) produced under the auspices of the CARICOM Regional Fisheries Mechanism (CRFM) in conjunction with a custom-designed vessel and fisher registration database programme (Fisheries Information System for Barbados-FISBARB) developed in-house by the Barbados Fisheries Division. The two databases are linked via unique hull numbers assigned to the vessels, accurately linking contemporaneous vessel information with catch records.

Round weights for billfish, swordfish and sharks are raised from dressed weights by the factors recommended in the *ICCAT Field Manual for Statistics and Sampling Atlantic Tunas and Tuna-like Species*` (dressed weight (DWT) x 1.20, DWT x 1.33, DWT x 1.5, respectively). Tunas are also landed in dressed form and landed weights are raised by a factor of 1.25 as recommended in the 'Canadian Atlantic Integrated Fisheries Management Plan for Bigeye, Yellowfin (*Thunnus obesus*) (*Thunnus albacares*) Albacore Tunas (*Thunnus alalunga*) 1998-1999'. Wahoo are usually landed gilled and gutted and round weights are calculated using a conversion factor of x 1.075, adopted for use by the Large Pelagics Working Group of the Caribbean Regional Fisheries Mechanism (CRFM).

A thorough review of the island's fisheries data collection program has recently been completed by the Barbados Fisheries Division of the Ministry of Agriculture. A number of recommendations have come out of this study relevant to expanding the coverage of the fishery for highly migratory species of concern to ICCAT. This includes *inter alia*:

1) Reformatting the standard toll receipt to facilitate reporting of large pelagic landings to the species level.
2) Training of market staff to identify large pelagic species for reporting purposes. Alternatively or in addition, species composition information may be obtained by the market staff directly from the fisherman as he lands the catch.
3) Re-implementation of a dockside sampling program conducted by trained Fisheries Officers. This will include:
    a) interviewing vessel captains to obtain pertinent timely information on the fishing trip including information on fishing effort, location and species composition; and
    b) obtaining length and weight measurements of samples of the landed fish.
4) Promoting the use of trip logbooks by captains of longliners and iceboats to acquire more detailed geo-referenced catch and effort information.

It should be noted that some dockside sampling was conducted sporadically on a trial basis during 2009 and the early part of 2010, but routine sampling will commence from November 2010. Drafts of trip logbooks proposed for the longline and iceboat fleets have already been produced and are currently being reviewed before being offered for testing by volunteer fishers.

Part II (Management Implementation)

Section 3: Implementation of ICCAT Conservation and Management Measures

Most of the legislation related to the management and development of fisheries in Barbados is consolidated in the Fisheries Act (1993, amended in 2000). The Chief Fisheries Officer is responsible for the general administration of the Act. The Fisheries Act facilitates the use of a wide suite of commonly used fisheries regulatory tools where required. The Fisheries Act includes a number of clauses specifically focused on ensuring that all locally registered fishing vessels have a genuine link with Barbados. Furthermore, the Act mandates that foreign fishing vessels may only fish in the waters of Barbados under license issued by the Chief Fisheries Officer. There are currently no large-scale fishing vessels (greater than 24 m overall length) in the Barbados fishing fleet. Two vessels greater than 20 m overall length are registered in the fleet but neither is currently active. ICCAT will be duly informed and provided with all relevant details if these vessels recommence fishing. Barbados is not engaged in any vessel-chartering arrangements.

The first suite of fisheries management regulations under the Fisheries Act (1993) were enacted through the Fisheries (Management) Regulations (1998). Regulations specific to ICCAT species included prohibiting the landing of yellowfin or bigeye tunas of less than 3.2 kg live weight. The use of drifting pelagic nets greater than 2.5km in length is also prohibited. The maximum penalty for breaking any of these regulations is a fine of $50,000 Bds and/or two years imprisonment. A number of proposed amendments to the existing regulations and additional regulations that would facilitate improved reporting and control of fishing activities of interest to ICCAT are currently under review.

The transshipment of fish from foreign-based vessels through Barbados is allowed only with the written permission of the Chief Fisheries Officer. To obtain permission for the vessel to trans-ship through Barbados, local agents must provide the Chief Fisheries Officer with detailed descriptive information on each vessel, including the state in which the vessel is flagged, its identification markings, and a photograph of the vessel. The period over which the proposed transhipments will occur must also be provided. The local agents are also required to report specific dates and times for each transhipment operation within at least 24 hours of the vessel's arrival. No transhipments at sea are permitted within Barbadian waters. The transhipment operations take place within the Bridgetown Port under the supervision of the Customs Department, Port officials and an official of the Fisheries Division. Copies of the weigh-out sheets and set logs must be forwarded to the Fisheries Division within 30 days of the respective fishing trip following the trans-shipment operation. No transshipments of large pelagic species from foreign-based vessels through Barbados ports occurred in 2009.

No applications for the issue of Export Certificates for swordfish or big-eye tuna were received by the Fisheries Division in 2009. It should be noted that Barbados does not participate in the blue fin fishery or trade in this species has not been authorized. There is no targeted fishery for Albacore in Barbados. The Fisheries Division did not receive any specific reports of suspected IUU fishing activities or other issues of non-compliance with ICCAT measures.

Section 4: Inspection Schemes and Activities

As described earlier, catches of large pelagic species under the purview of ICCAT by the local fishing fleet are landed only at monitored landing sites. An on-going programme of dockside monitoring that includes the collection of more detailed information on the fishing activities of vessels for subsequent reporting to ICCAT was recommenced in 2009 and will be in full effect from the end of 2010. The protocol for any transshipment of ICCAT species through the Barbados Port has also been described earlier.

Section 5: Other Activities

None to report.

Table 1. Preliminary landings statistics for large pelagic species under the purview of ICCAT for Barbados in 2009.

Species/species group	*Estimated round weight (t)*
Albacore	3.6
Bigeye tuna	7.2
Yellowfin tuna	79
Billfish	35.8
Swordfish	19.8
Wahoo	16.7
Sharks	8.6
Total	**170.7**

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

Beverly Wade [1], Valerie Lanza[2]

SUMMARY

As a Member of several major RFMOs, including ICCAT, Belize has continued to maintain a compliant fleet in all the areas where our vessels operate. The majority of Belize's fishing vessels which are licensed to target tuna and tuna like species in the ICCAT area are long liners. Belize has also introduced three purse seiners in the area over the past two years. The total number of tuna long liners operating in the ICCAT Convention area has increased over the past several years, from 11 in 2006 to 12 in 2007, 14 in 2008, 20 in 2009 and is currently 26 in 2010. Belize's purse seine fleet was 3 in 2009 and has remained constant at 3 in 2010. Total catches of tuna and tuna-like species amounted to 201.52 metric tons (t) in 2006, 1676.18 t in 2007, 1431.48 t in 2008, and 1663.80 t in 2009. Yellowfin tuna continues to be the dominant catch amounting to 71% of the total catch in 2006, 69% in 2007, 81% in 2008 and 59% in 2009. The average size of Belize's vessels in 2006 and 2007 was 116 gt, 133 gt in 2008 and 359 gt in 2009. Blue shark and mako shark continue to be the most common non-tuna species in the longline fishery followed by blue marlin. The compiled data, including Task I and Task II for 2009 and the list of authorized vessels, was reported to ICCAT on 29 April 2010. Subsequent updates have also been sent to the Secretariat. Belize continues to monitor, control and surveille its high seas fishing fleet to ensure that the activities of these vessels are fully compliant with Belize's national laws and international Regulations, the FAO "Compliance Agreement", the "Fish Stocks Agreement", the "IPOA IUU" as well as the Resolutions and Recommendations adopted by ICCAT and other relevant RFMOs.

RÉSUMÉ

En sa qualité de membre de plusieurs ORGP importantes, dont l'ICCAT, le Belize n'a cessé de maintenir une flottille respectueuse dans tous les domaines où ses navires opèrent. La plupart des navires de pêche du Belize munis d'une licence pour cibler les thonidés et les espèces apparentées dans la zone de la Convention ICCAT sont des palangriers. Nous avons également introduit dans la zone trois senneurs au cours de ces deux dernières années. Le nombre total de palangriers opérant dans la zone de la Convention ICCAT a augmenté au cours de ces dernières années, passant de 11 en 2006 à 12 en 2007, puis de 14 en 2008, à 20 en 2009, pour s'établir à 26 unités en 2010. Notre flottille comptait trois senneurs en 2009 et s'est maintenue à trois unités en 2010. Nos prises totales de thons et d'espèces apparentées s'élevaient à 201,52 t en 2006, 1.676,18 t en 2007, 1.431,48 t en 2008 et 1.663,8 t en 2009, l'albacore demeurant la prise dominante, représentant 71% de la capture totale en 2006, 69% en 2007, 81% en 2008 et 59% en 2009. La taille moyenne de nos navires en 2006 et 2007 était de 116 TJB , de 133 TJB en 2008 et de 359 TJB en 2009. Le requin peau bleue et le requin taupe bleue sont toujours les espèces non-thonières les plus communes au sein de notre pêcherie palangrière, suivies du makaire bleu. Les données compilées incluant les données de la Tâche I et de la Tâche II au titre de 2009 et la liste des navires autorisés ont été déclarées à l'ICCAT le 29 avril 2010. Des actualisations ultérieures ont également été envoyées au Secrétariat. Le Belize continue de suivre, contrôler et surveiller sa flottille de pêche hauturière afin de garantir que les activités de ces navires respectent rigoureusement ses lois nationales et réglementations internationales : l'Accord d'application de la FAO, l'Accord sur les stocks de poissons, l'IPOA-IUU, ainsi que les Résolutions et Recommandations adoptées par l'ICCAT et d'autres ORGP pertinentes.

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RESUMEN

En su calidad de miembro de varias OROP, incluida ICCAT, Belice ha seguido manteniendo una flota que cumple las normas en todas las zonas en las que operan nuestros buques. La mayoría de los buques pesqueros de Belice con licencia para dirigir su actividad a los túnidos y especies afines en la zona de ICCAT son palangreros. También hemos introducido tres cerqueros en la zona en los dos últimos años. El número total de palangreros atuneros que operan en la zona de ICCAT se ha incrementado en los últimos años pasando de 11 en 2006 a 12 en 2007, 14 en 2008, 20 unidades en 2009, y actualmente (2010) contamos con 26 unidades. Nuestra flota de cerco contaba con 3 unidades en 2009 y sigue igual en 2010. Nuestras capturas totales de túnidos y especies afines ascendieron a 201,52 t en 2006, 1.676,18 t en 2007, 1.431,48 t en 2008 y 1.663,80 en 2009. El rabil sigue siendo la especie predominante, respondiendo del 71% de la captura total en 2006, del 69% en 2007, del 81% en 2008 y del 59% en 2009. El tamaño medio de nuestros buques en 2006 y 2007 fue de 116 TB, de 133 TB, en 2008 y de 359 TB en 2009. La tintorera y el marrajo siguen siendo las especies más comunes, al margen de los túnidos, en nuestra pesquería de palangre, seguidas por la aguja azul. Los datos recopilados, lo que incluye la Tarea I y Tarea II para 2009 y la lista de buques autorizados se comunicaron a ICCAT el 29 de abril de 2010. También se han enviado a la Secretaría actualizaciones posteriores. Belice sigue realizando actividades de seguimiento, control y vigilancia de su flota pesquera de altura para garantizar que las actividades de estos buques cumplen plenamente su legislación nacional, así como las regulaciones internacionales, el Acuerdo de cumplimiento de la FAO, el Acuerdo sobre poblaciones de peces, el PAI-IUU, así como las Resoluciones y Recomendaciones adoptadas por ICCAT y otras OROP pertinentes.

Part 1 (Information on Fisheries, Research and Statistics)

Section I: Annual Fisheries Information

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

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

It should be noted that all the catches remain within the quota levels set for each species in 2006, 2007, 2008 and 2009.

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

Belize's fleet in 2009 consisted of 20 vessels of > 24 meters in LOA, all of which were licensed to operate exclusively in the ICCAT Area. **Table 2** shows the number of active vessels within in the Convention area by gear and size.

1.3 Fishing Patters (catch by area)

Table 3 shows the area of operation of Belize's vessels.

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

Table 4 shows the catches of non-target, associated and dependent species in metric tons (t).

1.5 Useful information

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

Section 2: Research and Statistics

2.1 Summary of observer and port sampling programmes

For the purpose of compliance, surveillance is conducted on a regular basis or as result of an investigation by: boarding at sea, or at port, plant checks, requesting the assistance of other government organizations as necessary. Belize does not currently have an at sea Observer Program. However, as the need arise we hope to utilized that which is available by the Commission. Belize is currently working with other governments on the implementation of an at port observer program at one of the major port where Belize's vessels discharge.

2.2 Research activities

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

2.3 Statistical data collection system in use

Fishing vessels owners/operators are required to submit data on their fishing operations based on our format for such reporting, which includes a details Fishing Log and Fishing Vessel Voyage Report, discharge reports, mate's receipts, invoices, purchase agreements.

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

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

PART II (Management Implementation)

Section 3: Implementation of ICCAT Conservation and Management Measures

All Belize's fishing vessels which are operating in the ICCAT Convention area are compliant with ICCAT's Conservation and Management Measures as well as Belize's national laws and international regulations.

Recommendations and Resolutions on closed seasons

- With regard to Recommendation 06-06 Concerning the Western Atlantic Bluefin Tuna Rebuilding Program, paragraph 13, Belize does not engage in this fishery and none of its LSTLFVs have been licensed to target bluefin tuna in the Convention area.

- With regard to Recommendation 09-04 on Mediterranean swordfish, paragraph 1, Belize is not engaged in this fishery and none of its LSTLFVs have been licensed to target Mediterranean swordfish in the Convention area.

Recommendations and Resolutions on data and minimum size

- With regard to Recommendation 96-14 on the topic of compliance in the bluefin tuna and North Atlantic swordfish fisheries, paragraph 1, Belize has not licensed any vessel to target bluefin tuna in the Convention area. With respect to North Atlantic swordfish, Belize has registered and licensed two vessels to target this specie in 2009 in accordance with the quotas which have been allocated to Belize for this species.

- With regard to Recommendation 97-01 to improve compliance with the minimum size regulation, paragraph 2, during 2007 and prior years, Belize's fishing vessels are required to report size by weight. However, in 2008 the requirement was introduced for measurement by length for 25% of Belize's vessel's daily catches for each species. Also, in regard to paragraph 2 and 3, No Belizean vessel is licensed to fish bluefin tuna in the Convention area.

- With regard to Recommendation 98-14 on the application of three compliance recommendations, Belize submitted the required Reporting Table,

- With regard to Resolution 01-16 on the deadlines and procedures for data submission and in accordance with paragraph 1, Belize's Task I and Task II data, as well as its listing of vessels licensed to operate in the Convention area was submitted to the Secretariat on 29 April 2009 and the required forms were submitted to the Compliance Committee.

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

Recommendations and Resolutions on capacity limits

  - With regard to Recommendation 93-04 on supplementary regulatory measures for the anagement of Atlantic yellowfin tuna, all Belize's vessels which are currently licensed to target yellowfin tuna in the Convention area have fished within the catch limits allocated to each vessel and in compliance with this Recommendation.

- With regard to Recommendation 98-03 on the bigeye tuna conservation measures for fishing vessels larger than 24 meter overall, paragraph 1 of this Recommendation does not apply to Belize flagged vessels because in accordance with paragraph 3, Belize's catches are below 2000 t per annum.

- With regard to Recommendation 04-01 on multi-year conservation and management program for bigeye tuna, Belize caught less than 2100 t in 2000 and, consequently, in accordance with paragraph 7, paragraphs 2 and 4 of this Recommendation do not apply to Belize.

Recommendations and Resolutions on statistical documents

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

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

Recommendations and Resolutions on other measures relating to individual species

- With regard to Recommendation 06-09 to further strengthen the plan to rebuild blue marlin and white marlin populations, no Belizean vessels target these species, nor have they caught any by-catch.

- With regard to Resolution 03-10 on the sharks fishery, paragraph 2, Belize minimizes waste and discards from shark catches in accordance with Article 7.2.2(g) of the Code of Conduct for Responsible Tuna Fisheries. Furthermore, Belize only has two vessels targeting shortfin mako and blue shark. Belize has a NPOA-Shark which complies with the Standards of the FAO-IPOA.

- With regard to Resolution 03-11 on sea turtles, Belize encourages the release of marine turtles that are incidentally caught alive in its fishing activities generally and have commenced requiring specific data for the incidental by-catch of sea turtles. Belize has not received any reports in 2009 from any of its fishing vessels of any interaction with sea turtles.

- With regard to Resolution 03-04 relating to Mediterranean swordfish, Belize has not licensed any of its fishing vessels to target Mediterranean swordfish in the Convention area.

- With regard to Recommendation 05-05 concerning the conservation of sharks caught in association with fisheries managed by ICCAT, the quantity of Atlantic shortfin mako caught by Belize's vessels amounted to 70 t in 2006, to 17 t in 2007, 2 t in 2008, and 23 t in 2009. South Atlantic blue shark catches went from 423 t in 2006 to 236 t in 2007 and 109 in 2008 and 113 in 2009. However, this reduction in 2008 is due to the vessels that target these species being laid up for the better part of 2008.

- With regard to Resolution 05-08 on circle hooks, currently, no Belize vessels licensed to operate in the Convention area utilize circle hooks.

- With regard to Resolution 06-08 on fishing bluefin tuna in the Atlantic Ocean, Belize is not engaged in this fishery.

- With regard to Recommendation 07-06 on the supplemental recommendation concerning sharks, paragraph 3, Belize does not conduct any scientific research for North Atlantic shortfin mako and porbeagle shark in the Convention area, nor does it catch these species in that area.

- With regard to Recommendation 08-07 on the conservation of bigeye thresher sharks caught in association with fisheries managed by ICCAT, Belize is not engaged in this Fishery, nor does it encourage this type of fishery or by-catch of same.

Recommendations and Resolutions concerning trade sanctions

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

- Recommendation by ICCAT for bigeye tuna trade restrictive measures on Georgia is respected.

Recommendations and Resolutions concerning VMS

- With regard to Recommendation 03-14/04-11 concerning minimum standards for the establishment of a vessel monitoring system in the ICCAT Convention area, Belize wishes to re-state that it has successfully implemented and maintained VMS Reporting on all fishing vessels which operate on the high seas, irrespective of their length. This is based on Inmarsat, utilizing Inmarsat C, Inmarsat Mini C and Inmarsat D+ equipment. The provider is Polestar Space Applications Limited who utilizes an automatic, real time internet based service called Purplefinder Vessel Management Solutions. This reporting system complies with the aforementioned Recommendation.

General Recommendations and Resolutions

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

- With regard to Resolution 99-07 on improving recreational fishery statistics, this is practiced in Belize's national waters. All fishing boats engaged in such activities are obliged to respect all Belize's national fisheries regulations. The catches in any annual tournaments are reported by the organizers to the Fisheries Department. Belize is currently cooperating with OSPESCA in the production of a report on sports fishing. Also, as reported last year, Belize introduced Yachting Codes which contain guidelines for recreational fishing both in national waters and on the high seas.

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

- With regard to Recommendation 03-12 concerning the duties of flag States in relation to their vessels fishing in the ICCAT Convention area, Belize is fully compliant with the requirement in this Recommendation.

- With regard to Recommendation 03-16 to adopt additional measures against illegal, unreported and unregulated Fishing (IUU), these are contained in the Belize ISO 9001-2000 compliant Quality Management System and will be reflected in Belize's National Plan of Action for IUU.

- With regard to Recommendation 06-11establishing a program for transshipment, Belize does not currently have any LSTLVs or fishing vessels below 24 meters in length overall in the ICCAT Convention area which

wish to engage in transshipment at sea or any refrigerated cargo vessels which wish to receive such transshipment. However, Belize has implemented a program to control transshipment at sea from fishing vessels to its refrigerated carrier vessels which may apply for authorization to receive such transshipment.

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

Table 1. Annual catch and effort statistics.

Year	*Effort (hooks)*	*N. ALB*	*S. ALB*	*YFT*	*BET*	*N. SWD*	*S. SWD*	*Total*
2006	*50061*		*54.43*	*143.04*	*4.05*			*201.52*
2007	267511	21.58	31.94	1164.12	60.15	8.725	119.73	1406.62
2008	218412	26.23	31.11	1160.42	68.97	.976	31.95	1319.66
2009	272834	38.70	213.45	988.35	59.70	112.25	111.36	1523.81

Table 2. Fishing vessels authorized to operate in the ICCAT area.

Year	*Base port*	*Operation status*	*LOA Class (m)*	*GT Class (t)*	*Target species*
2006	TTO/URY	Operational	20-29 (10 vessels) 30< (1 vessel)	50-299 (10 vessels) 300 < (1 vessel)	YFT, ALB, BET, BSH, MAK
2007	TTO/URY	Operational	20-29 (11 vessels) 30 < (1 vessel)	50-299 (11 vessels) 300< (1 vessel)	YFT, ALB, BET, BSH, MAK, SWD
2008	TTO/URY	Operational	20-29 (12 vessels) 30< (2 vessels)	50-299 (12 vessels) 300 < (2 vessel)	YFT, ALB, BET, BSH, MAK, SWD
2009	TTO/URY/ESP	Operational	20-29 (14 vessels) 30< (6 vessels)	50-299 (15 vessels) 300 < (5 vessels)	YFT, ALB, BET, BSH, MAK, SWD

Table 3. Area of operation of vessels.

Year	*Quadrant*	*Latitude positions*	*Longitude positions*
2006	SW	Between 09S-15S	Between 25W-35W
2007	SW	Between 00S-25S	Between 15W-65W
	NW	Between 00N-25N	Between 15W-65W
2008	SW	Between 00S-25S	Between 20W-65W
	NW	Between 00N-25N	Between 20W-65W
2009			

Table 4. Catches of non-target, associated and dependent species in metric tons (t).

Year	*BSH*	*MAK*	*SAI*	*BUM*
2006	421.81	71.22		
2007	236.45	17.44	12.07	3.78
2008	109.03	1.600		
2009	113.82	23.08		

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

Fábio Hazin, Luis Lima and Paulo Travassos

SUMMARY

In 2009, the Brazilian tuna longline fleet consisted of 80 vessels registered in 6 different ports. Of these, 74 were national and 6 were foreign chartered vessels. The number of vessels decreased by about 16% from 2008, when 95 vessels operated. The number of chartered vessels, however, decreased by about 33%. The number of baitboats and purse seiners operating in 2009 was 37 and 5, respectively, showing decreases of about 10% and 37.5% from the previous year. The Brazilian catch of tunas and tuna-like fish, including billfish, sharks, and other species, was about 40,000 t (live weight) in 2009, representing an increase of about 11%, from 2008. The majority of the catch again was taken by baitboats, which accounted for about 60%, with skipjack tuna being the most abundant species, representing close to 95% of the baitboat catches. The total catch of the tuna longline fishery was 7,800 t in ~~2008~~ 2009, about 15% less than in 2008, with swordfish again being the most abundant species, with a total catch close to 3,100 t. Blue shark, yellowfin tuna and bigeye tunas were the three most caught species, after swordfish, accounting for about 16% (1.268 t), 13.5% (1.038 t) and 13% (1.008 t) of the total longline catches. The total catch of white marlin and blue marlin was 52 t and 149 t, respectively, being close to the same levels of 2008 (47 t and 161 t, respectively). Part of the Brazilian catches continued to result from a small-scale fishing fleet based mainly in Itaipava on the southeast coast. Although comprised of relatively small boats of about 15 m in total length, this fleet is highly mobile, operating throughout most of the Brazilian coast and targeting a variety of species with different gears, including longline, handline, troll and other surface gears. The total catch of this fleet in 2009, which targets mainly dolphin fish, was close to 6.000 t, of which about 40% were dolphinfish. Several institutions directly assisted the Ministry of Fisheries and Aquaculture (MPA) in processing and analyzing data from the Brazilian tuna fishery in 2009. Besides the catch and effort data regularly collected, in 2009 about 16,000 fish were measured at sea and at landing, including yellowfin= 782; bigeye= 1,843; albacore= 179; swordfish= 2,109; blue marlin= 102; white marlin= 42; skipjack= 9,724; and blue shark= 596, among others. In 2009, an important shark and billfish research effort, in cooperation with U.S. scientists, continued to be developed, including the collection of vertebrae, spines, stomachs and gonads, for age and growth, feeding habits and reproduction studies, as well as habitat utilization, through PSAT tags, and gear selectivity, by the use of circle hooks, hook timers, and TDRs. Research on the incidental catches of seabirds continued and was aimed mainly at monitoring by-catch and testing mitigation measures, particularly the use of different kinds of torilines. The monitoring of sea turtles by-catch in longline fisheries also continued, by the Tamar Project, including tests with the use of circle hooks and other mitigation measures to reduce the catch rates of sea turtles. In order to adequately comply with ICCAT recommendations, the Brazilian government has implemented several rules regulating the Brazilian tuna fishery, although no new regulation was introduced in 2009. It is important to note, however, that in 2009 Brazil adopted a new law on fisheries and aquaculture and raised the Secretariat of Fisheries and Aquaculture to the level of Ministry.

RÉSUMÉ

En 2009, la flottille palangrière thonière du Brésil se composait de 80 navires immatriculés dans six ports différents. Parmi ceux-ci, 74 étaient nationaux et six étaient des navires affrétés par des étrangers. Le nombre de navires a chuté d'environ 16% par rapport à 2008, lorsque 95 navires étaient en opération. Le nombre de navires affrétés, toutefois, est descendu d'environ 33%. Le nombre de canneurs et de senneurs qui opéraient en 2009 s'élevait, respectivement, à 37 et à 5 unités, soit une diminution d'environ 10% et 37,5% par rapport à l'année antérieure. En 2009, la prise brésilienne de thonidés et d'espèces apparentées, y compris les istiophoridés, les requins et d'autres espèces, s'élevait à environ 40 000 t (poids vif), ce qui représente une hausse d'environ 11% par rapport à 2008. Une fois de plus, la majorité des captures a été

réalisée par les canneurs, qui représentaient 60%, le listao étant l'espèce la plus abondante, représentant près de 95% des prises des canneurs. En 2008, la prise totale de la pêcherie palangrière de thonidés a totalisé 7.800 t, chiffre inférieur d'environ 15% à celui de 2008, l'espadon étant, une nouvelle fois, l'espèce la plus abondante, avec une prise totale proche de 3.100 t. Le requin peau-bleue, l'albacore et le thon obèse étaient les trois espèces les plus capturées après l'espadon, représentant approximativement 16% (1.268 t), 13,5% (1.038 t) et 13% (1.008 t) des prises palangrières totales. La capture totale du makaire blanc et du makaire bleu s'élevait à 52 t et 149 t, respectivement, chiffres similaires aux niveaux de 2008 (47 t et 161 t, respectivement). Une partie des prises brésiliennes provenait encore d'une petite flottille de pêche, basée principalement à Itaipava, sur la côte du Sud-Est. Bien que composée d'embarcations de taille relativement réduite, d'environ 15 m de longueur totale, cette flottille est fort mobile, opérant sur pratiquement toute la côte brésilienne et ciblant diverses espèces avec différents engins, dont la palangre, la ligne à main, la ligne traînante et d'autres engins de surface. En 2009, la prise totale de cette flottille, qui cible essentiellement la coryphène commune, s'élevait à environ 6.000 t, dont 40% était constitué de coryphène commune. En 2009, plusieurs institutions ont directement aidé le Ministère de la pêche et de l'aquaculture (MPA) à traiter et à analyser les données de la pêcherie brésilienne de thonidés. Outre les données de prise et d'effort régulièrement recueillies en 2009, environ 16.000 poissons ont été mesurés en mer et au débarquement, lesquels incluaient 782 albacores, 1.843 thons obèses, 179 germons, 2 109 espadons, 102 makaires bleus, 42 makaires blancs, 9.724 listaos et 596 requins peau bleue, entre autres. En 2009, un important programme de recherche sur les istiophoridés et les requins, mené en coopération avec des scientifiques américains, a continué à être développé, lequel incluait la collecte d'épines, de vertèbres, d'estomacs et de gonades, aux fins d'études sur l'âge, la croissance, les habitudes trophiques, la reproduction, ainsi que sur l'utilisation de l'habitat, au moyen de marques PSAT et de la sélectivité des engins, par l'utilisation d'hameçons circulaires, de minuteurs d'hameçons et de capteurs de temps et de profondeur. La recherche sur les prises accessoires d'oiseaux de mer s'est poursuivie, étant principalement axée sur le suivi des prises accessoires et le test de mesures d'atténuation, notamment l'emploi de différents types de lignes tori. Le suivi des prises accessoires de tortues marines dans les pêcheries palangrières s'est également poursuivi grâce au Projet « Tamar », lequel prévoyait des essais avec des hameçons circulaires et d'autres mesures d'atténuation visant à réduire les taux de capture des tortues marines. Afin de respecter adéquatement les recommandations de l'ICCAT, le Gouvernement brésilien a mis en œuvre plusieurs règlementations qui régissent la pêcherie thonière du Brésil, même si aucune nouvelle réglementation n'a été introduite en 2009. Il est toutefois important de noter qu'en 2009, le Brésil a adopté une nouvelle loi sur les pêcheries et l'aquaculture et a élevé le Secrétariat de la pêche et de l'aquaculture au niveau de Ministère.

RESUMEN

En 2009, la flota de palangre brasileña constaba de 80 buques registrados en 6 puertos diferentes. De estos, 74 eran nacionales y 6 eran buques extranjeros fletados. El número total de buques descendió en aproximadamente un 16% respecto a 2008, cuando había 95 buques operando. Sin embargo, el número de buques fletados experimentó un descenso de en torno al 33%. El número de buques de cebo vivo y cerqueros que operaron en 2009 fue, respectivamente, de 37 y 5, lo que supone descensos de aproximadamente el 10% y el 37,5% respecto al año anterior. La captura brasileña de túnidos y especies afines, incluyendo istiofóridos, tiburones y otras especies fue de aproximadamente 40.000 t (peso vivo) en 2009, lo que representa un aumento de en torno al 11% respecto a 2008. La mayoría de la captura la realizaron de nuevo los buques de cebo vivo, que respondieron de aproximadamente el 60%, siendo el listado la especie más abundante al representar cerca del 95% de las capturas de cebo vivo. La captura total de la pesquería de palangre de túnidos fue de 7.800 t en 2008, siendo por tanto aproximadamente un 15% menos que en 2008 y siendo de nuevo el pez espada la especie más abundante, con una captura total cercana a las 3.100 t. La tintorera, el rabil y el patudo fueron las tres especies más capturadas después del pez espada, respondiendo de aproximadamente el 16% (1,268 t), el 13,5% (1,038 t), el 13% (1,008 t) de las capturas totales de palangre. La captura total de aguja blanca y aguja azul fue, respectivamente, de 52 t y 149 t, cifra similar a los niveles de 2008 (47 t y 161 t, respectivamente). Parte de las capturas

brasileñas continúa realizándolas una flota pesquera pequeña con base principalmente en Itaipava, en la costa sureste. Aunque está compuesta de barcos relativamente pequeños de cerca de 15 m de eslora total, esta flota es muy móvil y opera en casi toda la costa de Brasil dirigiéndose a diversas especies con diversos artes, incluyendo palangre, liña de mano, curricán y otros artes de superficie. La captura total de esta flota, que se dirige principalmente al dorado, fue en 2009 de aproximadamente 6,000 t, de las cuales aproximadamente el 40% corresponden a dorado. Existen diversas instituciones que ayudaron directamente al Ministerio de Pesca y Acuicultura (MPA) a procesar y analizar los datos de la pesquería de túnidos brasileña en 2009. Además de los datos de captura y esfuerzo que recopilan regularmente, en 2009 se midieron aproximadamente 16.000 peces en el mar y durante el desembarque, e incluían; rabil = 782, patudo = 1.843, atún blanco = 179, pez espada: = 2.109, aguja azul = 102, aguja blanca = 42, listado = 9.724 y tintorera = 596, entre otros. En 2009 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 vértebras, espinas, estómagos y gónadas para estudios de reproducción, hábitos alimentarios, 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). 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 la prueba de medidas de mitigación, especialmente a través del uso de diferentes tipos de línea espantapájaros. El seguimiento de las capturas fortuitas de tortugas marinas en las pesquerías de palangre ha continuado también a través del Projeto Tamar, incluyendo pruebas con el uso de anzuelos circulares y otras medidas de mitigación para reducir las tasas de captura de las tortugas marinas. Con el fin de cumplir adecuadamente las recomendaciones de ICCAT, el Gobierno de Brasil ha implementado diversas normas que regulan la pesquería de túnidos brasileña, aunque en 2009 no se ha introducido ninguna reglamentación nueva. Es importante señalar, no obstante, que en 2009 Brasil adoptó una nueva ley sobre pesquerías y acuicultura y elevó la Secretaría de Pesca y Acuicultura al nivel de Ministerio.

Part I (Information on Fisheries, Research and Statistics)

Section 1: Annual Fisheries Information

In 2009, the Brazilian tuna longline fleet consisted of 86 vessels registered in the following ports: Rio Grande-RS (7), Itajaí-SC (14), Santos-SP (3), Recife-PE (3), and Natal-RN (19), plus 40 artisanal boats based in Itaipava-ES, which also operated with longlines and with several other gears as well. Of these 86 boats, 80 were national and 6 were foreign chartered vessels. The total number of vessels decreased by 9.5%, from 2008, when 95 vessels were operating. The number of chartered vessels, however, decreased by 33.3% from 2008, when 9 boats operated. The number of bait-boats operating in 2009 was 43, increasing slightly (4.9%) from 2008. These 43 vessels (100% national) were based in the same ports (Rio de Janeiro- RJ, Itajaí- SC, and Rio Grande- RS). In 2009, the number of purse seiner boats remained the same (8).

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 40,093.2t (live weight), in 2009 (**Table 1**), representing an increase of 11.6%, from 2008 (35,924.9 t). The majority of the catch was again taken by baitboats (23,242.5 t; 58.0%), with skipjack tuna being the most abundant species (22,328.8 t; 96.1% of the baitboat catches). With a total catch of 402.2 t, yellowfin tuna was the second dominant species in the baitboat fishery.

The total catch of the tuna longline fishery (7,801.0 t) was 15.3% less than in 2008, with swordfish being again the most abundant species (3,132.3t), accounting for 40.2% of the longline catches. Blue shark and yellowfin, accounting for 16.2% (1,267.6t) and 13.3% (1,038.6t) of the catches, respectively, were the second and the third most caught species. With a total catch of 1,008.5t, bigeye tuna was the fourth most abundant species in the Brazilian longline fishery, accounting for 12.9%.

The total catch of white marlin and blue marlin was, 52 t and 149 t, respectively, which is close to the same levels of 2008 (47 t and 161 t, respectively). Data collected from observers on board indicated live discards, in percentage of the catch, in numbers, of 17.2% for white marlin, and 36.1% for blue marlin. The catches of

sailfish, in turn, increased by 94.4% from 2008 (222.3 t), reaching 432.2 t, in 2009. This increase of catches came mainly from the small artisanal fishery targeting dolphin fish (from 150 t, in 2008, to 350 t, in 2009).

The purse seine fishing boats are based in the south coast and mainly target skipjack tuna. Their total catch in 2009 was only 405.7t, with skipjack tuna accounting for 55.1% of the total catch. These are originally sardine seiners that sporadically target tunas.

Part of the Brazilian catches resulted again from the fishing activities of small-scale fishing boats based mainly in Itaipava-ES (southeast coast). Although made of relatively small boats of about 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, trolling and other surface gears. In 2009, this fleet caught 8.214 t of fish, more than half of which was dolphinfish (4,372.2 t; 53.2%). A total of 3,842.2 t of tunas and tuna-like fish were also caught, with yellowfin tuna, skipjack and swordfish being the most frequent species, accounting for 43.3% (1,664.9 t), 19.5% (748.3 t) and 6.4% (247.7 t) of the total catch, respectively.

Section 2: Research and Statistics

Several institutions directly assisted the Ministry of Fisheries and Aquaculture (MPA) in processing and analyzing data from 2009: 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, Universidade Veiga de Almeida, Instituto de Pesca de São Paulo (São Paulo Fisheries Institute), located in the southeast, and Universidade do Vale do Itajaí (Itajaí Valley University-UNIVALI), and Fundação Universidade do Rio Grande-FURG (Rio Grande University), located in the South. These institutions, together with the Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis (Institute of the Environment and Renewable Natural Resources-IBAMA), Projeto TAMAR and Instituto Albatroz, continued to conduct several research and statistics activities on tuna and by-catch species caught by Brazilian boats.

Besides the catch and effort data regularly collected from Brazilian tuna fisheries, in 2009, a total of 15,616 fish were measured at sea and at landing. The main fish species measured were: skipjack= 9,724; swordfish= 2,109; bigeye= 1,843; yellowfin= 782; blue shark= 596; albacore= 179; sailfish= 111; blue marlin= 102; and white marlin= 42.

In 2009, an important research effort on billfishes and sharks, in cooperation with U.S., Venezuela and Uruguayan scientists, continued to be developed, including the collection of vertebrae, spines, stomachs and gonads, for age and growth, feeding habits and reproduction studies, as well as habitat utilization, through PSAT tags, and gear selectivity, by the use of circle hooks, hook timers, and TDRs.

Another important research program started in 2009 (MADE Project – Mitigating Adverse Ecological Impacts of Open Ocean Fisheries), in cooperation with EU scientists, aims at investigating spatial and technical management measures to reduce the by-catch of pelagic sharks by pelagic longliners, including habitat utilization, through PSAT tags, and gear selectivity, by the use of hook timers and TDRs. Research on tunas (yellowfin, bigeye and albacore) continued to be developed, with the financial support of the Ministry of Fisheries and Aquaculture, including some aspects of the biology of these species, such as age and growth, reproduction and feeding, as well as studies on habitat utilization, through PSAT tags, and gear selectivity, by the use of hook timers and TDRs.

Research continued on the incidental catches of seabirds and was aimed mainly at monitoring by-catch and testing mitigation measures. In nine pelagic longline cruises (122 sets and 145,246 hooks) carried out in 2009 the total seabird catch rate was 0.11 birds/ 1,000 hooks. Projeto Albatroz (Brazilian NGO), as part of Albatross Task Force Program of BirdLife International in Brazil, carried out research activities on board of Brazilian pelagic longliners. The study compares the performances of light toriline (short streamers) and emerging pelagic toriline (long streamers). The analysis was based on seabirds attack rates, aerial extension, entanglement rate and seabirds bycatch. The results suggest that the light toriline could be as effective at reducing seabird attacks on baited hook as the emerging pelagic tori line model with long streamers, and may even cover a longer area in the aft of the vessel, with an average of 95.88 ±13.03m, compared to 82.23 ± 17.09 m, respectively (ANOVA: $F= 19,95$; $p<0.0001$). Apart of this, given that 55% of recorded attacks were recorded beyond the 100m to the aft of the vessel, which in most cases was beyond the aerial coverage of the tori lines, and considering that the baited hooks were shallower than 10m at a distance of 155m from the stern, the study will be continued in 2010, with

the support of the Ministry of Fisheries and Aquaculture, associated with trials to test the effect of different weight regimes to improve the longline sinking rate.

The monitoring of sea turtle by-catch in longline fisheries is being developed since 1998. The objectives of these studies have been to obtain reliable rates of capture and to develop, at the same time, mitigation measures to reduce these catches. The Brazilian fishing ground was divided into two areas, to the north and to the south of the parallel of 20°S, according to the level of importance of endangered turtle species involved and the distribution of the fishing effort. In 2009, 29 cruises, including 794 sets and 990,881 hooks deployed, were monitored, with a total catch of 316 sea turtles being recorded. In the northern area, for an effort of 718,564 hooks in 557 sets monitored, 15 loggerheads (*Caretta caretta*), 32 leatherbacks (*Dermochelys coriacea*) and 83 olive ridley (*Lepidochelys olivacea*) were captured, while in the southern area, with 239 sets monitored and an effort of 274,945 hooks, the accidental catches were: 160 loggerheads (*Caretta caretta*), 25 leatherbacks (*Dermochelys coriacea*) and 1 olive ridley (*Lepidochelys olivacea*).

The reduction of incidental capture and post-release mortality of sea turtles in the Brazilian pelagic longline fishery, operating in the southwestern Atlantic Ocean, was also investigated by comparing the performance of 18/0 10° offset circle hooks with 9/0 J-type (control) hooks. Hook selectivity experiments were performed between 2004 and 2008, in a total of 26 trips, 229 sets and 145,828 hooks, using mackerel (*Scomber japonicus*) as bait. The results indicated a significant reduction of capture for both Loggerhead (-55%) and Leatherback (-65%) turtles with circle hooks. These results were published in 2010 (Sales, G., Giffoni, B., Fiedler, F.N., Azevedo, V.G., Kotas, J.E., Swimmer, Y., Bugoni, L. 2010. Circle hook effectiveness for the mitigation of sea turtle bycatch and capture of target species in a Brazilian pelagic longline fishery. Aquatic Conservation, Marine and Freshwater Ecosystems. 20(4): 428-436).

Part II- Management Implementation

Section 3: Implementation of ICCAT Conservation and Management Measures

In order to adequately comply with ICCAT recommendations, the Brazilian government has implemented several rules regulating Brazilian tuna fishery, as indicated below. No new regulation was, however, introduced in 2008. It is important to note, however, that in 2009 Brazil adopted a new law on fisheries and aquaculture and raised the Secretariat of Fisheries and Aquaculture to the level of Ministry.

- *Rule No. 12, of July 14, 2005, establishing:* The mandatory release of all white and blue marlins which are alive by the time of boarding; and the prohibition of sale of any white and blue marlins caught;

- *Rule No. 26, of July 19, 2005, establishing:* New procedures for filling-in and submitting fishing logbooks of the Brazilian tuna fisheries;

- *Interministerial Rule No. 02, of September 04, 2006, establishing:* The National Fishing Vessel Monitoring System (Programa de Rastreamento de Embarcações Pesqueiras por Satélite-PREPS); and

- *Rule No. 01, of September 29, 2006, establishing:* The National Onboard Fishing Fleet Observer Program (Programa Nacional de Observadores de Bordo da Frota Pesqueira-PROBORDO).

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

Species	*BB*	*HL*	*LL*	*PS*	*UN*	*TOTAL*
ALB	18.367,2	40,0	149.560,5	580,0	33.723,0	202.270,6
BET	93.203,6	69.000,0	1.008.520,9		4.641,0	1.175.365,6
BFT						
BIL			1.942,0			1.942,0
BLF	9.546,3				20,9	9.567,3
BRS						
BSH		115,0	1.267.644,3		5.748,9	1.273.508,3
BTH			16.982,2			16.982,2
BUM		580,0	74.137,9		74.337,9	149.055,9
CVX		3.843,0	546.718,9		662.220,6	1.212.782,5
DOL			24.742,7	475,0	4.374.440,2	4.399.657,9
FRI	207.144,7	20,0		106.030,0		313.194,7
KGM						
MAK			91.789,4		6.751,4	98.540,8
OCS						
OFH			106.759,6	72.414,0	26.269,4	205.443,0
RSK			133.277,9		4.370,8	137.648,7
SAI			72.185,4		359.985,1	432.170,5
SKJ	22.328.778,5	4.253,0	2.588,5	223.335,0	748.270,3	23.307.225,3
SPF						
SPN		11.156,0	72.219,7		3.395,9	86.771,6
SWO			3.132.259,8		253.349,2	3.385.609,0
TIG			9.837,1		57,4	9.894,5
TUN	183.258,4	53.083,0		883,0	3.099,3	240.323,7
WAH			19.491,8		50.512,3	70.004,1
WHM			31.745,0		20.569,9	52.314,9
YFT	402.246,0	2.340,0	1.038.611,7	2.000,0	1.867.818,7	3.313.016,4
TOTAL	**23.242.544,7**	**144.430,0**	**7.801.015,3**	**405.717,0**	**8.499.582,4**	**40.093.289,4**

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

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SUMMARY

Bluefin tuna are harvested in Canadian waters from July through December over the Scotian Shelf, in the Gulf of St. Lawrence, in the Bay of Fundy, and off Newfoundland. The adjusted Canadian quota for 2009 was 553.8. A total of 449 licensed fishermen participated in the directed bluefin fishery using rod and reel, handlines, electric harpoon and trap nets to harvest 461.9 t. An additional 65.8 t was harvested as bycatch the pelagic longline fleet in the swordfish and other tunas fishery, 2.5t was mortalities in tagging studies and dead discards of 2.9 t. Each fish harvested in the directed fishery or as an incidental by-catch 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 2009 was 1343.2 t with landings reaching 1299.7 t. The tonnage taken by longline was 1051.8 t while 247.7 t were taken by harpoon (0.3 t by-catch in gillnets). Only 52 of the 77 licensed swordfish longline fishermen were active in the 2009 fishery. The other tunas (albacore, bigeye and yellowfin) are at the northern edge of their range in Canada and are harvested from May to October. Canadian catches of these species have traditionally been a minor portion of the overall Canadian catch of large pelagic species. In 2009, other tunas accounted for approximately 8% of commercial large pelagic species landed. All commercial vessels fishing pelagic species are required to hail out their intention to fish prior to a trip and hail in harvests from sea. The Canadian Atlantic statistical systems provide real time monitoring of catch and effort for all fishing trips on pelagic species. At the completion of each fishing trip, independent and certified Dockside Monitors must be present for off-loading to weigh out the landing, and log record data must be submitted by each fisherman whether a fish is harvested on a trip or not. Canada continues to support and is active in research that improves the basic inputs and approaches of the Atlantic bluefin and swordfish stock assessments. Canadian scientists have continued their studies on: age determination for bluefin tuna and their study on the origin of bluefin tuna caught in the southern Gulf of St. Lawrence using the otolith microchemistry. Canada has recently increased its long-term funding for large pelagics research, particularly for bluefin tuna. Areas of research have included bluefin tuna movement and migrations through PSAT tagging (particularly in areas not covered by previous investigations), and post-capture survival and natal origin investigations. For swordfish, PSAT tagging studies have been conducted to augment those already completed off Georges Bank, targeting the foraging assemblage off the Grand Banks of Newfoundland. Furthermore, funds are being made available to augment staffing of the Large Pelagics Program, including the recent recruitment of a second research scientist, who will start work in early 2010.

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 2009 s'est élevé à 553,8 t. Au total, 449 pêcheurs titulaires de licences ont participé à la pêcherie dirigée sur le thon rouge en utilisant la canne et moulinet, la ligne à main, le harpon électrique et les filets de madrague, avec une capture de 461,9 t. Un volume supplémentaire de 65,8 t a été capturé accidentellement par la flottille palangrière pélagique au sein de la pêcherie d'espadon et d'autres thonidés; 2,5 t

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représentaient des mortalités dans le cadre d'études de marquage et 2,9 t correspondaient à des rejets morts. Chaque poisson, pêché dans la pêcherie dirigée ou comme prise accessoire, est marqué individuellement avec un numéro unique et chaque poisson est obligatoirement pesé sur le quai. La pêche d'espadon a lieu à partir du mois d'avril jusqu'à décembre dans les eaux canadiennes. Le quota ajusté d'espadon du Canada était de 1.343,2 t au titre de 2009, avec des débarquements atteignant 1.299,7 t. Le tonnage capturé à la palangre se chiffrait à 1.051,8 t, tandis qu'un volume de 247,7 t était capturé au harpon (0,3 t de prises accessoires dans les filets maillants). Sur les 77 pêcheurs titulaires de permis de pêche d'espadon à la palangre, seuls 52 étaient actifs en 2009. Les autres thonidés (germon, thon obèse et albacore) se trouvent à la limite septentrionale de leur aire de répartition au Canada et sont capturés de mai à octobre. Les prises canadiennes de ces espèces ont traditionnellement représenté une faible proportion de la prise globale canadienne de grands pélagiques. En 2009, les autre thonidés constituaient près de 8% des débarquements commerciaux de grands pélagiques. Tous les navires commerciaux pêchant des espèces pélagiques sont tenus d'annoncer leur intention de pêcher avant une sortie et de communiquer les captures réalisées en mer. Les systèmes statistiques atlantiques du Canada fournissent un suivi en temps réel des données de prise et d'effort pour toutes les sorties de pêche visant les espèces pélagiques. A la fin de chaque sortie de pêche, des observateurs de quai indépendants et agréés doivent être présents lors du déchargement afin de peser le poisson débarqué, et chaque pêcheur doit soumettre les données des carnets de bord, qu'un poisson ait été ou non capturé lors d'une sortie. Le Canada continue à soutenir la recherche qui améliore les données de base et les stratégies d'évaluation des stocks de thon rouge et d'espadon de l'Atlantique. Les scientifiques canadiens ont poursuivi leurs études sur la détermination de l'âge du thon rouge et sur l'origine du thon rouge capturé au sud du Golfe du St Laurent à l'aide de la microchimie des otolithes. Le Canada a récemment accru son financement à long terme en faveur de la recherche sur les grands pélagiques, notamment sur le thon rouge. Les domaines de recherche se sont portés 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), et sur la survie post-capture et l'origine natale. Pour l'espadon, les études de marquage PSAT ont été réalisées en complément de celles déjà finalisées au large de Georges Bank, en ciblant les concentrations de poissons à la recherche de nourriture au large des Grands Bancs de Newfoundland. En outre, des fonds vont être débloqués en vue d'accroître les effectifs du Programme de grands pélagiques, un deuxième chercheur ayant récemment été recruté et entrera en fonctions au début de 2010.

RESUMEN

El atún rojo se captura en Canadá desde julio hasta diciembre en la plataforma Scotian, en el Golfo de San Lorenzo, en la Bahía de Fundy y en aguas de Terranova. La cuota ajustada de Canadá para 2009 fue de 553,8 t. Un total de 449 pescadores con licencia participaron en la pesquería dirigida con caña y carrete, liña de mano, arpón eléctrico y almadrabas y capturaron 461,9 t. Además, la flota de palangre pelágico capturó 65,8 t adicionales de forma fortuita en la pesquería de pez espada y otros túnidos, a lo que hay que añadir 2,5 t debidas a mortalidades en estudios de marcado y 2,9 t de descartes de ejemplares muertos. Cada pez capturado en la pesquería dirigida o de forma incidental se marca individualmente con un número único y se tiene que pesar cada ejemplar a pie de muelle. La pesquería de pez espada en aguas canadienses tiene lugar de abril a diciembre. La cuota ajustada de pez espada canadiense para 2009 fue de 1.343,2 t, con desembarques de 1.299,7 t. Los palangreros capturaron 1.051,8 t y 247,7 t se capturaron con arpón (con una captura fortuita de 0,3 t en redes de enmalle). Sólo 52 de los 77 pescadores de palangre con licencia para el pez espada estuvieron activos en la pesquería de 2009. El resto de túnidos (atún blanco, patudo y rabil) se encuentran en el límite septentrional de su rango de distribución en Canadá y se capturan de mayo a octubre. Las capturas canadienses de estas especies han sido tradicionalmente una parte menor de la captura total canadiense de grandes pelágicos. En 2009, los otros túnidos respondieron de casi el 8% de los desembarques de grandes pelágicos comerciales. Todos los buques comerciales que pescan especies pelágicas deben notificar su intención de pescar antes de una marea y notificar cualquier captura desde el mar. Los sistemas estadísticos del Atlántico de Canadá proporcionan seguimiento en tiempo real de la captura y esfuerzo de

todas las mareas de pesca dirigidas a las especies pelágicas. Al final de cada marea, durante el desembarque, deben estar presentes los controladores a pie de muelle, independientes y certificados, para pesar los desembarques y cada pescador debe presentar los datos consignados en sus cuadernos de pesca, con independencia de que se haya producido o no captura. Canadá continúa respaldando y participa activamente en 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 continuado con sus estudios sobre determinación de la edad del atún rojo y sus estudios sobre el origen del atún rojo capturado en la parte meridional del Golfo de San Lorenzo, utilizando microquímica de otolitos. Canadá ha incrementado recientemente su financiación a largo plazo destinada a la investigación sobre grandes pelágicos, especialmente para el atún rojo. Los campos de investigación incluyen las migraciones y el movimiento del atún rojo mediante campañas de marcado PSAT (sobre todo en zonas no cubiertas por investigaciones anteriores) y la supervivencia tras la captura y origen natal. Para el pez espada, se han realizado estudios de marcado PSAT para complementar los que ya han finalizado en las aguas del Georges Bank, centrados en la agrupación trófica de las aguas de los Grandes Bancos de Terranova. Además, se han asignado fondos para incrementar los recursos de personal del programa de grandes pelágicos, lo que incluye la reciente contratación de un segundo científico de investigación, que comenzará a trabajar a comienzos de 2010.

Part I (Information on Fisheries, Research and Statistics)

Section 1: Annual Fisheries Information

1.1 Bluefin tuna

Directed bluefin tuna fisheries take place in Canadian waters from July through December over the Scotian Shelf, in the Gulf of St. Lawrence, in the Bay of Fundy, and traditionally off Newfoundland. The adjusted Canadian quota for the 2009 calendar year was 553.8 t. The Canadian nominal landings (directed and by-catch) of Atlantic bluefin tuna in 2009 were 530.2 t (**Table 1**) made up of 461.9 t in the directed fishery, 65.8 t was an incidental bycatch by the pelagic longline fleet in the swordfish and other tunas fishery, 2.5 t as mortalities in tagging studies. There were also dead discards of 2.9 t The 23.6 t shortfall from the 2009 fishery will be carried over in deriving the 2010 Canadian quota.

All traditional bluefin tuna fishing areas produced catches of tuna in 2009 (**Table 2**). The tended line fishery in the area between Georges and Browns Bank off southwest Nova Scotia known as the Hell Hole continued to be an important fishing area. The Gulf of St. Lawrence rod and reel fishery produced the largest fraction of the total Canadian landings in 2009 (263 t, or 50% of total quota caught). In 2009, the average size of bluefin in the Gulf of St. Lawrence fish weighed about 325kg and in the southwest Nova Scotia fishery 157 kg. Additional catch breakdown is shown in **Table 2**.

In 2009, 440 licensed fishermen participated in the directed bluefin fishery with rod and reel or tended line, and five fish-trap licence holders in St. Margaret's Bay used 9 bluefin tuna trapnets. One offshore longline licence was authorized to direct for other tuna with a small bluefin bycatch provision (**Table 3**). Since 2006, the pelagic longline fleet has been permitted to retain bluefin tuna incidentally harvested in their swordfish and other tunas fishery resulting in significant reductions in dead discards to nearly zero in most years. In 2009, there were a total of 2.9 t recorded by observers as dead discards.

A new management approach was implemented beginning in the 2004 fishery season, which provides each of the seven inshore fleet sectors with a specific share of the Canadian quota based on catch history. This has allowed fleets to operate independently of each other, adopting strategies to address when and how to harvest the resource. Some inshore bluefin tuna fleets have incorporated charter boat catch and release fisheries into their annual management plan. Assumed mortalities from the charter boat fishery are accounted for against the fleet's commercial quota.

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 2009 was 1348 t. Canada's adjusted quota for 2009 was 1343.2 t which includes the annual transfer of 25t from the United States to Canada to replace the 25 t reduction in the Canadian quota as a result of an allocation to accommodate Morocco into the fishery. Despite lower market prices, Canadian nominal landings in 2009 were 1299.7 t (**Table 1**), resulting in an underage of 43.5 t. The 2009 dead discard estimate was 9.3 t which will be deducted from the initial catch limit in 2011.

The Canadian tonnage taken by longline was 1051.8 t (or 81% of the catch), while 247.7 t were taken by harpoon (**Table 4**). The mean round weight of fish caught by longline and harpoon was 76 kg and 100 kg, respectively (**Table 4**). Only 52 of the 77 licensed swordfish longline fishermen were active in the 2009 fishery (**Table 4**). This number is lower than the mid-1990s when all, or nearly all, of the swordfish longline licenses were active (**Table 4**). Although a total of 962 fishermen are eligible for harpoon licenses, only 74 were active in 2009 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 harvested along the edge of the Gulf Stream and Georges Bank, the Scotian Shelf and the Grand Banks (and beyond) from May through October. Canadian catches of these species have traditionally been a minor portion of the overall Canadian catch of large pelagic species. In 2009, other tunas accounted for approximately 8% of commercial large pelagic species landed. Bigeye tuna (111.0 t) was the most important other tuna species landed, followed by yellowfin (53.4 t) and albacore (10.7 t). The mean round weight of albacore, bigeye and yellowfin tunas was 17 kg, 42 kg and 36 kg, respectively. Forty-four of the 78 licensed other tuna fishermen were active in 2009.

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

1.4 Sharks

Porbeagle is the only shark species for which there is a directed longline fishery. Historically, blue shark and shortfin mako have been a bycatch of the Canadian swordfish and groundfish longline fisheries although small amounts are also landed from other fisheries. The bycatch of blue shark is much larger than reported due to the live release of most incidental harvests and some unreported dead discards. A Management Plan for all shark species was first implemented in 1995. The current management plan for porbeagle sharks has resulted in a significant allowable catch reduction for porbeagle (to 185t) and the closure of the porbeagle mating grounds in order to facilitate stock rebuilding. Total reported landings of porbeagle sharks in the directed fishery and as a bycatch were down significantly over the previous year to a level of 62.2 t in 2009. Blue shark and shortfin mako landings in 2009, were 0.1 t and 53.1 t, respectively (**Table 1**) mainly as a by-catch in other directed pelagic fisheries.

In 2009, 19 exploratory shark fishing licences were authorized to land porbeagle and/or blue shark, with all other sharks, including shortfin mako restricted to a bycatch (**Table 3**). The swordfish fleet has adopted the practice or retaining only dead shortfin mako sharks. This reduction of porbeagle shark licences from a high of 55 licences in 2001 has been achieved mainly through the attrition of inactive licences. In addition, approximately 279 recreational shark licences were authorized in 2009, most being restricted to hook and release fishing only (**Table 3**), except when participating in a small number of approved derbies that allow for retention of catch, under strict protocols, for scientific research purposes.

Section 2: Research and Statistics

As the foundation for reliable research and stock assessments, the Canadian Atlantic statistical systems provide real time monitoring of catch and effort for all fishing trips. In 1994, an industry-funded Dockside Monitoring Program (DMP) was established in Atlantic Canada, according to Department of Fisheries and Oceans (DFO)

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

Canada has recently increased its long-term funding for large pelagics research, particularly for bluefin tuna. Areas of research have included bluefin tuna movement and migrations through PSAT tagging (particularly in areas not covered by previous investigations), and post-capture survival and natal origin investigations. For swordfish, PSAT tagging studies have been conducted to augment those already completed off Georges Bank, targeting the foraging assemblage off the Grand Banks of Newfoundland. Furthermore, funds are being made available to augment staffing of the Large Pelagics Program, including the recent recruitment of a second research scientist, who will start work in early 2010.

Canada's Sustainable Fisheries Framework forms a foundation for implementing an Ecosystem Based Management approach in the management of its fisheries. Of particular note for the ICCAT managed fisheries is the advancement of ecosystem objectives and policies related to biodiversity through a By-catch Management Project, and a workplan specifically aimed at addressing bycatch and discarding in Canadian large pelagic fisheries. The workplan includes projects aimed to both manage discards as well as control incidental mortality in large pelagics fisheries.

2.1 Bluefin tuna research

Highlights of the 2009/10 scientific research program at the Biological Station (St. Andrews) included the following activities:

1) Canada contributed to or led satellite archival tagging programs in the following regions: southern Newfoundland, Gulf of St. Lawrence and Scotian Shelf/Gulf of Maine. The number of tags deployed in 2009 was 17, 15 and 11 for the three regions, respectively. In 2010, the number of deployments increased significantly, with 10, 65, and 16 deployments for the three regions to date, and a further 30 planned for the southern Gulf of St. Lawrence. Partner organizations include the FFAW/Newfoundland and Labrador Bluefin Tuna Fleet, the Gulf Nova Scotia Fishermen's Association, and the Southwest Nova Tuna Fishermen's Association, and the University of Massachusetts and Stanford.

2) Canadian and USA scientists published results of previous bluefin tagging deployments made off southwest Nova Scotia (Galuardi et al. 2010). Among the main conclusions, it was noted that large, mature bluefin tuna of similar size tracked from the same foraging area off the southwest coast of Nova Scotia exhibited diverse dispersal patterns and occupied different ocean regions.

3) The Governments of Canada, Prince Edward Island and the Prince Edward Island Fishermen's Association have designed a program to investigate post-release survival of bluefin tuna caught in recreational fisheries. The method of study included pop-up satellite archival tags (n = 59, reported above) to determine post-release mortality, as well as measuring stress in the fish using biochemical approaches. Collaborators also include academic scientists from Acadia and Carleton Universities.

4) A three-year long program of collaboration was established between Canada and Spain to improve age determination methologies. The research will include validation studies for fin spines, archiving and documentation of methods, and examination of potential long-term changes in fish growth rate.

5) Canada continued to collaborate with USA academic researchers to describe the natal origin of fish caught in Canadian waters. The most recent publication (Schloesser et al. 2010) reinforced the earlier conclusion that fish caught in Canadian fisheries are of Gulf of Mexico natal origin, by extending the time period of the samples, as well as the number of Canadian fisheries investigated.

6) The Large Pelagics Program at the St. Andrews Biological Station hired a second research scientist (Dr. Alex Hanke), and also recruited an NSERC Visiting Fellow (two-year term, Dr. Angelia Vanderlaan). The Visiting Fellow is focusing her efforts on describing the potential impact of environmental variables on bluefin tuna catch rates in the southern Gulf of St. Lawrence.

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) 18 deployments of satellite tagged swordfish were made off southern Newfoundland in 2009, and a further 7 deployed in 2010.

3) In collaboration with scientists from NMFS (Miami) and the South Carolina Department of Natural Resources, Canada pooled existing PSAT covering deployments along the eastern coast of North America with the objective of obtaining a more comprehensive understanding of swordfish movement and migrations. Data from the three laboratories are now being analyzed in a consistent fashion,

4) A Ph.D. student at Memorial University of Newfoundland and Labrador is in the fourth year of her dissertation research, examining patterns of by-catch in the Canadian pelagic longline fishery. Some of her recent findings on the hooking mortality of different species have been published in the journal Biological Conservation (Carruthers et al. 2009).

5) Increased observer coverage in 2009 will be used to compare the precision of discard estimates in relation to increased coverage levels .

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 2009:

1) A new stock assessment for porbeagle was completed and presented to a joint meeting of ICCAT and ICES in 2009. The assessment was accepted as the current perspective on porbeagle stock status in the northwest Atlantic.

2) Stock updates presenting GLM-based CPUE abundance indices for blue sharks and shortfin mako in Canadian waters were presented to ICCAT.

3) Additional PAT tags were applied to mature porbeagles in an effort to locate the birth grounds and to estimate the proportion of sharks which migrate into international waters. Results from 21 tagged porbeagles indicate that all mature females from eastern Canada migrate south to the Sargasso Sea to give birth, returning to Canadian waters several months later (Campana et al. 2010).

4) Completed a second fishery-independent survey of porbeagle sharks in Atlantic Canada. The survey used standardized fishing methods and onboard scientists to sample 50 stations over a grid survey encompassing the entire stock range of porbeagle in Canadian waters. The results will be used as a baseline for monitoring population recovery.

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

6) A Canadian shark tagging program was continued to further involve recreational shark derby participants in shark research and conservation. Tag recaptures will be used to estimate derby exploitation rates on an annual basis. Ongoing monitoring of shark derby catch rates will be used as an index of blue shark

availability in Canadian waters, although it does not appear to be valid as an indicator of overall population abundance.

2.4 Precautionary Approach

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

Part II (Management Implementation)

Section 3: Implementation of ICCAT Conservation and Management Measures

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

3.1 Catch limits and minimum sizes

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 2009 quota was set at 553.8 t (see 1.1 above), and no person shall have in their possession any bluefin weighing less than 30 kg. In addition, Canada has limited entry into the fishery; and restrictions on the amount and type of gear used, vessel replacement, management fishing areas, and licence transfer requirements. A multi-year management plan for bluefin tuna was last published in 2007 and continues to be in force.

3.1.2 Swordfish

Canada has implemented the ICCAT regulatory recommendations that apply to swordfish in the Canadian Atlantic Integrated Swordfish Management Plan. The 2009 adjusted quota was set at 1343.2 t (see 1.2 above), and there continued to be a prohibition on the taking and landing of swordfish less than 25 kg in round weight, and/or less than 125 cm LJFL (with 15% tolerance). In 2002, a restructuring of the fleet, through the implementation of individual transferable quotas gave more control in managing the quota. From 1998 - 2009, landings of fish <119 cm LJFL were reduced to as close to zero as possible.

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 2009. A multi-year management plan for both swordfish and other tunas was last published in 2005 and continues to be in force. Fishing effort is restricted by limiting entry into the directed fishery to vessels having a swordfish/other tunas longline licence and to one offshore vessel with an other tuna longline licence. No person shall have in their possession any bigeye or yellowfin weighing less than 3.2 kg.

3.2 Closed seasons

Swordfish**.** In addition to the ICCAT regulatory recommendations, Canada has limited entry into the fishery, strict bycatch provisions, time-area closures to minimize 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 independent Observer Program in place since 1977. Observers collect biological data, and monitor compliance with fishing regulations. In 2009, as part of the Bycatch Management Project the observer coverage level was increased by 5% to approximately 10% (by sea days fished) on the pelagic longline fleet fishing for swordfish and other tunas. Data from the Observer Program are used to estimate dead discards, and document incidental catch of non-target species.

3.4 Vessel monitoring

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

3.5 Inspection schemes and activities.

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

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

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

3.7 Other recommendations

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

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

Section 4: Inspection Schemes and Activities

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

In addition to the Dockside Monitoring Program to ensure complete coverage of the catch and effort of the Canadian fleet (see Section 2. above), aerial and vessel surveillance are also used to monitor the fleet's at-sea. Shore-based patrols monitor routine landings, watch for illegal landings and conduct airport and border surveillance. There were no significant compliance issues in any of the Canadian fisheries covered by ICCAT in 2009. Observer coverage is used periodically to monitor specific important management questions in the commercial fishery. Test fisheries are also used to define areas and times to minimize the catch/bycatch of restricted species or undersized targeted species.

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Table 1. Canadian landings (tonnes round weight) of large pelagic fish species, 2000-2009.

Species	*2000*	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*	*2009*
Swordfish	1118.5	967.8	1078.9	959.3	1284.9	1203.3	1557.9	1403.6	1334.0	1299.7
Bluefin tuna	576.1	549.1	523.7	603.7	556.6	536.9	599.7	732.9	574.8	*530.2
Albacore tuna	38.8	121.7	51.0	112.7	55.7	27.1	52.1	27.3	33.4	10.7
Bigeye tuna	262.8	327.0	241.2	279.3	181.6	143.1	186.6	196.1	130.2	111.0
Yellowfin tuna	21.8	105.2	125.3	70.4	72.7	303.5	239.5	292.9	167.9	53.4
Unspec. tuna	0.0	0.5	0	.1	0.4	0.2	1.3	0.0	0.1	0.0
Blue shark	53.5	18.4	0.4	5.1	6.0	0.3	11.4	4.4	0.2	0.1
Shortfin mako	70.4	77.8	69.3	78.2	73.3	79.5	90.9	71.4	42.8	53.2
Porbeagle	958.2	902.3	498.6	236.6	142.4	231.5	202.2	192.2	123.9	62.4
Unspec. sharks	17.6	10.7	19.7	21.1	13.4	11.3	14.7	8.3	5.8	4.6
Marlin[1]	4.8	5.3	3.2	2.1	1.4	1.7	4.7	3.1	2.6	0.6

[1] Prior to 2002, marlin catches were reported as white marlin, although the ability to distinguish between white and blue marlin is not clear. This has been addressed for 2002 and in subsequent years.
* Landings only, does not include 2.9 t of dead discards.

Table 2. Canadian bluefin tuna landings and discards (tonnes round weight) by fishing area, 1999-2009.

Bluefin fishing area											
(west to east)	*1999*	*2000*	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*	*2009*
Southwest Nova Scotia	357	221	290	280	310	281	272	351	174	231	234
Northeast Nova Scotia	26	7	25	35	7	11	21	45	60	65	13
Gulf of St. Lawrence	164	236	149	205	192	239	251	312	226	263	263
Newfoundland	10	71	51	68	33	5	26	11	14	0	9
Offshore	18	13	7	16	14	0.5	30	14	17	16	11
Year-end adj [1]	1	1	<1	<1	<1	-	<1	<1	<1		
Total landings	**576.1**	**549.1**	**523.7**	**603.6**	**556.6**	**536.9**	**599.7**	**732.9**	**491.7**	**574.8**	**530.2**
Dead discards [2]	10.7	46	13.2	36.9	14	14.6	0	2	0.72	1.2	2.9*
Canadian quota	*577.7*	*569.5*	*553*	*594.7*	*580*	*645.9*	*731.8*	*755.1*	*571.4*	*626.2*	*553.8*

[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; 1998-2010 estimate for entire fishery based on Observer coverage (Porter, et al 2000).
* Observed discards.

Table 3. Distribution of tuna, swordfish longline and shark fishing licences by region and species[1] in 2009.

Region	*Number of licences*[1]							
	Bluefin		*Swordfish (LL)*		*Other tuna (LL)*[4]		*Sharks*	
	Total	*Active*	*Total*	*Active*	*Total*	*Active*	*Explor.*	*Rec.*
Gulf	602	353	0	0	0	0	10	34
Newfoundland	54[3]	13	2	1	2	1	0	59
Scotia-Fundy	42	43	75	52	76	44	9	186
St. Margaret's Bay[2]	24	9	-	-	-	-	-	-
Quebec	54	31	0	0	0	0	0	0
Total	777	449	77	53	78	45	19	279

[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 1998-2009 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.

	1998	*1999*	*2000*	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*	*2009*
Number of vessels landing fish												
Longline	49	53	61	63	46	44	45	48	51	55	53	52
Harpoon	109	66	92	84	71	89	86	86	78	76	75	74
Landings (t)												
Longline	875	1101	873	957.6	922	1138[3]	1116	1365.0	1200.3	998.8	1076.1	1051.8
Harpoon[1]	240	18	95	121.3	38	147	87	192.9	203.3	267.4	257.9	247.7
Total	1115	1119	968	1078.9	959	1285	1203	1557.9	1403.6	1266.2	1334.0	1299.7
Discards (t)[2]	51.7	34.6	49.9	26.4	32.7	78.6	44.8	106.3	38.0	60.8	38.7	9.3
Average weight (kg)												
Longline	61	56	58	69	72	63	70	69	74	75	73	76
(# sampled)	(13447)	(19630)	(12991)	(13611)	(12859)	(17298)	(15368)	(20333)	(15541)	(14246)	(11648)	12473
Harpoon	126	109	111	102	117	108	121	117	108	102	106	100
(# sampled)	(1911)	(147)	(830)	(1287)	(413)	(1364)	(658)	(1646)	(2275)	(2327)	(2757)	(2074)
% small fish by number landed[3]												
<125 cm	3	3	3	2	<1	2	<<1	<<1	<<1	<<1	<<1	<<1
<119 cm	<1	<<1	<<1	<1	<<1	<1	<<1	<<1	<<1	<<1	<<1	<<1
% of catch sampled	95	100	100	100	100	100	100	100	100	96	86	89

[1] Harpoon landings include landings by the pelagic longline licence holders using harpoon gear.
[2] Discarded dead from swordfish longline fishery: no estimates prior to 1997; 1997 actual tonnage observed by at-sea observers; 1998-2008 estimate for entire fishery based on observer coverage (Porter, et al 2000).
[3] Minimum size under regulation 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 Marques da Silva Monteiro

SUMMARY

In 2009, the Cape Verde industrial and semi-industrial tuna fleet was comprised of about 70 operational vessels. The total catch amounted to 10,583 tons (t), caught mainly with purse seine and pole and line in the industrial fishery or semi-industrial fishery and with hand line in artisanal fishing. A marked declining trend is noted as compared to the previous year. There are no fishing activities targeting sharks, but due to the fragility of our surveillance, sharks are often part of the by-catches of the foreign longline fleet that fishes in the Cape Verde EEZ. The sport fishery has been the object of a reasonable demand but there is still no clear, detailed regulation on this matter. Billfishes are caught in Cape Verde waters, mainly by EU vessels and in the sport fishery. The licensed foreign fleet fishes in the Cape Verde EEZ based on fishing agreements or contracts. These vessels mostly pertain to the European Union and Asian countries. The objective of the research is to make recommendations for the optimal and sustainable exploitation of the aquatic living resources, in order to achieve the economic and social objectives established in the policy on development. Research on fishing and the environment and socio-economic studies are therefore of considerable importance for the development of fishing. Cape Verde submits information related to catches and thus contributes to the updating of statistics and the ICCAT stock assessments.

RÉSUMÉ

En 2009, la flottille thonière industrielle et semi-industrielle du Cap-Vert était composée d'environ 70 embarcations opérationnelles. La capture totale a été de 10.583 t péchées principalement à la senne et à la ligne/canne dans la pêche industrielle ou semi-industrielle et à la ligne à main dans la pêche artisanale. On constate une tendance à la baisse par rapport à l'année précédente. Il n'y a pas d'activité de pêche ciblée sur les requins, mais en raison de la fragilité de notre surveillance, les requins font souvent partie des prises accessoires de la pêche à la palangre de la flotte étrangère qui opère dans notre ZEE. La pêche sportive a fait l'objet d'une demande raisonnable, mais malheureusement il n'existe pas encore de réglementation claire et détaillée sur cette question. Les istiophoridés sont capturés dans les eaux du Cap-Vert, principalement par des navires de l'UE et dans le cadre de la pêche sportive. La flotte étrangère munie de licence opère dans la ZEE du Cap-Vert, sur la base d'accords ou de contrats de pêche. Les navires appartiennent surtout aux pays de l'Union européenne et aux pays asiatiques. L'objectif de la recherche est de faire des recommandations pour l'exploitation optimale et durable des ressources aquatiques vivantes, en vue de la réalisation des objectifs économiques et sociaux établis dans la politique de développement. La recherche halieutique et de l'environnement et les études socio-économiques sont donc un instrument de grande importance pour le développement de la pêche. Le Cap-Vert envoie les informations relatives aux captures, contribuant ainsi à la mise à jour des statistiques et des évaluations des stocks de l'ICCAT.

RESUMEN

En 2009, la flota atunera industrial y semi-industrial de Cabo Verde se componía de aproximadamente 70 embarcaciones operativas. La captura total fue de 10.583 toneladas, capturadas principalmente con cerco y caña-liña en la pesca industrial y con liña de mano en la pesca artesanal. Cabe señalar una tendencia descendente respecto al año precedente. No existen actividades pesqueras dirigidas a los tiburones, pero debido a la fragilidad de nuestra vigilancia, los tiburones son a menudo parte de las capturas fortuitas de la pesca con palangre de la flota extranjera que opera en nuestra ZEE. La pesca deportiva ha sido objeto de una

demanda razonable pero, lamentablemente, no existe aún una reglamentación clara y detallada sobre este asunto. Los istiofóridos son capturados en aguas de Cabo Verde principalmente por buques de la UE y en la pesquería deportiva. La flota extranjera con licencia opera en la ZEE de Cabo Verde en base a acuerdos o contratos de pesca. Los buques pertenecen sobre todo a países de la Unión Europea y a países asiáticos. El objetivo de la investigación es formular recomendaciones para la explotación óptima y sostenible de los recursos acuáticos vivos, con el fin de lograr los objetivos económicos y sociales establecidos en la política de desarrollo. La investigación pesquera y del medio ambiente, así como los estudios socioeconómicos son, por tanto, un instrumento de gran importancia para el desarrollo de la pesca. Cabo Verde presenta la información relativa a las capturas contribuyendo así a la actualización de las estadísticas y de las evaluaciones de stock de ICCAT.

1ère 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 1020 km et une vaste zone économique exclusive - ZEE (734.265 km^2), ce qui est favorable au développement de la pêche.

La pêche aux thonidés est une des plus anciennes au Cap Vert, avec une grande importance socio-économique.

La capture totale en 2009 a été de 10.583 tonnes, péchées principalement à la senne dans la pêche industrielle ou semi-industrielle et à la ligne à main dans la pêche artisanale.

Il n'y a pas d'activités de pêche ciblée sur les requins, mais en raison de la fragilité de notre surveillance, les requins font souvent partie des prises accessoires de la pêche à la palangre de la flotte étrangère qui opère dans notre ZEE.

La pêche sportive est en développement d'une façon désordonnée en raison des lacunes dans la législation. Le pays a besoin d'une réglementation claire et détaillée sur cette question.

Le problème du retard des Bulletins statistiques des pêches et de la publication des données en retard devient presque résolu.

Chapitre 1 : Information annuelle sur les pêcheries

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

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

1.1 Captures

Les données de capture de thon et des espèces similaires en 2009 ne sont pas définitives et sont estimées en 10.583 tonnes (**Figure 1**). Il s'agit d'une remarquable tendance à la baisse, par rapport à l'année précédente (17.649 tonnes).

Les istiophoridés sont capturés dans les eaux du Cap-Vert principalement par des navires de l'UE et la pêche sportive. Les requins sont toujours présents dans les déclarations de la flotte étrangère, qui continuent à pêcher une quantité raisonnable de requin comme prise accessoire.

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

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

1.2 Flotte et engins

La flotte du Cap-Vert, selon le dernier recensement de 2005, est composée de :

- 766 barques avec des hors-bord
- 270 barques sans moteur
- Une moyenne de 3 pêcheurs par bateau
- Environ 70 embarcations plus grandes avec un moteur intérieur et une moyenne de 12 pêcheurs/unité (2009).

Les ressources sont exploitées par la flotte artisanale, des bateaux, et la flotte industrielle et semi industrielle, de plus grandes embarcations.

Les engins de pêche plus utilisés sont la seine, ligne à main, hameçon et canne et palangre.

Le nombre de pêcheurs a tendance à diminuer et l'on a recensé, en 2005, 3.108 pêcheurs.

1.3 Flotte étrangère

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

Les demandes de licence des navires étrangers indiquent généralement comme espèces cibles les thons, mais les principales espèces pêchées continuent à être des requins, le thon obèse, l'espadon et l'albacore. Les palangriers asiatiques pêchent essentiellement l'albacore et le thon obèse.

Seules quelques embarcations de l'Union européenne, déclarent les captures effectuées.

Chapitre 2 : Recherche et statistiques

L'objectif de la recherche est de faire des recommandations pour l'exploitation optimale et durable des ressources aquatiques vivantes, en vue de la réalisation des objectifs économiques et sociaux établis dans la politique de développement. La recherche halieutique et de l'environnement et les études socio-économiques sont donc un instrument de grande importance pour le développement de la pêche.

La responsabilité de toutes les questions relatives aux espèces de grands migrateurs au Cap-Vert incombe à la Direction Générale de la Pêche et l'Institut National de Développement de la Pêche, les deux appartenant au Ministère de l'Environnement, Développement rural et ressources marins (MADRRM). La collecte des données statistiques est faite dans les ports de débarquement et sur les marchés par les enquêteurs de l'INDP, suivie de la digitalisation, du traitement et de l'analyse. Les prélèvements sont réalisés à la taille pour toutes les espèces de thonidés et autres, péchés au Cap-Vert.

Le Bulletin statistique est une activité annuelle, mais avec un certain retard ces dernières années.

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

2ème Partie (Mise en œuvre de la gestion)

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

Pour la mise en place des recommandations de l'ICCAT, le gouvernement du Cap-Vert, à travers le Plan de Gestion des Pêches, actualisé en 2009, a suspendu l'interdiction de capture d'exemplaires d'albacore et de thon obèse de moins de 3,2 kg et a maintenu l'exclusivité de la zone à l'intérieur des 3 milles nautiques pour l'activité de pêche artisanale et l'interdiction à la flotte étrangère de toute activité de pêche à l'intérieur des 12 milles nautiques.

Pour les requins, il est interdit, dans la ZEE du Cap-Vert, de pratiquer leur pêche à des fins exclusivement de commercialisation des nageoires.

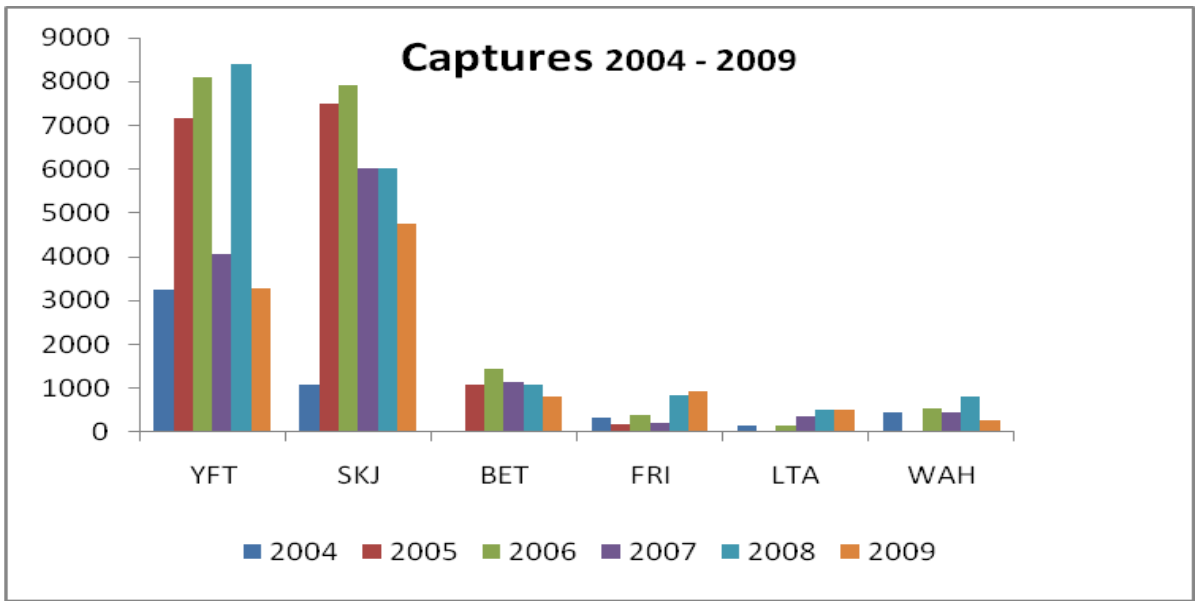

Figure 1. Données de capture provisoires 2004-2009 (Source : INDP et Calvo Pesca).

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

Song Liming, Li Yunkai, Zhang Xinfeng[1]

SUMMARY

Longline is the only fishing gear used by the Chinese fishing fleet to fish tunas in the Atlantic Ocean. Twenty-six (26) Chinese tuna longliners operated in 2009, with a total catch of 6,357.5 t including tuna, tuna-like species and sharks (in round weight), 938.8 t less than that of 2008 (7,296.3 t). The target species were bigeye tuna and bluefin tuna, of which catches amounted to 4,973 t and 41.7 t, in 2009, respectively. Bigeye tuna was the major target species in Chinese catch, accounting for 78.2% of the total, however, it was 713 t lower than that of 2008 (5,686 t). Yellowfin tuna, swordfish and albacore were taken as bycatch. The catch of yellowfin tuna decreased from 649 t in 2008 to 462 t in 2009. The catch of swordfish was 383 t, with a decrease from the previous year (562 t in 2008). The catch of albacore was 116 t, which represented a 136.7% increase 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 PRC. PRC has carried out a national scientific observer program for the tuna fishery in ICCAT waters since 2001. One observer has been dispatched on board one Chinese Atlantic tuna longline fishing vessel covering the area of 6°13'N~14°15'N, 30°51'W~35°36'W since November 2009. Data on target species and non-target species (sharks, sea turtles, especially) were collected during the observation. In terms of implementation of the relevant ICCAT conservation and management measures, the BOF requires all fishing companies operating in the Atlantic Ocean to report their fisheries data on a monthly basis to the Branch of Distant Water Fisheries of China Fisheries Association and the Tuna Technical Working Group in order to comply with the catch limits. The BOF has established a fishing vessel management system, including the issuance of licenses to all the approved Chinese fishing vessels operating on the high seas of world oceans. The Chinese high seas tuna fishing fleet has been required to be equipped with a VMS system since October 1, 2006. BOF has strictly followed the National Observer Program and the ICCAT Regional Observer Program for transshipment at sea.

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 chinois opérant en 2009 s'élevait à 26, avec une prise totale de 6.357,5 t comprenant des thonidés, des espèces apparentées et des requins (en poids vif), soit 938,8 t de moins qu'en 2008 (7.296,3 t). Le thon obèse et le thon rouge sont les espèces cibles, leurs prises ayant atteint respectivement 4.973 t et 41,7 t en 2009. Le thon obèse était la principale espèce cible dans la prise chinoise, représentant 78,2% du total ; or, ce chiffre était inférieur de 713 t à celui de 2008 (5.686 t). L'albacore, l'espadon et le germon ont été capturés en tant que prise accessoire. La prise d'albacore a diminué, étant ramenée de 649 t en 2008 à 462 t en 2009. La prise d'espadon s'est située à 383 t, soit une diminution par rapport à l'année précédente (562 t en 2008). La prise de germon s'est élevée à 116 t, soit une augmentation de 136,7% 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 République populaire de Chine mène un programme national d'observateurs scientifiques pour la pêcherie de thonidés dans les eaux relevant de l'ICCAT depuis 2001. Depuis novembre 2009, un observateur est embarqué à bord d'un palangrier chinois ciblant les thonidés dans l'Atlantique et opérant dans une zone comprise entre 6°13'N~14°15'N et 30°51'W~35°36'W.

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L'observateur a collecté des 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, opérant en haute mer dans les océans du monde. La flottille de pêche chinoise ciblant les thonidés en haute mer est tenue d'être équipée d'un système de VMS depuis le 1er octobre 2006. Le BOF effectue un suivi rigoureux du Programme national d'observateurs et du Programme régional d'observateurs ICCAT pour les transbordements en mer.

RESUMEN

El palangre es el único arte de pesca utilizado por la flota pesquera china para pescar túnidos en el océano Atlántico. Veintiséis (26) palangreros atuneros chinos operaron en 2009, con una captura total de 6.357,5 t, lo que incluye túnidos y especies afines y tiburones (en peso vivo), captura 938,8 t inferior a la de 2008 (7.296,3 t). Las especies objetivo fueron patudo y atún rojo, cuyas capturas ascendieron a 4.973 t y 41,7 t, en 2009, respectivamente. El patudo fue la especie objetivo principal en la captura china, y respondió del 78,2% del total, sin embargo se produjo un descenso de 713 t en la captura con respecto a 2008 (5.686 t) El rabil, pez espada y atún blanco se capturaron de forma fortuita. La captura de rabil descendió pasando de 649 t en 2008 a 462 t en 2009. La captura de pez espada se situó en 383 t, lo que supone un descenso con respecto al año anterior (562 t en 2008). La captura de atún blanco se situó en 116 t, lo que supone un aumento del 136,7% 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. China ha desarrollado un programa de observadores científicos nacionales para las pesquerías de túnidos en las aguas de ICCAT desde 2001. Se embarcó un observador en un palangrero chino en el Atlántico que cubrió la zona situada entre 6°13'N~14°15'N, 30°51'W~35°36'W desde noviembre 2009. Durante la observación se recopilaron datos de 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 empresas 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 aguas distantes tiene que estar equipada con VMS desde el 1 de octubre de 2006. El BOF ha cumplido estrictamente el programa nacional de observadores y el programa regional de observadores para el transbordo en el mar.

Part I (Information on Fisheries, Research and Statistics)

Section 1: Annual Fisheries Information

1.1 General overview

Longline is the only fishing gear used by Chinese tuna fishing fleet to fish tunas in the Atlantic Ocean. In 2009, 26 tuna longliners operated and caught 6,357.5 t of tunas and tuna-like species in total, 938.8 t less than that of 2008. The target species were bigeye tuna, and bluefin tuna. Yellowfin tuna, swordfish, and albacore were taken as the bycatch species. The CPUE of bigeye tuna or yellowfin tuna didn't change much from the previous year. The highest CPUE of the two species occurred in the 1st quarter (**Figures 1, 3**). The lowest CPUE of bigeye tuna occurred in the 3rd quarter in 2004, 2006, 2007, 2008, and 2009, and in the 4th quarter in 2005, respectively

(**Figures 1, 3**). The lowest CPUE of yellowfin tuna occurred in the 3rd quarter in 2004, 2005, and 2006, in the 4th quarter in 2007 and 2009, and in the 2nd quarter in 2008, respectively (**Figures 1, 3**). It was indicated that the CPUEs of bigeye tuna and yellowfin tuna in 2004 were the highest in the last six years (**Figure 1**). In 2004, the highest fishing effort was observed in December and lowest in July (**Figure 2**). In 2005, the highest fishing effort occurred in the 4th quarter (**Figure 2**), while the highest one showed in the 1st quarter of 2006, 2007, 2008, and 2009 (**Figures 2, 4**). The fishing effort was found to be the lowest in the 3rd quarter in 2004, 2007, 2008, and 2009 (**Figures 2, 4**). In addition, the fishing effort in 2008 was the lowest one in the last 5 years and it increased in 2009 (**Figure 2**).The fishing gear used was deep water longline, with 17-19 hooks per basket. The branch line was 49-53 m long. The length of the main line between the two branch lines was 46-51 m. **Table 1** shows the species composition of the catch in total Atlantic since 2002. The ICCAT Catch Reporting Tables of China in 2009 were submitted to the Secretariat.

1.2 Albacore

Albacore were caught as bycatch by the Chinese fleet in the Atlantic Ocean. The total albacore catch in 2009 was estimated to be around 116 t, a 136.7% increase from the previous year (49 t); of which 27 t were caught in the North Atlantic Ocean and 89 t in the South Atlantic Ocean.

1.3 Bluefin tuna

The total catch of bluefin tuna by the Chinese longline fleet was 41.7 t in the East Atlantic Ocean in 2009, with a decrease from the previous year (119 t in 2008).

1.4 Tropical tunas

Tropical tuna in the statistics included bigeye tuna and yellowfin tuna in the Atlantic Ocean. The total catch of bigeye tuna in 2009 amounted to 4,973 t, which was lower than that of 2008 (5,686 t) by 12.5%, while the catch of yellowfin tuna was 462 t, lower than that of 2008 (649 t) by 28.8 %.

1.5 Swordfish

The total catch of swordfish in 2009 was 383 t with a decrease from the previous year (562 t in 2008). Of this amount, 92 t were caught in the North Atlantic Ocean and 291 t were caught in the South Atlantic Ocean.

1.6 Sharks

The total catch of blue shark and shortfin mako in 2009 amounted to 197 t and 43 t, respectively. The data were submitted to ICCAT for the third time in compliance with ICCAT resolution.

Section 2: Research and Statistics

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

The BOF required that all the fishing companies operating in the Atlantic Ocean must report their fisheries data on a monthly basis to the Distant Water Fisheries Branch of China Fisheries Association (DWFB-CFA) and the TTWG in Shanghai Ocean University in order to comply with the catch limits. BOF also required fishing companies to report incidental catch of sea turtles and sea birds if their fishing boats happened to catch them and encouraged scientists to conduct research on the mitigation methods to reduce the incidental catch of sea turtles, sea birds and sharks. A pilot logbook data submission system was initiated in IOTC waters four years ago. Detailed information of the catch and fishing effort has been collected. In 2009, BOF required that all fishing boats should fill in the logbook and take the implementation of a logbook system by the fishing vessels or company into consideration as one of the main conditions for renewing the fishing permits and licenses.

The BOF stressed improvement of the data report system, and the submission of fisheries statistics to regional tuna fisheries management organizations as required. During the east bluefin tuna fishing season in 2010, the vessels will directly report its position to ICCAT Secretariat via VMS. The vessels will also report the catch data, and the tag recorded information of the east bluefin tuna to ICCAT secretariat, weekly.

Part II (Management Implementation)

Section 3: Implementation of ICCAT Conservation and Management Measures

3.1 Catch quota and minimum size limit

In order to comply with the catch limits on bigeye tuna, eastern bluefin tuna, northern and southern swordfish, blue marlin and white marlin, adopted by ICCAT, the catch limits were allocated to the relevant fishing companies as well as the fishing vessels by DWFB-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 DWFB-CFA and the Tuna Technical Working Group in Shanghai Ocean University. 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 2009 did not exceed the quota adopted by ICCAT. The Chinese tuna fleet had strictly followed the minimum size criteria established by ICCAT for conservation and protection of juvenile tunas.

3.2 Tuna Statistical Document Program

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

3.3 Fishing vessel management

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

The main measures taken include:

- Implementation of a fishing license system

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

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

The Tuna Technical Working Group in Shanghai Ocean University has been in charge of the national tuna scientific observer program in the Pacific, Atlantic, and Indian Ocean, 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 of Shanghai Ocean University majoring in marine fisheries science and technology, and marine fisheries resources have been chosen as the candidates for the tuna scientific observers.

A national scientific observer has been dispatched on board one Chinese Atlantic tuna longline fishing fleets since November, 2009. The observer had worked on board the fishing vessel for two months. The area covered was 6°13′N-14°15′N, 30°51′W-35°36′W. The data of target species and non-target species (sharks, sea turtles, especially) were collected during the observation. During the east bluefin tuna fishing season in 2010, two observers, Mr. Fang Chen and Mr. Han Xiaole were on board of two fishing vessels.

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 DWFB-CFA. The BOF has strictly followed ICCAT observer program. The BOF ensured that the transshipped quantities were consistent with the reported catch in the ICCAT transshipment declaration and validated the Statistical Documents for the transshipped fish. After confirming, the transshipment was conducted in accordance with the recommendation. This confirmation was based on the information obtained by the ICCAT Observer Program.

Section 4: Inspection Schemes and Activities

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

4.1 Import and export trade monitoring

Since July 1, 2010, the General Administration of Customs of the People's Republic of China and Ministry of Agriculture jointly monitor imported and exported catch of bigeye tuna, bluefin tuna and swordfish, which is an important trade measure for conservation and management of global tuna.

Section 5: Other activities

5.1 Sea turtles and Sea birds mortality monitoring and mitigation measures

Scientific observers are in charge of collecting the incidental catch of sea turtles and sea birds. The government requests all fishing companies to report information about the incidental catch of sea turtles and sea birds mortality if there is any to Shanghai Ocean University.

The Government and the Distant Water Fisheries Branch of China Fisheries Association has also required fishing companies implement bycatch mitigation measures such as application of the circle hook in the longline fishing gear. Shanghai Ocean University continues to conduct some mitigation measures, including avoiding marine mammal predation, circle hook efficiency etc.

With the assistance of Distant Water Fisheries Branch of China Fisheries Association, all the longliners have been equipped with de-hooker device to mitigate sea-turtle mortality since 2009.

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Table 1. Catch of tunas and tuna-like species (in round weight, t), 2002-2009.

Species	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*	*2009*
Bluefin tuna	39.1	19.3	41.0	23.7	42	72	119	41.7
Yellowfin tuna	696.7	1,049.7	1,305.2	1,185.5	1,085	1,124	649	462
Bigeye tuna	5,839.5	7,889.7	6,555.3	6,200.2	7,200	7,399	5,686	4973
Swordfish	513.2	669.1	333.6	199.2	372	558	562	383
Albacore	225.7	181.6	144.3	206.5	302	94	49	116
Blue Shark	----	----	----	----	----	943	149	197
Short mako	----	----	----	----	----	157.3	21	43
Blue marlin	87.8	88.5	58.4	96.3	99	65	12.7	77
White marlin	22.8	7.6	6.5	8.6	5.6	9.9	4.5	8.5
Sailfish	11.7	4.7	4.5	7.8	16	8.1	1.5	6.3
Other	590.3	137.4	173.1	1040.9	785	406	42.6	50
Total	**8,026.8**	**10,048**	**8,621.7**	**8,968.7**	**9,906.6**	**10,836.3**	**7,296.3**	**6,357.5**

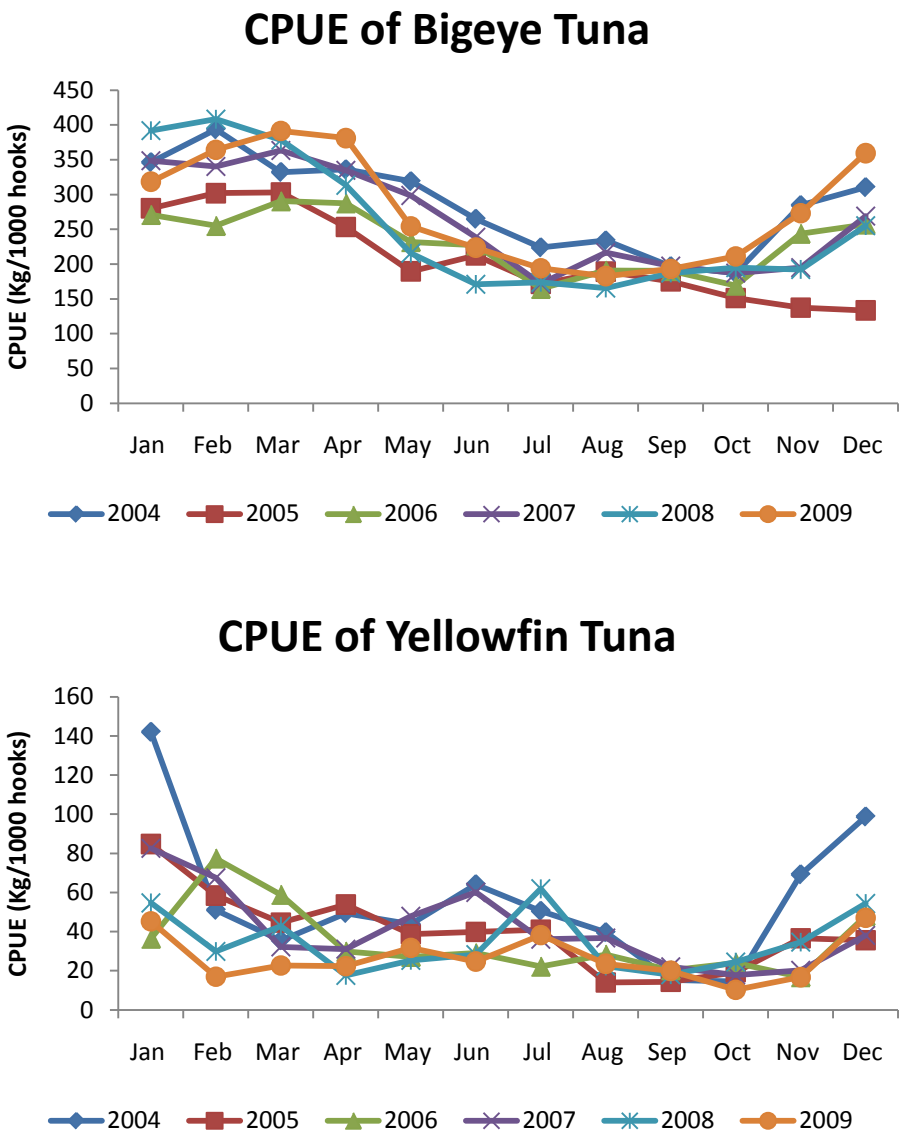


Figure 1. Monthly CPUE (kg /1000 hooks) distribution of bigeye tuna (upper panel) and yellowfin tuna (lower panel) caught by the Chinese tuna longline fleet in ICCAT waters from 2004 to 2009.

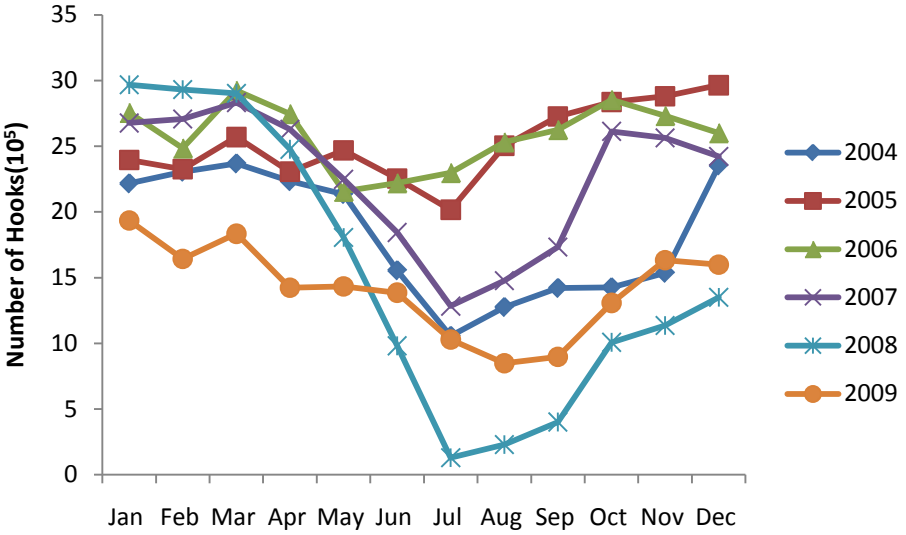


Figure 2. Monthly fishing effort (hooks 10^5) of the Chinese tuna longline fleet in ICCAT waters from 2004 to 2009.

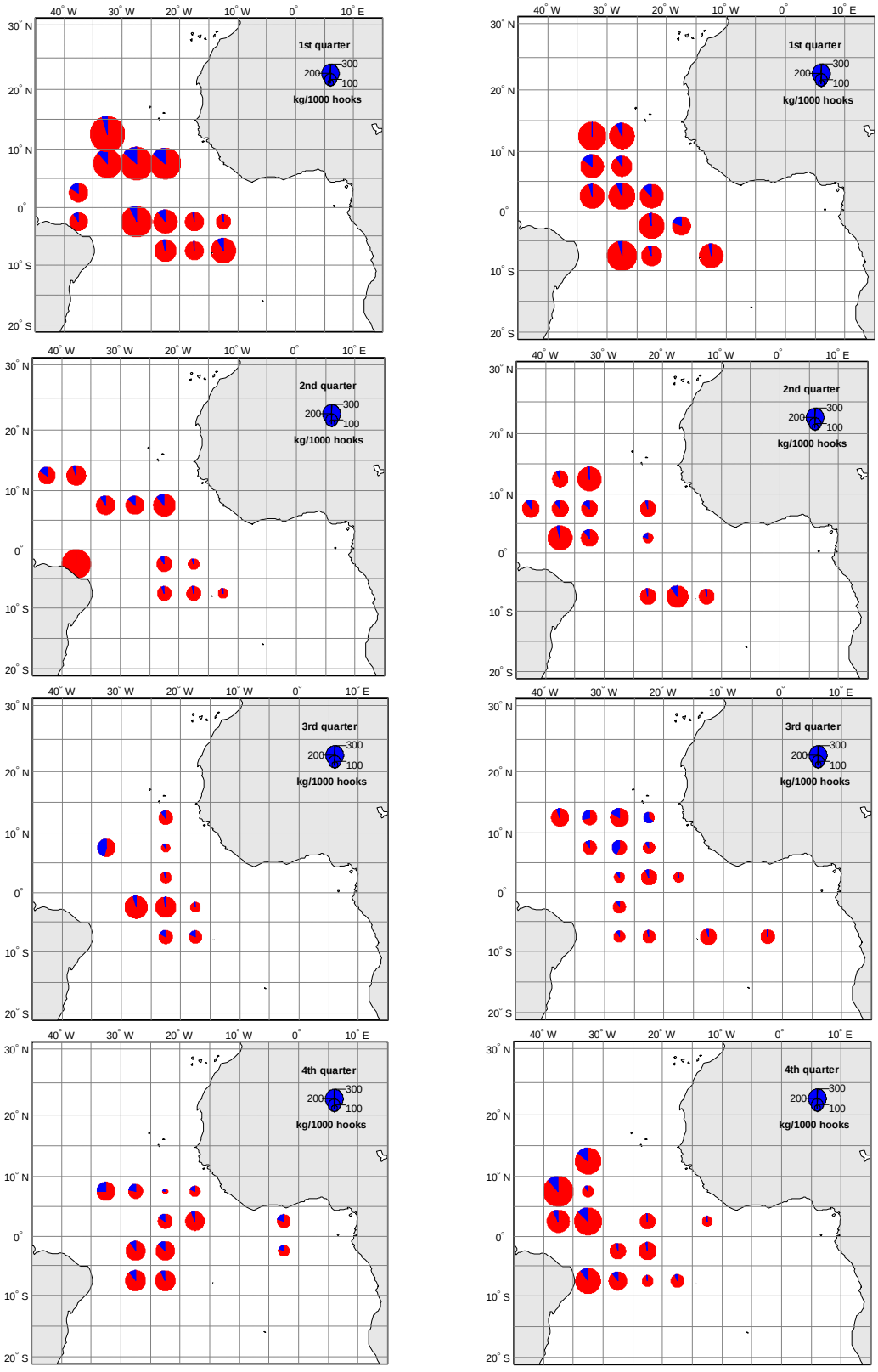
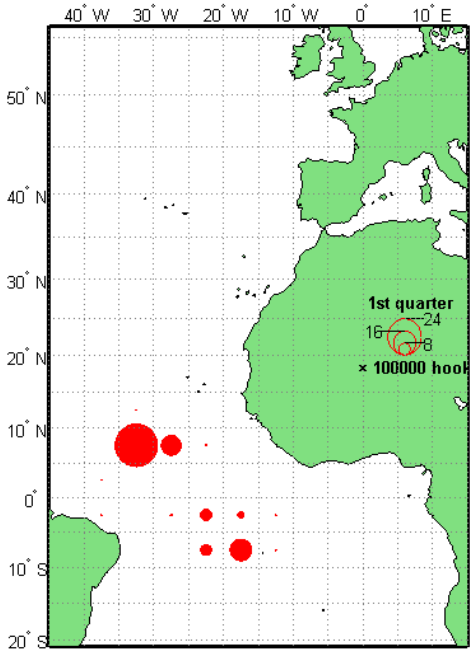


Figure 3. The CPUE distribution of bigeye tuna (in red) and yellowfin tuna (in blue) by $5^{o} \times 5^{o}$ and quarter in 2008 (left) and 2009 (right).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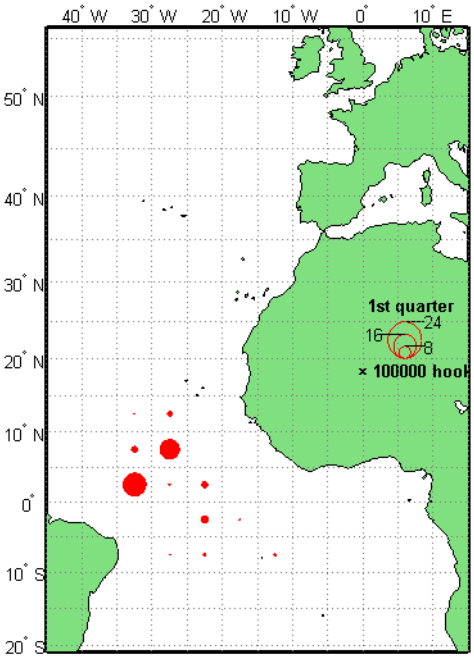
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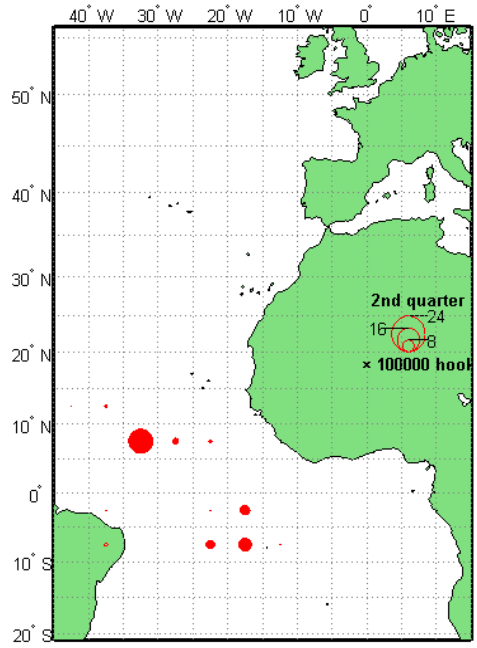
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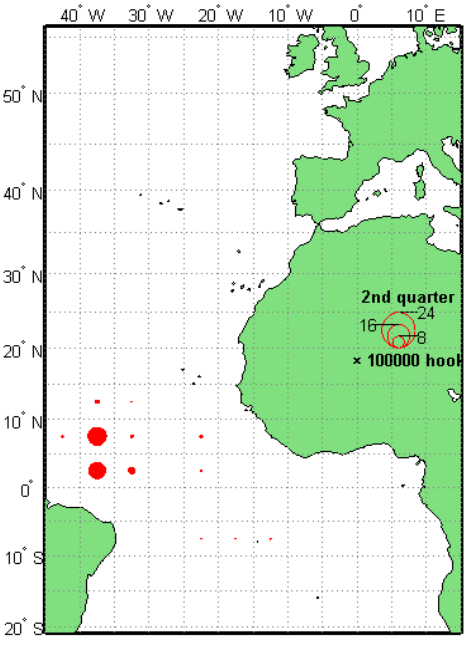
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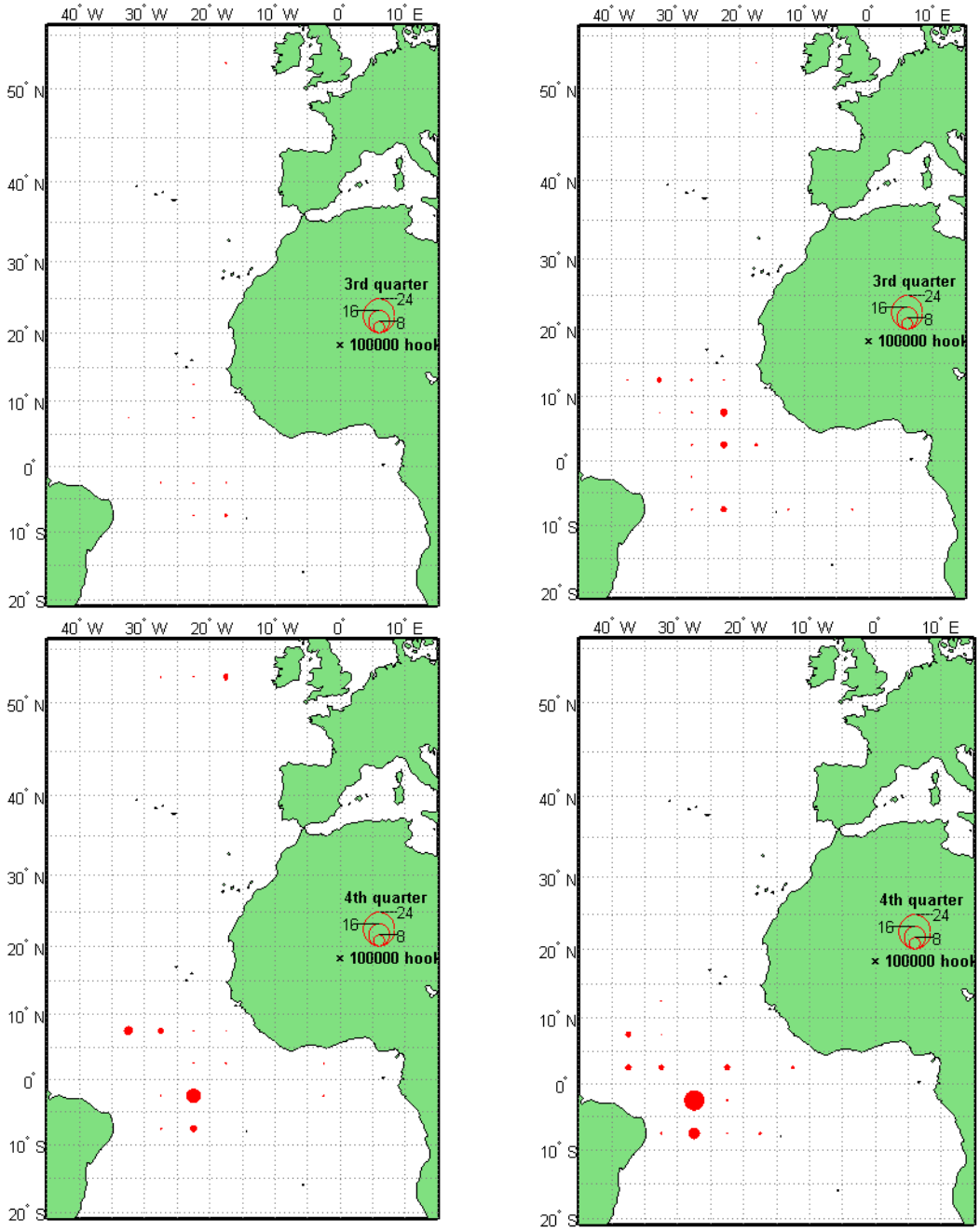

Figure 4. Fishing effort distribution by $5^{o} \times 5^{o}$ and quarter in 2008 (left) and 2009 (right).

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

Shep Helguilé[1] et Dr. Amon Kothias Jean Baptiste[2]

SUMMARY

The fishing and aquaculture sector occupies a strategic position in the economy of Côte d'Ivoire with regard to food security. The sector provides close to 70,000 direct jobs and supports more than 400,000 people, mainly through artisanal fishing and processing. The tuna industry, with three canneries, remains dynamic despite international competition. Côte d'Ivoire does not have an industrial tuna fleet. However in 2009, Côte d'Ivoire authorized the chartering of five longline Korean vessels targeting the major tuna and tuna-like species. These vessels caught 790 t of Thunnus obesus *and 90 t of* Thunnus albacares. *The swordfish catches by these vessels amounted to 100 t for the South stock and 25 t for the North swordfish stock. The tuna resources in Côte d'Ivoire are mainly exploited by artisanal canoe fishery. In 2009, the Fisheries Directorate recorded 3,075 trips, of which 2,775 were effectively sampled. This very active artisanal fishery is mainly directed at small tunas and tuna-like species.*

RÉSUMÉ

Le secteur des pêches et de l'aquaculture occupe une place stratégique dans l'économie ivoirienne au regard de la problématique de la sécurité alimentaire. Le secteur procure près de 70 000 emplois directs et fait vivre plus de 400 000 personnes principalement dans la pêche artisanale et la transformation. L'industrie thonière avec trois conserveries demeure dynamique malgré la concurrence internationale. La Côte d'Ivoire ne dispose pas de flottille industrielle thonière. Cependant en 2009, elle a autorisé l'affrètement de cinq navires palangriers coréens ciblant les thons majeurs et espèces apparentées. Ces navires ont capturé 790 tonnes de Thunnus obesus *et 90 tonnes de* Thunnus albacares. *Les captures d'espadon pour ces navires s'élèvent à 100 tonnes pour le stock du sud contre 25 tonnes pour l'espadon du Nord. En Côte d'Ivoire, les ressources thonières sont principalement exploitées par les pirogues de la pêche artisanale. En 2009, la Direction des pêches a enregistré 3075 sorties dont 2775 ont été effectivement enquêtées. Cette pêcherie artisanale, très active, est principalement dirigée vers les thonidés mineurs et espèces apparentées.*

CÔTE D'IVOIRE

El sector de la pesca y acuicultura ocupa un lugar estratégico en la economía de Côte d'Ivoire en relación con la problemática de la seguridad alimentaria. El sector proporciona cerca de 70.000 empleos directos de los que viven más de 400.000 personas, principalmente en la pesca artesanal y la transformación. La industria atunera, con tres conserveras, permanece dinámica a pesar de la competencia internacional. Côte d'Ivoire no dispone de una flota atunera industrial. No obstante, en 2009 ha autorizado el fletamento de cinco palangreros coreanos que se dirigen a los túnidos mayores y especies afines. Estos buques capturaron 790 t de Thunnus obesus *y 90 t de* Thunnus albacares. *Las capturas de pez espada realizadas por estos buques ascienden a 100 t para el stock del Sur y a 25 t para el stock del Norte. En Côte d'Ivoire los recursos atuneros son explotados principalmente por la pesca artesanal. En 2009 la Dirección de pesca registró 3.075 salidas de las cuales 2.775 fueron objeto de seguimiento. Esta pesquería artesanal, muy activa, se dirige principalmente hacia los túnidos menores y especies afines.*

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2 Centre de Recherches Océanologiques.

Introduction

La Côte d'Ivoire est un Etat de l'Afrique occidentale de 322 000 km^2, délimitée par les latitudes 4° et 6° Nord et les longitudes 3° et 8° Ouest et ayant une longueur de 550 km. Avec un plateau continental d'environ 12.000 km^2, la Côte d'Ivoire se trouve dans la zone du Golfe de Guinée la plus pauvre en ressources halieutiques.

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

Chapitre 1 : Information annuelle sur les pêcheries

1.1 Les espèces exploitées

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

a) thonidés majeurs
- le listao
- l'albacore
- le patudo (thon obèse)

b) thonidés mineurs
- la thonine
- l'auxide
- la bonite
- le thazard- bâtard et le thazard blanc
- le maquereau

c) espèces associées
- l'espadon
- les marlins (bleu, blanc)
- et les requins (soyeux, tisserand, marteaux, renard, bleu, mako)

1.2 Flotte ivoirienne et flotte affrétée

La Côte d'Ivoire n'ayant pas de navires thoniers propres, elle a conclu une convention d'affrètement de navires coréens par l'intermédiaire de Goshen Investment SARL en 2008. Cinq licences de pêche ont été délivrées à cet armement autorisant ses navires à pêcher l'espadon, le thon obèse, l'albacore, le germon et le marlin.

Les espèces gérées par l'ICCAT sont exploitées en Côte d'Ivoire par un armement diversifié, constitué de navires affrétés et d'embarcations de la pêche artisanale.

Le **Tableau 1** présente les quotas attribués à l'armement coréen en 2009.

Au cours de la même période, 380 embarcations artisanales ont exploité les espèces mentionnées plus haut au moyen de lignes et de filets (dormants et tournants).

1.3 L'espadon du Nord

Le quota ajusté attribué à la Côte d'Ivoire au titre de l'année 2009 est de 75 tonnes d'espadon sur le stock du nord.

Les prises par les navires affrétés et les embarcations de pêche artisanale, au titre de l'année 2009, concernant cette espèce, se sont élevées à 77,28 tonnes.

1.4 L'espadon du Sud

Le quota ajusté attribué à la Côte d'Ivoire au titre de l'année 2009 est de 225 tonnes d'espadon du sud sur le stock du sud.

Les prises par les navires affrétés et les embarcations de pêche artisanale, au titre de l'année 2009 se sont élevées à 111,833 tonnes.

1.5 Thon obèse

Le quota annuel de la Côte d'Ivoire en 2009 ne doit pas dépasser 2.100 tonnes. Cette espèce a été essentiellement exploitée par les navires affrétés. Les captures totales s'élèvent à 790 tonnes.

1.6 Autres espèces

Les autres espèces généralement capturées sont l'albacore (739,4352 tonnes), le requin mako (26,8437 tonnes), le requin marteau (43,7020 tonnes), le listao (5329,874 tonnes), le marlin bleu (96,4229 tonnes), le marlin blanc (0,65 tonne), le voilier (57,328 tonnes), la thonine (3168,9734 tonnes), l'auxide (19684,2044 tonnes).

Pour ces espèces, la Côte d'Ivoire n'a pas de limite de capture (Rec.04-01).

1.7 Flotte étrangère

La Côte d'Ivoire dispose de trois conserveries auxquelles sont destinés les débarquements de navires canneurs, senneurs et palangriers battant pavillon, à majorité, européens (26 espagnols et 10 français). Ces navires opèrent dans le cadre d'un accord de partenariat de pêche entre la Côte d'Ivoire et l'Union européenne.

En plus de ces thoniers européens, onze (11) cargos ghanéens et cinq (05) autres cargos battant pavillon coréen et guinéen débarquent des produits thoniers au port de pêche d'Abidjan.

NB : ces thoniers, dans leur ensemble, alimentent le marché local de fortes quantités de faux poissons connus sous l'appellation ivoirienne de « faux thons ». Les quantités de « faux thons » débarqués au titre de l'année 2009 sont énumérées comme suit :

- Bateaux espagnols : 8.758,69 tonnes
- Bateaux français : 1.624,15 tonnes
- Bateaux ghanéens : 7.750,5 tonnes
- Autres cargos : 5.432,345 tonnes

1.8 Pêche sportive

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

Chapitre 2 : Recherche et Statistiques

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

Au niveau de la pêche artisanale, un programme de collecte participative de données a été initié en 2009 avec une forte implication des coopératives de pêcheurs artisans à Abidjan. Cet effort de collaboration entre l'administration des pêches et les pêcheurs artisans se poursuit en 2010 avec une extension vers d'autres localités, notamment San Pedro, Sassandra, Grand-Béréby et Tabou. Des formations des opérateurs à l'identification des espèces de l'ICCAT ont été initiées en 2009 et se poursuivent en 2010.

A Abidjan, les enquêteurs rémunérés par les coopératives sont présents sur les sites de débarquement quatre jours dans la semaine ; ces jours sont mardi, mercredi, jeudi et vendredi et sont les jours de débarquement.

Des agents des administrations des pêches appuient les enquêteurs des coopératives. Sur un nombre total de 3.075 sorties, 2.775 ont été enquêtées, soit un taux de couverture de plus de 90 %. Les données de production obtenues sont consignées dans le **Tableau 2.**

.

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

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

3.1 Mise en œuvre des recommandations de l'ICCAT.

L'arrêté n°141 du 02 mars 1970 portant réglementation de la pêche au thon interdit la capture des poissons sous-taille. Des dispositions législatives et réglementaires sont en cours pour renforcer cet arrêté et instituer d'autres types de mesures, telles que les observateurs embarqués, la définition de plan de conservation annuel et pluriannuel.

Chapitre 4 : Schémas et activités d'inspection

Plusieurs administrations ivoiriennes interviennent dans le contrôle des activités de pêche. Il s'agit de la Direction des Productions Halieutiques, du Service de Contrôle et d'Inspection Vétérinaire en Frontière, des Affaires maritimes et portuaires, et de la Marine Nationale.

Ces structures effectuent, chacune en fonction de ses prérogatives, des contrôles des activités de pêche.

Tableau 1. Quotas attribués aux cinq navires coréens.

Période de pêche accordée	*Du 01/01/2009 au 31/12/2009*		*Du 01/05/2009 au 31/12/2009*			***Total (en t)***
Nom du navire	*Dae Sung 626*	*Dae Yang 606*	*Dae Young 201*	*Dae Sung 216*	*Dae Yang 601*	
BET	170	210	130	150	130	**790**
YFT	19,5	29	12	10	19,5	**90**
SWO- nord	5	5	5	5	5	**25**
SWO-sud	20	20	20	20	20	**100**
ALB- nord	7	5	4,8	4,9	3	**24,7**
ALB- sud	12	9,4	9	8,7	8,2	**47,3**
MAK	1,6	0,6	1,3	0,75	0,62	**4,87**
BUM	4,2	4,1	4,1	4,2	6,6	**23,2**
Total (en t)	**239,3**	**283,1**	**186,2**	**203,55**	**192,92**	**1105,07**

Tableau 2. Production de la pêche artisanale en tonnes.

Espèces	*Albacore*	*Listao*	*Marlin*	*Espadon*	*Voilier*	*Requin*	*Autres thons*
Poids	36,35	129,79	15,01	11,29	12,130	9,79	21,235

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

Fisheries Directorate, Ministry of Agriculture, Fisheries & Rural Development [1]

SUMMARY

The total Croatian catch of bluefin tuna in 2009 was 618,6 metric tons (t). Bluefin tuna were predominantly transferred into farming cages (608,96 kg, 98,44%), and 9,65 t (1,56%) were landed. The catches of bluefin tuna were mostly realized by purse seiners (98,51%), while the remained was caught using hook and line gears. The total Croatian catch of Mediterranean (Adriatic) swordfish in 2009 amounted to 3119 kg. Significant improvements in fleet register and data collection were made in 2009, enabling Croatia to report more detailed data on bluefin tuna and other tuna-like species. Research continued on the growth and reproductive biology of bluefin tuna. A national sampling program targeting bluefin tuna harvested from aquaculture facilities has been carried out. Further activities on the increase of MSC activities (including VMS and electronic logbook) have been undertaken. Preliminary results from the 2010 bluefin tuna fishing season and small pelagic fishing are indicating higher abundance of both juvenile and adult bluefin tuna in the Adriatic Sea than in previous years. Croatia has adopted the Regulation on catch, farming and trade of bluefin tuna that includes provisions of ICCAT Recommendations 06-07, 08-12, 08-05, 09-06 and 09-11 and transposed them into national legislation in full. Croatia has implemented the ROP programme on bluefin tuna farms in 2009, in full accordance with the provisions of ICCAT Recommendation 08-05. Croatia has undergone significant changes in terms of organization of inspection services.

RÉSUMÉ

En 2009, la prise totale croate de thon rouge s'est élevée à 618,6 t. Le thon rouge a été essentiellement transféré dans des cages d'engraissement (608,96 kg, 98,44%) et 9,65 t (1,56%) ont été débarquées. L'essentiel des prises de thon rouge a été effectuée par des senneurs (98,51%), le reste étant capturé à la ligne et à l'hameçon. En 2009, la capture totale croate d'espadon de la Méditerranée (Adriatique) s'est élevée à 3.119 kg. En 2009, des améliorations importantes ont été apportées au registre des flottilles et à la collecte des données, ce qui a permis à la Croatie de déclarer des données plus détaillées sur le thon rouge et d'autres espèces apparentées aux thonidés. Les travaux de recherche sur la croissance et la biologie reproductive du thon rouge se sont poursuivis. Un programme d'échantillonnage national visant le thon rouge mis à mort dans les établissements d'aquaculture a été réalisé. Des actions supplémentaires ont été entreprises en vue d'accroître les activités de suivi, contrôle et surveillance (MCS) (y compris les VMS et livres de bord électroniques). Les résultats préliminaires de la saison de pêche de thon rouge et de la pêche de petits pélagiques en 2010 indiquent une plus forte abondance de thons rouges juvéniles et adultes dans la mer Adriatique par rapport aux années antérieures. La Croatie a adopté un Règlement portant sur la prise, l'engraissement et le commerce de thon rouge qui incorpore les dispositions des Recommandations 06-07, 08-12, 08-05, 09-06 et 09-11 de l'ICCAT et qui les transpose intégralement dans la législation nationale. En 2009, la Croatie a mis en œuvre le Programme ROP dans des fermes de thon rouge, conformément aux dispositions de la Rec. 08-05 de l'ICCAT. L'organisation des services d'inspection de la Croatie a fait l'objet de modifications importantes.

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RESUMEN

La captura total de Croacia de atún rojo en 2009 ascendió a 618,6 t. El atún rojo se transfirió sobre todo a jaulas en instalaciones de engorde (608,96 kg, 98,44%) y se desembarcaron 9,65 t (1,56%). Las capturas de atún rojo fueron realizadas en su mayoría por cerqueros (98,51%), mientras que el resto fue capturado con artes de anzuelo y liña. La captura total de pez espada del Mediterráneo (Adriático) en 2009 ascendió a 3.119 kg. En 2009 se han conseguido importantes mejoras en el registro de la flota y en la recopilación de datos, lo que ha hecho que Croacia pueda comunicar datos más detallados sobre atún rojo y otras especies afines a los túnidos. Se ha proseguido con la investigación sobre crecimiento y biología reproductiva del atún rojo. Se ha desarrollado un programa nacional de muestreo dirigido al atún rojo sacrificado en instalaciones de acuicultura. Se han emprendido actividades adicionales para incrementar las actividades de seguimiento, control y vigilancia (lo que incluye VMS y cuadernos electrónicos). Los resultados preliminares de la temporada de pesca de atún rojo de 2010 y la pesca de pequeños pelágicos indican una mayor abundancia de ejemplares juveniles y adultos de atún rojo en el Adriático en comparación con años anteriores. Croacia ha adoptado la Reglamentación sobre captura, engorde y comercialización de atún rojo que incluye las disposiciones de las Recomendaciones de ICCAT 06-07, 08-12, 08-05, 09-06 y 09-11 y las traspone íntegramente en su legislación nacional. En 2009, Croacia implementó el programa regional de observadores (ROP) en instalaciones de engorde de atún rojo, de conformidad con las disposiciones de la Recomendación 08-05 de ICCAT. Croacia ha llevado a cabo cambios importantes en cuanto a la organización de los servicios de inspección.

Part I (Information on fisheries, research and statistics)

Section 1: Annual Fisheries Information

The total Croatian catch of bluefin tuna amounted to 618.6 metric tons (t) in 2009. Of this amount, 98.51% (609.4 t) was caught using purse seines (PS). The remainder was caught using coastal artisanal longlines (LL, 2.19 t or 0.35%) and hand lines (HAND, 6.9 t or 1.13%). Out of the total catch, 98.44% was caged (608.96 t) and only 1.56% was landed (9.656 t).

The total number of vessels licensed for participation in the bluefin tuna fishery in 2009 was 82, out of which 63 were purse seiners, 2 artisanal longliners and 17 handline vessels.

All hook and line vessels had 249 days at sea in total. During July, August and September 2009, a total of 75 fish were caught using hook gears, with a total weight of 3346.5 kg, while in the same period in 2008 a total of 28 fish were caught with total weight of 1445 kg.

Of the 63 licensed PS vessels, 29 were active in fishing, with a total number of days at sea amounting to 1121. Their catch was 609.4 tons, with the average of 38 days at sea for each vessel. If average catch per vessel were calculated, the figure would amount to 21.01 tons per vessel, averaging 0.5 t per day per vessel or 16 t per day for the operational fleet. In 2010, a total of 16 vessels were active and their catch was 369.6 tons. The average number of days at sea was 22, amounting to average catches of 1 ton per vessel per day. Length-weight frequencies indicate that the majority of fish caught (44 988 pcs) falls in the category of 11 to 20 kg (48.22%). Only 0.1% falls in the 100 to 200 kg category. Generally, 87% of the catch falls into the category of less than 30 kg, and 13% over 30 kg.

Croatia carried over 5 days lost during the 2009 fishing season due to bad weather conditions. No such possibility was allowed in the 2010 fishing season.

In 2010, fishermen targeting small pelagic fish reported higher abundance of both juvenile and adult bluefin tuna in the Adriatic Sea than in previous years, and its adverse effect on the small pelagic fishery as well. The effect on the small pelagic fishery is evident since preliminary data indicate that in July and August 2010 average catches of small pelagics was due, in part, to effects caused by abundance of bluefin tuna, in some segments of the fleet 71.05% of the catches in the same months of 2009.

Catches of Mediterranean (Adriatic) swordfish amounted to 3119 kg in 2009.

Section 2: Research and Statistics

A national sampling program targeting bluefin tuna harvested from aquaculture facilities has been carried out in accordance with 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 2009, special focus was placed on studies of reproductive biology of bluefin tuna in captivity. The project, aimed to evaluate the possibility of bluefin tuna spawning in growth-out floating cages, is under way. Within the framework of this project, the hormonally induced maturation of gonads in small bluefin tuna has been studied and 32 undersized specimens (i.e., RWT<30 kg) have been sacrificed for research purposes in 2010. This activity does not fall in the 2009 season, but is a continuation of previously reported activities.

Part II (Management Implementation)

Section 3: Implementation of ICCAT Conservation and Management Measures

Croatia has adopted the Regulation on catch, farming and trade of bluefin tuna (OG 39/09) on 31 March 2009. This Regulation includes the provisions of the ICCAT Recommendations 06-07, 08-12 and 08-05 and transposes them into national legislation in full. The aforementioned Regulation replaced the Regulation on catch, farming and trade of bluefin tuna (OG 123/07, 69/08), which transposed the relevant provisions of ICCAT Recommendations in place (06-05, 06-07). Following the adoption of the new Marine Fisheries Law (NN 56/10), an integral version of the Regulation was published (NN 60/10), containing all the relevant provisions. In order to implement a more stringent regime and fully comply with the relevant provisions of the Multi-annual Bluefin Tuna Recovery Plan, Croatia has continued to implement all adopted measures during 2009 and 2010.

Croatia has limited its farming capacity, in accordance with paragraph 50 of ICCAT Recommendation 08-05, to that registered in ICCAT list of authorized farms as of 1 July 2008. In September 2009, Croatia adopted a Ministerial Decree on allocation criteria for setting up the limit of input of wild caught bluefin tuna into farms for 2010. The Decree also contains the criteria and the allocation of individual maximum inputs for Croatian farms for 2010. Maximum inputs into farms were not exceeded in 2010, thus complying with the adopted measures.

In 2009 Croatia participated in the ROP programme on farms in full compliance with ICCAT Recommendation 08-05.
The tuna fishing season for purse seines was extended for five days and closed on 20 June 2009 due to bad weather conditions, as has been communicated to the ICCAT Secretariat. Croatia has limited the number of purse seiners authorized to fish in the Adriatic to the number engaged in the fishery in 2008. Hence, in the 2009 season, 29 vessels were allocated an individual quota. The total allocated quota for purse seiners in 2009 was 625 t, hook and line gears were allocated a total quota of 10 t, and the remaining 5 tons were allocated to leisure fisheries. The quota for purse seiners was allocated individually per vessel, with the possibility of quota transfers among the vessels with the obligation to notify the Department of Fisheries. Elements of this scheme were reported to the Secretariat.

In 2010, Croatia implemented the measures as agreed and adopted by ICCAT in 2009, including the provisions on the reduction of overcapacity and discontinuation of the bad weather clause. The purse seine season was limited to the period from 15 May to 15 June, and a total of 16 purse seine vessels participated in the fishery. Twelve (12) vessels were over 24 meters and participated in the ROP programme. Four vessels were smaller and were covered by national observers and by inspection. Quota was allocated individually per vessel and the ITQ system was implemented (quotas were transferrable between vessels). The list of vessels and their individual quotas were communicated to the Secretariat. Furthermore, Croatia has reduced its bluefin tuna capacity by more than 25% (a total of 39.4%). All Croatian bluefin tuna purse seine vessels are multipurpose, and operate in other fisheries as well, so capacity reduction in bluefin tuna fishery meant the withdrawal from this fishery and transfer to other activities.

The regulation on catch, farming and trade of bluefin tuna stipulates that it is forbidden to trade with bluefin tuna caught by vessels flying the Croatian flag which is not followed by the ICCAT bluefin tuna catch document (BCD) validated by the Ministry of Agriculture, Fisheries and Rural Development (MAFRD). In order to validate a BCD, a copy of logbook must be submitted. Implementation of the BCD scheme required changes in

internal organization. All BCDs are validated by civil servants employed within the Directorate of Fisheries, whose names and signatures have been reported to the Secretariat.

The Croatian authorities have established a web-based application containing data on vessels licensed for bluefin tuna fisheries, indicating the vessels authorized to fish in the 2009 and 2010 fishing seasons and their individual quotas in order to secure cross-checks of verification, validation and inspection reports with the catch and transfer data. In order to be authorized to participate in the fishing season, all vessels had to be registered in ICCAT register and had to have a functional VMS and electronic logbook in 2010. VMS data were constantly monitored and cross-checked with the positions of the catches as listed in logbooks and electronic logbooks. In 2010 the option to use both paper and electronic logbook was allowed. When the catch was undertaken by a vessel, the logbook had to be filled and submitted. These data were entered into the database and deducted from the individual quota. The vessel then had to apply for a transfer authorization. The authorization was done for the catches reported by vessels authorized and equipped with VMS. The transfer had to be filmed. The tug transported the fish to the farm site, and before the transfer from the tug to farm, the tug had to obtain the authorization. In order to obtain the authorization, the tug had to provide information on all relevant steps. Previous authorization to transfer the fish to the tug cage was available to the person in charge of authorization. Authorization for the transfer of fish from tug to farm was undertaken by personnel from the Aquaculture Unit. During the transfer to farm, 100% inspection and observer coverage was secured. Underwater cameras and filming were obligatory. Caging declarations had to be produced on the operation as well. When the fish are taken out of the cages, observer and inspection coverage is also secured, and the fish have to be traced by cage and by origin. Validation of BCDs is done by the Trade Unit of the DoF MAFRD.

In 2010, in addition to the schemes operated earlier, Croatia participated in the ROP programme on both vessels and farms.

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

Section 4: Inspection Schemes and Activities

Croatia has undergone significant changes in terms of organization of inspection services in 2009. According to the recently drafted regulatory framework, Memorandums of Understanding are to be signed by all services authorized for inspection. All authorized personnel shall be using the same Standard Operating Procedures and Infringement Records (SOPS), which were developed in 2010. Since several authorities are engaged, Croatia has developed a web-based, password-protected system that enables prompt reporting and cross-checking and verification. Infringements have been uniformly classified in three categories (serious, significant and mild). In the case of the bluefin tuna fishery, serious infringements include lack or non-functioning of VMS, exceeding quota, continuation of fishing activities after closure, failure to take observers on board or failure to request authorization for transfer and arrival of observers as well as landings of undersized fish. The minimum landing size in Croatia is 30 kg. Fish of 8 kg and over may be caught for farming purposes only.

Croatia has also put a port inspection scheme in place. Landings from vessels may be undertaken in registered ports only. The list of designated and registered ports has been communicated to the Secretariat. Landings, just like transfer/caging activities, have to be reported in advance, have to be authorized, and an inspector has to be present at the time of landing. In 2009, only vessels flying Croatian flag landed fish in Croatian ports. Additionally, no import of live fish took place in 2009, meaning that tugs flying flags of other CPCs have not entered Croatian waters or ports in 2009. The same situation was observed in 2010. In cases of possible infringements, submissions are made to court and procedures may be initiated.

Section 5: Other Activities

Croatia has nothing to report at this time.

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

SUMMARY

The various fleets of the European Union fish all the principal species which are regulated by ICCAT in the Atlantic Ocean and the Mediterranean Sea. The total catch of tunas and related species carried out by these various fleets in 2009 was around 203.000 tonnes.

Research and statistics: *All Member States of the European Union have national research Institutes or regional research laboratories. Several work was led in 2008 within the framework of the European studies and research programmes, in particular the evaluation of the results of the tagging programmes implemented between 2005-2007 in the Mediterranean and in the Atlantic on the luefin tuna and swordfish stocks, the continuation of the research programmes concerning the evaluation of the biological parameters in collaboration with the FAO/COPEMED and FAO/MedFisis projects and the implementation of a new research project on the reproduction of the bluefin tuna and the tuna farming (SELFDOTT). The European Union has a Regulation, which aims to fulfil the tasks I and II requirements and which is binding for its Member States, applicable to all tuna and tuna like fleets and areas. The European Union also implemented a framework programme of data collection (in order to ensure the systematic gathering of the basic data being used for the scientific advice and stock assessment.*

Implementation: *After each plenary session of ICCAT, the European Union transposes conservation measures adopted by ICCAT into its legislation so that they are binding on its Member States and nationals. All the technical conservation measures in force for the highly migratory species are consolidated in the Council Regulation (EC) No. 520/2007 laying down technical conservation measures for certain highly migratory fish stocks. The control measures adopted by ICCAT are also transposed into the European Union law by Council Regulation (EC) No. 1936/01 establishing certain control measures applicable to the fishing activities for certain highly migratory fish stocks (OJ L 236/1 of 03.10.2001), and modified by Council Regulation (EC) No. 869/2004 of 26 April 2004. The measures adopted at the 2008 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. 43/2009. The Bluefin tuna Recovery Plan was transposed in European Union law by the Council Regulation (EC) No 302/2009 of 6 April 2009 concerning a multiannual recovery plan for bluefin tuna in the eastern Atlantic and Mediterranean, amending Regulation (EC) No. 43/2009 and repealing Regulation (EC) No. 1559/2007. In 2009 the European Union adopted the Council Regulation (EC) No. 1224/2009, of 20 November 2009, establishing a Community control system for ensuring compliance with the rules of the common fisheries policy, introducing a new approach to fisheries control that includes comprehensive monitoring of catches, with a view to ensuring a level playing field for the fishing sector that takes into account the differences across the segments of the fleet.*

Control and inspection: *Controls undertaken by the Member States are generally carried out in the landing port and/or at the time of sale, when this is at auction. They can also intervene at any time during the transport or at the central markets. These controls primarily cover the quantities landed, the sizes, the age and weight of the fish, and the respect of closed fishing periods. They can also intervene at the time of marketing, to verify data. Some Member States have established an information network between the various landing ports to improve the monitoring of vessel movements. Routine inspections are also carried out, by third country inspectors and scientific institute observers at the time of landing of tropical tuna by Community vessels in Africa. The same controls that are applied to port inspections are carried out on transshipments of tunas, including foreign vessels, whether Contracting Party or non Contracting Party to ICCAT. Human, naval, and aerial resources were deployed by Member States and administrative penalties and fines were applied when infractions were detected.*

RÉSUMÉ

Les diverses flottilles de l'Union européenne pêchent toutes les principales espèces réglementées par l'ICCAT dans l'Atlantique et la Méditerranée. Les captures totales de thonidés et d'espèces apparentées effectuées par ces diverses flottilles en 2009 se sont élevées à 203.000 t.

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

Mise en œuvre: *Après chaque session plénière de l'ICCAT, l'Union européenne transpose dans sa réglementation les mesures de conservation adoptées par l'ICCAT afin de les rendre contraignantes pour ses Etats membres et ses ressortissants. Toutes les mesures techniques de conservation en vigueur pour les grands migrateurs ont été rassemblées dans le Règlement (CE) nº 520/2007 du Conseil prévoyant des mesures techniques de conservation pour certains stocks de grands migrateurs. Les mesures de contrôle adoptées par l'ICCAT ont également été transposées dans le droit communautaire par le Règlement (CE) nº 1936/01 du Conseil établissant certaines mesures de contrôle applicables aux activités de pêche visant certains stocks de poissons grands migrateurs (JO L 236/1 du 03.10.2001), et modifiées par le Règlement (CE) nº 869/2004 du Conseil du 26 avril 2004. Les mesures adoptées à la réunion annuelle de l'ICCAT, en 2008, ainsi que les limites de capture pour le thon rouge, l'espadon du Sud et du Nord, le germon du Sud et du Nord, le thon obèse, le makaire bleu et le makaire blanc ont été transposées dans le droit communautaire par le Règlement (CE) Nº 43/2009. Le programme de rétablissement du thon rouge a été transposé dans le droit de l'Union européenne par le Règlement (CE) nº 302/2009 du Conseil du 6 avril 2009 relatif à un plan pluriannuel de reconstitution des stocks de thon rouge dans l'Atlantique Est et la Méditerranée, modifiant le règlement (CE) no 43/2009 et abrogeant le règlement (CE) no 1559/2007. En 2009, l'Union européenne a adopté le Règlement (CE) nº1224/2009 du Conseil du 20 novembre 2009, établissant un système de contrôle communautaire visant à garantir l'application des règles de la politique commune de la pêche, introduisant une nouvelle démarche vis-à-vis du contrôle de la pêche qui prévoit un suivi exhaustif des captures, dans le but d'assurer une concurrence équitable pour le secteur de la pêche qui tienne compte des différences au sein des différents segments composant la flottille.*

Contrôle et inspection: *Les contrôles menés par les Etats membres sont généralement effectués au port de débarquement et/ou au moment de la vente, lorsqu'elle est faite à la criée. Ils peuvent également intervenir lors du transport ou au niveau des marchés centraux. Ces contrôles portent essentiellement sur les quantités débarquées, les tailles, l'âge et le poids des poissons, et le respect des périodes d'arrêt de pêche. Ils peuvent aussi intervenir en cours de commercialisation, afin de faire des recoupements de données. Certains Etats membres ont établi un réseau d'information entre les différents ports de débarquement, afin de mieux superviser les mouvements des navires. Des contrôles systématiques sont également menés, lors des débarquements de thon tropical par les navires communautaires en Afrique, par des inspecteurs des pays tiers et par des observateurs rattachés à des instituts scientifiques. Les mêmes contrôles qui s'appliquent dans les inspections dans les ports sont effectués en cas de transbordement des thonidés, y compris pour les navires étrangers, des Parties contractantes et non contractantes à l'ICCAT. Des moyens humains, navals et aériens sont déployés par les*

Etats membres et des sanctions administratives et des amendes sont appliquées au cas où une infraction est détectée.

RESUMEN

Las diversas flotas de la Unión Europea pescan todas las especies principales reguladas por ICCAT en el océano Atlántico y mar Mediterráneo. La captura total de túnidos y especies afines realizadas por varias flotas en 2009 ascendió a aproximadamente 203.000 t.

***Investigación y estadísticas:** Todos los Estados miembros de la Unión Europea cuentan con Institutos de investigación nacionales o con laboratorios regionales de investigación. En 2008 se llevaron a cabo varios trabajos en el marco de los programas y estudios de investigación europeos, en particular la evaluación de los resultados de los programas de marcado implementados entre 2005 y 2007 en el Mediterráneo y en el Atlántico sobre los stocks de atún rojo y pez espada, la continuación de los programas de investigación relacionados con la evaluación de los parámetros biológicos en colaboración con los proyectos FAO/COPEMED y FAO/MedFisis y la implementación de un nuevo proyecto de investigación sobre la reproducción del atún rojo y el engorde de túnidos (SELFDOTT). La Unión Europea cuenta con un reglamento cuyo objetivo es el cumplimiento de los requisitos de la Tarea I y la Tarea II, vinculante para sus Estados miembros, y aplicable a todas las flotas de túnidos y especies afines y todas las zonas. La Unión Europea ha implementado también entre 2001 y 2008 un programa marco de recopilación de datos con el fin de garantizar la recopilación sistemática de los datos básicos que se utilizan para el asesoramiento científico y las evaluaciones de stock.*

***Implementación:** Después de cada sesión plenaria de ICCAT, la Unión Europea transpone las medidas de conservación adoptadas por ICCAT a su legislación, por lo que son vinculantes para sus Estados miembros y sus ciudadanos. Todas las medidas de conservación técnicas en vigor para las especies altamente migratorias están consolidadas en el Reglamento del Consejo (CE) nº 520/2007 que establece medidas técnicas de conservación para ciertos stocks de peces altamente migratorios. Las medidas de control adoptadas por ICCAT también se han incorporado al derecho de la UE en el Reglamento (CE) nº 1936/2001 del Consejo, por el que se establecen ciertas medidas de control aplicables a las actividades de pesca de determinadas poblaciones de peces altamente migratorias (D.O. L236/1 de 03.10.2001), que fue modificado por el Reglamento (CE) nº 869/2004 del Consejo del 26 de abril de 2004. Las medidas adoptadas en la reunión anual de ICCAT de 2008, así como los límites de captura de atún rojo, pez espada del Sur y del Norte, atún blanco del Sur y del Norte, patudo, aguja blanca y aguja azul se han incorporado en la legislación de la UE mediante el Reglamento (CE) nº 43/2009 del Consejo. El Plan de recuperación del atún rojo rojo se incorporó en la legislación de la Unión Europea mediante el Reglamento (CE) del Consejo nº 302/2009 del 6 de abril de 2009 sobre un plan de recuperación plurianual para el atún rojo en el Atlántico este y Mediterráneo que enmienda el Reglamento (CE) nº 43/2009 y sustituye al Reglamento (CE) nº 1559/2007. En 2009, la Unión Europea adoptó el Reglamento del Consejo (CE) Nº1224/2009, del 20 de noviembre de 2009 que establece un sistema de control comunitario para garantizar el cumplimiento de las normas de la política pesquera comunitaria introduciendo un nuevo enfoque en el control de pesquerías que incluye un seguimiento exhaustivo de las capturas, con miras a garantizar la igualdad de condiciones para el sector pesquero teniendo en cuenta las diferencias existentes entre los diferentes segmentos de la flota.*

***Control e inspección:** Los controles que llevan a cabo los Estados miembros se realizan generalmente en el puerto de desembarque y/o en el momento de la venta, cuando es una subasta. También pueden realizarse en cualquier momento durante el transporte o en los mercados centrales. Estos controles cubren principalmente las cantidades desembarcadas, las tallas, la edad y el peso de los peces así como el respeto de los periodos de vedas de pesca. También pueden producirse en el momento de la comercialización, para verificar los datos. Algunos Estados miembros han establecido una red de información entre los diversos puertos de desembarque para mejorar el seguimiento de los movimientos de los buques. También se llevan a cabo inspecciones rutinarias por parte de inspectores de terceros países y de observadores de institutos científicos en el momento en que los buques comunitarios desembarcan túnidos tropicales en África. Los mismos controles que se aplican a las inspecciones en puerto se llevan a cabo en los transbordos de túnidos, incluyendo en los buques*

extranjeros, independientemente de si son Parte contratante o no contratante de ICCAT. Los Estados miembros desplegaron sus recursos humanos, navales y aéreos y se aplicaron penalizaciones y multas administrativas cuando se detectaron infracciones.

Part I (Information on Fisheries, Research and Statistics)

Section 1: Information on the Fisheries

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

The total catch of tunas and related species carried out by these various fleets in 2009 was around 203.000 tonnes.

Chapter 1 of the European Union annual report, including reports of the various Member States of the European Union providing the details and technical information pertaining to the various fisheries, both by species and by fishing gear, as well as Chapter 2 concerning Research and Statistics were previously transmitted to ICCAT for analysis by the Scientific Committee.

Part II (Management Implementation)

Section 2: Implementation of ICCAT Conservation and Management Measures

– At the regulatory level

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

All the technical conservation measures in force for the highly migratory species are consolidated in the Council Regulation (EC) No. 520/2007 laying down technical conservation measures for certain highly migratory fish stocks.

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

The measures adopted at the 2008 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 European Union legislation by the Council Regulation Council Regulation (EC) No. 43/2009 of 26 January 2009 fixing for 2008 the fishing opportunities and associated conditions for certain fish stocks and groups of fish stocks, applicable in European Union waters and, for European Union vessels, in waters where catch limitations are required, and amended by (EC) No. 753/2009 of 18 June 2009, amending Regulation (EC) No. 43/2009, as regards fishing opportunities and associated conditions for certain fish stocks.

The Bluefin Tuna Recovery Plan was transposed in European Union law by the Council Regulation (EC) N. 302/2009 of 6 April 2009 concerning a multiannual recovery plan for bluefin tuna in the eastern Atlantic and Mediterranean, amending Regulation (EC) No. 43/2009 and repealing Regulation (EC) No. 1559/2007.

The transposition of ICCAT Recommendation on a bluefin tuna catch documentation programme was finalised in 2010[1], due to its technical nature. However, Member States have been firmly requested to comply with the obligations contained in the programme pending the adoption of the EU Regulation.

[1]Regulation (EU) No. 640/2010 of the European Parliament and of the Council of 7 July 2010 establishing a catch documentation programme for bluefin tuna Thunnus thynnus and amending Council Regulation (EC) No. 1984/2003.

– *Compliance*

Catch limits:

In 2009, the European Union has in general respected all the catch limits adopted by ICCAT.

The European Union has not fully utilized the 2009 quotas of Northern albacore, North and South swordfish and bigeye tuna. It wishes to carry-over the following underages:

Northern albacore:	6365,5 t, corresponding to 25% of its initial quota as the current underage of 18.911,05 is over the 25% limit established by Recommendation 07-02.
Northern swordfish:	2278,9 t.
Southern swordfish:	236,5 t (ICCAT Recommendation 06-03).
Bigeye tuna:	7200 t, corresponding to 30% of its initial quota as the current underage of 11408,51 is over the 30% limit established by Recommendation 08-01.

Minimum size:

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

Vessels lists:

The European Union transmitted, in due time, the vessels lists respecting the formats required by ICCAT. In this regard, it could be underlined that since that requirement was extended to vessels greater than 20 m, the vessels list was substantially increased to 9195 vessels greater than 20 meters authorized to fish in the ICCAT area. It should be noted that some EU Member States have also included in the list vessels of less than 20 m.

As regards northern albacore, the list of vessels has also been sent to ICCAT. There are currently 1152 EU vessels authorised to fish for northern Albacore.

Large-scale long line vessels:

The European Union took the necessary measures to control the activities of its large scale long line vessels (see **Annex 1**)[2] 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 2**).

Area/season closure for bigeye tuna:

In 2009, the European Union respected points 8 to 12 of Recommendation 04-01 establishing a multi-year conservation and management programme for bigeye tuna. The report on the implementation of internal sanctions required under point 11 is included in **Annex 3**.

Chartering arrangements:

Chartering arrangements have been regularly communicated to ICCAT. A vessel chartering summary report of Community vessels chartered in 2010 to other Contracting Parties is included in **Annex 4**. The European Union has not chartered any vessels from other Contracting Parties.

Bluefin tuna report:

In 2009, the European Union implemented the Recommendations by ICCAT on bluefin tuna. The European Union report and forms related to bluefin tuna Recommendations were transmitted to ICCAT.

[2] The Annexes are available from the Secretariat.

– At the Member State level

Member States, at the national level, strive to comply with ICCAT recommendations 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.

– Complementary conservation and management measures

The European Union has adopted a control regime under the fisheries policy which imposes on the Member States specific obligations as regards control. In this regard, each Member State must control, inspect and supervise on its territory and in the maritime waters under its sovereignty or jurisdiction all fishing activities and in particular directed fishing, transshipment, landing, marketing, transport and storage of fish products and the recording of the landing and sale of fishery products (Council Reg. (EEC) No. 2847/93 of 12 October 1993 establishing a control regulation for the compliance with the common Community fisheries policy, EU Official Journal No. L261 of 20.10.93, 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 European Union 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 Union has also:

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

In 2009 the European Union adopted the Council Regulation (EC) No. 1224/2009 of 20 November 2009, establishing a Community control system for ensuring compliance with the rules of the common fisheries policy, introducing a new approach to fisheries control that includes comprehensive monitoring of catches, with a view to ensuring a level playing field for the fishing sector that takes into account the differences across the segments of the fleet.

– Inspection schemes

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 European Union 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 European Union vessels of the technical and administrative requirements imposed on each fishery. Air and sea control exercises, whether routine or specific, are organised throughout the fishing seasons.

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

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

Implementation and results (2009)

– Spain

The objectives of the inspection activities are:

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

There was an important increase of inspections to a total of 1959 (in-port, at-sea and aerial) and 101 presumed infringements were detected.

Bluefin tuna in the Mediterranean Sea and in the North Atlantic Ocean was a priority of the inspection activities in 2009. Two patrol vessels were engaged in the Joint Deployment Programme for bluefin tuna during the period April to October. Three planes and four helicopters participate in the aerial surveillance. Additionally, Spain has also concentrated on the control of other tunas species, swordfish and sharks, notably as regards shark fining and has prohibited the landing/importation of tuna from vessels which have not respected ICCAT recommendations.

– France

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

There were a total of 172 in Atlantic (121 at port and 151 at sea) and 971 in Mediterranean (871 at port and 100 at sea). 46 presumed infringements were detected (21 in the Atlantic and 25 in the Mediterranean).

France implemented an observer's programme on vessels over 15 m fishing for bluefin tuna in and on 100% of purse seine fishing for bluefin tuna in Mediterranean (1259 days of observation in the Mediterranean and 213 days in 54 vessels in the Atlantic).

Statistical documents were controlled.

To ensure the respect of the moratorium in the Gulf of Guinea during the period 1 to 30 November 2009 was monitored by VMS.

– Italy

Within the framework of the implementation of the Community control regulation including for ICCAT control measures and the Bluefin tuna Recovery Plan, Italy deployed human, naval and aerial resources. During 2009, 49 ports were designated for landing bluefin tuna which were covered by an ICCAT inspector present for all landings. Italy also took part Joint Deployment Programme for bluefin tuna during de fishing season.

– Portugal

Human, naval, and aerial resources were deployed (7.488 missions). In the continental area there were multiple missions to monitor the longliners and 13 inspections at port. Five vessels were verbalized for not respecting minimum size measures and 18 for not having correctly fulfilled logbooks.

In the Azores and Madeira there were also multiple missions to monitor the longliners (539 missions). These missions concerned Portuguese vessels (661) other Member States vessels (50) and third Countries vessels (1).

– Greece

The control of fishing and trade of tunas is carried out by Port Authorities and particularly 156 inspection vessels and two aircraft were engaged in the controlling of fishing activities among with other tasks. One Greek patrol vessel took part Joint Deployment Programme for bluefin tuna during de fishing season. In 2009, numerous inspections of fishing vessels took place by port authorities and as a result administrative penalties (32 cases) and fines as well as suspension (15 cases) of fishing activities were applied to Greek vessels. The tuna farming is inspected and monitored by local and central services.

– United Kingdom

Monitoring and enforcement is undertaken by inspectors based in the relevant fishing ports in the West of England in the northern albacore troll line fishery. This includes vessel inspections on landing, market inspections and documentary checks of logbooks, landing declarations and sales notes. All vessels over 10 m are required to fully complete a logbook. The UK undertook an extensive examination of satellite tracking system and log sheets to validate the region and zone information.

– Ireland

Sea Fishery Officers inspected all vessels fishing for albacore before they engaged in the fishery to ensure they held an authorization and to ensure compliance with all relevant requirements. All landings were inspected in port to ensure the vessels respect the regulations. The Irish Air Corps CASA maritime patrol aircraft and the patrols of the Irish Naval Service also carried out missions to monitor the activity of the albacore fleet. No infringements were detected.

– 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. The tuna farming activity was also closely followed.

During 2009, four ports were designated for landing bluefin tuna covered by a landing officer who was present for all landings and all tuna that was landed were tagged by the landing officer for internal traceability.

During 2009, Malta took part in a Joint Deployment Plan for bluefin tuna and several joint inspections were carried out on local and foreign vessels, in ports and farms during caging and harvesting. Several air patrols were also conducted under the Joint Deployment Plan.

– Other Member States

Other Member States also carry out controls in accordance with European Union 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 2009 they have carried out missions directly concerned with the fishing activities of highly migratory species, with the priority being placed on the bluefin tuna fisheries.

The main goals of the missions were:

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

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

In 2009, the bluefin tuna was again a top priority. The control of the bluefin tuna activity is reported in the bluefin tuna recovery plan annual report.

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

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

SUMMARY

The total amount of catches made under the ICCAT quotas allocated to France (on behalf of St. Pierre and Miquelon) amounted to 23.5 t of tuna and tuna-like species in 2009. The quotas allocated to the islands did not permit a local boat owner to operate a vessel. The French catches of tuna and tuna-like species are made by a chartered fishing vessel (a 28 m longliner) This vessel, purchased by a boat owner from Saint Pierre, should sail under French flag, from December 2010 to exploit the French quotas, and will continue to target North swordfish, albacore and bigeye. This vessel may also catch western bluefin tuna as by-catch. Tuna fishing is regulated by means of fishing licences issued by the Prefect, the representative of France in the islands. For the island's artisanal vessels (less than 12 m), only one license mentions the possibility of catching tunas, to prevent excessive by-catch. No catches were recorded in 2009 for the species managed by ICCAT in the exclusive economic zone of St. Pierre and Miquelon. Vessels are required to report their catches and occasionally have on board observers. All the landings are monitored, as are all the products exported. France has control measures through several administrations (maritime affairs, police, national navy, etc.). Fishing control campaigns, both at sea and on land, are carried out regularly. Special attention is given to the landing of tunas at the port of St. Pierre. Any legal actions that may be taken during these controls are later transmitted to the judicial administration.

RÉSUMÉ

Le montant total des captures réalisées sur les quotas de la CICTA attribués à la France, au titre de Saint-Pierre et Miquelon, s'élève à 23,5 tonnes de thonidés et espèces apparentées pour l'année 2009. Les quotas attribués à l'archipel ne permettant à un armement local d'exploiter une unité, les captures françaises de thonidés et espèces apparentées sont réalisées par un navire de pêche affrété (palangrier de 28 mètres). Ce navire, acquis par un armement de Saint-Pierre, devrait naviguer sous pavillon français à partir de décembre 2010 pour exploiter les quotas français, et continuera à cibler l'espadon du nord, le germon et le patudo. Il est susceptible de pêcher également, de manière accessoire, du thon rouge de l'Ouest. La pêche des thonidés est règlementée par le biais de l'attribution de licences par le préfet, représentant de l'État dans l'archipel. Parmi les navires artisanaux de l'archipel (moins de 12 m), un seul mentionnait la possibilité de captures de thonidés, afin de prévenir une exceptionnelle prise accessoire. Aucune capture n'a été enregistrée en 2009 sur les espèces gérées par la CICTA dans la zone exclusive économique de Saint-Pierre et Miquelon. Les navires sont soumis à obligation de déclaration des captures et embarquent également ponctuellement des observateurs. Tous les débarquements font l'objet d'un contrôle, de même que la totalité des produits exportés. La France dispose de moyens de contrôle de plusieurs administrations (affaires maritimes, gendarmerie, marine nationale, etc.). Des campagnes de contrôle des pêches, tant en mer qu'à terre, sont régulièrement effectuées. Un accent est particulièrement mis sur le débarquement des thonidés sur le port de Saint-Pierre. Les procès-verbaux éventuellement établis à cette occasion sont transmis à l'administration judiciaire.

RESUMEN

Las capturas realizadas en el marco de la cuota ICCAT asignada a Francia, por San Pedro y Miquelón, ascendieron a 23,5 t de túnidos y especies afines para el año 2009. Las cuotas atribuidas al archipiélago no permiten que un armaJdor local pueda explotar una unidad, las capturas francesas de túnidos y especies afines son realizadas por un buque de pesca fletado (un palangrero de 28 m). Este buque, adquirido por un armador de San Pedro debería navegar bajo pabellón francés a partir de diciembre de 2010 para explotar la cuota francesa, y continuará dirigiéndose al pez espada del Norte, al atún blanco y al patudo. También podría pescar atún rojo del Oeste de forma fortuita. La pesca de túnidos está reglamentada por medio de la concesión de licencias por parte del Prefecto, representante del Estado en el archipiélago. En lo que concierne a los buques artesanales del archipiélago (menos de 12 m), sólo para uno de ellos se

menciona la posibilidad de captura de túnidospara prevenir una captura fortuita excepcional. En 2009, 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 control, y lo mismo ocurre con todos los productos exportados. Francia dispone de medios de control en varias administraciones (asuntos marítimos, gendarmería, marina nacional, etc.). 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 realizarse durante dichos controles se transmiten posteriormente a la administración judicial.

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

Chapitre 1 : Information annuelle sur les pêcheries

Les captures d'espèces gérées par la CICTA ont été de 23,5 tonnes pour la campagne 2009. En 2008 les captures totales de thonidés et espèces apparentées dans l'Océan Atlantique relevant de quotas alloués à la France, au titre de Saint-Pierre et Miquelon ,avaient été de 55,5 tonnes (110,8 tonnes en 2007, 64 tonnes en 2005 et 87 tonnes en 2004, aucune activité en 2006).Les quotas attribués à l'archipel ne permettant pas à un armement local d'exploiter une unité exclusivement dédiée à l'exploitation des thonidés, la voie de l'affrètement de navires étrangers a jusqu'à présent été retenue.

Toutefois, en 2009 une société de l'archipel a acquis un palangrier (temporairement sous pavillon canadien) en vue d'exploiter les quotas de thonidés de FR-SPM mais aussi différents autres stocks de la zone économique française ne relevant pas de la CICTA (flétan blanc notamment).

Ce navire, l'*Atlantic Odyssey*, qui a vocation à passer sous pavillon français en fin d'année 2010, s'est vu attribuer la totalité des quotas français, au titre de Saint-Pierre et Miquelon (thon rouge : 17 t, espadon : 56,8 t, germon : 200 t).

Un seul navire artisanal de la flottille mentionnait la possibilité de prises de thon rouge (à imputer sur le quota français, au titre de Saint-Pierre et Miquelon), mais uniquement pour couvrir de très éventuelles captures accidentelles.

En pratique, en 2009 comme en 2008, les navires artisanaux de moins de 12 mètres n'ont pêché aucun poisson relevant des stocks gérés dans le cadre de la CICTA.

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

La France, au titre de Saint-Pierre et Miquelon, disposait pour l'année 2009 d'un quota global de 17,3 tonnes de thon rouge (*Thunnus thynnus thynnus* – « Bluefin tuna », BFT) sur le stock ouest, niveau de quota issu du transfert depuis les années précédentes de droits non consommés, en raison des reports *glissants* (pour un quota initial de 4 tonnes par an sur cette espèce). Les prises par le navire affrété ont été de 3,4 tonnes en 2009.

1.2 Germon (stock de l'Océan Atlantique nord)

Le quota ajusté français 2009 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 nulles en 2009 (0,2 tonne en 2008, 3,2 tonnes en 2007, nulles en 2006, 2,12 tonnes en 2005, 7,06 tonnes en 2004).

1.3 Espadon de l'Océan Atlantique Nord

Le quota nominal octroyé à la France en 2009 était de 40 tonnes, ajusté à 56,8 tonnes en incluant un transfert du Royaume-Uni de 20 tonnes pour les années 2007 à 2009 [Rec. 08-02]. L'espadon est l'espèce cible recherchée dans cette partie de l'Atlantique Nord Ouest. Les captures 2009 se sont élevées à 20,12 tonnes (pour mémoire, elles étaient de 47,6 t en 2008, 82 t en 2007, 48,4 t en 2005 et 35,65 t en 2004).

1.4 Autres espèces

Les autres espèces généralement capturées à la palangre sont le thon obèse (pas de capture en 2009, 2,6 t en 2008, 2,2 t en 2007, 5,8 t en 2005, 28,3 t en 2004) et les requins (captures : 1 t en 2009, 0,9 t en 2008, 2,6 t en 2005, 7,01 t en 2004). Conformément à la mesure de gestion en vigueur [Rec. 04-01], la France, au titre de 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 des années précédentes.

Cette activité a été initiée à nouveau pour l'année 2009 après la signature d'une convention d'affrètement entre PROPECHE SARL et la société canadienne PROPECHE CANADA, convention conclue au mois d'août 2009 et expirant à la fin de l'année de pêche. Les autorités françaises (Préfecture de Saint-Pierre et Miquelon) ont émis une licence de pêche jusqu'au 30 novembre 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 transmise au secrétariat exécutif de la CICTA par la Direction des pêches maritimes et de l'aquaculture par courrier n°2070 du 18 septembre 2009.

Un navire unique, sous pavillon canadien, est affrété pour exploiter des quotas de thonidés alloués à la France, au titre de Saint-Pierre et Miquelon. L'armateur avait initialement prévu de franciser son navire dès le début de l'année de 2010, mais pour diverses raisons, ce dernier s'est finalement engagé à le faire pour le mois de décembre 2010.

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 ont été débarquées à Saint-Pierre et Miquelon en 2009, ce qui a permis de disposer, contrairement aux années antérieures lorsque les débarquements avaient lieu au Canada, de davantage de données (tâche II notamment).

3.2 Mesures nationales

Des licences sont attribuées par le représentant de l'Etat sur l'archipel (préfet) 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 déclaration 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 relevant de plusieurs administrations dont certaines sont présentes sur l'archipel de Saint-Pierre et Miquelon (affaires maritimes, gendarmerie nationale et marine nationale). Ces moyens effectuent régulièrement des opérations de contrôle des pêches, tant en mer qu'à terre. Un accent est particulièrement mis sur le débarquement des thonidés sur le port de Saint-Pierre. Les procès verbaux éventuellement établis à cette occasion sont transmis à l'administration judiciaire.

Bilan des contrôles effectués en 2009 :

Deux opérations de débarquement de thonidés ont été enregistrées à Saint-Pierre et Miquelon en 2009. Elles ont été réalisées sous le contrôle des affaires maritimes.

ANNUAL REPORT OF GHANA[1]
RAPPORT ANNUEL DU GHANA
INFORME ANUAL DE GHANA

SUMMARY

*The tuna industry in Ghana is comprised of skipjack (*Katsuwonus pelamis*), yellowfin (*Thunnus albacares*) and bigeye tuna (*Thunnus obesus*). Twenty-one (21) baitboats, 11 purse seiners and 4 longliners currently fishing within the EEZ of Ghanaian coastal waters and beyond exploit these tuna species amongst other minor tuna-like species such as the Atlantic black skipjack (*Euthynnus alletteratus*). During the year under review, skipjack catches were the highest (54.3%) followed by yellowfin (27.6%) and bigeye (15.8%), respectively. Both fleets employ Fish Aggregating Devices (FADs) in fishing and collaborate extensively sharing their catch during fishing operations. Over 80% of catches are conducted off FADs. Catches for the year 2009 rose slightly to 66470 metric tons (t) from 64093 t in 2008, an increase of approximately 2400 t. Recent improvements in sampling coupled with the provision of more logbook information from the fishery has contributed to a better understanding of the spacio-temporal distribution of the species. It is envisaged that further synthesis of the database on Ghana for 1980-2009 will give a clear picture on the catch and species composition of the entire catch in relation to the collaborative fishing strategies and innovations and other factors influencing catachability of the species. Ghana's Action Plan to strengthen the collection of statistical data and control measures to ensure the implementation of conservation and management measures were presented to the Commission. An observer programme was organized in March-May 2009 on board four purse seine vessels with the aim of training officers on proper methods of estimating catches and filling out of information in logbooks. The massive use of FADs through out the programme was also noted. In recommendation, among others, it was suggested that due to the massive use of FADs and its attendant effect on juvenile destruction, a precautionary approach should be made to safeguard the industry. Beach sampling of billfishes continued off the western coastline of Ghana from artisanal drift gill operators. Revision of Task III for the period 1996-2009 has been finalized and standardized CPUE series will be carried out during the year 2011.*

RÉSUMÉ

*L'industrie thonière au Ghana concerne le listao (*Katsuwonus pelamis*), l'albacore (*Thunnus albacares*) et le thon obèse (*Thunnus obesus*). Vingt-et-un canneurs, 11 senneurs et quatre palangriers opèrent actuellement dans la ZEE des eaux côtières ghanéennes et au-delà et exploitent ces espèces thonières, parmi d'autres espèces apparentées mineures, comme la thonine commune* (Euthynnus alletteratus*). Au cours de l'année à l'étude, les captures de listao étaient les plus importantes (54,3%), suivies de celles de l'albacore (27,6%) et du thon obèse (15,8%), respectivement. Les deux flottilles font appel à des dispositifs de concentration du poisson (DCP) pour pêcher et collaborent considérablement en mettant en commun leurs prises pendant les opérations de pêche. Plus de 80% des prises sont réalisées sous DCP. En 2009, les captures ont légèrement augmenté, passant de 64.093 t en 2008 à 66.470 t en 2009, soit une hausse d'environ 2.400 t. Les récentes améliorations de l'échantillonnage, conjuguées à la transmission de davantage d'informations issues des livres de bord de la pêcherie, ont contribué à améliorer la compréhension de la distribution spatiotemporelle des espèces. Une plus grande synthèse de la base de données du Ghana de 1980 à 2009 devrait fournir une image claire de la capture et de la composition par espèce de la prise totale par rapport aux stratégies communes de pêche, aux innovations et à d'autres facteurs qui influencent la capturabilité des espèces. Le Ghana a présenté à la Commission son plan d'action visant à renforcer la collecte des données statistiques et les mesures de contrôle destinées à garantir la mise en œuvre des mesures de conservation et de gestion. Un programme d'observateurs a été mis en œuvre entre les mois de mars et mai 2009 à bord de quatre senneurs dans le but de former les observateurs sur les méthodes adéquates d'estimation des captures et de transcription des informations dans les livres de bord. On a également noté l'utilisation*

[1]Paul Bannerman, MOFA (Fisheries Commission) Ghana.

massive des DCP pendant toute la durée du programme. Parmi diverses recommandations, il a été suggéré qu'en raison de l'emploi massif des DCP et de leurs effets concomitants sur la destruction des juvéniles, il conviendrait d'adopter une approche de précaution afin de sauvegarder l'industrie. L'échantillonnage des istiophoridés réalisé sur la plage s'est poursuivi au large du littoral occidental du Ghana au sein de la pêcherie artisanale de filet maillant dérivant. La révision des données de la Tâche 3 pour la période 1996-2009 s'est finalisée et des séries de CPUE standardisées devraient être élaborées en 2011.

RESUMEN

*La industria atunera en Ghana se compone de listado (*Katsuwonus pelamis*), rabil (*Thunnus albacares*) y patudo (*Thunnus obesus*). Veintiún barcos de cebo vivo, once cerqueros y cuatro palangreros pescan actualmente en la ZEE de las aguas costeras de Ghana y más allá y explotan estas especies de túnidos junto con otras especies de pequeños túnidos como la bacoreta (*Euthynnus alletteratus*). Durante el año objeto de revisión, las capturas de listado fueron las más elevadas (54,3%), seguidas del rabil (27,6%) y el patudo (15,8%), respectivamente. Estas flotas emplean dispositivos de concentración de peces (DCP) en la pesca y colaboran ampliamente compartiendo sus capturas durante las operaciones de pesca. Más del 80% de las capturas se realizan con DCP. Las capturas de 2009 se incrementaron ligeramente (66.470 t) con respecto a 2008 (64.093 t), un incremento de aproximadamente 2.400 t. Las recientes mejoras en el muestreo, junto con el requisito de incluir más información sobre la pesquería en los cuadernos de pesca, ha contribuido a mejorar los conocimientos sobre la distribución espaciotemporal de las especies. Se prevé que análisis ulteriores de la base de datos de Ghana para el periodo 1980-2009 proporcionarán una imagen clara de la captura y composición por especies en la captura total en relación con las estrategias de pesca en colaboración y las innovaciones, así como con respecto a otros factores que influyen en la capturabilidad de las especies. Se presentaron a la Comisión el Plan de acción de Ghana para reforzar la recopilación de datos estadísticos y las medidas de control para garantizar la implementación de las medidas de conservación y ordenación. En marzo-mayo de 2009 se organizó un programa de observadores embarcados en cuatro cerqueros con el objetivo de formar a los oficiales en los métodos adecuados para estimar las capturas y cumplimentar la información de los cuadernos de pesca. En el marco del programa, también se constató el uso masivo de DCP. En la recomendación se sugirió, entre otras cosas que, debido al uso masivo de DCP y su efecto concomitante en la destrucción de juveniles, se debería aplicar un enfoque precautorio para salvaguardar la industria. Continuó el muestreo en playa de istiofóridos en aguas frente a la costa occidental de Ghana para los operadores de redes de enmalle artesanales a la deriva. Finalizó la revisión de los datos de Tarea II para el periodo 1996-2009 y durante 2011 se obtendrán series de CPUE estandarizadas.*

Part I (Information on Fisheries, Research and Statistics

Section 1: Annual Fisheries Information

The tuna industry in Ghana is comprised of skipjack (*Katsuwonus pelamis*), yellowfin (*Thunnus albacares*) and bigeye tuna (*Thunnus obesus*). Twenty-one (21) baitboats, 11 purse seiners and 4 longliners currently fishing within the EEZ of Ghanaian coastal waters and beyond exploit these tuna species amongst other minor tuna-like species such as the Black skipjack (*Euthynnus alletteratus*).

The Marine Fisheries Research Division of the Ministry of Food and Agriculture based in Tema, (MFRD) is the Government Agency responsible for tuna research and statistics in Ghana.

Section 2: Research and Statistics

During the year under review, skipjack catches (54.3%) were the most abundant followed by yellowfin (27.6%), bigeye (15.8%) and other tuna-like species 2.3%, respectively. Tuna baitboats use mainly anchovy (*Engraulis encrasicolus*) as bait for their operations. Both fleets also employ over 5,000 Fish Aggregating Devices (FADs) in capturing the resources and collaborate extensively with each other sharing their catch during fishing

operations. This sharing (collaborative fishing) has been a typical pattern in the industry with over 80% of catches on FADs.

Catches for the year 2009 rose slightly to 66,470 metric tons (t) from 64,093 t in 2008, an increase of approximately 2,400 t (**Table 1**).

Port sampling of the three major species of tuna was carried out from Tema to determine, among others, length frequency distribution to be used for stock assessment purposes. Mean size ranges of tunas caught generally during the year 2009 are shown in **Table 2**.

The percentage of fish greater that 65 cm was noted to be approximately 20% of the entire catch landed in Tema and this can be ascribed to majority of fishing occurring within the major spawning grounds off the Equatorial zone.

Data (Tasks I, II and III) (i.e., catch effort) for the year 2009 were duly forwarded to ICCAT via the AVDTH3.2 software programme adopted from the French purse seine fleet.

In conformity with the objectives of the Data Fund, Ghanaian statistics for the principal tunas, especially bigeye tuna, have been monitored since their revision during the bigeye stock assessment meeting held in June 2007. In relation to the above, and for Quality Assurance [Res. 03-21], statistics from Ghana continue to be evaluated based on improved sampling, provision of logbook data (Task II) spanning the past 15 years, observer data (2006-2009), independent information from the fisheries, information from two international observers (in 2008 and 2009) and data from the AVDTH programme on individual vessels (2006-2009). It is envisaged that further synthesis of the database on Ghana since 1980-2009 will be carried out to get a clear picture on the catch and species composition of the entire catch in relation to the collaborative fishing strategies and innovations and factors influencing catchability of the species.

Further to the recovery of logbook data in 2007-2008 aimed at improving Task II, an additional set of data are currently being evaluated to fill in missing gaps and to help improve the overall quality of the logbook information recovered so far. For the year 2009, logbook recovery rates have been over 70% and incorporated into the AVDTH database. These have also been forwarded to the ICCAT Secretariat.

Beach sampling of the billfishes continued off the western coast of Ghana. Catch and effort data for the year 2009 were submitted accordingly (**Table 3**). Swordfish landings slightly in the year 2009 from 2008 whilst catches in the others species dropped. Catches for the sailfish remained stable for the years 2008 and 2009 whilst slight reductions were observed in 2009 for the blue marlin and swordfish, respectively. Overall there was noticed a reduction in effort from approximately 100,000 trips to 90000 trips. Very few white marlins were landed and recorded. Generally, abundance for all billfishes was noted to occur in the fourth to first quarters of each year.

Part II (Management Implementation)

Section 3: Implementation of ICCAT Conservation and Management Measures

An action plan in relation the Recommendation by ICCAT on the Multi-Year Conservation and Management Programme for Bigeye Tuna was submitted to ICCAT in March 2010 (**Appendix 1**)[2].This plan aims to strengthen the collection of statistical data and control measures to ensure the full implementation of conservation and management measures.

Section 4: Inspection Schemes and Activities

Internal arrangements to monitor bigeye and swordfish catches in relation to recommendations 04-01 and 02-22, respectively, by regular visits to port and especially the canneries to crosscheck tonnages continued in 2009. Catch certifications in accordance with EU regulations have been carried out during the year under review for exports of the bigeye and swordfish catches and submitted to the Secretariat.

[2] Available at the Secretariat.

An observer programme was organized in March-May 2010. The main objective of the programme was to refresh officers on board in methodologies used to attain proper estimates of the catches and species composition of each set. Secondly, the proper filling of records into logbooks was also taught. The training has enabled these officers to appreciate the need for accurate reliable datasets to be used for stock assessment purposes. Four purse seine vessels were covered in the programme. In recommendation, among others, it was mentioned that due to the massive use of FADs and its attendant effect on juvenile mortality, precautionary steps should be carried out to safeguard the fishery.

The Ghana Fisheries Act 625 provides for co-operation by operators in ensuring that fishing is done in conformity with laid down rules and regulations and any breach of the law would lead to cancellation or suspension of fishing licenses. In 2009, one vessel was expunged from the Ghanaian list and register due to her illegal activities.

The ICCAT list of vessels over 24 m has been updated with a few more purse seiners enlisted whilst three other vessels changed names and ownership, respectively. These have been sent to the ICCAT Secretariat. The Monitoring, Surveillance and Control Division (MCSD) of the Commission regularly inspects vessels before they embark on fishing expeditions ensuring that their licences, equipment etc are in conformity to national and international laws.

Section 5: Other activities

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

Table 1. Landings (t) of the principal tunas for 2008 and 2009.

Vessel/Species	*Yellowfin 2008*	*Yellowfin 2009*	*Skipjack 2008*	*Skipjack 2009*	*Bigeye 2008*	*Bigeye 2009*
Baitboats	9797	8326	25704	18155	6373	4465
Purse seine	4453	10029	11684	17909	2897	6089

Table 2. Size (cm) ranges of tunas in 2009.

	Skipjack	*Yellowfin*	*Bigeye*
Baitboats	34-69	33-77	33-80
Purse seine	35-68	33-112	33-128

Table 3. Catch (t) and effort (trips) of billfishes in 2008 and 2009.

2008	*JAN*	*FEB*	*MAR*	*APR*	*MAY*	*JUN*	*JUL*	*AUG*	*SEP*	*OCT*	*NOV*	*DEC*	***TOTAL***
Atlantic sailfish	13.66	16.42	9.44	86.69	2.36	84.98	26.99	1.16	11.37	6.84	67.62	14.17	**341.69**
Blue marlin	1.35	2.74	2.00	2.53	3.74	67.28	21.00	2.00	14.66	37.56	31.39	4.64	**190.91**
Swordfish	28.54	0.00	1.92	15.86	36.54	32.05	0.00	1.24	22.83	13.72	18.14	6.03	**176.87**
White marlin	0.00	0.17	0.00	0.69	0.00	0.51	0.00	0.00	0.00	0.00	0.00	2.28	**3.65**
Effort (trips)	2451	11147	11308	11579	3088	11120	11551	2756	11396	12141	15092	2547	**106176**

2009	*JAN*	*FEB*	*MAR*	*APR*	*MAY*	*JUN*	*JUL*	*AUG*	*SEP*	*OCT*	*NOV*	*DEC*	***TOTAL***
Atlantic sailfish	12.41	34.924	8.137	45.2	6.06	17.089	65.818	25.34	19.337	18.6	85.79	19.25	**357.97**
Blue marlin	1.68	2.052	3.96	7	5	57	45.245	6.32	6.17	0.279	0.621	4.93	**140.48**
Swordfish	14.955	0.813	6.758	8	12	21	21.7	2.03	2.01	20.74	10.76	11.97	**132.24**
White marlin	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	4.12	**4.22**
Effort (trips)	8931	1035	5165	5044	5238	11473	10486	12938	10995	12144	3349	4973	**91771**

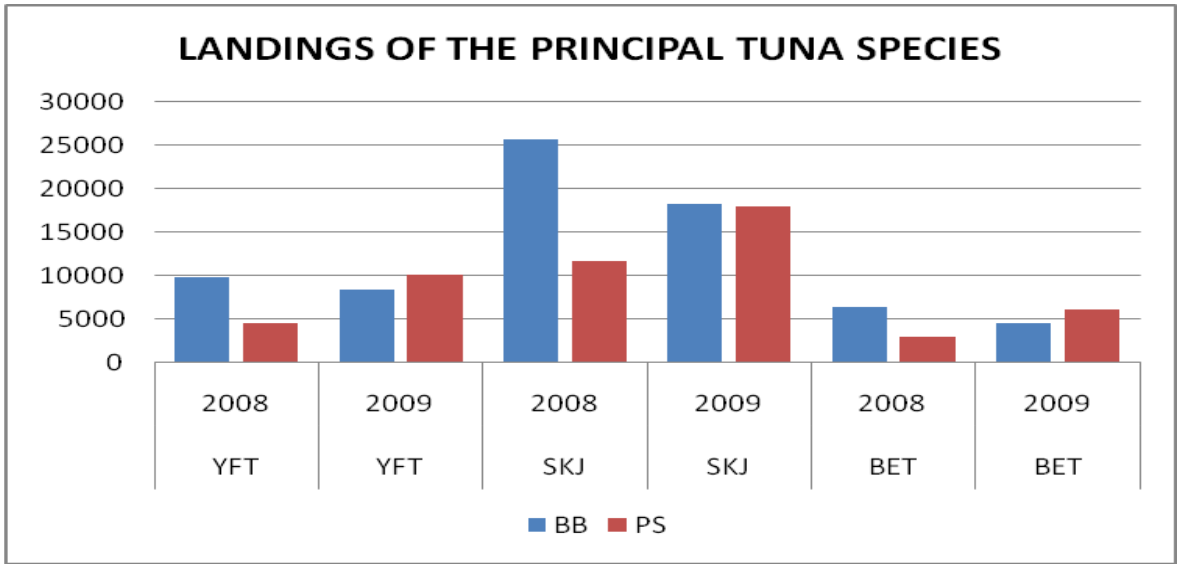

Figure 1. Comparison of the landings of the tuna species caught in 2008 and 2009.

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

SUMMARY

In 2009 there were no direct fisheries for bluefin tuna or tuna like species by Icelandic vessels. In 2010 the Icelandic quota of bluefin tuna in the ICCAT area was 31.2 tonnes (t). The Ministry of Fisheries and Agriculture in Iceland has allocated IQ of 15 t (each) to two longline vessels that will be fishing in the area south of Iceland. The fishing season started 1 August 1 2010, but as of the last week of September the official fishing licenses had not been issued and the vessels had not started fishing. The remaining 1.2 t of the Icelandic quota for 2010 were reserved to allow for incidental by-catch by commercial and non-commercial vessels. No by-catches have been reported in the last months of 2009 or 2010 by Icelandic vessels and discards of commercial fish species in banned on the Icelandic fleet. There are no direct fisheries for any other fish species under ICCAT management, but porbeagle, spotted dogfish and Greenland shark are by-catches within the Icelandic EEZ in other commercial fisheries and are reported to the SCRS of ICCAT. There were landings, exports or re-exports of bluefin tuna, bigeye tuna or swordfish to or from Iceland in second half of 2009 or first half of 2010.

RÉSUMÉ

En 2009, les navires islandais ne ciblaient pas le thon rouge ni les espèces apparentées. En 2010, le quota islandais de thon rouge dans la zone de l'ICCAT s'élevait à 31,2 t. Le Ministère de la pêche et de l'agriculture de l'Islande a alloué un quota individuel de 15 t à chacun des deux palangriers qui pêcheront dans la zone située au Sud de l'Islande. La saison de pêche a démarré le 1er août 2010, mais à la dernière semaine de septembre, les licences de pêche officielles n'avaient pas été émises et les navires n'avaient pas commencé à pêcher. Le solde (1,2 t) du quota islandais au titre de 2010 a été réservé pour permettre aux navires commerciaux et non-commerciaux de réaliser des captures accessoires. Les navires islandais n'ont déclaré aucune prise accessoire au cours des derniers mois de 2009 ou 2010 et les rejets des espèces de poissons commerciales sont interdits pour la flottille islandaise. Il n'existe pas d'autres pêcheries ciblant directement toute autre espèce de poisson relevant de la gestion de l'ICCAT, mais le requin-taupe commun, la grande roussette et la laimargue sont capturés accessoirement dans la ZEE islandaise au sein d'autres pêcheries commerciales et sont déclarés au SCRS de l'ICCAT. Il y a eu des débarquements, des exportations ou des réexportations de thon rouge, de thon obèse ou d'espadon à destination ou en provenance de l'Islande au cours du deuxième semestre de 2009 ou du premier semestre de 2010.

RESUMEN

En 2009, los buques islandeses no operaron pesquerías dirigidas al atún rojo o a especies afines a los túnidos. En 2010, la cuota islandesa de atún rojo en la zona ICCAT era de 31,2 t. El Ministerio de Pesca y Agricultura de Islandia asignó una cuota individual de 15 t a dos palangreros que pescarán en las aguas meridionales de Islandia. La temporada de pesca comenzó el 1 de agosto de 2010, pero las licencias de pesca oficiales no se expidieron hasta la última semana de septiembre y los buques no comenzaron a pescar. Las 1,2 t restantes de la cuota de Islandia para 2010 se reservaron para la captura fortuita incidental de buques comerciales y no comerciales. Los buques islandeses no comunicaron capturas fortuitas en los últimos meses de 2009 o en 2010 y los descartes de especies de peces comerciales están prohibidos en la flota islandesa. No hay ninguna pesquería dirigida a otras especies gestionadas por ICCAT, pero el marrajo sardinero, pintarroja y tollo de Groenlandia son capturas fortuitas en la ZEE de Islandia en otras pesquerías comerciales y se comunican al SCRS de ICCAT. Hubo desembarques, exportaciones o reexportaciones de atún rojo, patudo o pez espada hacia o desde Islandia en la segunda mitad de 2009 o en la primera mitad de 2010.

Part I (Information on Fisheries, Research and Statistics)

Section 1: Annual Fisheries Information

In 2009 there were no direct fisheries for ICCAT species by Icelandic vessels. The two Icelandic longline vessels allocated IQ for 2010 have not started fishing as of the last week of September 2010.

Section 2: Research and Statistics

Icelandic authorities have submitted data to the SCRS of ICCAT on bycatches by the Icelandic fleet (not within the ICCAT fisheries) 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. All bycatch information in the appropriate resolution will be submitted for vessels taking part in bluefin tuna fisheries

Part II (Management Implementation)

Section 3: Implementation of ICCAT Conservation and Management Measures

In 2010 The Ministry of Fisheries and Agriculture Iceland issued regulation 640/2010 on Bluefin Tuna fisheries by Icelandic vessels in 2010. There the requirements of ICCAT from the relevant Recommendations are set out for the fishing year 2010. The regulation which is attached in Icelandic stipulates the Icelandic quota for 2010, and an individual quota is to be assigned to vessels. Fishing is only allowed in the area south of Iceland from August 1-December 31, 2010 by longline vessels. Recreational or sports catches are to be notified and registrered by the Directorate of Fisheries.

In addition, the regulations set our requirements for, among others: mandatory electronic logbooks and VMS. Aerial search by air is prohibited. Included is a list of allowed landing ports in Iceland. Live release of bluefin tuna under 30 kg., observer requirements, tagging and bluefin tuna catch documentation as well as bluefin tune re-export certificate.

Section 4: Inspection Schemes and Activities

The Directorate of Fisheries in Iceland is the enforcement agent along with The Icelandic Coast Guard. The Icelandic Customs Authorities have been notified on the requirements for documentation on bluefin tuna.

Of the two vessels that applied for bluefin tuna quota to the Ministry of Fisheries and Agriculture in 2010, only two vessels made a request to the Directorate for an issue of a licence for the quota. Neither of the vessels participated in bluefin tuna fisheries in 2010, mainly due to financial reasons, as the vessel owners assessed that the individual quotas were too low to account for profitable fisheries and the Icelandic fleet does not receive any subsidies or direct financial transfers.

ANNUAL REPORT OF JAPAN[1]
RAPPORT ANNUEL DU JAPON
INFORME ANUAL DE JAPÓN

SUMMARY

Longline is the only tuna-fishing gear deployed by Japan at present in the Atlantic Ocean. The final coverage of the logbook from the Japanese longline fleet has been 90-95% before 2008. The current coverage for 2009 is estimated to be about 90%. In 2009, fishing days were about 25,000 days, which was near the average value in recent ten years. The catch of tunas and tuna-like fishes (excluding sharks) is estimated to be about 30,000 t, which is about 95% of the average catch of the past 10 years. The most important species was bigeye, representing 55% of the total tuna and tuna-like fish catch in 2009. The next dominant species was yellowfin tuna, which occupied 19% in weight, and the third species was bluefin tuna (7%). Observer trips on longline boats in the Atlantic were conducted and a total of about 800 fishing days were monitored. In addition to the logbook submission mentioned above, the Fisheries Agency of Japan (FAJ) has set catch quotas for western and eastern Atlantic bluefin as well as for northern and southern Atlantic swordfish, blue marlin, white marlin and bigeye tuna, and has required all tuna vessels operating in the Atlantic Ocean to submit catch information every day (bluefin tuna) and every ten-day period (other tunas) by radio or facsimile. All Japanese longline vessels operating in the Convention area have been equipped with satellite tracking devices (VMS) on board. In accordance with ICCAT recommendations, the FAJ has taken the necessary measures to comply with the minimum size regulations, time area closures and so on by 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 has 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 inspected landings at Japanese ports to enforce the catch quotas and minimum size limit. A prior permission from the FAJ is required in the case that Japanese tuna longline vessels transship tuna or tuna products to reefers at foreign ports or at sea.

RÉSUMÉ

La palangre est le seul engin déployé actuellement par le Japon pour cibler les thonidés dans l'océan Atlantique. La couverture finale des carnets de pêche de la flottille palangrière japonaise était de 90-95 % avant 2008. Le taux de couverture actuel pour 2009 est estimé à près de 90 %. En 2009, il y a eu environ 25.000 jours de pêche, ce qui était près de la valeur moyenne de ces dix dernières années. La prise de thonidés et d'espèces apparentées (à l'exclusion des requins) est estimée s'élever à 30.000 t, soit environ 95 % de la prise moyenne de ces dix dernières années. L'espèce la plus importante était le thon obèse qui représentait 55 % du total de la prise de thonidés et d'espèces apparentées en 2009. L'espèce dominante suivante était l'albacore, qui représentait 19 % en poids, suivie du thon rouge (7 %). Les observateurs embarqués à bord de palangriers ont réalisé des sorties dans l'Atlantique et près de 800 jours de pêche ont fait l'objet d'un suivi. Outre la soumission des carnets de pêche susmentionnée, l'Agence des pêches du Japon (Fisheries Agency of Japan, FAJ) a établi des quotas de capture pour le thon rouge de l'Atlantique Ouest et Est, ainsi que pour l'espadon de l'Atlantique Nord et de l'Atlantique Sud, le makaire bleu, le makaire blanc et le thon obèse, et a demandé à tous les thoniers opérant dans l'océan Atlantique de soumettre des informations tous les jours sur les prises de thon rouge, ainsi que des informations sur les prises d'autres thonidés, tous les dix jours, par radio ou fax. Tous les palangriers japonais opérant dans la zone de la Convention sont pourvus à bord de systèmes de surveillance des navires par satellite (VMS). Conformément aux recommandations de l'ICCAT, la FAJ a pris les mesures nécessaires, par arrêté ministériel, en vue du respect de ses réglementations de taille minimum, des fermetures spatio-temporelles, etc. Les Programmes de documents statistiques ou de capture sont réalisés pour chaque espèce. Des registres de navires de pêche de plus de 24 m de

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

longueur hors tout (LSTLV) ont été établis. La FAJ a détaché des patrouilleurs dans l'Atlantique Nord afin de suivre et d'inspecter les thoniers japonais et d'observer les activités de pêche de navires de pêche d'autres nations et a procédé à des inspections des débarquements dans les ports japonais afin d'appliquer les quotas de capture et la limite de taille minimale. La permission préalable de la FAJ a été requise pour tout palangrier thonier japonais qui vise à transborder des thonidés ou des produits de thonidés sur des cargos frigorifiques dans des ports étrangers ou en mer.

RESUMEN

El palangre es el único arte pesquero que utiliza Japón actualmente en el océano Atlántico. La cobertura final de los cuadernos de pesca de la flota palangrera japonesa fue del 90-95 % antes de 2008. La cobertura actual para 2009 se estima en aproximadamente el 90%. En 2009 hubo 25.000 días de pesca, lo que se sitúa en aproximadamente el valor medio de los últimos diez años. La captura de túnidos y especies afines (excluyendo tiburones) se estima en aproximadamente 30.000 t, lo que supone en torno al 95 % de la captura media del periodo de los últimos diez años. La especie más importante fue el patudo, que respondió de aproximadamente el 55% de la captura total de túnidos y especies afines en 2009. La segunda especie predominante fue el rabil, que respondió del 19% en peso, seguida por el atún rojo que ocupa el tercer lugar con un 7%. Se llevaron a cabo mareas con observadores en palangreros en el Atlántico y se hizo el seguimiento de en torno a 800 días de pesca. Además de la presentación de los cuadernos de pesca mencionada antes, la Agencia de Pesca de Japón (FAJ) ha establecido cuotas de captura para el atún rojo del Atlántico oriental y occidental, para el pez espada del Atlántico norte y sur, para la aguja azul, la aguja blanca y el patudo, y requiere que todos los buques atuneros que operan en el océano Atlántico presenten información sobre capturas cada día (atún rojo) y para periodos de 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, para establecer las vedas espaciotemporales, etc., mediante una orden ministerial. Se ha llevado a cabo el programa de documento estadístico o de documentación de capturas de cada especie. Se han establecido registros de los buques pesqueros de más de 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 de los desembarques en los puertos japoneses para verificar el cumplimiento de las cuotas de captura y de los límites de talla mínima. Es necesario el permiso previo de la FAJ para que cualquier palangrero atunero japonés pueda transbordar túnidos o productos de túnidos a buques frigoríficos en puertos extranjeros o en el mar.

Part I (Information on Fisheries, Research and Statistics)

Section 1: Annual Fisheries Information

1.1 Type of fisheries

Longline is the only tuna-fishing gear deployed by Japan at present in the Atlantic Ocean. The other two types of fisheries, baitboat and purse seine, 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%) before 2008. The current coverage for 2009 is estimated to be about 90%.

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

1.3 Trend of fishing effort

The number of the Japanese longliners which operated in the Atlantic in the 2009 calendar year was 123, and the fishing days were estimated to be about 25,000 days (**Table 1** and **Figure 1**). Fishing effort showed decreasing trend as to the entire Atlantic. However in the tropical Atlantic (20N-equatorial-20S) the fishing effort demonstrated an upward trend since 2001 with some fluctuation, and in the north area it showed a decreasing tendency in the recent six years.

Annual geographic distribution of the longline fishing effort in 2008 and 2009 (**Figure 2**) showed that fishing effort was exerted in a wide area of the North Atlantic from the south of Iceland to the central tropical waters between Africa and South America as well as in the waters along the African coast in the South Atlantic. There was also a tendency of higher concentration of fishing effort in the temperate North Atlantic between 25°N and 35°N. In 2009, fishing effort was observed in the waters off Uruguay. Seasonal distribution (**Figure 3**) clearly indicated a high concentration of fishing effort in areas such as the south of Iceland, off the east coast of North America as well as 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 trends

The 2009 calendar year catches of tunas and tuna-like fishes (excluding sharks) in the Atlantic Ocean and the Mediterranean Sea by the Japanese fishery are estimated to be about 30,000 t (**Table 2**). Although the total amount of fishing effort in 2009 was about 85% (**Table 1**) of the past average for the last ten years (1999-2008), the total catches excluding discards and sharks in 2009 were at about 95% of the average catch for the same years (**Table 2**). The most important species was still bigeye, representing 56% of the total tuna and tuna-like fish catch in 2009. The next dominant species was yellowfin which comprised 19% in weight, and the third species was bluefin tuna (7%). The remaining species were mainly composed of swordfish, blue marlin, albacore and southern bluefin tuna. The total catch represented a slightly upward trend since 2002 with some yearly fluctuation. In 2009 all species except bigeye, bluefin and southern bluefin showed above past average catches (about 100-260 %) (**Table 2**). The bluefin and bigeye catches represented near average catch, 67% and 87% of the average catches, respectively. Swordfish catch did not occur in the North Atlantic between February 2000 and 2003 as all catches of this species were discarded. The area breakdown of catch by species is also shown in **Table 3** for recent two years (2008-2009).

Geographic distributions of catch by species are shown in **Figure 4** (bluefin tuna), **Figure 5** (bigeye tuna), **Figure 6** (yellowfin tuna), **Figure 7** (swordfish) and **Figure 8** (blue marlin). In general, those distributions for bigeye tuna 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 the inter-tropical area between 30°N and 20°S, respectively. Large catches of yellowfin tuna and swordfish were recorded in tropical waters. These patterns are shown more clearly in **Figure 9** that indicates geographic distribution of catch composition by species.

1.5 New developments or shifts in the fishery

No new development or drastic changes in trends were observed in recent years. The 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 in the last year (**Figure 1**).

Section 2: Research and Statistics

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

2.1 Fishery data

The NRIFSF provided near final 2007 and 2008 catch and effort and size frequency data (Task I, II and biological sampling) of the longline fishery to the ICCAT Secretariat. In accordance with the relevant ICCAT recommendations on bluefin tuna, bigeye tuna and swordfish stocks, nine observer trips on longline boats in the Atlantic were conducted between August 2008 and March 2009. A total of about 800 fishing days were monitored. This year's activities, that have already started, will be conducted in 8 trips between September 2009 and March 2010, during which it is planned to tag three pop-up-tags for bluefin tuna.

2.2 Tuna biology and stock assessment

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

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

Part II (Management Implementation)

Section 3: Implementation of ICCAT Conservation and Management Measures

3.1 Catch quota and management system on the number of bigeye tuna vessels

3.1.1 Catch reporting by radio

The FAJ requires all tuna vessels operating in the Atlantic Ocean to submit the logbook information every ten-day period (early, middle and late-period of a month) by radio or facsimile to the FAJ. In addition, all tuna vessels fishing for Atlantic bluefin tuna are required to report the catch weight of bluefin tuna for individual fish with its tag number (Ministerial Order on April 2, 1975 and amended on July 25, 2008), the name of vessel and the location of catch every day:

3.1.2 Implementation of the Vessel Monitoring System (VMS)

Since 1992, all Japanese longline vessels operating in the Convention area must be equipped with satellite tracking devices (VMS) on board. The vessels are required to report their positions through VMS in accordance with the relevant ICCAT Recommendation.

3.1.3 Catch quotas management

i) Catch quotas

The FAJ has set catch quotas for western and eastern Atlantic bluefin tuna as well as for northern, southern Atlantic swordfish, blue marlin, white marlin and bigeye tuna, respectively by a Ministerial Order in accordance with the relevant ICCAT recommendations. For Atlantic bluefin tuna, the quota has been allocated individually to a limited number of vessels authorized to fish for bluefin tuna, and all catches are required to be tagged with the designated plastic band distributed to the vessels. These vessels are also required to prepare ICCAT bluefin tuna catch documents (BCDs) provided by the FAJ for landing and transshipping in the designated ports.

ii) Fishing year

The FAJ has set the "Fishing Year (August to July)" for purposes of quota management of bluefin tuna, swordfish, blue marlin, white marlin and bigeye tuna. The 2010 quotas for these tunas have been applied to the 2010 fishing year which starts on August 1, 2010 and ends on July 31, 2011.

3.1.4 Number of fishing vessels

The FAJ has submitted the list of all fishing vessels that have been licensed to fish under the ICCAT Convention according to its relevant recommendations.

Since 1998, the FAJ had limited the number of vessels actually fishing for bigeye tuna in the Convention area to 245, by means of the mandatory check in/out reporting system via radio as well as the VMS based on the 2004 recommendation on 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.

Furthermore, since the TAC and allocations for eastern Atlantic bluefin tuna have been reduced in accordance with Recommendations 08-05 and 09-06, the government of Japan appropriated 4.2 million dollars in the 2010 Japanese fiscal year for further reduction of the capacity of its longline fishing vessels authorized to fish for Atlantic bluefin tuna. As a result, the number and the GRT of authorized vessels in 2010 fishing year have been reduced to 22 and 9,476, respectively, maintaining the amount of eastern Atlantic bluefin tuna quota of each authorized vessel over 50 metric tons.

3.2 Minimum size limits

In accordance with ICCAT recommendations, the FAJ has prohibited the catch of undersized fish with an exemption of a certain percentage of tolerance, by a Ministerial Order. The catch prohibition of undersized bluefin tuna was established by a Ministerial Order on April 2, 1975 and the FAJ amended this Ministerial Order several times to implement the ICCAT recommendations, such as the size limits for bigeye, swordfish, etc. The latest amendment of this order was in August of 2009 to implement the 2008 Recommendations on bluefin size limits.

3.3 Time and area closure

The FAJ has prohibited Japanese longline vessels from operating in the Mediterranean from June 1 to December 31 by Ministerial Order in accordance with the ICCAT recommendation. This closure of the bluefin tuna fishery has been extended to the east Atlantic Ocean with the exception of the area delimited by west of 10°W and north of 42°N, where such fishing has been prohibited from 1 February to 31 July, in accordance with ICCAT Recommendations 06-05 and 08-05.

3.4 National Observer Program

Based on the relevant ICCAT recommendations, the FAJ has implemented a national observer program of vessels operating in the North Atlantic. For 2009, 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 7.7% 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 has conducted random DNA examination in order to prevent false tuna importation.

3.6 Implementation of the ICCAT Bluefin Tuna Statistical Document (BTSD) Program and Catch Document Scheme (CDS)

From September 1, 1993, the Japanese government started collecting BTSDs for frozen product in accordance with the 1992 recommendation. In addition, from June 1, 1994, the Japanese government started collecting BTSDs for fresh product in accordance with the 1993 Recommendation.

From July 28, 2004, the Japanese Government started collecting information on farmed bluefin tuna product in accordance with the 2003 Recommendation.

From June 4, 2008, the Japanese Government started collecting bluefin tuna catch documents (BCDs) for all bluefin tuna products in accordance with the 2007 Recommendation.

The FAJ has annually reported the data collected under the program to the ICCAT Secretariat

3.7 Implementation of the ICCAT Bigeye Tuna Statistical Document (BETSD) Program

From July 1, 2002, the Japanese Government started collecting BETSDs for frozen product in accordance with the 2001 Recommendation.

The FAJ has annually reported the data collected under the program to the ICCAT Secretariat

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

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

The FAJ has annually reported the collected data under the program to the ICCAT Secretariat

3.9 Implementation of the Positive Listing Measure

Based on the 2002 Recommendation to establish an ICCAT record of fishing vessels larger than 24 meters in length overall (LSFVs) authorized to operate in the Convention area, the Japanese government started the Positive Listing Measure from November 14, 2003. Based on the 2009 Recommendation, the list was amended to cover vessels larger than 20 meters from June 1, 2010. The species and product type currently covered by the measure are frozen bluefin tuna, frozen bigeye tuna and frozen swordfish. If there were tunas caught by LSFVs not entered in the record, the import is not permitted by the Japanese Government.

The Japanese government has implemented the Positive Listing Measures on Farming Facilities based on the 2003 recommendation since November 22, 2004. For East Atlantic and Mediterranean bluefin tuna, the Japanese government has submitted a list of vessels authorized to fish for bluefin tuna based on the 2006 Recommendation.

Section 4: Inspection Schemes and Actives

4.1 Assignment of patrol vessels

Since 1976, Japan has dispatched patrol vessels to the North Atlantic and/or the Mediterranean every year for a certain period of time to monitor and inspect tuna fishing vessels.

4.2 Inspection of landing at Japanese ports

All Japanese tuna fishing vessels which land their catch at any Japanese port must report their landing plans in advance. The FAJ randomly inspects landings of those Japanese longline vessels to enforce the catch quotas and minimum size limit. For Atlantic bluefin tuna, 100% landing inspection is implemented.

4.3 Management of transshipment

A prior permission from the FAJ is required for Japanese tuna longline vessels to transship tuna or tuna products to reefers at foreign ports and at sea. Transshipment at sea has been allowed only to the carriers with observers placed on board by the Regional Observer Programs. Transshipment at sea of Atlantic bluefin tuna has been prohibited by Ministerial order, upon entry into force of the Resolution 08-05 on June 17, 2009. The FAJ monitors the weight by species, the time and place of transshipments, and conducts random inspection of landing at Japanese ports when longline vessels or reefers return to Japanese ports.

Section 5: Other Activities

5.1 Annual catch statistics

Each longline vessel flying the Japanese flag and licensed to engage in tuna fisheries by the Minister for Agriculture, Forestry and Fisheries is legally required to submit a catch report to the Minister every ten-day period by facsimile to the FAJ. Submission of this report is established by a Ministerial Order of January 22, 1963 and as amended on July 25, 2008. The above-mentioned catch report includes the daily information of the vessel's noon position, the number and weight of the catch by species, the quantities of gear used, surface water

temperature, etc. The information on the catch report submitted is examined and compiled into the database by NRIFSF.

5.2 Collection of biological data collected on board longline vessels

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

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

The FAJ issued administrative guidance and conducted educational programs for fishermen to use fishing gears and other tools to reduce the incidental catch of sea turtle, seabirds and sharks.

For sea turtles, the FAJ is conducting a pilot program to use circle hooks to reduce the incidental catch of sea turtles by Japanese longline vessels. When Japanese longline fishing vessels are operating in the high latitudes of the southern hemisphere where interactions between seabirds often happen, it is required to use Tori-pole and other devices to avoid seabirds from approaching the hooks and bait in accordance with the relevant measures adopted by regional tuna fisheries management organizations. In other areas, fishermen are also encouraged to use the device. In 2001, Japan established The National Plan of Action (NPOA) for the Conservation and Management of Sharks and for Reducing Incidental Catch of Seabirds in Longline Fisheries.

5.4 Collection of the trade data

The Ministry of Finance collects trade data, such as quantity, value and export country, etc. of imported tuna products. Such tuna trade data are collected by 31 items including species, fresh/frozen and type of product.

5.5 Effort limitation

The number of Japanese tuna longline vessels authorized to fish bluefin tuna in the western Atlantic and in the eastern Atlantic including the Mediterranean has been limited to 5 and 33 vessels in 2009 fishing year, 6 and 22 vessels in 2010 fishing year, respectively. Furthermore, the FAJ requires all the longline vessels operating in the northern part of the East Atlantic Ocean to submit an advance notice of their planned operations to the FAJ, which enables the FAJ to instruct the relevant fishing vessels to shift fishing grounds, if necessary. The number of longline vessels fishing for bigeye tuna has been limited 235 in 2007 in accordance with 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 has been authorized to operate on the high seas unless the government of Japan issues a license. No Japanese vessel can escape from the FAJ's control even when a vessel is conducting fishing 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 the FAJ to avoid their use for operations which may diminish the effectiveness of international conservation measures.

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

A new law was enacted in June 1996 with the objective of implementing measures necessary to enhance the conservation and management of tuna stocks and to develop international cooperation for the conservation and management of tuna stocks. This law establishes that the government of Japan may restrict the imports of tuna and tuna products from 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 tuna supply.

Since November 1999, the FAJ has implemented a mandatory reporting system, based on this law, to obtain more information on activities of illegal, unreported and unregulated (IUU) vessels whose products enter the Japanese market. All importers and persons in charge of carrier vessels are required to report detailed information on the fishing vessels that caught and transport their tuna.

5.8 Scrapping of IUU vessels

Implementing the Japan-Chinese Taipei Action Programs to eliminate the IUU fishing vessels, the Japanese government budgeted for scrapping the IUU tuna longline vessels of Japanese origin during 2001-2003. The total amount of the budget for this three-year program was about US$ 28 million (3.3 billion Japanese yen). 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 IUU fishing activities by large-scale tuna longline vessels (LSTLVs), Japan consulted with Vanuatu and Seychelles, as well as Chinese Taipei, and established the following new measures in order to dispose the remaining IUU tuna longline fishing vessels, and 69 IUU LSTLVs have been committed to comply with the following cooperative management schemes.

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

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

Those 69 vessels 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 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 task of the OPRT is to inform Japanese retailers and consumers of the products caught by IUU fishing vessels. The representatives from the fishermen of Japan and Chinese Taipei are the founding members of OPRT. The fishermen's groups of Korea, Philippines, Indonesia, China, Ecuador, Seychelles, Fiji, Micronesia, and Malaysia have joined OPRT.

Table 1. Annual number of Japanese tuna boats operated in the Atlantic and Mediterranean, 1981-2009.

	Longline			*Purse seine*	*Pole and line*
Year	*No. of boats*	*Fishing days (sets in 100)*	*Fishing days per boat*	*No. of boats*	*No. of boats*
1981	320	297	93	--	10
1982	269	307	114	1	7
1983	182	175	96	1	4
1984	212	252	119	1	2
1985	205	279	136	2	--
1986	190	208	109	2	--
1987	146	172	118	2	--
1988	183	260	142	2	--
1989	239	345	144	1	--
1990	235	359	153	1	--
1991	242	339	140	2	--
1992	248	292	118	2	--
1993	307	399	130	--	--
1994	232	380	164	--	--
1995	253	385	152	--	--
1996	291	471	162	--	--
1997	276	414	150	--	--
1998	250	403	161	--	--
1999	229	339	148	--	--
2000	208	355	171	--	--
2001	199	276	139	--	--
2002	185	243	131	--	--
2003	198	319	161	--	--
2004	199	323	163	--	--
2005	193	290	150	--	--
2006	173	252	145	--	--
2007	127	254	200	--	--
2008	151	283	188	--	--
2009*	123	249	203	--	--
Avg. (1999-2008)	186	294	160		
Avg. 2009	66%	85%	127%		

* 2009 values are preliminary.

Table 2. Catches (t) of tuna and tuna-like fishes taken by the Japanese longline fishery, 1981-2009. Grand total includes sharks but excludes discards.

Year	*BFT*	*SBF*	*ALB*	*BET*	*YFT*	*SWO*	*BUM*[*1]	*BLM*	*WHM*	*SAI*[*2]	*SPF*	*Others*	*Sub-total*	*SHK*	*BFT discards*	*SWO discards*	*Grand total (including SHK 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	38,066
2001	3,083	376	1,467	18,087	2,692	686	335	1	56	9	23	313	27,128	675	-	567	27,803
2002	3,501	1,152	942	15,306	2,105	833	267	2	16	23	28	531	24,705	898	-	319	25,603
2003	3,068	1,952	1,002	20,528	3,049	956	459	1	33	32	65	958	32,102	1,089	-	263	33,191
2004	3,123	92	1,402	18,509	6,260	1,263	539	2	36	75	77	336	31,715	1,464	-	0	33,179
2005	3,241	354	1,648	14,026	4,247	1,189	442	1	34	72	98	479	25,830	1,692	-	0	27,522
2006	2,828	303	1,097	15,735	4,643	1,746	490	2	39	67	74	463	27,486	2,166	-	0	29,653
2007	2,355	25	527	17,993	9,037	3,046	920	3	21	145	61	322	34,454	3,093	-	0	37,547
2008	2,922	915	1,772	16,780	6,268	2,544	1,028	1	34	232	99	906	33,500	4,758	-	0	38,258
2009[*3]	2,085	228	1,233	16,017	5,415	1,860	818	4	45	168	82	905	28,859	3,422	-	0	32,281
average (1999 - 2008)	3,108	732	1,212	18,340	4,577	1,509	615	1	39	72	61	573	30,839	1,753	-	-	32,592
2009[*3] / average	67%	31%	102%	87%	118%	123%	133%	263%	115%	233%	134%	158%	94%	195%			99%

[*1]Blue marlin and black marlin were not separated until 1993.

[*2]Sailfish and spearfish were not separated until 1993.

[*3]2009 values are preliminary.

Table 3. Area breakdown of Task I catches (t) taken by the Japanese longline fishery for 2008 and 2009. 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.

2008

Species	*West*	*East*	*North*	*South*	*Med*	*Total*
Bluefin	492	2351	2842	0	80	2922
Southern bluefin	0	915	0	915	0	915
Albacore	366	1405	402	1370	0	1772
Bigeye	4362	12418	7678	9103	0	16780
Yellowfin	990	5278	2222	4045	0	6268
Swordfish*[1]			942	1600	2	2544
Blue marlin	402	625	489	539	0	1028
Black marlin	0	1	0	1	0	1
White marlin	18	16	22	12	0	34
Sailfish	33	199	55	177	0	232
Spearfish	49	49	55	44	0	99
Other fishers	137	769	252	654	0	906
Sharks	1533	3222	2703	2053	2	4758

*1 Discards were not included.

2009*[2]**

Species	*West*	*East*	*North*	*South*	*Med*	*Total*
Bluefin	162	1904	2066	0	18	2085
Southern bluefin	1	227	0	228	0	228
Albacore	907	326	285	949	0	1233
Bigeye	4030	11987	8740	7277	0	16017
Yellowfin	1134	4281	2122	3293	0	5415
Swordfish*[3]			753	1106	1	1860
Blue marlin	365	453	480	338	0	818
Black marlin	0	4	1	3	0	4
White marlin	25	20	28	17	0	45
Sailfish	43	125	51	117	0	168
Spearfish	45	36	62	19	0	82
Other fishes	309	596	351	553	0	905
Sharks	1157	2265	2203	1219	0	3422

*2 Preliminary.
*3 Discards were not included.

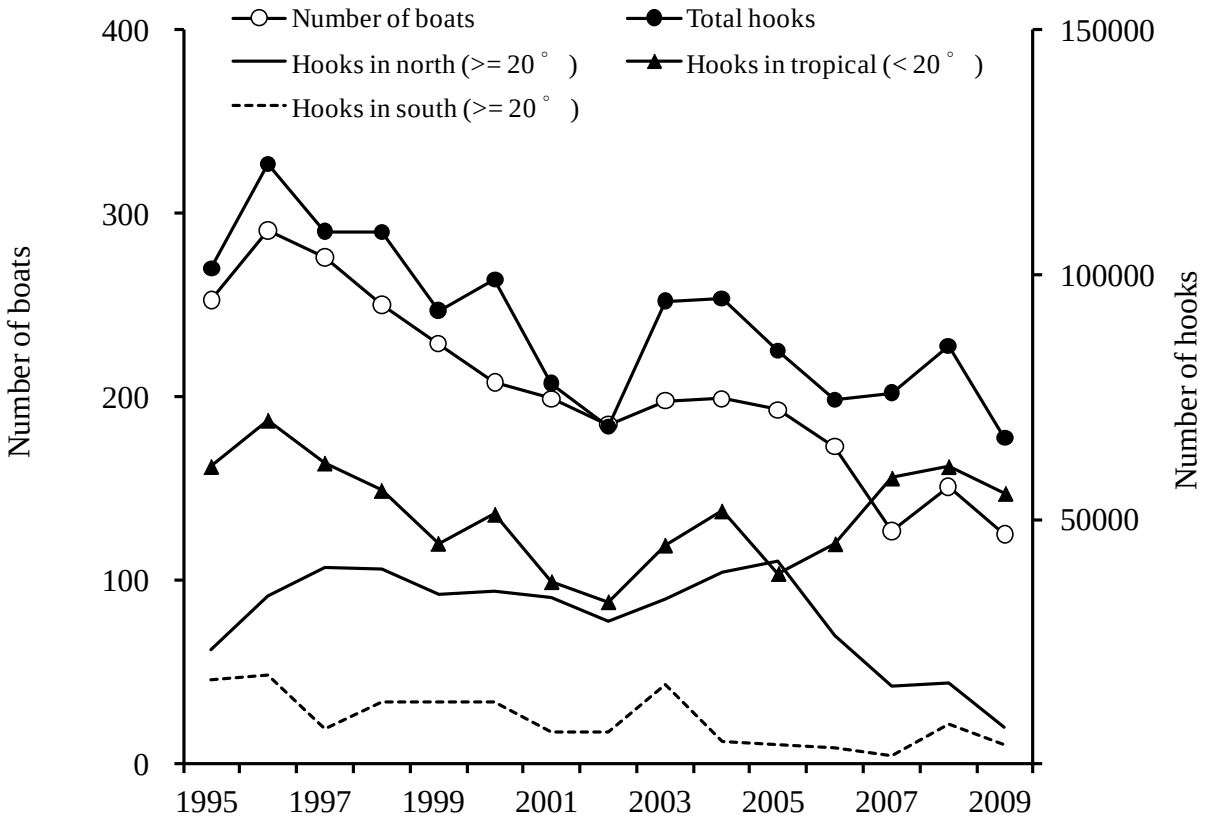

Figure 1. Trends in fishing effort (number of boats operated and number of hooks used) exerted by the Japanese longline fishery, 1994-2009. Number of hooks are also presented by area (north (>=20N), tropical (20N- equatorial - 20S) and south (>=20 S).

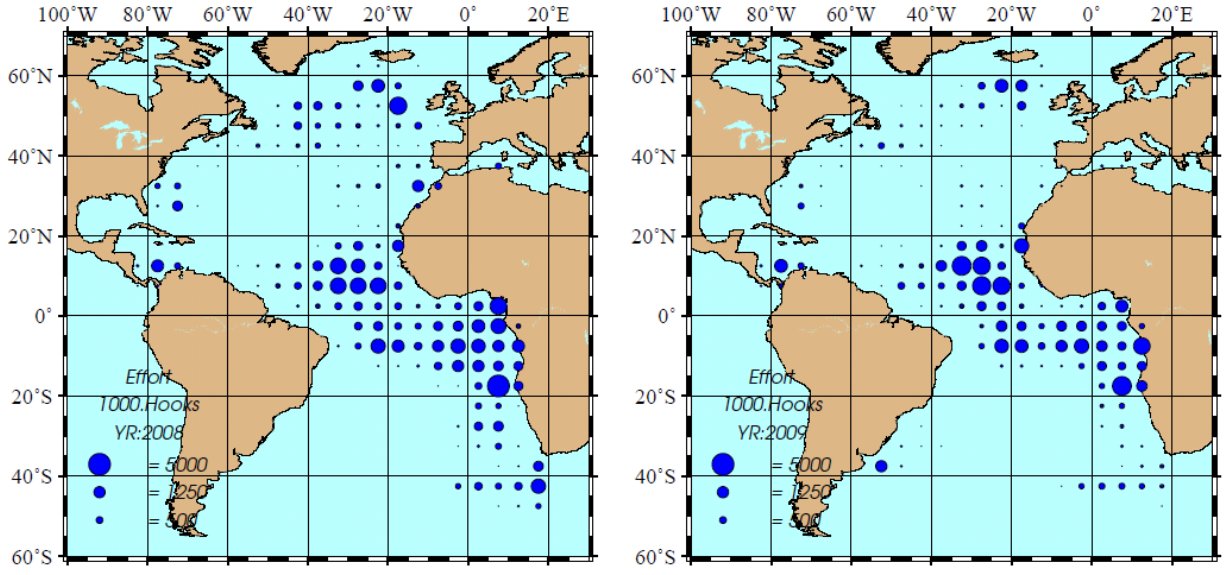

Figure 2. Geographic distribution of the Japanese longline effort (number of hooks) in the Atlantic, for 2008 (left) and 2009 (right).

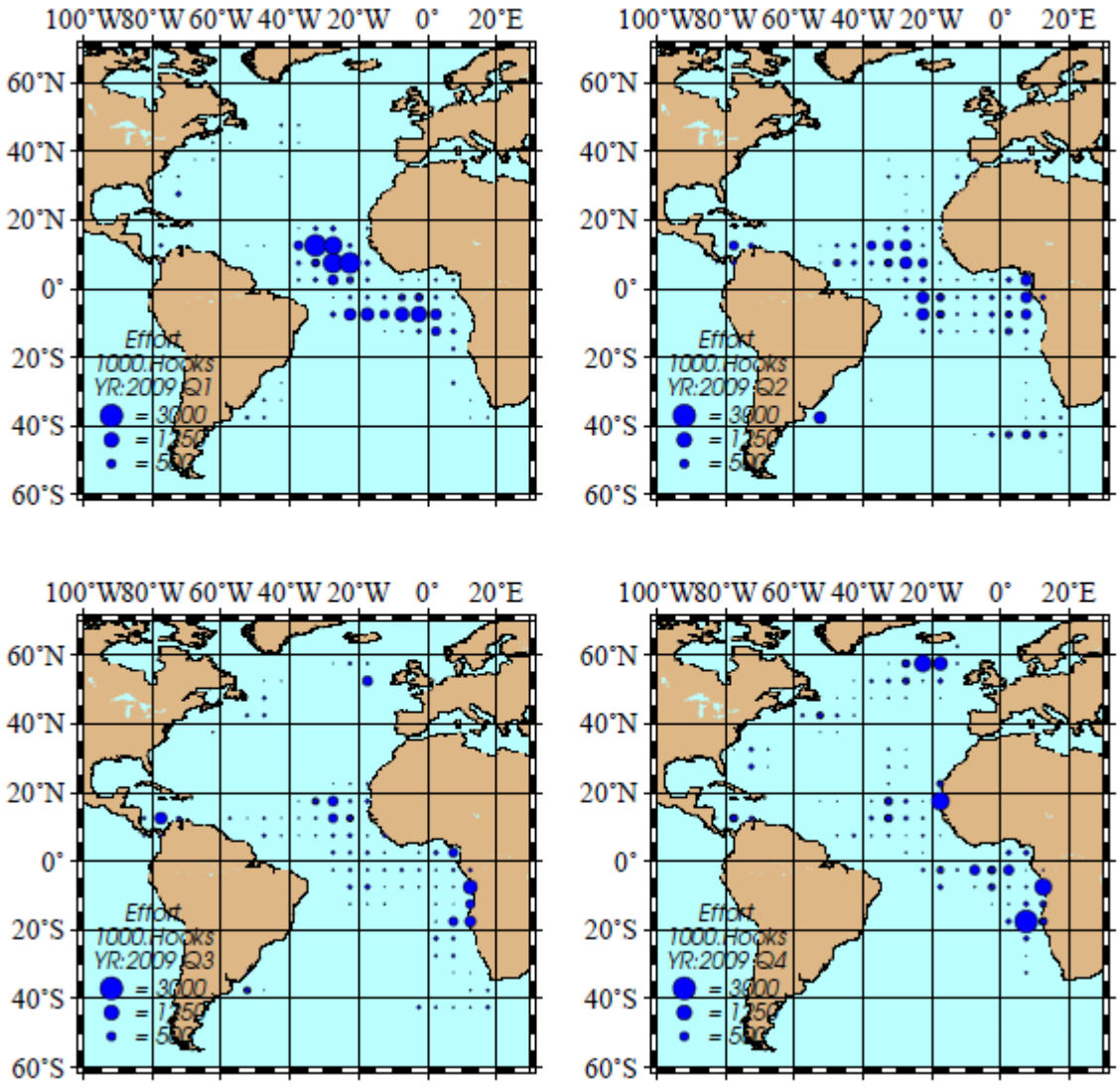

Figure 3. Quarterly distribution of the Japanese longline effort (number of hooks) in the Atlantic for 2009.

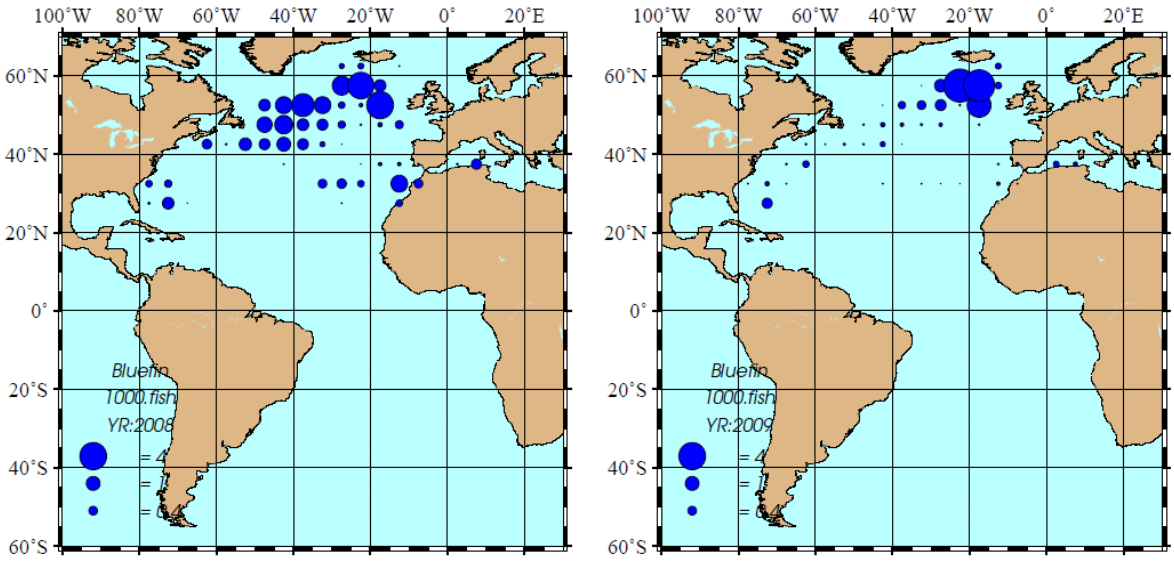

Figure 4. Geographic distribution of bluefin catch (number) in the Atlantic for 2008 (left) and 2009 (right).

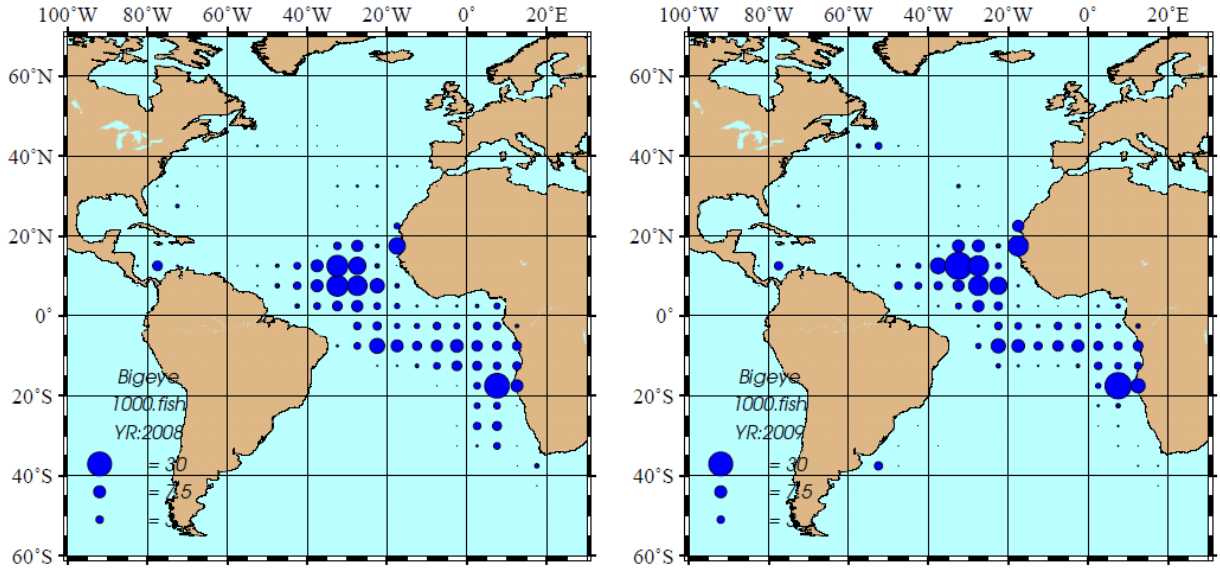

Figure 5. Geographic distribution of bigeye catch in number in the Atlantic for 2008 (left) and 2009 (right).

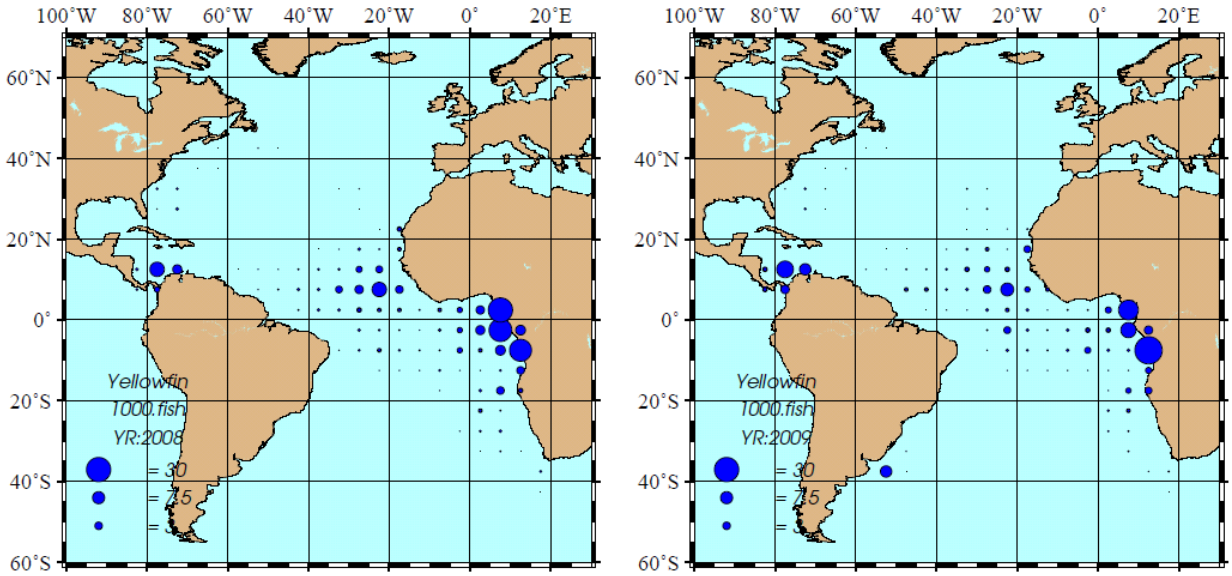

Figure 6. Geographic distribution of yellowfin tuna catch (number) in the Atlantic for 2008 (left) and 2009 (right).

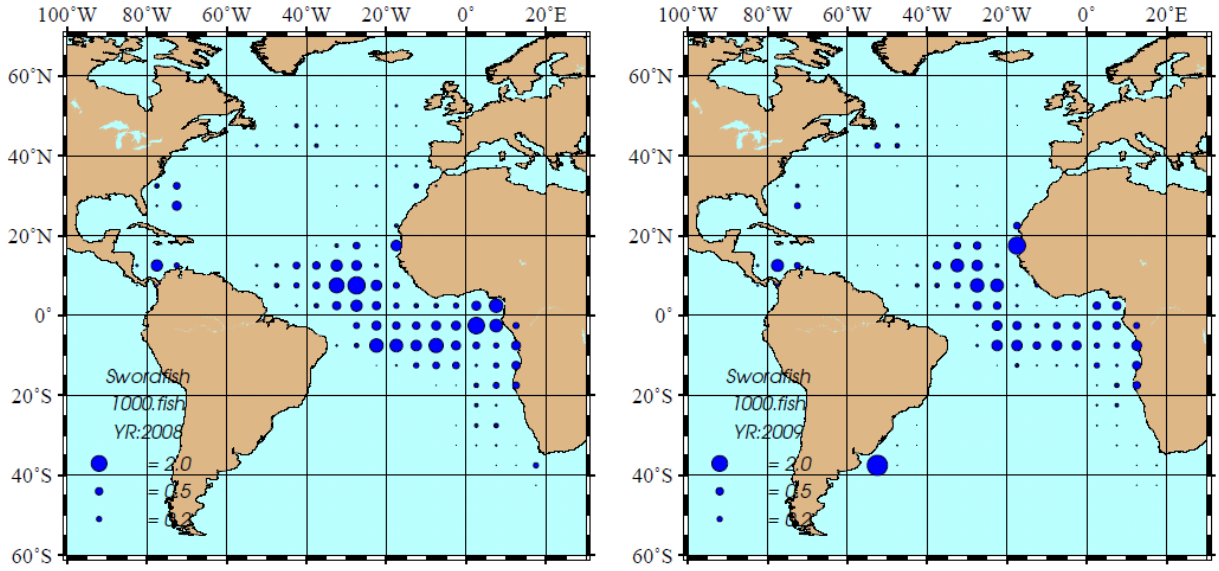

Figure 7. Geographic distribution of swordfish catch (number) in the Atlantic for 2008 (left) and 2009 (right).

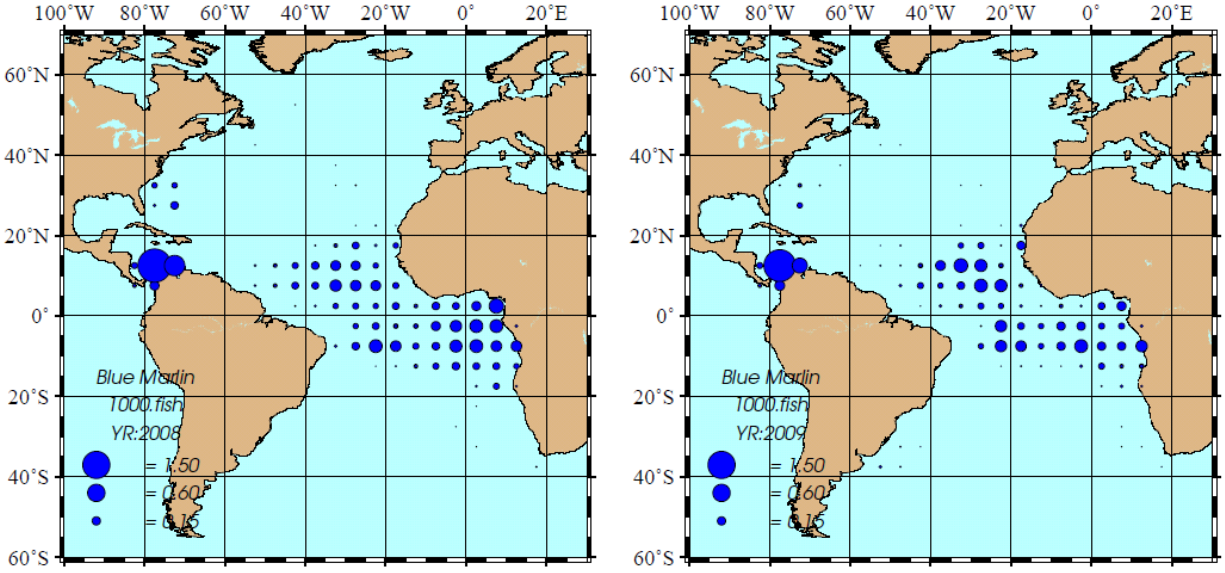

Figure 8. Geographic distribution of blue marlin catch (number) in the Atlantic for 2008 (left) and 2009 (right).

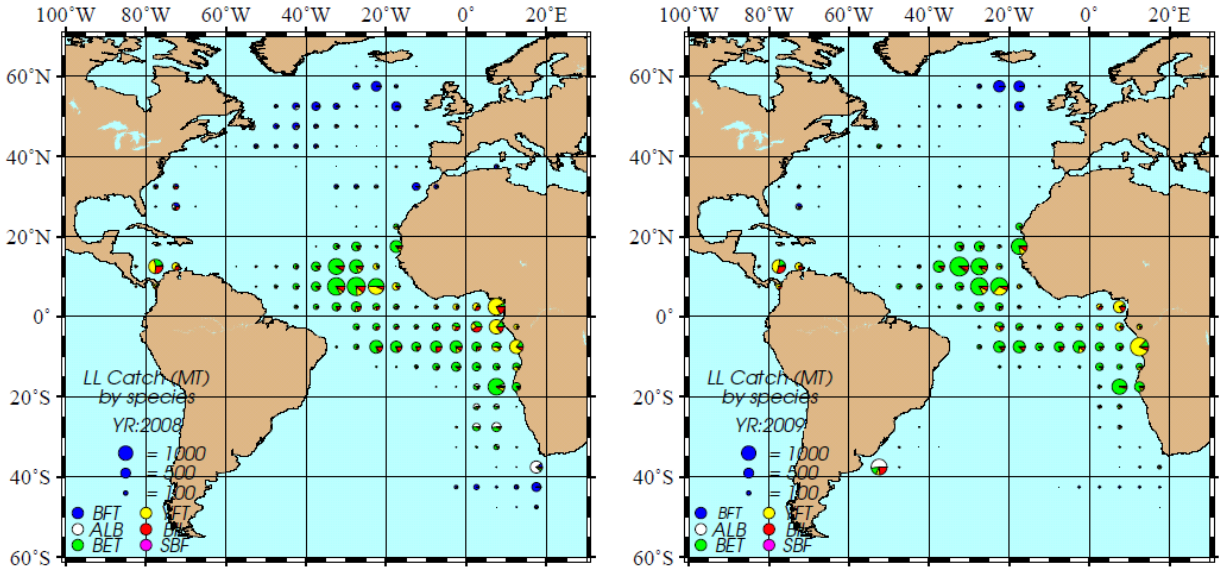

Figure 9. Species composition in the Japanese longline catch in weight for 2008 (left) and 2009 (right). Species are categorized into five groups: BFT (bluefin), ALB (albacore), BET (bigeye), YFT (yellowfin), BIL (swordfish and all billfishes) and SBF (southern bluefin).

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

Ministry for Food, Agriculture, Forestry and Fisheries (MIFAFF)

SUMMARY

Annual catch of tuna and tuna-like species by Korean large-scale tuna longline vessels and its one purse seiner in the ICCAT area has increased and ranged from 2,438 to 4,668 metric tons (t) with an average of 3,773 t from 2005 to 2009. The major species are bigeye tuna (55.6%), yellowfin tuna (16.5%) and bluefin tuna (10.5%) during the recent five years. From 2007 to the current year, the number of the Korean LSLTVs has increased in the Atlantic Ocean and thus the catch limits for bigeye tuna, swordfish, albacore and other marlines are very small taking into account the scale of fishing vessels. In 2009, 24 Korean longliners and one purse seiner (home based in Malta) operated in the ICCAT area and caught a total of 3,856 t, which decreased compared to the catch of the previous year. Usually a longline fishing trip lasts more than 20 months so that the catch statistical data are completed much later. Therefore, the reported Korean catch data for 2008 and 2009 is somewhat provisional. However, since 2010 the log sheet containing much information has been reported by electronic format submission as soon as the fishing operation ended. Also, detailed information on by-catch, such as each shark species since 2010, will be submitted because the Korean government has reinforced the data collection system through training and education on distant sea fishermen and national scientific observers. With regard to the management implementation on conservation and management measures adopted by the ICCAT, the Korean government initiated a set of quota management mechanisms on 9 March 2009 and 9 December 2009. In particular, before the start of the 2010 fishing season, all Korean longline vessels operating in the ICCAT areas have been prohibited from retention of swordfish on board regardless whether dead or alive. In the case of bigeye tuna, the Korean government has allocated bigeye tuna to each fishing vessel not to exceed its catch limit. As regards southern albacore which already exceeded its quota this year, the Korean government has prohibited its fishing vessels from catching this species since 15 October 2010. In order to complement a set of those measures and make them more effective, 13 branches of the National Fisheries Products Quality Inspection Services (NFIS) are monitoring the amount of catches and the flow of trade on those species. Furthermore, it was decided not to issue statistical documents to export swordfish since 2010. Those measures can eliminate the incentive for fishing vessels to catch swordfish and overharvest other relevant tuna and tuna-like species set out in ICCAT Recommendations.

RÉSUMÉ

Les prises annuelles de thonidés et d'espèces apparentées des grands palangriers et des senneurs coréens ciblant les thonidés dans les zones relevant de l'ICCAT ont augmenté, passant de 2.438 t à 4.668 t (avec une moyenne de 3.773 t) de 2005 à 2009. Au cours des cinq dernières années, les principales espèces étaient composées de thon obèse (55,6 % du total), d'albacore (16,5 %) et de thon rouge (10,5 %). De 2007 jusqu'à l'année en cours, la présence de grands palangriers coréens a augmenté dans l'océan Atlantique et par conséquent les limites de capture de thon obèse, d'espadon, de germon et d'autres makaires étaient très réduites en prenant en considération l'échelle des navires de pêche. En 2009, un senneur coréen et 24 palangriers coréens (basés à Malte) opéraient dans la zone ICCAT, capturant un total de 3.856 t, chiffre inférieur aux prises de l'année antérieure. De manière générale, la sortie de pêche des palangriers dure plus de 20 mois, de sorte que d'autres données statistiques de prise devraient être complétées avec celles que nous escomptions. Les données de la prise déclarée coréenne au titre de 2008 et de 2009 revêtent dès lors un caractère provisoire. Toutefois, depuis 2010, les feuilles des carnets de pêche contenant un grand nombre d'informations ont été présentées en format électronique dès la fin de l'opération de pêche. De même, des informations détaillées sur les prises accessoires, dont celles sur chaque espèce de requin depuis 2010, devraient être soumises étant donné que le gouvernement coréen a renforcé le système de collecte de données

par le biais de formations et de cours impartis aux pêcheurs hauturiers et aux observateurs nationaux scientifiques. En ce qui concerne la mise en oeuvre de la gestion des mesures de conservation et de gestion adoptées par l'ICCAT, le gouvernement coréen a lancé un ensemble de mécanismes de gestion des quotas le 9 mars 2009 et le 9 décembre 2009. Il a notamment été interdit à tous les palangriers coréens opérant dans les zones relevant de l'ICCAT de retenir à bord de l'espadon, qu'il soit mort ou vivant, avant le début de la saison de pêche 2010. En ce qui concerne le thon obèse, le gouvernement coréen a imposé des quotas de pêche de cette espèce aux navires de pêche qui ne peuvent pas dépasser leur limite de capture. Dans le cas du germon du Sud, pour lequel le quota a déjà été dépassé cette année, le gouvernement coréen a interdit à ses navires de pêche de capturer du germon du Sud à compter du 15 octobre 2010. Dans le but de compléter ces mesures et afin de faire en sorte qu'elles soient plus efficaces, 13 divisions des services de contrôle de qualité des produits halieutiques (NFIS) procèdent au suivi du montant des prises et des échanges commerciaux. De plus, il a été décidé de ne pas émettre de document statistique pour exporter de l'espadon depuis 2010. Ces mesures peuvent décourager les navires de pêche de capturer de l'espadon et de surpêcher d'autres thonidés et espèces apparentées faisant l'objet de recommandations de l'ICCAT.

RESUMEN

La captura anual de túnidos y especies afines de los grandes palangreros coreanos y de su único cerquero en la zona ICCAT se ha incrementado y osciló entre 2.438 y 4.668 t, con un promedio de 3.773 t desde 2005 a 2009. Durante los cinco últimos años las especies principales han sido patudo (55,6%), rabil (16,5%) y atún rojo (10,5%). Desde 2007 hasta la actualidad, el número de grandes palangreros coreanos en el Atlántico se ha incrementado y, por tanto, los límites de captura para el patudo, pez espada, atún blanco y otros istiofóridos resultan muy pequeños si se tiene en cuenta el tamaño de los buques pesqueros. En 2009, 24 palangreros y un cerquero (con base en Malta) coreanos operaron en la zona de ICCAT y capturaron un total de 3.856 t, lo que supone un descenso en comparación con la captura del año anterior. Generalmente, una marea de los palangreros dura más de 20 meses, de tal modo que los datos estadísticos de captura se completarán más tarde de lo que habíamos previsto. Por tanto, los datos de captura comunicados por Corea para 2008 y 2009 son provisionales. Sin embargo, desde 2010, las hojas de los cuadernos de pesca que contienen mucha información se comunican en formato electrónico nada más terminar las operaciones de pesca. Además, a partir de 2010 se presentará información detallada sobre captura fortuita, como por ejemplo para cada especie de tiburón, ya que el Gobierno coreano ha reforzado el sistema de recopilación de datos mediante la formación y capacitación de los pescadores en aguas distantes y de los observadores científicos nacionales. En lo que concierne a la implementación de las medidas de conservación y ordenación adoptadas por ICCAT, el Gobierno de Corea ha implementado una serie de mecanismos de gestión de la cuota el 9 de marzo de 2009 y el 9 de diciembre de 2009. En particular, se ha prohibido a todos los palangreros coreanos que operan en las zonas de ICCAT que retengan a bordo peces espada, vivos o muertos, antes del comienzo de la temporada de pesca de 2010. En el caso del patudo, el Gobierno de Corea ha asignado una cuota a cada buque pesquero con el fin de no superar su límite de captura. En lo que concierne al atún blanco del Sur, cuya cuota se superó ya este año, el Gobierno de Corea prohibió a sus buques pesqueros capturar atún blanco del Sur desde el 15 de octubre de 2010. Para complementar estas medidas e incrementar su eficacia, 13 secciones del Servicio Nacional de Inspección de la Calidad de los Productos Pesqueros (National Fisheries Products Quality Inspection Services-NFIS) están realizando un seguimiento del volumen de capturas y del flujo comercial de dichas especies. Además, se decidió no expedir documentos estadísticos a las exportaciones de pez espada desde 2010. Estas medidas pueden eliminar el incentivo que pueda tener para los buques pesqueros capturar pez espada o realizar excesos de capturas de otros túnidos y especies afines pertinentes, tal y como se establece en las Recomendaciones de ICCAT.

Part I (Information on Fisheries, Research and Statistics)

Section 1: Annual Fisheries Information

It was in 1957 that Korean longliners first set out fishing tunas by advancing to the Indian Ocean. The tuna fishery has become the most important distant water fisheries in Korea. While Korean tuna fisheries mainly occur in the Pacific and Indian Ocean, the fishery is relatively small in the Atlantic. The trend of Korean tuna fisheries in the Atlantic has gradually declined since the mid-1980s. During the 1990s, the average number of Korean tuna longliners active in the Atlantic was less than 10 vessels, with an annual catch of 1,700 t. From mid-1990s, even though 54 longliners were registered in the IOTC area, many of them have migrated between the Indian and Atlantic Ocean, depending on the fishing conditions of the oceans. This kind of fishing pattern came out of the gear-type-based license system of Korea which does not limit a specific fishing ground.

In recent years, the annual catch of tuna and tuna-like species by Korean tuna longliners and one purse seiner in ICCAT areas has increased and ranged from 2,438 to 4,668 t with an average of 3,773 from 2005 to 2009. The major species were bigeye tuna (55.6%), yellowfin tuna (16.5%) and bluefin tuna (10.5%) during the recent 5 years, of which bigeye tuna and yellowfin tuna were the most important in terms of catch size and high commercial value in sashimi markets.

1.1 Annual trend of catches and number of vessels

The total annual catch of tuna and tuna-like species in the Atlantic Ocean is shown in **Table 1**. The recent change in catch trend was mainly due to the re-entry of some of Korean tuna longliners and participation of one purse seiner since 2004 in the Atlantic Ocean. In 2009, 24 Korean longliners and one purse seiner (home based in Malta) operated in the ICCAT area and caught a total of 3,856 t, a decrease as compared to the catch of the previous year. Almost 78% of the total catch was comprised of the three major species, of which bigeye tuna was 2,134 t (55%), albacore 458 t (12%) and yellowfin tuna 433t (11% of total). It was apparent that the yellowfin tuna catch sharply decreased from 993 t in 2008 to 433 t in 2009, while albacore catches increased from 147 t in 2008 to 458 t in 2009.

1.2 Distribution of fishing grounds

Korean longliners have mainly operated in the tropical area of the Atlantic Ocean and targeted bigeye tuna and yellowfin tuna. The fishing season was throughout the year, from January to December, in 2009 in the central Atlantic Ocean (15°N ~5°S, 0°W~40°W). However, the fishing grounds have fluctuated every year depending on the fishing and the oceanographic condition**s** for the target species whose main fishing grounds are in statistical area 34 of the Atlantic Ocean (**Figure 1**).

One Korean purse seiner which has its home port in Malta, fished for bluefin tuna in the Maltese area (34°~35°N, 13~15°E) of the Mediterranean Sea for one month. During the 2009 fishing season, this vessel caught a total of 102 t of bluefin with joint fishing fleets (Korea and France). The Korean catch of bluefin tuna in the 2009 fishing season accounted for 77% of the Korean quota (132.26 t) for 2009. The CPUE (t/set) for the bluefin tuna catch by joint fishing fleets was 42 t/set. The geographic distribution of CPUE for bluefin tuna catch is shown in **Figure 2**.

Section 2: Research and Statistics

2.1 Statistical data collection

The National Fisheries Research and Development Institute (NFRDI) has carried out routine scientific monitoring work over the past years. The monitoring involved the collection of catch and fishing effort statistics from Korean tuna longliners and purse seiners in the Atlantic Ocean in 2009. The requested Task I and II data were already provided to the ICCAT Secretariat. The data coverage of target and by-catch species was 52% of the total catch in the longline fishery and 86% in the purse seine fishery, respectively.

There are two sources of statistical data collection. The Korea Overseas Fisheries Association (KOFA) collects total catches by gear from Korean tuna industries, which are used as the official total catch that covers all tunas and tuna-like species. The National Fisheries Research and Development Institute (NFRDI) collects log sheet sampling data from fishing vessels. The log sheet contains operation location, catches by species, number of hooks and sets, etc. The estimates of annual catch for the ICCAT area presented in this report are made by cross-

checking the log sheet data and the official total catch. In accordance with the distant-water fisheries acts, fishing vessels are obliged to report the log sheet and biological measurement to NFRDI when they return to their home-based port. Usually, a longline fishing trip lasts more than 20 months so that the catch statistical data are completed much later. Accordingly, the reported Korean catch data for 2008 and 2009 are usually provisional. In 2010, the log sheet has been reported by electronic format submission as soon as the fishing operation ended.

2.2 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 conservation and management measures. Before the official observer program was launched, Korea had, if necessary, dispatched NFRDI scientists aboard commercial tuna vessels to monitor fishing activities and collect more detailed catch data including biological samples.

In 2009, NFRDI's observer program deployed 12 observers who carried out 12 trips on Korean distant-water fishing vessels. Of the 12 observation trips, one observer was deployed on a tuna purse seine vessel that operated in Malta's EEZ for bluefin tuna catch in the Mediterranean. To help with the identification of the species of seabird**s,** sea turtles and sharks incidentally caught by tuna longline and purse seine fishing, guide books and posters summarizing information of these species have been distributed to fishing vessels along with the by-catch logbook sheet since 2008.

Part II (Management Implementation)

Section 3: Implementation of ICCAT Conservation and Management Measures

The Korean government established its domestic legislation called "Distant Sea Fisheries Act"(DSFA) in March 2008 to implement all compulsory recommendations and resolutions adopted by International Fisheries Management Organizations such as ICCAT, IOTC, CCSBT, etc. This Act consists of five Sections and 36 Articles which stipulate provisions that all Korean distant fishing vessels shall comply with, such as Authorization to Fish, Port Inspection, and Installation of VMS, etc. This Act came from the environment where many regional fisheries management organizations and international fisheries organizations have been adopting a wide range of conservation and management measures each year. However, if new and urgent measures, such as the Statistical Document Programs are adopted, the Korean government shall establish a separate Notice of the Ministry for Food, Agriculture, Forestry and Fisheries even though the DSFA contains some relevant provisions. In particular, Article 13 of the Act (Observation of Distant Sea Fishermen) states that distant sea fishermen shall conduct their fishing activities with their legitimate fishing licenses and comply with conservation and management measures and other obligatory regulations adopted by international fisheries organizations. In addition, in accordance with Article 11 (Cancellation of Fishing License) and Article 36 (Fine) of the Act, in case of failure of compliance with those measures and regulations, their fishing licenses can be suspended for a maximum six months or cancelled, or the fishermen can be fined approximately US$ 4,500 depending on the degree of non-compliance.

Regarding steps taken to implement Recommendation 08-01 and 09-01, Korea made its measures effective to comply with those ICCAT measures. As the number of Korea's large-scale tuna longline vessels increased in recent years, the amount of bigeye tuna as a main target species increased along with its by-catch, swordfish, and, the amount of catches approached or slightly exceeded the catch limit from 2007 to 2009. In this trend, the Korean government initiated its direct control over the fishing vessels targeting bigeye tuna as a means of quota management on March 2009. Before that, the Korean government did not set its quota to distribute among its fishing vessels because they have never exceeded their catch limit due to the small number of fishing vessels for the last 15 years. The purpose of Korea's internal action at the initial stage is to allocate its quota to each fishing vessel to comply with catch limit not to exceed its catch limit. In the case of the 2009 catch limit (2,100 t), the Korean government initially allocated only 1,600 t to fishing vessels until September 2009 and then distributed the remaining 500 t to them in order to comply with its catch limit. In doing so, the Korean government identified only one vessel that slightly exceeded its own catch limit, and the fishing company was punished with an exclusion of fishing opportunity in 2010 as the first step on non-compliance. The Korean government announced that the fishing companies operating in the Atlantic Ocean will be given a severe penalty under the DSFA if they repeat any violations of overcatch of bigeye tuna since the year of 2010.

With regard to the conservation and management measures for southern and northern swordfish, the Korean government prevented fishing vessels from exceeding their catch limits of 50 t each in 2009 through its official Notice. In accordance with the ICCAT decision at the 15th Annual Meeting in Brazil, all catches of swordfish have been prohibited even though, for Korea, this species is a by-catch of the bigeye tuna fishery. Hence, the Korean government advised the fishing companies concerned to discard all swordfish when they are operating in the Atlantic. Furthermore, observers on board are checking the amount of discards, both alive and dead, in 2010. Since 2010, the National Fisheries Product Quality Inspection Institute has not issued any statistical documents for export of swordfish because the real quota for Korea is zero. This measure has been effective for bigeye tuna when it approaches its catch limit for 2010. In addition to this measure, fishing vessels were totally prohibited from harvesting southern albacore from 15 October 2010, through an official instruction since it was reported that the amount of southern albacore caught exceeded its quota this year. The Korean government can assure the fishing vessels will comply with its measures. Otherwise they shall be severely punished next year.

When it comes to the ICCAT Statistical Document Programs, the National Fisheries Products Quality Inspection Services (NFIS) consisting of its 13 branches in the main regions of Korea shall inspect and validate all documents such as import, export and re-export certificates, and report everything to the Ministry on a six-month basis. Korea reported to the ICCAT Secretariat the data collected by the ICCAT Bigeye Tuna and Swordfish Statistical Document Program. In particular, when identify any insufficient information in any documents is identified this should be reported to the Ministry and then reviewed and resolved through consultation with the other Party involved.

The Korean government has been developing a mechanism to collect more accurate data on amount of catches for tuna and tuna-like species and classify shark species in detail through introduction of newly-formatted logbook sheets and guidelines for fishermen to distinguish shark species and marlin species since 2010. Hence, the Ministry expects that Korea can submit scientific data on a species by species basis, in detail, especially on shark species from the year of 2010 to resolve any data deficiencies. Those data will be in due course submitted in advance of the next annual meeting in 2011.

Section 4: Inspection Schemes and Activities

In the event of fish products imported to Korea and landed at its ports, the person willing to import those products shall declare it with the relevant certificate to the branch of NFIS. The inspector shall review all available information in the documents concerned and then decide whether those products are allowed to be landed or not. However, when the documents concerned have some missing or false information, inspectors should instantly report this to the Ministry as well as to the ICCAT Secretariat in order to resolve it and prevent any flow of illegal fish products. The Korean government also reviews its in-port transshipment and at-sea transshipment amounts and activities by Korean large-scale tuna vessels and annually reports the details on the transshipments to the ICCAT Secretariat. In addition, NFIS has been instructed to check very strictly swordfish, bigeye tuna, especially northern bluefin tuna, to be imported or re-exported to Korea through a proper identification on whether it is the legitimate quota for those species any CPCs has from ICCAT and other RFMOs.

Section 5: Other Activities

The Korean government has recently reinforced its domestic regulations concerning how to confirm or validate all data as well as documents in order to prevent any illegal fish products to be exported to other countries.

First, when an exporter from a fishing company wants to sell his fish products (i.e., bluefin or bigeye tuna), it is required to submit its Catch Verification Document (CVD) issued by the master of the vessel to one of 13 branches of NFIS as well as the necessary information. The CVD includes vessel name, fishing period, fishing ocean and fishing position as well as species.

Second, inspectors confirm whether the fishing vessel has its fishing license and the vessel has been registered in a RFMO concerned. If there is no problem, inspectors validate relevant documents (BCD or statistical document) with its seal. In particular, considering its importance with regard to the bluefin tuna catch document, the inspector asks the Ministry once again whether the vessel has a right to catch and export within its quota. Documents with its seal and signature mean that Korea guarantees that all data have been verified.

Table 1. Nominal catch (t) of tuna and tuna-like species by Korean longline and purse seine fisheries in the Atlantic Ocean, 1985-2009

Year	*No. of vessels*	*BFT*	*YFT*	*ALB*	*BET*	*SBT*	*SKJ*	*SWO*	*BUM*	*WHM*	*SAI*	*Others*	*Total*
1985	45	77	3,239	901	10,691	-	20	344	416	372	101	1,293	17,454
1986	28	156	1,818	694	6,084	-	11	82	96	71	16	1,093	9,965
1987	29	1	1,457	401	4,438	-	6	75	152	27	21	1,048	7,625
1988	29	12	1,368	197	4,919	-	3	123	375	19	15	782	7,801
1989	33	45	2,535	107	7,896	-	6	162	689	135	33	944	12,507
1990	17	20	808	53	2,690	-	-	101	324	81	41	240	4,338
1991	9	229	260	32	801	-	-	150	537	57	30	267	2,134
1992	8	101	219	-	866	-	-	17	38	1	1	321	1,463
1993	4	573	180	-	377	-	-	-	19	2	1	308	887
1994	4	684	436	-	386	-	-	-	-	91	1	27	1,625
1995	4	663	453	-	423	-	-	-	61	1	-	114	1,715
1996	16	683	381	-	1,250	-	-	26	199	37	6	156	2,738
1997	12	613	257	5	796	10	-	33	70	24	1	115	1,924
1998	5	-	65	-	163	-	-	-	-	-	-	62	290
1999	9	-	94	-	124	28	-	-	-	-	-	31	277
2000	9	-	143	-	70	62	7	-	-	-	-	10	292
2001	5	0.5	3.4	1.4	1.3	157.7	-	0.1	0.5	-	-	27.4	192
2002		-	7.8	-	87.3	-	-	1.5	-	-	-	-	97
2003	3	-	209	5	143	-	-	24	-	11	-	10	402
2004	13	700	984	37	629	-	-	70	-	40	-	147	2,607
2005	13	1,146	675	101	770	-	-	87	-	7	-	109	2,895
2006	8	79	283	111	2,067	-	-	159	-	-	-	71	2,770
2007	21	276	507	68	2,136	42	-	264	-	94	-	50	3,437
2008	25	335	993	147	2,599	229	-	143	-	96	-	37	4,668
2009	25	102	433	458	2,134	277	-	14	8	8	-	424	3,856

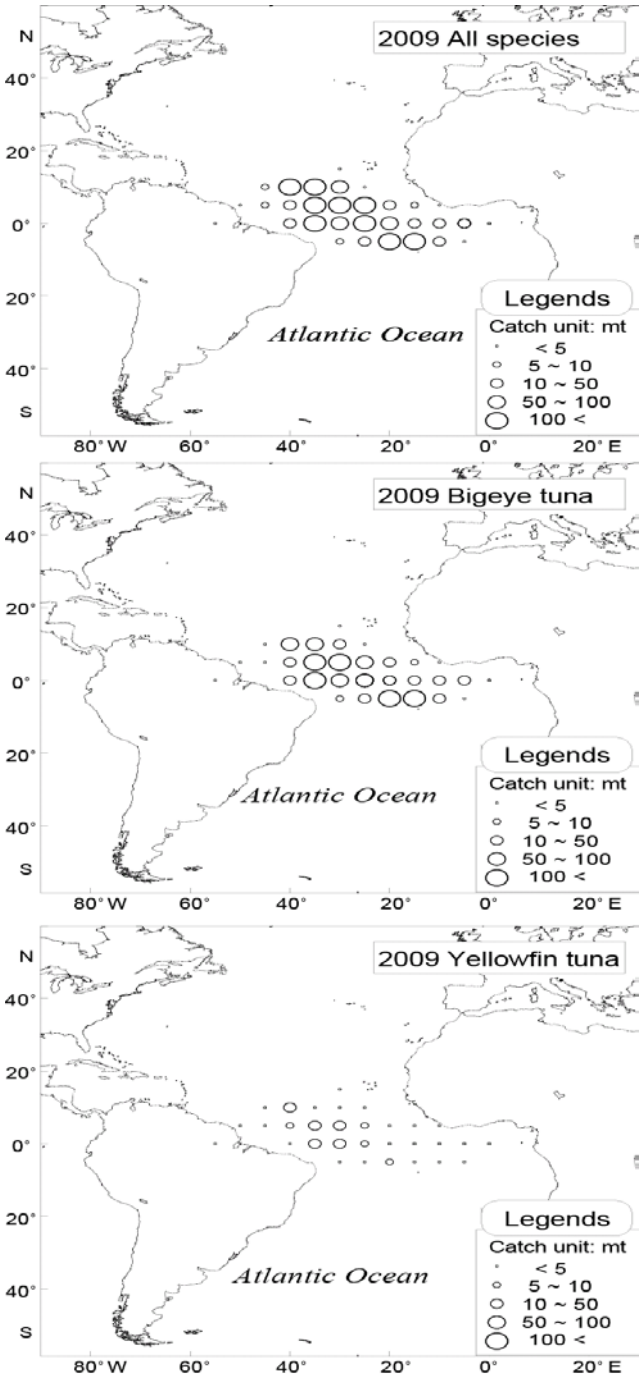

Figure 1. Distribution of the catch of the main tunas by the Korean longline fishery in 2009.

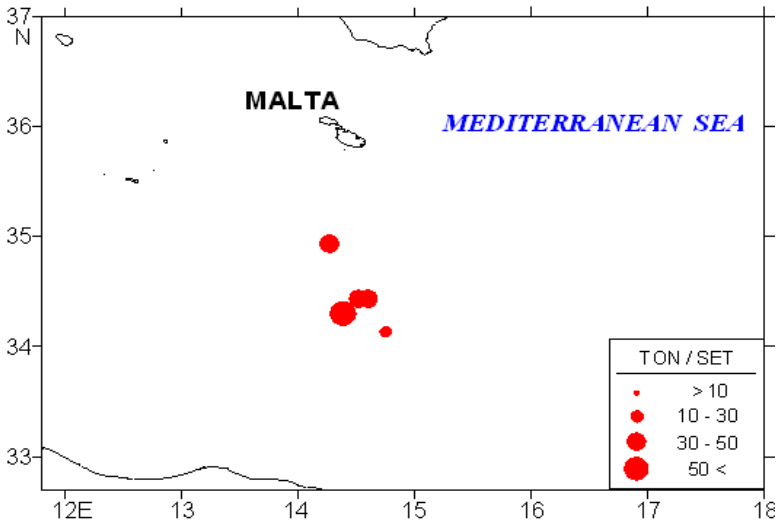

Figure 2. Distribution of CPUE (t/set) of bluefin tuna by the joint fishing fleet (Korea and France) in 2009.

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

SUMMARY

In the 2009 fishing season, bluefin tuna was the only species targeted by the Libyan fishing fleet in the Mediterranean Sea, using two types of fishing gear (purse seine and longline). The total number of vessels engaged in the operations was 27 (2 longliners and 25 purse seiners), while the number of total vessels engaged in the 2008 season was 30 (2 longliners and 28 purse seiners). No traps and no fattening farms operated. No other tuna species were targeted by the Libyan fishing fleet in 2009. The total catch of bluefin tuna was 1081.64 metric tons (t). The fishing operations for bluefin tuna took place mostly in Libya's territorial waters. ICCAT conservation measures were respected, VMS messages were transmitted to ICCAT, and national observers were put on board each licensed fishing vessel to monitor and control fishing activity.

RÉSUMÉ

Pendant la saison de pêche 2009, seul du thon rouge a été ciblé par la flottille de pêche libyenne dans la mer Méditerranée, qui avait recours à deux types d'engins de pêche (la palangre et la senne). Le nombre total de navires participant aux opérations de pêche s'est élevé à 27 (2 palangriers et 25 senneurs), contre 30 navires en 2008 (2 palangriers et 28 senneurs). Aucune madrague et aucun établissement d'engraissement n'ont opéré en 2009. Aucune autre espèce de thonidés n'a été ciblé par la flottille de pêche libyenne en 2009. La prise totale de thon rouge s'est élevée à 1081,64 tonnes. 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, les messages du VMS ont été transmises, des observateurs nationaux ont été embarqués à bord de chaque navire de pêche muni d'une licence afin d'effectuer un suivi et un contrôle des activités de pêche.

RESUMEN

En la temporada de pesca de 2009, la flota de pesca libia se dirigió únicamente al atún rojo en el mar Mediterráneo, utilizando dos tipos de artes de pesca (cerco y palangre). Un total de 27 buques (2 palangreros y 25 cerqueros) participaron en las operaciones, mientras que en 2008 esta cifra ascendió a 30 (2 palangreros y 28 cerqueros). En 2009, no hubo almadrabas o instalaciones de engorde operativas y la flota pesquera libia no se dirigió a otras especies de túnidos. La captura total de atún atún rojo ascendió a 1.081,64. Las operaciones de pesca de atún rojo tuvieron lugar sobre todo en las aguas territoriales. Se respetaron las medidas de conservación de ICCAT, se transmitieron mensajes VMS a ICCAT y se embarcaron observadores a bordo de todos los buques con licencia para que siguiesen y controlasen las actividades pesqueras.

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

Section 1: Annual Fisheries Information

1.1 Types of fisheries

The main fishing effort was directed to catch the main targeted species, bluefin tuna, a highly migratory species along the Libyan coast, in accordance with the ICCAT measure [Rec. 08-05]. During the 2009 fishing season, only two types of fishing gears were used, longline (LL) and purse seine (PS). There was no fixed traps activity during the 2009 fishing season.

1.2 Fishing effort trends

The total number of active fishing vessels during the 2009 season was 27 (2 LL and 25 PS).The number of longliners was the same as the previous year. In the case of purse seine, there were 28 PS vessels during the 2008 season.

1.3 Catch trends

The total catch of bluefin tuna in Libyan waters during 2009 was 1081.64 metric tons (t). Data on bluefin tuna catches during the period 2003-2009 was submitted accordingly (**Table 1**).

Section 2: Research and Statistics

Data collection on the bluefin tuna fishery are necessary for scientific research. The required statistical data have been collected by scientific observers on board the longline vessels during 2009.

2.1 Fishery data

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

Part II (Management Implementation)

Section 3: Implementation of ICCAT Conservation and Management Measures

Blue fin tuna is the only species targeted by Libyan fishing vessels in the last few years and their fishing activity is concentrated in Libya territorial waters. In order to ensure a sustainable fishing activity for bluefin tuna, the General Authority for Marine Wealth (GAMW), issued the decision #28/2008, which regulates licensing, monitoring, control and inspection of bluefin tuna fishing activities. The control measures adopted by ICCAT in Rec.08-05 have been transposed to this decision by the GAMW. The action taken by Libya concerning this section is reported in more detail in the Libyan report on the implantation of Rec.08-05 in 2009 fishing season which was transmitted to the ICCAT Secretariat.

Section 4: Inspection Schemes and activities

Libya did not participate in the ICCAT Scheme of International inspection. However, Libya required all fishing vessels licensed to fish bluefin tuna during the 2009 season to have two observers on board (one representing the fishing authority and one from the Coast Guard). Their missions are to monitoring and control fishing activity and all captains of fishing vessels were ordered to cooperate with the international inspectors.

Table 1. Total catches of bluefin tuna in Libyan waters in 2009.

Year	*Initial quota (t)*	*Current catch (t)*
2003	1286	752.2
2004	1300	1299.6
2005	1400	1090.7
2006	1440	1254
2007	1280.14	1359
2008	1236.99	1317.8
2009	946.52	1081.64

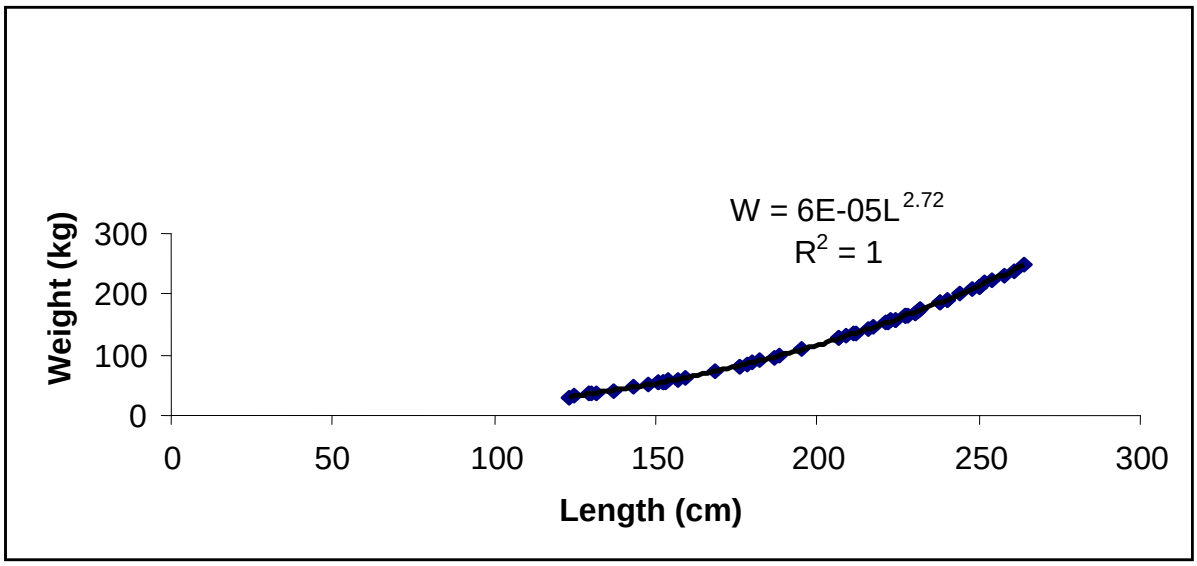

Figure 1. Length-weight relationship of bluefin tuna caught by LL in Libyan waters in 2009 (n=64).

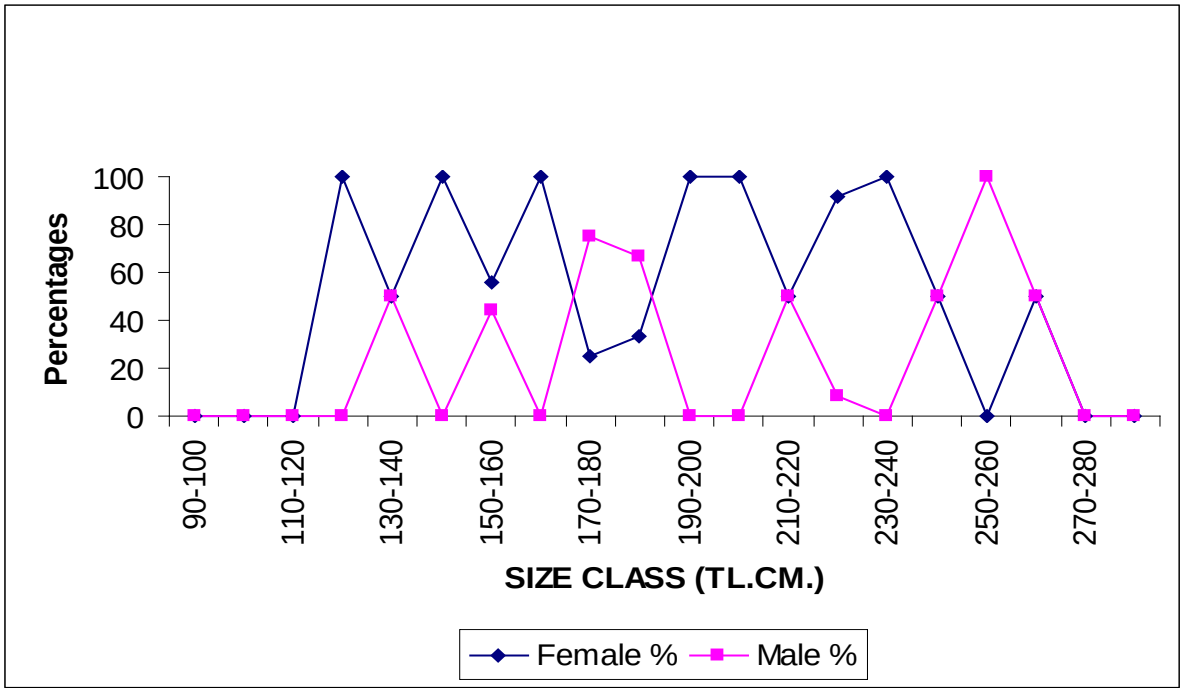

Figure 2. Female and male % frequency distribution of bluefin tuna caught by longline in Libyan waters in 2009 (n=64).

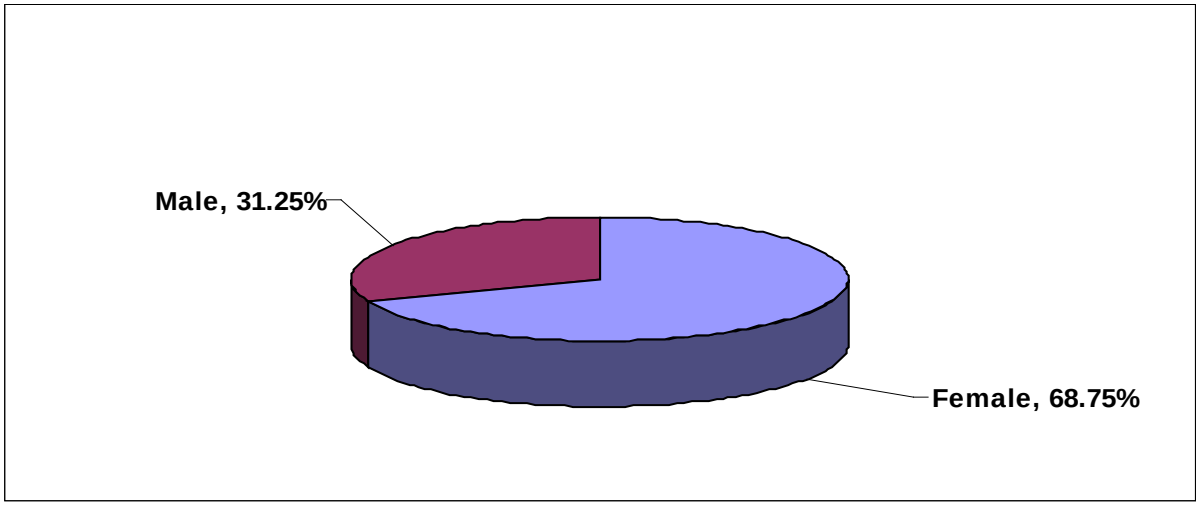

Figure 3. Sex ration of male and female bluefin tuna caught by longline in Libyan waters in 2009.

ANNUAL REPORT OF MAURITANIA
RAPPORT ANNUEL DE LA MAURITANIE
INFORME ANUAL DE MAURITANIA

SUMMARY

*In Mauritania, tuna species are only targeted by the foreign fleets (Spanish, Senegalese and Japanese), fishing under the free license regime. This allows them to land their production outside Mauritania. Tuna species are also caught as by-catch by the industrial pelagic vessels, one hundred percent foreign. The reported catches of these species by these fisheries are strongly related with the sardine catches (preferential prey) that are targeted by these fleets. In 2009, these vessels reported around 4,000 t under "Other tunas". The artisanal and coastal fishery of Mauritania is generally orientated towards deep water species, (cephalopods and demersal fish), but take by-catches of coastal tuna species which in 2009 were on the order of 18 t, although in 2007 they exceeded 100 t (**Table** 1). The future perspective for fishing these species, by a national fleet from Nouadhibou, seems promising. This involves developing and consolidating the activities related with coastal tunas. These stocks have a potential of additional exploitation which will permit, in the future, tripling the national fishing productions of small tunas and, thus, exceed approximately 10,000 t, the potential usually advanced for these species since the end of the 1990s, thus creating hundreds of jobs. These species, since they are not very migratory, are suitable for local management and exploitation.*

RÉSUMÉ

*En Mauritanie, les espèces de thonidés sont ciblées uniquement par des flottilles étrangères (espagnole, sénégalaise et japonaise), opérant sous le régime de licence libre. Ce qui leur permet de débarquer leur production en dehors de la Mauritanie. Elles sont également pêchées accessoirement par les unités industrielles pélagiques, étrangères à cent pour cent. Les captures déclarées de ces espèces par ces pêcheries sont fortement corrélées avec celles des sardinelles (proie préférentielle) qui sont ciblées par ces flottilles. En 2009, ces unités ont déclaré, sous la rubrique « divers thons » une quantité qui s'élève à environ 4000 tonnes. La pêche artisanale et côtière mauritanienne est orientée essentiellement vers les espèces de fond (céphalopodes et poissons démersaux) mais réalise des captures accessoires des espèces de thon côtier qui étaient de l'ordre de 18 tonnes en 2009 sachant qu'elles avaient dépassé les 100 tonnes en 2007 (**Tableau 1**). Les perspectives d'avenir pour les pêches de ces espèces, par une flottille nationale, à partir de Nouadhibou semblent prometteuses. Il s'agit de développer et de consolider l'activité liée aux thons côtiers. Ces stocks recèlent un potentiel d'exploitation additionnel qui permettra, à terme, de tripler la production halieutique nationale en thons mineurs, et donc de passer à près de 10 000 tonnes, le potentiel habituellement avancé pour ces espèces depuis la fin des années 1990, créant ainsi des centaines d'emplois. Ces espèces, qui du fait qu'elles sont assez peu migratrices, se prêtent à une gestion et à une exploitation locales.*

RESUMEN

*En Mauritania, las especies de túnidos son capturadas únicamente por flotas extranjeras (española, senegalesa y japonesa) que operan en régimen de licencia libre, lo que les permite desembarcar su producción fuera de Mauritania. Asimismo, también pescan estas especies de forma accesoria las unidades industriales pelágicas, extranjeras al cien por cien. Las capturas de estas especies declaradas por las pesquerías están muy relacionadas con las de sardina (presa preferencial) especie a la que se dirigen estas flotas. En 2009, estas unidades declararon bajo el apartado "diversos túnidos" una cantidad de aproximadamente 4.000 t. La pesca artesanal y costera de Mauritania se orienta principalmente hacia las especies de fondo (cefalópodos y peces demersales), pero realizan capturas accesorias de especies de túnidos costeros que en 2009 fueron del orden de 18 t, aunque en 2007 superaron las 100 t (**Tabla 1**). Las perspectivas de futuro para la pesca de estas especies, por parte de una flota nacional desde Nouadhibou, parecen prometedoras. Se trata de desarrollar y consolidar las actividades relacionadas con los túnidos costeros. Estos stocks encierran un potencial de explotación*

adicional que permitirá, en un futuro, triplicar la producción pesquera nacional de pequeños túnidos, y por tanto, superar aproximadamente las 10.000 t, el potencial anticipado habitualmente para estas especies desde finales de los 90, creando así cientos de empleos. Estas especies, dado que son bastante poco migratorias, se prestan a la gestión y explotación locales.

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

En Mauritanie la pêche est pratiquée par des flottilles industrielles et artisanales, nationales et étrangères. La gestion des pêches relève du Ministère des Pêches et de l'Économie maritime. L'accès à la ressource est régi par un système de licences (22 licences) qui sont délivrées par ce dernier. On distingue 3 régimes d'accès qui sont le régime d'acquisition réservé aux flottilles nationales, le régime d'affrètement qui adresse les unités étrangères affrétées par les opérateurs nationaux et opérant comme des bateaux mauritaniens et enfin le régime de licence libre qui est accordée aux navires étrangers opérant dans le cadre des accords bilatéraux de pêche.

La pêche industrielle est pratiquée par des congélateurs et des glaciers.

La recherche est la mission principale de l'Institut mauritanien des Recherches océanographiques et des Pêches (IMROP). Qui joue à ce titre le rôle d'outil d'aide à la décision pour le Ministère de Tutelle qui est le Ministère des Pêches et de l'Économie maritime. Les pêcheries industrielles prélèvent pratiquement 90 pour cent de la production annuelle qui avoisine 900.000 tonnes par an.

Chapitre 1 : Information annuelle sur les pêcheries

Les pêcheries en Mauritanie sont identifiées selon les espèces ciblées par l'activité de pêche et les licences accordées à cet effet. Ainsi, les pêcheries les plus importantes sont la pêcherie pélagique qui cible les espèces pélagiques et notamment les sardinelles et les chinchards. Il y a la flottille hollandaise qui opère dans le cadre de l'accord avec l'Union européenne et qui cible la sardinelle ronde (*sardinella aurita*), en face d'une flotte russe qui cible les chinchards.

Les démersaux, sont pêchés par deux flottes essentiellement qui sont la flotte espagnole opérant dans le cadre de l'accord e pêche avec l'Union européenne et la flotte nationale utilisant des bateaux chinois affrétés.

Les crevettes (profonde et côtière) sont ciblées essentiellement par des crevettiers espagnols opérant dans le cadre de l'accord de pêche avec l'Union européenne.

Les pêcheries poissonnières sont pratiquées en Mauritanie par des flottilles espagnoles opérant dans le cadre de l'accord avec l'Union européenne, Merlus et poissonniers

Chapitre 2 : Recherche et statistiques

La recherche dans le domaine des pêches est confiée à l'Institut Mauritanien des Recherches océanographiques et des Pêches (IMROP). Il s'est doté à cette fin de structures pérennes de recherche lui permettant de tenir à jour les informations sur l'état des ressources, leur exploitation et sur le milieu marin qui les supporte. En effet, l'IMROP compte actuellement environs 150 scientifiques (chercheurs, ingénieurs et techniciens) répartis sur plusieurs laboratoires et services couvrant toutes les thématiques de recherche nécessaires à la bonne conduite des ses programmes de recherche (évaluation des stocks, biologie et écologie des espèces, milieux marins et environnement, sciences sociales, statistique et informatique…).

L'IMROP est dotée de deux navires de recherche (un bateau hauturier et un bateau côtier) qui lui permettent de prospecter l'ensemble de la ZEE mauritanienne. Il conduit chaque année quatre campagnes de prospection (2 démersales et 2 pélagiques) en vue de suivre l'état de la ressource. Il conduit également, des missions mensuelles de suivi des paramètres hydro chimiques pour suivre l'état de l'environnement marin qui abrite ces ressources. Ces campagnes se limitent pour le moment aux profondeurs en deçà de 600 mètres. De ce fait, les données disponibles actuellement se limitent aux espèces du thon côtier.

Du fait que les thons ne constituaient pas jusqu'à récemment une priorité pour le gouvernement mauritanien, l'IMROP n'a pas développé des compétences humaines spécialisées dans ce domaine. Par conséquent, les études

sur les thons y font encore défaut. Actuellement, l'Institut cherche à combler ce manque par la mise en place des programmes de recherche orientés sur cette ressource.

Les statistiques sur la pêche sont produites par plusieurs institutions relevant du ministère des pêches et de l'économie maritime. Au sein de ses directions centrales, le ministère déteint les informations tenues à jour chaque année sur la liste des navires opérants en Mauritanie et les licences délivrées (type de licence, la redevance, les caractéristiques techniques des navires, etc.). Les autres informations sur les quantités pêchées, l'effort de pêche et les données de caractère commercial (marché, valeur des produits, etc.) sont produites par d'autres institutions telles que la SMPCP, la DSPCM, l'IMROP et autres.

Pour ses besoins scientifiques et conformément à sa mission, l'IMROP met en œuvre un certain nombre de systèmes de collecte de données et de suivi des pêcheries.

Les statistiques sur l'effort et les captures de la pêche industrielle sont obtenues à l'aide des données collectées dans le cadre des journaux de pêche qui sont obligatoires depuis 1990 en Mauritanie. Ces données sont collectées et introduites dans une base de données gérée par la Délégation à la Surveillance des Pêches et au Contrôle en Mer (DSPCM). Elles sont ensuite transmises à l'IMROP qui les intègre à sa base de données puis les compile et en produit les statistiques de l'effort et des captures de la pêche industrielle.

L'IMROP conduit à son niveau d'autres systèmes de collecte des données complémentaires. Il est doté d'un corps d'observateurs scientifiques (36 individus) qu'il déploie régulièrement sur les flottilles actives en Mauritanie. Une base de données créée à cet effet est gérée par les services de l'IMROP. Il est à noter que les flottilles thonières ne font pas encore l'objet de suivi par le programme d'observation en mer de l'IMROP.

L'IMROP suit aussi les débarquements de la pêche industrielle qui se font en Mauritanie (à Nouadhibou) de manière exhaustive. Il déteint une base de données réservée à cette fin.

Pour ce qui est de la pêche artisanale, l'IMROP conduit depuis l'aube des années 80 un système de suivi des activités de la pêche artisanale. Ce système a connu deux temps importants. Un premier système basé sur le comptage matin et soir des embarcations visualisées dans les points de débarquement pour estimer l'effort de pêche du jour a été mis en œuvre jusqu'en 2005. À partir de cette année, il a été remplacé par un second système qui tient compte la nouvelle réalité de la pêche artisanale et côtière qui commence à prendre de l'importance vu le caractère dynamique et opportuniste des pêcheurs artisans mauritaniens. En effet, les pêcheurs commençaient à s'adapter à la situation dictée par les réalités de raréfaction des ressources et l'accroissement des charges lié à l'augmentation des prix de carburant et du coût de la nourriture. Ainsi, toutes les pirogues qui sont sorties le jour, ne revenaient plus le soir, mais envoyaient leur production avec l'une d'elles et les autres restaient en mer pour minimiser les coûts. Par conséquent, le comptage matin et soit a tout de suite vu ses limites comme méthode d'estimation de l'effort de pêche du jour.

Le nouveau système baptisé système de suivi de la pêche artisanale et côtière (SSPAC), déployé en 2006 est venu répondre à ces incohérences, entre autres. Il permet la collecte des données de base sur l'effort, la capture et les indicateurs socioéconomiques à l'aide d'un réseau d'enquêteurs fixes déployés le long du littoral Mauritanien couvrant, ainsi les cinq zones statistiques et les 22 sites de débarquements qui les composent. Cinq enquêtes sont réalisées dans le cadre du ce système qui sont :

- Enquête retour de mer durant laquelle, tous les jours ouvrables dans les centres urbains et tous les jours dans la brousse, l'enquêteur collecte les données sur les caractéristiques de l'embarcation qui débarque, sur celles de la sortie en mer réalisée par cette embarcation, sur l'origine du produit débarqué, sur les caractéristiques des actions durant la sortie, celles des lots débarqués et réalise des mensurations d'échantillons dans les lots.
- Recensement mensuel du parc actif catégorisé durant lequel, chaque mois et dans chaque site de pêche, les enquêteurs réalisent le comptage des embarcations par nationalité, par typologie embarcation engin et notent également le nombre des embarcations nouvellement arrivées et de celles qui sont sorties récemment par rapport au mois précédent pour cerner les mouvements migratoires.
- Enquêtes lot auprès des usines où les enquêteurs, pour chaque lot enquêté, prélèvent le nom scientifique de l'espèce, sa catégorie ou taille, son poids total, le nombre d'individus de cette espèce, les fréquences de taille de l'échantillon.
- Récupération des registres des usines où pour chaque usine et par mois, les enquêteurs prélèvent la catégorie d'achat (espèces/catégories), l'origine (PA/PI) et le poids total.

Résultats obtenus de ces systèmes de suivi

Cinq espèces de la famille des Scombridés sont pêchées de façon accessoire par les flottilles industrielles de petits pélagiques. Il s'agit de la sarde (*Sarda sarda*), de l'auxide (*Auxis rochei* et *Auxis thazard*), de la palomète (*Orcynopsis unicolor*) et de la thonine (*Euthynnus alletteratus*) (**Figure 2**).

Dans les statistiques de ces flottilles, ces espèces sont déclarées sous la rubrique divers-thons et ne sont donc pas ventilées par espèce. Les prises réalisées par ce segment sont présentées pour la période 1990 à 2009 (**Figure 1**). En début de période considérée, c'est-à-dire de 1990 à 1994, les captures de ces espèces chutent rapidement puisqu'elles passent d'environ 1000 tonnes en 1990 à 60 tonnes en 1994. Cette évolution traduit assez fidèlement le déclin de la flottille de l'ex Union soviétique dans la zone, le principal pavillon à l'époque dans la ZEE mauritanienne. Avec la forte reprise de l'activité de pêche industrielle, sous l'effet des changements des clés de répartition des captures en faveur des armateurs, de l'introduction du régime de licences libres et de l'entrée dans la zone des navires de l'Union européenne, les captures ont fortement augmenté pour atteindre 4000 tonnes en 1998 avant de diminuer à nouveau entre 1999 et 2001 aux alentours de 3000 tonnes. En 2002, la pêche de ces espèces a enregistré un record avec presque 6000 tonnes. Par la suite, l'évolution présente une tendance à la baisse jusqu'à un niveau relativement bas en 2007 (1400 tonnes). Sur les deux dernières années, l'accroissement des prises a été rapide et en 2009, presque 4000 tonnes de divers thons ont été déclarées soit un accroissement de 109 % en 2008 (par rapport à 2007) et 23 % en 2009 (par rapport à 2008).

Sur la base des données des observateurs embarqués à bord de ces navires, disponibles de 1996 à 2004 et en 2009, la ventilation de cette rubrique divers thons a été conduite afin d'affiner les résultats par espèce. De 2005 à 2008, la répartition de cette rubrique a été obtenue en moyennant les valeurs disponibles pour les années les plus proches.

Sept espèces ont été répertoriées dont trois espèces de thons majeurs (*Thunnus albacares*, *Thunnus obesus* et *Xiphias gladius*). Mis à part la première espèce des thons majeurs qui a été présente uniquement dans les captures de 1996 à 1999 avec des niveaux de prises variant entre 1 tonne en 1996 à 752 tonnes en 1998, les autres espèces ont été pêchées de façon très marginale.

La sarde (*Sarda sarda)*, domine largement les captures (81 % en moyenne) sur toute la série, mais particulièrement à partir 2004, où elle devient la seule espèce pêchée. La contribution des autres espèces de thons mineurs est faible et ne dépasse pas les 3 % pour *l'Auxis sp*.

IIe Partie (Mise en œuvre de la gestion)

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

En Mauritanie, la surveillance et le contrôle en mer constituent la tâche de la délégation de surveillance et de contrôle en mer (DSPCM) qui veille au respect de la réglementation (nationale et internationale) en vigueur en Mauritanie par les unités autorisées à opérer dans les eaux sous juridiction mauritanienne.

Étant donné que la Mauritanie, n'ayant pas de flotte thonière et par conséquent n'exploitant pas son quota et que les flottes thonières étrangères opérant dans la ZEE mauritanienne débarquent à l'étranger, l'inspection, des unités de pêche, ne pouvant pas s'assurer du respect des quotas des flottilles thonières, se limite à vérifier la présence des espèces de thons dans les cargaisons de ces unités, en conformité avec les licences détenues par ces unités et les règles de gestion de l'ICCAT. C'est ainsi que la délégation à la surveillance des pêches et au contrôle en mer a souvent relevé la présence des espèces de thons côtiers dans les captures des chalutiers pélagiques.

Chapitre 4 : Schéma et activités d'inspection

Toutes les unités de thons qui opèrent en Mauritanie débarquent à l'étranger notamment à Dakar.

Tableau 1. Évolution des captures accessoires des thons côtiers de la pêche artisanale et côtière.

	2006	*2007*	*2008*	*2009*
Auxis thazard	1,35	-	-	2,80
Katsuwonus pelamis	1,43	2,46	0,22	0,05
Orcynopsis unicolor	67,00	98,10	7,24	9,06
Sarda sarda	0,11	1,58	21,28	6,59
Thunnus obesus	0,06	-	-	0,03
Total	**69,95**	**102,14**	**28,74**	**18,53**

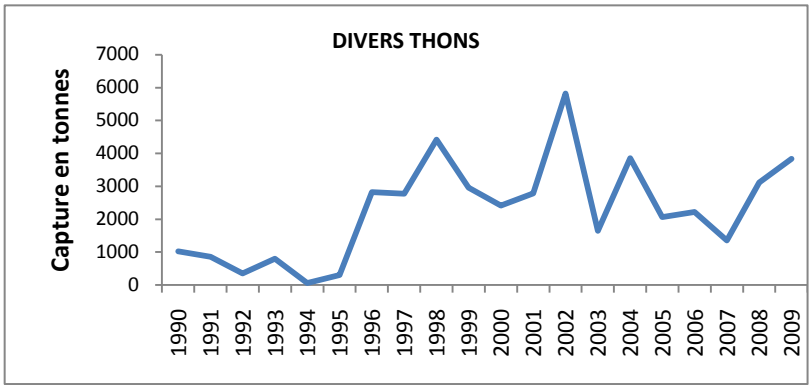

Figure 1. Évolution des prises des divers thons réalisées par les flottilles de pêche industrielle pélagique.

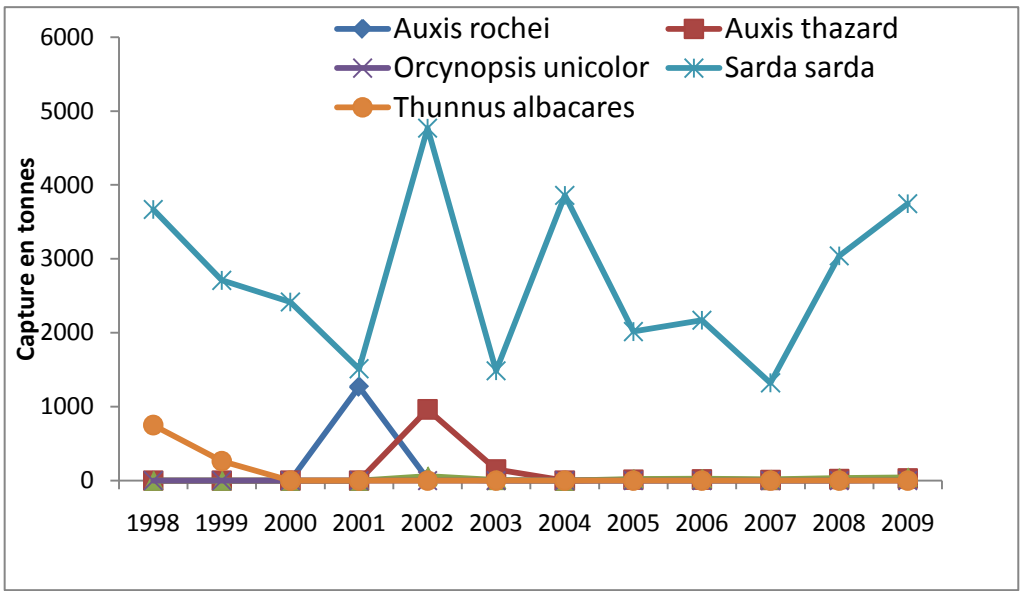

Figure 2. Évolution des captures des divers thons ventilées par espèces suivant les données des observateurs.

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

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

SUMMARY

*The high seas longline fishery targets yellowfin tuna (*Thunnus albacares*), and catches other species groups by-catch. The fishery is concentrated in oceanic waters and limited to the Exclusive Economic Zone (EEZ) in the Gulf of Mexico and the Caribbean Sea. Of the 37 large vessels with fishing permits, 29 currently operate with carrying capacity. Of the six coastal States of the Gulf of Mexico and the Caribbean Sea, Veracruz and Yucatan contribute 85% of the total catch. The highest catches of yellowfin tuna are obtained in the summer months. The catch is exported mainly to the United States as fresh product. The yellowfin catch reached a historical maximum of 1,390 t in 2000, while in 2003 there was a gradual decline from 1.362 t to 890 t en 2007, followed by a slight increase from 956 t in 2008 and 1,210 t in 2009. A marked decrease in fishing effort was observed in 2009. There was a reported total catch (captura retained, live releases and dead discards) of 1,723 t in 2009, which was comprised of yellowfin tuna (73%) and by-catches (27%). In 2009, Mexico´s efforts focused on improving the quality and quantity of scientific information through validation, publication and crosschecking. Furthermore, the training and re-training of onboard observers was carried out in the Gulf of Mexico. This was done to comply with national as well as international commitments in the framework of management of the longline fishery. In addition, priority has been given to the scientific disclosure of these achievements, through technical meetings, forums and educational exchanges which have involved the participation of the industrial sector as well as the governmental and educational sector.*

RÉSUMÉ

*La pêche hauturière à la palangre cible l'albacore (*Thunnus albacares*) et capture accidentellement d'autres groupes d'espèces, se concentrant dans les eaux océaniques et se limitant à la Zone économique exclusive (ZEE) dans le golfe du Mexique et la mer des Caraïbes. Sur les 37 grandes embarcations dotées d'une licence de pêche, 29 d'entre elles opèrent actuellement avec une capacité de transport. Sur les six états côtiers du golfe du Mexique et de la mer des Caraïbes, Veracruz et Yucatán contribuent 85 % de la capture totale. La plus forte capture d'albacore a été obtenue pendant les mois d'été. Le produit est principalement exporté aux États-Unis à l'état frais. La capture d'albacore a enregistré un maximum historique de 1.390 t en 2000, puis une baisse progressive a été observée à partir de 2003, les prises diminuant de 1.362 t à 890 t en 2007, suivie d'une légère hausse en 2008 (956 t) et en 2009 (1.210 t). Une chute marquée de l'effort de pêche a été observée en 2009. En 2009, la capture totale enregistrée s'est élevée à 1.723 t (prise retenue, remise à l'eau de poissons vivants et rejets de spécimens morts) et était composée d'albacore (73 %) et d'espèces accessoires (27 %). En 2009, le Mexique a orienté ses efforts vers l'amélioration de la qualité et de la quantité des informations scientifiques, par le biais de leur validation, édition et recoupement. De manière complémentaire, le Mexique a assuré la formation et la mise à jour des observateurs embarqués dans le golfe du Mexique. Toutes ces activités ont été réalisées dans l'objectif de respecter les engagements nationaux et internationaux dans le cadre de la gestion de la pêcherie palangrière. De surcroît, la divulgation scientifique de ces accomplissements a été privilégiée, à travers des réunions techniques, des forums, des échanges éducatifs, auxquels ont participé le secteur industriel, le secteur gouvernemental et le secteur éducatif.*

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RESUMEN

*La pesca de altura con palangre se dirige al atún aleta amarilla o rabil (*Thunnus albacares*), en la que incidentalmente se capturan otros grupos de especies, concentrándose en aguas oceánicas y limitándose a la Zona Económica Exclusiva (ZEE) en el Golfo de México y Mar Caribe. De las 37 embarcaciones mayores con permiso de pesca, actualmente operan 29 con capacidad de acarreo. De los seis estados costeros del Golfo de México y Mar Caribe, Veracruz y Yucatán contribuyen con 85% de la captura total. La mayor captura del atún aleta amarilla se ha obtenido en los meses de verano. El producto principalmente es exportado a Estados Unidos en calidad de fresco. La captura del aleta amarilla registró un máximo histórico de 1.390 t en el año 2000, mientras que en 2003 se registró un decremento gradual de 1.362 t a 890 t en 2007, seguido de un ligero incremento de 956 t en 2008 y 1.210 t en 2009. En relación al esfuerzo pesquero, se observa un marcado decremento en el esfuerzo de pesca en 2009. En 2009, se registró una captura total (captura embodegada, liberada viva y descartada muerta) de 1.723 t, integrada tanto por el atún aleta amarilla (73%), como por la captura incidental (27%). Durante 2009, los esfuerzos de México estuvieron dirigidos a la mejora de calidad y cantidad de información científica, a través de su validación, edición y concatenación. De manera complementaria se ha llevado a cabo la capacitación y actualización de observadores a bordo en el Golfo de México. Todo ello, para dar cumplimiento oportuno tanto a compromisos nacionales, como internacionales en el marco de ordenación de la pesquería con palangre. Adicionalmente, se ha privilegiado la divulgación científica de estos logros, a través de reuniones técnicas, foros, intercambios educativos, que han involucrado tanto la participación del sector industrial, del sector gubernamental y del sector educativo.*

Introducción

La flota mexicana con palangre en el Golfo de México tiene como objetivo de pesca el atún aleta amarilla o rabil (*Thunnus albacares*). Las embarcaciones tienen como base los puertos pesqueros en Tuxpan, Veracruz, y Progreso, Yucatán, principalmente. Durante los últimos cinco años, en promedio se han registrado 29 embarcaciones con 344 viajes por año.

La captura total ha estado integrada en su mayoría por la especie objetivo de pesca y en menor proporción por la captura incidental, representada principalmente por los grupos: (a) otros atunes, (b) marlines y especies afines, (c) tiburones, y (d) otros peces. Esta captura además se ha clasificado de acuerdo a su destino en captura embodegada o retenida, captura liberada viva y captura descartada muerta.

La información se obtiene de los viajes vía la pesca comercial a través del Programa de Observadores abordo, que forma parte del Programa Nacional de Aprovechamiento del Atún y Protección de Delfines (PNAAPD). Durante los últimos tres años, México ha llevado a cabo el análisis espacial y temporal del estado de la captura total con palangre en el Golfo de México. Asimismo, ha dirigido sus esfuerzos para facilitar el manejo y análisis de la información proveniente del Programa de Observadores a bordo con el objetivo de dar atención a las solicitudes de información tanto nacional como internacional.

Parte I (Información sobre pesquerías, investigación y estadísticas)

Sección 1: Información anual sobre pesquerías

El esfuerzo pesquero de la flota palangrera mexicana del Golfo de México dirigido a la captura de atún aleta amarilla durante 2009 registró 29 barcos que realizaron 338 viajes en los que se realizaron 3.055 lances en 5.406 días de pesca y se utilizaron 1.800.576 anzuelos.

La captura total registrada fue de 1.723 t (113.026 organismos) en la que el atún aleta amarilla registró 1.250 t (37.767 organismos), de la cual 1.210 t (33.780 organismos) pertenecieron a la captura retenida, 30 t (2.877 organismos) a captura liberada viva y 9 t (1.110 organismos) a captura descartada muerta.

En lo que concierne a la captura incidental se registraron en total 473 t (75.259 organismos) de los cuales el grupo de especies de otros atunes registró 56 t (5.484 organismos) que casi en su totalidad correspondieron a captura retenida. En el caso del grupo de marlines y especies afines se registraron 196 t (7.454 organismos). Para el grupo de tiburones se registro un total de 56 t (1.738 organismos).

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

Sección 2: Investigación y estadísticas

Durante 2009, los esfuerzos de México estuvieron dirigidos a la mejora de calidad y cantidad de información científica, a través de su validación, edición y concatenación. De manera complementaria se ha llevado a cabo la capacitación y actualización de observadores a bordo en el Golfo de México.

Se llevaron a cabo reuniones con el sector pesquero con el objetivo de analizar y discutir la situación actual de la pesquería mexicana del atún en el Golfo de México. Adicionalmente, se comprometió el desarrollo de investigación sobre tecnología de captura del palangre y la difusión de los estudios relacionados con la pesca del atún al sector productivo a través de reuniones técnicas, foros, intercambios educativos, que han involucrado tanto la participación del sector industrial, como del sector gubernamental y del sector educativo.

A nivel internacional, dentro de las actividades convocadas por ICCAT se asistió y participó activamente durante 2009, particularmente en las reuniones del Grupo de especies, del Comité Permanente de Investigaciones y Estadísticas (SCRS, por sus siglas en inglés) y la 21ª Reunión ordinaria de la Comisión en 2009, se ratificó la posición nacional de apegarse al marco normativo y regulatorio recomendado, y fortalecer los esfuerzos en materia de investigación científica para mejorar los rendimientos de la pesca objetivo y reducir la captura incidental, y propiciar así una efectiva administración de la pesca del atún con palangre en el Golfo de México.

Parte II (Implementación de la ordenación)

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

3.1 Vedas

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

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

08-03 Recomendación de ICCAT sobre pez espada del Mediterráneo, párrafo 1.

No es aplicable. México no realiza operaciones de pesca en el Mediterráneo.

3.2 Datos y talla mínima

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

En las pesquerías de atún rojo y pesquerías de pez espada del Atlántico norte, no se reporta que se hayan excedido los límites de captura en el año pesquero previo.

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

La Norma Oficial Mexicana 023-PESC-1996 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 supervivencia. 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 otros) de su captura nominal obtenida durante un año calendario

98-14 Recomendación de ICCAT sobre la aplicación de tres Recomendaciones sobre cumplimiento
y
01-16 Resolución sobre fechas límite y procedimientos de presentación de datos

Para cumplir con estas recomendaciones, anualmente se comunica a la Comisión como parte del Informe Anual, la información estadística sobre las capturas para las pesquerías. De igual manera, se ha hecho llegar a la Comisión la información correspondiente a los datos de la Tarea 1 y la Tarea II, los Informes Anuales y en consecuencia, las Tablas de Información.

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

De acuerdo con las disposiciones nacionales vigentes, la verificación de la legal precedencia de los productos pesqueros capturados por barcos de pesca que enarbolan bandera mexicana se realiza a través de la presentación del 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.

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

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

3.3 Limites de capacidad

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

México mantiene el nivel del esfuerzo de pesca efectivo sobre el rabil o aleta amarilla que captura en el Atlántico. Con la publicación de la NOM-023-PESC-1996, además de establecer 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) se especifica que el límite máximo permisible es de 45 unidades de esfuerzo pesquero, puntualizando que esta cifra será revisada periódicamente, basándose 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.

98-03 Recomendación de ICCAT sobre medidas de conservación de patudo para barcos pesqueros de 24 m de eslora total (párrafo 1)

México no realiza pesca dirigida a patudo en la zona del Convenio

04-01 Recomendación de ICCAT sobre un programa plurianual de ordenación y conservación de patudo

México no desarrolla esta pesquería en la zona del Convenio.

3.4 Documentos estadísticos

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

La NOM-023, establece que todos los embarques de atún rojo, que se destinen a la exportación, deben presentar los documentos con los que se acredite su legal procedencia y acompañarse del certificado de ICCAT de exportación de atún aleta roja. Estos documentos son utilizados por las autoridades competentes, así como se ha dado a conocer los cambios en dichos formularios y los realizados en los certificados para exportación de pez espada y patudo.

No obstante, se destaca que no existen exportaciones de atún rojo de la zona del Atlántico, toda vez que la captura es mínima y se trata de captura incidental.

Asimismo se mantienen actualizados los sellos y firmas de los funcionarios facultados para expedir los certificados de exportación de las especies mencionadas.

3.5 Otras medidas relacionadas con especies individuales

06-09 Recomendación para un mayor reforzamiento del plan de recuperación de las poblaciones de aguja azul y aguja blanca

México cuenta con un programa de observadores a bordo en el 100% de los viajes de pesca, uno de los apartados correspondientes a aspectos tecnológicos del palangre, con el objetivo de llevar a cabo un seguimiento respecto a los rendimientos y la condición de la captura total (embodegada, liberada viva y descartada muerta), utilizando anzuelo circular en casi la totalidad de los lances para reducir la mortalidad de los marlines y promover su liberación oportuna. En el caso de la pesca de recreo, se continúan dirigiendo los esfuerzos para la obtención de estadísticas de pesca y la adaptación a las necesidades de información de la Comisión.

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

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

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

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

03-11 Resolución sobre tortugas marinas.

Se ha promovido mediante talleres de capacitación, el uso de instrumentos y mecanismos para eliminar la captura incidental de tortugas marinas en las pesquerías de atún y otras. De igual manera, se trabaja en fomentar la liberación de las tortugas marinas que sean capturadas vivas de forma fortuita, así como procedimientos

técnicos para reducir la captura fortuita de tortugas y garantizar una cuidadosa manipulación de todas las tortugas que sean liberadas, con el fin de contribuir a su supervivencia.

03-04 Recomendación sobre el pez espada del Mediterráneo

México no realiza esta pesquería en dicha área.

05-05 Recomendación para enmendar la recomendación [Rec. 04-10] sobre la conservación de tiburones capturados en asociación con las pesquerías que son competencia de ICCAT.

México no realiza esta pesquería en dicha área.

05-08 Resolución sobre anzuelos circulares

Se realizan investigaciones y pruebas sobre los anzuelos circulares de tamaño apropiado en las pesquerías palangreras pelágicas comerciales, en México en casi el 98% de los lances de pesca se utilizan anzuelos circulares 16/0, los cuales favorecen a la liberación oportuna y promueven su supervivencia, además de la utilización de ganchos que permiten la liberación oportuna de tortugas.

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

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

México no realiza esta pesquería en dicha área.

07-06 Recomendación suplementaria sobre tiburones.

En el Golfo de México y mar Caribe, México no se cuenta con una flota industrial o semi-industrializada para la pesca de tiburón. No obstante, desde 1994 se realiza el monitoreo de la pesquería de atún con palangre, en el cual los tiburones forman parte de la captura incidental. El monitoreo se realiza a través de un programa de observadores que cubre el 100% de los viajes de pesca.

A la fecha, se cuenta con una base de datos de los observadores científicos a bordo de la flota atunera del Golfo de México, con la cual se realizan análisis de los patrones de distribución de la captura incidental de tiburones en esa pesquería con palangre.

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

08-07 Recomendación de ICCAT sobre la conservación del zorro ojón (*Alopias superciliosus*) capturado en asociación con las pesquerías gestionadas por ICCAT

Durante 2009 se continuó trabajando en la capacitación a observadores a bordo para la identificación de especies de tiburones zorro, y la actualización del manual de identificación a efectos de favorecer el manejo y conservación de estas especies, las cuales se consideran especies prioritarias, siendo *A. superciliosus* una de las cinco especies con el mayor grado de riesgo ecológico y cuyos datos disponibles son muy limitados. Por lo que, México reitera su apego a las recomendaciones del Grupo de especies sobre tiburones del SCRS.

3.6 Sanciones comerciales

02-17 Recomendación de ICCAT con respecto a Bolivia en cumplimiento de la Resolución de ICCAT de 1998 relativa a las capturas no comunicadas y no reguladas de grandes palangreros en la zona del Convenio

México no importa patudo atlántico o sus productos, en cualquiera de sus presentaciones, procedente de Bolivia.

03-18 Recomendación de ICCAT sobre medidas comerciales restrictivas respecto al patudo para Georgia

México no importa patudo atlántico o sus productos, en cualquiera de sus presentaciones, procedente de Georgia.

3.7 VMS

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

Se instalaron dispositivos de localización satelital en 398 embarcaciones que operan en el Golfo de México y el Caribe, incluyendo las embarcaciones atuneras de más de 24 m de eslora

3.8 General

97-10 Recomendación esquema revisado de inspección

México no tiene embarcaciones que entren, desembarquen o transborden sus capturas en puertos que no sean los propios en el área regulada por esta Comisión.

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

México destina exclusivamente 9 especies a la pesca deportiva: 6 de ellas pertenecen a los denominados "picudos" (contándose 4 especies distintas de marlín, pez vela y pez espada) y 3 especies afines (sábalo o chiro, pez gallo y dorado), dentro de una franja de 50 millas náuticas contadas a partir de la línea de base desde la cual se mide el mar territorial.

Se ha trabajado en la modernización, actualización y ampliación del Prontuario Estadístico de Pesca Deportiva que se publica en la página de internet de Conapesca, donde se puede encontrar información sobre número de permisos por entidad federativa, por embarcación, el valor de los permisos, permisos por periodo de tiempo y categoría de embarcación, entre otros datos.

01-18 Resolución acerca del alcance de la pesca IUU

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

03-12 Recomendación respecto a los deberes de las Partes contratantes y partes, entidades o entidades pesqueras no contratantes colaboradoras en relación con sus barcos que pescan en la zona del Convenio ICCAT

México mantiene su compromiso para que los barcos de bajo su bandera cumplan y no minen las medidas de conservación y ordenación de la Comisión, para lo cual ha establecido medidas como la expedición de permisos de pesca para pescar únicamente las especies autorizadas; ejercer de un forma efectiva sus responsabilidades con respecto a tales barcos, incluyendo el seguimiento y control de sus actividades pesqueras; garantizar que sus barcos no pescan sin autorización en zonas que son jurisdicción nacional de otros países, mediante la colaboración adecuada con los Estados costeros afectados, y otros medios pertinentes disponibles para la CPC abanderante; solicitar a sus barcos que pescan en alta mar que lleven siempre a bordo la licencia, autorización o permiso, y que la presenten para inspección cuando una persona debidamente autorizada lo solicite; investigar y realizar un seguimiento de la presunta infracción de un barco, y comunicar los resultados de la investigación así como las acciones emprendidas cuando tal infracción haya sido confirmada.

De igual manera tiene establecido y mantiene actualizado un registro de barcos de pesca autorizados a enarbolar su bandera y autorizados a pescar las especies reguladas por ICCAT en la zona del Convenio, Las embarcaciones de bandera mexicana están matriculadas y abanderadas de tal modo que pueden ser fácilmente identificadas conforme a los criterios generalmente aceptados, como la Especificación de criterios de la FAO para el marcado e identificación de barcos pesqueros.

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

Por otra parte, se ha publicado una Norma Oficial para reglamentar la utilización del Sistema Satelital de Monitoreo de Embarcaciones Pesqueras, la cual es de observancia obligatoria para quienes realicen actividades de captura en embarcaciones pesqueras con motor estacionario (intraborda), potencia nominal superior a 80 Bp, con cubierta corrida y eslora superior a 10 m, que operen en aguas de jurisdicción federal del océano Pacífico, Golfo de México y mar Caribe, dentro de la Zona Económica Exclusiva, así como para aquellas embarcaciones de bandera mexicana que realicen actividades de pesca en la alta mar.

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

La normatividad mexicana establece disposiciones para regular los transbordos, así como para la descarga en puertos mexicanos. La Ley establece que se debe contar con un permiso para transbordar especies capturadas por embarcaciones pesqueras de bandera mexicana, el cual será otorgado por la autoridad nacional (CONAPESCA), previo cumplimiento de ciertos requisitos como el número y fecha de la concesión, permiso al amparo del cual se realizó la captura; las especies y su volumen a descargar o transbordar; la fecha y lugar de traslado o transbordo; los datos que identifiquen la embarcación a la que se transbordaran los productos y el puerto de destino final.

06-16 Recomendación de ICCAT sobre un programa piloto de documento estadístico electrónico

México está considerando desarrollar un proyecto piloto para mejorar los programas de documento estadístico, de un modo conforme con su legislación nacional.

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

SUMMARY

Catches of tunas and tuna-like species amounted to 13,956 t in 2009, i.e., in general, the same level of total catches as in 2008. The major species exploited in waters off the Moroccan coasts are bluefin tuna, swordfish, bigeye tuna, yellowfin tuna, albacore, small tunas as well as some shark species. The collection of statistical data on catch and effort is carried out in a thorough manner through the following administrative structures on fishing: Département des Pêches (Department of Fisheries) and the Office National des Pêches (National Office on Fishing) located all along the Atlantic and Mediterranean coasts of Morocco. The Office des Changes (Currency Exchange Office) also carries out a control of the export of the fishing products. As regards scientific research, the Institut National de Recherche Halieutique-INRH (National Fishing Institute), through its five regional centers which cover the entire Moroccan coast, has reinforced the collection of biological data on the major species (bluefin tuna and swordfish). The Regional Center of the INRH in Tangiers serves as coordinator for the collection of all these data. In recent years, monitoring of other species has started, in particular, the tropical species (bigeye tuna, among others), with an extension of the research work towards areas located in the south of Morocco. Consequently, important progress has been made in the collection of biological data, as demonstrated by the series of scientific documents, as well as the Task II data presented by the Moroccan scientists at the various SCRS stock assessment sessions.

RÉSUMÉ

La pêche des espèces de thonidés et des espèces apparentées a atteint une production de 13.956 tonnes au cours de l'année 2009 soit le même niveau de captures générales qu'en 2008. Les principales espèces exploitées le long des côtes marocaines sont le thon rouge, l'espadon, le thon obèse, l'albacore, le germon, les thonidés mineurs et des espèces de squales. La collecte de données statistiques de pêche et d'effort se fait pratiquement d'une manière exhaustive, à travers les structures administratives des pêches (Département des Pêches et Office National des Pêches) implantées tout au long des côtes atlantique et méditerranéenne du Maroc. Un contrôle se fait également en aval par l'Office des Changes, en ce qui concerne les exportations des produits de la pêche. Sur le plan scientifique, l'Institut National de Recherche Halieutique - INRH-, à travers ses Centres régionaux (au nombre de cinq), couvrant tout le littoral marocain, a renforcé la collecte de données biologiques des principales espèces (thon rouge et espadon). Le Centre Régional de l'INRH à Tanger sert de coordinateur de collecte de toutes ces données. Au cours de ces dernières années, d'autres espèces ont commencé à être suivies, notamment celles des thonidés tropicaux (thon obèse entre autres), avec une extension des travaux de recherche vers les zones situées au Sud du Maroc. Un grand progrès a été ainsi enregistré en matière de collecte de données biologiques, tel qu'en témoignent la série de documents scientifiques, ainsi que des bases de données de la Tâche 2, soumis par les chercheurs marocains aux différentes sessions du SCRS, à des fins d'évaluation des stocks de thonidés.

RESUMEN

La pesca de túnidos y especies afines alcanzó una producción de 13.956 t para el año 2009, es decir, en general el mismo nivel de capturas que en 2008. Las principales especies explotadas en aguas frente a las costas marroquíes son atún rojo, pez espada, patudo, rabil, atún blanco, pequeños túnidos, así como otras especies de escualos. La recopilación de datos estadísticos de pesca y esfuerzo se realiza prácticamente de un modo exhaustivo, a través de las estructuras administrativas de pesca (Departamento de Pesca y Oficina Nacional de Pesca) situadas a lo largo de toda la costa atlántica y mediterránea de Marruecos. Además, la Oficina de Cambio

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realiza también un control de las exportaciones de los productos de la pesca. En el plano científico, el Instituto Nacional de Investigación Pesquera (Institut National de Recherche Halieutique INRH), a través de sus centros regionales (cinco), que cubren todo el litoral marroquí, ha reforzado la recopilación de datos biológicos de las principales especies (atún rojo y pez espada). El Centro regional del INRH en Tánger ejerce las funciones de coordinador de la recopilación de todos estos datos. Durante los últimos años, se ha comenzado a realizar un seguimiento de otras especies, sobre todo de túnidos tropicales (patudo, entre otras), con una ampliación de los trabajos de investigación hacia las zonas situadas en el Sur de Marruecos. Por tanto, se han constatado importantes progresos en materia de recopilación de datos biológicos, tal y como atestigua la serie de documentos científicos, así como los datos de la Tarea II, presentados por los investigadores marroquíes en las diferentes sesiones de evaluación de los stocks de túnidos del SCRS.

Ière partie : Information sur les pêcheries, la recherche et les statistiques

Chapitre 1 : Information annuelle sur les pêcheries

1.1 Exploitation des thonidés

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

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

Ces espèces sont exploitées par un armement national diversifié, constitué de navires de pêche armés à la senne, à la palangre et à la ligne à main. Des madragues sont également mises en service pour l'exploitation du thon rouge.

Les débarquements sont effectués au niveau des ports, des villages de pêcheurs et des points de débarquement aménagés le long des côtes marocaines. Les espèces débarquées sont constituées d'espèces diversifiées dont le poids individuel varie de 30 à 250 kg pour les thonidés majeurs et l'espadon, et des tailles plus petites pour les thonidés mineurs.

1.2 Zones de pêche

Le thon rouge, le thon obèse et les thonidés mineurs (bonite, melva, listao) sont pêchés habituellement sur la côte Atlantique marocaine. Quelques unités artisanales capturent le thon rouge en Méditerranée marocaine durant les mois de juin à septembre. Des espèces de thons mineurs sont capturées en Méditerranée marocaine.

L'espadon est capturé essentiellement en Méditerranée. Toutefois, il a été observé le développement d'une pêcherie artisanale et industrielle en Atlantique sud, entre Tan-Tan jusqu'au sud de Dakhla.

Quant au germon et à l'albacore, ils sont également pêchés en Atlantique, mais en faibles quantités, au moyen de navires côtiers, dans les eaux de la ZEE marocaine.

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

1.3 Techniques de pêche

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

- La madrague

Cet engin cible principalement le thon rouge et les thonidés mineurs. En 2009, 15 madragues ont été calées dans les eaux nationales de la façade Atlantique. Leur période d'activité est la même depuis plusieurs années et se

situe entre les mois d'avril et juillet. Parmi les espèces capturées accessoirement, il y a lieu de citer : la melva, la *Sarda sarda* et la bonite en quantités très faibles. Il est à noter que plus de 3000 individus de thon rouge ont été relâchés par les madragues après épuisement du quota national alloué à ce segment.

− Ligne à main

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

Cette activité de pêche, utilisant cet engin de pêche, cible les grandes tailles de thon rouge et parfois même le thon obèse dans les régions sud du Maroc. Elle est presque continue durant toute l'année, avec un arrêt d'activité de 2 à 3 mois par an.

Quelques individus d'espadon, sont capturés mais de manière occasionnelle, d'autres espèces sont également capturées par cet engin, notamment la bonite.

− Senne tournante

Cette technique de pêche est utilisée par les senneurs (dits sardiniers) qui ne pratiquent la pêche aux thonidés que de manière occasionnelle et accidentelle. L'activité se pratique essentiellement en Atlantique et les espèces capturées, notamment des thonidés majeurs, sont d'un poids et d'une taille inférieurs aux individus capturés par les autres techniques de pêche comme la madrague. Généralement, leur poids se situe entre 30 et 60 kg.

Il est à noter que cette technique réalise des quantités importantes de prises accessoires constituées essentiellement de thonidés mineurs et de pélamides.

Elle a été est également pratiquée par quatre (4) navires de type thonier, spécialisés dans la capture du thon rouge vivant dans les eaux internationales en Méditerranée.

− Filet maillant dérivant

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

L'utilisation de cet engin enregistre un net recul en raison de l'approche de la date butoir de son élimination des côtes marocaines, fixée au 31/12/2011, tel que prévue par le plan d'action national portant sur l'élimination progressive et définitive de cet engin des eaux marocaines approuvé par la Commission en novembre 2009, à Recife (Brésil).

1.4 Engraissement des thonidés

L'engraissement des thonidés est une activité soumise à une limitation de la capacité à celle des fermes inscrites sur la liste ICCAT ou autorisées et déclarées à l'ICCAT (trois (3) fermes seulement) au 1er juillet 2008. Actuellement, une seule unité de ce genre a été autorisée à mener ce type d'activité en Atlantique (Sidi-Ifni). N'ayant pas encore démarré pour des raisons techniques, ce projet dispose de son propre navire de pêche (thonier-senneur) et d'un navire remorqueur.

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

Chapitre 2 : Statistiques et recherche

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

2.1 Pêcherie du thon rouge et de l'espadon

Les données statistiques de la pêcherie thon rouge Est (BFT-E) et de l'espadon (SWO) sont mentionnées au **Tableau 2**.

2.2 Pêcherie des petits thonidés

Les données de la pêcherie des petits thonidés sont reportées dans le **Tableau 3.**

2.3 Autres espèces

Les captures du voilier, du makaire bleu, de l'albacore, du germon, du thon obèse, des squales et requins sont ventilées dans le **Tableau 4.**

− Espèces de squalidés & requins

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

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

Le Tableau récapitulatif des données générales de captures par zones et par espèces (TM) est présenté en tant que **Tableau 5**.

2.5 Données de la Tâche II

Communiquées par les représentants scientifiques nationaux aux réunions spécifiques (groupes d'espèces, réunions données BFT, session évaluation BFT, SWO et autres). Ces données seront communiquées lors de la transmission électronique de ce rapport au secrétariat de l'ICCAT.

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

Il ressort des enquêtes menées sur le terrain en 2009 auprès des marins pêcheurs des palangriers spécialisés, ce qui suit :

- le nombre moyen d'oiseaux qui sont observés dans le ciel par les marins de ces navires, lors d'une journée de pêche, est d'environ 180 individus au lieu de 200 l'année passée (Albatros). Il est à préciser que ces individus ne sont pas capturés ou pris accidentellement dans les filets ou les lignes; il s'agit uniquement d'individus qui gravitent autour du navire au moment de la remontée des filets ou de la manipulation du poisson pêché;
- la fréquence de rencontre des tortues marines lors d'une opération de pêche par ces navires est d'une pièce par 100 jours de pêche (en moyenne, une marée varie d'une à trois journées, mais en général, et au vu des caractéristiques techniques de ces navires de pêche, la marée ne dépasse pas les 24 heures);
- Sur un échantillon de 100 navires spécialisés dans la pêche exclusive des thonidés et espèces apparentés dans la zone située au sud d'Agadir, à l'intérieur de la ZEE marocaine, il a été constaté qu'un navire sur cinq (au lieu d'un / 3 en 2008), ne rencontre pas d'oiseaux de mer ou de tortues marines lors des opérations de pêche ;
- les navires qui procèdent à des opérations de traitement du poisson à bord, notamment l'éviscération, rencontrent quant à eux des oiseaux de mer le plus souvent ; dans ces cas, les prises accidentelles d'oiseaux de mer sont de l'ordre d'un oiseau par 35 jours de pêche (au lieu de 20 l'année passée) ;
- Dans cette zone, des techniques pratiques et astuces sont adoptées pour éviter les prises accidentelles de ces espèces

2.7 Activités de recherche

Les efforts des dernières années, menées par l'équipe de l'INRH-Tanger en termes de suivi scientifique des activités d'exploitation au sein des différentes pêcheries marocaines des espèces de thonidés et espèces apparentées, semblent avoir été couronnés de succès. En témoignent les opérations régulières de l'échantillonnage biologiques du thon rouge, de l'espadon, du thon obèse, d'une part, et les séries de données de

capture / effort, de structures démographiques (taille, poids), les captures par taille, reconstituées pour les six dernières années., d'autre part Comme en témoignent aussi les documents scientifiques par lesquels l'équipe scientifique marocaine contribue activement chaque année à l'amélioration des connaissances biologiques et d'exploitation des principales espèces d'intérêt pour l'ICCAT.

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

Pour pallier aux handicaps financiers qui empêcheraient la concrétisation de ces objectifs, le SCRS/ICCAT, ainsi que les bailleurs de fonds soucieux de l'avenir des stocks de thonidés, est invité vivement à appuyer le Maroc dans ses efforts. Le programme de recherche sur les pêcheries thonières pour l'année 2009, tel qu'il est exécuté à partir du CR/INRH - Tanger, ne diffère en rien de celui mis en place depuis 2005 ; ce qui le marque ces dernières années c'est qu'il avait été intensifié en termes de :

- d'échantillonnage biologique : (i) pour le thon rouge des madragues de l'Atlantique et de la pêche artisanale du Détroit de Gibraltar, (ii) pour l'espadon des zones d'influences du Détroit de Gibraltar et de l'Atlantique Sud (Dakhla), (iii) les thonidés tropicaux, notamment le thon obèse de l'Atlantique Sud (Dakhla) ; opérations d'échantillonnage, à la fois à terre et en mer au niveau même des madragues;
- de collecte de données historiques et récentes de capture et d'effort de l'ensemble des pêcheries thonières nationales (espadon Atl. et Med, thon obèse Atl. et thon rouge Atl.) pour l'amélioration des indices d'abondance; ces indices qui sont de plus en plus sollicités pour améliorer les évaluations de l'état des stocks et dont le Maroc s'est à présent positionné comme étant une partie contractante de l'ICCAT qui fournit régulièrement ce type de donnée.

Ce qui reste à faire c'est doter le CR/INRH - Tanger de moyens et d'équipements nécessaires (notamment au niveau de son Laboratoire des Ressources Halieutiques) pour qu'il dispose d'un laboratoire de référence en matière d'études biologiques des thonidés (croissance, reproduction, régime alimentaire, voire génétique, etc.). Des objectifs que l'on pourrait atteindre en partie à travers nos implications dans des programmes / projets de recherche internationaux, d'une part, et par le renforcement des capacités de nos chercheurs, à travers des formations pointues en matière de biologie et de nouvelles méthodes d'évaluation, d'autre part.

2.8 Statistique de Tâche II

Les statistiques de Tâche II de 2009 concernant le thon rouge et le thon obèse, ont été déjà transmises au Secrétariat de l'ICCAT avant les sessions d'évaluation des stocks de ces espèces tenues cette année (2010). Celles relatives à l'espadon de la Méditerranée et de l'Atlantique ont été communiquées plus tard en raison de l'indisponibilité des données de Tâche I servant à l'estimation de ces données (prises par taille et capture-effort).

Le **Tableau 6** résume l'état des statistiques de Tâche II des principales espèces de thonidés et espèces apparentées au titre de l'année 2009.

IIe partie (Mise en œuvre de la gestion)

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

3.1 Limites de taille minimale

Conformément aux Recommandations de l'ICCAT, le Département des Pêches maritimes interdit la capture des poissons sous-taille et ce, aux termes d'un arrêté ministériel, modifiant et complétant l'arrêté du 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 niveau de l'état des stocks. Par ailleurs, la circulaire n° 001 du 01/02/2005, fixant les conditions d'octroi et de prorogation des autorisations de reconversion, de refonte et de remplacement des navires de pêche permet, d'apporter certaines modifications techniques aux navires de pêche actifs.

Pour la pêcherie du thon rouge, le Maroc souscrit pleinement aux dispositions de la recommandation ICCAT[08-05] en matière de limite de la capacité à celle des madragues, des fermes et des navires autorisés au 1er juillet 2008.

3.3 Contrôle des activités de pêche

Le contrôle des activités de pêche a pour principaux objectifs de veiller à la stricte application de la réglementation en vigueur, de sanctionner les contrevenants et permet par la même occasion de contribuer à la gestion de la ressource, en complément aux instruments déjà mis en place tels que les mesures techniques, les limitations de captures et d'effort de pêche.

Un contrôle strict s'étend à l'ensemble de la filière pêche et notamment à l'exercice de la pêche, les activités de transbordement, de débarquement, de commercialisation, de transport et de stockage des produits de la pêche ainsi que l'enregistrement des débarquements et des ventes.

Le contrôle en mer consiste à vérifier les caractéristiques de l'engin de pêche (contrôle de la conformité de l'engin et du maillage par rapport à l'espèce cible et la zone géographique), à inspecter l'activité de pêche elle-même (journal de bord, légalité de l'activité de pêche par rapport à la période de pêche et au quota), et la cargaison (taille minimale, quantités par espèces).

Les informations statistiques recueillies lors des contrôles permettent aussi de suivre les niveaux de capture.

L'organisation du contrôle est faite de la manière suivante :

- Contrôles en mer : Il est effectué par les autorités maritimes de contrôle et par les membres du corps des observateurs scientifiques.
- Les moyens mis à la disposition des contrôleurs sont : les navires de surveillance, les avions et le suivi par satellite (GPS).
- Le contrôle est effectué à bord des navires et à la capture. Les indications reportées dans le journal de bord sont contrôlées ainsi que le respect des mesures techniques et réglementaires en vigueur.
- Au niveau des madragues, il faudrait rappeler la présence permanente des observateurs scientifiques dont la mission est le contrôle des tailles, espèces, le tonnage et la collecte des données biologiques. Ainsi, 100% des madragues sont couvertes par des observateurs scientifiques du Département des Pêches Maritimes. A la fin de la saison de pêche, après la levée de la madrague, l'observateur présente un rapport détaillé sur l'activité de celle-ci.
- Contrôles à terre : Ils sont effectués par les délégués du Département des Pêches Maritimes, les délégués de l'Office National des Pêches et par les représentants du corps des Observateurs Scientifiques qui forment les Commissions de Contrôle.

Ces inspections sont soit ciblées, soit aléatoires. Elles sont réalisées au débarquement, lors du transport du produit, à la transformation et lors de la commercialisation.

Les documents pouvant servir au contrôle sont : les déclarations de débarquement, les documents de transport qui sont également vérifiés par les autorités de contrôle de la circulation routière et les notes de ventes.

Parallèlement à ces procédures, le Département des pêches maritimes a mis en place, depuis le mois de juin 2004, un schéma pratique permettant de déterminer l'origine des individus d'espadon capturés en Atlantique

nord et en Méditerranée. Ce schéma, intitulé « Schéma de contrôle et d'identification de l'origine des captures de l'espadon dans les prises des flottilles marocaines », a permis de mieux affiner les données de prises de cette espèce notamment celles réalisées par les navires pratiquant la pêche dans ses zones d'une part, et les lieux de sa capture d'autre part.

Dans le cas de ce schéma, il ne s'agit pas particulièrement de revoir le système actuel de contrôle de l'activité de pêche de l'espadon, du moment qu'il se fait de manière efficace, mais de l'élargir par des méthodes qui permettront de déterminer principalement avec exactitude l'origine de capture de l'espadon.

Ces mesures s'intègrent, également, dans le cadre de l'application des dispositions du plan d'action national pour l'abandon du filet maillant dérivant et la reconversion des flottes qui l'utilisent.

Tous ces dispositifs seront renforcés par l'entrée en vigueur, au 1er janvier 2010, de la nouvelle procédure réglementaire de lutte contre les formes de pêche INN.

3.4 Système de repérage et de suivi par satellite des navires de pêche (DRS/GPS)

Dans le cadre d'une gestion rationnelle des ressources halieutiques et dans le but d'assurer un meilleur suivi de l'activité de la flotte sur un grand espace géographique, le Département des Pêches Maritimes a mis en place toute une structure pour l'utilisation des systèmes de suivi et de transmission de données par satellite.

Aussi, et dans le but de contribuer efficacement à contrecarrer la pêche illégale, non-réglementée et non-déclarée (IUU) dans la zone de Convention de l'ICCAT, des outils de contrôle supplémentaires ont été mis en place pour compléter les systèmes électroniques déjà mis en place par les autorités chargées du contrôle des activités de pêche.

Enfin, il faudrait rappeler que le Département des Pêches Maritimes abrite et coordonne les activités du Centre de Contrôle National des Pêches.

3.5 Données commerciales

Au niveau des exportations, des recoupements sont effectués avec les services de l'Office des changes, organisme étatique chargé d'édicter les mesures relatives à la réglementation des opérations de change en autorisant à titre général ou particulier les transferts à destination de l'étranger et en veillant au rapatriement des avoirs obligatoirement cessibles (recettes d'exportations de biens et services), et de l'administration des douanes qui sont sous la tutelle du Ministère de l'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.

Espèces (code ICCAT)	*(tonnes métriques)*
Albacore (YFT)	**0**
Germon (ALB)	**130**
Thon obese (BET)	**795**
Thon rouge (BFT)	**1909**
Thonine (LTA)	**63**
Listao (SKJ)	**2575**
Bonite à dos rayé (BON)	**2523**
Melva (FRI)	**9**
Palomette (BOP)	**273**
Espadon (SWO)	**724**
Makaire blanc (WHM)	**0**
Makaire Bleu (BUM)	**0**
Voilier de l'Atlantique (SAI)	**0**
Squalidés et requins (SHK)	**2290**
TOTAL ™	**11291**

Tableau 2. Données statistiques de la pêcherie thon rouge Est (BFT-E) et de l'espadon (SWO).

BFT	*Engin*	*Volume*
Atl	Trap	1909
Atl	PS	00
Atl	LL	00
Atl	Gill	00
Méd	Hand	2
Méd	Gill	00
Méd	PS	367
Méd	LL	00
Méd	Trap	0
Tot-Atl		1909
Tot-Méd		369
Total BFT		**2278**

SWO	*Engin*	*Volume*
Atl	Trap	04
Atl	PS	00
Atl	Gill	
Atl	LL	720
Méd	LL	1110
Méd	Gill	477
Méd	PS	00
Méd	Hand	
Méd	Trap	00
Tot-Atl		724
Tot-Méd		1587
Total SWO		**2311**

Tableau 3. Données de la pêcherie des petits thonidés.

Espèces	*Engin*	*Bacorette (LTA)*	*B. Sarda (BON)*	*Listao (SKJ)*	*Melva (FRI)*	*Palomette (BOP)*	*Total*
Atl	Trap	00	6	00	0	00	6
Atl	Hand	00	478	379	2	00	859
Atl	Gill	00	185	45	0	3	233
Atl	LL	03	909	1498	4	220	2634
Atl	PS	60	945	653	3	50	1711
Méd	Trap	00	00	00	00	00	00
Méd	Hand	00	75	2	10	00	87
Méd	Gill	00	00	1	8	00	9
Méd	LL	10	29	1	104	4	148
Méd	PS	14	27	1	214	2	257
Tot-Atl		63	2523	2575	9	273	5443
Tot-Méd		24	131	5	336	6	502
Total		87	2654	2580	345	279	5945

Tableau 4. Autres espèces.

	Engin	*Voilier (SAI)*	*Makaire bleu (BUM)*	*Albacore (YFT)*	*Germon (ALB)*	*Thon obèse (BET)*	*Squales & Requins**
Atl	Trap	00	00	00	00	00	00
Atl	PS	00	00	00	00	00	870
Atl	Gill	00	00	00	00	00	10
Atl	LL &Hand	00	00	00	130	795	1410
Méd	LL	00	00	00	120	00	39
Méd	Gill	00	00	00	00	00	4
Méd	PS	00	00	00	00	00	42
Méd	Hand	00	00	00	00	00	2
Méd	Trap	00	00	00	00	00	00
Tot-Atl		00	00	00	130	795	2290
Tot-Méd		00	00	00	120	00	87
Tot		00	00	00	250	795	2377

Tableau 5. Récapitulatif des données générales de captures par zones et par espèces (TM).

	Atl	*Méd*	*Total*
Thon rouge	1909	369	2278
Thon obèse	795	00	795
Thon germon	130	120	250
Thon albacore	00	00	00
Espadon	724	1587	2311
Petits thonidés	5443	502	5945
Squalidés & requins	2290	87	2377
TOTAL	**11291**	**2665**	**13956**

Tableau 6. État des statistiques de Tâche II des principales espèces de thonidés et espèces apparentées au titre de l'année 2009.

Espèce	*Engin*	*Tâche II*	*Observations*
Thon rouge	Madrague (Trap)	Capture-effort Echantillonnage tailles Prises par tailles	Transmis avant la session dévaluation Transmis avant la session dévaluation Transmis avant la session dévaluation
+++++++++	++++++++++	++++++++++++	++++++++++++++++++++++++++++
Thon obèse	Palangre de surface (LL)	Capture-effort Echantillonnage tailles Prises par tailles	Transmis avant la session dévaluation Transmis avant la session dévaluation non estimé (faible échantillon)
+++++++++	++++++++++	++++++++++++	++++++++++++++++++++++++++++
Espadon de la Méditerranée	Filet maillant dérivant (Gill net)	Capture-effort Echantillonnage tailles Prises par tailles	Transmis (avant les réunions Groupes Espèces) Transmis (avant les réunions Groupes Espèces) Transmis (avant les réunions Groupes Espèces)
+++++++++	++++++++++	++++++++++++	++++++++++++++++++++++++++++
Espadon de l'Atlantique	Palangre de surface (LL)	Capture-effort Echantillonnage tailles Prises par tailles	Transmis (avant les réunions Groupes Espèces) Transmis (avant les réunions Groupes Espèces) Transmis (avant les réunions Groupes Espèces)

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

SUMMARY

In light of the critical stock situation of Atlantic bluefin tuna, Norway has adopted a prohibition for Norwegian vessels to fish and land bluefin tuna in Norway's territorial waters, in the Norwegian Economic Zone and in international waters. It is also prohibited to import and export Atlantic bluefin tuna, bigeye tuna and Atlantic swordfish in Norway without valid catch documentation. No catches of Atlantic bluefin tuna were reported by Norway in 2009. Only one visual sighting of a juvenile bluefin tuna was reported in western Norway in June 2009. Norway continuously works on historical data and aims to put the data on this species into an ecosystem perspective. Extensive data and preliminary results on catch per unit effort (CPUE) from the Norwegian bluefin tuna fleet for the period 1950-1980 were made available for SCRS in 2009. Norway participated in all major international scientific meetings concerning Atlantic bluefin tuna in 2009.

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 économique de la Norvège ainsi que dans les eaux internationales. Il est également interdit d'importer et d'exporter du thon rouge de l'Atlantique, du thon obèse et de l'espadon de l'Atlantique en Norvège sans la documentation de capture valide. En 2009, la Norvège n'a déclaré aucune capture de thon rouge de l'Atlantique. En juin 2009, seule une observation visuelle d'un thon rouge juvénile a été signalée dans l'Ouest de la Norvège. La Norvège mène des travaux continus sur les données historiques et vise à placer les données sur cette espèce dans une perspective écosystémique. En 2009, le SCRS a eu connaissance de données considérables et de résultats préliminaires de la capture par unité d'effort (CPUE) de la flottille norvégienne de thon rouge au titre de la période 1950-1980. La Norvège a pris part à toutes les principales réunions scientifiques internationales concernant le thon rouge de l'Atlantique en 2009.

RESUMEN

Ante la crítica situación de los stocks de atún rojo del Atlántico, Noruega impuso a los buques noruegos la prohibición de pescar y desembarcar atún rojo en las aguas territoriales noruegas, en la Zona Económica de Noruega y en aguas internacionales. También se estableció la prohibición de importar y exportar atún rojo del Atlántico, patudo y pez espada del Atlántico en Noruega sin la documentación de captura válida. En 2009 Noruega no comunicó capturas de atún rojo del Atlántico. Sólo se comunicaron avistamientos de atún rojo juvenil en la parte occidental de Noruega en junio de 2009. Noruega trabaja continuamente en los datos históricos de atún rojo, con el objetivo de incluir estos datos en una perspectiva ecosistémica. En 2009 se pusieron a disposición del SCRS datos exhaustivos y los resultados preliminares de la captura por unidad de esfuerzo (CPUE) de la flota de atún rojo noruega para el periodo 1950-1980. En 2009, Noruega participó en todas las reuniones científicas internacionales más importantes relacionadas con el atún rojo del Atlántico.

Part I (Information on fisheries, research and statistics)

Section 1: Annual Fisheries Information

In light of the critical stock situation for bluefin tuna, Norway adopted in 2007 a prohibition for Norwegian vessels to fish and land bluefin tuna in Norway's territorial waters, in the Norwegian Economic Zone and in international waters. The prohibition remains in force.

No Atlantic bluefin tuna has been caught by Norwegian fishing vessels in 2009. Only one individual bluefin tuna was reported sighted in Norway in June 2009. A few specimens of Atlantic swordfish have been accidentally been caught by recreational fishermen in Norway, mostly by gillnet fishing. About five sightings of Atlantic swordfish have also been reported along the coast of Norway in 2009.

Section 2: Research and Statistics

Norway continuously works on historical data for bluefin tuna, and aims to put the data into an ecosystem perspective and as input to assessment models. A Virtual Population Analyses (VPA) has been developed based on official Norwegian catch statistics and detailed individual bluefin tuna data for the period 1950-1970. Extensive data and preliminary results on catch per unit effort (CPUE) from the Norwegian bluefin tuna fleet for the period 1950-1980 has been made available for SCRS in 2009. Invited talks have been presented in the USA concerning bluefin tuna and ecosystem research in Norway. Information about bluefin tuna science and management has been presented in newspapers, discussed on radio and aired on television. Norway has participated in all major international scientific meetings concerning Atlantic bluefin tuna in 2009.

Part II (Management Implementation)

Section 3: Implementation of ICCAT Conservation and Management Measures

Bluefin tuna is the only tuna species in ICCAT's Convention area to which Norway is a coastal State. Norway has no long distance fisheries for other tuna or tuna-like species in the Convention area.

In light of the critical stock situation for bluefin tuna, Norway adopted on 3 May 2007 a prohibition for that year for Norwegian vessels to fish and land bluefin tuna in Norway's territorial waters, in the Norwegian Economic Zone and in international waters. A new regulation adopted 19 December 2007 provides for the same prohibition. This regulation, which entered into force 1 January 2008, is not limited in time, and therefore remains in force until otherwise decided. In addition to the prohibition to fish and land bluefin tuna, the regulation stipulates that in case of incidental by-catches of bluefin tuna in fisheries for other species, all bluefin tuna fit for survival shall be immediately released back to the sea, whereas dead or dying bluefin tuna shall be landed. Any wilful or negligent contravention of these provisions is subject to penalty in accordance with Norwegian law.

Norway adopted 20 March 2009 a regulation relating to catch documentation for Atlantic bluefin tuna (*Thunnus thynnus*), bigeye tuna (*Thunnus obesus*) and swordfish (*Xiphia gladius*). The regulation which entered into force 6 April 2009, establishes a catch documentation scheme whereby the Norwegian Directorate of Fisheries will issue catch documents for bluefin tuna, bigeye tuna and swordfish upon landing. Although it is prohibited for Norwegian vessels to fish or land bluefin tuna, dead or dying bluefin tuna shall be landed, and catch documents shall be issued. Furthermore, when bluefin tuna, bigeye tuna or swordfish landed in Norway is subject to domestic trade, the new regulation stipulates that each consignment shall be accompanied by a valid catch document issued by the Directorate of Fisheries. The new regulation further stipulates that import of bluefin tuna, bigeye tuna or swordfish is prohibited unless the consignment is accompanied by catch documents validated by the responsible authority in the country where the fish was landed. The importer shall immediately send a copy of the valid catch documents to the Directorate of Fisheries. This also applies to foreign vessels landing bluefin tuna, bigeye tuna or swordfish in Norway. Furthermore, export of bluefin tuna, bigeye tuna or swordfish is prohibited unless the consignment is accompanied by a catch document validated by the Directorate of Fisheries. Re-exports shall be accompanied by valid catch documents and re-export documents issued by the Directorate of Fisheries. When issuing catch documents and re-export documents the Directorate of Fisheries shall use the relevant ICCAT documents. The Customs Authorities and the Directorate of Fisheries may carry out controls according to this regulation. Any wilful or negligent contravention of the regulation is subject to penalty in accordance with Norwegian law.

Section 4: Inspection Schemes and Activities

All fishing operations in waters under Norwegian fisheries jurisdiction are subject to resource control. This control is directed at the entire production chain, from the moment of capture in the sea, at the landing site, through storage and sale/export. Both Norwegian and foreign fishing vessels are subject to stringent controls in all Norwegian fishing waters. The Coast Guard annually performs around 2000 inspections of Norwegian and foreign vessels operating in Norwegian waters. In 2009 vessels over 21 metres were required to carry satellite

transponders that permit their activities to be tracked 24 hours a day, all year round. (As from 1 July 2010 this requirement applies to all vessels above 15 metres.) Once catches have been landed, the landing data are cross-checked against the fishing rights of the vessel.

Section 5: Other Activities

Norway has no other tuna fishery related activities.

Reference

Nøttestad, L. 2009, Seeing by sound at sea: revealing underwater secrets of dynamic fish schools, diving seabirds and hunting whales and dolphins. Public Lecture Series, April 22nd, 2009. Large Pelagics Research Center, University of New Hampshire, USA.

ANNUAL REPORT OF PANAMA
RAPPORT ANNUEL DU PANAMA
INFORME ANUAL DE PANAMÁ

SUMMARY

*The jurisdictional waters of the Republic of Panama extend about 20 nautical miles wide in the Pacific Ocean and the Atlantic Ocean, with 95% of the fishing activities taking place in the Pacific Ocean. Fishing is distributed in two large sectors: industrial fishing and artisanal fishing. In Panama, Caribbean coastal fishing in the Atlantic Ocean is carried out towards areas such as: Bocas del Toro, Colon and the Region of San Blas. As the continental shelf is short and steep, it only permits fishing of species associated with the reefs, although a low density, industrial prawn fishery can be carried out. Since the fishery in this area is very limited, in recent years (from 2000 up to the present), activities have been established in these areas such as the cultivation de black kingfish, white sea bass and red porgy in floating cages. As regards the national fleet in the Atlantic Ocean, this is comprised of two purse seine vessels and 71 longline vessels over 20 m, which fish yellowfin tuna (*Thunnus albacares*), bigeye tuna (*Thunnus obesus*), skipjack tuna (*Katsuwonus pelamis*) and by-catch species. As concerns the sport fishery, this is generally not regulated and there are no fishing statistics, except at the points of major activity for the Pacific area. In the Caribbean, sport fishing is carried out in areas such as Bocas del Toro and Volcan Reefs in Colon. Regulated fishing in some fishing areas for yachts is carried out to catch and release species such as swordfish (*Xiphias gladius*). Up to October 1, 2011, the purse seine fleet in the Atlantic has landed a total of 10,605.722 t of tunas towards the European Union (**Table 1**) and 1,365.800 t of tuna were landed in third parties (**Table 2**). Up to April 1, 2010, the longline fleet landed 685,684 t of tuna and tuna-like species at the port of Surinam (**Table 3**) and 1,811,508 t of tuna and tuna-like species at the port of Gambia (**Table 4**). The Authority for Aquatic Resources of Panama (ARAP) conducts periodic sampling programs on landings at ports, by species and by size. Research centers such as the Sea Sciences Center and Liminologia of the University of Panama carry out specific research on port systems and the Smithsonian Institute of Tropical Research (STRI), which focuses its studies on the biology and the conservation of the marine ecosystems. Panama, through the ARAP, carries out monitoring, control and surveillance activities, and has a Center for Fishing Control and Surveillance, with its own technological applications to monitor the fishing vessels. The national flag fishing vessels have a bi-directional communications MODEM ((Iridium, INMARSAT C, INMARSAT D+) with the capacity to receive queries and transmit the latitude and longitude position, speed, and course in real time 27/7. Other information on catch is provided in Tasks I and II data.*

RÉSUMÉ

*Les eaux juridictionnelles de la République du Panama s'étendent à 200 milles marins au large des océans Pacifique et Atlantique et 95 % de l'activité halieutique se déroulent dans l'océan Pacifique. La pêche se divise en deux grands secteurs : la pêche industrielle et la pêche artisanale. Au Panama, la pêche des côtes des Caraïbes dans l'océan Atlantique est concentrée dans les régions suivantes : Bocas del Toro, Colón et la Comarca de San Blas. Étant donné que la plateforme continentale est courte et prononcée, seule la pêche des espèces présentes dans les récifs y est possible, bien qu'une pêcherie industrielle de crevettes de faible intensité puisse y être menée. Compte tenu du caractère limité de la pêcherie dans cette zone, au cours des dernières années (depuis 2000 jusqu'à présent), des activités liées à ces zones ont été développées, au titre desquelles citons l'élevage de cabio, de maigre et de pagre dans des cages flottantes. La flottille nationale opérant dans l'océan Atlantique est composée de 2 senneurs et de 71 palangriers, la plupart de plus de 20 m de longueur hors-tout. Ces navires ciblent l'albacore (*Thunnus albacares*), le thon obèse (*Thunnus obesus*), le listao (*Katsuwonus pelamis*) et des espèces accessoires. En ce qui concerne la pêche sportive, elle n'est généralement pas réglementée et il n'existe aucune statistique halieutique, à l'exception des endroits de forte activité dans la zone du Pacifique. Dans les Caraïbes, cette pêche est menée dans les zones telles que Bocas del Toro et Volcán Reefs à Colón. La pêche faisant l'objet de législations existantes s'appliquant dans quelques zones de pêche aux yachts est une pêche de capture et de remise à l'eau, comme dans le cas de l'espadon (*Xiphias gladius*). Jusqu'au 1er octobre 2010, la*

*flottille de senneurs dans l'Atlantique a débarqué un total de 10.605,722 t de thonidés vers l'Union européenne (**Tableau** 1) et 1. 365,800 t de thonidés déchargés dans des pays tiers (**Tableau 2**). Jusqu'au 1er avril 2010, la flottille palangrière a débarqué 685.684 t de thonidés et d'espèces apparentées dans le port de Surinam (**Tableau 3**) et 1.811.508 t de thonidés et d'espèces apparentées dans le port de Gambia (**Tableau 4**). L'autorité des ressources aquatiques de Panama (ARAP) conserve des programmes d'échantillonnage périodique des débarquements au port par espèce et taille. Il existe plusieurs centres de recherche, tels que le Centro de Ciencias del Mar y Liminología de l'université de Panama, qui réalise des recherches ponctuelles dans les systèmes des estuaires et l'Instituto Smithsonian de Investigaciones Tropicales (STRI), qui se consacre aux études dans le domaine de la biologie et de la conservation des écosystèmes marins. Le Panama, par le biais de l'ARAP, réalise des actions de suivi, de contrôle et de surveillance et dispose d'un centre de contrôle et de suivi des pêches comptant ses propres outils technologiques en vue de surveiller les navires de pêche. Les navires de pêche sous pavillon panaméen sont équipés d'un Modem de communication (Iridium, INMARSAT C, INMARSAT D+) bidirectionnel pouvant recevoir des demandes et transmettre en temps réel (24/24 et 7/7) les coordonnées de latitude et de longitude, de vitesse et de cap. Les autres activités de capture sont présentées dans les Tâches I et II.*

RESUMEN

*Las aguas jurisdiccionales de la República de Panamá se extienden a unas 200 millas náuticas de ancho en el océano Pacífico y océano Atlántico, y el 95% de la actividad pesquera se desarrolla en el océano Pacífico. La pesca está distribuida en dos grandes sectores: la pesca industrial y la artesanal. En Panamá, la pesca ribereña del Caribe en el océano Atlántico está sectorizada hacia zonas como: Bocas del Toro, Colón y la Comarca de San Blas. Siendo la plataforma continental corta y pronunciada, sólo permite la pesca de especies asociadas a los arrecifes, aunque se puede desarrollar una pesquería industrial de camarón de baja intensidad. Como la pesquería de esta zona es muy limitada, en los últimos años (desde el año 2000 hasta la fecha), se han establecido actividades asociadas a estas áreas como lo son el cultivo de cobia, corvina y pargo en jaulas flotantes. En cuanto a la flota nacional en el océano Atlántico, está conformada por 2 buques cerqueros y 71 buques palangreros mayores de 20 m de eslora, los cuales pescan atún aleta amarilla (yellowfin tuna-*Thunnus albacares*), patudo (bigeye tuna-*Thunnus obesus*), barrilete (skipjack tuna-*Katsuwonus pelamis*) y especies incidentales. Con relación a la pesca deportiva, generalmente no está normada, y no existen estadísticas de pesca, excepto en los puntos de mayor actividad para el área del Pacífico; en el Caribe se realiza en áreas como Bocas del Toro y Volcán Reefs en Colón. La pesca basada en las normativas ya existentes en algunas zonas de pesca para yates de paseo se realiza por captura y liberación de especies, como lo es para el caso del pez espada (*Xiphias gladius*). Hasta el 1 de octubre de 2010 la flota de red de cerco en el Atlántico ha desembarcado un total de 10.605,722 t de atún hacia la Unión Europea (**Tabla 1**) y 1.365,800 t de atún descargadas en tercero países (**Tabla 2**). La flota de palangre, hasta el 1 de abril de 2010, desembarcó 685,684 t de atún y especies afines en el puerto de Surinam (**Tabla 3**) y 1.811,508 t de atún y especies afines en Puerto de Gambia (**Tabla 4**). La Autoridad de los Recursos Acuáticos de Panamá (ARAP) mantiene programas de muestreo periódico de desembarques en puertos por especies y tallas. Existen centros de investigaciones tales como el Centro de Ciencias del Mar y Liminología de la Universidad de Panamá, que realiza investigaciones puntuales en sistemas de estuarios, y el Instituto Smithsonian de Investigaciones Tropicales (STRI), que enfoca sus estudios en el área biológica y de la conservación de los ecosistemas marinos. Panamá, como país, a través de la ARAP ejerce acciones de Seguimiento, Control y Vigilancia y cuenta con un Centro de Control y Seguimiento Pesquero con aplicaciones tecnológicas propias para la vigilancia de las embarcaciones pesqueras. Las embarcaciones pesqueras con pabellón nacional cuentan con un MODEM de comunicación (Iridium, INMARSAT C, INMARSAT D+) bidireccional con la capacidad de recibir interrogaciones y transmitir en tiempo real 24/7 la localización de latitud y longitud, velocidad y rumbo. Otras actividades de captura se adjunta en Tareas I y II.*

Parte I (Información sobre pesquería, investigación y estadísticas)

Sección 1: Información anual de sobre pesquería

La República de Panamá está ubicada entre los 7° 12'07'' y 9° 38'46'' de Latitud Norte y 77° 09'24'' y 83° 03'07'' de Longitud Oeste y presenta una extensión de 75,517 km^2 (29,208 millas cuadradas). Panamá forma un eslabón entre la América Central y la América del Sur y posee costas en el Caribe y en el Pacífico donde emergen unas 1,581 islas e islotes. Las costas suman en total 2,988.3 km, de los cuales 1,700.6 km se encuentran del Pacífico y 1,287.7 km se encuentran en el Caribe.

Su aguas jurisdiccionales se extienden a unas 200 millas náuticas de ancho sobre las cuales la República de Panamá ejerce soberanía y derechos soberanos, al igual que en el lecho marino. Esta zona se encuentra influenciada por un importante afloramiento en el Golfo de Panamá, en donde la estación seca incrementa la productividad primaria y acelera el desarrollo de un gran número de especies. En las aguas del océano Pacífico se desarrolló el 95% de la actividad pesquera, además encontrándose el 80% de la población del país.

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

En Panamá, la pesca ribereña del Caribe en el océano Atlántico está sectorizada hacia zonas como: Bocas del Toro, Colón y la Comarca de San Blas. Siendo la plataforma continental corta y pronunciada, sólo permite la pesca de especies asociadas a los arrecifes, aunque se puede desarrollar una pesqueria industrial de camarón de baja intensidad. En esta área, la pesca artesanal se dedica principalmente a la captura de langosta (*panulirus sp*), caracoles (*strombus sp*), pulpo y cangrejo centollo. De estas especies, la más importante es la pesca de la langosta (*panulirus sp*), resultando la principal pesqueria de la región del Caribe. Sin embargo, en los últimos años se ha registrado un aumento en la sobre explotación del recurso, lo cual ha llevado a establecer la regulación de permisos y hasta la implementación de vedas para algunas de estas especies.

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

1.1 Información sobre la pesca nacional

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

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

En 1995, ICCAT advierte a la República Panamá y a otros países que buques de su pabellón fueron identificados con prácticas pesqueras contrarias a las medidas de ordenación y durante el período de 1996 a 1998, en el ámbito internacional se critican muy fuertemente las actividades de la flota pesquera inscrita en el registro de Marina Mercante Panameña. La Dirección de Consular y Naves (en actualidad la Dirección General de Marina Mercante de la Autoridad Marítima de Panamá) aprueba el documento Estadístico para el Atún Rojo y se autoriza la firma del mismo al Cónsul de Panamá en Islas Canarias.

A finales de 1997 se establece la obligatoriedad de obtener una licencia de pesca previa a la inscripción en el registro de la Marina Mercante y se prohíbe pescar en el Mediterráneo y la pesca dirigida a la captura de atún rojo y atún blanco del Norte o del Sur en el Atlántico. Por ello, más de mil buques pesqueros de bandera panameña no aplicaron para la obtención de la licencia de pesca correspondiente y se les elimina del registro de nuestra Marina Mercante.

Para el año de 1998, Panamá, se adhiere como parte contratante de ICCAT (Ley N° 74 del 10 noviembre de 1998) y a partir de 1999 se exige un sistema de localización satelital (VMS) como uno de los requisitos para obtener la licencia de pesca y se adopta el esquema de ICCAT para inspección en puerto.

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

En cumplimiento de las decisiones adoptadas y emanadas de la Resolución A/RES/53/33 del 15 de marzo de 1999 de la Asamblea General de las Naciones Unidas relativas a la pesca de altura en gran escala con redes de enmalle y deriva, la pesca no autorizada en zonas sujetas a jurisdicción nacional y en alta mar, las capturas incidentales y los descartes en la pesca y otras cuestiones. La República de Panamá emite el Decreto Ejecutivo Nº 90 del 17 de julio de 2002 "Por medio del cual se prohíbe el uso de redes de enmalle y/o deriva a todas las naves de pesca industrial de servicio interior e internacional con bandera panameña, ya que representa una amenaza importante para el medio ambiente marino, la sostenibilidad de las pesquerías y la biodiversidad marina. Panamá, en concordancia con estos instrumentos internacionales, adopta los programas para el control de la pesca ilegal por parte de la Unión Europea y otras organizaciones regionales de ordenación pesqueras (OROP), desde el año 2005.

En el mismo año se incorpora a la Estrategia Marítima Nacional, la necesidad de conformar un plan nacional para prevenir, desalentar y eliminar la pesca ilegal, no declarada y no reglamentada.

En el marco del organismo regional de ordenación pesquera, CIAT, Panamá como parte contratante desde 1952, ratifica el Acuerdo sobre el Programa Internacional para la Conservación de los Delfines, mediante Ley N° 75 del 10 de noviembre de 1998.

En cuanto a la flota nacional en el Océano Atlántico, esta está conformada por 2 buques cerqueros y 71 buques palangreros, mayores de 20 m de eslora, los cuales pescan atún aleta amarilla (yellowfin tuna-*Thunnus albacares*), patudo (bigeye tuna-*Thunnus obesus*), barrilete (skipjack tuna-*Katsuwonus pelamis*) y especies incidentales.

Con relación a la pesca deportiva, generalmente no está normada, no existe una estadística de pesca, excepto en los puntos de mayor actividad para el área del Pacífico; en el Caribe se realiza en áreas como Bocas del Toro y Volcán Reefs en Colón. La pesca basada en las normativas ya existente en algunas zonas de pesca para yates de paseo se realiza por captura y liberación de especies como lo es para el caso del pez espada (X*iphias gladius*).

Sección 2. Investigación y estadísticas

Sistema de información pesquera: actualmente la Autoridad Marítima de Panamá (AMP) reporta datos estadísticos de todas las actividades desarrolladas en los aspectos de Marina Mercante, puertos, gente de mar y datos de descarga de los productos pesqueros en puertos nacionales.

La Autoridad de los Recursos Acuáticos de Panamá (ARAP) cuenta con la Dirección General de Investigación y Desarrollo, la cual se encarga de verificar las capturas y mantiene información de desembarque, exportación, importación de los productos pesqueros, así como información biométrica de las especies explotadas, que son importantes como apoyo al desarrollo pesquero del país.

La ARAP mantiene programas de muestreo periódico de desembarques en puertos por especies y tallas. Existen centros de investigaciones tales como el Centro de Ciencias del Mar y Liminología de la Universidad de Panamá, que realiza investigaciones puntuales en sistemas de estuarios, y el Instituto Smithsonian de Investigaciones Tropicales (STRI), que enfoca sus estudios en el área biológica y de la conservación de los ecosistemas marinos.

Asimismo, se realizan investigaciones conjuntas con la CIAT, que apoya investigaciones de las especies del atún tropical, con el objetivo de cerrar su ciclo biológico. Igualmente, el Plan de Acción del Pacífico Sudeste y el Plan de Acción del Caribe son programas de mares regionales del Programa de Naciones Unidas para el Medio Ambiente (PNUMA), apoyan investigaciones sobre indicadores ambientales y calidad de aguas marino costera, que permiten atender áreas de riesgo para ecosistemas y especies marinas de interés comercial. Por otro lado, con el apoyo del Ministerio de Ciencias de España se desarrollan investigaciones de prospección pesquera y monitoreo de inventarios de los stocks de los recursos pesqueros en las plataformas continentales. Todo ello

contribuye para una mejor toma de decisión en cuanto al manejo sostenible de los recursos pesqueros y los ecosistemas.

Parte II (Implementación de la ordenación)

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

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

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

Panamá, como país a través de la ARAP, ejerce acciones de Seguimiento, Control y Vigilancia, cuenta con un Centro de Control y Seguimiento Pesquero con aplicaciones tecnológicas propias para la vigilancia de las embarcaciones pesqueras. Las embarcaciones pesqueras con pabellón nacional cuentan con un MODEM de comunicación (Iridium, INMARSAT C, INMARSAT D+) bidireccional con la capacidad de recibir interrogaciones y transmitir en tiempo real 24/7 la localización de latitud y longitud, velocidad y rumbo. Para el año 1998, Panamá se adhiere como parte contratante de ICCAT (Ley N° 74 del 10 noviembre de 1998) y a partir de 1999 se exige un sistema de localización satelital (VMS) como uno de los requisitos para obtener la licencia de pesca y se adopta el esquema de ICCAT para inspección en puerto. Sin embargo, Panamá si cumple con el VMS para los buques pesqueros desde 1999 y para los buques de apoyo a la pesca desde el 2001.

Las naves de pesca industrial y las que realizan actividades de pesca internacional deben instalar a bordo un dispositivo de monitoreo satelital, que deben mantener encendido desde el zarpe hasta la recalada de la nave (Decreto Ejecutivo No. 83 del 5 de abril de 2005, Decreto Ejecutivo No. 17 del 30 de junio de 2008). La aplicación del VMS está reglamentada y la información proporcionada por el sistema, que es interpretada por la autoridad competente, tiene validez legal de plena prueba. La alteración de información, la operación sin el funcionamiento del dispositivo, así como el uso indebido del sistema VMS, son sancionados por la Autoridad, las cuales se han hecho obligatorias.

Observadores científicos: La Autoridad Pesquera tiene atribuciones para incluir a bordo de las naves de pesca a observadores científicos o inspectores, según corresponda. Esta disposición es de cumplimiento obligatorio con respecto a las naves nacionales que operan en períodos de veda y cuando se requiera, a fin de dar cumplimiento a las normativas e investigaciones existentes para la conservación y ordenación de los recursos pesqueros. Asimismo, Panamá no forma parte del programa de observadores de ICCAT, por lo que nos vemos obligado a que buques utilicen observadores de otras nacionalidades. Pero Panamá sí forma parte del programa de observadores de CIAT, el cual es implementado para las embarcaciones que se dedican a la captura de atún.

El Estado panameño a través de la Autoridad competente certifica la idoneidad de los observadores que cumplan con los requisitos del sistema de observadores. Estos deberán remitir la información pertinente en original o copia debidamente autenticada a la Autoridad competente.

En cumplimiento de las Recomendaciones de ICCAT, se incluyeron todos los buques mayores de 20 metros de eslora en el Registro de Buques Pesqueros del ICCAT. En este sentido, es bueno hacer de conocimiento general que nuestras embarcaciones, independientemente del tamaño de eslora, si poseen licencia internacional, tienen la necesidad de cumplir con todas las normas de la OROP del área donde pescan y sobre las especies de competencia de esa OROP. La norma que regula este cumplimiento para todos los buques pesqueros, incluyendo los grandes palangreros, es el Decreto Ley No. 49 del 19 de octubre de 2009. Este Decreto establece las normas con respecto a buques de pesca en aguas internacionales, incluidos los buques de transporte de pescado y de apoyo a la pesca, así como también las normas sobre el transbordo.

Otras actividades de pesca de buques panameños en aguas internacionales o en aguas jurisdiccionales de otros Estados con autorización del mismo están reguladas por la Resolución No. 1791 del 20 de diciembre de 2001.

Sección 4: Actividades y esquemas de inspección

En Panamá existen puertos internacionales con características para el trasbordo o el desembarque; sin embargo, pocos buques que faenan en el mar Caribe o en el Atlántico realizan esta actividad en puertos panameños. Los buques panameños de licencia internacional desembarcan su captura en puertos de otros Estados.

El Canal de Panamá, por Constitución Nacional, tiene normas diferentes, sobre todo para permitir el paso o tránsito de buques de distintas nacionalidades sin distinción. El Canal de Panamá es considerado una vía interoceánica internacional, por lo cual no se le considera área portuaria.

Sección 5: Otras actividades

Otras actividades de captura se adjunta en Tareas I y II.

Tabla 1. Descargas realizadas por los buques con red de cerco hacia la Unión Europea hasta el 1/10/2010.

Especies	*t*
Yellowfin	5,564.620
Listado	4,688.582
Bigeye	210.000
Melva	142.520
TOTAL	**10,605.722**

Tabla 2. Descargas realizadas por los buques con red de cerco hacia terceros países hasta el 1/10/2010.

Especies	*t*
Yellowfin	295.786
Listado	819.521
Bigeye	187.559
Melva	62.938
TOTAL	**1,365.80**

Tabla 3. Descarga de buques palangreros realizada en Surinam hasta el 1 de abril del 2010.

Especies	*t*
Yellowfin	358.063
Albacore	98.451
Skipjack	65.919
Blue shark	34.072
Beka shark	10.768
Black shark	6.569
Mahi mahi	67.601
Mix shark	7.351
Wahoo	36.890
TOTAL	**685.684**

Tabla 4. Descarga de buques palangreros realizada en Gambia hasta el 1 de abril del 2010.

Especies	*t*
Yellowfin	706.925
Albacore	215.301
Skipjack	84.879
Blue shark	580.087
Beka shark	25.385
Black shark (small)	18.931
Mahi mahi	104.712
Mix shark	24.905
Wahoo	50.383
TOTAL	**1,811.508**

ANNUAL REPORT OF THE 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 2008, the catch of oceanic tunas reached 337,506,000 tons or about 40% of the total commercial fish production of the country. The Philippines have 26 Philippine flagged fishing vessels authorized to fish in the ICCAT Convention area and are listed in the ICCAT Registry of Vessels. Of these 26 fishing vessels, only 8 fishing vessels are authorized to fish in any given year at the same time. 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, 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 2008, la prise de thonidés océaniques a atteint 337.506.000 t, soit près de 40 % du total de la production halieutique commerciale du pays. Les Philippines disposent de 26 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 26 navires de pêche, seuls 8 d'entre eux sont autorisés à pêcher au cours de toute année donnée en même temps. Les Philippines participent au Projet de collecte des données des Philippines, qui est financé par la Commission de la pêche dans le Pacifique central et occidental (WCPFC) et qui vise à renforcer le système de collecte de données pour traiter des questions de conservation et de gestion des stocks de poissons grands migrateurs en établissant une collecte et vérification standard des données des pêcheries thonières de la région. Les Philippines prennent part au Programme régional d'observateurs de l'ICCAT destiné au suivi des transbordements en mer par les Parties contractantes de l'ICCAT. Bien qu'elles soient une petite partie prenante à l'ICCAT, les Philippines apportent une modeste quantité aux fins de la mise en œuvre de ce programme. Les Philippines continuent également à mettre en œuvre le Programme de documents statistiques de l'ICCAT pour le thon rouge, le thon obèse et l'espadon depuis 2002, y compris les programmes de la WCPFC et de la CCSBT.

RESUMEN

Las pesquerías de túnidos en Filipinas continúan contribuyendo de forma significativa a la producción de pescado del país. En 2008, la captura de túnidos oceánicos ascendió a 337.506.000 t o aproximadamente el 40% de la producción total de pescado del país. Filipinas cuenta con 26 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 26 buques pesqueros, sólo 8 están autorizados a pescar al mismo tiempo en un año determinado. 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. Desde 2002, Filipinas también

implementa el Programa de documento estadístico para el atún rojo, el patudo y el pez espada, lo que incluye también los programas WCPFC y la CCSBT.

PART I (Information of 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 the commercial sectors. The municipal fisheries sector uses vessels less than 3 GRT and the commercial sector employs vessels over 3 GRT and are prohibited to fish in municipal waters 15 kilometers from the shoreline. In 2008, the commercial sector contributed the majority of the catch of oceanic tunas (337,506 metric tons or about 60 % of the total tuna catch).The municipal sector on the other hand takes about 119,979 t of oceanic and neritic tunas.

Section 2: Fisheries Research and Statistics

The statistics for tuna in the Philippines are gathered by the Bureau of Agricultural Statistics of the Department of Agriculture. In view of the provisions of the Philippine Fisheries Code of 1998, Philippine fishing vessels are required to submit monthly reports of fish caught and the failure to do so will mean the non renewal of their Commercial Fishing and Vessel License (CFVGL). Moreover, landing surveys are conducted at major landing sites in the country by enumerators under the 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 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 continues to implement relevant ICCAT conservation and management measures as well as Philippine fisheries laws and regulations. All fishing vessels are required to secure a 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 Philippine fishing vessels are operating are judiciously and wisely utilized and managed on a sustainable basis. On October 19, 2009, in observance of the Fish Conservation Week celebration, the BFAR launched a Vessel Monitoring System (VMS). The Philippine Vessel Monitoring System is now in place and operational. The system has the capability to track Philippine flagged vessels operating in IOTC. At present, BFAR is coordinating with different VMS providers for automatic sending/receiving VMS data of FMC from various systems. Likewise, BFAR required commercial fishing vessel owners to submit a Vessel Tracking Agreement Form (VTAF) authorizing BFAR to monitor and track their respective vessels. Moreover, it coordinated with WCPFC regarding VMS data access to the Fisheries Monitoring Center and granted with privilege of view only and with PNG regarding VMS access of data of those Philippine flagged vessels operating in PNG waters.

As mentioned in last year's Annual Report, 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 (FADs) by limiting the number per fishing vessel, etc.

Section 4: Inspection Schemes and Activities

The Philippines is a participant in 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 has implemented the ICCAT Tuna Statistical Document Program for bluefin, bigeye and swordfish. Philippines is also doing this in IOTC, WCPFC and CCSBT.

4.1 Fisheries Information of Philippine vessels in the Atlantic Ocean

In 2009, there were 26 Philippine fishing vessels authorized and registered to fish in the ICCAT Convention area. However, only 8 vessels are authorized to fish in the area in any given year. The catches of these vessels for 2009 totaled 2,109 t and are broken down, by species, as follows:

Bigeye	1,880 tons
Yellowfin	152 tons
Swordfish	77 tons

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

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SUMMARY

Russia conducts two types of fishing in the ICCAT Convention area, trawl and purse seine fishing, during which tunas occur in the catches. In the course of non-specialized trawl fishing (small coastal fishes), tunas are found as by-catch. The purse seine specialized fishing for tropical tunas was resumed in late 2006 after a four-year interruption and is now at the stage of development. The vessels are engaged in fishing at regular intervals and in an experimental mode of operation. In Russia, the work related to the research of tunas and other species of the tuna fishery are carried out by the Atlantic Research Institute of Marine Fisheries and Oceanography (AtlantNIRO), Kaliningrad, and by the Russian Federal Research Institute of Fisheries and Oceanography (VNIRO), Moscow. These institutions collect catch and biological statistics and analyze the collected data, provide operative fishery monitoring, draw up proposals and recommendations required for tuna fishing vessels operation. In the framework of ICCAT, Russia participates in the work of Panel 1 "Tropical Tunas". The research carried out in 2009-2010, in addition to the collection and processing of current fishery and biological materials, was aimed at the analysis of body and teeth parameters of blue shark of the Atlantic and Pacific Oceans, as well as the detection of high mortality periods for oceanic sharks.

RÉSUMÉ

La Russie a mené deux types de pêcherie dans la zone de la Convention de l'ICCAT, à savoir la pêche au chalut et à la senne, dans le cadre desquelles des thonidés ont été capturés. En ce qui concerne la pêche au chalut non spécialisée (petits poissons côtiers), les thonidés sont capturés en tant que prises accessoires. La pêche à la senne spécialisée ciblant les thonidés tropicaux a repris à la fin de l'année 2006 après quatre années d'interruption, et connaît actuellement une phase de formation. Les navires participent à la pêche à intervalle régulier et opérent de manière expérimentale. 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) de Moscou. Ces institutions recueillent les statistiques sur les captures et la biologie et analysent les données collectées, fournissent un suivi des pêcheries opérationnelles et formulent les propositions et les recommandations nécessaires aux opérations des navires de pêche thoniers. Dans le cadre de l'ICCAT, la Russie prend part aux travaux de la Sous-commission 1 « Thonidés tropicaux ». La recherche réalisée en 2009-2010, outre la collecte et le traitement des données halieutiques et biologiques actuelles, visait à analyser les paramètres corporels et dentaires du requin peau bleue des océans Atlantique et Pacifique, ainsi qu'à déterminer les périodes de mortalité élevée des requins océaniques.

RESUMEN

Rusia realiza dos tipos de pesca en la zona del Convenio de ICCAT, arrastre y cerco, en los cuales hay presencia de túnidos en las capturas. En la pesca de arrastre no especializada (pequeños peces costeros), se capturan túnidos de forma fortuita. La pesca especializada con cerco de túnidos que pertenecen al grupo tropical se retomó a finales de 2006, tras una interrupción de cuatro años, y actualmente está en fase de formación; los buques pescan en intervalos regulares y realizan operaciones de pesca experimental. En Rusia, el trabajo de investigación relacionado con la pesca de túnidos y especies afines lo lleva a cabo el Atlantic

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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 pesqueros atuneros. En el seno de ICCAT, Rusia participa en los trabajo de la Subcomisión 1, "Túnidos tropicales". Los trabajos de investigación realizados en 2009-2010, junto con la recopilación y procesamiento del material biológico y pesquero actual, tienen como objetivo el análisis de los parámetros corporales y dentales de la tintorera de los océanos Atlántico y del Pacífico, así como la detección de periodos de elevada mortalidad para los tiburones oceánicos.

Part I (Information on Fisheries, Research and Statistics)

Section 1: Annual Fisheries Information

In 2009, a specialized purse seine tuna fishery was carried out in the eastern Equatorial area by two purse seiners. The catch amounted to 336 t (33 t of yellowfin tuna-*Thunnus albacares*, 43 t of bigeye tuna-*T. obesus*, 260 t of oceanic skipjack-*Katsuwonus pelamis*). In the first half of 2010 no purse fishery was carried out.

The trawl fishing vessels caught 48 t of bullet tuna (*Auxis rochei*), 113 t of frigate tuna (*Auxis thazard*) and 366 t of bonito *Sarda sarda* as by-catch in 2009 in the central East Atlantic. In the first half of 2010, according to the preliminary data, the catches taken by trawlers in CEA amounted to 168 t of frigate tuna and 426 t of bonito.

Section 2: Research and Statistics

In 2010, the observers from AtlantNIRO were sampling biological material on small tunas from the trawlers in the central East Atlantic Ocean. Fish length, weight, sex and maturity stages of gonads, and stomach fullness were measured. Small tunas were found in the trawls as a by-catch individually or up to several tens specimens. Material on frigate tuna, black skipjack and bonito was collected on 3197 specimens for mass measurements and 2335 specimens for biological analyses.

Frigate tuna: The fish length in the trawl catches varied from 25 to 40 cm; the mean length was 33.6 cm.

Black skipjack: The fish length in catches was 33-56 cm; the mean length was 43.2 cm. No spawning fish were recorded.

Bonito: The fish length varied from 40 to 68 cm; the mean length was 52.3 cm. Pre-spawning and spawning fish prevailed in the catches.

A comparative morphologic analysis of the teeth and body parameters of blue shark (*Prionace glauca)* from the Atlantic and eastern Pacific Oceans was carried out. In total, 159 teeth sets and 15 body parameters of 56 sharks were analyzed. The comparison indicates that the teeth morphology of Atlantic and Pacific sharks is similar. Sharks from different oceans differed in body proportions, while the difference was more pronounced in sharks above 170 cm in length. The sexual dimorphism was found in blue sharks, which was proved with males teeth thinning during the growth process.

The studies aimed at detection of periods of high mortality oceanic sharks during their life cycle have been carried out in AtlantNIRO. These periods are associated with high sharks concentration in the local areas during mating and spawning, as well as in the early years of life. The measures proposed to reduce fishing mortality were presented in a special report devoted to measures for the protection of oceanic sharks.

Part II (Management implementation)

Section 3: Implementation of ICCAT Conservation and Management Measures

During the fishery in areas where tunas and tuna-like species occur, the ICCAT requirements and recommendations concerning restrictions in the tuna fishery, and a ban imposed on fishing species under quotas were observed.

3.1 Vessels list

Each year Russia submits the list of vessels over 20 m to the ICCAT Secretariat, in compliance with Recommendation 09-08. The ship owner reported these vessels as vessels of the specialized purse fishery for tunas. In 2009 seven purse seiners were recorded.

3.2 Vessel Monitoring System (VMS)

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

3.3 Closing the fishing season

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

3.4 Observers program

In 2006-2007 the observers onboard the vessels fishing in ICCAT Convention area have carried out monitoring of the fishery and collection of fishery and biological data. In view of the short fishing period in 2008 and 2009, there were no observers on board the vessels. In 2010 there were observers on board the trawl vessels.

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

3.5 Bigeye tuna

There are no vessels of the specialized fishery fishing for bigeye tuna in Russia. In compliance with Recommendation 04-01, the annual by-catch of bigeye tuna in the Russian purse fishery amounted to less than 2,1 t.

3.6 Transshipment program

In compliance with Recommendation 06-11, the catch landings in 2008 and 2009 were carried out at the port.

Section 4: Inspection activities

Russia's implementation of ICCAT management regulations by large-capacity vessels for purse seine fishing for tunas are shown in **Table 1**.

Table 1. Implementation of ICCAT management regulations in 2009.

A. Management in the fishing grounds

	Scientific observers on the vessels	*Satellite system of vessels tracking*	*Daily or periodical report on the catch*	*Report incoming/outgoing*
Yes/No	No	Yes	No	Yes
Remark				The vessel Master's report

B. Management of transshipment (from the fishing grounds to the landing ports)

	Report on transshipment	*Port inspection*	*Program of statistical accounting*
Yes/No	No	No	No
Remark	In compliance with Recommendation 06-11, catch landing was carried out at the port in 2009.		

C. Management at landing ports

	Landing inspection	*Landing reporting*	*Cooperation with other Parties*
Yes/No	No	Yes	No
Remark			

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

Fambaye Ngom Sow,[1] Sidy Ndaw[2]

SUMMARY

*In Senegal, tuna and tuna-like species are mainly exploited by the industrial fishery comprised of baitboat vessels that target large tunas: yellowfin tuna (*Thunnus albacares), *bigeye tuna (*Thunnus obesus) *and skipjack tuna (*Katsuwonus pelamis*) and longline vessels that target swordfish (*Xiphias gladius). *Besides, a part of the artisanal fishery exploits small tunas using hand line, troll and purse seine (Atlantic black skipjack (*Euthynnus alletteratus-*LTA), Spanish mackerel (*Scomberomorus tritor-*MWA), plain bonito (*Orcinopsis unicolor-*BOP), Atlantic bonito (*Sarda sarda-*BON), wahoo (*Acanthocybium solandri-*WAH) and frigate tuna (*Auxis thazard*). This fishery also exploits billfish such as swordfish (*Xiphias gladius-*SWO), blue marlin (*Makaira nigricans-*BUM) and sailfish (*Istiophorus albicans-*SAI). The sport fishery is directed at billfish (marlins and sailfish) durin the fishing season that is from May to December. In 2009, the seven Senegalese baitboats landed 6.720 t comprised of 1.157 t yellowfin tuna, 4.513 t skipjack tuna, 1.041 t bigeye tuna, 6 t Atlantic black skipjack y 4 t frigate tuna. The longline fleet, comprised of four vessels, landed 590 t. The catches were made up of 195 t of swordfish, 327 t of sharks, 11 t of yellowfin tuna, 24 t of billfish, 2 t of sailfish and 27 t of fins. As regards the artisanal fisheries, the landings of all species were estimated at 5.315 t in 2009. The catches of the sport fishery amounted to 78 t of sailfish and 37 t of billfish with an effort of 638 trips. On the scientific level, the collection of statistical data on tunas landed by the national and foreign vessels (mainly French and Spanish) based in Dakar, is carried out regularly by a team of the Center of Oceanographic Research of Dakar Thiaroye (Centre de Recherches Océanographiques de Dakar Thiaroye-CRODT). The information obtained is completed with data on effective catches from various sources (boat owners, Directorate of Marine Fishing, etc.). Sampling is carried out at the time of landing of the national and foreign vessels at the port of Dakar by a team of three samplers. There were 226 multi-species size samples were collected in 2009 on Senegalese baitboat vessels. Billfish sampling (mainly on sailfish-*Istiophorus albicans*) is also carried out at the major landing centers of the artisanal fishing, especially in Soumbédioune, Yoff y Mbour. Senegal complies with the ICCAT conservation and management measures. Senegal has implemented a system of monitoring, control and surveillance at port of all the fishing activities, which permits carrying out inspections and the identification of all the vessels that carry out illegal fishing activities.*

RÉSUMÉ

*Au Sénégal, les espèces de thonidés et les espèces apparentées sont essentiellement exploitées par la pêche industrielle composée de canneurs ciblant les thons majeurs tels que l'albacore (*Thunnus albacares*), le patudo (*Thunnus obesus*) et le listao (*Katsuwonus pelamis*) et de palangriers recherchant l'espadon (*Xiphias gladius*). Par ailleurs, une partie des pêcheries artisanales exploite à la ligne à la main, à la ligne traine et à la senne tournante les petits thonidés tels que la thonine (Euthynnus alletteratus), le maquereau bonite (*Scomberomorus tritor*), la palomette (*Orcynopsis unicolor*), la bonite à dos rayé (*Sarda sarda*), le thazard bâtard (*Acanthocybium solandri*) et l'auxide (*Auxis thazard*). Les poissons-porte-épée (espadon (*Xiphias gladius*), le marlin (*Makaira nigricans*) et le voilier (*Istiophorus platypterus*) sont aussi capturés. La pêche sportive cible les istiophoridés (marlins et voilier) durant la saison de pêche se déroulant de mai à décembre. En 2009, les 7 thoniers canneurs sénégalais ont débarqué 6720 tonnes, dont 1157 tonnes d'albacore, 4513 tonnes de listao, 1041 tonnes de patudo, 6 tonnes de thonine et 4 tonnes d'auxide. La pêche palangrière qui est composée de 4 navires a débarqué 590 tonnes. Les captures sont constituées de 195 tonnes d'espadon, 327 tonnes de*

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*requins, 11 tonnes d'albacore, 24 tonnes de marlin, 2 tonnes de voilier et 27 tonnes d'ailerons. Quant aux pêcheries artisanales, les débarquements de toutes espèces confondues ont été estimés à 5315 tonnes en 2009. Les captures de la pêche sportive s'élevaient à 78 tonnes de voiliers et 37 tonnes de marlins pour un effort de 638 sorties. Sur le plan scientifique, la collecte de données statistiques des thonidés débarqués par les navires nationaux et étrangers (surtout français et espagnols) ayant Dakar comme port d'attache, se fait régulièrement par l'équipe du Centre de recherches océanographiques de Dakar/Thiaroye (CRODT). Les informations obtenues sont complétées par les captures effectives de diverses sources (armements, direction des pêches maritimes, etc.). L'échantillonnage est réalisé lors des débarquements des navires nationaux et étrangers au port de Dakar par une équipe de trois enquêteurs. En 2009, 226 échantillons de tailles plurispécifiques ont été effectués sur les canneurs sénégalais. L'échantillonnage des istiophoridés (surtout le voilier-*Istiophorus platypterus*) est réalisé aussi dans les principaux centres de débarquement de la pêche artisanale notamment à Soumbédioune, Yoff et Mbour. Les mesures de conservation et de gestion de l'ICCAT ont été bien suivies par le Sénégal. Le système de suivi de contrôle et de surveillance de toutes les activités de pêche mis en place au port permet d'effectuer des inspections ainsi que d'identifier tout navire menant des activités de pêche illicite.*

RESUMEN

*En Senegal, los túnidos y especies afines son explotados sobre todo por la pesca industrial compuesta por barcos de cebo vivo que se dirigen a los grandes túnidos: rabil (*Thunnus albacares*), patudo (*Thunnus obesus*) y listado (*Katsuwonus pelamis*) y palangreros que se dirigen al pez espada (*Xiphias gladius*). Además, una parte de la pesquería artesanal explota pequeños túnidos con liña de mano, curricán y cerco de jareta: bacoreta (*Euthynnus alletteratus-*LTA), carita lusitánico (*Scomberomorus tritor-*MWA), tasarte (*Orcinopsis unicolor-*BOP), bonito atlántico (*Sarda sarda-*BON), peto, (*Acanthocybium solandri-*WAH) y melva (*Auxis thazard*). Esta pesquería también explota peces de pico como pez espada (*Xiphias gladius-*SWO), aguja azul (*Makaira nigricans-*BUM) y pez vela (*Istiophorus albicans-*SAI). La pesca deportiva se dirige a los istiofóridos (marlines y peces vela) durante la temporada de pesca que va de mayo a diciembre. En 2009, los siete barcos de cebo vivo senegaleses desembarcaron 6.720 t de las cuales: 1.157 t de rabil, 4.513 t de listado, 1.041 t de patudo, 6 t de bacoreta y 4 t de melva. La flota palangrera, compuesta por cuatro buques, desembarcó 590 t. Las capturas estuvieron compuestas por 195 t de pez espada, 327 t de tiburones, 11 t de rabil, 24 t de marlines, 2 t de pez vela y 27 t de aletas. En lo que concierne a las pesquerías artesanales, los desembarques de todas las especies se estimaron en 5.315 t en 2009. Las capturas de la pesca deportiva ascendieron a 78 t de peces vela y 37 t de marlines para un esfuerzo de 638 mareas. En el plano científico, la recopilación de datos estadísticos sobre los túnidos desembarcados por los buques nacionales y extranjeros (sobre todo franceses y españoles) que tienen a Dakar como puerto base, la lleva a cabo regularmente el equipo del Centro de investigación oceanográfica de Dakar Thiaroye (Centre de Recherches Océanographiques de Dakar Thiaroye - CRODT). La información obtenida se completa con los datos de capturas efectivas de varias fuentes (armadores, Dirección de pesca marítima, etc.). El muestreo lo realiza en el momento del desembarque de los buques nacionales y extranjeros en el puerto de Dakar un equipo formado por tres encuestadores. En 2009, se recogieron 226 muestras de tallas multiespecíficas en los barcos de cebo vivo senegaleses. El muestreo de istiofóridos (sobre todo pez vela-*Istiophorus albicans*) se realiza también en los principales centros de desembarque de la pesca artesanal, sobre todo en Soumbédioune, Yoff y Mbour. Respecto a las medidas de conservación y ordenación de ICCAT, éstas han sido cumplidas por Senegal. Senegal ha implementado un sistema de seguimiento, control y vigilancia en puerto de todas las actividades de pesca; lo que permite realizar inspecciones e identificar a todos los buques que realizan actividades de pesca ilegal.*

1ère partie (Informations sur les pêcheries, la recherche et les statistiques)

Chapitre 1 : Information annuelle sur les pêcheries

Sur sa frange maritime, le Sénégal dispose d'une longueur de côte d'environ 718 km et d'un plateau continental d'une superficie estimée à 27 600 km^2.

Un des atouts du milieu marin et côtier au Sénégal est l'existence d'un mécanisme privilégié d'enrichissement des eaux, l'upwelling côtier, induit par les alizés en saison froide. Ce phénomène de remontée d'eaux froides profondes riches en sels nutritifs favorise le développement d'une faune marine diversifiée et fonde la réputation de côte poissonneuse du Sénégal.

1.1 La pêche industrielle

La pêche industrielle exploitent principalement les thons tropicaux l'albacore *Thunnus albacares (YFT),* le listao *Katsuwonus pelamis (SKJ*) et le patudo *Thunnus obesus (BET). Par ailleurs*, les petits thonidés côtiers (thonine, auxide, maquereau bonite et bonite à dos rayé), les poissons porte épée (espadon, marlin et voilier*)* sont aussi capturés par cette pêcherie.

La flottille industrielle est composée essentiellement de canneurs basés à Dakar. En 2009, on comptait 7 canneurs sénégalais, 2 français et 7 espagnols. Outre ces canneurs, il y avait aussi 5 senneurs espagnols et 2 français dont une partie seulement des captures est débarquée au Sénégal.
La flottille palangrière sénégalaise ciblant l'espadon comptait 4 navires en 2009.

1.1.1 Les prises des canneurs sénégalais

Les prises totales des canneurs sénégalais en 2009 s'élèvent à 6720 tonnes, dont 1157 tonnes d'albacore, 4513 tonnes de listao, 1041 tonnes de patudo, 6 tonnes de thonine et 4 tonnes d'auxide. Les captures ont connu une hausse par rapport à 2008 (5143 tonnes). L'effort de pêche de 2008 est de 1500 jours de mer. Le **Tableau 1** montre les prises par espèce, les efforts et les prises par unité d'effort (PUE) des canneurs sénégalais de 1991 à 2009.

1.1.2 Les prises de la flottille palangrière

La prise totale en 2009 est estimée à 590 tonnes. On note une réduction par rapport à 2008 (725 tonnes). Cette chute est consécutive à celle de l'effort de 2009. Il faut noter que les palangriers n'ont pas été très actifs en 2009. Les captures sont constituées de l'espadon (195 tonnes), requins (327 tonnes), albacore (11 tonnes), marlin (24 tonnes), voilier (2 tonnes) et aileron (27 tonnes.) Le **Tableau 2** présente la ventilation des prises par espèces des palangriers en 2009.

1.2 Les prises des pêcheries artisanales

Une partie des pêcheries artisanales exploitent à la ligne à la main, à la ligne de traine et à la senne tournante des petits thonidés (thonines, maquereau bonite, palomette, bonite à dos rayé, thazard bâtard, auxide ainsi que les poissons porte épée espadon, marlin et voilier à la ligne. Les débarquements totaux de la pêche artisanale toutes espèces confondues ont été estimés à 5315 tonnes. Les débarquements ont légèrement augmenté par rapport à 2008 (5040 tonnes). Le **Tableau 3** montre l'évolution des captures de la pêche artisanale de 2000 à 2009.

1.3 Les prises de la pêche sportive

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

Cette pêcherie est suivie dans deux grands centres de pêche à Dakar et à Mbour. Le **Tableau 4** présente les captures totales en nombre d'individus et en poids recensés par mois dans ces centres. Ainsi, les captures s'élevaient à 78 tonnes de voiliers et 37 tonnes de marlins pour un effort de 638 sorties en 2009.

1.4 Les conserveries

Le **Tableau 5** montre la ventilation des approvisionnements par mois, par espèce et par taille en 2009.

En 2009, les approvisionnements en thons de la Société Nationale des Conserveries du Sénégal (SNCDS) ont été estimés à 5744 tonnes. Les approvisionnements sont constitués de 344 tonnes d'albacore, 503 tonnes de patudo et 4889 tonnes de listao.

Chapitre 2 : Recherche et statistiques

En pêche industrielle, le suivi scientifique régulier des activités de pêche est toujours assuré par l'équipe mise en place au port de Dakar par le Centre de Recherches Océanographiques de Dakar Thiaroye (CRODT). Ce travail consiste à la collecte des statistiques de captures et d'effort de pêche. Le système de collecte des statistiques repose sur une enquête détaillée quotidienne, auprès des patrons thoniers lors de chaque débarquement, complété par les captures effectives de diverses sources (usines, armements, Direction des pêches maritimes etc.). Le travail de recueil des données est mené par 4 techniciens, dont trois chargés des enquêtes et une de la saisie des données. Des échantillonnages sont également réalisés lors des débarquements au port de Dakar. La gestion des données se fait en partenariat avec l'Institut de Recherche pour le Développement (IRD) et l'Institut espagnol d'Océanographie (IEO). Nos activités sont financées pour l'essentiel par le budget national et sont appuyées par l'UE à travers l'IEO et l'IRD. L'échantillonnage est réalisé lors des débarquements au port de Dakar par une équipe de trois enquêteurs. En 2009, 226 échantillons de tailles plurispécifiques sont effectués sur les canneurs sénégalais.

Au niveau de la pêche artisanale, le CRODT a développé depuis plus d'une trentaine d'années un système d'enquête et de collecte des statistiques au niveau des différents sites de débarquement répartis le long du littoral sénégalais. Ces statistiques sont recueillies par des enquêteurs suivant un protocole d'échantillonnage établi scientifiquement.

L'échantillonnage des istiophoridés (le voilier-*Istiophorus platypterus)* est réalisé dans les principaux centres de débarquement de la pêche artisanale notamment à Soumbédioune, Yoff et Mbour. L'analyse des classes de tailles de 2009 montre que les individus capturés au Sénégal sont généralement des adultes (**Figure 1**).

IIe Partie (Mise en œuvre de la gestion)

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

Le Sénégal participe aux activités des structures et organismes de coopération en matière de pêche. Cette participation a, entre autres buts, l'application de mesures sur 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'État. L'État définit à cet effet une politique visant à protéger, à conserver ces ressources et à prévoir leur exploitation durable de manière à préserver l'écosystème marin. L'ensemble des dispositions prises par l'État sont contenues dans la loi 98-32 portant code de la pêche maritime et de son décret d'application nº 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 : Schéma 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 les données aux services de réception de Toulouse, sa position, les variables de route et de vitesse correspondantes.

La quasi-totalité des navires sénégalais dispose d'une balise Argos fonctionnelle à la charge des armateurs qui leur permet ainsi de suivre les opérations de leur flotte. L'embarquement de balise est une obligation préalable pour l'obtention et la détention d'autorisation de pêche régie par un arrêté ministériel portant organisation et fonctionnement du système de positionnement et de localisation des navires.

Tous les débarquements nationaux comme étrangers sont suivis et inspectés grâce au dispositif d'inspection 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 autres buts, l'application de mesures sur la gestion commune des stocks ; l'harmonisation et la coordination des systèmes de gestion et d'aménagement des ressources, la détermination des conditions d'accès aux ressources halieutiques et l'adoption de mesures coordonnées de surveillance et de contrôle des activités des navires de pêche.

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

Tableau 1. Prises par espèces, efforts et prises par unité d'effort (PUE) des canneurs sénégalais de 1991 à 2009.

Année	*Prises (t) canneurs*				*Effort*	*PUE (t/j)*			
	YFT	*SKJ*	*BET*	Total	*(jpec)*	*YFT*	*SKJ*	*BET*	Total
1991	79	309	10	399	73	1,08	4,24	0,14	5,45
1992	-	-	-	-	-	-	-	-	0,00
1993	13	42	5	60	27	0,46	1,56	0,20	2,22
1994	6	59	11	76	40	0,16	1,49	0,27	1,90
1995	20	18	60	98	74	0,27	0,24	0,81	1,31
1996	41	163	84	288	91	0,45	1,79	0,92	3,16
1997	208	455	204	867	176	1,18	2,59	1,16	4,93
1998	251	1679	676	2606	511	0,49	3,29	1,32	5,10
1999	834	1479	1473	3786	572	1,46	2,59	2,58	6,62
2000	252	1506	1131	2889	697	0,36	2,16	1,62	4,14
2001	295	1271	1308	2874	512	0,58	2,48	2,55	5,61
2002	447	1053	565	2065	395	1,13	2,67	1,43	5,23
2003	279	733	474	1486	370	0,75	1,98	1,28	4,02
2004	668	1323	561	2552	691	0,97	1,91	0,81	3,69
2005	1301	4874	721	6896	1236	1,05	3,94	0,58	5,57
2006	1262	3534	1267	6063	1326	0,95	2,66	0,95	4,76
2007	816	2278	804	3898	1206	0,68	1,89	0,67	3,24
2008	550	3667	926	5143	1500	0,37	2,44	0,62	3,43
2009	1157	4513	1041	6711	1574	0,73	2,87	0,66	4,26

Tableau 2. Prises d'espèces apparentées, de thonidés et requins par la flottille palangrière en 2009.

Espèces	*Quantité (tonnes)*
Espadon	195
Requin bleu	255
Requin mako	21
Requin marteau	38
Requin-renard	9
Requin	4
Albacore	11
Marlin	24
Voilier	2
Aileron	27
Divers	4
Total	**590**

Tableau 3. Prises (en tonne) des petits thonidés, d'istiophoridés et xiphiidés par la pêche artisanale de 2000 à 2009.

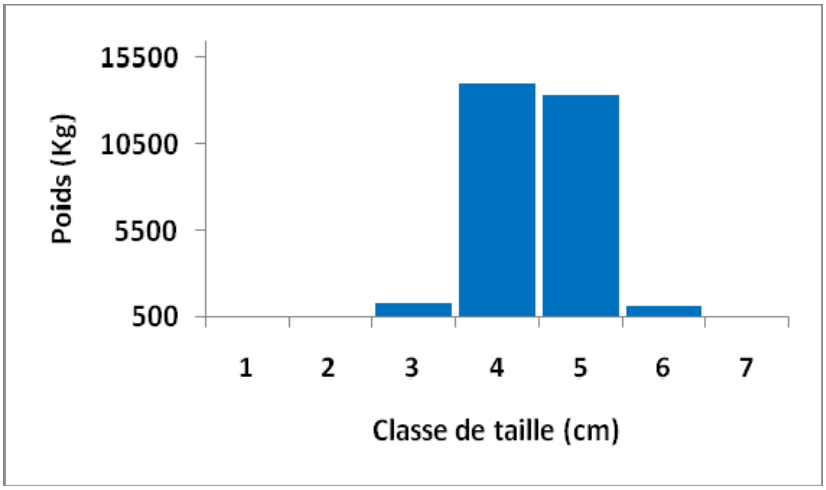
Espèces	*2000*	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*	*2009*
Orcynopsis unicolor	14	28	6	7	67	85	29	240	33	158
Scomberomorus tritor	778	408	584	532	288	489	196	845	189	305
Acanthocybium solandri	0	0		7	0	0	1	0	0	2
Euthynnus alletteratus	3 336	4 969	2 659	4 394	4 160	2 166	3826	3815	2972	1684
Sarda sarda	286	545	621	195	197	486	2304	1020	1154	2544
Katsuwonus pelamis	7	6	287	45	154	341	90	195	60	83
Thunnus obesus	0	0	3	5	4	4	1	3	35	3
Auxis thazard	0	4	0	13	285	159	83	119	249	11
Thunnus albacares	3	0	25	3	10	43	63	39	4	111
Istiophorus platyptarus	782	953	240	673	291	250	256	614	338	550
Makaira nigricans		11	24	32	8	0	5	4	0	0
Xiphias gladius	2	2	17	2	4	7	7	6	6	28
Total	**5 448**	**6 926**	**4 466**	**5 908**	**5 468**	**1 864**	**6 861**	**6 900**	**5 040**	**5315**

Tableau 4. Effort, captures, captures des voiliers et marlins par la pêche sportive de 2009.

Période	*Effort (Nombre de sorties)*	*Voilier (kg)*	*Marlins (kg)*	*Thon (albacore) (kg)*
mai	55	4 656	2 894	1 313
juin	110	13 975	3 422	1 730
juillet	116	14 663	6 226	1 104
août	118	15 007	7 154	1 313
septembre	114	14 432	3 277	865
octobre	66	8 363	6 917	2 118
novembre	59	7 446	7 063	2 446
Total	**638**	**78 542**	**36 953**	**10 889**

Tableau 5. Quantité de thons approvisionnés à la conserverie Société Nationale des Conserveries du Sénégal (SNCDS) en 2009.

Espèces	*Albacore +10*	*Albacore -10*	*Patudo +15*	*Patudo -15*	*Listao +1,8*	*Listao -1,8*	*Listao -1,5*	*TOTAL*
Tonnage (t)	266	78	298	205	4067	631	198	5744



140 – 150 = 1 ;
150 – 160 = 2 ;
160 – 170 = 3 ;
170 – 180 = 4 ;
180 – 190 = 5 ;
190 – 200 = 6 ;
≥ 200 = 7

Figure 1. Distribution des tailles du voilier capturé en 2009.

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

Part I (Information on Fisheries, Research and Statistics)

Section 1: Annual Fisheries Information

1.1 Poling, rod and reel, linefish fishery, and recreational fishery

The fishery generally operates between September and May along the west coast of South Africa. The total reported annual pole fleet (including rod and reel) albacore catch was 4 822 t (**Table 1**), and is the highest on record since 1994 (**Table 2**). Despite 39 vessels being chartered to Namibia (with catch statistics accruing to Namibia) during this period the catches were high due to a combination of increased availability of albacore in near-shore waters and improvements in fish finding devices with many vessels using SONAR. The nominal CPUE increased from 884 kg.day^{-1} in 2008 to 967 kg.day^{-1} in 2009. In contrast, yellowfin catches have continued to decline from 840 t in 2007 to 314 t in 2008 to 213 t in 2009. The decline has occurred despite more vessels gearing up to target yellowfin and is therefore mainly a consequence of limited availability of the resource in the waters adjacent to Cape Town. The pole/ rod and reel fishery has also reported a catch of 32 t of bigeye tuna.

The traditional commercial line fishery, which opportunistically target longfin and yellowfin tuna when they are close inshore and when linefish species are not available; caught 96 t of albacore and 18 t of yellowfin in 2009 (**Table 1**). The recreational fishery, including informal charter and sport fisheries using rod and reel and spear guns, also operates in the vicinity of Cape Town and targets albacore and yellowfin from small fishing vessels (5-10m). Although catch and effort in the recreational fishery for yellowfin and albacore are not quantified, the total catch is estimated between 100-140 t for albacore and a further 20-40 t for yellowfin in the Atlantic Ocean. Other species that are occasionally landed would include blue and black marlins. Recreational fishers are restricted by a bag limit of 10 tuna per day and catches may only be used for own consumption. Sea conditions and distance to fishing grounds far offshore (> 25 NM) limits fishing operations to the months of December-May. In South Africa the total number of deep-sea anglers and underwater tuna fishers is estimated at 40 000. However, not all fisher's fish in the Atlantic Ocean and some do not fish for tuna and tuna-like species. Furthermore, a number of fishers do not stay close to the coast and will only fish when on holiday.

1.2 Tuna/swordfish longline fishery

The number of longline vessels increased from 25 in 2008 to 31 in 2009, but most vessels were active in the Indian Ocean (accounting for 78% of the longline effort) due to better catch rates of yellowfin and bigeye. The effort in the Atlantic Ocean remained the same from 2008 to 2009 at 0.87 million hooks (**Table 1**). Total reported catch and nominal CPUE increased for albacore (124 t at 141 kg.1000hooks^{-1}), swordfish (170 t at 194.2 kg.1000hooks^{-1}), yellowfin (71 t at 81.1 kg.1000hooks^{-1}) and shortfin mako (47 t at 53.7 kg.1000hooks-1). In contrast total reported catches and nominal CPUE declined for, bigeye (127 t at 145.1 kg.1000hooks^{-1}) and blue sharks (7 t at 8 kg.1000.hooks^{-1}).

1.3 Shark longline fishery

The Department of Agriculture, Forestry and Fisheries (hereafter referred to as the Department) had still not realized its objective to consolidate the pelagic shark fishery with the large pelagic fishery in 2005 and consequently the pelagic shark fishery is still operating under exemption and is due to be terminated at the end of 2010. Seven shark exemption holders were permitted to fish in 2009, but only four vessels were active in the Atlantic Ocean. Effort reduced from 265 thousand hooks in 2008 to 150 thousand hooks in 2009. Catches of blue shark and shortfin mako remained stable at 112 t and 100 t respectively, but nominal CPUE increased for both species. The increased catch rates could be a direct reflection on the efficiency of the few dedicated vessels fishing in the Atlantic and is likely not an indicator on the availability of the resources.

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

Section 2: Research and Statistics

2.1 Poling, rod and reel, and sport fishery

Concerted efforts have been made between the Department and Industry associations to improve reporting by the tuna pole fishery. As a result all logbooks were returned and captured by the Department. Given the improvements made it was not necessary to use export data as a surrogate for catch data and neither was any extrapolations required (**Table 2**).

No port sampling trips were undertaken in 2009 to obtain length frequencies of albacore landed by the poling fleet due to a loss of research capacity. The loss in capacity has further resulted in no length frequencies of yellowfin caught by rod and reel being reported to ICCAT.

There was still no statistical system in place to record recreational catch and effort.

2.2 Tuna/swordfish longline fishery

Skippers in the tuna/swordfish longline fishery have been required to complete daily logs of catches since 1997. After 2001 the comparison between reported catch statistics and US trade statistics were very similar, indicating good reporting for this sector in recent years (**Table 3**). In the last four years the swordfish market has diversified, as a result the reported catch now exceeds the U.S. import statistics (**Table 3**). Reporting is considered to cover 100% of all swordfish, yellowfin and bigeye catches made by this sector. Although the logbooks have been used to report nominal catches to the RFMOs this will change in future in favour of using landing declarations as monitored by the 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 is 20% of all domestic fishing trips and 100% of all foreign charter fishing trips. Approximately 14.0 % observer coverage was achieved for sets made in the Atlantic Ocean (for domestic fishing trips) in 2009 and 100% coverage for foreign charter vessels. Through the observer programme it was estimated that less than 2 t of the swordfish caught were under the legal size limit of 119 cm LJFL (**Table 4**).

2.3 Shark longline fishery

Permit holders in the shark longline fishery are also required to complete daily logs of catches. Levels of reporting are good with coverage of approximately 90%. No size frequencies have been collected from this fishery and neither has any observers been placed on any of these vessels.

2.4 Research

Various projects were initiated in 2008 including: the age and growth of albacore and bigeye tuna; the life history, stock delineation and spatial movement and distribution of bigeye tuna, swordfish and blue sharks between the Atlantic and Indian Oceans. The Department, 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. The recent establishment of a large pelagic fishery represents an important milestone in the development of South African fisheries. However, research activities directed at the large pelagic species targeted by longline are in its infancy in South Africa and to date only three dedicated research trips have been undertaken since 2008. South Africa's involvement in the South West Indian Ocean Fisheries Programme (SWIOFP) through Component 4: Assessment and sustainable utilization of large pelagic resources has provided momentum to our research programme. The primary focus is to understand the distribution and movement of swordfish, big eye and yellowfin tuna within the SWIO region, to which end 15 pop-up archival tags (PATs) have been provided for deployment on swordfish, yellowfin and bigeye tunas as well as hook monitors and time depth records for deployment of an instrumented longline. Prior to the inception of this project one yellow fin tuna and three blue sharks have previously been tagged with PATs as well as a further 441 blue sharks tagged with conventional tags.

The Department continues to collaborate with WWF, University of Washington Seas Grant, and Birdlife SA to assess the impact of longline fisheries on seabirds, turtles and sharks and to investigate various mitigation and management measures. A National Plan of Action for seabirds was also published in 2008, which aimed to

reduce seabird mortalities below 0.05 seabirds.1000hooks^{-1}. Good collaboration with the fishing industry, researchers and managers, continual refining of mitigation measures, the implementation of stringent management measures through permit conditions, and close monitoring has resulted in seabird mortalities to decrease and is currently almost at the goal identified in NPOA-seabirds.

Rhodes University (Grahamstown) is also collaborating with the Department and is conducting research on the stock delineation of yellowfin in the boundary region between the Indian and Atlantic Oceans by conducting genetic analysis and investigating movement patterns. The results of this project are due to be made known by the end of 2010 in the form of an MSc thesis.

Part II (Management Implementation)

Section 3: Implementation of ICCAT Conservation and Management Measures

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.

Data and minimum size

96-14: Not applicable to South Africa

97-01:As a result of the reduced swordfish size adopted in 2005, undersize swordfish (< 119 cm FL or < 18 kg dressed weight) are confiscated by the Fishery Control Officers/ Monitors who are required to monitor all discharges of longline vessels fishing on a South African permit.

98-14: South Atlantic swordfish catches are presented in the ICCAT Reporting Table (Table 4).

01-16: Task I and II data were submitted to ICCAT in July 2010, for 2009 data. ICCAT reporting tables for South Atlantic swordfish is included in Annual Report. No revisions of historical data were conducted this year.

03-13: All tuna pole/ rod and reel, tuna/swordfish/shark longline vessels are required to complete a daily log of all fishing activity and meets the standards described in the ICCAT Field Manual.

Oth: All fishing sectors targeting large pelagic species, except for the recreational sector, is managed by a TAE (with TAE = no of vessels) as determined by the Minister of Environmental Affairs and Tourism. The Regulations in terms of the Marine Living Resources Act (1998) also specify minimum weight limits for bigeye tuna (3.2 kg), bluefin tuna (6.4 kg), yellowfin tuna (3.2 kg). The swordfish minimum size limits of 125 cm LJFL and a weight of 25 kg were reduced to 119 cm LJFL and a weight of 18 kg in order to minimize dumping at sea. An estimate of the total amount of undersize swordfish caught is reported in the Compliance form.

Capacity limits

93-04: South Africa is a developing country, which only started commercial longlining in 1997, and cannot restrict its effort on yellowfin to that of 1992. Furthermore, yellowfin caught in the vicinity of Cape Town are likely to be of Indian Ocean origin.

98-03: The limitation of bigeye tuna fishing capacity is not applicable to South Africa according to paragraph 3.

04-01: South Africa is in the process of developing a tuna longline fleet which would target bigeye, but currently bigeye tuna is caught on domestic vessels targeting swordfish. Nonetheless South Africa is exempted from this resolution, as it is a developing country with reported bigeye catch in 1999 less than 2 100 t.

Statistical documents

94-05: South Africa neither imports nor exports northern bluefin tuna; hence this resolution is not applicable.

01-21: Bigeye tuna statistical documents have been issued since 2003 and the management of these documents was improved upon in 2007.

01-22: Swordfish statistical documents have been issued since 2003, and the management of these documents was improved upon in 2007.

Other measures relating to individual species

96-09: Billfishes (excluding swordfish) and sharks are designated as by-catch species in the tuna/swordfish longline fishing sectors and are limited to a combined maximum of 10% of the total tuna and swordfish catch by weight. Longline skippers are also encouraged to release live billfishes according to their permit conditions.

97-09: Longline skippers are encouraged to release live billfishes, including blue and white marlins. No reported catches of marlins were recorded/landed in 2009.

01-11/04-10: South Africa annually reports catch and effort data for mako and blue sharks. Annual length frequencies are also provided. To limit the tuna/swordfish longline fishery impact on sharks permit holders 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.

09-03: South Africa has not exceeded her swordfish catch limit of 936 t for 2009. Only 170 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 dumped on the same side as hauling.
- All tuna longline vessels are only allowed to set at night.
- Bird limits have been introduced per vessel per year and if non-compliance with bird mitigations were found then the vessel would be required to stop fishing at either 25 birds or 50 birds.

In addition, scientific observers also collect data on bird mortality rates and provide dead specimens for identification. Awareness programmes have been held to educate permit holders/ skippers of detrimental impact longliners have on seabird populations. To encourage responsible fishing permit holders have been given bird posters so as to be able to identify the common species occurring in Southern African waters. WWF and Birdlife SA have also provided vessels with tori lines and given instructions on how to use them. In addition, research into seabird mitigation has taken place on board the fishing vessels during the last two years with the assistance of the University of Washington Sea Grant.

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. For example: shark catches are restricted to 10% of the weight of tuna and swordfish; skippers are encouraged to release sharks alive; skippers are required to carry dehooking devices on board the vessel; and no finning is allowed.

09-07: All species of thresher shark are prohibited from being landed.

03-11: Skippers are required to release turtles alive. An on board observer programme has been established which collects data on turtle interactions. South Africa is currently investigating circle hooks as a means to reduce turtle catch.

03-04: Mediterranean swordfish is not applicable to South Africa.

05-05: Not applicable to South Africa as our vessels do not fish for North Atlantic mako.

05-08: South Africa encourages the use of circle hooks in its longline fishery, but has not implemented a study on the effects of circle hooks on catch rates as yet.

06-08: Resolution pertaining to fishing for bluefin in the Atlantic Ocean is not applicable to South Africa.

07-06: South Africa has started to conduct research on the life history and spatial distribution and movement of blue sharks in the Atlantic and Indian Oceans. One of the key priority areas would be to examine whether a short-fin mako nursery exists along the south coast of South Africa.

07-07: Data on sea-bird mortality in 2008 has been provided to ICCAT. Although seabird mortality data was collected in 2009 it has as yet not been reported to ICCAT.

Trade sanctions

02-17, 06-13: South Africa does not import bigeye tuna from Bolivia and Georgia.

VMS

03-14, 04-11: Any pole, rod and reel, tuna/swordfish/shark vessel, irrespective of size, is required to have a functional VMS (as approved by the Department) in place before a vessel is permitted to embark on any fishing trip.

General

97-10: (para 7): Thus far, vessels fishing on a South African permit have only discharged in South African ports. However, provisions are made in the permit conditions that if a vessel discharges in another country the permit holder is required to arrange for a South African Fishery Control Officer to monitor the discharge.

99-07: The tuna recreational sector is an open access fishery, and is restricted by a bag limit of 10 tuna per person per day as stipulated in the Regulations in terms of the Marine Living Resources Act (1998). The minimum size limits as stipulated by the Regulations in terms of the Marine Living Resources Act (1998) also applies to the recreational sector. No statistical system is in place to quantify catches made by the recreational fishery. A shore-based observer programme was established in 2007 which may allow for better catch estimates from this sector.

01-18: South Africa does not allow IUU vessels to enter its EEZ. Furthermore, no port services are made available to the vessels should they be allowed to enter in the case of *force majeure*. In addition, transhipments at sea are not permitted.

02-21: South Africa is in the process of developing its fishing capacity and as such has chartered foreign vessels in the tuna longline fishery. These vessels were under the control of South African regulations and permit conditions. All vessels were equipped with VMS and were required to take an observer on board on all fishing trips. Charter notification for 2010 and a chartering report for 2009 were submitted to ICCAT. In addition a number of South African pole vessels were authorized to fish under charter in Namibia in 2009 and 2010.

03-12: Commercial tuna fishing vessels are authorised by the Department to fish for tuna by means of a permit. A high seas licence is required if the vessel is to fish on the high seas. The original permit and licence are required to be on board the vessel on all fishing trips. Fishing vessel call signs and names also have to be marked in a specific manner.

03-16: South Africa does not allow any IUU vessels to land product in South African ports. Moreover, South Africa does not allow entry to the EEZ for IUU vessels. Transshipment of tuna into cages by IUU vessels are not applicable to South Africa as we do not have any tuna farming in South Africa.

06-11: (Annex 3, para. 6): South Africa does not permit transshipments at sea; hence this resolution is not applicable.

06-16: South Africa has an electronic statistical document programme in place for Patagonian and Antarctic toothfish under CCAMLR, but has not implemented any pilot electronic programme for tuna and tuna-like species.

09-08: South Africa has provided a list to ICCAT of vessels > 20m in the tuna pole and longline fisheries that were authorized to operate in the Atlantic Ocean for 2010.

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. Port access for foreign vessels is limited to Cape Town harbour, Port Elizabeth harbour and Durban harbour, where sufficient capacity exists to monitor the vessels. EEZ permits are only issued to authorized vessels. No IUU-listed vessels are allowed to enter South Africa's ports or to discharge in South African Ports. In applying for an EEZ permit, skippers have to provide South African authorities with the necessary Flag State authorization documents, quantity of fish and species onboard to be discharged as well as the gear type used. A letter of authorization from the Flag State is required if South African authorities are uncertain about the application for a discharge permit. Transshipments are only allowed in port on the authority of a transshipment permit. In applying for this permit the skipper has to provide South African authorities with the vessel details, quantity of fish and species to be transshipped, and where it was caught. Random inspections and monitoring are made on foreign vessel discharges and transshipments. Vessels participating in the South African tuna/swordfish longline and tuna pole fishing sectors are required to notify the local Fishery Control Officer prior to landing. All domestic longline discharges are required to be monitored and inspected by South African authorities. The Statistical Document Programme for swordfish and bigeye, 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 2009.

		Reported catch by species (t) dressed weight (except for albacore and poling catches)					
Fishing sector	*Total reported effort 2009*	*Albacore*	*Swordfish*	*Yellowfin*	*Bigeye*	*Blue shark*	*Shortfin mako*
Poling/rod & reel	4986 sea days	4822	0	213	32	0	0
Handline	247 sea days	96	0	18	0	0	0
Tuna/SWO LL	875332 hooks	124	170	71	127	7	47
Shark longline	150542 hooks	1	0	1	0	112	100
TOTAL		**5043**	**170**	**303**	**159**	**119**	**147**

Table 2. Annual albacore landings (t) estimated from poling and rod and reel logbooks and custom and excise data, 1985-2009.

Year	*Logbooks*	*Exported*
1985	6697	
1986	5930	
1987	7275	
1988	6570	
1989	6890	
1990	5280	
1991	3410	
1992	6360	
1993	6743	6881
1994	5268	6931
1995	4246	5213
1996	2856	5635
1997		6708
1998		8412
1999		5101
2000		3610
2001		7236
2002		6507
2003		3470
2004	3170	4561
2005	3144	2685
2006	2161	3365
2007	3718	3818
2008	1981 (3362)	7034
2009	4822	

Note: The export figure in 2008 was not used to estimate the total catches made by the baitboat fleet, as it was too high given the poor season.

The estimated figure in parenthesis for albacore in 2008 was extrapolated using the percentage of catch returns received. No extrapolation was performed for the 2009 reported catch as catch reporting was good.

Table 3. Comparison of reported South African swordfish catches (t) vs. U.S. Import statistics from South Africa (as reflected by U.S. trade statistics).

Year	*Reported catch*	*U.S. import stats.*
1998	394.7	401.7
1999	114.7	1041.5
2000	252.1	909.9
2001	621.7	791.6
2002	1091.1	993.7
2003	807.9	807.9
2004	424	434.2
2005	317	301.1
2006	357	258
2007	383	298.9
2008	462	254.4
2009	401.7	

Table 4. ICCAT reporting table (Panel 4).

Species	*Catch limit*	*Landings*	*Under catch*	*< 119 cm*
S. Atl. SWO	932 t	170t	762 t	< 2t

ANNUAL REPORT OF ST. VINCENT AND THE GRENADINES
RAPPORT ANNUEL DE ST VINCENT ET LES GRENADINES
INFORME ANUAL DE SAN VINCENTE Y LAS GRANADINAS

Cheryl Jardine-Jackson[1]

SUMMARY

In this report, local landings of large pelagic species during 2009 and high seas fishing fleet landings for 2009 are presented for St. Vincent and the Grenadines. The local landings correspond to the effort of a small-scale artisanal fishing fleet. However, the high seas fishing fleet is more industrial in nature. As a small island developing State, St. Vincent and the Grenadines must continue to explore all available sources of revenue in order to ensure food security for its people while meeting the challenges of sustainable use and a changing global environment. However, such efforts must be in compliance with acceptable international practices and standards. St. Vincent and the Grenadines continues to develop, refine and implement the relevant legislative, management, monitoring and enforcement mechanisms with regards to its high seas fishing fleet. These measures are geared toward ensuring the activities of these vessels are fully compliant with management initiatives taken by ICCAT and other relevant organizations.

RÉSUMÉ

Ce rapport présente les débarquements locaux des grandes espèces pélagiques réalisés en 2009, ainsi que les débarquements de la flottille de pêche hauturière au titre de 2009 pour St Vincent et les Grenadines. Les débarquements locaux correspondent aux efforts d'une petite flottille de pêche artisanale. Cependant, la flottille de pêche hauturière est à caractère plus industriel. En tant que petit État insulaire en développement, Saint Vincent et les Grenadines doit continuer à explorer toutes les sources disponibles de revenus, afin de garantir la sécurité alimentaire de ses ressortissants, tout en relevant les défis de l'utilisation soutenable et d'un environnement mondial changeant. Or, ces efforts doivent respecter les normes et pratiques internationales acceptables. Saint Vincent et les Grenadines continue à développer, perfectionner et mettre en œuvre les mécanismes de législation, gestion, suivi et exécution en ce qui concerne sa flottille de pêche hauturière. Ces mesures visent à garantir que les activités de ces navires sont pleinement conformes aux initiatives de gestion prises par l'ICCAT et d'autres organisations pertinentes.

RESUMEN

En este informe se presentan los desembarques locales de grandes pelágicos y los desembarques de la flota pesquera de altura de San Vicente y las Granadinas para 2009. Los desembarques locales corresponden a los esfuerzos de una flota pesquera artesanal a pequeña escala. Sin embargo, la flota pesquera de altura es de naturaleza más industrial. Como pequeño Estado insular en desarrollo, San Vicente y las Granadinas debe continuar explorando todas las fuentes disponibles de ingresos con el fin de garantizar la seguridad alimentaria de sus ciudadanos, tratando de superar al mismo tiempo los retos que implica la utilización sostenible y un medio ambiente global cambiante. Sin embargo, dichos esfuerzos deben cumplir las prácticas y normas internacionales aceptables. San Vicente y las Granadinas continúa desarrollando, refinando e implementando los mecanismos legislativos de ordenación, de seguimiento y de ejecución pertinentes respecto a su flota pesquera de altura. Estas medidas están destinadas a garantizar que las actividades de estos buques son plenamente conformes con las iniciativas en materia de ordenación de ICCAT y de otras organizaciones pertinentes.

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Part I (Information on Fisheries, Research and Statistics

Section 1: Annual Fisheries Information

1.1 The local fishing fleet

The local pelagic fishing fleet of St. Vincent and the Grenadines is a predominantly artisanal fishery. In 2009, there were approximately 750 registered vessels and 1,600 fulltime fishers. Because of the small-scale nature of the fishing operations any one of these vessels is likely to catch tunas and tuna-like species opportunistically. However, it is estimated that 250 of these vessels (500 fishers) target these species. More than 95% of these vessels are open fiberglass boats less than 8m in length. They are equipped with 15-125 HP gasoline outboard engines. The other 5% of the pelagic fishing fleet is comprised of 6 longliners (13 m in length) and several "day tour" boats that are engaged in sport fishing.

In general, a fishing trip has a duration of one day for the open fiberglass vessels (4:00 a.m. – 4:00 p.m.) and up to five days for the longliners. The smaller vessels fish predominantly in the eastern waters of the State, 50 miles off-shore. The longliners conduct fishing in the western waters, 150 miles off-shore. Trolling by the open vessels, longlining by the longliners, beach seining and gillnetting are the primary fishing gears used to catch tuna and tuna-like species.

1.2 The high seas fishing fleet

St. Vincent and the Grenadines is also responsible for a high seas fishing fleet. These vessels are foreign owned vessels registered with St. Vincent and the Grenadines and conduct their fishing activities on the high seas. In 2009, there were 31 vessels fishing in the Atlantic. Tuna and tuna-like species were caught, with yellowfin tuna being the main species targeted. The areas of 10º-15ºS and 30º-35ºW, 15º-20ºS and 30º-35ºW and 15º-20ºN and 55º- 60ºW were the three main areas for fishing activity in the Atlantic by these vessels in 2009.

In 2009, 36 vessels fishing in the Atlantic were 20 meters and over. Of these, 18 vessels were slightly over 23 meters, 3 were 27-30 meters, 3 were between 30-40 meters, 8 were between 40-50 meters and 4 were over 50 meters.

Section 2: Research and Statistics

2.1 Local statistics

There was a significant increase of tuna and tuna-like species by the local artisanal fishing fleet for 2009 as compared to 2008. There was an overall increase of 60 metric tons (t), which is approximately a 23% increase.

2.2 High seas statistics

The total reported landings of 2,987.713 t for 31 vessels fishing in the Atlantic in 2009 were less that the 3,080.145 t in 2008 (Task II). In particular, landings of yellowfin tuna decreased substantially from 202 t in 2008 to 301 t in 2009. Similarly, albacore, spearfish and kingfish all showed significant decreases in landings for 2009.

Part II (Management Implementation)

Section 3: Implementation of ICCAT Conservation and Management Measures

3.1 Legislation

The Fisheries Division operated under the Ministry of Agriculture, Lands and Fisheries and is responsible for the overall management and development of the fisheries sector. The Division has the following pieces of legislation to assist in this task:

- The Maritime Areas Act of 1983
- The Fisheries Act, No. 1 of 1986
- The Fisheries Regulations, No. 8 of 1987 to the Act No. 1 of 1986

- The Fisheries Processing Regulations of 2001
- The High Seas Fishing Act of 2001
- The High Seas Fishing Regulations, November 2003

3.2 Compliance

3.2.1 Moratorium

The moratorium on the registration of new high seas fishing vessels established in June 2001 is still in effect. This moratorium prevents a further increase in the overall tuna fishing effort in the ICCAT Convention area by St. Vincent and the Grenadines fishing vessels. The measure is also contributing to the effort limitation regulations in effect for yellowfin and bigeye tunas and the catch limitations for other species. While no historical data are available for 1992, recent trends show that yellowfin catches for St. Vincent and the Grenadines have decreased from over 2,000 t in 2000 to less that 570 t in 2003. With respect to Atlantic swordfish, billfish and marlin, current high seas vessel licensing agreements do not allow the taking of these species, hence they are not targeted.

Section 4: ICCAT Activities

St. Vincent and the Grenadines participated in the ICCAT Data Training Workshop held at the Grand Coastal Inn, Guyana in February 2009.

ANNUAL REPORT OF TRINIDAD AND TOBAGO
RAPPORT ANNUEL DE TRINIDAD ET TOBAGO
INFORME ANUAL DE TRINIDAD Y TOBAGO

Louanna Martin[1]

SUMMARY

*The Trinidad and Tobago catch of tuna and tuna-like species was estimated at just over 4,300 t for the year 2009. Serra Spanish mackerel (*Scomberomorus brasiliensis*) was the most abundant species in the catch. The fleet of operational longliners increased from 21 in 2008 to 25 in 2009 with three of the new vessels being over 24 m LOA. To this end Trinidad and Tobago is currently engaged in the process of implementing a Vessel Monitoring System (VMS) pilot programme for monitoring of its longliners greater than 24 m LOA. The system is expected to be in operation by December 2010 and will cover all of the large-scale longliners in the fleet. Trinidad and Tobago has requested assistance from ICCAT to implement a data collection program to generate Task II size data for the major tuna and tuna-like species. A gillnet mesh-size experiment will be implemented in 2011 to examine the ecological and economic impacts of an increase in gillnet mesh size. The results of the experiment are to be utilised in facilitating the transition from the mesh size currently utilized by the artisanal fleet to the size prescribed by the law. A study of the recreational fishery will be completed in December 2010 and will provide information on catch, fishing effort, fishing areas and the cost of fishing. During the coming year procedures will be implemented to allow for disaggregation of the artisanal fleet catches of Atlantic blue marlin and Atlantic sailfish. Trinidad and Tobago has indicated its support for the soon to be finalised Caribbean Regional Fisheries Mechanism Declaration on Illegal, Unreported and Unregulated Fishing (IUU). The Fisheries Monitoring, Surveillance and Enforcement Unit (FMSEU) was operationalised in 2006 and is engaged in the inspection of landings of the semi-industrial longline fleet and the implementation of the Statistical Document Programme (SDP). Transshipment port monitoring is ongoing at the two port locations in Port of Spain and Chaguaramas.*

RÉSUMÉ

*La prise de thonidés et d'espèces apparentées réalisée par Trinidad et Tobago a été estimée à 4.300 t au titre de l'année 2009. Le thazard serra (*Scomberomorus brasiliensis*) constituait l'espèce principale de la prise. La flottille des palangriers opérationnels a connu une augmentation et comptait 25 navires en 2009, contre 21 en 2008, dont trois des nouveaux navires mesurent plus de 24 mètres hors tout. À cet égard, Trinidad et Tobago met actuellement en œuvre un programme pilote de système de surveillance par satellite des navires (VMS) aux fins du suivi de ses palangriers de plus de 24 mètres de longueur hors tout. Le système devrait être opérationnel avant le mois de décembre 2010 et couvrira tous les grands palangriers de la flottille. Trinidad et Tobago a sollicité l'assistance de l'ICCAT afin de mettre en œuvre un programme de collecte des données en vue de générer des données de taille de Tâche II pour les principaux thonidés et espèces apparentées. Une expérience portant sur la taille du maillage des filets maillants sera mise en œuvre en 2011 en vue d'étudier les impacts écologiques et économiques de l'augmentation de la taille du maillage des filets maillants. Les résultats de l'expérience seront utilisés en vue de faciliter le passage de la taille du maillage utilisé à l'heure actuelle par la flottille artisanale à la taille réglementaire. Une étude sur la pêcherie récréative sera finalisée en décembre 2010 et apportera des informations sur la prise, l'effort de pêche, les zones de pêche et le coût de la pêche. Pendant l'année prochaine, des procédures seront mises en œuvre visant à permettre la désagrégation des prises des flottilles artisanales ciblant le makaire bleu de l'Atlantique et le voilier Atlantique. Trinidad et Tobago a manifesté son appui à la déclaration (qui sera bientôt finalisée) sur le Mécanisme régional de la pêche aux Caraïbes concernant les activités de pêche illicites, non déclarées et non réglementées (IUU). L'unité de suivi, de surveillance et d'application des pêches fonctionne depuis 2006 et se*

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consacre à l'inspection des débarquements de la flottille palangrière semi-industrielle et à la mise en œuvre du SDP. Le suivi des transbordements au port est réalisé dans deux ports (Port of Spain et Chaguaramas).

RESUMEN

*La captura de túnidos y especies afines de Trinidad y Tobago se estimó en una cifra de algo más de 4.300 t para 2009. La serra (*Scomberomorus brasiliensis*) fue la especie más abundante en la captura. La flota de palangreros operativa se incrementó pasando de 21 unidades en 2008 a 25 en 2009, con tres nuevos buques de más de 24 m de eslora total. Actualmente Trinidad y Tobago está en el proceso de implementar un programa piloto para un Sistema de Seguimiento de Buques vía satélite (VMS) para realizar un seguimiento de sus palangreros con una eslora total superior a 24 m. Se prevé que este sistema esté operativo en diciembre de 2010, y cubrirá a todos los grandes palangreros de la flota. Trinidad y Tobago ha solicitado la asistencia de ICCAT para implementar un programa de recopilación de datos para generar datos de talla de Tarea II para los principales túnidos y especies afines. En 2011 se desarrollará un experimento sobre tamaños de malla de redes de enmalle para examinar el impacto ecológico y económico de un incremento en la luz de malla de las redes de enmalle. Los resultados del experimento se utilizarán para facilitar la transición del tamaño de malla utilizado actualmente por la flota artesanal al tamaño de malla prescrito por la legislación. En diciembre de 2010 se completará un estudio de la pesquería de recreo que facilitará información sobre captura, esfuerzo pesquero, zonas de pesca y coste de la pesca. El año próximo se implementarán procedimientos para el desglose de las capturas de aguja azul y pez vela del Atlántico realizados por la flota artesanal. Trinidad y Tobago ha manifestado su apoyo a la Declaración sobre la pesca ilegal, no declarada y no reglamentada del Mecanismo Regional de Pesca del Caribe, que pronto se completará. La Unidad de Ejecución, Vigilancia y Seguimiento de la Pesca (Fisheries Monitoring, Surveillance and Enforcement Unit - FMSEU), operativa desde 2006, se encarga de la inspección de los desembarques de la flota de palangre semiindustrial y de la implementación del programa de documento estadístico. El seguimiento de los transbordos en puerto se realiza en dos puertos: Puerto España y Chaguaramas.*

Part I (Information on Fisheries, Research and Statistics)

Section 1: Annual Fisheries Information

The Trinidad and Tobago catch of tuna and tuna-like species for the year 2009 was estimated at 4 303 t from the landings of commercial vessels and all of the major game fishing tournaments held. As in 2008 and years prior, Serra Spanish mackerel (*Scomberomorus brasiliensis*) was the most abundant species in the catch. In the commercial fisheries Serra Spanish mackerel is targeted and landed by the artisanal multi-gear fleet and is considered the most important finfish landed by that fleet. As has occurred in the past few years, Yellowfin tuna (*Thunnus albacares*), King mackerel (*S. cavalla*), Atlantic bonito (*Sarda sarda*) and Smooth-hound sharks (*Mustelus spp.*) were landed in notable quantities in comparison to the other species in the catch. Of these species, only Yellowfin tuna was landed by the longline fleet; all of the other species are landed mainly by the artisanal multi-gear fleet.

The fleet of operational longliners increased from 21 in 2008 to 25 in 2009 with three of the new vessels being over 24 m LOA. The fleet of artisanal vessels has remained relatively stable in size.

Section 2: Research and Statistics

Trinidad and Tobago submitted a proposal to ICCAT on 29 September 2010 for assistance to implement a data collection program that will generate Task II size data for the major tuna and tuna-like species. The proposed program will generate length frequencies and other biological data from the landings of the longline fleet.

A gillnet mesh-size experiment, expected to be implemented in 2011, will examine the ecological and economic impacts of an increase in the most popular mesh size currently utilized by the artisanal fleet to catch pelagic species. The results of the experiment are to be utilised in facilitating the transition from the use of the current 3.75 inches (9.5 cm) stretched mesh to 4.25 inch (10.8 cm) stretched mesh as prescribed by the law.

Atlantic blue marlin and Atlantic sailfish catches of the artisanal fleet are currently being recorded as combined landings. Investigations on the practice will be conducted and procedures implemented to enable the recording of the landed quantities of each species.

A study of the recreational fishery is currently being undertaken through the collaborative efforts of the University of the West Indies, Centre for Resource Management and Environmental Studies (CERMES) and the Fisheries Division, Ministry of Food Production, Land and Marine Affairs. The study will be completed in December 2010 and will provide information on catch, fishing effort, fishing areas and the cost of fishing.

Part II (Management Implementation)

Section 3: Implementation of ICCAT Conservation and Management Measures

Trinidad and Tobago is currently engaged in the process of implementing a Vessel Monitoring System (VMS) pilot programme for monitoring of its longliners greater than 24 m LOA. It is intended that the one-year time frame over which the programme will be implemented will serve as a transition period during which knowledge will be gathered and documented to facilitate efficient functioning of the national system to be implemented thereafter. The pilot VMS is expected to be in operation by December 2010 and will cover all of the large scale longliners in the fleet.

Trinidad and Tobago has indicated its support for the soon to be finalised Caribbean Regional Fisheries Mechanism Declaration on Illegal, Unreported and Unregulated Fishing. The Declaration indicates the resolve of the CRFM Member States to ensure that nationals do not support or engage in IUU fishing and recognises the responsibilities of flag State, port State and coastal State as well as the role of market related measures in addressing the problem.

Section 4: Inspection Schemes and Activities

The Fisheries Monitoring, Surveillance and Enforcement Unit (FMSEU) was operationalised in the year 2006. The Unit is engaged primarily in the inspection of landings of the semi-industrial longline fleet and the implementation of the Statistical Document Programme. To this end the catches of national longliners are inspected for compliance with minimum size regulations.

Transshipment port monitoring is ongoing at the two port locations in Port of Spain and Chaguaramas. Foreign fishing vessel use of the transshipment ports is monitored particularly in relation to the conduct of IUU fishing activities. Landings data are also collected.

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

Hechmi Missaoui

SUMMARY

*Tuna fishing is regulated by law No. 94-13 of 31 January relative to the exercise of fishing and by the texts of implementation, principally by the Decree of 28 September 199*5 *on the exercise of fishing and the Decree of 21 May 2008 relative to the organization of the fishing of bluefin tuna. The Decree of 21 May 2008 mainly includes the provisions of paragraph 21 of Recommendation 06-05 establishing the minimum size of bluefin tuna at 30 kg. In 2009, the provisions of Recommendation 08-05 (paragraph 20) on the temporal closure of the bluefin tuna fishery have been implemented by a circular note transmitted to all the regional fishing administrations. This note was distributed to the local markets and the active operators in the fishery, including the exporters. Awareness-raising and explanatory meetings on this subject were organized by the competent fishing and aquaculture authority. In order to permit carrying out the implementation of the ICCAT provisions in matters of data reporting, Article 3 of the Decree of 21 May 2008 stipulates that the captains of the tuna vessels should record and declare statistics in accordance with the samples foreseen by ICCAT. They must also transmit copies of the statistical declarations to the competent authority every 10 days from the date of each fishing trip and a copy of the landing declaration (see attached Annex) within 48 hours after finalizing the landing operation. The total catch of bluefin tuna in 2009 amounted to 1931,724 tonnes. Of these catches 81,3 % are placed in cages in the tuna farms and then marketed, mainly in Japan and European Union countries.*

RÉSUMÉ

*La pêche des thonidés est régie par la loi nº 94-13 du 31 janvier relative à l'exercice de la pêche et ses textes d'application, notamment l'arrêté du 2*8 *septembre 199*5 *portant sur l'exercice de la pêche et l'arrêté du 21 mai 2008 relatif à l'organisation de la pêche du thon rouge. L'arrêté du 21 mai 2008 a inclus notamment les dispositions du paragraphe 21 de la Recommandation 06-05 fixant la taille minimale du thon rouge à 30 kg. En 2009, les dispositions de la Recommandation 08-05 (paragraphe 20) portant sur la fermeture temporelle de la pêche du thon rouge ont été appliquées par une note circulaire envoyée à toutes les administrations régionales de la pêche. Cette note a été diffusée aux marchés locaux et aux opérateurs actifs dans la pêcherie y compris les exportateurs. Des réunions de sensibilisation et d'explication sur ce sujet ont été organisées par l'autorité compétente de la pêche et d'aquaculture. Afin de permettre l'exécution des dispositions de l'ICCAT en matière d'enregistrement des données, l'article 3 de l'arrêté du 21 mai 2008 stipule que les capitaines des thoniers sont tenus de détenir des registres et des déclarations statistiques conformément aux exemplaires prévus par l'ICCAT. Ils sont également tenus de transmettre à l'autorité compétente des copies de déclarations statistiques tous les dix jours à compter de la date de chaque sortie de pêche et d'une copie de la déclaration de débarquement (voir annexe) dans un délai ne dépassant pas 48 heures à compter de l'heure d'achèvement de l'opération de débarquement. Les captures totales du thon rouge en 2009 ont atteint 1931,724 tonnes. 81,3 % de ces captures sont mises en cage dans les établissements d'engraissement puis commercialisées principalement au Japon et aux pays de l'Union européenne.*

RESUMEN

La pesca de túnidos se rige por la Ley Nº 94-13 del 31 de enero, relativa al ejercicio de la pesca, y por sus textos de aplicación, principalmente el Decreto del 28 de septiembre de 1995 sobre el ejercicio de la pesca y el Decreto del 21 de mayo de 2008 relativo a la organización de la pesca de atún rojo. El Decreto del 21 de mayo de 2008 incluye principalmente las disposiciones del párrafo 21 de la Recomendación 06-05 que establecen la talla mínima del

atún rojo en 30 kg. En 2009, las disposiciones de la Recomendación 08-05 (párrafo 20) sobre la veda temporal de la pesca de atún rojo, fueron aplicadas por medio de una Circular enviada a todas las administraciones regionales de pesca. Esta nota se difundió en los mercados locales y a los operadores activos en la pesquería, lo que incluye a los exportadores. La autoridad competente de pesca y acuicultura organizó reuniones de explicación y sensibilización sobre este tema. Con el fin de permitir la ejecución de las disposiciones de ICCAT en materia de consignación de datos, el artículo 3 del Decreto del 21 de mayo de 2008 establece que los patrones de los buques atuneros deben consignar registros y declaraciones estadísticas conforme a los ejemplos previstos por ICCAT. Asimismo, deben transmitir a las autoridades competentes copias de las declaraciones estadísticas cada 10 días a contar desde la fecha de cada marea de pesca y una copia de la declaración de desembarque (véase el Anexo) en un plazo no superior a 48 horas después de la hora de finalización de la operación de desembarque. Las capturas totales de atún rojo en 2009 alcanzaron las 1.931,724 t. El 81,3% de estas capturas se introduce en jaulas en las instalaciones de engorde y después se comercializa, principalmente a Japón y a países de la Unión Europea.

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

Chapitre 1 : Information annuelle sur les pêcheries

Les thonidés sont pêchés au large des côtes tunisiennes. Les prises du thon rouge ont été réalisées à l'aide de la senne tournante. C'est un filet de pêche de longueur et de chute variables selon les spécifications techniques des navires de pêche. Ce type filet de pêche peut mesurer jusque 1500 m de long.

Les prises de l'espadon sont réalisées à l'aide de la palangre flottante utilisée à bord des navires de pêche côtière.

Les captures des thonidés et espèces apparentées ont totalisé en 2009 : 8605 tonnes dont 1932 tonnes de thon rouge et 1012 tonnes d'espadon. Les quantités de thon rouge vif transférées dans les cages d'engraissement au cours de la campagne de pêche de 2009 ont totalisé 1707.752 tonnes dont 137.022 tonnes capturées par des bateaux battant pavillon étranger.

La quasi-totalité des captures de thon rouge sont destinées à l'engraissement. Les gains de poids sont donc très variables et dépendent de plusieurs facteurs tels que la taille initiale du poisson, l'alimentation, la durée de la mise en cage, la saison, l'année, l'emplacement et les conditions environnementales.

Chapitre 2 : Recherche et statistiques

Le système tunisien de suivi statistique permet de contrôler en temps réel les prises déclarées par les navires de pêche. Des vérifications à quai sont exécutées conformément aux dispositions règlementaires nationales en vigueur sur la flottille de pêche et sur les produits débarqués, dont les thonidés.

Les gardes pêche assistent à la fin de chaque sortie aux débarquements des navires de pêche. Chaque patron doit soumettre les données inscrites dans son journal de bord à l'administration régionale de pêche qui saisit ces données et effectue les traitements requis. Les journaux de pêche contiennent des renseignements sur les prises, l'effort de pêche, les lieux, etc. Lorsque les navires entrent dans un port, ils doivent communiquer ces données avant d'effectuer leurs prochaines sorties.

Les activités scientifiques sur les thonidés réalisées en Tunisie ont porté sur ce qui suit :

- collecte et traitement des données sur les pêcheries thonières ;
- l'étude technique des engins de pêche employés par les thoniers senneurs ;
- estimation du taux de croissance de thon rouge en captivité dans les établissements d'engraissement. Un programme de recherche dans ce sujet a été défini depuis en collaboration avec les autorités régionales et les établissements d'engraissement.

IIe 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 de gestion et de conservation de l'ICCAT, l'autorité compétente tunisienne a déployé tous les efforts pour sensibiliser les armateurs de pêche et les promoteurs des établissements d'engraissement aux normes de gestion des pêcheries thonières.

Dans le cadre de la mise en application de la recommandation de l'ICCAT 08-03 sur la fermeture saisonnière de la pêche d'espadon, une circulaire a été éditée à ce sujet et elle est adressée à tous les arrondissements de pêche pour les diffuser à tous les opérateurs actifs dans la pêche de l'espadon.

Pour le thon rouge, les mesures de gestion et de conservation concernent notamment :

a) Allocation de quotas individuels : En 2009, la Tunisie a attribué des quotas individuels pour tous les navires supérieurs à 24 m. Le respect des quotas est assuré par les gardes pêche présents dans les ports et les observateurs embarqués à bord des navires.

b) Programme d'observateurs : les observateurs nationaux à bord des navires et ceux affectés aux établissements d'engraissement veillent sur la mise en application des mesures de conservation adoptées par l'ICCAT. Une décision ministérielle a été éditée pour charger les observateurs à réaliser des tâches de contrôle des activités de pêche (voir annexe).

Des formulaires ont été mis à la disposition des observateurs pour enregistrer les informations requises à propos des captures, des opérations de transfert, de mise en cage et de mise à mort (voir annexe).

c) Système de surveillance des navires (VMS) : dans le cadre de la mise en œuvre des recommandations de l'ICCAT et notamment le contrôle des mouvements cinématiques des thoniers, depuis 2008, tous les thoniers en plus de 24 m sont équipés de VMS.

d) Programme de document statistique de l'ICCAT : en vertu de l'application du programme de documentation de l'ICCAT, les autorités régionales procèdent à la vérification et la validation des informations consignées dans les BCD.

Chapitre 4 : Schémas et activités d'inspection

4.1 Inspection dans les zones de pêche

Le système de contrôle VMS a été installé à bord des navires de plus de 24 m. Au total, 24 navires de capture et 13 navires d'assistance et de soutien ont été équipés de ce système. Les rapports de position ont été envoyés à l'ICCAT via l'autorité compétente.

Le contrôle de l'exercice de pêche est aussi assuré par les services actifs de la surveillance côtière, surtout dans les eaux sous juridiction nationale.

Les observateurs nationaux embarqués à bord des navires accomplissent des tâches de contrôle des activités de pêche et veillent sur l'application des dispositions législatives et réglementaires en vigueur.

4.2 Inspection au port

Le débarquement des thonidés, comme toutes les autres espèces aquatiques, se fait en présence d'un garde pêche de l'autorité compétente qui enregistre le type des produits, le poids et vérifie le poids individuel moyen de chaque espèce ainsi que la taille (Article 16 Loi N° 94-13 du 31 janvier 1994).

4.3 Inspection au niveau des établissements d'engraissement

Les opérations de mise en cage et de mise à mort sont suivies par les observateurs nationaux. Ils veillent sur l'application des mesures de l'ICCAT concernant l'enregistrement des volumes de thon rouge mis en cage ou mis à mort et la validation des déclarations statistiques.

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 2009, the total catch of tuna and tuna-like fishes amounted to 8,633 t. In 2009, Turkey's total catch of bluefin tuna, albacore, Atlantic bonito and swordfish was 665,4 t, 631 t, 7,036 t, and 301 t, respectively. All bluefin catch was caught by purse seiners, the majority of which have an overall length of 30-50 m and a tonnage of 200-300 GRT. Fishing operations were conducted intensively off Antalya Bay and in the region between Antalya Gazi Paşa and Cyprus. In the Mediterranean, the fisheries were conducted in the region between Cyprus-Turkey and in the region Cyprus-Syria. The highest bluefin tuna catch amount was obtained in June. The recommendations and resolutions imposed by ICCAT were transposed into national legislation and implemented. All conservation and management measures regarding the bluefin tuna fisheries and farming are regulated by national legislation through notifications, considering ICCAT's related regulations. The Fisheries Information System has been updated in order to meet the requirements of data exchange at the national and regional level. Major research activities in 2009 focused on albacore.

RÉSUMÉ

Au cours de 2009, la prise totale de thonidés et d'espèces apparentées s'est élevée à 8.633 t. En 2009, la prise totale turque de thon rouge, de germon, de bonite à dos rayé de l'Atlantique et d'espadon a totalisé 665,4 t, 631 t, 7.036 t et 301 t, respectivement. Toute la prise de thon rouge a été réalisée par des senneurs, dont la plupart avait une longueur hors-tout de 30 à 50 m et entre 200 et 300 TJB. Les opérations de pêche se sont déroulées intensivement dans la baie d'Antalya et dans la région située entre Antalya Gazi Paşa et Chypre. En Méditerranée, les pêcheries se sont déroulées dans la région située entre Chypre et la Turquie et entre Chypre et la Syrie. Le plus grand volume de prise de thon rouge a été réalisé au mois de juin. Les recommandations et résolutions imposées par l'ICCAT ont été transposées dans la législation nationale et mises en œuvre. Toutes les mesures de conservation et de gestion relatives aux pêcheries et à l'engraissement du thon rouge sont réglementées par la législation nationale, à travers des notifications, qui tient compte des réglementations pertinentes de l'ICCAT. Le Système d'information des pêcheries a été actualisé afin de respecter les exigences en matière d'échange de données au niveau national et régional. En 2009, les principales activités de la recherche se sont centrées sur le germon.

RESUMEN

Durante el transcurso de 2009, la captura total de túnidos y especies afines ascendió a 8.633 t. Las capturas totales turcas de atún rojo, atún blanco, bonito y pez espada ascendieron a 665,4 t, 631 t, 7.036 t y 301 t, respectivamente. Toda la captura de atún rojo la realizaron cerqueros que en su mayoría tienen una eslora total de 30-50 m y un tonelaje de 200-300 TRB. Las operaciones de pesca tuvieron lugar de forma intensiva en aguas de la bahía de Antalya y en la región entre Antalya Gazi Paşa y Chipre. En el Mediterráneo, las pesquerías se llevaron a cabo en la región entre Chipre y Turquía y en la región Chipre-Siria. La mayor cantidad de capturas de atún rojo se obtuvo en junio. Las Recomendaciones y Resoluciones de ICCAT han sido traspuestas a la legislación nacional e implementadas. Todas las medidas de conservación

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y ordenación respecto a las pesquerías y engorde de atún rojo están reguladas por la legislación nacional mediante notificaciones, que tienen en cuenta las regulaciones relacionadas de ICCAT. El Sistema de Información sobre Pesquerías se ha actualizado para que cumpla los requisitos de intercambio de datos a nivel nacional y regional. En 2009 se llevaron a cabo actividades importantes de investigación centradas en el atún blanco.

Part I (Information on Fisheries, Research and Statistics)

Section 1: Annual Fisheries Information

In 2009 the total catch of tuna and tuna-like fishes (including small tunas and swordfish) was 8,633 metric tons (t), a 1% decrease compared to 2008.

1.1 Albacore

Albacore, which historically used to be by-catch from the bluefin tuna fishery in the past, has increasingly been caught as the target species in recent years. The catch quantity of albacore has decreased remarkably from 852 t in 2007 to 208 t in 2008 (**Table 1**). The fishing season for this species was concentrated between May and July in the eastern Mediterranean Sea. The total catch in 2009 was 631 t.

1.2 Atlantic bonito

Bonitos plays a major role in the Turkish fishery. Bonito fishing is intensively carried out in the Black Sea and the Marmara Sea using purse seines, gillnets, encircling nets and hand lines. The total catch in 2009 was 7,036 t. There has been a considerable decrease in catch quantity since 2005.

1.3 Bluefin tuna

Turkey's total catch of bluefin tuna in 2009 was 665,4 t, a decrease compared to the previous year (879 t in 2008). Almost all of the catch was caught by purse seiners. There are 6 bluefin tuna farms in Turkey. Almost all of the total purse seine catch was transferred into floating cages for fattening.

The Ministry of Agriculture and Rural Affairs (MARA) issued bluefin tuna fishing licenses to 58 fishing vessels in 2009, in accordance with domestic legislation as well as 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, 78 vessels were licensed as tug boats transporting bluefin tuna cages. The total number of bluefin tuna purse seiners by tonnage for the period 2003-2009 is presented in **Table 2**.

The bluefin tuna fisheries in 2009 started in late May and were completed on 15 June. The fishing operation was conducted intensively off Antalya Bay and in the region between Antalya Gazi Paşa and Cyprus. In the Mediterranean, the fisheries were conducted in the region between Cyprus-Turkey and in the region Cyprus-Syria. The highest bluefin tuna catch amount was obtained in June. While the harvesting in bluefin tuna farms in the Mediterranean Sea was conducted in October, harvesting for the bluefin tuna farms in the Aegean Sea was conducted more in December and less in early January**.**

1.4 Swordfish

The Swordfish fishery in Turkey is carried out in the Aegean Sea and the eastern Mediterranean Sea. While swordfish fishing is carried out using harpoon in the northern Aegean Sea, it is carried out by longlines in the eastern Mediterranean Sea. The total catch amount in 2009 was 301 t. Compared with previous years fishery, the trend has not changed since 2000.

1.5 Other tunas

The fishery for bullet tuna and little tunny is carried out in the Aegean Sea and the eastern Mediterranean Sea using purse seines, gill nets and encircling gillnets. In 2009, the total catches of little tunny and bullet tuna were 1.309 t and 1,873 t, corresponding to a 22% and 55% increase, respectively, as compared to the previous year.

Section 2: Research and Statistics

2.1 Research

2.1.1 Albacore research

In 2009-2010, biological samples were obtained from the gillnet fishery for the analyses of age and growth of the albacore. Albacore (*Thunnus alalunga*) and swordfish (*Xiphias gladius*) are target species in this fishery. Furthermore, Common dolphinfish (*Coryphaena hippurus*), bluefin tuna (*Thunnus thynnus*), ocean sunfish (*Mola mola*), bullet tuna (*Auxis rochei*), little tunny (*Euthynnus alletteratus*) and Mediterranean spearfish (*Tetrapturus belone*) are being caught as by-catch. A total of 155 specimens of albacore were examined. Fork length of albacore ranged from 57 cm to 94 cm, with nearly one-third of the fish (33,3%) in the 75-80 cm range, and the mean was 71.7 ± 0.48 cm (Ceyhan et al 2011).

2.2 Statistics

During the bluefin tuna fishing season, daily bluefin tuna data were collected and assessed in MARA to determine and pre-announce the closure time to the fishing vessels. The Task I and Task II data were regularly reported to the ICCAT Secretariat.

2.3 Fisheries Information System

Turkey has continued to implement a Fisheries Information System (FIS) to improve its fisheries management system through collection and analyzing fishery data. The technical work to update and integrate the current vessel registry system into FIS has been completed. The FIS comprises data on landings, logbooks, vessel monitoring system, sale notes, observer and control forms, first buyer notification, and storage notification.

Part II (Management Implementation)

Section 3: Implementation of ICCAT Conservation and Management Measures

In deference to relevant ICCAT Conservation and Management Measures, MARA introduced the Amended Notification on Regulating Commercial Fishing at Seas and Inland Waters, covering the period 2009-2012, in order to ensure more sustainable fishing activities, improved quality for fishing products, and better conservation of fisheries resources. Essential regulations on bluefin tuna and swordfish fisheries were directly taken from the ICCAT Recommendations, including Rec. 08-05, Rec. 09-04, Rec. 09-06 and Rec. 09-11 and inserted in domestic regulations.

Fishing for tunas and tuna-like species, bluefin tuna fattening and trade activities continued to be regulated by MARA through the above-mentioned Notification based on Fisheries Law-1380 as well as the Ministerial Communication on Tuna Fishing, the Ministerial Communiqué on Aquaculture Production (Fattening) of Bluefin Tuna and the Ministerial Communiqué Concerning the Foreign Trade of Bluefin Tuna.

A Ministerial Communication on bluefin tuna fisheries is issued every year before the commencement of the fishing season. The rules and the reporting forms which are the obligations of the bluefin tuna fishing vessels, such as; Bluefin Tuna Fishing License, Bluefin Tuna Transfer License, Fishing Notification Form, Certificate of Vessel's Origin, Dead Tuna Notification Form, Duties of Supervisors, Technical Specifications of Vessel Monitoring Device, Landing Ports are announced by Ministerial Communications.

3.1 Closed seasons and catch limits

3.1.1 Bonito

Bonito fishing by all gear types, including stake nets, is banned between 1 April and 31 August throughout the territorial waters. However, longlining for bonito is allowed between 15-31 August (Official Gazette 21.08.2008-No. 26974).

3.1.2 Bluefin tuna

It is obligatory to hold a special fishing/transport permit for a bluefin tuna catching/ other vessel. The authorized fishing period for bluefin tuna by purse seiners has been set from 16.05.2010 until 14.06.2010. However, if the catch quota allocated by ICCAT is exhausted before the closure time, MARA has the authority to extend the time closure.

The 2010 catch quota for bluefin tuna has been set at 410,400 t. In order to monitor and supervise the fishing quota, the catch amount and location shall be reported to MARA, particularly by the fax machine of the fishing vessel after each fishing operation.

The vessel owner/skipper of the bluefin tuna fishing vessels shall communicate by fax/e-mail to MARA, a weekly catch report, including nil catch returns. This report shall be transmitted by the latest Monday noon with the catches taken during the preceding week ending Sunday midnight GMT.

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.

Vessel chartering has been prohibited. An individual quota system for bluefin tuna catching vessels has been applied.

It is forbidden to land or transfer the caught bluefin tunas to any landing ports other than those designated by MARA.

For the fishing amounts that have not been submitted to MARA although caught in the fishing season, amounts that have been caught over the allocated catch quota and those that have been caught after the end of the fishing season, no Bluefin Tuna Catch Documentation (BCD) and Health Certificate shall be issued. If the caught bluefin tuna are live they shall be released and if dead they shall be seized.

Sales of bluefin tuna or bluefin tuna products (except for internal organs) in domestic and overseas shall be forbidden without an accompanying BCD.

The fishing vessels could not the fish entire amount of its individual quota, cannot transfer the amount which has not been fished to the next year.

The skipper of the fishing vessel must complete a Bluefin Tuna Catch Document (BCD) and an ICCAT Transfer Declaration after a transfer operation to a carrier vessel and deliver the documents to the skipper of the carrier vessel. The carrier vessels shall not leave the area without the accompanying documents.

It is obligatory for a skipper to inform the MARA about the catch amount and the coordinates of the fishing area following each fishing operation. MARA receives catch-notifications of bluefin tuna catching vessels by fax/e-mail and authorizes, if proper, each subsequent live bluefin tuna transfer through phone communication with the skipper.

A Bluefin Tuna Catch Document (BCD) and an ICCAT Transfer Declaration shall accompany the product during the transfer operation to a farm or to a specific port. Tug vessels must keep the documents including the time starting for carrying, their position and their routes to final destination, planned arrival time and the amount of bluefin tuna in the cages and to inform MARA before beginning the operation. Furthermore, the skipper of a tug vessel must provide the recording of the transfer operation to tug cages through underwater video camera and must keep records on board.

The transfer and transportation of bluefin tuna that originated from other countries cannot be initiated without prior authorization of the origin Country. Prior authorization requests are made by MARA before the intended transfer operations take place. To this end, MARA makes an official request to the ICCAT Secretariat to get the required approval from respective CPCs.

According to ministerial regulations, Bluefin Tuna Catch Documents (BCD) and ICCAT Transfer Declarations shall accompany live bluefin tuna during the transfer operation to a farm or to a specific port. Tug vessels must keep the documents including the time of the starting of carrying, their position and their routes to final

destination, planned arrival time and the amount of bluefin tuna in the cages and to inform MARA before beginning the operation.

All transfer operations are conducted under the presence of independent ICCAT Regional Observers with 100% coverage. Notwithstanding, final cross-checking of all catch/tranfer documents with the declared information is made by Ministerial inspectors at the time of delivery to farm cages.

Furthermore, in case of determining bluefin tuna that have been caught by fishing vessels without fishing permission or adequate individual quota or determining bluefin tuna which have been misidentified, the fish shall be seized and released.

Finally, following the completion of tugging operations, determining of bluefin tuna in the farms shall be conducted by the Provincial Directorate. In case of determining unrecorded bluefin tuna, the fish in question shall be released (Official Gazette 10.07.2010-No. 2763)

3.1.3 Swordfish

Swordfish by all gear types is banned between 1 October and 30 November throughout the territorial waters. (Official Gazette 03.03.2009-No.27158).

3.1.4 Little tunny, bullet tuna and albacore

Fishing for little tunny and bullet tuna by entangling nets is permitted throughout the fishing season within territorial waters. Purse seiners are allowed to harvest the mentioned species between 15 April and 15 May in specified areas. (Official Gazette 21.08.2008-No.26974).

In the Aegean Sea, little tunny and albacore landings are prohibited in certain areas for different purposes, such as protection of spawning areas and juveniles, protection of artisanal fisheries, etc.

3.2 Prohibitions of length and weight

The minimum length and weight of the capture fisheries are given in **Table 3**. The catch of bluefin tuna weighing less than 30 kg is prohibited. However, an incidental catch of maximum 5% of bluefin tuna weighing between 10 and 30 kg is authorized (Official Gazette of 21.08.2008-No.26974).

3.3 Vessel Monitoring System

A VMS which is in service and has the functions established by MARA must be installed on all bluefin tuna fishing vessels and tug boats. In any case, in case there is a defect in the device, it is also obligatory to first inform MARA about the situation and then to submit the vessel's position to MARA every two hours.

3.4 Licensing and fishing methods

Use of airplanes or helicopters for the purpose of bluefin tuna spotting is prohibited. The mesh size in the bag part of the bluefin tuna nets 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).

The "fishing/transport permit" held by vessels that are not complying with the bluefin tuna fishing rules shall be seized and the permits sent to the Provincial Directorate in order to be cancelled. Furthermore, every vessel having permission to fish bluefin tuna shall be obliged to record the data required by MARA with regard to amount of bluefin tuna caught and sold and shall be obliged to obey the rules with regard to implementation (Official Gazette 10.07.2010-No:2763)

3.5 Observers

In accordance with the Ministerial Communication on Bluefin Tuna Fishing, for vessels over 24 m and less than 24 m which have been permitted to fish bluefin tuna and allocated a catch quota, it is obligatory to accommodate ICCAT Regional Observers during entire the fishing period and to accommodate national observers during 20% of the fishing period, respectively.

Regardless of the fishing vessel size, it is obligatory than an ICCAT Regional Observer cover the fishing vessels carrying out joint fishing operation during the fishing season. Furthermore, transfer operations from fishing vessels to carrier vessel or transfer operation between two carrier vessels shall be carried out with an accompanying ICCAT Regional Observer.

Again, during the farming operations, it is obligatory to have ICCAT Regional Observers present during all transfer operations to farming cages and harvest operations from cages.

Also, it is obligatory that the ICCAT Transfer Declaration signed by the skipper of the catching vessel and forwarded to the skipper of the carrier vessel be given to the ICCAT Regional Observer.

The observers reported on the fishing, transfer and towing operations. Information on the amount of bluefin tuna caught was mainly based on estimations through watching slow-motion video recordings of bluefin tuna transferred from the fishing net to the cage.

Section 4: Inspection Schemes and Activities

In 2009 and 2010, control and at-sea/landing inspections during bluefin tuna fishing, transfer and caging operations were carried out by the Coast Guard and MARA staff, respectively. In addition to on-site checks/observations during transfer and caging operations, regular inspections were made by MARA staff in April, July and December. No administrative, punitive or legal actions were needed to be taken for any cases.

MARA assigned 10 landing ports to ensure the efficiency of inspections of bluefin tuna operations in accordance with relevant ICCAT Recommendation. Those ports and landing points were announced to fishermen and concerned authorities before the commencement of the fishing season in 2010.

In 2010, Turkey participated to the ICCAT Joint Inspection Scheme with 44 control boats and 138 inspector staff during the bluefin tuna fishing season. After completion of the fishing season, 24 additional control boats and 67 inspectors were trained and assigned as “ICCAT Inspectors”. Forty (40) vessels were inspected by the Turkish Coast Guard under this scope.

Reference

Ceyhan, T., Akyol, Ol, Saadet Karakulak, S. 2011, The albacore fishery in Turkey. Collect Vol. Sci. Pap. ICCAT, 66(5): 1867-1871.

Table 1. Catches (t) of tunas and tuna-like species (2000-2009).

Species	*2000*	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*	*2009*
Atlantic bonito	12,000	13,460	6,286	6,000	5,701	70,797	29,690	5,965	6,448	7,036
Bluefin tuna	1,070	2,100	2,300	3,300	1,075	990	806	918	879	665,4
Swordfish	370	360	370	350	386	425	410	423	386	301
Albacore	0	0	0	0	27	30	73	852	208	631
Little tunny	0	0	0	0	568	507	1230	785	1,072	1309
Bullet tuna	0	0	0	0	284	1020	1031	993	836	1873

Table 2. The total number of bluefin tuna purse seiners by tonnage (2000-2009).

Tonnage (as GRT)	*2000*	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*	*2009*
<50	1	1	-	1	3	1	1	2	2	-
51-100	1	1	1	4	1	7	4	2	3	-
101-200	3	3	1	7	9	16	8	4	13	5
201-300	17	17	21	27	40	50	42	44	50	30
301-400	1	-	2	3	7	8	6	7	9	6
>400	3	3	3	8	8	14	14	18	21	16

Table 3. Prohibitions of length and weight by species.

Species	*Minimum length (cm)*	*Minimum weight (kg)*
Bluefin tuna *(Thunnus thynnus)*		30*
Atlantic bonito *(Sarda sarda)*	25	
Swordfish (*Xiphias gladius*)	125	

*For incidental catch/by-catch purposes, a maximum of 5% bluefin tuna catch weighing between 10 and 30 kg is authorized (Official Gazette of 21.08.2008-No.26974)

ANNUAL REPORT FOR THE UNITED KINGDOM (OVERSEAS TERRITORIES)
RAPPORT ANNUEL DU ROYAUME-UNI (TERRITOIRES D'OUTRE-MER)
INFORME ANUAL DEL REINO UNIDO (TERRITORIOS DE ULTRAMAR)

SUMMARY

The level of fishing activity of the United Kingdom (Overseas Territories) engaged in ICCAT during 2009 has not altered significantly from previous years. The level of catches overall remains relatively low with the focus of the fishing industry being artisanal or sports related. Bermuda reports that yellowfin tuna landings have significantly increased in 2009 compared to 2008. The United Kingdom (Overseas Territories) do not have any registered fishing vessels over 20 metres targeting tuna or tuna-like species in the Atlantic.

RÉSUMÉ

Le niveau des activités de pêche menées en 2009 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 signalé que les débarquements d'albacore ont connu une augmentation significative en 2009 par rapport à l'année 2008. Les territoires d'outre-mer du Royaume-Uni ne comptent sur leur registre aucun navire de pêche de plus de 20 mètres ciblant les thonidés ou les espèces apparentées dans l'Atlantique.

RESUMEN

Durante 2009, el nivel de actividad pesquera de los Territorios de Ultramar del Reino Unido que participan en ICCAT no ha experimentado cambios importantes respecto a años anteriores. El nivel de capturas globales permanece relativamente bajo y el objetivo de la industria pesquera se centra en actividades deportivas y artesanales. Bermudas comunicó que los desembarques de rabil se habían incrementado notablemente en 2009 con respecto a 2008. Reino Unido (Territorios de ultramar) no tiene buques pesqueros registrados de más de 20 m que dirijan su actividad a los túnidos o especies afines en el Atlántico.

Part I (Information on Fisheries, Research and Statistics)

Section 1: Annual Fisheries Information

See the following individual reports by the United Kingdom (Overseas Territories).

Section 2: Research and Statistics

See the following individual reports by the United Kingdom (Overseas Territories).

Part II (Management Implementation)

Section 3: Implementation of ICCAT Conservation and Management Measures

3.1 Compliance

The United Kingdom (Overseas Territories) received a Letter of Identification dated 4 March 2010 highlighting that the United Kingdom (Overseas Territories) did not provide all necessary data and reports by the established deadlines. This included Task II size samples and statistical documents not submitted. The UKOTs responded to the Letter of Identification, through a letter dated 15 October 2010, setting out proposals put forward to the individual Overseas Territories to improve compliance with data submission. These proposals included the following:

- Regarding the Task II size sampling data, each Overseas Territory should record the length, weight and species from a sample of at least 50 randomly selected fish per month.

- Regarding the Statistical Document Reports, each Overseas Territory should implement specific custom codes for swordfish and bigeye tuna and all records of these imports and exports should be submitted to the Secretariat. Where no imports or exports have taken place, a report of nil returns should be submitted.

These proposals have been considered by the Overseas Territories and implementation of the measures is being attempted to the greatest possible extent. It is important to note that the Overseas Territories are small islands at various stages of development with limited resources available. The UKOT's efforts need to be viewed in the context of financial restrictions, and consideration afforded to the time needed to implement improved data collection protocols.

However, some significant progress has been made. In 2009, St. Helena was able to provide size sampling data and trade data to the Secretariat. Bermuda provided full data for the bluefin tuna caught as by-catch. Bermuda has developed a strategy for the sustainable use of Bermuda's living resources and some elements of this strategy relate to improving data submission to ICCAT. Bermuda is considering how to collect more detailed catch and effort statistics from the commercial fishing industry, and acquire baseline data on recreational fishing and other non-commercial fishing by conducting a comprehensive survey, which will inform reporting of catch from non-commercial sectors. Bermuda are also currently looking to resolve issues related to specific custom codes, which will lead to improvements in provision of accurate trade data in future years.

All applicable ICCAT conservation and management measures are implemented into the national law. Given the low amount of fishing activity there is a limited amount of inspection activity to report. Each territory carries out inspection and compliance monitoring in accordance with domestic national law. There is no new scientific information or data to be submitted in addition to task and compliance data already submitted to ICCAT.

− *BERMUDA*

Part I (Information on Fisheries, Research and Statistics)

Section 1: Annual Fisheries Information

A total of 203 vessels were licensed to fish commercially in Bermuda during the year 2009. Approximately one-third of the vessels actively fish for tuna and tuna-like species and most of the fishing effort is carried out in the inner 50 km (including two offshore banks) of the Bermuda Exclusive Economic Zone. Longline vessels fish further offshore.

The Bermuda domestic fleet is made up predominantly of fiberglass commercial fishing vessels. A small number of vessels are configured for pelagic longlining.

There has been limited development of longline fishing in Bermuda; therefore, quotas for swordfish, albacore tuna and bluefin tuna have not been fully utilized.

Section 2: Research and Statistics

The total catch of tuna and tuna-like species by the Bermuda domestic fleet in 2009 was approximately 163 metric tonnes (t). This represents an increase in landings of about 6.75 t from the previous year. While landings of wahoo were lower than last year, yellowfin tuna landings increased from 15 t in 2008 to 41.5 t in 2009. Details of the catch composition are presented in **Table 1**.

Part II (Management Implementation)

Section 3: Implementation of ICCAT Conservation and Management Measures

The Fisheries Act 1972 and associated regulations can be amended when necessary to implement ICCAT Conservation and Management Measures.

Section 4: Inspection Schemes and Activities

Fisheries wardens are responsible for enforcement under the Fisheries Act 1972 and routinely stop local vessels to inspect catches and determine compliance with legislation.

Section 5: Other Activities

Nothing to report.

− 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 longlining was carried out during the period. Types of bait used are live, dead and artificial. A maximum of 12 boats fished full-time complementing a crew of 26 persons.

Section 2: Research and Statistics

Fish landings into the Fisheries Corporation over the period January 2009 to December 2009 totaled some 404.89 metric tonnes (t) of fish. Of this amount, 50% of the species consisted of tuna, 7.3% of wahoo, 38% of skipjack, <0.5% of shark, <1% of marlin and the rest consisting of various other non ICCAT species consisting of grouper, conger, cavalley, bullseye, soldier, yellowtail, dorado and filefish.

The main ICCAT species caught in 2009 over a total of 2108 fishing days are given in **Table 2**.

Data on 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.

There was no take-up of foreign vessel licensing during 2009 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.

Section 5: Other Activities

Nothing to report.

− *TURKS AND CAICOS ISLANDS*

Part I (Information on Fisheries, Research and Statistics)

The Turks and Caicos Islands fisheries have been viewed as small in comparison to the Caribbean region. However, the Turks and Caicos Islands are and remain a strong leader in its collection of fisheries data with regards to both the spiny lobster and queen conch. Within the last few years, the Turks and Caicos Islands has been collecting information with regards to scale fish including pelagic species. With an increase in tourism, the Turks and Caicos Islands expects to have an increase in the consumption of scale fish and has thus been collecting information for assessment.

In terms of export earnings, the most valuable industry is the marine fisheries including queen conch (*Strombus gigas*) and spiny lobster (*Panulirus argus*). Scale fish are not captured for the purpose of export, but instead for local consumption through restaurants and hotels. The problem with scale fish is that not all the catch is landed at licensed processors. There is a "back door" for the sale of scale fish to the local economy. The Turks and Caicos Islands has taken the direction within its Management Plan to diversify its fisheries including scale fish, which are assumed to be under-utilized. With this in mind, the Turks and Caicos Islands is attempting to be proactive in the collection of data on scale fish. With the collection of data, the Turks and Caicos Islands can then recommend regulations for the protection of the various species, while still allowing for the diversification into the fishery.

However, it has become evident that pelagic species are being sought by recreational sport fishers. With limited resources, this sector of the fishery has yet to have data recorded.

Section 1: Annual Fisheries Information

The Turks and Caicos Islands base commercial fishing on the shallow water banks, primarily the Caicos Bank and the Turks Bank. The Mouchoir Bank is considered within the territorial water of the Turks and Caicos Islands, but used mainly for the purpose of capture of scale fish. The vessels most often utilized in the Turks and Caicos Islands are small retrofited V-hull boats ranging in length from 18 ft-20 ft with a 85-115 hp outboard engines. Less than three trap boats collect lobster and scale fish, while two other vessels are utilized specifically for landing of scale fish with banned reels (i.e., grouper and red fish) with the occasional pelagic fish.

Commercial fishermen from the Turks and Caicos Islands often work more than one fishery at a time. Using only free diving methods with no underwater breather apparatus, fishers are found diving in depths ranging from 3 meters to 30 meters. The normal day for a fisher entails leaving the dock between 7:00 and 8:00 a.m. and return between 4:00 and 5:00 pm, considered a 1 boat-day. Commercial fishermen are found to be opportunistic in their catch. During the open season of lobster, fishermen largely capture spiny lobster and land them whole. Near the end of the lobster season (around February or March), the fishermen re-prioritize capture and start landing queen conch, landed whole without shell. In the past few years, fishers have increased their catch of scale fish for the local markets. The larger boats with the banned reels have now established the local market for its catch and increased its harvest.

Within the past ten years, the commercial fisheries have directly employed an average of 360 fishers per year. In the 2009/2010 fishing season, the number of commercially licensed persons was at 320. Similarly the number of commercially licensed vessels average at 154 licensed vessels but in 2008-2009 there were 176 commercially licensed vessels.

When referring to the catch of scale fish, effort is measured by the number of days at sea. The larger individual boats carry between 5-12 men on the vessel each day. Smaller vessels carry between 1-3 people on board.

Section 2: Research and Statistics

Catch and effort data for scale fish are being collected at the landing docks and processing facilities. Fish are measured by standard length, fork length and total length and reported with species name. Weight is collected if time allows. Captains are then interviewed for the number of days at sea, number of crew, location, etc. Export data for fish are collected for personal export only. Scale fish are not exported on a commercial scale.

The Department of Environment and Coastal Resources (Fisheries Sub-unit) has collected local consumption data of marine products to determine the seafood consumption rate. The data are available but not completely analyzed. Data on large and coastal pelagic are collected during local fishing tournaments. These data are stored and shared with international monitoring organizations such as ICCAT and the FAO.

Catch data from confiscated international vessels poaching in the waters of the Turks and Caicos Islands are also monitored. These vessels usually fish on the Mouchoir Bank and in waters which local fishers do not utilise except in the case of scale fish. By monitoring the catches from these vessels, the Department anticipates the use of these data to assess the status of the fish stocks in these areas.

The Department is also actively monitoring the number of persons, number and sizes of vessels, sizes of engines, and gear types being used in each fishery through the licensing system so as to determine "effective effort" exerted on the respective fisheries.

Although the Department has conducted numerous socio-economic surveys in the past, this research approach for the most part has been under utilised. Many of the socio-economic surveys have been in collaboration with individuals and or institutions, looking at: social capital; resource utilization and local consumption.

Part II (Management and Implementation)

Section 3: Implementation of ICCAT Conservation and Management Measures)

Currently, there is no export of any ICCAT species, but only local consumption. Landings are recorded, but in limited supply because of limited resources to dedicate to less economically important species.

Section 4: Inspection Schemes and Activities

Based on the limited resources, there has been little achieved in regards to inspection schemes and activities.

Section 5: Other Activities

Nothing to report.

− VIRGIN ISLANDS

Part I (Information on Fisheries, Research and Statistics)

Section 1: Annual Fisheries Information

While the commercial fishing fleet of the Virgin Islands (UK) remained of comparable size to previous years, only one vessel targeted species of ICCAT interest though with decreased effort to previous years. This vessel's effort accounted for 75% of the swordfish (*Xiphias gladius)* catch in 2009. Additional catches were the result of tournaments targeting tuna/tuna-like species, and sport-fishing activity. It noteworthy to mention that the sport fishing vessels were also holders of commercial fishing licences and that all catch were caught and landed locally.

Section 2: Research and Statistics

As is typical, most fishing activity occurred within the inner 50 km and the associated banks of the Virgin Island's Exclusive Economic Zone with vessels seldom venturing further offshore. During the 2009 fishing

season, 4.76 metric tonnes (t) of tuna and tuna-like species were locally caught and landed and 1.15 t were imported by the government managed fishing complex, details of which can be found in **Table 3**.

The lack of targeted efforts during most of the 8 months traditionally regarded as the "Tuna season" in the Virgin Islands resulted in a marked decrease in landings. The decrease in favourable fishing days also greatly affected the fishing season.

It is assumed that additional importations were made by other commercial businesses, however records of such importations currently are not readily available by custom records and the details gathered remain unknown.

Part II (Management Implementation)

Section 3: Implementation of ICCAT Conservation and Management Measures

The Territory continues its efforts to better utilise its allotted quota with efforts to encourage and enhance the harvesting of the off-shore fisheries. The implemented logbook programme and continual monitoring of fishing tournaments has contributed to better catch reporting and further monitoring systems are being developed.

The VI Fisheries Act, 1997 and VI Fisheries Regulations, 2003, remain the primary legislation setting limits with regard to any fishery, the declaration of any species as a protected species, declaration of any area as a protected area and the granting or refusal to grant licenses with respect to any fishery. The process involves ministerial declaration, based on the advice of the Chief Conservation and Fisheries Officer and consultation with the Fisheries Advisory Committee. This provides a ready framework for compliance with ICCAT management recommendations.

Section 4: Inspection Schemes and Activities

Currently efforts are implemented to inspect vessels and gears of each commercial fishing applicant. Focus is placed primarily on new applicants and random gear inspections of current license holders are attempted though limitations on human capacity greatly limits the frequency of such efforts.

Section 5: Other Activities

Nothing to report.

Table 1. Species composition of catches by Bermuda.

Species	*Weight (t)*
Yellowfin tuna	41.5
Bluefin tuna	0.3
Bigeye tuna	<0.3
Blackfin tuna	6.9
Albacore tuna	0.3
Atlantic black skipjack tuna	2.7
Skipjack tuna	0.6
Wahoo	101
Blue marlin	1.7
White marlin	0.4
Swordfish (North Atlantic)	3.2
Shark	4.1
TOTAL	**163**

Table 2. Main ICCAT species caught by St. Helena in 2009 over a total of 2108 fishing days.

Species	*Weight (t)*
Yellowfin tuna	104
Albacore tuna	81
Bigeye tuna	17
Skipjack tuna	152
Shark	<0.5
Marlin	3

Table 3. Summary table of landings of tuna and tuna-like species within the Virgin Islands (UK) during 2009.

Species code	*Scientific name*	*Common name*	*Weight (t)*
BLF	*Thunnus atlanticus*	Blackfin tuna	0
YFT	*Thunnus albacares*	Yellowfin tuna	0
SWO	*Xiphias gladius*	Swordfish	1.58
WHA	*Acanthocybium solandri*	Wahoo	1.60
KGM	*Scomberomorus cavalla*	King mackerel	0.45
BON	*Sarda sarda*	Atlantic bonito	0.24
SAI	*Istiophoridae albicans*	Sailfish	0
WHM	*Tetrapturus albidus*	White marlin	0
BUM	*Makaira nigricans*	Blue marlin	0
BIL	*Istiophoridae*	Other/Unclassified billfish	0
	Thunnus spp.	Other/Unclassified tuna	0.89
	Isurus oxyrinchus	Short-finned mako	0
Total landed			**4.76**
Imports	*Xiphias gladius*	Imported swordfish	0.39
	Mixed species	Imported tuna	0.58
	Scomberomorus cavalla	Imported kingfish	0.18
Total landed			**1.15**

ANNUAL REPORT OF THE UNITED STATES OF AMERICA
RAPPORT ANNUEL DES ETATS-UNIS D'AMÉRIQUE
INFORME ANUAL DE ESTADOS UNIDOS DE AMÉRICA

U.S. Department of Commerce, NOAA-Fisheries[1]

SUMMARY

Total (preliminary) reported U.S. catch of tuna and swordfish, including dead discards, in 2009 was 9,605 metric tons (t), an increase of about 16 % from 8,304 t in 2008. Estimated swordfish catch (including estimated dead discards) increased from 2,530 t in 2008 to 2,838 t in 2009, and provisional landings from the U.S. fishery for yellowfin slightly increased from 2,407 t in 2008 to 2,802 t in 2009. Catches of bluefin by U.S. vessels fishing in the northwest Atlantic totaled 1,226 t in 2009, an increase of 307 t compared to 2008. Provisional skipjack landings were 119 t, an increase of 52 t compared to 2008. Provisional bigeye landings were 516 t, an increase of about 28 t from 2008. Estimated albacore landings decreased from 2008 to 2009 by 60 t to 188 t. Tuna, billfish, and shark tagging efforts continued in 2008. The United States has a scientific observer program for its pelagic longline fleet that has been in place since 1992. Similar to 2007 and 2008, from 30 March through 12 June 2009, the pelagic longline observer program increased observer coverage of the longline fleet operating in the Gulf of Mexico in order to better monitor incidental landings of bluefin tuna in the Gulf of Mexico during the bluefin tuna spawning season. A total of 739 longline sets were observed (547,294 hooks) from 34 vessels which accounted for approximately 84% of the observed trips during that period. The United States continued efforts to implement and enforce all applicable conservation and management measures.

RÉSUMÉ

La prise totale (préliminaire) de thonidés et d'espadon, déclarée par les Etats-Unis en 2009 (rejets morts y compris) s'est élevée à 9.605 t, soit une augmentation de près de 16 % par rapport à 2008 (8.304 t). La prise estimée d'espadon (rejets morts estimés compris) a augmenté, passant de 2.530 t en 2008 à 2.838 t en 2009, et les débarquements provisoires de la pêcherie américaine d'albacore ont légèrement augmenté en 2009 (2.407 t) par rapport à 2008 (2.802 t). En 2009, les navires américains pêchant dans l'Atlantique Nord-Ouest ont réalisé une capture de 1.226 t de thon rouge, soit une augmentation de 307 t par rapport à 2008. Les débarquements provisoires de listao s'élevaient à 119 t, ce qui représente une augmentation de 52 t par rapport à 2008. Les débarquements provisoires de thon obèse s'élevaient à 516 t, ce qui représente une augmentation de près de 28 t par rapport à 2008. Les débarquements estimés de germon de 2009 s'élevaient à 188 t, ce qui représente une diminution de 60 t par rapport à 2008. Les efforts de marquage de thonidés, d'istiophoridés et de requins se sont poursuivis en 2008. Depuis 1992, les Etats-Unis disposent d'un Programme d'observateurs scientifiques pour sa flottille palangrière pélagique. Comme en 2007 et en 2008, du 30 mars au 12 juin 2009, le Programme d'observateurs de la flottille palangrière pélagique a accru sa couverture parmi la flottille palangrière opérant dans le golfe du Mexique. L'objectif de cet accroissement était d'améliorer le suivi des débarquements des prises accidentelles de thon rouge dans le golfe du Mexique pendant la saison du frai de cette espèce. Au total, 739 opérations à la palangre ont été observées (547.294 hameçons), réalisées par 34 navires, soit près de 84% des sorties observées au cours de cette période. Les Etats-Unis ont poursuivi leurs efforts visant à mettre en œuvre et à faire exécuter toutes les mesures de conservation et de gestion applicables.

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RESUMEN

En 2009, la captura total (preliminar) comunicada estadounidense de túnidos y pez espada, incluyendo los descartes muertos, ascendió a 9.605 t, un incremento de aproximadamente un 16% con respecto a las 8.304 t de 2008. La captura estimada de pez espada (incluyendo la estimación de descartes muertos) se incrementó pasando de 2.530 t en 2008 a 2.838 t en 2009, y los desembarques provisionales estadounidenses de la pesquería de rabil se incrementaron ligeramente en 2009 situándose en 2.802 t desde las 2.407 t de 2008. Los buques estadounidenses que pescan en el Atlántico noroccidental registraron en 2009 unas capturas estimadas de 1.226 t de atún rojo, lo que supone un incremento de 307 t frente a 2008. Los desembarques provisionales de listado experimentaron un incremento de 52 t, con respecto a 2008, hasta alcanzar las 119 t en 2009. Los desembarques provisionales de patudo experimentaron un ligero incremento de aproximadamente 28 t en comparación con 2008, con 516 t en 2009. Los desembarques estimados de atún blanco descendieron 60 t desde 2008 hasta 2009, situándose en 188 t. En 2008 continuaron los esfuerzos de marcado de túnidos, istiofóridos y tiburones. Estados Unidos cuenta con un programa de observadores científicos en la flota de palangre pelágico que ha estado operativo desde 1992. Al igual que en 2007 y 2008, desde el 30 marzo hasta el 12 de junio de 2009, el programa de observadores de palangre pelágico incrementó la cobertura de observadores de la flota de palangre que opera en el Golfo de México para seguir mejor los desembarques de capturas incidentales de atún rojo en el Golfo de México, durante la temporada de desove de atún rojo. Se observaron en total 739 lances de palangre (547.294 anzuelos) de 34 buques que realizaron aproximadamente el 84% de las mareas observadas durante ese periodo. Estados Unidos ha continuado con sus esfuerzos para implementar y ejecutar todas las medidas de conservación y ordenación aplicables.

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 2009 was 9,605 t, an increase of about 16% from 8,304 t in 2008. Estimated swordfish catch (including estimated dead discards) increased from 2,530 t in 2008 to 2,838 t in 2009, and provisional landings from the U.S. fishery for yellowfin slightly increased in 2009 to 2,802 t from 2,407 t in 2008. U.S. vessels fishing in the northwest Atlantic caught in 2009 an estimated 1,228 t of bluefin, an increase of 307 t compared to 2008. Provisional skipjack landings increased by 52 t to 119 t from 2008 to 2009, estimated bigeye landings slightly increased by about 28 t compared to 2008 to an estimated 516 t in 2009, and estimated albacore landings decreased from 2008 to 2009 by 60 t to 188 t.

Section 2: Research and Statistics

2.1 Fisheries statistics

2.1.1 Tropical tuna fishery statistics

Yellowfin tuna. Yellowfin is the principal species of tropical tuna landed by U.S. fisheries in the western North Atlantic. Total estimated landings increased to 2,838 t in 2009, from the 2008 landings estimate of 2,530 t **(Table 1).** The 2009 estimate is considered provisional and may change owing to incorporation of late reports of commercial catches as they become available and to possible revisions in estimates of rod and reel catches made by recreational anglers. A high proportion of the estimated landings were due to rod and reel catches of recreational anglers in the NW Atlantic (742 t). Estimates of U.S. recreational harvests for tuna and tuna-like species are periodically reviewed and this may result in the need to report additional revisions to the available estimates in the future. In the case of commercial landings, the highest proportion of estimated landings corresponded to the U.S. longline fleet operating in the Gulf of Mexico (1,147 t). The nominal catch rate information from logbook reports (longline catch per 1,000 hooks) for yellowfin by general fishing areas is shown in **Figure 1**.

Skipjack tuna. Skipjack tuna also are caught by U.S. vessels in the western North Atlantic but it is a minor component of the U.S. total tuna landings. Total reported skipjack landings (preliminary) increased from 67.1 t in 2008 to 119.4 t in 2009 **(Table 2).** Estimates of recreational harvests of skipjack continue to be reviewed and could be revised again in the future. **Figure 2** presents nominal catch rate information (longline catch per 1,000 hooks) based on logbook reports.

Bigeye tuna. The other large tropical tuna reported in catches by U.S. vessels in the western North Atlantic is bigeye tuna. Total reported catches and landings (preliminary) for 2009 increased by approximately 28 t from 488.5 t in 2008 to 516.5 t **(Table 3)**. Note that, like yellowfin tuna, the estimates of rod and reel catch are considered provisional and may be revised based on results of a future review of recreational harvest estimates. **Figure 3** presents nominal catch rates (longline catch per 1,000 hooks) estimated from logbook reports.

2.1.2 Temperate tuna fishery statistics

Albacore. Albacore tuna are also landed by U.S. vessels; however, historically, albacore has not been a main target of the U.S. commercial tuna fisheries operating in the North Atlantic. Reported commercial catches were relatively low prior to 1986; these catches increased substantially throughout the 1990s but were relatively low in 2008 and 2009. Nearly all of the U.S. Albacore landings were from the northeastern U.S. coast. The U.S. landings from the Caribbean increased in 1995 to make up over 14% of the total U.S. harvest of albacore, but have since remained below 4% of the total. Nominal catch rates from U.S. pelagic longline logbook reports are shown in **Figure 4**. The estimated total catches of albacore were 188 t in 2009, a decrease of 60 t from 2007 **(Table 4)**.

Bluefin tuna. The U.S. bluefin fishery continues to be regulated by quotas, seasons, gear restrictions, limits on catches per trip, and size limits. These regulations are designed to manage total U.S. landings to conform to ICCAT recommendations. U.S. 2009 provisional estimated landings and dead discards from the northwest Atlantic (including the Gulf of Mexico) were approximately 1,068 t and 160 t, respectively. Those estimated landings and dead discards represent an increase of approximately 307 t from the 2008 estimates, and are the highest since the 2005 estimates. The 2009 landings by gear were: 65.6 t by harpoon, 860 t by rod and reel, and 291 t by longline (including discards) of which 111 t were from the Gulf of Mexico.

In response to ICCAT regulations limiting the allowable catch of small fish by U.S. fishermen, 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 2009 rod and reel fishery off the northeastern U.S. (including the North Carolina winter fishery) for landings in several size categories were 23 fish < 66 cm, 2575 fish 66-114 cm, 2024 fish 115-144 cm and 5672 fish 145-177 cm (an estimated 0.09, 55, 88, and 419 t, respectively). Note that additional rod and reel landings of bluefin >177 cm SFL, monitored through a sales reporting system, are included in **Table 5**.

2.1.3 Swordfish fishery statistics

For 2009, the provisional estimate of U.S. vessel landings and dead discards of swordfish was 2,838 t **(Table 6)**. This estimate represents an increase from the 2,530 t estimated for 2008. The provisional landings, including dead discard estimates, by ICCAT area for 2009 (compared to 2008) were: 490 t (386 t) from the Gulf of Mexico (Area 91); 1,815 t (1,774 t) from the northwest Atlantic (Area 92); 23 t (58 t) from the Caribbean Sea (Area 93); and 511 t (311 t) from the North central Atlantic (Area 94A).

U.S. swordfish landings are monitored in-season from reports submitted by dealers, vessel owners and captains, NMFS port agents, and mandatory daily logbook reports submitted by U.S. commercial vessels permitted to fish for swordfish. The U.S. swordfish longline fishery is also being monitored via a scientific observer sampling program, instituted in 1992. Approximately 8% of the longline fleet-wide fishing effort is randomly selected for observation during the fishing year. The observer sampling data, in combination with logbook reported effort levels, support estimates of approximately 10,046 fish discarded dead in 2009. For the North Atlantic (including Gulf of Mexico and Caribbean Sea), the estimated tonnage discarded dead in 2009 was 142 t, of which 135 was estimated due to longline gear. Overall, the estimates of dead discarded catch decreased by about 64 t compared to the 2008 levels, which corresponded to approximately 5% of the commercially landed catch.

Total weights of swordfish sampled for sizing U.S. commercial landings by longline, trawl, and handline gears were 2,517 t, 20 t, and 104 t, respectively, in 2009. The weight of sampled swordfish landings in 2009 were 95%, 88%, and 82% of the U.S. total reported annual landings of swordfish for longline, trawl, and handline,

respectively. Again, incorporation of late reports into the estimated 2009 landings figure will likely result in changes in the sampled fraction of the catch. Recent estimates of rod and reel landings of swordfish based on surveys of recreational anglers, range from about 5-76 t per year within the period 1996-2009.

2.1.4 Marlins and sailfish fishery statistics

Blue marlin, white marlin, and sailfish are landed by U.S recreational rod and reel fishermen and are a by-catch of the U.S. tuna and swordfish longline fisheries. The U.S. Fisheries Management Plan for Atlantic Billfishes was implemented in October 1988. Only billfish that are caught by rod and reel gear may be landed and 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 Southeast Fisheries Science Center (SEFSC) Recreational Billfish Survey (RBS) which provides the number of billfish caught during tournaments held along the southeastern U.S. coast (south of 35°N latitude), in the Gulf of Mexico, and U.S. Caribbean Sea regions (i.e., U.S. Virgin Islands and Puerto Rico); (b) the Large Pelagic Recreational Survey (LPS) conducted by the National Marine Fisheries Service (NMFS) which provides estimates of recreational harvest of highly migratory species (including billfish), from waters along the northeastern U.S. (north of 35°N latitude); (c) Marine Recreational Fishery Statistics Survey (MRFSS); (d) a Headboat survey (large multi-party charter boats); and/or (e) a coastal sport fishing survey of the Texas recreational fishery (TPW). In addition, recreational catch statistics by self-reported catch cards also document billfish landings in some states.

The estimates of 2009 U.S. rod and reel landings for these billfish species, combining the geographical areas of the Gulf of Mexico (Area 91), the northwestern Atlantic Ocean west of the 60°W longitude (Area 92), and the Caribbean Sea (Area 93) are: 6.2 t for blue marlin, 1.6 t for white marlin, and 2.8 t for sailfish. The estimates for 2008 were: 13.4 t for blue marlin, 1.6 t for white marlin, and 3.2 t for sailfish.

In addition to restrictions on U.S. recreational landings, the Management Plan also imposed restrictions 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 dead discards in the U.S. longline fleet are made using the data from mandatory pelagic logbooks and scientific observer data collected on this fleet. The procedure for estimating 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, Florida (USA). Estimates of the billfish by-catch discarded dead in the U.S. commercial longline and other commercial 2009 were 36.7 t for blue marlin, 9.3 t for white marlin, and 9.2 t for sailfish. The estimated 2008 U.S. discarded dead by-catch was 37.6 t, 9.7 t, and 9.4 t, respectively for the three species.

2.1.5 Shark fishery statistics

The U.S. Federal Fisheries Management Plan (FMP) implemented in 1993 (NMFS 1993) identified three management groups: large coastal sharks, small coastal sharks, and pelagic sharks. The pelagic complex included ten species: shortfin mako (*Isurus oxyrinchus*), longfin mako *(Isurus paucus*), porbeagle (*Lamna nasus*), thresher (*Alopias vulpinus*), bigeye thresher (*Alopias superciliosus*), blue (*Prionace glauca*), oceanic whitetip (*Carcharhinus longimanus*), sevengill (*Heptranchias perlo*), sixgill (*Hexanchus griseus*), and bigeye sixgill (*Hexanchus vitulus*). The 1993 FMP classified the status of pelagic sharks as unknown because no stock assessment had been conducted for this complex. The Maximum Sustainable Yield (MSY) for pelagic sharks was set at 1,560 t dressed weight (dw), which was the 1986-1991 commercial landings average for this group. In 1997, as a result of indications that the abundance of Atlantic sharks had declined, commercial quotas for large coastal, small coastal and pelagic sharks were reduced. The quota for pelagic sharks was set at 580 t. In 1999, the U.S. FMP for Atlantic Tunas, Swordfish, and Sharks (NMFS 1999) proposed the following measures affecting pelagic sharks: 1) a reduction in the recreational bag limit to 1 Atlantic shark per vessel per trip, with a minimum size of 137 cm fork length for all sharks, 2) an increase in the annual commercial quota for pelagic sharks to 853 t dw, apportioned between porbeagle (92 t), blue sharks (273 t dw), and other pelagic sharks (488 t dw), with the pelagic shark quota being reduced by any overharvest in the blue shark quota, and 3) making the bigeye sixgill, sixgill, sevengill, bigeye thresher, and longfin mako sharks prohibited species that cannot be retained. Regulations on prohibited species went into effect in 2000, whereas those on pelagic shark quotas were enacted in 2001. Presently, the commercial quotas for pelagic sharks are 273 t dw (blue sharks), 1.7 t dw (porbeagles), and 488 t dw (pelagic sharks other than porbeagle or blue).

Landings and dead discards of sharks by U.S. pelagic longline fishermen are monitored and reported to ICCAT. In 2009, the species of shark with largest amount of landings (in weight) corresponded to shortfin mako (*Isurus*

oxyrinchus) with a total of 194 t, followed by hammerhead sharks (*Sphyrna sp.*), thresher sharks (*Alopias spp.*), and sandbar shark (*Carcharhinus plumbeus*) with 10, 8, and 5 t, respectively.

Blue shark (*Prionace glauca*) commercial landings were also very low with only 3 t in 2009. However, dead discards for this species amounted to 101 t, the largest amount of any shark species discarded by the U.S. commercial fleet. The second largest amount of dead discards by this fleet corresponded to bigeye thresher shark (*Alopias superciliosus*) with 46 t followed by scalloped hammerhead shark (*Sphyrna lewini*) with 44 t.

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 2009 and 2010. In addition to the regular survey, which occurs over a fixed spatial grid in May, adaptive sampling was carried out in April 2010 in collaboration with NASA and scientists from Mexico (INAPESCA). Adaptive sampling focused on the area along the Yucatan Coast in the western Caribbean where larvae were collected in 2009, and in the SW Gulf of Mexico. Stations were selected based upon a predictive larval habitat model and current ocean conditions in order to provide high resolution physical and biological mapping of larval scombrids in relation to rapidly changing current flows and gyre movement. Development of a predictive larval habitat model using only remote sensing inputs is proceeding with the incorporation of altimetry data in addition to SST and Chl. In order to increase the number of bluefin larvae collective and provide additional samples for genetic testing, an additional net was added to collect samples from 0-20 meters in depth, and a MOCNESS was deployed in the third leg to sample the top 50 meters. Part of the final leg of the cruise was re-directed to support NOAA's efforts in response to the Deep Water Horizon oil spill.

Scientists from Texas A&M University and the University of Maryland conducted further analyses on age and stock structure of bluefin tuna using otolith chemistry particularly focusing on large bluefin from the Gulf of St. Lawrence, Gulf of Mexico and the Mediterranean Sea. This research is greatly facilitated through continued collaboration with Canadian, Italian, and Spanish scientists. Results from stable isotope analysis of otoliths provide strong evidence for natal homing by two populations of Atlantic bluefin tuna each with discrete centers of origin (Mediterranean Sea and western Atlantic). On the other hand, high rates of mixing occurred for juveniles (age 2-5 years) collected in U.S. waters, where over 50% of individuals originated from the Mediterranean Sea. The research on age structure was used to develop a new growth curve that predicts smaller sizes at age for older fish. The new growth curve was used in the 2010 assessment. With continued support and directed sampling, it should be possible to feed this type of information directly into stock assessments.

Scientists from Stanford University and the Tag-A-Giant research team continued to deploy electronic tags on bluefin tuna in the western Atlantic in 2009 (n=32 deployments). One additional bluefin tuna was archival tagged in a pilot project in Italy. Tagging in the Gulf of St. Lawrence (GSL) in collaboration with Canadian scientists and fishermen revealed a strong linkage between this area and the Gulf of Mexico (GOM) spawning grounds, including the region affected by the April 2010 Deep Water Horizon oil spill. Habitat utilization modeling of electronic tagging and fisheries data found a separation of spatio-temporal distribution of bluefin and yellowfin tuna in the GOM. In collaboration with scientists from the University of British Columbia, a Bayesian, spatially explicit, quarterly time step, statistical catch-at-age model was developed that is fitted to conventional and electronic tag-track data, historic catch-at-age reconstructions and otolith microchemistry data on origin to better account for stock mixing in assessments. The model, called Multistock Age-Structured Tag-integrated stock assessment model (MAST), reconstructs abundances and depletions from 1950 to the 2008 and projects the outcomes of various management scenarios. The team has also developed 26 new microsatellite loci, most tetra or tri nucleotide repeats that can be used for population assignment to one of the known stocks (GOM, eastern Mediterranean, western Mediterranean). Genomic markers for assessing maturity based on gene expression utilizing microarray techniques also have been developed.

From early March through mid-June 2009, the National Marine Fisheries Service conducted extensive observations of the pelagic longline fishery in the Gulf of Mexico. Roughly 75% of known fishing trips and a higher percentage of total effort was observed. Various biological samples were taken from the bluefin including

otoliths, gonads and muscle. Contracts were awarded to conduct research on bluefin stock structure, growth, gender determination and reproduction.

The National Marine Fisheries Service has also 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 2008-2009 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 indicating that using a circle hook weaker than the traditionally 16/0 circle hooks significantly reduces de bluefin tuna catch rates (up to approximately 70%) without showing significant reductions in the catch rates of yellowfin tuna.

2.2.2 Swordfish research

Scientists from Nova Southeastern University recently completed a two-year study of the commercial buoy-gear, to determine the rates of by-catch and lethal hook sets. They observed numerous fishing trips in the Florida Straits between 2007 and 2009 and recorded data on catch, discards, depth, water temperature and catch per unit effort. The results indicated low by-catch rates of snake mackerel, sharks and juvenile swordfish, comparable to those of the recreational fishery. Encouragingly, there was zero incidental by-catch of sea turtles or billfishes (e.g., sailfish and marlin) on observed trips. The investigators also report that very few lethal hook sets occurred. Additional swordfish research is ongoing at Nova Southeastern University, including pop-up satellite archive tag (PSAT) data analyses and diet composition studies.

Researchers at the Molecular Ecology and Fisheries Genetics Laboratory of Texas A&M University at Galveston continue to examine the population structure of Atlantic swordfish, with an emphasis on characterizing allele frequencies of nuclear genes to quantify admixture within the Atlantic Ocean and its adjacent basins. They have developed a fast, inexpensive, and highly sensitive genotyping technique (high resolution melting analysis, HRMA) and a battery of 10 nuclear markers that are currently used to characterize NE-ATL, NW-ATL, S-ATL and MED, as well as West Indian Ocean samples. To date, the results corroborate the existing three stock hypothesis used by ICCAT (N-ATL, S-ATL, MED). However, the authors also report that their techniques are suitable to examine the temporal and spatial scales of mixing across management boundaries, given the availability of sufficient samples. These results would be of great importance for mixed stock-analyses.

An ongoing collaboration between U.S. scientists at Federal and State Laboratories (SC) and the University of New Hampshire, Canadian scientists and the swordfish harpoon fleet began in 2005. Results of PSAT deployments through 2009 suggested a more complex stock structure than was previously understood. Swordfish also appear to exhibit fidelity to their feeding sites. A newly initiated collaborative study will examine swordfish population structure in the northwestern Atlantic using pooled data from swordfish satellite tagging programs in Canada and the United States. The investigators report that the results from the PSAT studies to date are consistent with the results from conventional tagging, which show few movements of swordfish tagged in the northwest Atlantic into the Northeast Atlantic.

2.2.3 Tropical tunas research

U.S. scientists participated in the ICCAT SCRS inter-sessional meeting of the Tropical Tunas Species Group, held in Madrid, Spain, April 20 to 25, 2009. U.S. scientists also participated in the meeting of the International Working Group on Tuna Purse Seine and Baitboat Catch Species Composition Derived from Observer and Port Sampler Data, held in Sète, France, 15-19 June 2009.

In 2009, U.S. scientists have presented several papers to the SCRS concerning tropical tunas. A proposed method to examine yellowfin tuna growth using statistical catch-at-age model diagnostics was described. Abundance indices of Atlantic bigeye and yellowfin tuna were evaluated by simulating movement. The sensitivity of Atlantic yellowfin tuna virtual population analysis results to an alternative growth model assumption was evaluated. Also, the impact of time-area closures on the yield per recruit and spawners per recruit of Atlantic tropical tunas was quantified under various assumptions regarding natural mortality

U.S. scientists have continued to conduct cooperative research with scientists from Mexico, pursuing the development of indices of abundance for species of concern to ICCAT in the Gulf of Mexico as well as descriptive analyses of that fishery.

Scientists at NOAA's Southeast Fisheries Science Center (SEFSC) have been collaborating with the Texas A&M University, using popup satellite tag technology to evaluate habitat use of yellowfin tuna in the Gulf of Mexico. Progress was made during 2009 and currently they have deployed 20 tags and monitored yellowfin tuna for up to 94 days. The work is in progress and will continue through the end of 2010.

2.2.4 Albacore

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.

The Stock Synthesis (SS) model from the NMFS Toolbox was used for the northern albacore stock for the first time for the 2009 assessment. The SS model was configured as closely as possible to the standard Multifan-CL (MFCL) model to facilitate comparisons, but other configurations were also presented to take advantage of some of the features found in SS but not in MFCL. The SS model was later modified to a 2-sex model using sex ratio data to improve the observations that nearly all large albacore are female. It is expected that this version of the model will be presented at the next albacore assessment meeting.

Work was presented that is aimed at further refining a precautionary approach to setting TAC, with the northern albacore assessment used as an example. Alternatively, target fishing mortality rates could be adopted such that the expected probability of the stock excursion below B_{MSY} due to natural variability and uncertainty in estimation is negligibly low, thus establishing a target $B_{targ} > B_{MSY}$.

2.2.5 Mackerels and small tunas research

King mackerel: The last domestic stock assessment of U.S. Gulf of Mexico and South Atlantic king mackerel populations was carried out in 2008. During 2009 SEFSC continued to make routine collections of otolith samples from the directed commercial and recreational fisheries for use in developing age length keys. These updated age length keys will be incorporated into the next updated population models expected to be made in 2012. The estimates of age composition from the updated age length keys will enable analysts to evaluate changes in year class strength since the 2008 stock assessment.

During 2009, SEFSC initiated a pilot study in collaboration with the Virginia Institute of Marine Science to evaluate whether systematic vs. random sampling would yield more accurate estimates of catch length composition. This study is being carried out in commercial fish houses off the Virginia area and the results will aid in refining sampling methodologies for king mackerel fisheries and lead to improvements in catch at size composition for use in future stock assessments.

Spanish mackerel: The last domestic stock assessment of U.S. Gulf of Mexico and South Atlantic Spanish mackerel populations was carried out in 2008. During 2009 SEFSC continued to make routine collections of otolith samples from the directed commercial and recreational fisheries for use in developing age length keys. These updated age length keys will be incorporated into the next updated population models expected to be made in 2012. The estimates of age composition from the updated age length keys will enable analysts to evaluate changes in year class strength since the 2008 stock assessment.

During 2009, staff in the Beaufort laboratory further evaluated indices of abundance developed for the stock assessment using hierarchical analysis methods and subsequently published the results in a peer reviewed journal (Conn, P. B. 2010. Hierarchical analysis of multiple noisy abundance indices. CJFAS 67:108-12).

2.2.6 Shark research

A cooperative shark research project between Brazil (Universidade Federal Rural de Pernambuco) and the U.S. (NMFS SEFSC Panama City Laboratory and the University of Florida's Florida Museum of Natural History) was initiated in 2007. The main goal of this cooperative project is to conduct simultaneous research on pelagic sharks in the North and South Atlantic Ocean. Central to conducting the research is development of fisheries research capacity in Brazil through graduate student training and of stronger scientific cooperation between Brazil and the U.S. Electronic equipment (hook-timer recorders [HTR] and temperature and depth recorders [TDRs]) was sent from the U.S. to Brazil for deployment aboard commercial longline fishing vessels to investigate preferential feeding times of pelagic sharks and associated fishing depths and temperatures for

potential use in habitat-based models and estimation of catchability. To date, seven fishing surveys have been conducted, with 137 sets on commercial pelagic longline fishing vessels carried out between April 2009 and July 2010. Analysis of the behavior of the pelagic longline is still being conducted, but preliminary results identify the importance of the depth of the longline sections and the influence of environmental and operational factors on gear behavior. Mathematical models are also being developed to understand the theoretical longline shoaling and sag ratios. Analyses to understand the survivorship of pelagic sharks are still ongoing and will be presented in the future. Additionally, the use of PSATs on blue, shortfin mako, and other pelagic sharks is intended to provide critical knowledge on daily horizontal and vertical movement patterns, depth distribution, and effects of oceanographic conditions on the vulnerability of these pelagic sharks to pelagic longline fishing gear. Six pop-off satellite archival tags have been deployed to date (2 oceanic whitetip sharks, 3 bigeye threshers and 1 longfin mako) in U.S. Atlantic waters. Data collected for some species are still being analyzed but some preliminary findings have been presented at regional and national conferences. Archival satellite pop-up tags have also been attached to seven blue sharks and three shortfin mako sharks by pelagic longline fishing vessels in the western South Atlantic Ocean.

A life history study of several pelagic species (i.e., silky, bigeye thresher and common thresher) was initiated with data collection and sampling on over 100 individuals for age, growth, and reproduction. Reproductive tissues were processed and sectioned using histological techniques. Morphological data on organ measurements have been plotted and will be compared to the histological results. Vertebrae were also processed using histology and image analysis and are currently being read.

As part of the training component of this cooperative Brazil-United States research project, an international course entitled: “A practical course in demographic methods and ecological risk assessment using spreadsheets” was taught by Dr. Enric Cortés at the Florida Museum of Natural History, University of Florida, Gainesville, 13-17 July 2009. The course included students mostly from Brazil, but also from Argentina, Colombia, Venezuela, Uruguay, Portugal, Spain, and the United States.

Another collaborative project between the SEFSC and Uruguay’s fisheries agency (DINARA) entitled “Sustainable fisheries and by-catch reduction of pelagic sharks in the Atlantic Ocean” was initiated in 2009. The ultimate goal of this project is to advance knowledge on the productivity and susceptibility of pelagic sharks to longline fisheries in the western South Atlantic Ocean, aspects which are largely unknown for pelagic sharks in the southern hemisphere. To that end, six satellite transmitters (4 PSATs and 2 SPOTs) obtained through a grant awarded to conduct this project, have been successfully deployed on blue sharks to date to characterize in detail the spatio-temporal habitat use of this species.

Staff from DINARA and the SEFSC are also working cooperatively on the development of an identification guide for sharks of the Atlantic Ocean for ICCAT. This project is nearing completion.

2.2.7 Billfish research

The NMFS SEFSC again played a substantial role in the ICCAT Enhanced Research Program for Billfish in 2009, with a U.S. scientist acting as western Atlantic coordinator. Major accomplishments in the western Atlantic in 2009 were documented in SCRS/2009/149. Highlights include 14 at-sea sampling with observers on Venezuelan industrial longline vessels through September 2009. Most of the trips accomplished were on Korean type vessels fishing under the Venezuelan flag. Biological sampling during the 2009 season of swordfish, Istiophorids, and yellowfin tuna for reproductive and age determination studies, as well as genetics research were continued at about the same rate as the previous year. 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 2009; a total of 30 tag recovered billfish and sharks. Ten tag recovered blue marlin, 10 white marlin, 6 sailfish, and 4 sharks were submitted to the Program Coordinator in 2009. Age, growth, and reproductive samples from a few very large blue marlin (over 1000 lbs) were obtained during 2009.

An international collaboration was formalized in 2008 by the NOVA Southeastern University (Dr. Mahmood Shivji) on billfish genetics in 2008 and continued in 2009. Collaborators include the United States (SEFSC), Venezuela (Instituto Oceanografico, Universidad de Oriente), Uruguay (Recuros Pelagicos, Direccion Nacional de Recuros Acuaticos), and Brazil (Universidade Federal Rural de Pernambuco). One of the primary goals is to develop accurate estimates of white marlin/round scale spearfish ratios in the Atlantic Ocean, including retrospective analyses. A new paper describing some of the preliminary work was published in *Endangered Species Research.* (9:81-90) in 2009. The SEFSC finished PSAT research on sailfish and blue marlin in the

eastern and western North Atlantic relative to oxygen minimum zones during 2009 and the resulting publication in Fisheries Oceanography is expected next year. Several of these papers were also published in peer review journals during 2009. Results of the work on Atlantic hypoxia-based habitat compression was presented at the ICES annual conference on climate change in the fall of 2009.

The cooperative billfish research between U.S. (Virginia Institute of Marine Science) and Brazilian scientists that was initiated in 2005 continued in 2009. This research will also focus on PSAT tagging of billfish and the collection of biological materials (including larvae) for ageing and molecular genetic analyses. The Fishery Management Group of the University of Miami is carrying out research on Atlantic billfish on three areas, population parameter estimation, population modeling and development of socio-economic indicators. Others at the University of Miami's Rosenstiel School and elsewhere are conducting research on early life history, reproductive biology and ecology of billfishes, as well as age and growth estimation.

2.2.8 Seabird research

U.S. longline fisheries in the western North Atlantic (WNA) include the pelagic longline fishery, which is directed primarily either at swordfish or yellowfin tuna, the bottom longline fishery for sharks, and the bottom longline fishery for groupers, snappers, and tilefish. Observers in the U.S. pelagic longline fishery reported seven seabird catches, including three northern gannets (2 live, 1 dead), three greater shearwater (3 dead), and 1 unidentified bird (1 dead), from the Mid-Atlantic Bight (MAB) in 2009. This was all of the 2009 observed seabird by-catch, except for two brown pelicans caught in the experimental weak-hook pelagic longline fishery for yellowfin tuna in the Gulf of Mexico (GOM). The GOM experimental fishery had 100% observer coverage. There was no bird by-catch in the bottom longline fishery in 2009.

Of the 151 seabirds observed caught in the WNA U.S. pelagic longline fishery from 1992 through 2009, 45.7% were caught in the MAB. Excluding the 15 birds observed in the NED in 2002-2003 under 100% observer coverage and the 2 birds observed in GOM in 2009 under 100% observer coverage, 50.7% of the total observed by-catch from 1992-2009 was in the NED. The two pelicans observed caught in the GOM experimental fishery in 2009 represent 40% of the total observed seabird by-catch reported from U.S. pelagic longline vessels in the GOM from 1992 through 2009. At the usual rate of observer coverage, ~8-10%, the probability of observing these two catches would have been quite low. Unidentified seabirds (37.7%), unidentified gulls (13.2%), and unidentified shearwaters together made up slightly more than 50% of the observed by-catch from 1992-2009. The percentage of observed bird by-catch unidentified to species has been decreasing since 2004, when the pelagic longline observers began to receive seabird identification training as part of their routine training at the Southeast Fisheries Science Center. The seabird by-catch consisted of 71% of birds that were dead when brought aboard. The northern gannet was the only species usually boarded alive (only 18% were boarded dead).

Winter et al. (2010)[2] estimated the annual by-catch, 1992-2008, of U.S. pelagic longline vessels operating in the NWA by means of eight alternative models that used observed seabird by-catch and longline logbook effort. Using the best model by various criteria (a lognormal general linear model), they estimated annual values ranging from 0 to 625, with no seabird catch in 1996 and the highest catch in 1997. The delta-lognormal model used had two components, one predicting the proportion of positive fishing sets (number of sets with at least one seabird caught) and the other predicting numbers caught in positive sets.

Estimated seabird by-catch of the WNA U.S. pelagic longline fleet, as predicted by the GLM L model.

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
GLM L	42	123	173	213	0	625	110	54	68	176	233	55	146	24	41	99	81

Winter et al. (2010) found that the variability in estimates was strongly related to the percentage of effort covered by observers, which ranged from 2 to 14%. These results are consistent with those presented in document SCRS/2010/058. Winter et al. (2010) did not find a significant decrease in seabird by-catch with the use of circle hooks. Circle hooks have been used exclusively in the NWA fishery since regulations were imposed in July 2004 and were used on a voluntary basis by some operations prior to that time.

[2] Winter, A., Y. Jiao, and J. A. Browder. 2010. Modeling low rates of seabird by-catch in the U.S. Atlantic longline fishery. Report to NOAA National Marine Fisheries Service, Southeast Fisheries Science Center, Miami, FL. 23 pp.

2.2.9 Tagging

Participants in the Southeast Fisheries Science Center's Cooperative Tagging Center (CTC) and The Billfish Foundation (TBF) Tagging Program (TBF) tagged and released 2,338 billfishes (including swordfish) and 366 tunas in 2009. This represents a decrease of 66.5% for billfish and a decrease of 13.9% for tunas from 2008 levels. There continues to be several electronic tagging studies involving bluefin tuna and billfish in the Atlantic Ocean and adjacent waters during 2009. These are discussed in the bluefin and billfish research sections above. There were 92 billfish recaptures from the CTC and TBF projects in 2009. This represents an increase of 238% from 2008. These recaptures were 43 sailfish, 14 swordfish, 14 white marlin, 19 blue marlin, and one striped marlin. A total of 11 tunas were recorded as recaptures in 2009, of which nine were bluefin, one was a yellowfin, and one was a blackfin tuna. This recapture level was an increase of 175% from the 2008 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 pelagic l*ongline observer coverage:* In accordance with ICCAT recommendations, randomized observer sampling of the U.S. pelagic longline fleet was continued into 2010 (see **Figure 5**). Representative scientific observer sampling of this fleet has been underway since 1992. The data collected through this program have been used to quantify the composition, disposition, and quantity of the total catch (both retained and discarded at sea) by this fleet which fishes in waters of the northwest Atlantic Ocean, Gulf of Mexico, and the Caribbean Sea. Selection of the vessels is based on a random sampling of the number of sets reported by the longline fleet. The percent of fleet coverage through 2009 ranged from 2.5% in 1992 to 18.1% in 2009. The targeted sampling fraction of the U.S. pelagic longline fleet was increased to 8% in 2002.

A total of 13,152 sets (9,624,726 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 2009. During the period, observers recorded over 398,978 fish (primarily swordfish, tunas, and sharks), in addition to marine mammals, turtles, and seabirds during this time period. Document SCRS/2004/168 provided a more detailed summary of the data resulting from observer sampling between 1992 and 2002. Similar to 2007 and 2008, from 30 March through 12 June 2009, the longline pelagic observer program increased the coverage of the longline fleet operating in the Gulf of Mexico. The goal of this extended coverage was to collect data to better characterize the interaction between the longline fleet and bluefin tuna during the spawning season. A total of 739 longline sets were observed (547,294 hooks) from 34 vessels which accounted for approximately 84% of the observed trips during that period.

Shark gillnet fishery observer coverage: The directed shark gillnet fishery operates year round in coastal waters off the U.S. southeast coast. Sharks are the primary target species, but at times other species are also targeted within the same trip. Gillnets are set either in a drift, strike, or sink fashion. On-board observers have conducted observations of this fishery from 1993-1995 and 1998-present and reports of the catch and by-catch from these observations are available. All vessels that have an active directed or indirect shark permit and fish with gillnet gear are selected for coverage. A total of 421 sets comprising various gillnet fisheries were observed in 2009. Set locations ranged from North Carolina to the Florida Keys in the Atlantic Ocean, as well as in the northern Gulf of Mexico. Catch composition by number of all sets for all targets was 85.8 % teleosts, 13.4% shark, 0.75% invertebrates and 0.3% non-shark elasmobranchs.

Shark bottom longline observer coverage: The shark bottom longline fishery is active in the Atlantic Ocean from about the Mid-Atlantic Bight to south Florida and throughout the Gulf of Mexico. The bottom longline gear targets large coastal sharks, but small coastal sharks, pelagic sharks, and dogfish species are also caught. Currently 214 U.S. fishermen are permitted to target sharks (excluding dogfish) in the Atlantic Ocean and Gulf of Mexico, and an additional 285 fishermen are permitted to land shark incidentally. Recent amendments to the Consolidated Atlantic Highly Migratory Species Fishery Management Plan based on updated stock assessments have eliminated the major directed shark fishery in the U.S. Atlantic. The amendments implement a shark research fishery, which allows the U.S. National Marine Fisheries Service (NMFS) to select a limited number of commercial shark vessels on an annual basis to carry observers 100% of trips to collect life history data, and data for future stock assessments. Furthermore, the revised measures affect quotas, drastically reduce retention limits, and modify the authorized species in commercial shark fisheries. Specifically, commercial shark fishermen not participating in the research fishery are no longer allowed to land sandbar sharks, which have been the main target species for most fishermen. Additionally, commercial fishermen are required to maintain shark fins

naturally attached to the shark carcass through landing. The revised measures also affect authorized species in recreational shark fisheries; modify time/area closures for commercial shark vessels deploying bottom longline gear; and modify regions, seasons, and shark dealer reporting frequency in the commercial shark fishery. Observations of the shark-directed bottom longline fishery in the Atlantic Ocean and Gulf of Mexico have been conducted since 1994. From January to December 2009, a total of 94 trips with a total of 191 hauls were observed. Gear characteristics of trips varied by area (Gulf of Mexico or the U.S. Atlantic Ocean) and target species (grouper/snapper or grouper/tilefish, tilefish, non-sandbar large coastal shark, sandbar shark). Sharks comprised 97.8% of the catch, followed by teleosts (1.8%), invertebrates (0.1%), and batoids (0.2%).

Part II (Management Implementation)

Section 3. U.S. Implementation of ICCAT Conservation and Management Measures

3.1 Catch limits and minimum sizes

3.1.1 Rebuilding Program for West Atlantic Bluefin Tuna (Rec. 08-04)

Recommendation 08-04 revised the annual West Atlantic bluefin tuna quota for the United States, inclusive of dead discards, to 1,034.9 t for 2009 and 977.44 t for 2010, respectively, including 25 t to account for by-catch related to directed longline fisheries in the vicinity of the management area boundary. Consistent with Rec. 08-04,the United States implemented the recommended 2009 quota as well as a 2009-2010 two-year balancing period for limiting the harvest of bluefin tuna measuring less than 115 cm (45 inches) to 10 percent (by weight) of the U.S. quota. Rec. 08-04 maintained the limit from Rec. 06-06 on the amount of under-harvest that may be carried forward to the next year, (i.e., not to exceed 50 percent of a Contracting Party's current initial Total Allowable Catch) for 2009 and 2010. Since 2008, the U.S. bluefin tuna fishery has been managed on a calendar year basis. The United States reports dead discard estimates to ICCAT annually and accounts for this mortality as part of the quota specification calculation process. However, when the United States sets the annual quota specifications delineating quotas and sub-quotas for the fishery at the beginning of the year, it must use a proxy for dead discards as complete prior year dead discard information is not yet available. For example, the 2007 dead discard estimate of 90 t was used as a proxy in setting the 2009 quota specifications. After accounting for dead discards by using this proxy, and applying the under-harvest from the 2008 fishing year (1 January 2008 through 31 December 2008) to the 2009 fishing year (1 January 2009 through 31 December 2009), the resulting adjusted 2009 fishing year quota was 1,462.4 t. Similarly, for the 2010 quota specifications, the United States accounted for dead discards by using the 2008 dead discard estimate of 91 t as a proxy and applied the under-harvest from the 2009 fishing year to the 2010 fishing year (1 January 2010 through 31 December 2010), resulting in an adjusted 2010 fishing year quota of 1,193.2 t. The adjusted quotas presented in the U.S. compliance tables reflect updated landings for 2008 and 2009 as well as updated dead discard amounts for those years rather than the proxies discussed above. Also, in conformance with Rec. 08-04, the United States prohibits directed fishing for bluefin tuna in the Gulf of Mexico.

3.1.2 Multi-annual Recovery Plan for Bluefin Tuna in the Eastern Atlantic and Mediterranean (Recs. 07-05; 08-05; 09-06)

As discussed in Section 3.3, the United States has implemented the Bluefin Tuna Catch Documentation Program (Rec. 07-10), as amended in 2008 (Rec. 08-12) and 2009 (Rec. 09-11) 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 from the 1999/2000 level in the area north of 10 degrees North latitude and between 35 degrees and 45 degrees West longitude. Consistent with Res. 06-08, the United States has reduced effort by large scale tuna longline vessels in the vicinity of the 45-degree West boundary line for eastern and western bluefin tuna since 1999/2000 through implementation of a limited access program and fishing gear restrictions.

3.1.4 Recommendation to Further Strengthen the Plan to Rebuild Blue Marlin and White Marlin Populations (Rec. 06-09)

Phase I of the ICCAT rebuilding plan for Atlantic blue and white marlins requires countries to reduce, by 2010,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). The United States has prohibited all commercial retention of billfish since 1988. For its part of the rebuilding program, the United States maintains regulations that prohibit all landings of blue and white marlins by any method other than rod and reel, and provides 10% scientific observer coverage of billfish tournament landings 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, as first recommended by ICCAT Rec. 00-13. Catch and release rates in the U.S. recreational fishery for Atlantic blue and white marlin are estimated to be very high (90-99%) based on tournament data, and minimum sizes have been established at 168 cm (66 inches) for white marlin and 251 cm (99 inches) for blue marlin.

The regulation that codified the U.S. 250 marlin limit established procedures to remain within the limit; prohibited the retention of billfish on all commercial vessels; and established a permit condition requiring that recreational vessels possessing an HMS permit abide by Federal regulations regardless of where fishing, unless a state has more restrictive regulations. In addition, since 1 January 2008, all anglers participating in Atlantic billfish tournaments have been required to use only non-offset circle hooks when deploying natural baits or natural bait/artificial lure combinations. These management measures are expected to further limit marlin mortality.

All registered Atlantic billfish tournaments are selected to report landings and effort information to the National Marine Fisheries Service. The United States implemented a mandatory reporting program for billfish landed by recreational anglers who are not participating in registered tournaments in March 2003. The United States continues to refine estimation and data collection methodologies for rod and reel catches and landings of marlins. Preliminary 2010 calendar year data (not inclusive of all data sources) indicate landings of four blue marlin and four white marlin from recreational fishing activities. Preliminary 2009 calendar year data from all data sources indicate landings of 44 blue marlin and 53 white marlin from recreational fishing activities. Please refer to **Appendix 3**: U.S. Compliance Tables for final aggregate U.S. landings.[3]

3.1.5 Recommendation to Establish a Rebuilding Program for North Atlantic Swordfish (Recs. 06-02, 09-02)

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 the United States to catch up to 200 t of its North Atlantic swordfish quota between 5 degrees North latitude and 5 degrees South latitude, and a provision to transfer 25 t to Canada. The recommendation also limited carryover of unused quota to 50 percent of the baseline quota and made 2690 t of the unused portion of the U.S. quota from the 2003-2006 management period available for use by specified ICCAT developing state members and a few others. Recommendations 08-02 and 09-02 extended the provisions of Recommendation 06-02 through 2009 and 2010, respectively. The United States has a required minimum size of 47" (119 cm) lower jaw fork length (LJFL) or 29" (73 cm) cleithrum to caudal keel length, which was designed to correspond to the 119 cm LJFL minimum size limit, with zero tolerance.

3.1.6 Recommendation on South Atlantic Swordfish (Recs. 06-03, 09-03)

Recommendation 06-03 established catch allocations for the United States of 100 t 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. Recommendation 09-03 extended the provisions of Recommendation 06-03 through 2012. Per Recommendation 09-03, in 2010, the United States transferred 100 t of U.S. quota to other CPCs. Under this recommendation, 50 t were transferred to Namibia, 25 t to Côte d'Ivoire, and 25 t to Belize from the available South Atlantic swordfish quota.

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 2009. The United States did not prosecute a directed fishery for southern albacore in 2009.

3.1.8 Recommendation on North Atlantic Albacore Catch Limits (Recs. 06-04; 07-02; 09-05)

Under Recommendation 07-02, the annual U.S. landings quota was 538 t for 2008 and for 2009. The recommendation provided that overages/underages of annual catch limits should be deducted from, or added to, specific future catch limits, and Rec. 07-02 limited carryover of underage to 25 percent of the initial U.S. catch quota. Please refer to **Appendix 3:** U.S. Compliance Tables for final aggregate U.S. landings.

[3] The Appendices are available at the Secretariat.

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 2010 submission indicated that there were 237 vessels authorized to harvest North Atlantic albacore in the Convention area.

3.1.9 Recommendation by ICCAT on Bigeye Tuna Conservation Measures for Fishing Vessels Larger than 24 m 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 United States was below 2000 t for the prescribed 5 year period.

3.1.10 Recommendation on Bigeye Tuna Conservation Measures (Recs. 04-01; 08-01; 09-01)

No catch limits apply to the United States since 1999 catch was less than 2,100 t. To provide additional protection to the bigeye tuna stock, particularly the juvenile component, the United States has implemented a minimum size for this stock (which exceeds that formerly required by ICCAT of 3.2 kg). This minimum size of 27 inches (approximately 6.8 kg) applies to all U.S. fisheries landing bigeye tuna, both commercial and recreational.

3.1.11 Recommendation on Yellowfin Size Limit (Recs. 72-01; 05-01)

In 2005, ICCAT repealed the minimum size limit of 3.2 kg that had been in place since 1972. The United States maintains a minimum size limit of 27 inches fork length (approximately 6.8 kg) in both recreational and commercial fisheries for yellowfin tuna.

3.1.12 Recommendation by ICCAT on Supplemental Regulatory Measures for the Management of Atlantic Yellowfin Tuna (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 tuna over 1992 observed levels. The United States implemented a limited access program for pelagic longline vessels in 1999, which has resulted in a decrease in the number of vessels commercially permitted to fish for Atlantic tunas by approximately 70 percent from the early 1990s. The United States also implemented a retention limit of three fish per angler per trip in the recreational and charter/headboat fisheries in 1999. In 2000 and 2001, the United States closed three large areas to pelagic longline fishing in the U.S. Atlantic EEZ (including the Gulf of Mexico), which had a demonstrable effect on yellowfin tuna effort and catches. In 2004, the United States also implemented circle hook requirements in the pelagic longline fishery in which yellowfin tuna are caught, which contributes to reducing post-release mortality of incidentally caught yellowfin tunas, and, as noted above, the United States has maintained a minimum size for retaining yellowfin tuna despite the repeal of a minimum size by ICCAT.

3.1.13 Resolution on Atlantic Sharks (Res. 3-10)

Resolution 03-10 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 conformance with this resolution, the United States provides shark data to the Secretariat, as appropriate. In addition, 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.

3.1.14 Recommendations on Atlantic Sharks (Recs. 04-10; 05-05; 06-10; 07-06; 08-07; 09-07)

The original 2004 Recommendation established a timeline for review of the shortfin mako population assessment and development of recommendations for management alternatives (2005), as well as reassessment of blue sharks and shortfin mako (2007) by SCRS. Following the 2005 assessment, Recommendation 04-10 was amended via Recommendation 05-05 to include additional requirements for CPCs to implement and report on

measures taken to reduce fishing mortality of North Atlantic shortfin mako sharks caught in association with fisheries managed by ICCAT. The United States establishes and tracks annual quotas for pelagic sharks, which includes landings of shortfin mako sharks, to ensure that catches of these species are within the U.S.-designated quota. Tracking of the pelagic shark quota in recent years indicates that pelagic sharks, including shortfin mako sharks, do not constitute a significant portion of U.S. shark landings. In accordance with domestic requirements, the United States has catch limits in place for Atlantic porbeagle, shortfin mako, and blue sharks and will continue to submit catch and effort data for sharks to ICCAT.

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 fulfills the fin limits through a variety of fishery restrictions including the Shark Finning Prohibition Act of 2000. This law prohibits the practice of finning nationwide and the possession or landing of shark fins without the corresponding carcass (67 FR 6194, 11 February 2002). In 2008, NMFS published Amendment 2 to the 2006 Consolidated Atlantic Highly Migratory Species (HMS) Fishery Management Plan (FMP) that, among other things, required all sharks landed in the Atlantic Ocean, including the Gulf of Mexico and Caribbean Sea, to be landed with their fins naturally attached. Amendment 2 also established a shark research fishery, which requires 100% observer coverage and collects specific fishery-dependent information on sharks and shark fisheries such as gear selectivity and size class information. 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 commercial quotas, and has established a time/area closure for shark bottom longline fishing in the mid-Atlantic to protect sharks in the nursery grounds. In 2008, the United States found that shortfin mako sharks are experiencing overfishing and appear to be approaching an overfished status. In Amendment 3 to the 2006 Consolidated HMS FMP (1 June 2010; 75 FR 30484), NMFS committed to taking action at the international level to address overfishing of shortfin mako sharks.

In 2007, ICCAT adopted Recommendation 07-06 requiring CPCs to take action toward the conservation of porbeagle sharks and North Atlantic shortfin mako sharks and to contribute data and research to future stock assessments of the species. Specifically, CPCs are to submit Task I and Task II data for sharks, take appropriate measures to reduce fishing mortality in fisheries targeting porbeagle sharks and North Atlantic shortfin mako sharks, and implement research to identify potential nursery habitat of pelagic sharks. Furthermore, CPCs may conduct research on porbeagle sharks and North Atlantic shortfin mako sharks to submit to the SCRS. Recommendation 07-06 also requires the SCRS to conduct a stock assessment and recommend management advice for porbeagle sharks no later than 2009. U.S. scientists participated in the 2009 porbeagle shark assessment. Consistent with Recommendation 07-06, the United States significantly reduced the porbeagle shark quota in 2008 in Amendment 2 to the 2006 Consolidated Atlantic HMS FMP from 91 metric tons to 1.7 metric tons and implemented a rebuilding plan for this species. The United States is actively involved in pelagic shark research and continues to submit Task I and Task II data for sharks on an annual basis.

Recommendation 08-07 requires that all nations release bigeye thresher sharks unharmed and report all data on incidental catches. The United States has prohibited the harvest of bigeye thresher sharks in commercial and recreational fisheries since 1999. Since 2006, bottom longline and gillnet fishermen fishing for sharks have been required to attend workshops to learn how to release sea turtles, other protected species, and prohibited shark species in a manner that maximizes survival. NMFS published a final rule on 7 February 2007 (72 FR 5633), that requires participants in the Atlantic shark bottom longline fishery to possess, maintain, and utilize handling and release equipment for the release of sea turtles, other protected species, and prohibited shark species. Recommendation 09-07 prohibits retention of bigeye thresher sharks, as well as requires CPCs to submit Task I and II data for all thresher sharks and where possible, requires implementation of research projects to determine nursery areas for these species. As mentioned above, the United States has prohibited the retention of bigeye thresher sharks since 1999 and continues to submit Task 1 and Task II data for sharks as well as actively engaging in pelagic shark research.

3.2 Closed seasons

3.2.1 Domestic time/area closures for ICCAT species

The United States takes an ecosystem approach to management of HMS fisheries. As such, the United States implements a number of measures that exceed the standards set in ICCAT recommendations.

Sea turtles/marine mammals: At present, the Atlantic pelagic longline fishery of the United States is subject to several discrete time/area closures that are designed to reduce by-catch in the pelagic longline fishery by prohibiting pelagic longline fishing for ICCAT species in those areas during specified times. These closures affect offshore fishing areas up to 200 nautical miles (nm) from shore (see **Figure 6**). Those closures are as follows: (1) Florida East Coast: 50,720 nm^2 year-round; (2) Charleston Bump: 49,090 nm^2 from February through April each year; (3) DeSoto Canyon: 32,860 nm^2 year-round; and (4) the Northeastern United States: 21,600 nm^2 during the month of June each year. 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 HMS 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. Effective 18 June 2009, there is also a Cape Hatteras Special Research Area (CHSRA) that is located in the mid-Atlantic Bight, which requires vessels fishing with pelagic longline gear to carry observers, when needed, and limit longline mainline to 20 nautical miles in length to reduce serious injuries and mortalities of both pilot whales and Risso's dolphins in the Mid-Atlantic Bight. Observers may conduct additional scientific investigations while on board pelagic longline vessels fishing in the CHSRA designed to support the goals of the pelagic longline take reduction plan (PLTRP).

General Ecosystem: NMFS issued Exempted Fishing Permits to three pelagic longline vessels to conduct research in portions of the Charleston Bump and Florida East Coast Closed Areas from 2008 to February 2010. These permits were extended until 30 September 2010. This research, which is being carried out with academic partners, should allow NMFS to determine the relative effectiveness of the pelagic longline closed areas under current fishery conditions and provide data which could help NMFS make determinations about whether modifications to the existing closed areas are warranted. In addition, all HMS gear types are prohibited year-round, except for surface trolling from May through October, in the Madison Swanson and Steamboat Lumps Marine Reserves (**Figure 6**). Both of these reserves are located shoreward of the Desoto Canyon Closed Area; the Madison-Swanson Marine Reserve is 115 nm^2 in size, and the Steamboat Lumps marine reserve is 104 nm^2 in size. The Edges 40 Fathom Contour is a 390 nm^2 gag spawning region located between the Madison-Swanson and Steamboat Lumps closure area, within the Gulf of Mexico. This area is closed to fishing for any Gulf of Mexico Fishery Management Council-managed species and all HMS fishing from 1 January through 30 April of each year to provide additional protection for spawning gag grouper.

Sharks. 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. 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; correction published on 15 July 2008, 73 FR 40658), to complement regulations implemented by the South Atlantic Fishery Management Council (SAFMC). The SAFMC published a final rule on 13 January 2009 (74 FR 1621), that implemented eight Type II Marine Protected Areas (MPAs) from North Carolina to the Florida Keys. Type II MPAs are closures throughout the year to most gear types except some fishing, such as trolling for HMS and other coastal pelagic species. NMFS backstopped 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.

NMFS published a final rule on 7 February 2007 (72 FR 5633), that requires participants in the Atlantic shark bottom longline fishery to possess, maintain, and utilize the same equipment and follow the same protocols for the safe handling and release of sea turtles and other protected species as required in the pelagic longline fishery.

Additionally, on 23 September 2008 (73 FR 54721), NMFS published a final rule that requires U.S. HMS pelagic longline and bottom longline vessels to possess an additional sea turtle control device as of 1 January 2009.

3.3 Trade and compliance related measures

3.3.1 Trade Restrictive Recommendations (Recs. 02-17; 03-18)

No trade restrictive measures were passed by the Commission at the 2009 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 ICCAT measures were implemented by the United States in 2004 (69 FR 70396).

3.3.2 Recommendation 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 information through a combination of programs, including the bluefin tuna catch documentation program, bigeye and swordfish statistical document programs, and through domestic Customs programs, and relevant information is provided to the Commission.

3.3.3 Bluefin Tuna Catch Documentation Program (Recs. 08-12; 09-11)

On 2 June 2008 (73 CFR 31380), the United States published final regulations effective 2 July 2008, implementing the ICCAT bluefin tuna catch documentation program per Recommendation 07-10. This program repealed the statistical document program and now tracks bluefin tuna landings and international trade using a bluefin tuna catch document. In June 2009, the U.S. program was updated to comply with the program changes implemented by Recommendation 08-12. No adjustments were necessary to comply with Recommendation 09-11.

The U.S. program continues to require that bluefin tuna be fitted with a tail tag upon sale to a domestic dealer, and the tag (or tag number in the case of a cut carcass) must remain with the fish, thus tracking bluefin tuna from domestic harvest to international markets. The first annual bluefin tuna catch documentation report was submitted to ICCAT before the 1 October 2009, deadline and covered the time period from 1 July 2008, through 30 June 2009. The bluefin catch documentation report for 1 July 2009 through 30 June 2010 has also been submitted. 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 (Recs. 00-22, 01-21, 01-22, 03-19)

Statistical document programs for swordfish and frozen bigeye tuna have been implemented by the United States. As required under the statistical document programs, the United States submits reports to ICCAT twice yearly, providing information on import, export and re-export activity involving these species products. Statistical document reports for swordfish and bigeye tuna were submitted to the ICCAT Secretariat in April 2010 for the period covering July 2009 through December 2009 and were submitted before the 1 October 2010, deadline for the first half of the 2010 calendar year.

3.4 Observer programs and related activities

The U.S. observer program currently meets two main objectives: monitoring of interactions between fishing gear and protected species (marine mammals, sea turtles, and sea birds), and monitoring of fishing effort and catch (estimation of total landings of target species and/or by-catch of non-target or prohibited species). An overview of observer programs in the United States can be found online at http://www.st.nmfs.noaa.gov/st4/nop/index.html. During calendar year 2009, the United States achieved 15 percent observer coverage expressed as a proportion of reported sets and 15.8 percent as a proportion of reported hooks in the Atlantic pelagic longline fishery for highly migratory species. Click on the pelagic longline link on the map on the National Observer Program web page at http://www.st.nmfs.noaa.gov/st4/nop/index.html for information regarding the different observer programs. 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.

The United States hosted the 2009 International Fisheries Observer and Monitoring Conference in Portland, Maine in July 2009 and sponsored the participation of a number of attendees from developing nations. This event was an important opportunity to improve fishery monitoring programs worldwide through sharing of practices and is a valuable forum for dialog between those responsible for monitoring fisheries and those who rely upon the data they collect. The United States also organized and jointly conducted with the host government two observer training workshops in West Africa (Ghana and Senegal) over the last two years to help develop local capacity for such programs and is planning to organize additional observer trainings in the region. For more information, see **Appendix 6**: Capacity Building Assistance to ICCAT Countries.

3.5 Vessel monitoring

3.5.1 Recommendation by ICCAT Concerning Minimum Standards for the Establishment of a Vessel Monitoring System in the ICCAT Convention Area (Recs. 03-14, 04-11, 07-08)

The United States has implemented a fleet-wide VMS requirement in the Atlantic pelagic longline fishery (25 June 2003, 68 FR 37772). This rule requires all vessels away from port with pelagic longline gear onboard to operate their VMS units. In addition to what is required for these recommendations, the United States also requires VMS operation for vessels with bottom longline gear onboard between 33°00' N. latitude and 36°30' N. latitude or near the mid-Atlantic shark closed area and for shark gillnet vessels operating during the right whale calving season (24 December 2003, 68 FR 74746). Recommendation 07-08 applies to vessels fishing for bluefin tuna in the eastern Atlantic Ocean and Mediterranean Sea and is not applicable to the United States.

3.6 Measures to Ensure Effectiveness of ICCAT Conservation and Management Measures and to Prohibit Illegal, Unreported and Unregulated Fishing

3.6.1 Management Standard for the Large-Scale Tuna Longline Fishery (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 U.S. submission is provided via ICCAT form: COMP-017-LSTLV, and is attached as **Appendix 2**.

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 is implementing this measure through various means (e.g., licensing requirements, monitoring control and surveillance measures, maintaining up-to-date records of U.S. vessels authorized to fish species managed by ICCAT in the Convention area, etc.) as described throughout this annual report. Further, a list detailing the enforcement actions taken on ICCAT species is provided in **Appendix 4**.

3.6.3 Recommendation Further Amending the Recommendation by ICCAT to Establish a List of Vessels Presumed to Have Carried Out Illegal, Unreported, and Unregulated Fishing Activities in the ICCAT Convention Area (Rec. 09-10), Recommendation by ICCAT to Adopt Additional Measures Against Illegal, Unreported and Unregulated (IUU) Fishing (Rec. 03-16) and Resolution by ICCAT Further Defining the Scope of IUU Fishing (Res. 01-18)

The United States has laws and regulations that serve to prohibit the import of tuna and tuna-like species from vessels included in the IUU vessel list or which are not on the ICCAT positive vessel list (50 CFR Part 635.41). The United States has developed regulations to clarify domestic implementation of other aspects of this recommendation including restriction of entry into port and access to port services for vessels on the ICCAT IUU vessel list. Such vessels may also be prohibited from engaging in commercial transactions, if allowed entry into port. The actions taken against listed IUU vessels will be in accordance with the relevant conservation and management measure and in consultation with other U.S. agencies.

IUU fishing is the focus of growing attention in the United States, due to its adverse impacts on target fish stocks, habitat, fish markets, by-catch, and competition with legal fishing. The United States has taken action to implement Resolution 01-18, which calls upon CPCs to take every possible action, consistent with relevant laws, to instruct importers, transporters, and others in the fishing industry to refrain from engaging in transaction and transshipment of tunas and tuna-like species caught by fishing vessels that have been engaged in IUU fishing

activity. The U.S. fishing industry has been further advised that, in addition to potentially violating U.S. law, doing business with a vessel identified on a RFMO's IUU list may include restricted port access or unloading prohibitions imposed at the intended destination.

Recommendation 03-16 requires CPCs to take the necessary measures to prohibit landings, placement in cages for farming, and/or transshipment of tunas or tuna-like species that were caught by fishing vessels engaged in IUU fishing activity consistent with their rights and obligations under international law. U.S. vessels do not participate in Atlantic bluefin tuna farming operations, and the United States prohibits at sea transshipment.

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 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 4**, NOAA Enforcement Actions Taken on ICCAT Species.

3.7 Other recommendations

3.7.1 Recommendation by ICCAT on Vessel Chartering (Rec. 02-21)

A final rule was published on 6 December 2004 (69 FR 70396), to implement recommendation 02-21 concerning vessel chartering. The United States collects all relevant information for monitoring before issuing the permits necessary to allow chartering to be undertaken and will continue to report any chartering activities to ICCAT. Since the adoption of recommendation 02-21, the United States has issued only one chartering permit (in late 2004), which authorized chartering activities to take place in the ICCAT Convention area during 2005.

3.7.2 Recommendation by ICCAT Concerning the Recording of Catch by Fishing Vessels in the ICCAT Convention Area (Rec. 03-13)

The United States requires vessels issued commercial Atlantic tunas, shark, or swordfish permits, as well as charter and headboat vessels fishing for Atlantic highly migratory species, to maintain and submit logbooks upon selection for reporting by the U.S. Government regardless of vessel length. This includes, for example, 100 percent of Atlantic pelagic longline vessels fishing for Atlantic tunas, shark, or swordfish, regardless of vessel length. For information on the implementation of this recommendation relative to recreational fishing vessels, see section 3.7.3 below.

3.7.3 Resolution on Improving Recreational Fishery Statistics (Res. 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 for reporting. Longstanding U.S. policy is to select 100 percent of billfish tournaments for reporting. All non-tournament landings of Atlantic billfish and swordfish are required to be reported to the National Marine Fisheries Service within 24 hours of landing. In the fall of 2007, the United States enhanced recreational reporting by implementing a new internet based non-tournament reporting system for Atlantic billfish, including swordfish. The United States is in the process of improving on the current MRFSS system through the Marine Recreational Information Program (MRIP). MRIP is an improved national system of regional surveys that will replace existing marine recreational fishing data collection programs and provide better regional monitoring of recreational fishing participation, effort, catches, landings and releases of finfish species.

The United States has established a national registry of saltwater anglers, including those fishing for ICCAT species, which will include names and contact information among other information. The registry is intended to improve foundational information concerning recreational fishery participation, which will support improvements in the overall monitoring recreational fisheries. Information about the registry can be found at: www.countmyfish.noaa.gov.

3.7.4 Recommendation by ICCAT Concerning the Establishment of an ICCAT Record of Vessels 20 meters in Length Overall or Greater Authorized to Operate in the Convention Area (Rec. 09-08)

The United States submitted the list of vessels required, pursuant to this recommendation, to ICCAT in June 2010. At that time, there were 440 U.S. vessels that met the appropriate criteria. Additional information is available in **Appendix 5** - Report on Internal Actions Taken to Ensure That Tuna Vessels on the ICCAT Record of Vessels over 20 Metres Are Fishing in Accordance with ICCAT Management and Conservation Measures

3.7.5 Resolution on Sea Turtles (Res. 03-11)

The 2003 resolution on sea turtles encourages ICCAT members and cooperating non-members to collect and provide the SCRS with information on interactions with sea turtles in ICCAT fisheries, including incidental catches and other impacts on sea turtles. The measure also encourages the release of all sea turtles that are incidentally caught alive and to share information, including technical measures, to reduce the incidental catch of sea turtles, and to ensure the safe handling of all turtles that are released to improve their survivability. The resolution also calls for the development of data collection and reporting methods for the incidental by-catch of sea turtles and to support efforts by the FAO to address the conservation and management of sea turtles. The United States complies with all of these requests. Consistent with this resolution, in 2009, the United States reported sea turtle interactions in the U.S. pelagic longline fleet to ICCAT.

In 2004 (6 July 2004; 63 FR 40734), the United States codified regulations to reduce sea turtle by-catch in Atlantic pelagic longline fisheries for highly migratory species. These measures pertain to the entire U.S. Atlantic pelagic longline fishery, and include: mandatory bait specifications, use of circle hooks (size of hook depending on fishing locale), and the mandatory possession and use of sea turtle handling and release gear on board all vessels with pelagic longline gear. The United States continues to modify the suite of disentanglement and release gears required to be onboard longline vessels as new gears and information on best practices are developed.

3.7.6 Recommendation by ICCAT Establishing a Program 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. U.S. regulations prohibit transshipment of highly migratory species products in the Convention area.

3.7.7 Recommendation by ICCAT for a Revised Port Inspection Scheme (Rec. 97-10)

The United States generally prohibits foreign fishing vessels from landing in U.S. ports, fish or fish products harvested or taken onboard on the high seas, with a few exceptions, including for landings in some Pacific U.S. territories. Under U.S. domestic law, all fishing vessels, including those carrying fish species subject to regulations pursuant to a recommendation of ICCAT, and their catch, gear, fishing logbooks and manifests are subject to inspection. See Section 4 below for additional information.

3.7.8 Recommendation by ICCAT on Compliance with Statistical Reporting Obligations (Rec. 05-09)

Recommendation 05-09 requires Contracting parties and CPCs to provide explanations regarding reporting deficiencies and data gaps along with plans for corrective action. The United States was compliant with its statistical reporting obligations in 2009.

3.7.9 Recommendation by ICCAT on Bluefin Tuna Farming (Rec. 06-07)

Atlantic bluefin tuna are not farmed in U.S. waters. The U.S. bluefin tuna catch documentation program applies to farmed as well as wild-caught product and catch documents are required for imports of all farmed product.

3.7.10 Electronic Statistical Document Program (Rec. 06-16)

The United States continues to advance implementation of an electronic system for the collection and dissemination of trade information. The International Trade Data System is a requirement under U.S. domestic legislation aimed at improving the efficiency of import and export processes as well as ensuring compliance with obligations to monitor the origin and safety of products. Given the domestic requirement to collect information from the trade community (shipper, carriers, brokers, etc.) in an electronic format, the United States is investigating ways to integrate ICCAT's statistical document programs and catch document program into the internet-based electronic portal. NMFS has catalogued all of the information collection requirements and the respective data elements for the several seafood trade monitoring programs established either by U.S. domestic law or by the RFMOs to which the United States is a party. NMFS data collection needs are being coordinated with U.S. Customs and Border Protection and other federal agencies. NMFS has started the process of promulgating regulations to implement the electronic collection of trade data for the subject seafood products by issuing an Advanced Notice of Proposed Rulemaking in May 2009 (www.regulations.gov). NMFS will consult with U.S. importers and exporters from ICCAT parties to determine the most efficient means of collecting the required data in electronic format to support admissibility decisions. More detailed information on the U.S. International Trade Data System can be found on the www.itds.gov internet site.

3.7.11 Recommendation by ICCAT on Reducing Incidental By-catch of Seabirds in Longline Fisheries (Rec. 07-07)

The United States does not have any vessels actively participating in ICCAT-managed fisheries south of 20 degrees S longitude. However, consistent with this recommendation, in 2009, the United States reported seabird interactions in the U.S. pelagic longline fleet to ICCAT.

3.7.12 Other resolutions and recommendations

The following were not addressed in this report as the United States does not participate in the relevant fishery or does not participate in specific activities covered by the measures:

- [Rec. 08-03] Recommendation by ICCAT on Mediterranean Swordfish
- [Rec. 07-08] Recommendation by ICCAT Concerning Data Exchange Format and Protocol in Relation to the Vessel Monitoring System for the Bluefin Tuna Fishery in the ICCAT Convention Area
- [Rec. 07-01] Recommendation by ICCAT on Mediterranean Swordfish
- [Rec. 03-04] Recommendation by ICCAT Relating to Mediterranean Swordfish
- [Rec. 99-03] Recommendation on the Establishment of a Closed Area/Season for the Use of Fish-Aggregation Devices

Section 4. Inspection Scheme and Activities

U.S. Atlantic enforcement for ICCAT species is undertaken by the NOAA Office of Law Enforcement (OLE), the U.S. Coast Guard, and, pursuant to cooperative enforcement agreements, by States and territories with maritime boundaries in the Atlantic Ocean, Gulf of Mexico, and/or Caribbean Sea. Enforcement activities include monitoring and inspecting offloads at landing facilities and marinas in conjunction with dealer record checks and at-sea boarding and inspection.

A summary of NOAA enforcement actions taken in ICCAT fisheries is provided in **Appendix 4**. The U.S. Coast Guard also enforces HMS fishery regulations. From 1 October 2009 to 30 September 2010, the Coast Guard boarded 200 vessels resulting in 4 significant violations. As enforcement of regulations for tuna and tuna-like species is just one of many vital component missions that the Coast Guard undertakes in the course of fisheries enforcement and of other duties, for every actionable incident documented, Coast Guard personnel have logged hundreds of hours monitoring for a range of violations. From 1 October 2009 to 30 September 2010, the total Coast Guard Atlantic Ocean and Gulf of Mexico fisheries enforcement focused effort involved 2,502 aircraft patrol hours, 8,020 boat patrol hours, and 48,150 cutter (large vessel) patrol hours. In addition, states and territories of the United States with maritime boundaries relevant to ICCAT species enforcement on the Atlantic Ocean, Gulf of Mexico, and/or Caribbean Sea maintain a total of more than 1,400 officers dedicated to marine conservation law enforcement and reported 9,022 staff hours of focused enforcement of regulations for tuna and tuna-like species.

Section 5. Other Activities

Recent U.S. management action for Atlantic highly migratory species can be found online at: http://www.nmfs.noaa.gov/sfa/hms.

Federal register notices containing the full text of proposed and final regulations can be found at: http://www.gpoaccess.gov/fr/index.html.

Table 1. Annual landings (t) of yellowfin tuna from 2005 to 2009.

Area	*Gear*	*2005*	*2006*	*2007*	*2008*	*2009*
NW Atlantic	Longline	394.2	701.7	757.8	460.5	416.4
	Gillnet	0.1	4.7	4.2	0.6	0.0
	Handline	105.1	105.1	113.2	30.1	58.7
	Trawl	0.2	0.7	2.4	0.0	0.0
	Troll	0.0	0.0	6.9	2.4	5.4
	Trap	0.01	0.0	0.0	0.05	0.1
	Rod and reel*	3,504.8	4,649.2	2,726	657.1	742.6
	Unclassified	3.8	3.9	7.0	1.4	2.2
Gulf of Mexico	Longline	1,210.9	1,128.5	1,379.3	756.5	1,147
	Handline	45.5	49.9	26.2	11.2	21.6
	Rod and reel*	146.9	258.4	227.6	366.3	264.7
	Unclassified	0.3	0.0	0.0	0.0	0.0
Caribbean	Longline	140.6	179.7	255.6	107.1	136.7
	Trap	0.001	0.4	0.0	0.0	0.0
	Gillnet	0.0003	0.0	0.0	0.04	0.04
	Handline	9.7	7.8	9.1	3.7	3.3
	Rod andr *	5.5	0.0	12.4	9.7	3.5
NC Area 94A	Longline	0.5	0.0	1.8	0.4	0.0
SW Atlantic	Longline	0.0	0.0	0.0	0.0	0.0
	TOTAL	**5,568.1**	**7,090.0**	**5,529.5**	**2,407.2**	**2802.3**

* Rod and reel catches and landings represent estimates of landings based on statistical surveys of the U.S. recreational harvesting sector.

Table 2. Landings (t) of skipjack tuna from 2005 to 2009.

Area	*Gear*	*2005*	*2006*	*2007*	*2008*	*2009*
NW Atlantic	Longline	0.05	0.04	0.0	0.1	0.4
	Gillnet	2.2	0.2	0.07	0.04	3.3
	Handline	0.9	0.2	0.3	0.4	2.8
	Trawl	0.07	0.7	0.005	0.003	0.0
	Trap	0.0	0.3	0.0	0.0	0.0
	Pound net	0.0	0.5	0.0	0.0	0.0
	Rod and reel*	8.1	34.6	27.4	21.0	75.7
	Unclassified	0.01	0.06	0.6	0.5	1.2
Gulf of Mexico	Longline	0.3	0.0	0.0	0.05	0.05
	Handline	0.02	0.0	0.2	0.06	0.2
	Rod and reel*	3.1	6.4	23.9	16.3	22.0
Caribbean	Longline	0.2	0.2	0.02	1.3	0.05
	Trap	0.1	0.05	0.0	0.0	0.0
	Gillnet	0.06	0.02	0.0	0.01	0.6
	Handline	10.9	10.0	13.7	16.0	8.8
	Rod and reel*	3.9	7.7	0.2	11.3	4.3
	TOTAL	**29.9**	**61.0**	**66.5**	**67.1**	**119.4**

*Rod and reel catches and landings represent estimates of landings and dead discards based on statistical surveys of the U.S. recreational harvesting sector.

Table 3. Annual landings (t) of bigeye tuna from 2005 to 2009.

Area	*Gear*	*2005*	*2006*	*2007*	*2008*	*2009*
NW Atlantic	Longline	272.9	469.4	331.9	380.2	386.1
	Gillnet	0.0	0.2	1.0	0.04	0.0
	Handline	6.2	21.5	16.8	6.9	4.6
	Harpoon	0.0	0.2	0.0	0.0	0.0
	Trawl	0.6	0.0	0.4	0.0	0.0
	Trap	0.0	0.0	0.0	0.0	0.3
	Troll	0.0	0.0	0.9	0.8	0.6
	Rod and reel*	165.0	422.3	126.8	70.9	77.6
	Unclassified	0.6	0.8	0.9	2.1	1.9
Gulf of Mexico	Longline	25.2	37.7	37.0	14.0	19.5
	Handline	0.1	1.5	0.01	0.0	0.07
	Rod and reel	0.0	24.3	0.0	0.0	0.0
Caribbean	Longline	6.9	10.5	3.4	8.9	3.8
	Handline	0.04	0.0	0.0	0.0	0.0
NC Area 94A	Longline	6.9	3.0	8.4	4.6	0.0
SW Atlantic	Longline	0.0	0.0	0.0	0.0	0.0
	TOTAL	**484.4**	**991.4**	**527.3**	**488.5**	**516.5**

*Rod and reel catches and landings represent estimates of landings and dead discards based on statistical surveys of the U.S. recreational harvesting sector.

Table 4. Annual landings (t) of albacore tuna from 2005 to 2009.

Area	*Gear*	*2005*	*2006*	*2007*	*2008*	*2009*
NW Atlantic	Longline	88.9	84.8	109.9	107.2	140.1
	Gillnet	6.0	2.1	1.0	2.1	5.6
	Handline	3.0	2.6	5.4	0.2	0.5
	Trawl	1.7	1.1	0.3	0.01	0.08
	Trap	1.7	0.5	0.4	0.005	0.01
	Troll	0.0	0.0	0.2	0.2	0.07
	Rod and reel*	356.0	284.2	393.6	125.2	22.8
	Unclassified	9.9	5.6	4.2	2.0	1.3
Gulf of Mexico	Longline	6.9	7.6	15.4	10.2	16.7
	Handline	0.1	0.07	0.0	0.0	0.01
Caribbean	Longline	12.1	10.5	1.2	0.4	0.3
	Gillnet	0.002	0.0	0.0	0.0	0.0
	Handline	1.1	0.4	0.2	0.4	0.003
NC Area 94A	Longline	0.6	0.03	0.3	0.08	0.3
SW Atlantic	Longline	0.0	0.0	0.0	0.0	0.0
	TOTAL	**488.0**	**399.5**	**532.1**	**248.1**	**187.9**

*Rod and reel catches and landings represent estimates of landings and dead discards based on statistical surveys of the U.S. recreational harvesting sector.

Table 5. Annual catches (t) of bluefin tuna from 2005 to 2009.

Area	*Gear*	*2005*	*2006*	*2007*	*2008*	*2009*
NW Atlantic	Longline**	72.7	104.4	70.7	107.1	123.7
	Handline	2.3	0.3	0.0	0.6	0.1
	Harpoon	31.5	30.3	22.5	30.2	65.6
	Purse seine	178.3	3.6	27.9	0.0	11.4
	* Rod and reel (>145 cm LJFL)	170.4	217.2	235.4	305.7	717.1
	* Rod and reel (<145 cm LJFL)	254.4	158.2	398.6	352.2	143.3
	Unclassified	0.0	0.0	0.0	0.3	0.0
Gulf of Mexico	Longline**	118.5	88.1	81.2	111.6	111.3
NC Area 94A	Longline**	20.3	12.1	12.4	12.3	56.0
	TOTAL	**848.4**	**614.8**	**848.7**	**919.9**	**1,228.6**

* Rod and reel catches and landings represent estimates of landings and dead discards when available based on statistical surveys of the U.S. recreational harvesting sector.
** Includes landings and estimated discards from scientific observer and logbook sampling programs.

Table 6. Annual catches (t) of swordfish from 2005 to 2009.

Area	*Gear*	*2005*	*2006*	*2007*	*2008*	*2009*
NW Atlantic	Longline**	1,096.2	1,165.2	1,649.6	1,622.5	1,642.1
	Gillnet	0.0	0.0	0.2	0.0	0.0
	Handline	34.4	32.5	125.2	83.2	126.2
	Harpoon	0.0	0.3	0.0	0.0	0.05
	Trawl	8.2	3.5	6.5	7.6	22.9
	Rod and reel*	53.1	50.6	65.9	56.7	19.0
	Unclassified	0.5	0.2	0.2	0.2	4.4
	Unclassified discards	4.2	5.1	5.5	4.1	25.1
Gulf of Mexico	Longline**	480.9	328.1	457.7	361.6	473.1
	Handline	0.3	0.1	0.2	1.2	0.9
	Rod and reel*	1.5	2.1	2.3	19.0	12.6
	Unclassified	0.2	0.0	0.0	0.0	2.9
	Unclassified discards	3.9	2.7	5.5	4.6	19.4
Caribbean	Longline**	143.5	88.9	27.8	57.9	22.6
	Rod and reel*	6.6	0.0	0.0	0.0	0.0
	Handline	0.0	0.0	0.0	0.0	0.003
	Unclassified discards	0.7	0.0	0.0	0.0	1
NC Area 94A	Longline**	552.2	378.6	338.9	311.6	511.2
	Unclassified discards	1.2	0.0	0.5	0.0	1.2
SW Atlantic	Longline**	0.0	0.0	0.0	0.0	0.0
	TOTAL	**2,387.6**	**2,057.9**	**2,682.8**	**2,530.3**	**2,838**

* Rod and Reel catches and landings represent estimates of landings and dead discards when available based on statistical surveys of the U.S. recreational harvesting sector.
**Includes landings and estimated discards from scientific observer and logbook sampling programs.

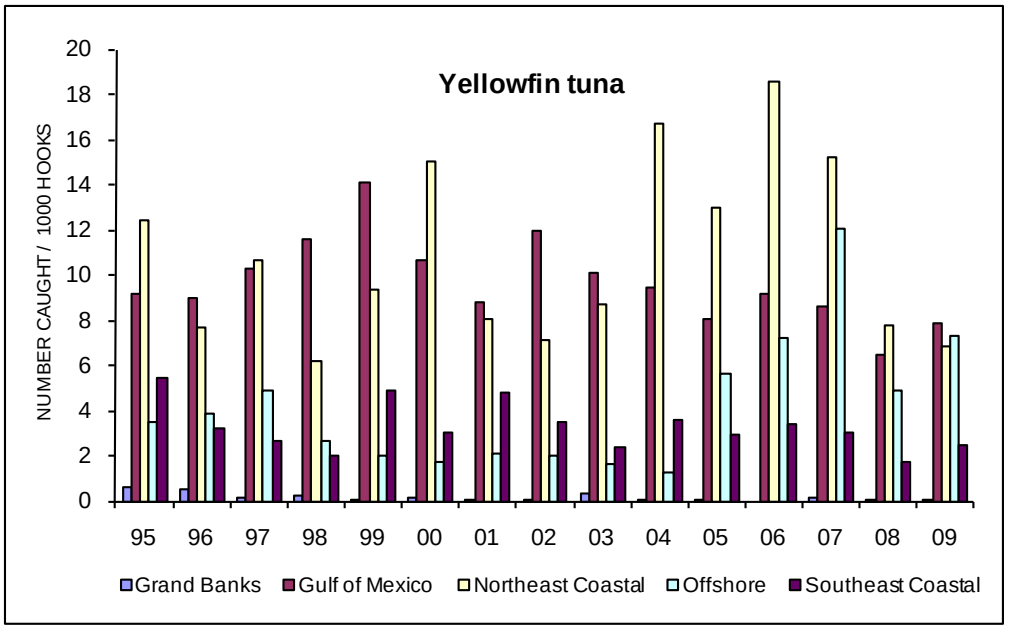

Figure 1. Nominal catch rates for yellowfin tuna in U.S. pelagic longline logbook reports.

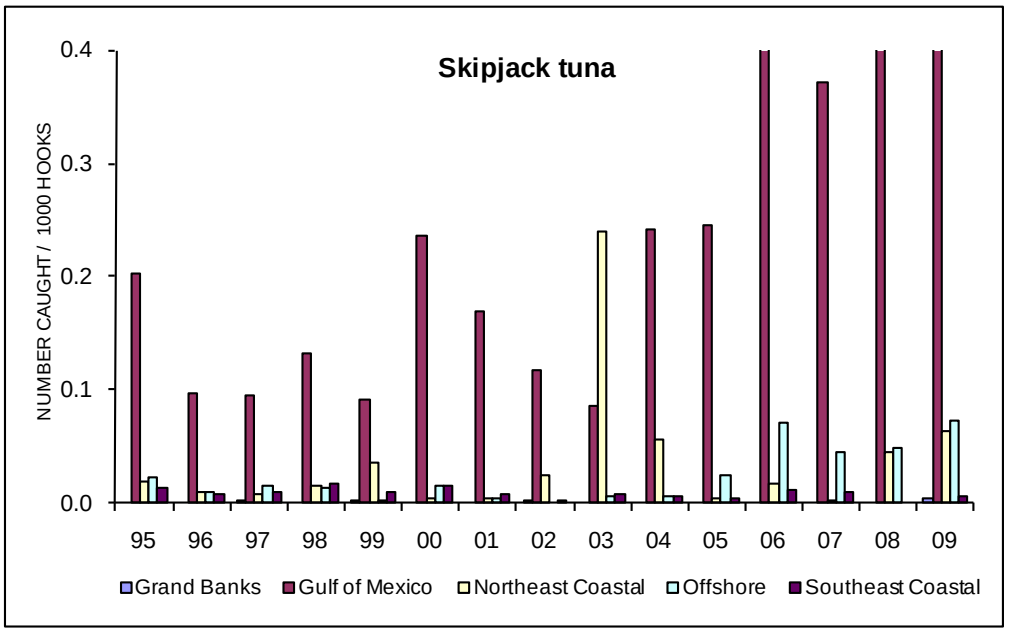

Figure 2. Nominal catch rates for skipjack tuna in U.S. pelagic longline logbook reports.

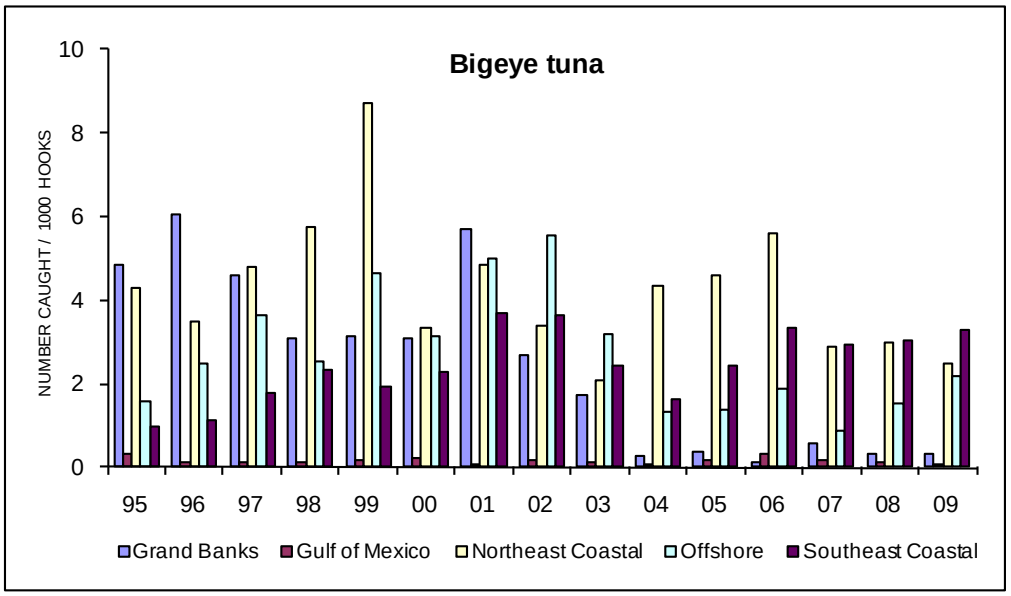

Figure 3. Nominal catch rates for bigeye tuna in U.S. pelagic longline logbook reports.

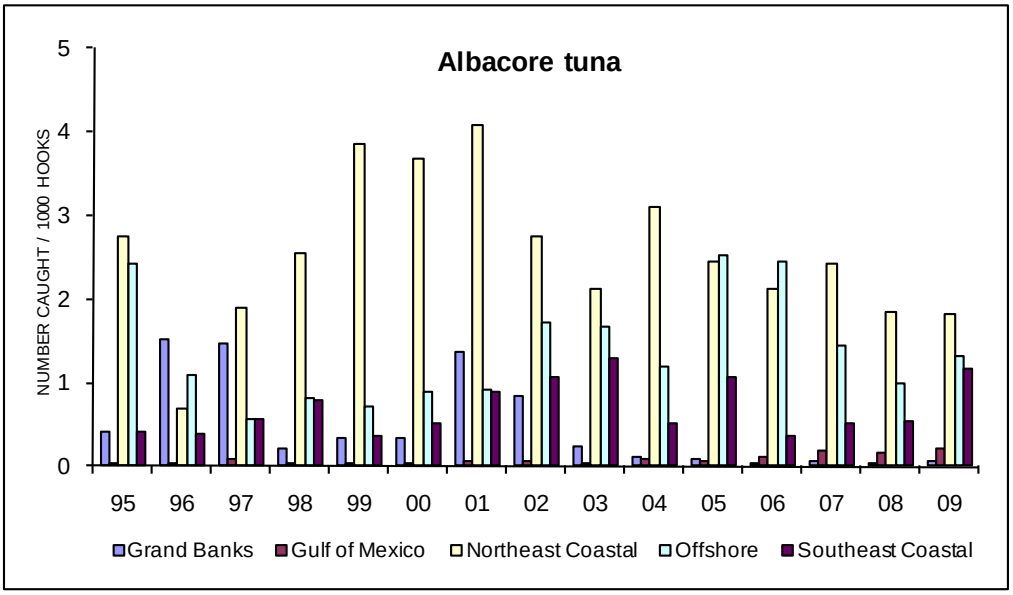

Figure 4. Nominal catch rates for albacore tuna in U.S. pelagic longline logbook reports.

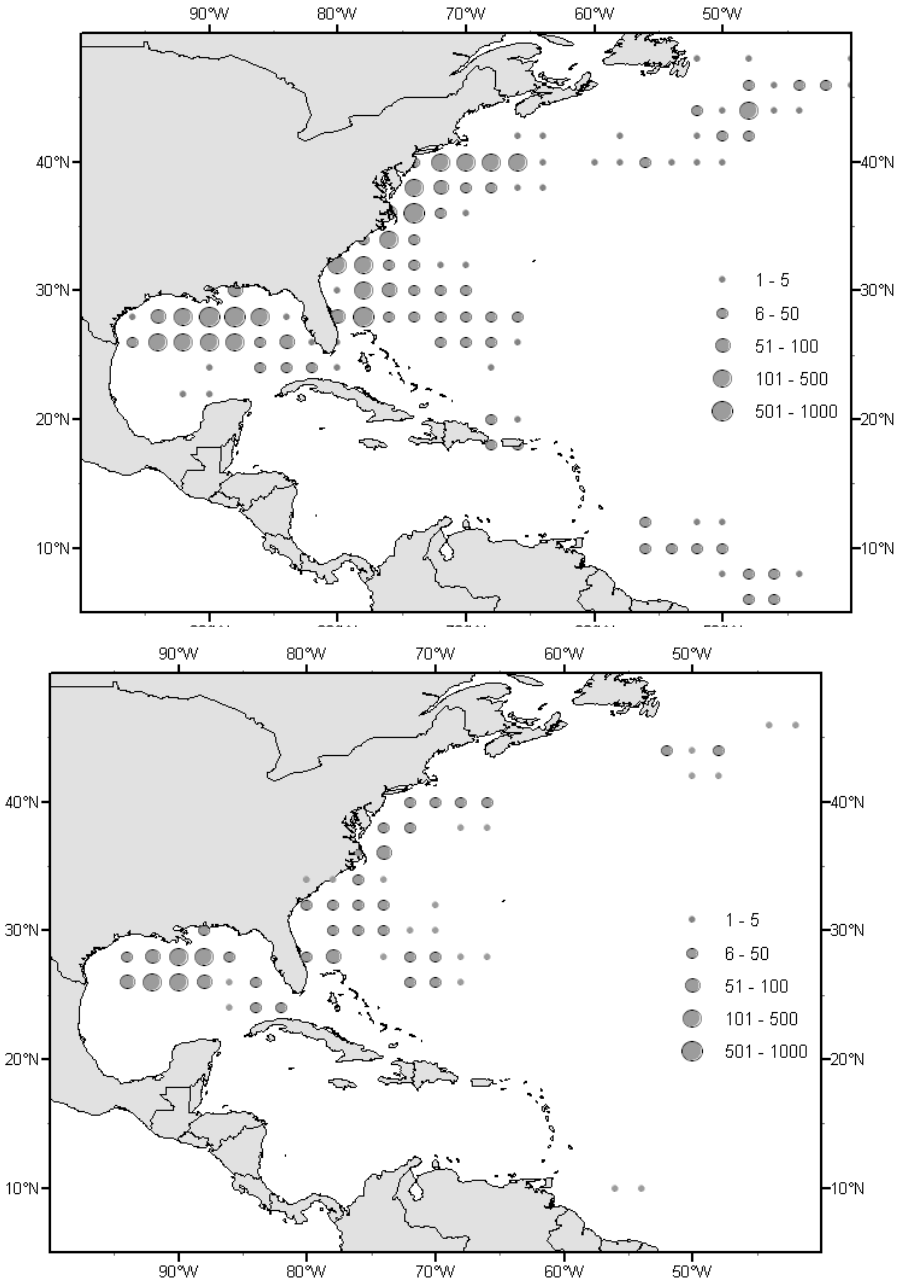

Figure 5. Position of longline sets as reported in pelagic logbooks (upper panel) and observed by the U.S. pelagic observer program (lower panel) in 2009 summarized by 2^{o}x2^{o} square.

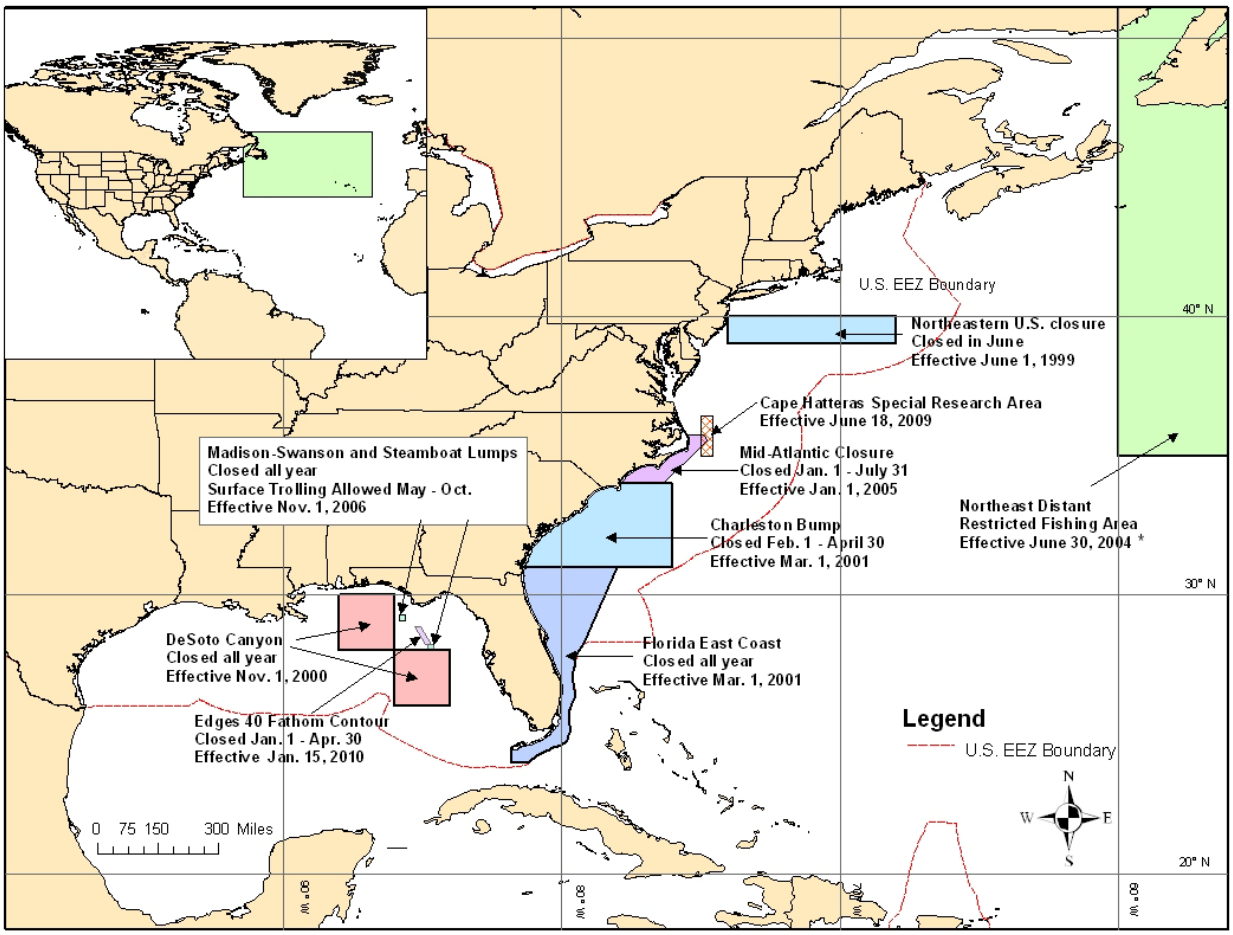

Figure 6. Selected existing U.S. time/area closures in HMS fisheries. Inset shows extent of the Northeast Distant restricted fishing area. The Mid-Atlantic Closure is applicable to bottom longline gear only. Note: the Northeast Distant (NED) was a closed area to all vessels as of 2001. It became the NED Restricted Fishing Area on 30 June 2004, when it was opened to those participating in the NED experiment. The Cape Hatteras Special Research Area (CHSRA) requires vessels fishing with pelagic longline gear to carry observers, when needed, and limit longline mainline to 20 nautical miles in length. The Caribbean bottom longline closures and South Atlantic MPAs closed to bottom longline gear are not included.

ANNUAL REPORT OF URUGUAY [*]
RAPPORT ANNUEL DE L'URUGUAY
INFORME ANUAL DE URUGUAY

Andrés Domingo y Rodrigo Forselledo[1]

Parte I (Información sobre Pesquerías, Investigación y Estadísticas)

Sección 1: Información sobre la pesquería

Durante el año 2009, la flota atunera uruguaya continuó operando con palangre de superficie y mantuvo el mismo número de barcos que en el año 2008 (9). La mayor parte de la flota estuvo compuesta por barcos fresqueros menores de 24 m de eslora y con menos de 200 TRB, dirigiendo su esfuerzo principalmente a la captura del pez espada *(Xiphias gladius)*. Durante este año se realizó un proyecto de investigación para la prospección del patudo dentro de la ZEE de Uruguay, conjuntamente con una empresa japonesa. Durante los 5 meses de este proyecto se calaron 1200000 anzuelos con palangre profundo en barcos de 50 m de eslora (**Figura 1**).

La captura total (preliminar) desembarcada y comunicada en 2009 fue de aproximadamente 2525 toneladas. Se pescaron alrededor de 500 toneladas de pez espada, los desembarques de tiburón azul *(Prionace glauca)* estuvieron alrededor de las 942 toneladas y los de moro *(Isurus oxyrhinchus)* en las 106 toneladas. El albacora fue la especie más capturada dentro de los atunes representando el 27% (685 t) de la captura total, cabe destacar que estas capturas se dieron en los barcos de palangre profundo que dirigían su esfuerzo al patudo la cual fue la segunda especie capturada entre los atunes 201 t (8%) seguida del aleta amarilla 76 t (3%). (**Tabla 1, Figura 2**).

La flota continúa realizando descartes de tiburones y otros peces pelágicos y de aquellos ejemplares de atunes y pez espada dañados o de pequeñas tallas capturados vivos, así como de tortugas y aves.

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 2009 se realizaron diversas actividades vinculadas a las estadísticas, investigación y ordenación. Algunas de estas actividades se desarrollaron conjuntamente con otras instituciones gubernamentales, la Universidad de la República del Uruguay y organizaciones no gubernamentales e incluso se ha venido trabajando en conjunto con otros países como Brasil, Estados Unidos y Venezuela. Se continuó con el Programa Nacional de Observadores a bordo de la Flota Atunera (PNOFA) desarrollando las actividades que se venían cumpliendo y ampliando las mismas. En 2009 se empezó con campañas de investigación independientes de la pesquería a bordo del buque de investigación científica "Aldebarán" de la DINARA con el objetivo general de recabar información más detallada sobre las especies y realizar experimentos de diferentes medidas mitigatorias de la captura incidental, dirigidas a aves y tortugas, entre otras.

2.1 Investigación

La investigación se desarrolló principalmente a partir de la información proveniente de los partes de pesca y del PNOFA y durante 2009 se integraron los datos obtenidos en el Buque de Investigación.

2.1.1 Programa de observadores

El PNOFA cubrió una importante parte de la actividad de la flota de bandera nacional durante 2009 y el 100% en la flota de palangre profundo que participó en la investigación del patudo. Este programa se desarrolla desde el año 1998 y ha permitido recabar importante información relacionada con todos los aspectos de la pesquería y la biología de las especies capturadas. Durante 2009 se observaron unos 370315 anzuelos en 185 lances de pesca

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

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(datos preliminares) en la flota de bandera nacional (**Figura 3**) y alrededor de un millón doscientos mil anzuelos en aproximadamente 500 lances de pesca en la flota de palangre profundo. 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.

En el 2009 se continuó con el programa de marcado, colocando 473 de las marcas proporcionadas por ICCAT. Fueron marcados 345 tiburones, 69 YFT, 23 ALB, 22 SWO, 8 BET y 6 de otros peces.

Dentro de las actividades del PNOFA se continúa con el trabajo dirigido a la educación y sensibilización de los trabajadores y armadores pesqueros. Conjuntamente con el "Proyecto Albatros y Petreles" se ha editado y distribuido en los diferentes barcos pesqueros el boletín "Atlántico Sur" Nº 7. Este número presenta información sobre diferentes aspectos de la actividad del PNOFA relacionados principalmente a las aves marinas, tortugas marinas y otras especies. El boletín "Atlántico Sur" puede ser descargado en: http://cicmar.org

Se presentó en la reunión del Subcomité de ecosistemas, (Recife, Junio 2009), el Sistema de Información de los Programas de Observadores (SIPO) que está siendo desarrollado por el área de Recursos Pelágicos de la DINARA en conjunto con la ONG Centro de Investigación y Conservación Marina-CICMAR. El sistema facilita a los observadores científicos una nueva forma de digitalizar los datos, haciendo más fácil el proceso de recopilación de datos, así como de corroboración de la coherencia e integridad de los mismos. Este sistema ofrece también al analista de datos una forma fácil y segura para acceder a esta base de datos, produce informes (subconjuntos de datos) y/o exporta los datos de acuerdo con los requisitos del análisis. Estos datos pueden utilizarse con otras herramientas como GIS y Statistical Tools. Este sistema estará disponible gratuitamente para cualquier usuario interesado.

2.1.2 Pez espada

Se colaboró durante la reunión de evaluación de pez espada realizada en Madrid en setiembre de 2009, presentando una serie estandarizada de CPUE para esta especie. En el marco del PNOFA se continuó con la recopilación de datos de talla por sexo, colecta de muestras (tejido destinados a estudios genéticos) y marcaje, utilizando las marcas que provee ICCAT.

2.1.3 Atunes tropicales

Al igual que en otras especies se continuó con el seguimiento de las estadísticas de captura y esfuerzo y colecta de muestras biológicas por parte del Programa de Observadores. Se continúa también con el Programa de Marcado.

2.1.4 Albacora

Se continúa con el seguimiento de las estadísticas de captura y esfuerzo y colecta de muestras biológicas por parte del Programa de Observadores. Actualmente se están desarrollando estudios de alimentación en dicha especie.

2.1.5 Agujas

Se vienen desarrollando estudios genéticos para la identificación de especies, en conjunto con otros países (Brasil, Estados Unidos y Venezuela) y estudios de edad y crecimiento en *Tetrapturus pfluegeri* en conjunto con la Universidad de Miami (RSMAS) de Estados Unidos, la Universidad de Oriente (UDO) de Venezuela, la Universidad Rural Federal de Pernambuco (URFP) de Brasil y la Universidad de la República de Uruguay.

2.1.6 Tiburones

Durante la evaluación de *Lamna nasus* en 2009 se presentó un trabajo de estandarización de la CPUE de esta especie y otro con información biológica recabada por el programa de observadores.

Se continuó también con el marcaje de tiburones, reportándose además 5 recapturas en la flota uruguaya.

Además se vienen desarrollando trabajos sobre: biología y ciclo reproductivo del tiburón azul (*Prionace glauca*); estructura poblacional del tiburón pinocho (*Lamna nasus*) y diversidad de tiburones pelágicos en aguas jurisdiccionales uruguayas entre otros.

Preparación junto con el laboratorio de Panamá City de la NOAA/NMFS de las cartillas de identificación de tiburones.

También se realizo la actualización de la información sobre tiburones (Capitulo 2, Sección 2.2.1) del nuevo Manual de ICCAT.

2.1.7 Aves marinas

Actualmente se trabaja en la instrumentación del "Plan de Acción Nacional para Reducir la Captura Incidental de Aves Marinas en las Pesquerías Uruguayas" efectivizando las medidas propuestas en el mismo.

Dos líneas principales de investigación se han desarrollado en los últimos años. La primera refiere al seguimiento y evaluación de la problemática de la captura incidental de aves marinas en la flota uruguaya, y la segunda al desarrollo y prueba de medidas de mitigación para su implementación en la flota. Para esto se vienen desarrollando trabajos conjuntos con el "Proyecto Albatros y Petreles de Uruguay (PAP)" integrantes del grupo de trabajo "Albatross Task Force"de "BirdLife International", vinculados a la investigación y mitigación de la captura incidental de estas especies. Se están haciendo pruebas de medidas de mitigación tanto en la flota pesquera uruguaya como en el barco de investigación de la DINARA.

Actualmente se está trabajando en un "Ecological Risk Assessment" para las aves marinas capturadas por la flota uruguaya. Se presentó información en el Subcomité de ecosistemas durante 2009 donde se analizó de manera preliminar información para ser tenida en cuenta en la cuantificación de la susceptibilidad, así como datos sobre la distribución espacial y temporal de las tasas de capturas de albatros y petreles obtenidas en palangreros uruguayos. Otros estudios que se comenzaron se enfocan en la composición de edades, sexo y procedencia de las aves capturadas.

La investigación en medidas de mitigación incluye pruebas sobre la eficiencia de la utilización de líneas espantapájaros para reducir la captura incidental de aves. Para esto se han probado diferentes tipos de líneas hasta llegar a un modelo final más eficiente. También se está probando el efecto de reducir la distancia entre el anzuelo y el destorcedor con peso, mediante el uso de "Safe Leads", en el ataque de las aves a la carnada durante la calada y en la captura de las especies objetivo.

En 2009, si iniciaron las actividades para el desarrollo del testeo de un dispositivo que lanza la carnada a una profundidad de alrededor de 6 m. de forma vertical en la popa del barco "la capsula". Este experimento se desarrolla en un barco de la flota de palangre uruguaya por el área de Recursos Pelágicos de la DINARA de Uruguay en colaboración con la Australian Antartic Division, AMERRO Engineering de Australia, la ONG CICMAR de Uruguay y Goldenstar S.A.

2.1.8 Tortugas marinas

En los últimos años se han desarrollado trabajos conjuntos con investigadores brasileños, los cuales se continuaron en 2009 presentando un trabajo publicado en la revista ALR. Estos trabajos tienen un enfoque regional y han permitido un abordaje de la problemática de la captura incidental de tortugas marinas en forma conjunta y participativa.

También se están desarrollando estudios de alimentación en *Caretta caretta*, estudios genéticos y de seguimiento satelital.

El área de Recursos Pelágicos de la DINARA ha colaborando junto a organizaciones de otros países, en el desarrollo de una iniciativa llamada "Movements of Atlantic Leatherback Turtles: Steps Toward Bycatch Reduction and Transoceanic Cooperation for Conservation". Dicho proyecto, coordinado por el Programa de Tortugas Marinas para Latinoamérica y el Caribe del WWF, ha generado una plataforma de compilación y diseminación de información sobre rutas migratorias y movimientos transoceánicos de las tortugas laúd y cabezona, para colaborar con el diseño de medidas para reducir la mortalidad por captura incidental en las pesquerías que operan en el Océano Atlántico. Observadores especialmente entrenados del Programa Nacional de Observadores a Bordo de la Flota Atunera han colocando 16 transmisores satelitales en tortugas *Caretta caretta* durante 2008 y 2009. Hasta la fecha, se ha logrado rastrear exitosamente a estos individuos, a los cuales se les colocaron transmisores SPLASH y SPOTS, fabricados por Wildlife Computers. Más información, imágenes y resultados de este proyecto pueden ser consultados en los siguientes sitios:

http://cicmar.org/archives/131

http://www.dinara.gub.uy (Recursos Pelágicos)

http://www.seaturtle.org/tracking/?project_id=441.

En la reunión del Subcomité de Ecosistemas llevada a cabo en Recife, Brasil en Junio de 2009, se presentó un trabajo realizado a partir de los datos obtenidos por estos transmisores.

Se continúa con la colecta y análisis de muestras genéticas de los individuos capturados incidentalmente tanto de *C. caretta* como de *D. coriacea.*

Se siguen desarrollando experimentos con anzuelos circulares, tanto en la flota que utiliza palangre de tipo americano como en el buque de investigación de la DINARA. Este proyecto se realiza en colaboración con la National Oceanographic Atmospheric Administration (NOAA)/National Marine Fisheries Service (NMFS), Pacific Island Fisheries Science, Honolulu, USA.

2.1.9 Cetáceos

Se continuó con la investigación en este grupo, analizando información de distribución e interacción con la flota de palangre.

2.1.10 Buque de Investigación

Se realizaron dos salidas en el B/I "Aldebarán" perteneciente a la DINARA. La primera salida en abril-mayo y la segunda en agosto-setiembre de 2009. En ambas campañas se utilizó palangre pelágico de deriva tipo americano. Los objetivos de estas campañas están dirigidos, entre otros, a colectar información independiente de la pesquería, obtener datos biológicos de las especies capturadas (talla, sexo, grado de madurez y contenido estomacal) y extracción de estructuras (vértebras, otolitos y espinas) para el estudio de edad y crecimiento de las mismas. Así como experimentar diversas medidas de mitigación para la captura incidental de aves y tortugas (líneas espantapájaros, anzuelos circulares, "Safe Leads", etc.).

2.1.11 Prospección atún patudo

Durante 2009 se realizó un proyecto de prospección para determinar la posibilidad de pesca de atún patudo *(T. obesus)* en aguas uruguayas. Para esto, cinco barcos japoneses de aproximadamente 50 m de eslora operaron entre marzo y setiembre dentro de las 200 millas de Uruguay, principalmente sobre el talud continental. Durante esta prospección se realizaron 501 lances con un esfuerzo total de 1.190.225 anzuelos, los cuales fueron cubiertos en un 100% por observadores uruguayos del área de Recursos Pelágicos. También en estos barcos se continuó con el testeo de medidas de mitigación, utilizando las líneas espantapájaros diseñadas por Uruguay.

Parte II (Implementación de la ordenación)

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

Se continúa con la implementación del "Plan de Acción Nacional para Reducir la Captura Incidental de Aves Marinas en las Pesquerías Uruguayas". Ya se ha comenzado a utilizar líneas espantapájaros en prácticamente toda la flota atunera y se están haciendo pruebas de nuevas configuraciones de las mismas.

Se continúa con la instrumentación de las medidas de conservación presentadas en el "Plan de Acción Nacional para la Conservación de los Condrictios en las pesquerías uruguayas". Se está finalizando una normativa nacional que prohíbe el desembarco de tiburones sin sus aletas parcial o totalmente adheridas al cuerpo.

Entre las normas nacionales sobre ordenación continúan vigentes las referidas a tallas mínimas de captura para pez espada (25 kg, 15% tolerancia), patudo y rabil (3,2 kg). Los muestreos de tallas a bordo del presente año siguen demostrando que los ejemplares de pez espada, rabil y patudo capturados son principalmente adultos de grandes tallas, como es de esperar de una pesquería con palangre en esta área. Se han iniciado actividades y convocatorias para lograr una mayor y mejor colaboración con otros organismos estatales.

Se inició un trabajo de control en puerto de buques de tercera bandera, un grupo dentro de la DINARA (OROPS) se está conformando y realizando inspecciones en puerto para determinar cuáles son las especies desembarcadas en el puerto de Montevideo, cual es su origen y controlando aspectos formales de la documentación de los barcos.

Tabla 1. Capturas declaradas por Uruguay (2006-2009) por especie.

Año	*SWO*	*ALB*	*BET*	*YFT*	*BSH*	*SMA*	*POR*
2006	620	93	83	218	232	68	34
2007	464	34	22	35	337	36	3
2008	370	53	27	66	359	41	40
2009	501	685	201	76	942	106	14

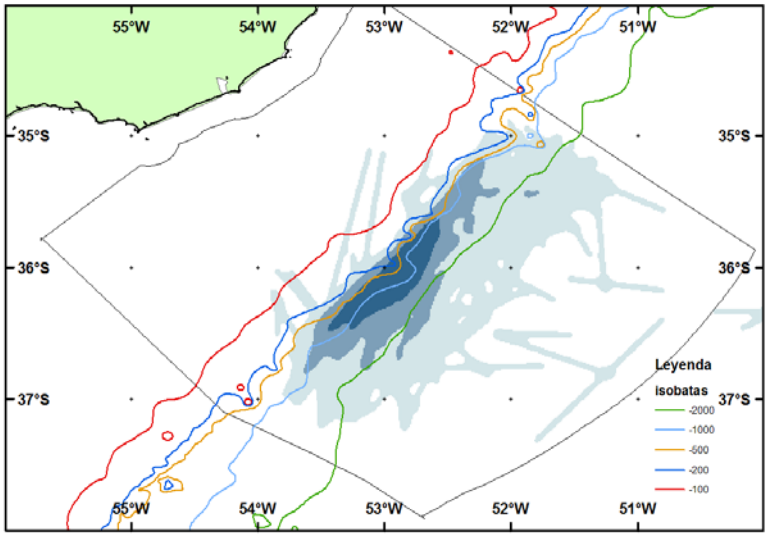

Figura 1. Área de operación de la flota de palangre profundo que dirigió su esfuerzo al patudo.

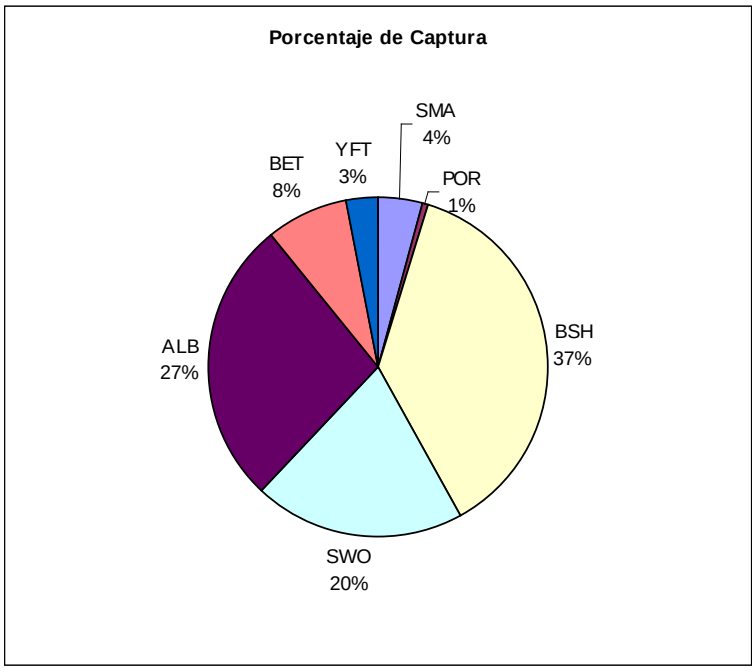

Figura 2. Porcentaje por especie de las capturas declaradas por Uruguay en el 2009.

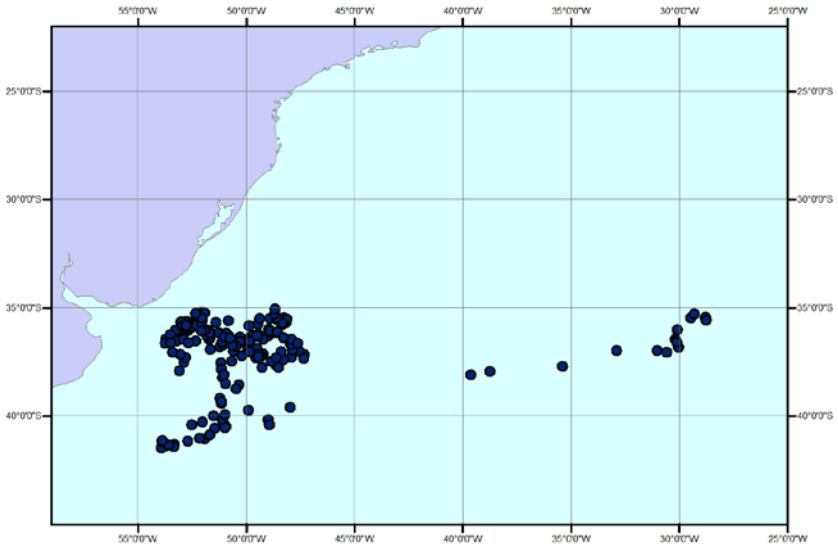

Figura 3. Lances con cobertura del PNOFA en el 2009.

ANNUAL REPORT OF VENEZUELA[1]
RAPPORT ANNUEL DU VENEZUELA
INFORME ANUAL DE VENEZUELA

SUMMARY

*The Venezuelan fleet targeting pelagic resources in 2009 was comprised of 60 industrial vessels (46 longliners, 6 purse seiners and 8 baitboats). In addition, 35 artisanal vessels were registered that fish using driftnets and 48 using surface longline. This year, landings of tunas and tuna-like species from the Atlantic amounted to 7.103 t. Of these, 91,6% were tunas, among which the most important species was yellowfin tuna (*Thunnus albacares*) with 45 %, whereas catches of skipjack tuna (*Katsuwonus pelamis*), blackfin tuna (*Thunnus atlanticus*) and bigeye tuna (*Thunnus obesus*) represented 32%, 4% and 6%, respectively. The by-catch was comprised of billfish, notably sailfish (*Istiophorus albicans*) with 2,2% and blue marlín (*Makaira nigricans*) with 1,5 %; shark landings represented 2,3%.Fifty-two percent of the landings were from the purse seine fishery, 9% from baitboat, 24% from longline, and 5% from the artisanal fisheries. In 2009, research continued on the fishery for large pelagic species, which includes tunas, billfish and sharks. The scientific observer program on board industrial longline vessels continued as well as the coverage of sport fishing tournaments.*

RÉSUMÉ

*En 2009, la flottille vénézuélienne ciblant les ressources pélagiques était composée de 60 unités industrielles : 46 palangriers, six senneurs et huit canneurs. On enregistre également 35 embarcations artisanales qui utilisent les filets maillant et 48 utilisant la palangre de surface. Les débarquements de thonidés et d'espèces apparentées de l'océan Atlantique se sont élevés en 2009 à 7.103 t.Ceux-ci étaient composés à 91,6 % de thonidés, parmi lesquels l'albacore (*Thunnus albacares*) était prédominant (45 %) tandis que le listao (*Katsuwonus pelamis*), le thon à nageoires noires (*Thunnus atlanticus*) et le thon obèse (*Thunnus obesus*) représentaient 32 %, 4 % et 6 % respectivement. Les prises accidentelles étaient composées de makaires, parmi lesquels des voiliers (*Istiophorus albicans*) (2,2 %) et des makaires bleus (*Makaira nigricans*) (1,5 %), ainsi que de requins dont les débarquements ont représenté 2,3 %. Cinquante-deux pour cent des débarquements ont été réalisés par la pêcherie de senneurs, 19 % par les canneurs, 24 % par les palangriers et 5 % par les pêcheurs artisanaux. En 2009, les programmes de recherche sur la pêcherie de grands pélagiques se sont poursuivis, englobant les thonidés, les istiophoridés et les requins. De la même façon, le Programme d'observateurs scientifiques à bord d'embarcations palangrières industrielles a été maintenu, tout comme la couverture des tournois de pêche sportive.*

RESUMEN

*La flota venezolana orientada a los recursos pelágicos estuvo conformada en 2009 por 60 unidades industriales: 46 palangreros, 6 cerqueros y 8 cañeros; y se registran además 35 embarcaciones artesanales que operan con redes de enmalle y 48 con palangre superficial. Ese año se produjeron desembarques de túnidos y afines provenientes del océano Atlántico por 7.103 t. El 91,6% de estos lo representan los atunes, entre los cuales el más importante fue el aleta amarilla (*Thunnus albacares*) con el 45 %, mientras que el bonito listado (*Katsuwonus pelamis*) y el aleta negra (*Thunnus atlanticus*) y albacora (*Thunnus obesus*) alcanzaron el 32 %, 4 % y 6 %, respectivamente. La captura incidental estuvo conformada por marlines, entre los que se destacan el pez vela (*Istiophorus albicans*) con el 2,2% y la aguja azul (*Makaira nigricans*) con el 1,5 %, y tiburones cuyos desembarques representan el 2,3 %. El 52 % de los desembarques provinieron de la pesquería de cerco, el 9 % de la de caña, el 24 % de palangre y el 5 % de las pesquerías artesanales. En 2009 continuaron las investigaciones sobre la pesquería de los grandes pelágicos; éstos incluyen los atunes, marlines y tiburones; y se*

[1] Instituto Nacional de Investigaciones Agrícolas (INIA); Instituto Socialista de la Pesca y Acuicultura (INSOPESCA)

mantuvo el programa de observadores científicos a bordo de embarcaciones industriales de palangre y la cobertura de los torneos de pesca deportiva.

Parte I (Información sobre pesquerías, investigación y estadística)

En la Republica Bolivariana de Venezuela, la agencia oficial de investigación, el Instituto Nacional de Investigaciones Agrícolas (INIA), está encargada 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 cooperación de diversas instituciones nacionales e internacionales tales como el INSOPESCA, Universidad de Oriente, ICCAT e IRD.

Sección I: Información anual sobre pesquerías

1.1 Pesquerías de cerco

La flota cerquera venezolana estuvo conformada por 26 embarcaciones, de las cuales 6 faenaron en el Océano Atlántico Occidental y el resto en el Océano Pacífico Oriental (**Tabla 1**). El área de pesca de los cerqueros venezolanos estuvo comprendida entre los 5° y 15°N y 51° y 71°W (**Figura 1A**).

Los desembarques realizados por la flota cerquera experimentaron un aumento del 14 % en el 2009, año en el cual se registraron 3.698,6 t. El atún aleta amarilla, *Thunnus albacares*, representó el 36,8 % de los desembarques de la flota, y el bonito, *Katsuwonus pelamis*, 48,9 %. 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 14,3 % de los desembarques. El esfuerzo ejercido por estas embarcaciones en el 2009 fue de 721 días de pesca, inferior en 17,6 % al ejercido en el 2008 (**Tabla 2**).

1.2 Pesquerías de caña

La flota cañera venezolana estuvo conformada en 2009, por 8 unidades de pesca y faenaron en las mismas áreas que las de la flota de cerco (**Figura 1B**). Los desembarques de esta flota alcanzaron 1.376,4 t, incrementándose estos en más del 100% en relación año 2008. Las especies más importantes en la captura de esta flota fueron el atún aleta amarilla, *T. albacares*, con 67,5 % y el listado, *K. pelamis*, con 32 %; mientras que el atún ojo gordo, *T. obesus* y el atún aleta negra, *T. atlanticus*, contribuyeron solo con el 0,5 % de los desembarques totales de la flota El esfuerzo aplicado fue de 811 días de mar lo cual representó un aumento del 11% en relación al 2008 (**Tabla 3**).

1.3 Pesquerías de palangre

El número de embarcaciones de palangre pelágico venezolanos que operaron en el Océano Atlántico en 2009 fue de 46 unidades. El área de pesca de estas embarcaciones se extiende entre 11°-17¨°N y 61°-75°W en el mar Caribe y en la parte occidental del océano Atlántico 5°-17°N y 50°-60°W (**Figura 1C**).

Los desembarques controlados en la flota de palangre pelágico basadas en el Puerto de Cumaná y Puerto La Cruz, arrojaron un total de 1705 t. en el 2009, mientras que el esfuerzo aplicado fue de 3.494.959 anzuelos (**Tabla 4**).

El atún aleta amarilla, *Thunnus albacares*, fue la especie más importante de los desembarques, representando el 52,7 % de los mismos, mientras que para los otros túnidos como el atún albacora, *Thunnus alalunga* y el atún ojo gordo, T*hunnus obesus*, el porcentaje fue de 23 %. Los marlines representaron el 10 % de los desembarques de la flota, de los cuales los mayores porcentajes correspondieron al pez vela con un 3,8 %. 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 la Republica Bolivariana de Venezuela)

La pesquería de peces de pico en esta zona se realiza durante todo el año. La flota que opera en la misma está integrada por 35 embarcaciones con eslora comprendida entre 7 y 10 m y utilizan como arte de pesca una red de trasmallo a la deriva.

Los desembarques totales realizados por esta flota fueron de 322 t, integrados fundamentalmente por peces de la familia Istiophoridae, entre los cuales destacan el pez vela, *Istiophorus albicans*, con un 29,9 % de los desembarques y la aguja azul, *Makaira nigricans*, con el 21,4 %. Los túnidos capturados representaron el 29,5 %, mientras que los desembarques de tiburones de varias especies representan el 5,5 % (**Tabla 5**).

***Sección 2: Investigación y estadística*s**

En la República Bolivariana de Venezuela se llevan a cabo investigaciones sobre la pesquería de los grandes pelágicos; éstos incluyen los atunes, marlines y tiburones. En el 2009, se continuó con los muestreos biológicos de las diferentes especies desembarcadas en puertos de los estados Sucre, Anzoátegui y Nueva Esparta y la recolección de datos de captura y esfuerzo de las diferentes pesquerías. Se muestrearon 11.041 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 océano Atlántico occidental bajo las modalidades de caña, cerco y palangre pelágico (**Tabla 7**). La flota industrial realizó 432 viajes, el porcentaje de cobertura global fue de 100 %.

En el Programa de Investigación Intensiva sobre Marlines en la Republica Bolivariana de Venezuela (PIIM-VZLA), auspiciado por la Comisión Internacional para la Conservación del Atún Atlántico (CICAA), se continuó con el programa de observadores científicos en embarcaciones de palangre pelágico y con los muestreos en puertos de desembarques de marlines. En el 2009 se efectuaron 13 cruceros con observadores científicos en embarcaciones palangreras industriales, con una cobertura del 4,4 % 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 tasa de capturas de esas especies, así como especies objetivo de las pesquerías con palangre.

Otra de las actividades que ejecuta el PIIM-VZLA se realiza en la comunidad pesquera de Playa Verde (Litoral Central de Venezuela). La actividad consiste en el monitoreo diario de los desembarques de marlines y otros grandes pelágicos como pez espada, tiburones, dorado y sierra canalera o peto. La actividad consiste en el registro diario de tallas, peso, e identificación de sexo de todas las especies de marlines y de pez espada desembarcado. Adicionalmente, en esta comunidad se observaron el mayor número de ejemplares con marcas, las cuales son registrados por el PIIM-Vzla con toda la información del ejemplar y luego son enviadas a la Secretaria CICAA. En el año 2009 se registraron un total de 45 ejemplares marcados. Durante este año se continúo con la recolección de muestras biológicas de aguja blanca y pez vela además de aguja picuda y marlín peto para los estudios de edad y crecimiento y reproducción que se llevan a cabo entre científicos de la Universidad de Oriente junto con científicos de otros países miembros.

Se continuó el monitoreo de los torneos de pesca deportiva en el litoral central de la Republica Bolivariana de Venezuela (área La Guaira), cubriéndose 3 de los siete torneos realizados en 2009.

2.1 Normativas para regular la pesquería de atún en el país

El Ministerio del Poder Popular para la Agricultura y Tierra es el órgano con competencia en materia de Pesca y Acuicultura, y el ente ejecutor es el Instituto Socialista de la Pesca y Acuicultura INSOPESCA, el cual tiene entre otras competencias, la de establecer los principios y las normas para la aplicación de prácticas responsables de pesca que aseguren la gestión y el aprovechamiento eficaz de los recursos acuáticos vivos, respetando el ecosistema y la diversidad biológica.

La Republica Bolivariana de Venezuela, a través del Ministerio con competencia en materia de pesca y acuicultura, puede adoptar medidas orientadas a la conservación y recuperación de las poblaciones bajo aprovechamiento. En este sentido, se encuentra en ejecución la revisión de las capturas históricas de albacora

desde el inicio de la asignación de cuotas al país. No obstante, que Venezuela no tiene una pesquería dirigida a la captura de la albacora, se requiere identificar los embarcaciones de la flota que reportan la mayoría de las capturas de esa especie de túnido a fin de aplicar medidas de ordenamiento de monitoreo, control y gestión.

En ese mismo orden de idea, la Republica Bolivariana de Venezuela desea implementar un programa de monitoreo de identificación especies en conflicto, en la localidad de Playa Verde (zona central del país) y en los puertos de Juangriego, Guiria, Puerto Santo, Carúpano y Guanta (en el oriente del país), como lo son los ejemplares de las diversas especies del género *Tetrapturus* (aguja blanca, aguja picuda y marlín peto), así como los tiburones.

Por otra parte, se continúan aplicando medidas de vigilancia y control de la norma técnica de ordenación para regular la pesca y comercialización de las especies de la familias Istiophoridae y Xiphiidae en todo el territorio nacional, dispuestas en la Providencia Administrativa Nº 69 de año 2003, la cual, entre otras disposiciones limita el número y tamaño de las embarcaciones y artes de pesca, y establece una zona de protección pesquera de las especies mencionadas.

Igualmente se mantiene el trabajo para la conformación del Programa Nacional de Observadores a bordo de embarcaciones atuneras que faenan en el océano Atlántico centro occidental. Este programa fortalecerá el seguimiento de esta pesquería y complementará la información que se lleva con los métodos de sistema de cuadernos de pesca, datos de desembarques y sistema de muestreo.

La legislación pesquera nacional fomenta la actuación de los diferentes actores vinculados al desarrollo de las pesquerías de túnidos y especies afines, a través de los órganos consultivos como lo son los Consejos Consultivos, Comité de Seguimiento del Atún y los Grupos de Expertos, con la finalidad de propiciar la participación y consulta permanente entre instituciones públicas, privadas, así como de representantes de los pescadores, para la asesoría de la Administración Pesquera en la propuestas de políticas, y formulación de planes o programas relativos a la pesca de los grandes pelágicos.

Tabla 1. Composición de la flota industrial venezolana en el océano Atlántico centro occidental, según la capacidad de carga. Año 2009.

C. Carga (t)		*BB*	*LL*	*PS*	*TOTAL*
0	50		26		26
51	100	3	14		17
101	150	2	5		7
151	200	1	1		2
201	250				
251	300	2		1	3
301	350				
351	400				
401	450				
451	500				
501	550				
TOTAL		**8**	**46**	**6**	**60**

Tabla 2. Captura (t) y esfuerzo (días de pesca) de la flota cerquera venezolana en el océano Atlántico centro occidental durante el año 2009.

*Especies**	*Trimestre*					
	I	*II*	*III*	*IV*	*TOTAL*	*%*
YFT	16,4	327,9	594,3	424,2	1362,7	36,8
SKJ	390,3	301,6	376,6	739,8	1808,2	48,9
FRI	0,4	13,7	3,6	12,3	30,1	0,8
ALB	2,5	81,7	0,0	0,0	84,2	2,3
BET	1,2	6,1	8,4	106,4	121,9	3,3
BLF	5,2	30,7	37,5	218,1	291,5	7,9
TOTAL	**416,0**	**761,7**	**1020,4**	**1500,6**	**3698,6**	**100,0**
EFF	**141**	**175**	**180**	**225**	**721**	

*YFT= Aleta amarilla
SKJ= Listado
FRI= Carachana
EFF= Esfuerzo
ALB= Albacora
BET= Ojo gordo
BLF= Aleta negra

Tabla 3. Captura (t) y esfuerzo (días) de la flota de caña venezolana en el océano Atlántico centro occidental durante el año 2009.

*Especies**	*Trimestre*					
	I	*II*	*III*	*IV*	*TOTAL*	*%*
YFT	52,2	6,4	320,8	549,4	928,7	67,5
SKJ	10,4	319,4	52,7	58,6	441,1	32,0
FRI	0,0	0,0	0,0	0,0	0,0	0,0
ALB	0,0	0,0	0,0	0,0	0,0	0,0
BET	0,0	0,0	0,0	5,2	5,2	0,4
BLF	0,0	0,2	0,0	1,3	1,4	0,1
TOTAL	**62,6**	**325,9**	**373,4**	**614,4**	**1376,4**	**100,0**
EFF	**70,0**	**232,0**	**277,0**	**232,0**	**811,0**	

* Ver leyenda en la Tabla 1.

Tabla 4. Captura (t) y esfuerzo (anzuelos) de la flota palangrera atunera venezolana en el océano Atlántico centro occidental durante el año 2009.

	I	*II*	*III*	*IV*	*TOTAL*	*%*
YFT	116.273	210.962	308.950	261.599	897.784	52,7
ALB	51.480	45.144	75.610	117.576	289.810	17,0
BET	13.773	19.626	48.353	20.447	102.199	6,0
WAH	2.556	4.941	4.908	9.805	22.210	1,3
DOL	1.323	5.277	2.288	1.449	10.337	0,6
BLF		56	105	110	271	0,0
WHM	9.312	8.918	8.647	24.654	51.531	3,0
BUM	2.994	6.372	6.307	22.579	38.252	2,2
SAI	5.618	7.352	24.766	27.434	65.170	3,8
SPF	1.143	5.278	1.593	5.944	13.958	0,8
SWO	1.451	3.548	205	2.956	8.160	0,5
BSH	7.202	14.518	21.934	27.744	71.398	4,2
SMA	5.536	7.791	9.028	12.771	35.126	2,1
CCL		7.414	4.155	13.781	25.350	1,5
SPL		4.026	55	577	4.658	0,3
OT SHK	7.602	11.348	3.220	14.788	36.958	2,2
OT SP	2.464	1.809	8.202	19.513	31.988	1,9
TOTAL	**228.727**	**364.380**	**528.326**	**583.727**	**1.705.160**	**100,0**
EFF (anzuelos)	**619.756**	**760.039**	**1.116.072**	**999.092**	**3.494.959**	

*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	Pez espada	OTH	Otras especies
SPF	Pez lanza	EFF	Esfuerzo

Tabla 5. Captura (t) y esfuerzo (viajes) en la pesquería artesanal de peces de pico con redes de enmalle en el litoral central año 2009.

*Especies**	*I*	*II*	*III*	*IV*	*TOTAL*	*%*
BUM	21.637,0	21.792,0	14.189,0	11.101,0	68.719,0	21,4
WHM	1.568,0	1.761,0	10.898,0	4.661,5	18.888,5	5,9
SAI	9.604,0	39.615,0	32.305,5	14.848,5	96.373,0	29,9
SWO	812,0	2.041,0	1.570,5	825,0	5.248,5	1,6
DOL	3.231,0	5.822,0	3.008,5	1.106,0	13.167,5	4,1
SHK	6.903,0	4.292,0	3.775,5	2.767,0	17.737,5	5,5
YFT	1.450,0	6.512,0	759,0	235,0	8.956,0	2,8
ALB	7.035,0	8.471,0	4.248,0	4.294,5	24.048,5	7,5
WAH	1.018,0	817,0	587,5	535,0	2.957,5	0,9
SKJ	92,0	128,0	35,0	227,0	482,0	0,1
BON	29.647,0	0,0	0,0	8.263,0	37.910,0	11,8
LTA	6.252,0	818,0	1.814,0	2.420,0	11.304,0	3,5
FRI	5.917,0	330,0	370,0	2.747,0	9.364,0	2,9
OTH	2.153,0	1.307,0	2.113,0	1.130,0	6.703,0	2,1
TOTAL	**97.319,0**	**93.706,0**	**75.673,5**	**55.160,0**	**321.858,5**	**100,0**
SALIDAS	1.036	1.096	988	841	3.961	
BARCOS/MES	98	98	96	97	389	

* Ver leyenda en la Tabla 4.

Tabla 6. Muestreos biológicos de túnidos y especies acompañantes en la pesquería de túnidos en el océano Atlántico centro occidental, año 2009.

Especies	*BB*	*%*	*PS*	*%*	*LL*	*%*	*GN*	*%*	*TOTAL*	*%*
YFT	372	78,48	659	26,15					1.031	9,34
SKJ	97	20,46	1.438	57,06					1.535	13,90
FRI			75	2,98					75	0,68
ALB			13	0,52					13	0,12
BET	3	0,63	115	4,56					118	1,07
BLF	2	0,42	220	8,73					222	2,01
WAH										
SAI					437	63,80	4223	57,36	4660	42,21
SPF					72	10,51			72	0,65
SPG										
BUM					65	9,49	883	11,99	948	8,59
SWO					14	2,04	180	2,44	194	1,76
WHM					97	14,16	871	11,83	968	8,77
DOL							1127	15,31	1127	10,21
SHK							78	1,06	78	0,71
BON										
LTA										
TOT	**474**	**100,00**	**2.520**	**100,00**	**685**	**100,00**	**7.362**	**100,00**	**11.041**	**100,00**
%	4,3		22,8		6,2		66,7		100,0	

PS= Cerco
BB= Caña
GN= Red de enmmale

Tabla 7. Campañas de embarcaciones industriales atuneras en el océano Atlántico centro occidental, 2009.

MES	*PS*		*BB*		*LL*		*TOTAL*	
	TR	*C*	*TR*	*C*	*TR*	*C*	*TR*	*C*
E			1	1	2	2	3	3
F	2	2	4	4	18	18	24	24
M	3	3	1	1	28	28	32	32
A	2	2	4	4	21	21	27	27
M	1	1	6	7	26	26	33	33
J	3	3	9	9	34	34	46	46
J	3	3	8	8	22	22	33	33
A	2	2	7	7	31	31	40	40
S	2	2	7	7	31	31	40	40
O	2	2	10	10	41	41	53	53
N	2	2	7	7	36	36	45	45
D	7	7	10	10	39	39	56	56
TOTAL	**29**	**29**	**74**	**74**	**329**	**329**	**432**	**432**
% COBERTURA		100		100		100		
		6,7		16,1		76,2		

TR= Total realizadas
C = Controladas

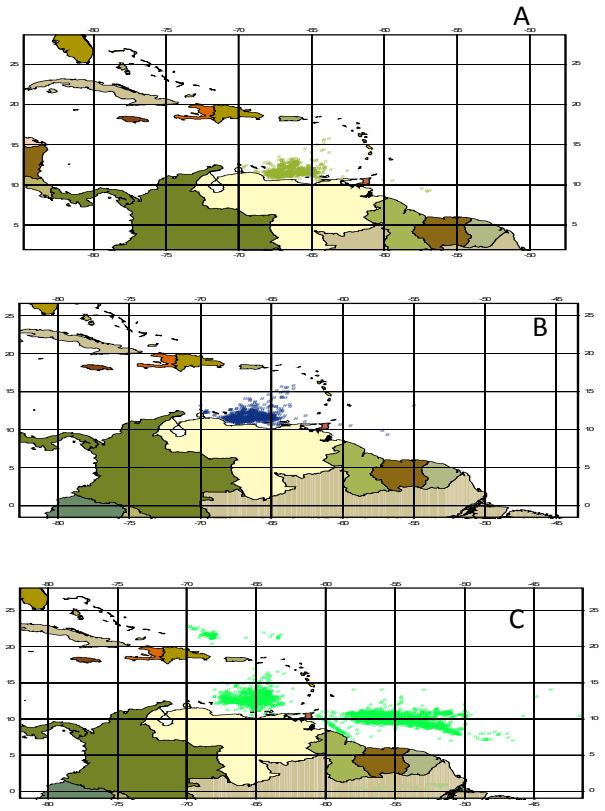

Figura 1. Áreas de pesca de las embarcaciones atuneras venezolanas año 2009. A: cerqueros, B: cañeros y C: palangreros

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

ANNUAL REPORT OF CHINESE TAIPEI
RAPPORT ANNUEL DU TAIPEI CHINOIS
INFORME ANUAL DE TAIPEI CHINO

Fisheries Agency, Council of Agriculture[1]

SUMMARY

In 2009, the total number of authorized longline vessels in the Atlantic Ocean was 109, which included 60 longliners authorized to target bigeye tuna and 49 authorized to target albacore. The catch of longline fleet declined from 45,437 metric tons (t) in 1998 to 28,090 t in 2009, and the catches of bigeye tuna, yellowfin tuna and albacore were 13,252 t, 1,391 t and 9,541 t, respectively. The catch increase of bigeye and yellowfin tuna from that of 2008 was mainly due to the resumption of fishing activities by those who had laid off from fishing as a result of high fuel price in 2008, but the reduction of albacore catch for some longliners was the result of temporary fishing layoff. Twenty-five (25) observers were placed on fishing vessels operating in the Atlantic Ocean and the observer coverage was above the requirement set by ICCAT. The research projects of 2009 conducted by scientists included the CPUE standardizations for north and South Atlantic albacore, swordfish and bigeye tuna, and distribution of ecologically related species in the Atlantic Ocean. The scientific documents on this research were submitted to various inter-sessional scientific meetings convened by ICCAT. To fulfill the implementation of ICCAT conservation and management measures, Chinese Taipei continued to limit on the number of fishing vessels, and apply fishery catch limits and species minimum size in 2009. Besides, measures to reduce by-catch species were applied to meet with those applied by ICCAT. To inspect and manage fishery activities, Chinese Taipei also implemented a number of strategic programs to ensure the effectiveness of ICCAT conservation and management measures and to combat IUU fishing, including implementation of management standards for LSTLVs, VMS system, scientific observer program, transshipment management, restriction on the export of fishing vessels, continued dispatching of patrol boat in the area of the Atlantic Ocean to conduct fishing surveillance and requirement of prior approval for nationals to operate foreign flag vessels.

RÉSUMÉ

En 2009, le nombre total de palangriers autorisés dans l'océan Atlantique s'est élevé à 109 unités, dont 60 palangriers autorisés à cibler le thon obèse et 49 navires autorisés à cibler le germon. La prise de la flottille palangrière a diminué, passant de 45.437 t en 1998 à 28.090 t en 2009. Les prises de thon obèse, d'albacore et de germon se sont élevées à 13.252 t, 1.391 t et 9.541 t respectivement. Les prises de thon obèse et d'albacore ont augmenté par rapport à 2008 principalement en raison de la reprise des activités de pêche par ceux qui avaient cessé leurs activités de pêche comme suite à l'augmentation du prix du combustible en 2008, mais la réduction des prises de germon de quelques palangriers étaient le fait de suspensions temporaires de pêche. Vingt-cinq observateurs ont été détachés sur des navires de pêche opérant dans l'océan Atlantique et le taux de couverture était supérieur au niveau fixé par l'ICCAT. En 2009, des projets de recherche ont été menés par des scientifiques, notamment sur la standardisation de la CPUE du germon de l'Atlantique Nord et Sud, de l'espadon et du thon obèse et sur la distribution des espèces écologiquement voisines dans l'océan Atlantique. Les

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documents scientifiques découlant de ces recherches ont été soumis à diverses réunions intersessions scientifiques convoquées par l'ICCAT. Afin de respecter la mise en œuvre des mesures de conservation et de gestion de l'ICCAT, le Taipei chinois a continué en 2009 à limiter le nombre de navires de pêche et a appliqué des limites de capture aux pêcheries et des tailles minimales par espèce. En outre, des mesures visant à réduire les prises accessoires ont été appliqués afin de respecter celles fixées par l'ICCAT. Afin d'inspecter et de gérer les activités de pêche, le Taipei chinois a également mis en œuvre un certain nombre de programmes stratégiques visant à garantir l'efficacité des mesures de conservation et de gestion de l'ICCAT et à lutter contre la pêche IUU. Ces programmes englobent notamment la mise en œuvre de normes de gestion pour les LSTLV, un système VMS, un programme d'observateurs scientifiques, la gestion des transbordements, la restriction des exportations des navires de pêche, le maintien du déploiement d'un patrouilleur dans la zone de l'océan Atlantique afin de surveiller les activités de pêche et l'exigence d'approbation préalable applicables aux ressortissants du Taipei chinois souhaitant opérer des navires sous pavillon étranger.

RESUMEN

En 2009 el número total de palangreros autorizados en el océano Atlántico fue 109, lo que incluía 60 palangreros autorizados a dirigir su actividad al patudo y 49 al atún blanco. La captura de la flota de palangre descendió pasando de 45.437 t en 1998 a 28.090 t en 2009. Las capturas de patudo, rabil y atún blanco ascendieron a 13.252 t, 1.391 t y 9.541 t, respectivamente. El incremento de la captura de patudo y rabil con respecto a 2008 se debió sobre todo a que aquellos que habían abandonado la pesca, por el alto precio del combustible en 2008, retomaron las actividades pesqueras, pero la reducción de la captura de atún blanco para algunos palangreros fue el resultado de una suspensión temporal de la pesca. Se embarcaron 25 observadores en los buques de pesca que operaron el océano Atlántico, y la tasa de cobertura de observadores se situó por encima del requisito establecido por ICCAT. Los proyectos de investigación realizados por los científicos en 2009 incluyeron: estandarizaciones de CPUE para el atún blanco del Atlántico norte y sur, pez espada y patudo y la distribución de especies ecológicamente asociadas en el océano Atlántico. Los documentos científicos sobre estas investigaciones se presentaron a diferentes reuniones científicas intersesiones convocadas por ICCAT. Para cumplir con la implementación de las medidas de conservación y ordenación de ICCAT, en 2009 Taipei Chino continuó limitando el número de sus buques pesqueros, y aplicó límites de captura en las pesquerías y normas sobre talla mínima. Además, se aplicaron medidas para reducir las especies de captura fortuita para cumplir las normas de ICCAT. Para inspeccionar y gestionar las actividades pesqueras, Taipei Chino también implementó una serie de programas estratégicos para garantizar la eficacia de las medidas de conservación y ordenación de ICCAT y luchar contra la pesca IUU, lo que incluye: implementación de normas de ordenación de los grandes palangreros atuneros, sistema de seguimiento de buques vía satélite (VMS), programa de observadores científicos, gestión de los transbordos, restricciones a la exportación de buques pesqueros, envió de un buque patrulla a la zona del océano Atlántico para vigilar la pesca y el requisito de aprobación previa para que los nacionales puedan operar buques con pabellón extranjero.

Part I (Information on Fisheries, Research and Statistics)

Section 1: Annual Fisheries Information

1.1 General overview

The longline fleet of Chinese Taipei commenced operating in the Atlantic Ocean in early 1960s to target albacore and yellowfin tunas. In mid 1980s, newly built longliners equipped with deep-freezer started operating in tropical area to target bigeye tuna.

Bigeye tuna, yellowfin tuna and albacore are the most dominant tuna species in the catch which comprised the majority (about 80%, **Table 1**) of the total catch of Chinese Taipei longline fishery in the Atlantic Ocean. **Figure 1** shows the catch distribution from 2007 to 2009, it was noted that the bigeye tuna and yellowfin tuna catches were located mainly in the area between 15°N and 15°S, and higher composition of albacore were observed in the area

north of 15°N and in the area south of 15°S. Swordfish was the most dominant by-catch species among the tuna and tuna-like species.

Following the implementation of a three-year vessel reduction program between 2005 and 2007, the number of vessels declined from 205 in 1998 to 109 in 2009. Subsequently, there was a decline in the overall catches by the fishery, from about 45,437 t in 1998 to 28,090 t in 2009 (**Table 1**). In 2006, the number of bigeye-targeted vessels was restricted to 15 vessels under ICCAT Recommendation 05-02, and 42 vessels were required to return to their homeport for fishery layoff. In accordance with ICCAT Recommendation 06-01, Chinese Taipei was permitted to reinstate the fishing activities of its bigeye-targeted longline vessels, with a ceiling of no more than 64 in 2007, and 60 in 2008 and thereafter. More detailed information on major tuna species is described as follows:

Albacore: In the Atlantic Ocean, there are two stocks of albacore separated by the 5°N parallel set by ICCAT subject to fishery management measures. The annual catch of South Atlantic albacore fluctuated between 10,000 t and 18,000 t in the last decade but decreased significantly to 9,966 t in 2008 and 8,678 t in 2009 as the result of a decrease in fishing effort. The catch of North Atlantic albacore in 2009 was 863 t, a decrease of 244 t from 2008. The total catch of albacore in 2009 was estimated to be 9,541 t, a decrease of 1,532 t from 2008.

Bluefin tuna: Bluefin tuna was targeted seasonally by some longliners in the Mediterranean prior to 2007. The catch of bluefin tuna was 277 t in 2005 and 9 t in 2006. After 2007, no vessel was authorized to fish bluefin tuna and there was no catch reported.

Tropical tunas: The catches of bigeye and yellowfin tunas in 2009 were estimated to be 13,252 t and 1,391 t, respectively, showing significant increases of 2,834 t and 269 t, respectively from that of the previous year (10,418 t and 1,122 t in 2008). This increase was mainly due to the resumption of fishing activities following the fall of fuel prices.

Swordfish: Following the reduction of catch limits under the sharing arrangement adopted in 1998, the Chinese Taipei catch of swordfish was reduced simultaneously. The preliminary estimate of the swordfish catch was 701 t in 2009, comprising 89 t from the North Atlantic Ocean and 612 t from the South Atlantic Ocean.

Billfish species: Billfish species are by-catch for longline fishery and the catch estimates of Chinese Taipei vessels operating in the Atlantic Ocean for white marlin, blue marlin, sailfish, spearfish and other marlins were 28 t, 195 t, 73 t, 24 t and 11 t, respectively, in 2009.

Sharks: Sharks are also by-catch species captured by the longline fishery. Based on the best information available 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 catch of sharks was 2,211 t in 2008 and 1,626 t in 2009. The preliminary catch estimates in 2009 for blue shark, shortfin mako, silky shark and other sharks were 1,412 t, 143 t, 4 t and 67 t, respectively.

Section 2: Research and Statistics

2.1 Data collection and processing system

Task I data are obtained by information from: (1) monthly traders' sales records of the Chinese Taipei longline fleet; (2) tuna export data from the Organization for the Promotion of Responsible Tuna Fishery (OPRT); (3) the verification on settlement of fish sales from Fisheries Agency; (4) statistical documents reported to Fisheries Agency; and (5) the total catch from the recovered logbooks, with further adjustment, where necessary..

As for Task II catch and effort data, all the data are complied based on logbooks, which are required for submission to the authorities. Information required to be filled in the logbooks includes daily positions from VMS, number of hooks, catches of main tuna and tuna-like species by number and weight, bait, and sea surface temperature. First of all, all logbook information is screened for its validity. Then the Task I data are used as a reference in producing a raised version of the Task II data.

As for the size data in Task II, fishermen are required to measure the first 30 fish they have caught and retained on board, regardless of the species. Those size data have been sent to the ICCAT Secretariat as actual size data. In addition, the catch-at-size database was created by Chinese Taipei scientists based on these size data, in conjunction with Task I and II catch data.

2.2 Research

In the past, the domestic research program was focused more on standardization of catch per unit effort on a number of tuna stocks. The research results were presented at the regular meetings and inter-sessional working group meetings of SCRS. Following the implementation of the observer program, more data and biological samples were made available for research. Currently, the research relating to tunas conducted include: stock assessments, standardization of catch per unit effort on bigeye, swordfish, albacore and blue marlin (and other incidental catch species), shark fin ratio, shark by-catch re-estimation in the Indian and Pacific Oceans, incidental catch rate and mortality rate of seabirds, sea turtles and cetaceans. For research work on global tuna fisheries, budgets of about US$ 910,000 and US$ 780,000 dollars were allocated for 2003 and 2004, respectively, and further increased to US$ 940,000, US$ 1,400,000, US$ 1,469,000, US$ 1,675,533 in 2005, 2006, 2007 and 2008, respectively, and slightly reduced to US$ 1,432,531 in 2009.

The scientific papers presented in recent ICCAT meetings were as follows:

- Standardized northern Atlantic albacore (*Thunnus alalunga*) CPUE, from 1967 to 2008, based on Taiwanese longline catch and effort statistics. (SCRS/2009/105)
- Conversion on sampled-CAS into CAA of North Atlantic Taiwanese albacore catch, dating from 1981 to 2008, using knife cutting algorithm. (SCRS/2009/106)
- Standardized CPUE of South Atlantic albacore (*Thunnus alalunga*) based on Taiwanese longline catch and effort statistics dating from 1967 to 2008. (SCRS/2009/107)
- Standardizing catch and effort data for South Atlantic swordfish of the Taiwanese longline fishery. (SCRS/2009/117)
- Standardized catch-rates of swordfish (*Xiphias gladius*) for the Taiwanese tuna longline fleet in the North Atlantic Ocean. (SCRS/2009/118)
- Recent Taiwanese bigeye tuna fisheries in the Atlantic Ocean. (SCRS/2010/034)
- Verification of catch-effort data and standardization of abundance index of bigeye tuna by Taiwanese longline fishery in the Atlantic Ocean. (SCRS/2010/035)
- Distribution of ecologically related species in the Atlantic Ocean: sighting by Taiwanese tuna longline fishing vessels from 2004 to 2008. (SCRS/2010/046)

2.3 Data improvement programs

For improvement of the statistical system, Chinese Taipei has taken the following measures to collect fishery-independent data. When more data from various sources are available, the 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

As most distant water 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, Trinidad and Tobago. Port sampling cooperation was entered with the canneries in Port of Spain, Trinidad and Tobago to collect samples and size measurements at cannery pier side at time of offloading in 2006. From December 2006 to December 2009, 21,855 albacore tuna length data were collected from 19 albacore-targeted vessels, among which 20,660 included weight data in addition to length data.

2.5 Observer program

The first pilot observer program was launched in 2001 where focus was put on the Indian Ocean. In 2002-2003, the program was extended to cover all three oceans, with deployment of 2 observers to each ocean, and the number of observers was increased to 9 in 2004. For the Atlantic Ocean, there were 4 observers in 2004, which was increased to 5 in 2005. Of these, 3 were placed onboard bigeye vessels and the remaining 2 onboard albacore vessels. In accordance with ICCAT Recommendation 05-02, 100% compliance observer was required to be deployed to the 15 bigeye tuna fishing vessels authorized to fish in the Atlantic Ocean in 2006. The compliance observers also served the function of scientific observers. In 2007, 2008 and 2009, there were 20, 21 and 25 observers,

respectively, placed on fishing vessels in the Atlantic Ocean, including 14, 17 and 20 observers respectively, on bigeye vessels, where 10% coverage was required under ICCAT Recommendation 06-01.

The observers were required to collect fishery data and size measurements on target species and by-catch species. Biological samples of bigeye, albacore, swordfish and bycatch/incidental catch species were also collected. The annual budget input for observer program was increased to about US$ 330,000 in 2004 from US$ 180,000 in 2003. The government has placed high priority in the observer program with notable increase of budgets, and the budgets of observer programme for 2005, 2006, 2007, 2008 and 2009 were US$ 750,000; US$ 859,000; US$ 2,073,111; US$ 2,048,394; and US$ 2,128,000 respectively.

2.6 Vessel Monitoring System and Daily Catch Report

As from 2003 all the longline vessels of Chinese Taipei operating in the Atlantic Ocean have been required to install VMS with a workable spare set. The data from VMS have been used to resolve the positions in logbooks to improve the logbook data quality. Additionally, as from 2006, every bigeye-targeted vessel is required to report its catch to the Fisheries Agency through VMS in the e-logbook form or by facsimile. The data from daily e-logbook through VMS are incorporated in the statistical system for quicker collection of catch data as well as for improvement of MCS functions.

Reportedly, Chinese Taipei is the first CPC to conduct a pilot e-logbook program. The e-logbook system substantially shortens the time of obtaining catch data from fishing vessels, and furthermore, it provides an effective tool for Fisheries Agency to monitor the quota or catch limit allocated to individual fishing vessels. In addition, the daily catch received through e-logbook can be processed and aggregated into Task II in a much shorter period of time, and made readily available for stock assessment.

Part II (Management implementation)

Section 3. Implementation of ICCAT Conservation and Management Measures

3.1 Limit on the number of fishing vessels

− Bigeye tuna (Recs. 04-01, 05-02, 06-01, 08-01)

Chinese Taipei limited the number of fishing vessels catching bigeye tuna to 98 in 2005 in compliance with the *Recommendation by ICCAT on the Bigeye Tuna Conservation Measures* (Rec. 04-01). In order that its fleet size could be commensurate with its fishing possibilities and in compliance with Rec. 05-02 and to further restructure its global tuna longline fisheries, Chinese Taipei implemented vessel reduction programs from 2005 to 2007, aiming to scrap 183 large-scale tuna longline vessels targeting bigeye tuna, including 28 vessels from the Atlantic Ocean. In accordance with ICCAT Recommendations 05-02, 06-01 and 08-01, Chinese Taipei limited the number of fishing vessels catching bigeye tuna to 15 in 2006, 64 in 2007, and 60 in 2008 and 2009, respectively. In 2009, the actual number of bigeye vessels authorized was 60 and the list of vessels was duly submitted to ICCAT.

− Northern albacore (Rec. 98-08)

In accordance with the 1998 R*ecommendation by ICCAT on the Limitation of Fishing Capacity on Northern Albacore* (Rec. 98-08), the number of fishing vessels for catching northern albacore was set at the average number for the period of 1993-1995. Following the limitation of the number of fishing vessels, 14 vessels were authorized to fish northern albacore in 2009 and the list of vessels was duly submitted to ICCAT.

3.2 Catch limits and minimum sizes

In accordance with the relevant ICCAT Recommendations, catch limits have been set on northern and southern albacore, bigeye tuna, northern and southern swordfish, blue marlin and white marlin. Measures to prohibit catch of undersized fish for yellowfin tuna, bigeye tuna and swordfish were also enforced.

As for the *Recommendation by ICCAT Regarding Compliance with Management Measures which Define Quotas and/or Catch Limits* (Rec. 00-14), Chinese Taipei has taken into account the requirement of the adjustment of underage/overages in the management of its tuna fishery in the Atlantic. Catch estimates together with the status of overages/underages in 2009 were provided to the Secretariat in the Compliance Table.

− Bigeye tuna (Recs. 04-01, 08-01)

For 2009, the catch of bigeye tuna by Chinese Taipei was limited to14,900 t[2] in accordance with the Rec. 04-01. To ensure the catch of bigeye tuna did not exceed the limit, and to minimize the chances of overuse of the catch limit, the Fisheries Agency provided each vessel with an individual catch limit. Once the individual vessel catch limit is exhausted, the vessel must stop fishing and return to a designated port. In 2009, 13,252 t of bigeye tuna was caught by the fleet of Chinese Taipei, well below the catch limit.

For further conserving bigeye tuna in this region, measures were voluntarily taken to prohibit fishermen to catch juvenile bigeye tuna, whose size is under 3.2 kg.

− Bluefin tuna (Rec. 08-05)

Although Chinese Taipei was entitled to catch 66.3 t of bluefin tuna in the eastern Atlantic and Mediterranean in accordance with Recommendation 08-05, in 2009 no vessel was authorized to fish bluefin and no catch was reported. Furthermore, Chinese Taipei adopted a regulation to prohibit vessels from fishing bluefin tuna in the Atlantic Ocean during the 2009 fishing season, and informed the ICCAT Secretariat on February 23, 2009. In addition, the unused quota of 66.3 t of bluefin tuna in 2009 was carried over to 2011 in accordance with paragraph 15 of Rec. 08-05, which was duly informed to ICCAT.

− Northern albacore (Rec. 07-02)

According to the *Recommendation by ICCAT on North Atlantic Albacore Catch Limits for the Period 2008-2009* (Rec. 07-02), a catch limit of 3,950 t[3] was set for Chinese Taipei in 2009. Only 863 t of northern albacore was caught by the fleet of Chinese Taipei, well below the catch limit allocated.

− Southern albacore (Rec. 07-03)

According to the *Recommendation by ICCAT on the Southern Albacore Catch Limits for 2008, 2009, 2010 and 2011* (Rec. 07-03), a catch limit of 29,900 t of southern albacore was set for all countries fishing for the stock. Following the decrease of fishing efforts in the fishery, the catch of South Atlantic albacore also reduced drastically. Overuse of the catch limit was not likely to happen.

− North swordfish (Recs. 06-02, 08-02, 08-03)

According to the *Supplemental Recommendation by ICCAT to Amend the Rebuilding Program for North Atlantic Swordfish* (Rec. 06-02), Chinese Taipei was limited to a catch of 270 t in 2009. In addition, restrictions on minimum weight (< 25 kg) and size (lower jaw fork length (LJFL) <119 cm) of swordfish for vessels operating in this region were applied. Domestic measures were taken to ensure compliance with these measures. According to the *Recommendation by ICCAT on Mediterranean Swordfish* (Rec. 08-03), fishing for Mediterranean swordfish shall be prohibited in the Mediterranean Sea during the period from 1 October to 30 November. In fact, no vessel was authorized to fish for Mediterranean swordfish in 2009 by Chinese Taipei.

− South swordfish (Rec. 06-03)

According to the *Recommendation by ICCAT on the South Atlantic Swordfish Catch Limits* (Rec. 06-03), Chinese Taipei was limited to a catch of 550 t in 2009. Chinese Taipei may apply carry over against its underage in 2008 of the south swordfish catch to 2009 up to 97 t, in addition to the catch limitation of 550 t. Domestic measures were taken to ensure compliance with these recommendations.

− Atlantic white marlin and blue marlin (Rec. 06-09)

According to the *Recommendation by ICCAT to Further Strengthen the Plan to Rebuild Blue Marlin and White Marlin Populations* (Rec. 06-09), Chinese Taipei's catch of Atlantic white marlin was limited to 186.8 t and the catch of blue marlin to 330 t in 2009. Domestic measures were taken to ensure compliance with these recommendations.

[2] 2009 adjusted quota has been reduced by 1,600 t in accordance with the provision of [Rec. 04-01].
[3] In 2009, Chinese Taipei transferred 100 t from its catch allocation to St. Vincent and the Grenadines in accordance with the provision of [Rec.07-02].

3.3 Measures to reduce incidental catch of sea turtle, seabird and sharks (Recs. 95-02, 01-11, 03-10, 03-11, 04-10, 05-05, 06-10, 07-06, 07-07, 08-07)

- To disseminate the information of seabird conservation, in recent years pamphlets and leaflets were distributed to fishermen, fishery industries and domestic conservation groups for promoting the concept of conservation of sea turtle, seabird and sharks.
- Data collection: observers were placed on distant water tuna longline vessels to record the length, species and related information of bycatch since 2000.
- In 2006, Chinese Taipei established the National Plans of Actions (NPOA) for reducing catch of seabirds in longline fisheries and for the management and conservation of sharks.
- Fishermen were required to record incidental catches of sharks as well as live releases, in accordance with ICCAT data reporting requirements.

3.4 Closed seasons (Recs. 06-06, 08-05)

In accordance with ICCAT Recommendation 08-05 and 06-06, domestic regulations were implemented to prohibit longline vessels from fishing bluefin tuna in the East Atlantic and Mediterranean and the West Atlantic for the entire year. In an effort to conserve fisheries stocks, no vessel was authorized to fish for the eastern Atlantic and Mediterranean bluefin tuna in 2009.

3.5 Ban on Imports (Recs. 02-17, 03-18)

According to ICCAT Resolutions/Recommendations (02-17, 03-18), imports of products of bluefin tuna, swordfish, and bigeye tuna caught from those countries under trade restrictive measures were prohibited.

3.6 Implementation of the ICCAT Management Standard for Larger-Scale Tuna Longline Vessels (Recs. 01-20, 02-22)

Pursuant to the *Resolution by ICCAT Concerning a Management Standard for the Large-Scale Tuna Fishery* (Res. 01-20), the Report of the Implementation of the ICCAT Management Standard for Large-Scale Tuna Longline Vessels is was submitted to the Secretariat.

Likewise, in accordance with the establishment of an ICCAT Record of Vessels over 24 meters authorized to operate in the Convention area (Rec. 02-22), a list of vessels larger than 24 meters length overall that were authorized to fish for tuna and tuna-like species in the ICCAT Convention area was submitted to the ICCAT Secretariat.

3.7 Vessel Monitoring System (Recs. 03-14, 04-11)

According to the *Recommendation by ICCAT Concerning Minimum Standards for the Establishment of a Vessel Monitoring System in the ICCAT Convention Area* (Rec. 03-14) and the *Recommendation by ICCAT Concerning Implementation of the VMS Recommendation* (Rec. 04-11), all large-scale tuna fishing vessels authorized to fish for tuna and tuna-like species in the ICCAT Convention area were required to install satellite-based vessel monitoring system (VMS) and report their positions every 6 hours.

To ensure uninterrupted reporting of their positions and to prevent fishing vessels from making excuse for reason of malfunction of VMS, all fishing vessels and transport vessels operating in the Atlantic have been required to install a spare set of VMS since 2005, to make immediate replacement in case of machine breakdown. Staff at the land-based monitoring center was instructed to closely monitor the activities of vessels through VMS reporting.

3.8 Observer Program

In 2009, Chinese Taipei dispatched 25 observers onboard the active bigeye vessels, with observer coverage of over 10%. In addition, observers were placed onboard the LSTLVs targeting albacore tuna to achieve a minimum 5% observer coverage based on the policy of the Fisheries Agency. These observers collected fishery data and size measurements on major target and by-catch species. Biological samples of bigeye, albacore, swordfish and by-catch/incidental catch species were also collected.

3.9 Measures to ensure the effectiveness of ICCAT Conservation and Management measures and to prohibit Illegal, Unreported, and Unregulated fisheries

In accordance with the *Resolution by ICCAT Calling for Further Actions Against Illegal, Unregulated, and Unreported Fishing Activities by Large-Scale Tuna Longline Vessels in the Convention Area* (Res. 99-01), and the *Supplemental Resolution by ICCAT to Enhance the Effectiveness of the ICCAT Measures to Eliminate Illegal, Unregulated, and Unreported Fishing Activities by Large-Scale Tuna Longline Vessels in the Convention Area* (Res. 00-19), 48 flag-of-convenience (FOC) vessels that were built in Chinese Taipei ship yards completed registration in the registry, among which thirteen 13 were operating in Atlantic Ocean. The List of vessels that completed the re-registration process was reported to the Secretariat on July 7, 2003.

To prevent illicit activities from occurring again, the Fisheries Agency has been exerting its greatest efforts in cracking down on any violation under the applicable legal framework. In 2009, no IUU fishing activities were detected or reported to have been conducted by Chinese Taipei flagged vessels in the Atlantic Ocean.

3.9.1 Restriction in the export of fishing vessels

Chinese Taipei promulgated the "Regulations on Permission for the Export of Fishing Vessels" in 2005 and the regulations were amended in 2007. According to the said Regulations, it is required to have consultations with the authority of the country which plans the importation of the fishing vessel, and to provide information of the fishing activities of vessel if the investment for the building of the vessel is derived from a national of Chinese Taipei. The objective of the Regulation is primarily to prevent the expansion of fishing capacity with Chinese Taipei as beneficiary. The export of newly built fishing vessels in Chinese Taipei will not be permitted where the country planning for the importation of the fishing vessel refuses to consult with Chinese Taipei, or when such export will be in contravention to the conservation measures adopted by the RFMOs, or the vessel will be destined for countries under sanction by RFMOs, or to non-members or non cooperating non-members of RFMOs. Under the spirit of the said regulations, exports of fishing vessels built in Chinese Taipei will in no way breach the conservation and management measures adopted by the relevant RFMOs.

3.9.2 Prior approval for operation of foreign flag vessels by CT nationals

To demonstrate the determination of the government to eliminate IUU fishing activities, through tremendous efforts, the Ordinance to Govern Investment in the Operation of Foreign Flag Vessels was enacted and promulgated on 17 December 2008. The essence of the legislation is to have both the beneficial owner State (the State whose national owns the vessel) and the flag State assume the responsibility of fisheries management. This legislation is a major breakthrough which, instead of focusing on the location of crime as appeared traditionally in the legislation of Chinese Taipei, it takes into account the person who commits the crime, that is to say, IUU fishing activities in a foreign country by any Chinese Taipei national will be subject to criminal prosecution, and when convicted the offender will be liable to imprisonment.

3.9.3 Transhipment

As ICCAT established the Program for Transhipment in May 2007 in accordance with Recommendation 06-11, Chinese Taipei started authorizing its bigeye vessels to conduct at-sea transshipment. In 2009, 60 bigeye vessels were authorized to conduct at-sea transshipment, and 13 bigeye vessels and 26 albacore vessels were authorized to conduct in-port transhipment. The detailed report on the implementation of Regional Observer Program of ICCAT in 2009 by Chinese Taipei was submitted to the ICCAT Secretariat in due time.

3.9.4 Statistical Document (Recs. 94-05, 01-21, 01-22, 03-09, 03-19)

In accordance with ICCAT Recommendations, regulations on the application of the Bluefin Tuna Statistical Document were implemented as from 1994. Furthermore, the system for issuing the "ICCAT Bigeye Tuna Statistical Document" in accordance with the ICCAT Recommendation was conducted as from July 1, 2002. In 2009, 479 Statistical Documents were issued for the trading of bigeye tuna and swordfish caught in the Atlantic Ocean. Of these, 74.5% were issued for bigeye tuna and 25.5% for swordfish. Most of the catch was exported to Japan.

3.9.5 Bluefin Tuna Catch Documentation (Rec. 08-12)

In accordance with ICCAT Recommendation 08-12, Chinese Taipei established a domestic regulation for the purpose of implementing the ICCAT Bluefin Tuna Catch Document Scheme. In fact, as no fishing on bluefin tuna was authorized, no Atlantic Bluefin Tuna Catch Documents (BCDs) were issued by Chinese Taipei. In addition, 285 kg of bluefin tuna were imported from Japan in 2009.

Section 4: Inspection Scheme and Activities

4.1 Inspections

In 2009, port inspections on 40 vessels were carried out in Cape Town, South Africa, to ensure the compliance of ICCAT measures by the vessels of Chinese Taipei.

4.2 Patrol boat

In 2009, Chinese Taipei dispatched a training vessel serving the purpose of a patrol boat cruising in the area of the Atlantic Ocean where Chinese Taipei vessels were present and they conducted boarding and inspection of 15 vessels.

Section 5. Others Activities

5.1 Fishing Capacity Reduction Program

In order that the fleet size can be commensurate with the availability of global fishing possibilities, Chinese Taipei implemented a two-phase vessel reduction program. In Phase 1, which was completed in 2005, 59 LSTLVs were scrapped. Phase 2 involved the demolishing of a further 101 LSTLVs in 2006, 51 of which were scrapped and the remaining 50 were sunk in Chinese Taipei territorial waters to be used as artificial reefs, serving as nursing grounds for restoring fish stocks for Chinese Taipei's coastal fisheries. In 2007, a further 23 LSTLVs were reduced in order to adjust the restructure the fisheries, with a focus on the vessels operating in Indian and Pacific Oceans.

5.2 Contributions to ICCAT

Being a non-member of ICCAT, Chinese Taipei has no obligation to share the financing of the ICCAT budget. However, in view of the importance of stock conservation and assessment and being an important user of the tuna stocks in the Atlantic Ocean, Chinese Taipei has been making voluntary contributions to ICCAT since 1998. From 1998 to 2006, Chinese Taipei had made voluntary contributions of US$ 591,560 to ICCAT. In 2007 and 2008, Chinese Taipei made a voluntary contribution of € 100,000 each year. As for 2009, Chinese Taipei contributed a total amount of € 108,000 which includes € 5,000 for the ICCAT Enhanced Billfish Research Program and € 3,000 for the ICCAT Bluefin Tuna Research Program.

Table 1. Catch estimate (in round weight, t) for the Chinese Taipei tuna longline fishery that operated in the Atlantic Ocean during 1998-2009.

Year	*ALB*	*N.ALB*	*S.ALB*	*BET*	*YFT*	*BFT*	*SBF***	*SWO*	*N.SWO*	*S.SWO*	*WHM*	*BUM*	*BIL****	*SKJ*	*OTH*	*SKX*	*TOTAL*
1998	19,204	3,098	16,106	16,314	5,328	456	42	1,433	286	1,147	506	578	411	75	121	969	45,437
1999	23,162	5,785	17,377	16,837	4,411	249	30	1,453	285	1,168	464	486	332	40	558	2,068	50,090
2000	22,520	5,299	17,221	16,795	5,661	313	24	1,650	347	1,303	437	485	165	41	714	1,666	50,471
2001	20,232	4,399	15,833	16,429	4,805	633	223	1,448	299	1,149	152	240	49	25	975	675	45,886
2002	21,651	4,330	17,321	18,483	4,659	666	16	1,474	310	1,164	178	294	206	39	758	653	49,077
2003	21,908	4,557	17,351	21,563	6,486	445	170	1,511	257	1,254	104	319	112	40	931	1,803	55,392
2004	17,566	4,278	13,288	17,717	5,824	51	17	775	30	745	172	315	59	43	871	1,380	44,790
2005	13,270	2,540	10,730	11,984	3,596	277	2	884	140	744	56	151	104	38	1,106	1,455	32,923
2006	14,650	2,357	12,293	2,965	1,260	9	0	549	172	377	44	99	105	38	1,289	2,678	23,686
2007	14,443	1,297	13,146	12,116	1,947	0	0	774	103	671	54	233	184	16	1,759	2,890	34,416
2008	11,073	1,107	9,966	10,418	1,122	0	3	809	82	727	38	148	149	27	1,412	2,211	27,410
2009*	9,541	863	8,678	13,252	1,391	0	3	701	89	612	28	195	108	6	1,239	1,626	28,090

* : 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.

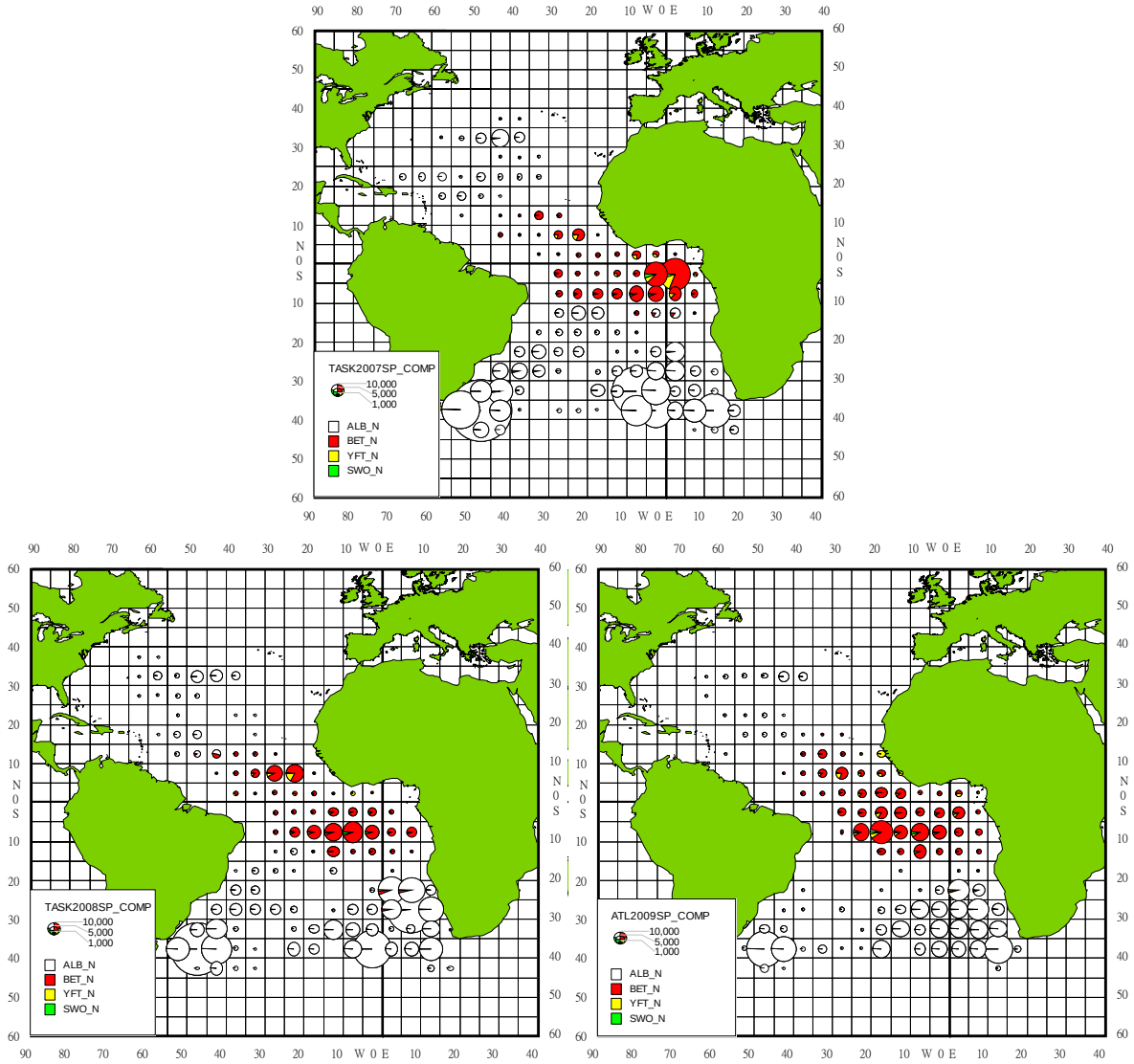

Figure 1. Distribution of catch composition of the main tuna species in the Atlantic Ocean in 2007 (top), 2008 (left, preliminary data) and 2009 (right, preliminary data).

ANNUAL REPORT OF GUYANA
RAPPORT ANNUEL DE LA GUYANA
INFORME ANUAL DE GUYANA

Fisheries Department, Guyana

SUMMARY

*Guyana's artisanal fishery is nearshore, operating within the national Exclusive Economic Zone and targets a number of groundfish species (*Sciaenidae, Ariidae, Sparidae, *etc). In this fishery, scombrids and sharks are taken as by-catch, and are seasonal. In 2009, a total of 370,137 kg of shark and 231,466 kg of scombrids were harvested. Sharks continue to be landed dressed, which poses a real problem for recording shark catches by individual species.*

RÉSUMÉ

*La pêcherie artisanale de la Guyana opère non loin des côtes, à l'intérieur de la Zone économique exclusive, et cible un certain nombre d'espèces de poissons de fond (*Sciaenidae, Ariidae, Sparidae *etc.). Dans cette pêcherie, les scombridés et les requins sont capturés en tant que prise accessoire et sont de nature saisonnière. En 2009, un total de 370.137 kg de requins et de 231.466 kg de scombridés a été capturé. Les requins continuent à être débarqués en poids manipulé, ce qui pose un véritable problème pour l'enregistrement des prises de requins par espèce individuelle.*

RESUMEN

*La pesquería artesanal de Guyana se realiza cerca de la costa y opera dentro de la Zona Económica Exclusiva nacional. Se dirige a diversas especies de peces de fondo (*Sciaenidae, Ariidae, Sparidae, *etc.). En esta pesquería los escómbridos y los tiburones son capturas fortuitas estacionales. En 2009, se capturó un total de 370.137 kg de tiburones y 231.466 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

In 2009, the fishers experienced the impact of global economic recession and climatic changes to the environment. The effect was severe on the fishing sector and may have been a contributing factor for the low fisheries production and exports. Guyana is below sea level and experienced sporadic flooding for the fifth consecutive year, thus there is a reduction in landing sites along the coast for artisanal vessels which were used as a focal point to drain water off the land.

The option to transform the Fisheries Department into a semi-autonomous agency is still under review by the government.

1.1 Description of the fishery

In Guyana, there is an inshore artisanal fishery, using locally made boats that exploit both the demersal and pelagic species found near shore and within the national EEZ. In this fishery five gear types are common: (i) Chinese seine/fyke net, (ii) pin seine, (iii) cadell, (iv) gillnet (nylon and polyethylene), and (v) handline, fish pots.

All the boats are made of wood and are manufactured locally. The boats are 6 to18 m in overall length and are powered by sails, outboard, or inboard engines.

1.1.1 Fishing gear and vessels

Chinese seine, cadell 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 8 cm at the mouth to 1 cm at the funnel end.

Cadell or demersal longline fishing vessels ranged in size from 6.71 to 9.15m (22-30 ft) in length. A cadell line consists of a horizontal/ground line anchored at each end, with a series of about 800 dangling/vertical lines, set with baited hooks at 2m outwards. Each vessel carries between 4-5 wooden trays with each tray having 2-6 main lines.

Nylon gillnet boats are v-bottom boats ranging in size from 7.63 to 9.15 m (25 – 30 ft) in length. These boats have no cabin but are equipped with an icebox and are usually powered by 48-hp outboard engines. The fishers therefore conduct daily fishing trips. Vessels using the (polyethylene) gillnet gear are v-bottom vessels with a length range of 12.2-15.25 m (40-50 ft). These vessels have a cabin and utilize diesel-powered inboard engines. The length of the trip for a gillnet vessel is usually 10-21 days.

Approximately 60% of the artisanal vessels use gillnets and fishing is done in coastal/shallow waters. The fishers would normally harvest all available species of fish in season for example, snappers and trout, with sharks comprising the main portion of the by-catch. The gillnet gear is responsible for capturing 90% of the sharks landed in Guyana.

There is strong competition within the industry, as there is a ready market. There are three licensed shark processors in Guyana.

For a normal fishing trip, a vessel would spend 7-15 days at sea. Sharks are harvested all year round, with a peak in landings usually during May-December.

1.1.2 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 cadell lines (manual longline), handline, trawl nets and pin seine.

Section 2: Research and Statistics

Sharks are landed dressed, i.e. headless and gutted. Only juvenile sharks (caught by either cadell, Chinese seine or gillnet nylon), and which account for 2% of the total catch, are landed whole. In view of this, it continues to be difficult to record shark catches by individual species. The Fisheries Department has noted the need for continued special technical assistance to address the issue of identification of dressed sharks, and is seeking assistance from external agencies to address this task. Some of the important species known to be caught by fishers are hammerhead, tiger, blacktip, sand and what is known locally as waterbelly shark.

All the landings data for sharks and scombrids are reported to ICCAT, together with the numbers of fishing vessels involved in these fisheries (**Tables 1 and 2**). At present, effective fishing effort is not recorded, and hence only Task I data have been reported this year. The shark fishery is a multi million dollar fishing activity, and contributed less than 1% to the overall export of total fish products from Guyana at a value of US$ 1,225,225.00 for 2009.

Part II (Management Implementation)

Section 3: Implementation of ICCAT Conservation and Management Measures

3.1 Plans for Expansion

There are no plans to expand the artisanal fishery. The Department of Fisheries is considering a proposal to limit the amount of vessels per gear type as a precautionary approach for conserving the fishery.

Section 4: Inspection Scheme Activities

The Guyana Coast Guard (GCG) is responsible for monitoring all of the fishing activities within Guyana's Exclusive Economic Zone with assistance from the Fisheries Department. However, it should be noted that the primary focus for the Guyana Coast Guard in 2009 was to combat anti-piracy, poaching and smuggling of illegal fuel. In 2009, the Guyana Coast Guard was able to conduct three hundred and sixteen (316) patrols of which three were fisheries surveillance patrols done by aerial reconnaissance and sea. No apprehensions were made for smuggling illegal fuel.

Table 1. Boat count for artisanal vessels by gear types, 2009.

Gear type	*# of Vessels*
Gillnet polyethylene (cabin cruiser) 6-8" mesh size	341
Gillnet polyethylene (inboard) 8" mesh size	80
Gillnet nylon 2" mesh size	342
Cadell # 5 – 9 hooks	55
Chinese seine 4-5 bundles (25-30 lbs each)	285
Pin seine	26
Total	**1129**
Industrial and semi-industrial	
Trawlers nets	136
Handline	20
Traps	57

Table 2. Scombrids and shark production by species (kg) 2009.

Scombrids		***Sharks***	***Total***
Scomberomorus brasiliensis	*Scomberomorus cavalla*	Unidentified shark species	
140,884	90,582	370,137	**601,603**

ANNUAL REPORT OF THE NETHERLANDS ANTILLES
RAPPORT ANNUEL DES ANTILLES NÉERLANDAISES
INFORME ANUAL DE LAS ANTILLAS HOLANDESAS

Stephen Mambi P. Gr.[1]

SUMMARY

During the year 2009, a total of three purse seiners were registered under the flag of the Netherlands Antilles. The vessels operated during all the year in the tropical area and had their operations based in the port of Abidjan, Côte d'Ivoire. There were no longliners in our register and the only activity was in the tropical area by the three purse seiners mentioned before.

RÉSUMÉ

En 2009, trois senneurs étaient immatriculés sous le pavillon des Antilles néerlandaises. Les navires ont opéré tout au long de l'année dans la zone tropicale, et le port d'Abidjan (Côte d'Ivoire) constituait le port d'attache pour leurs opérations. Aucun palangrier ne figurait sur notre registre et la seule activité a été réalisée dans la zone tropicale par les trois senneurs susmentionnés.

RESUMEN

Durante el año 2009, un total de tres cerqueros se registraron bajo pabellón de Antillas Holandesas. Los buques operaron durante todo el año en la zona tropical y su base era el puerto de Abijan, en Côte d'Ivoire. No hay palangreros en nuestro registro y la única actividad que hubo fue la desarrollada en la zona tropical por los tres cerqueros mencionados.

Part I (Information on Fisheries, Research and Statistics)

Section 1: Annual Fisheries Information

The catches in 2008 and 2009 are given in **Table 1** and **Table 2**, respectively.

Section 2: Research and Statistics

Catch data were analized in order to comply with management measures applicable for the vessel type and flag State, all data being in order with the recommendations. The bigeye catches during 2009 were 6,5 % of the total catch, which represents a reduction of 4,5% with respect to 2008 and below the maximum allowed quota. Catches of yellowfin and skipjack amounted 43% and 44%, respectively, during 2009.

Catch size and species composition sampling in port has been carried out in collaboration with the Instituto Español de Oceanografía (I.E.O.) of Spain in the main transhipment base of the purse seine vessels operating in 2009, i.e. Abidjan (Côte d'Ivoire)

In general terms there is an increase in total catches of 31% from 2008, this is a result of a third purse seiner operating under Netherlands Antilles during 2009.

[1] Senior policy worker of the Directorate of Economic Affairs, President of the Fishery Commission of the Netherlands Antilles.

Part II (Management Implementation)

Section 3: Implementation of ICCAT Conservation and Management Measures

The Netherlands Antilles is committed to comply with all the recommendations issued by ICCAT.

The vessels are monitored and controlled by satellite tracking VMS.

The vessels complied with Recommendation 08-01 regarding conservation measures for bigeye tuna.

The vessels report their catches to the Fishing Authority on a monthly basis.

Section 4: Inspection Schemes and Activities

The fishing activity of those species under the ICCAT management in the EEZ of the Netherlands Antilles was not relevant. On the other hand, there were no discharges of tuna or tuna-like species to be analysed in the country.

Section 5: Requirements for vessels larger than 24 metres in length

The fishing vessels under the flag of the Netherlands Antilles larger than 24 metres in length must fulfil the following obligations in order to fish in the ICCAT Convention area:

- Be fitted with a Vessel Monitoring System, by satellite tracking system
- Strictly follow all the recommendations issued by ICCAT for their fishery.
- Submit a monthly report of catches to the fishing Authorities.
- Submit a "Transhippment Declaration" each time a transhipment is carried out.
- Submit a "Discharge Declaration" each time a discharge is carried out.
- Submit, every year, a list of "Fishing Licenses" that are issued to the vessel by third countries, in order to fish in the EEZ of different countries.
- Apply for an International Fishing Permit issued by the Government of the Netherlands Antilles that allows the vessel to operate in the high seas of the Atlantic Ocean and in the ICCAT Convention area.

Table 1. Catches in 2008.

Yellowfin	*Skipjack*	*Bigeye*	*Other tuna-like*	*Total*
7.351	6.436	1.721	485	15.993

Table 2. Catches in 2009.

Yellowfin	*Skipjack*	*Bigeye*	*Other tuna-like*	*Total*
8.985	9.148	1.372	1.471	20.976

REPORTS OF OBSERVERS FROM INTERGOVERNMENTAL ORGANIZATIONS

RAPPORTS D'OBSERVATEURS D'ORGANISATIONS INTER-GOUVERNEMENTALES

INFORMES DE OBSERVADORES DE ORGANIZACIONES INTERGUBERNAMENTALES

REPORT OF THE CARIBBEAN REGIONAL FISHERIES MECHANISM (CRFM) ON BEHALF OF CARICOM

RAPPORT ANNUEL DU MECANISME REGIONAL DES PECHES DES CARAÏBES (CRFM) POUR LE COMPTE DE CARICOM

INFORME ANUAL DEL MECANISMO REGIONAL DE PESCA DEL CARIBE (CRFM) EN NOMBRE DE CARICOM

S. Singh-Renton[1], Derrick Theophile [2], Crafton Isaac[3] and Patricia Hubert-Medar[4]

SUMMARY

The tuna and tuna-like fisheries of The Commonwealth of Dominica, Grenada, and St. Lucia, located in the eastern Caribbean, continued to develop in 2009. Such development efforts are ongoing and are intended to improve the efficiency of offshore fishing operations and to make full utilization of the available natural living marine resource base, in general pursuit of strategies to guarantee food security and economic development. Notwithstanding, the fishing operations remained largely artisanal, and the species composition and total overall catch levels showed no dramatic changes in 2009. Two major donor-funded regional fisheries initiatives, involving CARICOM and CRFM States, continued during 2009-10, with commencement of pilot field studies examining FAD fishery management in Dominica and St. Lucia. Also in 2010, the CRFM Large Pelagic Fish Resource Working Group analysed data on dolphinfish fisheries operating in the eastern Caribbean, and completed a preliminary data review of blackfin tuna.

RÉSUMÉ

Les pêcheries de thonidés et d'espèces apparentées du Commonwealth de la Dominique, la Grenade et Ste Lucie, situées dans les Caraïbes occidentales, ont poursuivi leur développement en 2009. Ces efforts de développement sont en cours et visent à améliorer l'efficacité des opérations de pêche hauturière et à utiliser pleinement les ressources marines vivantes disponibles, et consistent de manière globale à élaborer des stratégies visant à garantir la sécurité alimentaire et le développement économique. Nonobstant, les opérations de pêche sont restées principalement artisanales et la composition de la prise ainsi que les niveaux de prise totaux n'ont pas connu de changements drastiques en 2009. Deux principales initiatives de pêcherie régionale financées par des donateurs, impliquant la CARICOM et les États CRFM, ont été poursuivies en 2009 et 2010, avec le lancement d'études pilotes menées sur le terrain consistant à examiner la gestion des pêches opérant avec DCP à la Dominique et Sainte-Lucie. En 2010 également, le Groupe de travail sur les ressources de grands pélagiques du CRFM a analysé les données sur les

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[3]Fisheries Division, St. George's, Grenada, West Indies.
[4]Fisheries Department, Castries, St. Lucia, West Indies.

pêcheries de coryphènes opérant dans l'Est des Caraïbes et a finalisé un examen provisoire des données sur le thon à nageoires noires.

RESUMEN

En 2009, continuaron desarrollándose las pesquerías de túnidos y especies afines de la Commonwealth de Dominica, Granada y Santa Lucía, situadas en la zona oriental del Caribe. Dichos esfuerzos de desarrollo están realizándose actualmente y pretenden mejorar la eficacia de las operaciones pesqueras en alta mar, así como conseguir la plena utilización de la base de recursos marinos naturales vivos disponibles, para lograr estrategias que garanticen la seguridad alimentaria y el desarrollo económico. No obstante, las operaciones de pesca siguen siendo artesanales en su mayor parte, y la composición por especies y los niveles de captura totales no han experimentado cambios importantes en 2009. Las dos iniciativas pesqueras regionales principales financiadas por donantes, en las que están implicadas los Estados de CARICOM y CRFM, continuaron en 2009-2010, y se puso en marcha un estudio de campo piloto que examina la gestión de las pesquerías con dispositivos de concentración de peces (DCP) en Dominica y Santa Lucía. Además, en 2010, el Grupo de trabajo de recursos pesqueros de grandes pelágicos del CRFM analizó los datos de la pesquería de lampuga que opera en el Caribe oriental, y completó una revisión de datos preliminar de atún aleta negra.

Part I (Information on Fisheries, Research and Statistics)

Section 1: Annual Fisheries Information

The characteristics of tuna and tuna and tuna-like fisheries in the Commonwealth of Dominica, Grenada and St. Lucia have been described in reports submitted in previous years to ICCAT. These fisheries continued to develop in 2009. Such development efforts are ongoing and are intended to improve the efficiency of offshore fishing operations and to make full utilization of the available natural living marine resource base, in general pursuit of strategies to guarantee food security and economic development. Notwithstanding, a large artisanal component of the industry persists, and the species composition and total overall catch levels showed no dramatic changes in 2009.

St. Lucia provided the following information on the state of its tuna and tuna-like fishery operations for 2009. A total of 600 fishing vessels participated in the large pelagic fishery, with vessels being typically 1-1.8 m wide and 2.7-22.8 m long. There was an increase in the use of FADs and drift lines (these are stationery single lines that are suspended in the water and have 1-2 hooks each) for harvesting these species. Fishers began to fit FADs with underwater lights and to deploy some FADs in shallower waters (500 m or less), about 4 miles off the coast where fishing communities reside. Deep water FADs were placed about 9 miles offshore.

These islands have recreational fisheries that harvest tuna and tuna-like species, but the size of the catches are unknown.

Section 2: Research and Statistics

2.1 Landings data

Table 1 provides currently available best estimates of commercial landings of tuna and tuna-like species reported by St. Lucia for 2009. In 2009 in St. Lucia, the important major tuna species harvested were yellowfin tuna and skipjack tuna, while blackfin tuna and wahoo were the most important among the small tuna species. This harvesting pattern and level were similar to those observed for 2008 for St. Lucia.

2.2 Caribbean Large Marine Ecosystem (CLME) project

The aims of the Caribbean Large Marine Ecosystem (CLME) project, funded primarily by the Global Environmental Facility (GEF) were outlined in the 2009 CARICOM report to ICCAT. CRFM continues to participate in the CLME project, with responsibility for completing priority activities in research and resource assessment for large pelagic fish

resources. These technical activities are being coordinated by CRFM's Large Pelagic Fish Resource Working Group (CRFM LPWG), and further details of the progress achieved in 2010 are given in section 2.4.

2.3 Progress of study on Formulation of Master Plan on Sustainable use of Fisheries Resources for Coastal Community Development in the Caribbean

This initiative is funded primarily by the Japan International Co-operation Agency (JICA), and one component seeks to address the need to improve approaches to the development and management of large pelagic fisheries, with a primary focus on the artisanal sector and FAD fisheries. In late 2009, based on a preliminary survey of capacities, interests and developments for FAD fisheries in CARICOM countries, two pilot study sites were selected for the FAD component of the JICA-funded project: St. Lucia and Dominica. During April 2010, detailed surveys were conducted in these two countries to document the present nature and extent of FAD fishing operations, and approaches to monitoring and management of the FADs and FAD fishing activities. In view of this, the project has so far reviewed and constructed trial FADs using local materials, and delivered training in monitoring of both the FAD structures deployed, as well as the fishing operations associated with FADs. National fishery statistical monitoring forms were modified to incorporate FAD fishery monitoring needs in collaboration with the fisheries authorities in the two countries. To date, St. Lucia has begun field trials to test the proposed methodologies.

2.4 Overview of 2010 CRFM LPWG Meeting activities of relevance to ICCAT

In 2010, the CRFM LPWG meeting benefited from participation by several CARICOM and CRFM Member States, and also by scientists from Canada, Brazil, the National Marine Fisheries Service-Southeast Fisheries Science Center (Miami, USA), IFREMER (Martinique), and Instituto Oceanográfico-Universidad de Oriente (Venezuela). The Working Group reviewed the CRFM commitments to the CLME project (mentioned in section 2.2) in respect of large pelagic fish resources, and commenced work on the following associated priority tasks: review and analysis of the dolphinfish stock of the eastern Caribbean, and a review of the available data on blackfin tuna with a view to preparing for assessment of this resource in the near future (CRFM, in prep.).

The dolphinfish analysis examined data on total annual catches for countries in the western central Atlantic from the 1970s onwards (some data were provided by participating countries and the remaining data were obtained from FAO's database), and data on mean catch per trip for 1994-2010 (three island nations with major fisheries) and from the mid 1980s for three major non-island fishing nations. Relative abundance indices were developed from standardized catch rate data for the island and non-island nations fishing in the eastern Caribbean region, and were compared. All indices fluctuated over time with no definite trend, during which there was also an apparent attendant increase in the overall annual total harvests. While this analysis indicated that the eastern Caribbean dolphinfish stock appeared to remain relatively stable over the time investigated, the Working Group was concerned about the accuracy and consistency of data on historical catches. Additionally, the CRFM LPWG reviewed seasonality patterns in the catch rates of the three major non-island nations, as well as information from specific research studies on stock structure: the available evidence conflicted somewhat with present hypotheses about distinct sub-regional stocks of dolphinfish, and this issue would need to be addressed more closely in future assessment efforts. Recommendations were made to improve statistical monitoring of the fisheries concerned and the historical time series to the extent possible.

The CRFM LPWG also examined the ICCAT Task I data on blackfin tuna. Gaps and inconsistencies in the available catch series were identified and the Working Group made specific recommendations to address these through efforts to develop more complete and accurate time series of catches. The Working Group also made note of countries and time periods for which there were data on catch rates, and conducted a preliminary examination of catch rate trends for blackfin tuna to the extent possible. In addition, information on several studies on blackfin tuna biology and stock structure were reviewed and compiled to provide a general written overview of the present status of knowledge in these aspects, including, *inter alia*: size and sex ratio of catches, age and growth, age of maturity and spawning activity, diet, and stock structure.

Part II (Management Implementation)

Section 3: Implementation of ICCAT Conservation and Management Measures

3.1 St. Lucia

There are several regulations in place to control sport fishing operations. There is a bag limit regulation in place for king mackerel, dolphinfish and wahoo caught by sport fishers - 18 fish per person on boat. There is a second regulation that stipulates that any resource caught by sport fishers and not intended for use, should not be injured unnecessarily and be returned live to the sea. Finally, sport fishing vessels are generally limited to the use of six rod and reel gear units per fishing trip. At present, St. Lucia's tuna and tuna-like fishing operations are conducted in compliance with existing ICCAT regulations.

Section 4: Inspection schemes and Activities

4.1 St. Lucia

Inspection and enforcement of fishery regulations are handled through a collaborative arrangement among fishery wardens, officials of the Marine Police Unit of the Royal St. Lucia Police Force, and officials from the Customs and Excise Department.

References

References

CRFM, (2010). Report of the Sixth Annual Scientific Meeting – Kingstown, St. Vincent and the Grenadines, 7-16 June 2010. CRFM Fishery Report -2010, Volume 1, 111p.

Table 1. The 2009 tuna and tuna-like fish landings (metric tons) of St. Lucia (N/A indicates that values should be non-zero, but data were unavailable at the time of reporting).

Country	*Common name*	*Scientific name*	*2009*
St. Lucia	Yellowfin tuna	*Thunnus albacares*	110
	Skipjack tuna	*Katsuwonus pelamis*	142
	Blackfin tuna	*Thunnus atlanticus*	215
	Albacore	*Thunnus alalunga*	8
	Bigeye tuna	*Thunnus obesus*	0.6
	King mackerel	*Scomberomorus cavalla*	0.9
	Spanish mackerel	*Scomberomorus maculatus*	0.02
	Wahoo	*Acanthocybium solandri*	195
	Bullet tuna	*Auxis rochei*	0.1
	Atlantic black skipjack	*Euthynnus alletteratus*	0.1
	Cero mackerel	*Scomberomorus regalis*	0.3
	Tuna unspecified		11
	Atlantic sailfish	*Istiophorus albicans*	N/A
	Blue marlin	*Makaira nigricans*	72
	White marlin	*Tetrapturus albidus*	0.1
	Swordfish	*Xiphias gladius*	0.3
	Blacktip shark	*Carcharhinus limbatus*	3
	Oceanic whitetip shark	*Carcharhinus longimanus*	0.03
	Sand tiger shark	*Carcharias taurus*	2
	Nurse shark	*Ginglymostoma cirratum*	1
	Lemon shark	*Negaprion brevirostris*	N/A
	Great hammerhead	*Sphyrna mokarran*	0.9
	Tiger shark	*Galeocerdo cuvier*	2
	Shortfin mako shark	*Isurus oxyrhincus*	N/A
	Caribbean reef shark	*Carcharhinus perezi*	0.04