CONVENTION SUR LE COMMERCE INTERNATIONAL DES ESPECES
DE FAUNE ET DE FLORE SAUVAGES MENACEES D'EXTINCTION

Vingt-quatrième session du Comité pour les animaux
Genève (Suisse), 20 – 24 avril 2009

Conservation et gestion des requins et des raies d'eau douce

ACTIVITES ENTREPRISES CONCERNANT LES ESPECES DE REQUINS JUGEES PREOCCUPANTES (DECISION 14.107)

1. Le présent document est soumis par les Etats-Unis d'Amérique[*]. L'annexe 2 de ce document est jointe en anglais seulement.

2. Contexte

   Dans la résolution Conf. 12.6, *Conservation et gestion des requins*, le Comité pour les animaux est chargé "d'étudier les informations fournies par les Etats des aires de répartition des requins dans leurs rapports d'évaluation, ainsi que les autres documents pertinents disponibles, pour identifier les espèces clés et les examiner en vue d'une éventuelle inscription aux annexes CITES". Le Comité pour les animaux a fait des recommandations pour des espèces particulières aux 13e et 14e sessions de la Conférence des Parties en vue d'améliorer la conservation des requins et la réglementation du commerce international ce ces espèces. La décision 14.107 stipule que le Comité pour les animaux "poursuit les activités indiquées dans la résolution Conf. 12.6, notamment la mise au point, en collaboration avec la FAO, de la liste des espèces de requins jugées préoccupantes, en tenant compte de celles énumérées dans l'annexe 3 du document CoP14 Doc. 59.1, et soumet un rapport d'activité à la 15e session de la Conférence des Parties". A sa 23e session, le Comité pour les animaux a établi un groupe de travail chargé d'examiner les informations communiquées dans le document AC23 Doc.15.2 et les autres documents pertinents disponibles afin de déterminer les espèces essentielles et de les examiner en vue de leur éventuelle inscription aux annexes CITES. Des progrès ont été accomplis durant cette session (voir document AC23 WG6 Doc.1) mais les Etats-Unis ont été priés de diriger un groupe de travail intersessions sur l'application de la décision 14.107 et de préparer un document pour la 24e session du Comité pour les animaux, indiquant les progrès accomplis concernant les recommandations précédentes et établissant les priorités pour les actions futures à mener pour les espèces jugées préoccupantes.

3. Résultats du groupe de travail intersessions

   Pour affiner la liste des espèces de requins jugées préoccupantes, les Etats-Unis ont préparé un projet de document pour discussion par le groupe de travail, sur la base du document AC23 Inf. 6 qui avait été soumis à la 23e session du Comité pour les animaux. Ce projet de document a été envoyé au groupe de travail. Des commentaires ont été reçus de l'Australie, de la Commission européenne, du

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* *Les appellations géographiques employées dans ce document n'impliquent de la part du Secrétariat CITES ou du Programme des Nations Unies pour l'environnement aucune prise de position quant au statut juridique des pays, territoires ou zones, ni quant à leurs frontières ou limites. La responsabilité du contenu du document incombe exclusivement à son auteur.*

Canada, du Mexique et du membre suppléant, Singapour. Des organisations non gouvernementales – *Species Management Specialists* et le Groupe UICN/CSE de spécialistes des requins – ont elles aussi fourni leurs commentaires. Certains de ces commentaires ayant été reçus trop tard, le groupe n'a pas pu parvenir au consensus sur d'éventuelles recommandations d'actions. De ce fait, le projet de document pour discussion est soumis à la présente session et les commentaires reçus sont joints en tant qu'annexe 2. Le président espère que ce document et les commentaires pourront servir de base pour le travail de la session.

RAPPORT DU GROUPE DE TRAVAIL INTERSESSIONS SUR LA MISE EN ŒUVRE DE LA DECISION 14.107

(document préparé par le président du groupe de travail)

Contexte

Dans la résolution Conf. 12.6, *Conservation et gestion des requins*, le Comité pour les animaux est chargé "d'étudier les informations fournies par les Etats des aires de répartition des requins dans leurs rapports d'évaluation, ainsi que les autres documents pertinents disponibles, pour identifier les espèces clés et les examiner en vue d'une éventuelle inscription aux annexes CITES". Le Comité pour les animaux a fait des recommandations pour des espèces particulières aux 13e et 14e sessions de la Conférence des Parties en vue d'améliorer la conservation des requins et la réglementation du commerce international ce ces espèces. La décision 14.107 stipule que le Comité pour les animaux "poursuit les activités indiquées dans la résolution Conf. 12.6, notamment la mise au point, en collaboration avec la FAO, de la liste des espèces de requins jugées préoccupantes, en tenant compte de celles énumérées dans l'annexe 3 du document CoP14 Doc. 59.1, et soumet un rapport d'activité à la 15e session de la Conférence des Parties". A sa 23e session, le Comité pour les animaux a établi un groupe de travail chargé d'examiner les informations communiquées dans le document AC23 Doc.15.2 et les autres documents pertinents disponibles afin de déterminer les espèces essentielles et de les examiner en vue de leur éventuelle inscription aux annexes CITES. Des progrès ont été accomplis durant cette session (voir document AC23 WG6 Doc.1) mais les Etats-Unis ont été priés de diriger un groupe de travail intersessions sur l'application de la décision 14.107 et de préparer un document pour la 24e session du Comité pour les animaux, indiquant les progrès accomplis concernant les recommandations précédentes et établissant les priorités pour les actions futures à mener pour les espèces jugées préoccupantes.

Requins-requiem

1. Requins-marteaux (*Sphyrna* sp.)

Recommandation: A traiter en priorité en tant qu'espèces jugées préoccupantes

Justification: Les requins-marteaux, principalement le grand requin-marteau (*Sphyrna mokarran*), le requin-marteau halicorne (*Sphyrna lewini*) et le requin-marteau lisse (*Sphyrna zygaena*), sont capturés lors de diverses pêches, notamment la pêche artisanale et commerciale à petite échelle, la pêche à la palangre de fond et à la palangre pélagique au large. Les requins-marteaux ne sont généralement pas ciblés mais pâtissent d'une forte mortalité comme prises accessoires. Les captures de *Sphyrnidae* sont enregistrées dans les statistiques de la FAO mais seuls les requins-marteaux halicornes et les requins-marteaux lisses le sont au niveau de l'espèce (Maguire *et al* 2006). Les ailerons des requins-marteaux ont une grande valeur pour les négociants de Hong Kong et sont parmi les plus chers du marché (Abercrombie *et al* 2005). Selon Clarke *et al* (2004, 2006), les requins-marteaux occupent la deuxième place par l'abondance dans le commerce international des ailerons.

Les requins-marteaux ont une productivité relativement moyenne selon les espèces (Cortés 2002). Les évaluations des stocks de requins-marteaux par espèce font généralement défaut mais selon certaines études, il y a un déclin important de l'abondance relative. Une évaluation récente du complexe des requins-marteaux (*S. lewini, S. mokarran* et *S. zygaena*) dans le nord-ouest de l'Atlantique a donné un déclin de l'abondance de 70% depuis 1981 (Jiao *et al* 2008). Selon Maguire *et al* (2006), l'ampleur de l'exploitation de la plupart des espèces n'est pas connue sauf pour le requin-marteau halicorne, qui est pleinement exploité à surexploité. Les évaluations les plus récentes de l'UICN classent les *Sphyrnidae* dans la Liste rouge comme "En danger" dans le monde (UICN 2008).

Il n'y a pas de mesures de conservation ou de gestion connues qui soient en place au niveau de l'espèce pour les *Sphyrnidae*. Tous sont inscrits à l'Annexe I de la Convention de l'ONU sur le droit de la mer comme espèces hautement migratrices; certaines interdictions du prélèvement des ailerons peuvent contribuer à réduire les captures de requins-marteaux pour leurs seuls ailerons, notamment celles édictées par des Etats pratiquant la pêche, par l'Union européenne (UE), et par neuf organisations régionales de

gestion de la pêche (ORGP), dont les commissions sur les thonidés de l'Atlantique (Commission internationale pour la conservation des thonidés de l'Atlantique, CICTA), du Pacifique Est (*Inter-American Tropical Tuna Commission*, IATTC), et de l'océan Indien (*Indian Ocean Tuna Commission*, IOTC) (Camhi *et al* 2008). Aux Etats-Unis, cette espèce est gérée comme grand requin côtier dans le plan de gestion des espèces hautement migratrices (*National Marine Fisheries Service: Federal Fisheries Management Plan for Atlantic Tuna, Swordfish and Sharks*).

2. Requin sombre (*Carcharhinus obscurus*)

Recommandation: Non décidée

Justification: Le requin sombre est pêché dans les pêcheries côtières à requins dans plusieurs régions du monde mais il est au nombre des prises accessoires de la pêche pélagique au poisson-scie et au thon. Des captures de requins sombres dans le nord-ouest de l'Atlantique et l'Afrique du Sud ont été signalées à la FAO par les Etats-Unis – l'Afrique du Sud signalant le plus de prises. Les requins sombres juvéniles sont la principale cible de la pêche profonde au filet maillant dans les eaux du sud-ouest de l'Australie, au moins depuis la fin des années 1970 (Simpfendorfer 1999). Les prises par cette pêche ont augmenté rapidement, passant de moins de 100 t/an à la fin des années 1970 à un pic d'un peu moins de 600 t en 1988-1989 avant que les restrictions imposées par la gestion ne réduisent et ne stabilisent les prises à ~300 t/an (McAuley *et al* 2007). Les ailerons ont une grande valeur pour les négociants de Hong Kong et sont encore documentés dans le commerce international (Clarke *et al* 2006).

Le requin sombre a l'un des plus bas potentiels intrinsèques de récupération (Smith *et al* 1998) et une très faible productivité par rapport aux autres requins (Cortés 2002). Dans le nord-ouest de l'Atlantique, Cortés *et al* (2006), utilisant des modèles d'évaluation de stocks multiples, ont trouvé un déclin d'au moins 80% des requins sombres par rapport au niveau des populations non exploitée. Quoi qu'il en soit, au large de la côte du sud-ouest de l'océan Indien de l'Afrique du Sud, Dudley et Simpfendorfer (2006) n'ont pas trouvé de déclin significatif du taux de capture ou des longueurs moyennes de 1978 à 2003 sur la base des prises dans les filets à requins déployés au large des plages du Kwazulu-Natal. Simpfendorfer (1999) a fait une évaluation de la pêche au filet maillant de requins sombres au sud-ouest de l'Australie et a trouvé qu'il était possible de l'exploiter en ciblant les classes d'âge les plus jeunes. Quoi qu'il en soit, le déclin du recrutement des nouveau-nés et les prises non quantifiées de requins plus âgés dans la pêche non ciblée suscitent des préoccupations (McAuley *et al* 2007). L'évaluation la plus récente de l'UICN classe le requin sombre dans la Liste rouge comme "Vulnérable" dans le monde.

Aux Etats-Unis, le requin sombre est une espèce dont la pêche commerciale ou de loisir est interdite dans l'ouest de l'Atlantique Nord depuis 2000. Des mesures de gestion ont également été prises en Australie occidentale et en Afrique du Sud (pêche de loisir limitée).

3. Requins-renards (*Alopias* sp.)

Recommandation: Non décidée

Justification: Trois espèces de requins-renards – le requin-renard pélagique (*Alopias pelagicus*), le requin-renard à grands yeux (*Alopias superciliosus*) et le requin-renard commun (*Alopias vulpinus*) – sont pêchées, principalement à la palangre pélagique et au filet maillant. Il y a des pêcheries de requins-renards dans le nord-ouest de l'océan Indien, l'ouest et le centre du Pacifique, l'est du Pacifique Nord, et l'Atlantique Nord. Les requins-renards étaient autrefois un élément très important de la pêche cubaine à la palangre; plus récemment, ils ont été pris en nombre considérable par des cordiers au large du nord-est des Etats-Unis et par des vaisseaux à filet maillant au large du sud de la Californie (E.-U.) et de l'est de l'Atlantique (par des vaisseaux espagnols), et par des cordiers au large de Taïwan (province de Chine) (Castro *et al* 1999). Dans l'ensemble, les prises d'*Alopiidae* signalées à la FAO depuis le début des années 1980 ont généralement été inférieures à 1600 t et d'environ 1000 t depuis 1998 (972 t en 2004). Cependant, il est probable que toutes les prises ne sont pas signalées (Maguire *et al* 2006). Les requins-renards font l'objet d'un commerce international pour leurs ailerons et occupent la 7^{e} place parmi les espèces les plus communes trouvées sur le marché de Hong Kong (Clarke *et al* 2004, 2006).

La productivité varie selon les espèces. Le requin-renard à grands yeux est généralement considéré comme ayant une faible productivité alors que le requin-renard commun et le requin-renard pélagique ont

une productivité moyenne (Cortés 2008, Smith *et al* 2008). Les évaluations de stocks de requins-renards font généralement défaut mais certaine études ont signalé un déclin de l'abondance relative (Baum *et al* 2003, par exemple) alors que d'autres ont signalé une légère augmentation (Cortés *et al* 2007). Récemment, une évaluation de risque écologique a été faite pour évaluer la vulnérabilité des requins-renards face à la pêche à la palangre pélagique dans l'Atlantique sous l'égide de la CICTA (Cortés *et al* 2008, Simpfendorfer *et al* 2008). Dans les deux études, le requin-renard à grands yeux court un risque élevé alors que le risque est moindre pour le requin-renard commun. Selon Maguire *et al* (2006), toutes les espèces de requins-renards sont signalées comme pleinement exploitées à surexploitées et les évaluations de l'UICN classent ces espèces dans la Liste rouge comme "Vulnérable" dans le monde (UICN 2008).

Les mesures de gestion et de conservation des espèces individuelles sont très limitées. Aux Etats-Unis, la pêche au requin-renard à grands yeux est interdite dans l'Atlantique et le requin-renard commun est géré en tant que requin pélagique dans le plan de gestion des espèces hautement migratrices. Aux Etats-Unis, les requins-renards du Pacifique sont gérés dans le cadre du Conseil de gestion de la pêche dans le Pacifique Ouest. Les requins-renards sont inscrits à l'Annexe I de la Convention de l'ONU sur le droit de la mer comme espèces hautement migratrices. Il y a peu de gestion par les organisations régionales de gestion de la pêche. L'interdiction du prélèvement des ailerons, qui pourrait contribuer à abaisser la mortalité et à réduire les pertes, est appliquée par 19 pays et par l'UE, et par neuf ORGP, dont les commissions sur les thonidés de l'Atlantique (Commission internationale pour la conservation des thonidés de l'Atlantique, CICTA), du Pacifique Est (*Inter-American Tropical Tuna Commission*, IATTC), et de l'océan Indien (*Indian Ocean Tuna Commission*, IOTC) (Camhi *et al* 2008).

4. Requin mako (*Isurus oxyrinchus*)

Recommandation: Non décidée

Justification: Le requin mako est pêché à la palangre pélagique et au filet maillant. Contrairement aux autres espèces de requins, le requin mako n'est pas indésirable dans les prises accessoires car sa chair et ses ailerons sont recherchés sur le marché international. Les statistiques des prises de cette espèce sont signalées à la FAO depuis 1987. L'Espagne est le pays qui a le plus de prises. Stevens (2000) estimait que 12.500 t de makos avaient été pêchées par des flottilles de palangriers dans le Pacifique en 1994 et Babcock et Nakano (2008) ont établi que 8000 t avaient été pêchées dans l'Atlantique en 2001. Les débarquements augmentent régulièrement depuis 2000 (Maguire *et al* 2006). Le requin mako représentait environ 2% du total du commerce des ailerons à Hong Kong (Clarke *et al* 2004).

L'on considère généralement que le requin mako a une productivité inférieure à celle des autres requins pélagiques (Cortés 2008). Une évaluation de risque écologique faite pour le requin mako indique une faible productivité et une forte sensibilité à la pêche à la palangre pélagique dans l'Atlantique (Cortés *et al* 2008, Simpfendorfer *et al* 2008). Il n'y a pas d'évaluations disponibles pour l'océan Pacifique ou l'océan Indien mais les évaluations récentes des stocks de requins makos dans l'Atlantique sont ambiguës. D'après certains modèles, le stock actuel est supérieur à la biomasse qui peut supporter le rendement maximal durable, tandis que d'autres suggèrent que le stock est surpêché (CICTA 2008). Les nouvelles informations biologiques, qui augmentent l'âge de la maturité et le cycle reproducteur et abaissent la productivité, appuient la probabilité que le stock pourrait être inférieur à la biomasse qui supporte le rendement maximal durable. Selon Maguire *et al* (2006), l'exploitation du requin mako est moyenne à excessive. Les évaluations récentes de l'UICN classent le requin mako dans la Liste rouge comme "Vulnérable" dans le monde (UICN 2008).

Il existe une certaine gestion au plan national (comme le contingentement aux Etats-Unis). Au plan international, un accord charge les membres de la CICTA sans évaluations des populations de réduire la mortalité de la pêche au requin mako. La CICTA requiert aussi d'utiliser pleinement les requins capturés et de relâcher les requins vivants prise accessoirement. L'interdiction du prélèvement des ailerons est appliquée par 19 pays et par l'UE, ainsi que par neuf ORGP (Camhi *et al* 2008). Le requin mako est inscrit à l'Annexe III de la Convention pour la protection du milieu marin et du littoral de Méditerranée (Convention de Barcelone), qui requiert la réglementation de l'exploitation, et est couvert par la Convention relative à la conservation de la vie sauvage et du milieu naturel de l'Europe (Convention de Berne), qui autorise un certain niveau d'exploitation si le niveau de population le permet.

5. Requin soyeux (*Carcharhinus falciformis*)

Recommandation: Non décidée

Justification: Le requin soyeux fait couramment parti des prises accessoires de la pêche à la palangre pélagique et à la senne coulissante mais il est aussi pris dans les filets fixes de fond et les palangres. Il y a quelques grandes pêcheries multi-espèces où un grand nombre de requins soyeux sont pris, principalement au Mexique et au Sri Lanka (Bonfil 1994). Il est aussi capturé dans les pêcheries côtières de Taïwan et dans un grand nombre de pêcheries de requins taïwanaises dans les eaux de l'Indonésie et de la Papouasie-Nouvelle-Guinée (Chen *et al* 1996). Bonfil (1994) estimait qu'un million de requins soyeux étaient des prises accessoires dans la pêche au thon à la palangre dans le centre et le sud du Pacifique au début des années 1990. Cependant, une grande incertitude entoure ces calculs et il n'y a pas d'estimations du nombre de requins rejetés vivants et du nombre de requins tués. Les statistiques des captures pour cette espèce sont signalées à la FAO depuis 1960 (5000 t); depuis, la tendance a été positive, atteignant un pic de 25.400 t en 1994 puis diminuant légèrement à 21.000 t en 1996 (Maguire *et al* 2006). Le requin soyeux est la troisième espèce dans le commerce international des ailerons (Clarke *et al* 2004).

Le requin soyeux a un potentiel intrinsèque de récupération moyen (Smith *et al* 1998) et une productivité faible à moyenne (Cortés 2008). Les évaluations des stocks par espèce font défaut. Le débat continue au sujet du niveau de déclin basé sur des études des changements de l'abondance relative – certains signalant un déclin important (Baum et Myers 2003), d'autres un déclin modéré (Cortés *et al* 2007). Une évaluation de risque écologique faite pour le requin soyeux le classe à la 5^{e} place pour sa sensibilité à la pêche pélagique parmi 12 autres espèces de l'Atlantique (Cortés *et al* 2008, Simpfendorfer *et al* 2008). Maguire *et al* (2006) ont signalé une exploitation non connue à moyenne. Le requin soyeux est classé comme "Quasi menacé" dans la Liste rouge de l'UICN (UICN 2008).

Il y a une certaine gestion au plan national (aux E.-U. et en Australie) mais elle manque au plan international. Le requin soyeux est inscrit à l'Annexe I de la Convention de l'ONU sur le droit de la mer comme espèces hautement migratrices. La CICTA requiert d'utiliser pleinement les requins capturés et recommande de relâcher les requins vivants pris accessoirement. L'interdiction du prélèvement des ailerons, qui devrait abaisser la mortalité et réduire les pertes, est appliquée par 19 pays et par l'UE, et par neuf ORGP (Camhi *et al* 2008).

6. Requin longimane (*Carcharhinus longimanus*)

Recommandation: Non décidée

Justification: Le requin longimane est l'une des espèces pélagiques les plus communes dans les prises accessoires de la pêche au thon et au poisson-scie. Il y a quelques pêcheries importantes, à petite échelle, principalement dans le golfe d'Aden et dans le Pacifique en Amérique centrale (Bonfil et Aballah 2004). Bonfil (1994) estimait que 145 t par an étaient prises dans le Pacifique Nord et 10,8 t dans le centre et le sud du Pacifique. Le total des captures signalées à la FAO a été de 175 t en 2003 et de 187 t en 2004. Les ailerons des requins longimanes représentent au moins 2% du poids des ailerons de requins sur le marché de Hong Kong (Clarke *et al* 2004).

Le requin longimane a un potentiel intrinsèque de récupération moyen (Smith *et al* 2008) et une productivité faible à moyenne (Cortés 2008). Les évaluations de stocks par espèce font défaut mais certaines analyses des taux de prise ont signalé un important déclin de l'abondance dans le nord-ouest de l'Atlantique (Baum et Myers 2004) alors que d'autres études ont signalé un déclin moins sévère (Cortés *et al* 2008). L'ampleur du déclin du requin longimane a fait l'objet d'un débat intense (Burgess *et al* 2005, Baum *et al* 2005). Des évaluations du risque écologique et de la productivité faites pour le requin longimane le classent à la 5^{e} place (Cortés *et al* 2008 et à la 6^{e} place (Simpfendorfer *et al* 2008) pour sa sensibilité à la pêche pélagique parmi 12 autres espèces de l'Atlantique. Maguire *et al* (2006) ont signalé que l'exploitation du requin longimane n'était pas connue. Le requin longimane est classé comme "Vulnérable" dans la Liste rouge de l'UICN (UICN 2008).

Le requin longimane est inscrit à l'Annexe I de la Convention de l'ONU sur le droit de la mer comme espèce hautement migratrice. La CICTA requiert d'utiliser pleinement les requins capturés et recommande de relâcher les requins vivants qui sont des prises accessoires. L'interdiction du prélèvement des ailerons

appliquée par 19 pays et par l'UE, ainsi que par neuf ORGP, devrait contribuer à abaisser la mortalité (Camhi *et al* 2008).

7. Requin bleu (*Prionace glauca*)

Recommandation: A ne plus considérer comme espèce préoccupante

Justification: Le requin bleu est un requin océanique largement réparti, pris habituellement dans la pêche à la palangre pélagique et au filet dérivant. Il est peu consommé sauf en Espagne, au Brésil, en Italie et en France, et est pêché surtout pour ses ailerons (Bonfil 1994). Les captures sont signalées à la FAO depuis 1978. Elles ont régulièrement augmenté depuis 2000, passant de 18.605 t à 36.647 t en 2004 (Maguire *et al* 2006). Toutefois, les statistiques officielles de la FAO sous-estiment l'ampleur réelle des prises, les débarquements estimés à partir des exportations d'ailerons de requins bleus de l'Atlantique excédant à elles seules les captures signalées pour cette région (Clarke *et al* 2006). Les ailerons de requins bleus représentent au moins 17% du commerce international des ailerons (Clarke *et al*, 2006).

Le requin bleu est l'espèce pélagique la plus productive; il a un potentiel de récupération moyen à élevé (Cortés 2008, Smith *et al* 2008). Différents types de modèles ont été appliqués pour en évaluer l'état. Malgré les prises importantes, une évaluation récente des stocks de requins bleus faite sous l'égide de la CICTA montre que les stocks actuels de l'Atlantique Nord et de l'Atlantique Sud sont supérieurs à la biomasse qui peut supporter le rendement maximal durable (CICTA 2008). Une évaluation de risque écologique a aussi trouvé que le requin bleu était moins sensible à la pêche pélagique dans l'Atlantique (Cortés *et al* 2008, Simpfendorfer *et al* 2008). Pour le Pacifique Nord, Kleiber *et al* (2001) ont établi que le stock de requins bleus était proche du rendement maximal durable. Maguire *et al* (2006) ont établi que l'ampleur de son exploitation n'était pas connue mais qu'il avait été classé récemment dans la Liste rouge de l'UICN comme "Quasi menacé" dans le monde.

Les réglementations internationales de gestion incluent les obligations de la CICTA d'utiliser pleinement les requins capturés et de relâcher les requins vivants qui sont des prises accessoires. L'interdiction du prélèvement des ailerons est appliquée par 19 pays et par l'UE, ainsi que par neuf ORGP (Camhi *et al* 2008). Le requin bleu est inscrit à l'Annexe III de la Convention pour la protection du milieu marin et du littoral de Méditerranée (Convention de Barcelone), qui requiert la réglementation de l'exploitation, et est couvert par la Convention relative à la conservation de la vie sauvage et du milieu naturel de l'Europe (Convention de Berne), qui autorise un certain niveau d'exploitation si le niveau de population le permet.

8. Requin gris (*Carcharhinus plumbeus*)

Recommandation: A ne plus considérer comme espèce préoccupante

Justification: Le requin gris est couramment ciblé dans la pêche côtière à filet maillant et à palangre et apparaît parfois dans les prises accessoires des cordiers pélagiques. On trouve d'importantes pêcheries de requins gris dans l'ouest et l'est de l'Atlantique Nord, et dans le sud de la mer de Chine. Des statistiques de capture ont été signalées à la FAO pour cette espèce, principalement par les Etats-Unis, avec un pic des débarquements de 89 t en 1990 et en déclin régulier depuis du fait des restrictions de gestion. Le requin gris est ciblé dans la pêche au filet maillant dans le sud-ouest de l'Australie et dans la pêche à la palangre en eau profonde au large de la côte nord-ouest de l'Australie. Les captures de requin gris de ces pêcheries ont plus que doublé entre 1994 et 1995 et entre 2003 et 2004, passant à plus de 400 t/an (McAuley 2006). Les ailerons de requins gris ont une grande valeur pour les négociants de Hong Kong et l'espèce est l'une des plus communes dans le commerce international des ailerons de requins (Clarke *et al* 2004, 2006).

Le requin gris a un faible potentiel intrinsèque de récupération (Smith *et al* 1998) et une faible productivité par rapport aux autres requins (Cortés 2002). Les évaluations ont montré que le stock du nord-ouest de l'Atlantique est de 64 à 71% inférieur à la population non exploitée (NMFS 2006). Dudley et Simpfendorfer (2006) ont constaté un déclin important des prises de requins gris dans les filets à requins déployés au large des plages du Kwazulu-Natal, en Afrique du Sud. McAuley (2006) a établi que le niveau d'exploitation actuel du requin gris par la pêche ciblée dans l'ouest de l'Australie n'était pas durable. La plus récente évaluation de l'UICN classe le requin gris comme "Vulnérable" dans le monde.

Il existe des mesures de gestion strictes aux Etats-Unis, fondées sur l'évaluation la plus récente. Il y a aussi des plans de gestion par espèce en Australie. Là où il n'y a pas de plans de gestion, l'interdiction du prélèvement des ailerons appliquée par des pays et des ORGP contribuera aussi à abaisser la mortalité là où les requins gris sont capturés.

9. Requin-bouledogue (*Carcharhinus leucas*)

Recommandation: A ne plus considérer comme espèce préoccupante

Justification: Le requin-bouledogue n'est pas une espèce ciblée dans la plupart des pêches commerciales mais il est pris accessoirement dans diverses pêches, notamment la pêche artisanale et la petite pêche à filet maillant et à palangre de fond. Les données par espèce sur les débarquements sont rares car dans la plupart des débarquements, les requins-bouledogues sont probablement combinés en tant que requins non identifiés ou requins-requiem. Aux Etats-Unis, le requin-bouledogues ne représente que 2 à 3% du total des grands requins côtiers débarqués. Les ailerons du requin-bouledogue occupent la 4e place dans le commerce international et l'espèce est la plus commune sur le marché de Hong Kong (Clarke *et al* 2004).

Il y a très peu d'informations sur l'état des populations de requins-bouledogues. Dudley et Simpfendorfer (2006) ont trouvé un déclin important des prises de 1978 à 2003 sur la base des prises dans les filets à requins déployés au large des plages du Kwazulu-Natal, en Afrique du Sud. Baum *et al* (2003) ont signalé que l'abondance d'un groupe d'espèces de requins côtiers (incluant probablement le requin-bouledogue) pris dans les palangres pélagiques dans le nord-ouest de l'Atlantique avaient subi un déclin de 61% de 1992 à 2000. A l'inverse, les modèles de production excédentaire de Cortés *et al* (2002) indiquent un déclin relatif de 58% de 1974 à 2001, de 39% de 1986 à 2001, et de 19% de 1992 à 2001. Le requin-bouledogue a une faible productivité par rapport aux autres requins (Smith *et al* 1998, Cortés 2002). Le requin-bouledogue est classé dans la catégorie "Préoccupation mineure/Quasi menacé" de la Liste rouge de l'UICN de 2007.

Il y a peu de gestion spécifique. L'espèce est inscrite à l'Annexe I de la Convention de l'ONU sur le droit de la mer comme espèce hautement migratrice; l'Afrique du Sud a fixé une limite pour la pêche de loisir et aux Etats-Unis, l'espèce est gérée comme grand requin côtier dans le plan de gestion des espèces hautement migratrices (*National Marine Fisheries Service: Federal Fisheries Management Plan for Atlantic Tuna, Swordfish and Sharks*).

10. Requin-tigre (*Galeocerdo cuvier*)

Recommandation: A ne plus considérer comme espèce préoccupante

Justification: Le requin-tigre n'est pas une espèce ciblée mais il est pris accessoirement dans la pêche à la palangre et au filet maillant. Les données par espèce sur les débarquements sont rares car dans la plupart des débarquements, les requins-tigres sont probablement combinés en tant que requins non identifiés ou requins-requiem. Aux Etats-Unis, les requins-tigres vivants pris dans les palangres sont généralement relâchés; ils représentent moins d'1% du total des grands requins côtiers débarqués. Le requin-tigre représente moins d'1% des espèces identifiables dans le commerce des ailerons de Hong Kong.

Il y a très peu d'informations sur l'état des populations de requins-tigres. On a trouvé une augmentation importante des prises par unité d'effort de 1978 à 2003 au large du Kwazulu-Natal, en Afrique du Sud (Dudley et Simpfendorfer 2006). Le requin-tigre a une productivité moyenne par rapport aux autres requins (Smith *et al* 1998, Cortés 2002). Le requin-tigre est classé dans la catégorie "Préoccupation mineure/Quasi menacé" de la Liste rouge de l'UICN de 2007.

Le requin-tigre est inscrit à l'Annexe I de la Convention de l'ONU sur le droit de la mer comme espèce hautement migratrice; l'Afrique du Sud a fixé une limite pour la pêche de loisir et aux Etats-Unis, cette espèce est gérée comme grand requin côtier dans le plan de gestion des espèces hautement migratrices (*National Marine Fisheries Service: Federal Fisheries Management Plan for Atlantic Tuna, Swordfish and Sharks*).

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Comments from Mexico

Also recognize the huge work you did to put together this draft of the report of the Shark Intersessional Group in relation to examining shark assessment reports and other sources of information with the view to identifying key shark species for possible listing under CITES, draft that you kindly sent us to revise and make comments last November 20, 2008. Of course I apologize for my delay in send my comments but December is a very complicate month for many of us, because is the end of our fiscal year and for that reason I'm aware that my comments can be extemporaneous but hope can be useful in something.

Revising the geographical information on catches, landings and trends of the group of shark species that you revised, I figurate that most of it came from North Atlantic and North Pacific regions and countries like USA, Australia, and South Africa, with few others too. The list of possible shark species of concern are in majority tropical shark species: hammerheads, dusky, silky, bull, and the tiger sharks, and the remaining species are more inhabitants of template waters (blue, thresher and mako sharks). Most of the tropical caracarinids sharks are undergoing an intense exploitation in several nations of Latin America as México, Colombia, Venezuela, Peru, Ecuador, including the whole region of Central America. And the information and present status of the shark species that sustain those shark fisheries are poorly known. Many factors caused this gaps or scarce of information, little fishery infrastructure development, lack or limited monitoring catch and landings systems, few funds and few interest on shark fisheries. And of course the language barrier.

In regard to the hammerheads and silky sharks, in our countries (Eastern Pacific) exist a relative good amount of historic and recent information, but most is part of grey literature (government fishery reports, BS and MS thesis from several universities, and others) but very few has been published in English journals, so this information is poorly known. I recommend that if we desire to have a more complete scenario of what is happening to this species in particular globally (hammerheads sharks and other requiem sharks have cosmopolitan tropical distribution) we need to make an effort to revise this other sources of information, that in our countries had a relevant importance.

In the case of México we have recent information on Sphyrna lewini and Carcharhinus falciformis from Mexican southern Pacific which are the two main species that sustained the large shark artisanal fishery based on the fishing port of "Puerto Madero" (State of Chiapas), located in the Gulf of Tehuantepec. This fishery produced, until recent years, an average of 3,000 t per year.

The shark fishery in the coast of Chiapas until 1980 was a very small fishery developed with landings inferior to 300 t per year. In the follow 16 years triggered for the national domestic food demand, Chiapas became in the first shark productor in the Mexican Pacific with a shark landings average per year of 3,687 t (during the period 1981-1996). In 2002 shark landings from Chiapas were the first of the total shark landings from the Mexican Pacific, with 4,692 t (25.7%). Chiapas has diverse artisanal fleets composed mainly of small boats outmotored of 10 m length, that principally use surface longlines for the capture of sharks and diverse array of teleosts species.

On basis of a week sampling survey the shark landings of the shark artisanal fleet of Puerto Madero, during the period 1996-2003, we determine that two shark species are the maion sustain of the fishery: C. falciformis and S. lewini accounted 89% of the total sharks landed and the remaining was provided by 19 shark species.

During the period 1996-2003 were sampled 22,562 individuals of C. falciformis. The size range for both sexes was 50-340 cm TL, with an mean size of 131.07 cm ± 0.0018 TL. Females presented a size interval of 50-338 cm TL with a mean size of 131.73 ± 0.0036 TL, meanwhile males a size range of 50-340 cm TL, with a mean of 130.38 cm ± 0.0035 TL. A maturity size was estimated of 177 cm TL for females and 168 cm TL for males.73.6% of females and 80% of males of C. falciformis were inmature. During the study were examined 138 gravid females of C. falciformis. The embryo offspring range was 2-7, with a mean number of 6.36 ± 0.18 embryos, and a size range 12-64 cm TL. Gravid females were caught during March, May, July, August and September.

With respect to the scalloped hammerhead shark, S. lewini, during the same period of survey were recorded the landed of 10,919 individuals. The size range for both sexes was 30-495 cm TL (mean size 81.23 ± 0.0045 cm TL). Total length interval for females was 30-495 cm TL (mean size 77.41 ± 0.0085 cm TL), meanwhile males presented a size interval of 34-330 cm TL (mean size 85.41 ± 0.0096 cm TL). The size of maturity was estimated in 169 cm TL for females and 154 cm TL in males. Most of the scallpoed hammerhead sharks caught in the coastal waters of the Gulf of Tehuantepec were inmature (91% females and 85.4% males). 56.4% of inmature S. lewini were neonates.

This information was extracted of the following study (I enclosed the PDF file):

Soriano-Velásquez, S.R., Acal-Sánchez, D.E., Castillo-Géniz, J.L., Vázquez-G´mez, N. and Ramírez-Santiago, C.E. 2006. Tiburón del Golfo de Tehuantepec, pp. 323-360, In: Sustentabilidad y Pesca Responsable en México. Arreguín-Sanchez, F., Beléndez-Moreno, L.F., Méndez Gómez-Humarán, I., Solana-Sansores, R., and Rangel-Dávalos (eds.) Instituto Nacional de la Pesca, SAGARPA, México.

Also recently was presented to the David and Lucile Packard Foundation the report of the study titled "The Status of shark and ray fishery resources in the Gulf of California: Applied research to improve management and conservation" which abstract I reproduce below:

Seasonal surveys were conducted during 1998–1999 in Baja California, Baja California Sur, Sonora, and Sinaloa to determine the extent and activities of artisanal elasmobranch fisheries in the Gulf of California. One hundred and forty–seven fishing sites, or camps, were documented, the majority of which (n = 83) were located in Baja California Sur. Among camps with adequate fisheries information, the great majority (85.7%) targeted elasmobranchs during some part of the year. Most small, demersal sharks and rays were landed in mixed species fisheries that also targeted demersal teleosts, but large sharks were usually targeted in directed drift gillnet or, to a lesser extent, surface longline fisheries. Artisanal fishermen were highly opportunistic, and temporally switched targets depending on the local productivity of teleost, invertebrate, and elasmobranch fishery resources. Major fisheries for small sharks (< 1.5 m, "cazón") were documented in Baja California during spring, in Sonora during autumn–spring, and in Sinaloa during winter and spring. Mustelid sharks (Mustelus spp.) dominated cazón landings in the northern states, whereas juvenile scalloped hammerheads (Sphyrna lewini) primarily supported the fishery in Sinaloa. Large sharks (> 1.5 m, "tiburón") were minor components of artisanal elasmobranch fisheries in Sonora and Sinaloa, but were commonly targeted during summer and early autumn in Baja California and Baja California Sur. The pelagic thresher shark (Alopias pelagicus) and silky shark (Carcharhinus falciformis) were most commonly landed in Baja California, whereas a diverse assemblage of pelagic and large coastal sharks was noted among Baja California Sur landings. Rays dominated summer landings in Baja California and Sinaloa, when elevated catch rates of the shovelnose guitarfish (Rhinobatos productus, 13.2 individuals/vessel/trip) and golden cownose ray (Rhinoptera steindachneri, 11.1 individuals/vessel/trip) primarily supported the respective fisheries. The Sonoran artisanal elasmobranch fishery was the most expansive recorded during this study, and rays (especially R. productus) dominated spring and summer landings in this state. Seasonal catch rates of small demersal sharks and rays were considerably greater in Sonora than in other surveyed states. Many tiburón populations (e.g., C. leucas, C. limbatus, C. obscurus, Galeocerdo cuvier) have likely been overfished, possibly shifting effort towards coastal populations of cazón and rays. Management recommendations, including conducting demographic analyses using available life history data, determining and protecting nursery areas, and enacting seasonal closures in areas of elasmobranch aggregation (e.g., reproduction, feeding), are proposed. Without effective, enforceable management to sustain or rebuild targeted elasmobranch populations in the Gulf of California, collapse of many fisheries is a likely outcome.

The complete cite of the study is (also include the PDF file of this report, which fortunately is in English):

Bizzarro, J.J., Smith, W.D., Hueter, R.E., Tyminski, J., Márquez-Farias, J.F., Castillo-Géniz, J.L., Cailliet, G.M., and Villavicencio-Garayzar, C.J. 2007. The Status of shark and ray fishery resources in the Gulf of California: Applied research to iprove management and conservation. A report to the David and Lucile Packard Foundation. 241 p.

With best regards

Leonardo
Dr. José Leonardo Castillo-Geniz

Investigador Titular "C", Programa Tiburón, Centro Regional de Investigación Pesquera de Ensenada, B.C., Instituto Nacional de la Pesca (INAPESCA), carr. Tijuana-Ensenada km 97.5, El Sauzal de Rodríguez, C.P. 22760, Ensenada, B.C., México, tel/fax (646) 174-6135, 174-6140, 174-6085; e-mail: leonardo.castillo@inapesca.sagarpa.gob.mx y ptiburon@yahoo.com.mx

Comments from Canada

REPORT OF THE SHARK INTERSESSIONAL GROUP ON THE IMPLEMENTATION OF DECISION 14.107

Note: These comments relate to the text in Annex 1.

Requiem sharks

1. Hammerheads, *Sphyrna* sp.

Comment: In Canada, this species is managed under the National Plan of Action for the Conservation and Management of Sharks. There is no directed fishery for this species in Canada and <<1 t/year is reported as landed bycatch.

2. Dusky shark, *Carcharhinus obscurus*

Comment: In Canada, this species is managed under the National Plan of Action for the Conservation and Management of Sharks, although Canadian waters are considered the fringe of this species' range. There is no directed fishery for this species in Canada and << 1 t/year is reported as landed bycatch.

3. Thresher sharks, *Alopias* sp.

Comment: *A. vulpinus* is the only species of this genus found in Canadian waters and it is managed under the National Plan of Action for the Conservation and Management of Sharks. There is no directed fishery for this species in Canada and << 1 t/year is reported as landed bycatch.

4. Shortfin mako, *Isurus oxyrinchus*

Comment: In Canada, this species is managed under the National Plan of Action for the Conservation and Management of Sharks, as well as the Canadian Atlantic Pelagic Shark Integrated Fisheries Management Plan. The directed fishery for this species in Canada has a Total Allowable Catch of 250 tonnes per year but average landings are much less than this at 112 tonnes/year (most of which is bycatch). Although it is unlikely that Canadian exploitation rates for this species are having an appreciable impact on the global population, continued monitoring is warranted based on estimates of a significant portion of unreported catch occurring in international waters. Monitoring of shortfin mako includes periodic stock assessments, an at-sea observer program, and dockside monitoring of all landed specimens.

5. Silky shark, *Carcharhinus falciformis*

Comment: This species is not found in Canadian waters.

6. Oceanic whitetip shark, *Carcharhinus longimanus*

Comment: In Canada, this species is managed under the National Plan of Action for the Conservation and Management of Sharks. There is no directed fishery for this species in Canada and there are no recorded landings of this species as bycatch.

7. Blue shark, *Prionace glauca*

Comment: In Canada, this species is managed under the National Plan of Action for the Conservation and Management of Sharks, as well as the Canadian Atlantic Pelagic Shark Integrated Fisheries Management Plan. The Total Allowable Catch for this species in Canada is 250 tonnes per year of which 125 tonnes is allocated to a directed recreational fishery. However, on average only ~30t are landed annually as the recreational fishery is mandatory catch-and-release except for 4-6 authorised derbies each year. Similarly other Parties, Canadian tuna and swordfish fisheries may catch and discard substantial quantities of blue shark each year (up to approximately 1000 tonnes annually in recent years).

8. Sandbar shark, *Carcharhinus plumbeus*

Comment: This species is not found in Canadian waters.

9. Bull shark, *Carcharhinus leucas*

Comment: This species is not found in Canadian waters.

10. Tiger shark, *Galeocerdo cuvier*

Comment: In Canada, this species is managed under the National Plan of Action for the Conservation and Management of Sharks. There is no directed fishery for this species in Canada and there are no recorded landings of this species as bycatch.

Comments from Australia

Australian Government response to draft 'Report of the Shark Intersessional Group on the Implementation of Decision 14.107.'

Overarching comments:

1. ***Need for stronger links between justification and recommendations*** - In some instances, the link between the recommendation and the text justifying the recommendation are unclear. It appears that the group have weighted certain information differently, but the reasoning behind this is not clear. For example, hammerhead is recommended as a species of concern, while other species for which similar trends have been presented have no recommendation. These inconsistencies make it difficult to judge the robustness of the recommendations for some species. As noted in subsequent informal emails between the group, it may be appropriate to establish a rating system to allow data and decisions to be presented consistently.

2. ***Tendency to present species information as a single population*** - The paper does not detail how the group is intending to address the issue that not all populations of this species are necessarily exposed to the same level of risk and potentially under threat. There was a general view that the justifications are currently presented as if each species were a single population, with trends in one place extrapolated to another. The Australian Government are of the view that there are likely to be separate populations for some of the species, and there may be instances where the condition of Australian populations differs from populations elsewhere.

3. ***Bias on northern hemisphere examples*** - Species management information in the paper is provided from a northern hemisphere perspective, and does not capture the management of some of the species in southern waters. More specific information on Australian populations should be available shortly as the report of the Environmental Risk Assessment process that has been undertaken in Commonwealth-managed fisheries becomes publicly available. The Australian Government has been able to provide our views regarding species of concern ratings that draws on internal advice regarding the Australian ERA process. When this information becomes publicly available, it will be provided to the working group for incorporation into the paper as appropriate. For the moment, the overarching views are provided below under specific species headings.

4. ***Inconsistent interpretation of terminology*** - Care needs to be taken with the interpretation and terminology used to describe the results of the Ecological Risk Assessments (ERA) (Cortes et al 2008 and Simpfendorfer et al 2008).

   For example, the second paragraph in the justification for thresher sharks states "an Ecological Risk Assessment was conducted on thresher sharks to assess their vulnerability to pelagic longline fisheries (Cortes et al 2008 and Simpfendorfer et al 2008). In both studies, bigeye thresher sharks have a high risk of susceptibility whereas common threshers were less prone".

   - The term "vulnerability" has a range of interpretations – the risk assessment looked at the risk of over-exploitation. Conversely, the term "susceptibility" has a specific meaning within the risk assessments - it is not clear if the text in the justification is referring to the "susceptibility" or the overall risk score.

- The assessment by Simpfendorfer et al. was not just an "Ecological Risk Assessment". The results from Simpfendorfer et al. were based on integrating the Ecological Risk Assessment results, with a proxy for B_{MSY} and the IUCN Red List status. The report seems to switch between referring to the integrated risk, and the risk based on the Ecological Risk Assessment.

5. ***Clarifying the purpose of the paper*** - There may be value in explicitly stating the objectives of the 'Species of Concern' paper at the start of the paper. This may assist in resolving some of the issues raised above. Further, it needs to be clearly articulated that this is not a list of species that will be immediately nominated to CITES for listing.

Specific comments for individual species:

1. Hammerheads

   On the basis of advice from the Australian Fisheries Management Authority (AFMA), of all the hammerhead species it is considered that the smooth hammerhead (*Sphyrna zygaena*) to be of greatest concern.

   Given the major declines of scalloped hammerheads (*Sphyrna lewini)* that have been suggested in the Atlantic, and the prevalence of hammerhead species in the international shark fin trade, the Australian Government currently agrees with their prioritisation as species of concern.

   In addition to the USA and international management measures presented, examples of management measures in some Australian fisheries include: shark landing restrictions such as prohibitions on the landing of livers alone; trip limits on the number of sharks that can be retained; and no Commonwealth fishery allows finning (removal of fins at sea and discarding of carcass).

   As a separate point, it is noted that Hammerheads are included under the title of Requiem sharks. This will need to be amended in the draft report.

2. Dusky shark

   Australian scientific advice supports the recommendation of the dusky shark as a species of concern. It is worth noting that there are significant problems with species identification of dusky shark as they are often confused with bronze whalers. If this species were considered for listing on the appendices of CITES in the longer term, the bronze whaler (*C. brachyurus*) may also have to be considered as a look-alike species.

3. Thresher sharks

   Australian scientific advice received supports prioritising thresher sharks as a species of concern, with the justification that bigeye thresher was considered as highest risk of pelagic Atlantic sharks, and the common thresher as next highest risk as noted in Simpfendorfer et al. 2008.

4. Shortfin mako
   Australian scientific advice concurs with the views of those presented in the draft report. The shortfin mako should be listed as a species of concern given that it came out as highest risk pelagic Atlantic sharks in Simpfendorfer et al. 2008.

5. Silky shark

   Australian scientific advice recommends that, given silky sharks were identified as high risk in Simpfendorfer et al. 2008, they should be prioritised as a species of concern. Management measures in place in some Australian fisheries include shark bycatch trip limits, prohibition on finning and landing of livers only, prohibitions on the use of wire traces and general shark landing restrictions.

6. Oceanic whitetip shark

   Consistent with the advice for silky sharks, the Australian scientific advice recommends that oceanic whitetips are listed as species of concern given that they were rated as high risk in Simpfendorfer et al. 2008.

The management measures in place for sharks in some Australian fisheries include bycatch trip limits, prohibition on finning and landing of livers only, prohibitions on the use of wire traces and general shark landing restrictions.

7. Blue shark
Australian scientific advice recommends that blue sharks should remain as a species of concern. The basis for this position is a lack of confidence in the ICCAT stock assessments, and the existence of numerous conflicting analyses, some of which suggest declines in blue shark populations whilst others suggest increases.

The management measures in place in some Australian fisheries include shark bycatch trip limits, prohibitions on finning and landing of livers only, prohibitions on the use of wire traces and general shark landing restrictions.

8. Sandbar shark
The information provided in the report seems to indicate that on a global scale populations of this species are over-exploited and in decline. Given the apparent value of fins for this species in Hong Kong and reports that suggest that this is a common species identified within the international shark fin trade, there appears to be a market for the fins of sandbar sharks that will continue to drive targeted fishing for this species. Further, Australian scientific advice has also indicated that this species has a very limited biological capacity to withstand fishing mortality, and requires very strong management arrangements. Due to the species' low intrinsic rebound potential and low productivity and the potential for market forces to drive an on-going harvest of the species, the Australian Government supports Sandbar shark remaining a species of concern.

It was noted that there was no reference in the current draft of the report, regarding the recent USA assessment of the Large Coastal Shark complex that would further support retaining this species as a species of concern.

A minor edit in this section, the McAuley paper should be 2007, not 2006.

9. Bull shark
Although there is conflicting information about the global status of this species, much of the information provided indicates some populations are in decline and are being over-exploited. The information in the justification suggests that this species has low intrinsic rebound potential, low productivity and there are indications that this species is targeted for its fins given that it is the fourth most common species identified in the Hong Kong fin market. Additional information received when consulting with Australian scientists and management agencies suggests that this species is commonly caught in apparatus deployed for shark control programs. Based on these factors, further discussion is required to determine if this species remains on the list, or is removed.

10. Tiger shark
Australian scientific advice supports the removal of tiger shark from the list of species of concern, due to the reasons noted in the draft report. Some additional background information received relating to management of this species in Australia is that it is a species commonly caught in apparatus deployed for shark control programmes in Australian waters.

Comments from the European Commission

First of all I want to thank you very much for the preparation of your document which you had circulated at the end of last year. It gives a very good short overview of the biological and management information in the Requiem Shark group which is group for which the AC working group had agreed to prioritize first of all its work.

At the same time myself and my Commission colleagues have to apologize for not responding before on the document you had prepared. One of the main reasons is that the European Commission was preparing the proposal for the EU shark action plan which has now been published just only 10 days ago. This took considerable efforts to prepare and several background reports could only been made available after official publication.

The press release on the "Communication from the Commission to the European Parliament and the Council on a European Community Action Plan for the conservation and management of the sharks" can be found at the link below. The link to the Action plan and background documents are given at the end of that page.

http://europa.eu/rapid/pressReleasesAction.do?reference=IP/09/220&format=HTML&aged=0&language=EN&guiLanguage=en

Although you had indicated already in your previous email that you would submit your draft document to the AC for further discussion (because of the deadline for submission of documents), I still would like to send you some of my short comments in the document as well as an abstract of species information which the Commission had used in the preparation of our EC shark action plan, realising it would had been more helpful if we could had sent it earlier to you.

Some minor comments are reflected in your original document (with the earlier Canadian comments): I think it would particular good to discuss in the paper (or at the AC meeting in April) the order of prioritization of the different species (see also table 1 in your document AC23 inf 6 table 1). Based on the criteria you had used to set up your table 1 at that time (trade volume, relative productivity, red list assessment) and based on your addtional scientific and management information, it seems that the 2nd, 3rd, 4th and 6th species (all vulnerable species) could also be identified as species of concern (in comparison to the hammerhead sharks which are prioritized as species of concern).

Furthermore it would be useful to attach to your document a table like table 1 of AC23 inf 6 with an overview of the species, its priorization and main criteria used. That would be helpful as a summary table.

Please see further specific species information, including EU fisheries and other fisheries where relevant, in attached document. This is information contained in the shark assessment report under the proposal for the EU shark Action Plan for the selected requiem shark species. The overall report is published on the following website. We realise that this document contains information till mid-2008, so for certain species the assesment of studies and reports (e.g. in framework of ICCAT) of last autumn had not been included (as you had done in your overview document).

http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=SEC:2009:0106:FIN:EN:PDF

I fully recognise and apologize that this contribution is fairly late now the documents have to be finalised. I would leave it up to you whether you would still include some additonal factual background information into the working group document and/or to include a summary table.

Thanks again for all your work,

Best regards,

Henk Eggink

European Commission
DG Environment - CITES team
email: henk.eggink@ec.europa.eu

REPORT OF THE SHARK INTERSESSIONAL GROUP ON THE IMPLEMENTATION OF DECISION 14.107

Note: These comments relate to the text in Annex 1.

Requiem sharks

1. Hammerheads, *Sphyrna* sp.

EU comment: Some similar/additional information about the species in attached document.

2. Dusky shark, *Carcharhinus obscurus*

EU comment:

Recommendation: Species of concern? consider species of concern listing, based on criteria in table 1 of AC23 inf 6 (relative volume in trade, relative productivity and red list assessment (being vulnerable species))

3. Thresher sharks, *Alopias* sp.

EU comment:

Recommendation: Species of concern? consider species of concern listing, based on criteria in table 1 of AC23 inf 6 (relative volume in trade, relative productivity and red list assessment (being vulnerable species))

Some similar/additional information about the species in attached document.

Under EC legislation for 2009, Community vessels fishing shall promptly release alive and unharmed bigeye thresher sharks (Alopias superciliosus) caught in association with fisheries managed by ICCAT, when brought along side for taking on board the vessel. Incidental catches and live releases are to be recorded in the logbook

4. Shortfin mako, *Isurus oxyrinchus*

EU comment:

Recommendation: species of concern? consider species of concern listing, based on criteria in table 1 of AC23 inf 6 (relative volume in trade, relative productivity and red list assessment (being vulnerable species))

In the fourth sentence of the final paragraph under this heading insert the words “Appendix II of the Convention on the Conservation of Migratory Species of Wild Animals (CMS),” after the words “Shortfin mako are listed under”.

Some similar/additional information about the species in attached document.

5. Silky shark, *Carcharhinus falciformis*

EU comment:

Recommendation: ? \

6. Oceanic whitetip shark, *Carcharhinus longimanus*

EU comment:

Recommendation: ? ? consider species of concern listing, based on criteria in table 1 of AC23 inf 6 (relative volume in trade, relative productivity and red list assessment (being vulnerable species))

7. Blue shark, *Prionace glauca*

EU comment:

Some similar/additional information about the species in attached document which includes some more information (Indian Ocean, Pacific Ocean). However, this assessment does not include the latest ICCAT (2008) assessment as you have done (although conclusions seem to be the same that for the north and south Atlantic the current biomass appears to be above the biomass at MSY).

8. Sandbar shark, *Carcharhinus plumbeus*

EU comment:

Recommendation: Remove as species of concern ? (This species is according to IUCN red list assessed as vulnerable and therefore to some extent more of concern than other species which are assessed as "near threatened")

9. Bull shark, *Carcharhinus leucas*

No comment.

10. Tiger shark, *Galeocerdo cuvier*

EU comment:

Some similar/additional information about the species in attached document.

Please add also the overview table (table 1 of Doc AC23 inf 6) which summarizes the information, including the updated information and consider the order of the species.

Additional information on selected requiem shark species from the Shark assessment report of the European Community Plan of Action (data used till mid 2008)

Hammerhead sharks (Sphyrna spp)

Status of the stocks

Pacific Ocean stocks: there are no directed fisheries for Hammerhead sharks in the Pacific Ocean; however they are caught as bycatch in longline fisheries. Hammerhead sharks are also caught as part of shark control programs introduced around the coast of Australia (QDPI, 2001).

Indian Ocean stocks: there is a lack of catch and bycatch data on Hammerheads through the Indian Ocean, with the current available data insufficient to adequately assess the effect fishing is having on the stock (IOTC, 2005). Subsequently little is known about the status of this stock and the CPUE of the stock (IOTC, 2005). The management of Hammerhead shark stocks in the Indian Ocean has been difficult due to the low level of research and monitoring activity of Hammerheads, in addition to the lack of knowledge we have about their biology and critical habitats (IOTC, 2005). This is emphasized by the level of misidentifications with regards to Hammerhead species. Appropriate steps should be introduce to allow stock assessments to be carried out in the future utilizing scientific data (IOTC, 2005).

Thresher sharks (Alopias spp.)

Common thresher *Alopias vulpinus* and bigeye thresher *A. superciliosus* Order: Lamniformes Family: Alopiidae English: Thresher shark, common thresher, fox shark, sea fox, swiveltail, and thrasher French: Renard *and* renard à gros yeux Spanish: Zorro *and* zorro ojón	

The fishery

Gear types, fishing fleets and their distribution: There is no target fisheries for thresher sharks in the NE Atlantic; although they are taken as a bycatch in longline and driftnet fisheries (e.g. Buencuerpo *et al*., 1998; Macias *et al*., 2003; Mejuto *et al*., 2001: Tudela *et al*., 2005). Both species are caught mainly in longline fisheries for tunas and swordfish, although they may also be taken in driftnet and gillnet fisheries. The fisheries data for the ICES area are scarce, and they are mostly unreliable, because it is likely that the two species (*A. vulpinus* and *A. superciliosus*) are mixed in the records.

EC directed catch trends and characteristics: The main landing countries are Portugal (106 t in 2006), Spain (59 t in 2006) and France (23 t in 2006). The majority of the Portuguese and Spanish catches are made in Area IX, whilst the French catch is in Area VIII.

Incidental catch characteristics: No data is available.

Status of the stocks

Atlantic Ocean stocks: two species of thresher sharks occur in the Northeast Atlantic Ocean the common thresher (*Alopias vulpinus*) and bigeye thresher (*A. superciliosus*). Of these, *A. vulpinus* is the dominant species in the ICES area. There is little information on the stock identity of these globally distributed sharks. In the absence of records of transatlantic migrations, assume there to be a single NE Atlantic and Mediterranean stock of *A. vulpinus*. This stock could possibly be extended south in to the CECAF area. No detailed stock assessments have been performed for thresher sharks in the North Atlantic though both the common and bigeye threshers are classified as vulnerable by the IUCN.

Indian Ocean stocks: FAO landings data on elasmobranchs for the Indian Ocean are severely limited by the lack of species-specific catch, discard and landings data from the major fleets. There is also little information on the biology of thresher sharks in the Indian Ocean and no information is available on stock structure, although three species of thresher shark, the pelagic thresher (*A. pelagicus*), common thresher (*A. vulpinus*) and bigeye thresher (*A. superciliosus*). The catch estimates for thresher sharks are highly uncertain and CPUE trends are also not available as there are no surveys specifically designed to assess shark catch rates in the Indian Ocean.

Observer programme estimates conducted in the Indian Ocean using observer data have shown that pelagic thresher sharks constitute 0.22% of all species caught on longlines by number and up to 0.76% by weight, at a catch rate of 0.056kg per 1000 hooks (MRAG, 2004)

Due to the lack of data available no quantitative stock assessment has been undertaken by the IOTC Working Party on Ecosystems and Bycatch. There is a clear paucity of information available on thresher shark species and this situation is not expected to improve in the short to medium term. There is no quantitative stock assessment or basic fishery indicators currently available for thresher sharks in the Indian Ocean therefore the stock status of each species is highly uncertain. All three thresher sharks are classified as vulnerable by the IUCN.

Pacific Ocean stocks: FAO landings data on elasmobranchs for the Pacific Ocean are severely limited by the lack of species-specific catch, discard and landings data from the major fleets.

Existing specific management measures

EC Regulation No. 1185/2003 prohibits the removal of shark fins of this species, and subsequent discarding of the body. This regulation is binding on EC vessels in all waters and non-EC vessels in Community waters.

Despite its midrange intrinsic rebound potential, the management of *A. vulpinus* is of concern, as shown by the quick decline of the USA Pacific fishery targeted on this species and which ended in the 1990 due to overfishing (Hanan *et al*., 1993; Cailliet *et al*., 1983). Liu *et al*. (1998, 2006) consider that *Alopias* spp. are particularly vulnerable to overexploitation and in need of close monitoring because of its high vulnerability resulting from its low fecundity and relatively high age of sexual maturity. Precautionary management measures could be adopted for the NE Atlantic thresher sharks, due to the fishing effort for large pelagic fishes in the region.

The two species are recorded mixed or separately; however analysis of the available data seems to indicate that they are often mixed even when recorded under specific names. Also, some discrepancies are observed when different sources of data are available (e.g. FAO, ICCAT, national data).

Blue shark (Prionace glauca)

Blue shark *Prionace glauca*

Order: Carcharhiniformes
Family: Carcharhinidae
English: Blue shark, blue dog and blue whaler
French: Peau bleue
Spanish: Tiburón azul

Overview

Although there are no large-scale directed fisheries at this species, it is a major bycatch in many fisheries for tunas and billfishes, where it can comprise up to 70% of the total catches (ICCAT, 2005). Observer data indicate that substantially more sharks are caught as bycatch than reported in catch statistics. For the entire North Atlantic, catch is estimated to exceed 100 000 t with mortality estimates between 26 000 to 37 000 t. Blue sharks are also caught in considerable numbers in recreational fisheries, including in the ICES area (Campana *et al.*, 2005).

The fishery

Gear types, fishing fleets and their distribution: An examination of fishing effort in FAO Area 27 (NE Atlantic) shows that the Spanish Basque fleet is currently the predominant EC country catching around 400 t of blue shark per annum, although until 2003 Portugal caught up to 2 000 tonnes yearly. France also catches significant volumes at around 107 t in 2006. Taiwan, Japan and China also catch blue shark, although their catches are not specified to individual FAO area, only the whole Atlantic Ocean. A detailed description of the Basque fishery was presented by Diez *et al*. (2007). This ICES Working Document shows that blue shark used to be a traditional and rather low bycatch of many Basque (Spanish) fleets operating in the Bay of Biscay (ICES Divisions VIIIa, b, c, d). Since 1998 a small fleet of Basque longliners spend part of their yearly activity targeting blue sharks in the Bay of Biscay VIIIa,b,c,d (Diez *et al*, 2007). Blue sharks are caught predominantly in ICES Areas VII, VIII, IX, X and XII.

EC directed catch trends and characteristics: The 2006 EC catch of 4,162 t was mainly caught by Portugal (2 627 t), Spain (1 400 t) and France (134 t). The Portuguese catch is mainly from Area IX, whilst the Spanish catch is from IXa, VIIIa,b,c,d and X.

Incidental catch characteristics: Discards are presumed to be far higher than reported

(Campana *et al.*, 2005), especially in high seas fisheries. Shark bycatch in some fisheries are finned, although the USA, Canada and EC have taken measures to stop finning. If left intact, survival rates for discarded sharks can be high, the proportion of blue sharks alive at hauling longlines is given between 80–90% and about 60% of these sharks released may survive (Campana *et al.*, 2005).

Status of the stocks

Atlantic Ocean stocks: the ICCAT pelagic shark assessment working group (ICCAT, 2005) considers there to be a single stock of blue shark (*Prionace glauca*) in the North Atlantic, one in the South Atlantic and one in the Mediterranean (Heessen, 2003; Fitzmaurice *et al.*, 2005, ICCAT, 2004).

ICCAT started collecting data on shark by-catches from the Atlantic tuna fleets only in 1994, and catch reporting of sharks has not been good. Estimates from a study of the Hong Kong shark fin trade (Clarke 2003) showed that blue shark catches were underreported globally. Based on this information ICCAT attempted to construct a more accurate picture of shark catch and mortality in the Atlantic tuna fleets based on ratios of shark to tuna landings from fleets reporting both to ICCAT and using these ratios to reconstruct an example catch history by major gear type.

Several CPUE series have been discussed within ICCAT for use in blue shark stock assessments and the following catch rate series were selected as being the best representative series:

- Japanese longline logbook series (applied to North and South Atlantic separately);
- USA longline logbook series (applied to North Atlantic);
- Chinese Taipei longline series (applied to South Atlantic); and
- Brazil NE and SE longline series (applied to South Atlantic; partial series).

Various different models where used for the stock assessment of Atlantic blue shark. A surplus production model was applied to the catch and CPUE data available at the 2001

ICCAT Bycatch Working Group meeting (SCRS/2001/021), implemented with the BSP (Bayesian Surplus Production) software. The model used informative Bayesian priors for historical catches (before reliable catch data of blue sharks were collected), and the biomass at the beginning of the time series. Model results implied that current levels of harvest are sustainable for blue sharks. The greatest source of uncertainty in the model results was the missing catch data early in the time series. For the North Atlantic stock of the runs that produced results these showed an average current status around 85% of K (although the trajectory was quite variable. The ICCAT Bycatch Working Group noted that there is a wide range of other sensitivity analyses including alternative catch scenarios that could be examined into the future to help define the most appropriate set of model assumptions for these data. The Group noted that the model was not able to track the decrease in CPUE in the recent years. For blue shark in the South Atlantic, six sensitivity analyses were run, and all but one converged. The runs all showed an average current status around 75% of K.

No full-scale benchmark assessment has been conducted to date due to limitations on available data for this species. ICCAT completed a preliminary stock assessment in 2004, but no management recommendations were made. Although the North Atlantic Stock appeared to be above biomass in support of MSY, the assessment remained highly conditional on the assumptions made. These assumptions included (i) estimates of historical shark catch, (ii) the relationship between catch rates and abundance, (iii) the initial state of the stock in 1971, and (iv) various life-history parameters. The authors pointed out that the data used for the assessment did not meet the requirements for proper assessment (ICCAT, 2006), and further research and better resolved data collection for this species was highly recommended. A recent study of the population trends of Atlantic pelagic predatory fishes reported that blue sharks have declined over 60% in recent decades (e.g. Baum *et al.*, 2003), though this study has attracted some controversy (see Baum *et al.*, 2005 and Burgess *et al.*, 2005a,b). Other studies on blue shark have shown smaller declines (e.g. Campana *et al.*, 2005), or significant declines in males only (Simpfendorfer *et al.*, 2002).

SCRS/2004/105 presented a detailed age-structured population dynamics model which could be used to describe the dynamics of shark populations and evaluate the effects of exploitation. Uncertainty in the understanding of shark dynamics and exploitation patterns was again incorporated using Bayesian methods. The model failed to converge when the complete CPUE series from Japanese longline for blue shark in the North Atlantic was used. However, convergence of the model was achieved when the model was run using the complete CPUE series from the USA longline fishery and the CPUE series from the Japanese longline without the CPUE values for years 1971-1973 (the first 3 points of the series). Thus, the different runs were conducted using the complete USA longline CPUE and the modified CPUE series for the Japanese longline. The model was run using two different assumptions about the weighting of the CPUE series; equal weighting (Run 1) and catch dependent weighting (Run 2). The model was also run assuming options for biannual (Run 1) or annual reproduction cycle (Run 3). The mode of the results of the runs showed the virgin mature fish biomass smaller than 700 000t but also gave considerable probability to much greater values. The probability density function (pdf) for the depletion of the population supported values for population depletion which are close to 50%. However, for all runs considered, the mode of the distribution supported values for the ratio of current stock to virgin stock size which were very close to 1 (i.e. showing no depletion).

In summary, both North and South Atlantic blue shark the current biomass appears to be above the biomass at MSY. In many model runs, stock status appeared to be close to unfished biomass levels. A full evaluation of the sensitivity of model outcomes to the assumptions made by the Working Group (e.g. initial biomass) was not possible and it was recommended that such studies should be carried out before

drawing stronger conclusions. The Working Group stated that without solving these problems, they cannot present either more precise or accurate views of the status of these stocks, since the available data are quite uninformative.

No reference points have been proposed for this stock.

Document SCRS/2004/112 proposes a statistical framework for estimating blue shark movement and fishing mortality rates from the tag-recapture data of the NMFS Cooperative Shark Tagging Program. The dataset of the NMFS-CSTP shows potential for use in a blue shark stock assessment.

Indian Ocean: in 2005 (the latest data available to the IOTC Working Party on Bycatch and Ecosystems), seven countries reported catches of blue sharks in the IOTC region although this data is not used by IOTC as its likelihood of being representative is highly uncertain. FAO landings data on elasmobranchs for the Indian Ocean are severely limited by the lack of species-specific data and data from the major fleets.

There is little information on blue shark biology in the Indian Ocean and no information is available on stock structure. The catch estimates for blue shark are highly uncertain and CPUE trends are also not available as there are no surveys specifically designed to assess shark catch rates in the Indian Ocean. Trends in localised areas might be possible in the future (for example, from the Kenyan recreational fishery) but these are likely to be of limited use in assessing the stock of the Indian Ocean overall. A standardized CPUE for blue shark caught by the Japanese tuna longline fishery in the Indian Ocean was calculated using logbook data from the period 1971 to 2005. For much of this period, shark catches were not recorded by species, therefore all sharks were assumed to be blue sharks, which would of course lead to some over reporting of blue shark abundance. A recent Japanese observer programme in the Eastern Indian Ocean recorded 77 blue shark out of a total of 3,718 specimens. This was the highest catch rate among sharks species encountered at 0.268 per 1000 hooks. Other studies conducted in the Indian Ocean using observer data have shown that blue sharks constitute 1% of all species caught on longlines by number and up to 4% by weight, with sharks overall making up 1.76% by number and 5.38% by weight at a catch rate of 0.243 per 1000 hooks (MRAG, 2004) The results from the analysis indicate a relatively stable blue shark CPUE except for some relatively high catch rates in 1998 and 1999. Overall, the results of this analysis suggest that the stock status of blue sharks has not changed drastically over the past three decades in the high seas area of the Indian Ocean.

Due to the lack of data available no quantitative stock assessment has been undertaken by the IOTC Working Party on Ecosystems and Bycatch. There is a clear paucity of information available on this species and this situation is not expected to improve in the short to medium term. There is no quantitative stock assessment or basic fishery indicators currently available for blue shark in the Indian Ocean therefore the stock status is highly uncertain. Blue sharks are commonly taken by a range of fisheries in the Indian Ocean and in some areas they are fished in their nursery grounds. Because of their life history characteristics – they are relatively long lived (16-20 years), mature at 4-6 years, and have relativity few offspring (25-50 pups every two years), the blue shark is vulnerable to overfishing.

Pacific Ocean: blue shark is not actively managed internationally within the Pacific and there are no quotas set by any of the RFMOs. Recent studies indicate the species, which may comprise a single Pacific-wide stock, is abundant and healthy ($F/FMSY < 0.5$). There is some evidence for a decline of the stocks of blue shark in the central Pacific (Nakano 1996), but not yet evidence of overfishing. The north Pacific blue shark stock appears healthy (Kleiber *et al*. MS1) with a current population size that is above BMSY with $F/FMSY < 0.5$, and that MSY could be 1.7-3.0 times the catch observed in the late '80's early '90s. Sibert *et al.* estimate that the North Pacific blue shark population is at 91% of the unexploited level. In spite of being the largest component of the bycatch incidentally taken by high seas, longline fleets for over 50 years the MSY for the north Pacific stock is tentatively estimated to be approximately 120 000t. No harvest guidelines or reference points have been recommended at this time.

Existing specific management measures

EC Regulation No. 1185/2003 prohibits the removal of shark fins of this species, and subsequent discarding of the body. This regulation is binding on EC vessels in all waters and non-EC vessels in Community waters.

Data quality issues: the landings data for blue shark are unreliable due to the amount of pelagic sharks that are thought to be declared under generic sharks "nei" categories (Johnston *et al.*, 2005). ICCAT

completed a preliminary stock assessment in 2004, but no management recommendations were made. A joint ICES / ICCAT working group plan a new assessment in 2009.

Effectiveness of management measures

Catch data of pelagic sharks are considered unreliable as many sharks are not landed whole but are landed as fins. For accurate stock assessments of pelagic sharks, data from throughout the North Atlantic must be made available to the Working Group. In addition, reporting procedures must be strengthened so that all landings are reported, and that landings are reported to species level, rather than generic nei categories.

Recent management advice

According to the 2008 report of the SCRS of ICCAT, for both North and South Atlantic blue shark stocks, although the results are highly uncertain, biomass is believed to be above the biomass that would support MSY and current harvest levels below FMSY. Results from all models used were conditional on the assumptions made (*e.g.*, estimates of historical catches and effort, the relationship between catch rates and abundance, the initial state of the stock in the 1950s, and various life-history parameters), and a full evaluation of the sensitivity of results to these assumptions was not possible during the assessment. Nonetheless, as for the 2004 stock assessment, the weight of available evidence does not support hypotheses that fishing has yet resulted in depletion to levels below the Convention objective.

Shortfin mako shark *Isurus oxyrinchus*	
Order: Lamniformes	
Family: Lamnidae	
English: Shortfin mako shark, blue pointer, blue shark, bonito shark	
French: Taupe bleue	
Spanish: Marrajo dientuso	

Overview

The shortfin mako is a highly migratory pelagic species that is caught frequently as a bycatch, mostly in longline fisheries targeting tuna and billfish. Like porbeagle shark, it is a relatively high-value species (cf blue shark, which is of lower commercial value). Recreational fisheries on both sides of the North Atlantic also catch this species, although some of these fish are released.

The Shortfin Mako shark (*Isurus oxyrinchus*) is a large pelagic species attaining a maximum total length of 3.94m (DFO Atlantic Fisheries, 1996). The Shortfin Mako frequents warm-temperate and tropical waters circumglobally, preferring water temperatures ranging between 17 – 22 °C (DFO Atlantic Fisheries, 1996., NAFO, 2007). The Shortfin Mako is typically an offshore species that is present between the surface and a depth of 500 m, however they have also been observed in shallower littoral zones (NAFO, 2007). The Shortfin Mako's morphology is characterised by a crescent-shaped tail with pronounced keels in addition to its large fins (ICES, 2007).

The Shortfin Mako is an ovoviviparous species (DFO Atlantic Fisheries, 1996) that has a lifespan of 30 years (NAFO, 2007). Males are sexually mature at 7-9 years old at a total length of 2 – 2.2 m, whilst females become sexually mature at a much later age (18 – 21 years old), at which time their total length is 2.7 – 3 m (NAFO, 2007). The Shortfin Mako has a long gestation period of 15 – 18 months and only produces 11 young every 3 years (NAFO, 2007). The Shortfin Mako can be classified as an K-species due to its life history characteristics of low fecundity and delayed sexual maturity.

The life history characteristics of elasmobranchs that makes them susceptible to exploitation are less apparent in the Shortfin Mako meaning it has a greater recovery potential than other elasmobranch species. The reason for this is due to the fact that the Shortfin Mako' has a rapid growth rate in comparison to other elasmobranchs (DFO Atlantic Fisheries, 1996). However, in comparison to the commercial teleost fisheries species the Shortfin Mako's growth rate is still moderate (NAFO, 2007).

The susceptibility of the Shortfin Mako to exploitation is increased due to their migrational movements. Tagging work on Shortfin Makos in the North Atlantic has shown that they migrate over 3 000 km (ICES, 2007). This is supported by the DFO Atlantic Fisheries (1996) who found that the Shortfin Mako exhibited seasonal movements.

The fishery

Gear types, fishing fleets and their distribution: In the ICES area, shortfin mako sharks are caught predominantly by Portuguese and Spanish vessels in Subareas, VIII, IX, and X. EC vessels also operate in FAO Area 34.

EC directed catch trends and characteristics: the Portuguese catches make up the vast majority of EU landings, accounting for 730 of the 820 t caught over in ICES waters 2006. Over half this was caught in area IX (off the west coast of Portugal), with 141 t caught in area X (Azores).

Incidental catch characteristics: Estimates of shortfin mako bycatch are difficult, as available data are limited and documentation is incomplete. There is considerable bycatch of shortfin mako sharks in Japanese and Taiwanese tuna longliners operating in the Atlantic. Estimates given in Matsunaga and Nakano (2005) indicate bycatch levels in Japanese longline operations of 300 to 500 t of shortfin mako annually for the North Atlantic.

Status of the stocks

Atlantic Ocean stocks: historically the Shortfin Mako has been caught as bycatch predominantly in tuna and billfish longline fisheries. It is a high value species and as such is also targeted by recreational fisheries in both the North East and North West Atlantic. At present there is still no directed fishery towards the Shortfin Mako which is considered to have only a single stock in the North Atlantic.

Current EU catches of the Shortfin Mako are predominantly by Portuguese and Spanish vessels, although landings from Spanish vessels only began in 2004. The UK also have reported landings, but these are negligible being below 3 tonnes. The Portuguese report the largest landings with the maximum reported being 542 tonnes in 2003, which made up 50 % of the total North Atlantic reported landings (ICES, 2007). The catch data provided is incomplete and as such it is difficult to accurately determine catches and produce stock assessments. However, CPUE data has shown that the North Atlantic stock has been declining since 1975 although further analysis is required (ICES, 2007).

Despite the catch data available and the CPUE data indicating declining stocks there have been no recent stock assessments. A decision was taken not to undertake stock assessments as there was limited data all of which was considered poor quality. The lack of accurate precise data is emphasized by the fact that NAFO uses commercial and recreational fisheries to provide them with abundance indices (NAFO, 2007).

Mediterranean stocks: it is considered that there are two stocks of Shortfin Mako in the Mediterranean; a Northern Stock and a Southern Stock (ICCAT, 2005). A lack of available landings data and relevant catch data from commercial fisheries has resulted in no stock assessments being able to be undertaken. Increased levels of data recording are required to enable stock assessment to be achieved.

Indian Ocean stocks: historically there has been very little information on the status of the Shortfin Mako fishery in IOTC waters and it is apparent that landings of Shortfin Mako have gone unreported in the past. Consequently, IOTC catches of Shortfin Mako sharks are highly inaccurate and have little representativeness. (IOTC, 2007)

A lack of representative data is emphasized by the fact there is no extensive FAO data due to a lack of species-specific data from major fleets (IOTC, 2007). A lack of landings information subsequently means it has not been possible to carry out a stock assessment. In addition CPUE has not been available as no surveys have been carried out enabling the suitable data to be obtained to produce the relevant CPUE information.

Existing specific management measures

EC Regulation No. 1185/2003 prohibits the removal of shark fins of this species, and subsequent discarding of the body. This regulation is binding on EC vessels in all waters and non-EC vessels in Community waters.

Effectiveness of management measures

Catch data of pelagic sharks are considered unreliable, as many sharks are not reported on a species-specific basis, and some fisheries may have only landed fins.

Recent management advice

According to the 2008 report of the SCRS of ICCAT, estimates of stock status for the North Atlantic shortfin mako obtained with the different modelling approaches were much more variable than for blue shark. For the North Atlantic, most model outcomes indicated stock depletion to about 50% of biomass estimated for the 1950s. Some model outcomes indicated that the stock biomass was near or below the biomass that would support MSY with current harvest levels above FMSY, whereas others estimated considerably lower levels of depletion and no overfishing. There is a non-negligible probability that the North Atlantic shortfin mako stock could be below the biomass that could support MSY. A similar conclusion was reached by the Committee in 2004, and recent biological data show decreased productivity for this species. Only one modelling approach could be applied to the South Atlantic shortfin mako stock, which resulted in an estimate of unfished biomass which was biologically implausible, and thus the Committee can draw no conclusions about the status of the South stock

Tiger shark (Galeocerdo cuvier)

Overview: the tiger shark is found throughout the world's temperate and tropical waters, with the exception of the Mediterranean Sea. It is a wide-ranging species that is at home both in the open ocean as well as shallow coastal waters. Reports of individuals from as far north as Iceland and the United Kingdom have been confirmed but are probably a result of roaming sharks following the warmer Gulf Stream north across the Atlantic.

Status of the stocks

Atlantic Ocean stocks: both commercial and recreational fishing catch rates for this species in the mid-Atlantic region have declined since the mid-1980's, indicating that fishing pressure has adversely affected the size of the population. In contrast, relative abundance and catch rates for this species noted by commercial fisheries observers, especially for juveniles, are much higher than in previous fishery-independent and fishery-dependent surveys. The World Conservation Union (IUCN) presently lists the tiger shark as “Near Threatened” throughout its range.

(Ps.: listing at present indeed Lower Risk/Near Threatened)

Pacific Ocean stocks: there are no directed fisheries for Tiger sharks in the Pacific Ocean; however they are caught as bycatch in longline fisheries. Tiger sharks are also caught as part of shark control programs introduced around the cost of Australia (QDPI, 2001).

Comments from the IUCN SSC Shark Specialist Group

Well, my main comment is with regards being a bit more precise about the criteria used (which should be semi-quantitative) when deciding whether species are on or off this list. This would be helpful for other taxonomic groups as well.

I suggest that a number of criteria are tabulated and marked on a sliding scale of, say 0 to 4, for each species. Then we assign a cut off level for the total score, above which each species is considered to be a priority. The advantage of this would be that it also ranks priority and 'near miss' species.

Suggestions, in no particular order:

i) Percentage of range unmanaged (4 - 0, where 0 means that the entire range is under management)

ii) Productivity (lowest = 4, highest = 1)

iii) Threatened status (CR/EN/VU/NT = 4/3/2/1) [not sure what to do with DD]

iv) Identification under international instruments (UNCLOS, CMS, regional conventions)

iv) Occurrence in fisheries (high to low)

v) Volume in trade (high to low/none)

vi) Trade as a driver of exploitation or bycatch mortality (high to low/none) [v and vi are not the same, for example for particularly rare/threatened species]

viii) Potential to identify the most important products in trade (high to low/none) [i.e. could a CITES listing be implemented - if the score is low for this criterion, although the species has a high overall score, then a CITES listing is possibly not appropriate, although it is clearly a priority for (other) management action].

Regards,
Sarah

Comments from Species Management Specialists

I apologize for my tardiness in not responding in a timely fashion to the document (Report of the Shark Intersessional Group on the Implementation of Decision 14.107) circulated last year. It slipped through the net. I realize we are running short of time for finalizing documents for the upcoming 24th meeting of the Animals Committee, but believe that there are some important issues to be considered. Not withstanding my own late response, I note you have received little in the way of comments from the Working Group members, which is surprising.

1. According to the computer identification, this document was authored by Sarah Fowler, from the IUCN/SSC Shark Specialist Group. Sarah and the SSG have been very strong advocates for listing shark and ray species on the Appendices of CITES, so I believe it is important that other Working Group members are fully aware who the author was.

2. It should also be made clear whether Sarah did this work in a personal capacity (as a consultant), in her capacity as SSG Chair, or in her capacity as a representative of either SSC or IUCN. At the 24th Animals Committee Meeting it is likely that IUCN with make a statement (prepared by Sarah and the SSG) supporting the Working Group's findings (authored by Sarah), which is clearly not independent commentary based on independent evaluation by the IUCN, and may obviously be misleading for AC members.

3. Throughout the document, it is stated that various species are considered either "globally endangered" or "globally vulnerable" by the IUCN. This is a highly misleading term of phrase in relation to the Red List determinations which cannot be used to conclude that a species is globally endangered or vulnerable throughout their range. It would be better to state clearly (once), that with widely distributed marine species such as the sharks assessed here, the status of any one species is typically a mosaic - secure and protected in some parts of its range and depleted to varying degrees in other parts of its range, due to both managed and unmanaged harvest (in the case of sharks). The Red List considers the extent of decline in the total global population as a single unit, over 10 years or 3 generations, and allocates it's category of risk accordingly. A species that meets the decline criteria for the Red List "endangered" category simply means that the total world population i

4. Similarly, the report refers to species in some areas harvested to levels of population decline below those calculated as providing maximum sustainable yield. This in itself constitutes a commercial problem. If the population declines and stabilizes below MSY the potential annual harvest is less than it would be if the population stabilizes at MSY. It is therefore a commercial problem rather than a biological problem and is not in itself an indication that there is any risk of extinction. The level of population decline needed

before biological extinction ("survival of the species" … the gatekeeper for CITES involvement) is well below MSY.

5. For the majority of species no "recommendation" is made, and for others, it is concluded that the risk is such that they can be removed as species of concern. It is somewhat puzzling why hammerhead sharks (Sphyma spp.) have been singled out as the only priority species of concern. I am not aware of any serious harvesting of hammerhead sharks solely for their fins, and would very much like to see the data that lead Camhi et al. (2008) to conclude this. Referring to unnamed and unreferenced studies indicating serious declines is hardly evidence the AC members should heed. The paper states "some studies … etc" but is followed by one reference to a single study. The scattered and superficial information available from which to assess the status of hammerheads is not much different to that available for other species, where no recommendation is made, or where removal is recommended. So why are hammerheads singled out for such a priority?

6. One obvious potential reason, that AC members should be alerted to, is that of the species examined here, hammerheads, with their unique head shape, are arguably the most "charismatic" of the group, and thus the most suitable for winning public appeal for extra-protection levels, which is the way listing on the Appendices of CITES is often promoted to the public. That is, it appears from an advocacy point of view to be the easiest of the listed species to win political support for listing from the Parties. If this is indeed the reason for listing hammerheads as a priority then it should be stated openly and transparently.

7. Within most species accounts it is stated that various jurisdictions have banned the practice of fining of sharks. This only needs to be stated once, where it should also be stated that it is a response to animal welfare concerns, well supported by industry, rather than a contribution to improving the sustainability of commercial harvests of sharks! It is simply uneconomic to harvest pelagic shark species for fins alone although these may be included in bycatch. To continually attempt to link fishing effort with the demand for shark fins is mischievous and misleading. Indeed, if this was the case, there would seem to be little purpose in countries reporting to FAO on the tonnages harvested in each region. The implication that the shark fin industry is the major driver of all declines in all sharks species is simply not true. It is clear from many of the case histories discussed here that commercial harvesting for meat is a major driver, and those harvested most have high numbers

8. Similarly, if there are lists (rankings) available of the abundance of different shark fins in trade, and the relative desirability of the fins of different species (regardless of abundance) this information should be used objectively: 8th most abundant species in trade (of ….. species examined) and the 2nd most desirable (of …. ranked). Abundance in trade does not indicate desirability or high price - simply abundance. That is, they may be the most common in the wild and the least likely to need CITES intervention. Statements such as the meat and fins are "valuable" (thresher shark) or are "highly valued" (Hammerhead Shark, Sandbar shark) seem contrived … which ones are lowly valued?

9. With regard to "blue sharks", it would seem that all blue shark meat derived from Japan fisheries is utilized for human consumption.

10. No one doubts that stocks of many shark species, indeed many if not most commercially harvested species of marine fish, have declined over recent decades and are at present either fully or over-exploited fisheries. This does not appear to be related to whether they have fins or other byproducts that are valued for food by some cultures of people, but rather because they are a food fish.

11. The whole issue of by-catch mortality is poorly understood and warrants much more detailed assessment in order to accurately interpret catch data and the use of by-catch. Caution needs to be exercised here in drawing speculative conclusions.

12. The problems that have been identified with respect to the sustainability of many shark fisheries and the issue of shark by-catch are clearly fisheries management problems that can only be solved by changing fisheries management practices. They will not be solved simply by listing species in the Appendices to CITES. It is difficult to understand how a CITES listing will address management problems or contribute positively to improving the overall sustainability of these fisheries.

13. It is equally clear that some species are becoming the focus of management measures to enhance the sustainability of harvest levels. These measures need to be expanded and implemented by more

fishing nations in a broader range of geographic regions. Most importantly, the measures that are being adopted through national implementation of the FAO IPOA-Sharks or through RFMOs require time to gauge the extent to which they have had the desired effect.

14. It stands as an anachronism that Resolution Conf. 12.6 commits the Animals Committee to ongoing detailed assessment of shark species, not listed on the Appendices of CITES, at the exclusion of many other (non-shark) marine and freshwater species that may arguably be far more depleted than the majority of sharks. Given that the detailed assessment here seems to have resulted in only one species being assigned a priority for listing (on grounds that may be quite dubious), one can only conclude that the process seems to have outrun its usefulness while adding to the work load of the Animals Committee. It may be prudent for the Animals Committee to objectively assess whether Resolution Conf 12.6 should be amended to remove the present task of the Committee to continuing to identify shark species for possible listing under CITES.

15. Given the need to submit a document to the Secretariat in the next few days, it is obviously not possible to incorporate the foregoing comments into the original discussion paper. However, I believe the views expressed are sufficiently important to warrant open discussion when the working group meets during the next meeting of the Animals Committee. As such, I would be grateful if you would attach this response to your report to the Committee.

Regards and apologies
Hank Jenkins

Comments by Alternative Member-Singapore

I refer to Hank's e-mail.

I had been in contact with you a few times. I look forward to seeing the draft you are putting up for us, before this is submitted to AC. I hope that the points I made are incorporated.

Hank has mentioned some of the reservations I have over the decision of COP to refer this matter to AC, and the way it is handled subsequently. I agree with Hank, and should say that Hank has made us stand back and look at it on an overall basis.

We need to remind ourselves of the following -

a.. Not all sharks are overfished. Only a few are, and in some waters.

b.. Sharks have been harvested by the millions for their meat

c.. In haste, COP singled out sharks, and not any endangered species, whether land or sea creatures, for AC to work on. And these sharks are not listed, and even rejected for listing by COP

d.. Management is key to saving sharks populations. Listing sharks in CITES would not prevent the EU from catching huge quantities (and have unfettered internal trade). Listing will prevent export of the same sharks by one country to another

I will elaborate on a point Hank makes –

"7..... To continually attempt to link fishing effort with the demand for shark fins is mischievous and misleading. Indeed, if this was the case, there would seem to be little purpose in countries reporting to FAO on the tonnages harvested in each region. The implication that the shark fin industry is the major driver of all declines in all sharks species is simply not true..... The harvesting for meat would continue regardless of whether the fins were sold as fins to those who eat them or used for fish meal or fertilizer."

I pose the following questions –

a.. Shark fins – Concerted efforts have been made to portray to the world that the shark fin industry is the primary cause of overfishing of sharks. As you know this is not true. Europe does not catch the spiny dogfish to sell its fins to the Far East. I would like to know the stand of IUCN or SSG.

b.. 'Live finning' of sharks – This is a cruel practice and should be stopped. Fins traded come from dead sharks ('dead-fins') and live sharks ('live-fins'). Most of the fins traded are from 'dead-fins'

c.. There is an anti-fin lobby. The lobby manages to mislead, and legislators innocently lump all fins together and call it "finning". This makes the world abhor shark fin soup, because it is given the impression that the majority of fins are 'live-fins'. 'Live fins' form a small percentage of fins traded worldwide.

Kind regards

Choo-hoo GIAM