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**SUMMARIES OF THE REPORT OF THE FOURTH FAO EXPERT
ADVISORY PANEL FOR THE ASSESSMENT OF PROPOSALS TO
AMEND APPENDICES I AND II OF CITES CONCERNING
COMMERCIALY-EXPLOITED AQUATIC SPECIES,
ROME, 3–9 DECEMBER 2012**

Summaries of the

**REPORT OF THE FOURTH FAO EXPERT ADVISORY PANEL FOR THE ASSESSMENT OF
PROPOSALS TO AMEND APPENDICES I AND II OF CITES CONCERNING COMMERCIALY-
EXPLOITED AQUATIC SPECIES**

Rome, 3–8 December 2012

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Abstract

The fourth FAO Expert Advisory Panel for the Assessment of Proposals to Amend Appendices I and II of CITES Concerning Commercially-exploited Aquatic Species was held at FAO headquarters from 3 to 8 December 2012. The Panel was convened in response to the agreement by the twenty-fifth session of the FAO Committee on Fisheries (COFI) on the terms of reference for an expert advisory panel for assessment of proposals to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), and to the endorsement of the twenty-sixth session of COFI to convene the Panel for relevant proposals to future CITES Conference of the Parties.

The objectives of the Panel were to:

- assess each proposal from a scientific perspective in accordance with the CITES biological listing criteria (Resolution Conf. 9.24 [Rev. CoP13]);
- comment, as appropriate, on technical aspects of the proposal in relation to biology, ecology, trade and management issues, as well as, to the extent possible, the likely effectiveness for conservation.

The Panel considered the following seven proposals submitted to the sixteenth Conference of the Parties to CITES:

- CoP16 Prop. 42. Proposal to include *Carcharhinus longimanus* (oceanic whitetip shark) in Appendix II in accordance with Article II paragraph 2(a).
- CoP16 Prop. 43. Inclusion of *Sphyrna lewini* in Appendix II in accordance with Article II 2(a) and inclusion of *S. mokarran* and *S. zygaena* in Appendix II in accordance with Article II 2(b).
- CoP16 Prop. 44. Inclusion of *Lamna nasus* (Bonnaterre, 1788) in Appendix II in accordance with Article II 2(a).
- CoP16 Prop. 45. Transfer of *Pristis microdon* from Appendix II to Appendix I of CITES in accordance with Article II, paragraph 1.
- CoP16 Prop. 46. Inclusion of the genus *Manta* in Appendix II in accordance with Article II paragraph 2(a)
- CoP16 Prop. 47. Inclusion of the ceja river stingray (*Paratrygon aiereba*) in Appendix II in accordance with Article II paragraph 2(a).
- CoP16 Prop. 48. Inclusion of the freshwater stingrays *Potamotrygon motoro* and *P. schroederi* in Appendix II in accordance with Article II paragraph 2(a).

FAO Expert Advisory Panel assessment report: oceanic whitetip shark - CoP16 Proposal 42 -

Species:

Carcharhinus longimanus – oceanic whitetip shark.

ASSESSMENT SUMMARY

CITES biological listing criteria

Both the current FAO Expert Panel and the previous one (FAO, 2010) concluded that, based on the available evidence, oceanic whitetip shark, *Carcharhinus longimanus*, meets the biological criteria for listing in CITES Appendix II. Importantly, new information from the first-ever full-stock assessment conducted (in 2012) for oceanic whitetip for the Western and Central Pacific area corroborated and reinforced this conclusion. There are three time series for the Indian Ocean, all of which decline, with one meeting the Appendix II decline criterion.

There is a paucity of quantitative data with which to determine global trends in this widely distributed tropical oceanic shark. Most of the available indices are based on fishery catch per unit of effort (CPUE). Two regional studies provide long time series (45–50 years) that show historical extents of decline conforming to the Appendix II decline criterion, and a short (10 years) recent time series in one area that also shows a historical extent of decline consistent with the Appendix II decline criterion. Information from other areas is very limited and difficult to interpret.

Comments on technical aspects of the proposal:

Biology and ecology: The Panel agreed with the 2009 Panel's conclusion that oceanic whitetip is a species with low productivity. There were no other biological or ecological vulnerability or modifying factors that would alter the conclusions regarding biological listing criteria.

Trade: Fins for this species are in demand and of high value in the world market, and there is evidence that international trade is driving retention of bycatch. While this species is generally not targeted but taken as bycatch in fisheries targeting other species, the Panel noted that a large proportion of individuals captured as bycatch could be released alive.

Fisheries management: Retaining bycatch for international trade in high-seas tuna fisheries constitutes an important risk factor for oceanic whitetip, although the risk may have been mitigated to some extent by the introduction of regulations related to sharks. Nine regional fisheries management organizations (RFMOs) and some countries have introduced shark finning regulations, while some countries have banned the retention of shark catch. In principle, these regulations could reduce mortality or at least improve monitoring of shark catches but compliance with these management measures is likely to be variable. More recently, three of the tuna RFMOs have adopted bans on the retention of oceanic whitetips that will have a positive impact on the stock recovery if they are implemented effectively.

Likely effectiveness of a CITES listing for the conservation of the species: The benefits of an Appendix II listing of oceanic whitetip shark would depend on its effective implementation. As most harvest is expected to be from international waters, the CITES requirements for Introduction from the Sea (IFS) and for non-detriment findings (NDFs), if implemented effectively, could contribute to developing better assessments of the species status in the Indian Ocean, where mandatory reporting of oceanic whitetip is not required. It would also provide an additional control to ensure that products entering international trade are derived from legal and sustainable fisheries. Furthermore, a CITES Appendix II listing, if implemented effectively, could also act as a complementary measure for regulations implemented by fisheries management authorities; in particular, where RFMOs have adopted measures prohibiting retention of oceanic whitetip.

FAO Expert Advisory Panel assessment report: scalloped hammerhead shark, great hammerhead shark and smooth hammerhead shark - CoP16 Proposal 43 -

Species: *Sphyrna lewini* (scalloped hammerhead shark), *Sphyrna mokarran* (great hammerhead shark) and *Sphyrna zygaena* (smooth hammerhead shark).

ASSESSMENT SUMMARY

CITES biological listing criteria

The Panel concluded that based on the available evidence scalloped hammerhead (*Sphyrna lewini*) meets the biological criteria for listing on CITES Appendix II. The other two proposed species, great hammerhead shark (*S. mokarran*) and smooth hammerhead shark (*S. zygaena*) fulfil the criteria for inclusion under CITES Appendix II stipulated in Article II, paragraph 2b (“look-alike clause”).

When evaluated on a population-by-population basis, the historically large population in the Northwest Atlantic was considered to meet the Appendix I decline criterion; there is a declining trend in the Southwest Atlantic population considered by the Panel to meet Appendix II listing criteria. In the Eastern Central Atlantic, the historical trends did not show significant declines but the recent rate of decline would meet the Appendix I criterion. The Indian Ocean and Eastern Pacific populations have declined, and in the Western Pacific the trends are inconsistent.

Comments on technical aspects of the proposal

Biology and ecology: Scalloped hammerhead is a circumglobal coastal species of warm temperate and tropical seas. It can be characterized as a species of low productivity.

Trade: Scalloped hammerhead fins are traded internationally and command a high price, while the meat is mainly consumed locally but a small portion of the meat is also traded internationally.

Fisheries management: Hammerhead sharks are a target and/or bycatch species in diverse industrial and artisanal fisheries around the globe. General shark management measures for sharks (such as finning regulations and closed areas) exist but species-specific fisheries management is rare and illegal, unreported and unregulated (IUU) fishing has been identified as a problem.

Likely effectiveness of a CITES listing for the conservation of the species: Except for the Northwest Atlantic, species-specific assessments that could provide a basis for NDFs are lacking. The Panel felt that a CITES listing, if implemented effectively, would improve the catch data for stocks going into international trade. In principle, a CITES Appendix II listing will be more effective for fisheries targeting sharks for their fins that enter international trade. However, a CITES Appendix II listing will have limited effect if the shark catches are consumed and traded locally.

FAO Expert Advisory Panel assessment report: porbeagle shark - CoP16 Proposal 44 -

Species: *Lamna nasus* – porbeagle shark.

ASSESSMENT SUMMARY

CITES biological listing criteria

The majority of Panel members considered that the species as a whole meets the decline criteria for Appendix II.

When evaluated on a population-by-population basis, the historically large porbeagle populations in the North Atlantic (Northeast and Northwest) and the Mediterranean Sea were considered to meet the Appendix II decline criterion.

Assessments for the Southwest Atlantic region indicated substantial declines, but the results were too uncertain to determine whether porbeagle in this region meets the decline criterion for Appendix II. The status elsewhere in the Southern Hemisphere was considered to be above the Appendix II decline thresholds.

The new information on distribution in the Southern Hemisphere was considered by some Panel members to indicate that the porbeagle shark has a wider distribution in the Southern Hemisphere than previously thought and that this also indicated a higher abundance. In the view of these Panel members, this brings into question the conclusion of the 2009 Panel that the species globally meets the decline criteria for Appendix II. Other members of the Panel were of the opinion that the new study did not provide information on population size in the Southern Hemisphere or the relative abundance of the Northern and Southern Hemisphere populations and that, therefore, the information did not change the conclusion of the 2009 Panel.

Comments on technical aspects of the proposal

Biology and ecology: The Panel agreed that the porbeagle shark has low productivity. Life-history characteristics such as low fecundity, slow growth and late maturation make the species particularly vulnerable to overexploitation. Such vulnerability factors are addressed in the decline criterion threshold for a low-productivity species.

Trade: Although porbeagle products are traded internationally, the actual proportion of the catches in international trade remains unknown owing to potentially substantial under-reporting and the lack of widely adopted specific customs codes for the species. These observations, in conjunction with the high value of products from the species (particularly its meat) in domestic and international markets, constitute a risk to the conservation of the species.

Fisheries management: High levels of unreported catch represent a significant potential risk factor as this will constrain accurate assessments of stock status, and subsequent management actions. The existence of rebuilding plans in Canada and the United States of America represent an important mitigating factor for the Northwest Atlantic population. Catches in the high seas areas of the North Atlantic may undermine these efforts if they are not strictly regulated. The recently adopted European Commission (EC) Regulations prohibiting fishing for porbeagle shark in waters of the European Union (Member Organization) and also prohibiting fishing vessels flagged to the European Union (Member Organization) operating in all waters to fish for, retain on board, transship or land porbeagle sharks is expected to mitigate to some extent the risk to the Northeast Atlantic population, and also to other populations affected by the fleet of the European Union (Member Organization). The Appendix III listing recently implemented by some countries of the European Union (Member

Organization), which came into effect on 25 September 2012, is also likely to have a positive impact on improving information on the catches that enter international trade.

Several RFMOs have adopted regulations related to shark finning. However, finning regulations are unlikely to have much impact for porbeagle, given that the meat appears to be the most highly valued porbeagle product.

Likely effectiveness of a CITES listing for the conservation of the species: The 2012 Expert Panel and FAO (2010) noted that, if properly implemented, a CITES Appendix II listing would be expected to result in better monitoring and reporting of catches entering international trade from all porbeagle populations and subpopulations. Improved catch monitoring should enable new or enhanced assessments of stock status and the subsequent adoption of management measures that ensure the sustainability of harvests. Harvests from international waters would fall under the IFS provisions of the Convention. These would require catch documentation to the species level for specimens entering the jurisdiction of a State from international waters, along with an NDF indicating that the harvest was sustainable.

Considering the measures in place in the European Union (Member Organization) and North America to control harvest and to rebuild stocks, the listing would mainly affect the meat trade from countries in the Southern Hemisphere to the European Union (Member Organization), and the shark fin trade to China and other Asian countries. Listing in CITES Appendix II would probably strengthen current efforts to ensure that harvesting for trade is commensurate with the Canadian and United States rebuilding plans for the Northwest Atlantic stock.

The Panel also noted that the difficulty of identifying porbeagle products in trade and formulating NDFs might limit the effectiveness of a CITES listing. Species-specific assessments that could provide a basis for NDFs are lacking in the Southern Hemisphere, and requirements for additional information will create a burden that may need to be addressed through capacity building, particularly in developing countries. However, this is not unique to a potential CITES listing for porbeagle; it applies in general to all new management measures and regulations to utilize both marine and terrestrial species sustainably.

FAO Expert Advisory Panel assessment report: freshwater sawfish - CoP16 Proposal 45 -

Species: *Pristis microdon* – freshwater sawfish.

ASSESSMENT SUMMARY

CITES biological listing criteria

The Panel found the available information indicates that the freshwater sawfish *Pristis microdon* meets the biological criteria for an Appendix I listing. A similar conclusion was reached by FAO (2007) when assessing the proposal for listing all species of Pristidae in Appendix I.

Comments on technical aspects of the proposal

Biology and ecology: The freshwater sawfish *Pristis microdon* was known to occur in the Indo-West Pacific but limited scientific records and other observations suggest abundance has declined to a small fraction of historical levels. Demographic information from other Pristidae species indicates that sawfishes have a low productivity. Recent genetic studies indicate that the population of Northern Australia *P. microdon* has high levels of mtDNA heterogeneity and no nDNA heterogeneity. These results suggest that *P. microdon* may have a male-biased dispersal. While females remain or return to pupping sites, males are more wide-ranging, being responsible for the gene flow across assemblages.

Trade: Sawfish parts and products of all species are already included under Appendix I; only live individuals of *Pristis microdon* can be traded internationally under Appendix II.

Fisheries management: Only a few range States have adopted management measures to control the take of the species, including Australia, Bangladesh, India, Indonesia, and Malaysia. In addition, all shark fishing is banned in Myanmar.

Likely effectiveness of a CITES listing for the conservation of the species: Any trade in freshwater sawfish products is already prohibited by CITES because the current Appendix II listing only allows the export of live specimens under specified circumstances. Retaining live specimens of all species listed under Appendix I could facilitate the implementation of CITES regulations, as identification to the species level would no longer be necessary.

FAO Expert Advisory Panel assessment report: manta rays - CoP16 Proposal 46 -

Species: Genus *Manta*, composed of *M. birostris*, *M. alfredi* and possibly a third species, *Manta* *c.f. birostris*.

ASSESSMENT SUMMARY

CITES biological listing criteria

Considering the decline criteria overall and within regions, there is a paucity of reliable information on historical or recent decline of both species of manta. Thus, the Panel was unable to identify reliable information to assess against the decline criteria throughout the range. It also could not comment on the projected trends of the populations as any projections were likely to be speculative. Both species are pan-oceanic in distribution and thus do not qualify under the distribution criterion.

The Panel was unable to assess the situation of the two species against the small population criteria. The abundance of mantas is described in the proposal in terms of aggregation numbers, population numbers and surveys of sightings in an interchangeable manner. These data could not be reasonably integrated to provide an approximate estimate of global population size. Estimates of the population size using life-history characteristics and distribution could not be reconciled with sightings and removals.

Comments on technical aspects of the proposal

Biology and ecology: Manta rays are low-productivity species. The genus *Manta* has recently been split into two species: *Manta alfredi* and *Manta birostris*. The global population size of both species is unknown. Local aggregations are typically estimated as from hundreds to thousands of individuals. *M. birostris* has a circumglobal distribution in tropical, subtropical and temperate waters, while *M. alfredi* is restricted to tropical and subtropical waters. *M. birostris* undergo significant seasonal migrations and are capable of large migrations (> 1 000 km) although movements across ocean basins are presumed rare. *M. alfredi* are more resident to coastal waters, with shorter seasonal migrations. Manta rays are the largest of the rays and both species are planktivores.

Trade: The price of gill rakers is high. The proposal suggests that the value of gill rakers has increased greatly in recent years, leading to an increase in targeted fishing for *Manta* spp. in key range States. No supporting evidence was provided to substantiate these assertions. The lack of commodity codes for the species makes it difficult to verify the extent and trends of the trade in the species products. The current estimates of demand appear to be in the same order of magnitude of catches in the few documented fisheries. The gill raker trade is supplied by both target and bycatch fisheries. These fisheries also supply the domestic meat and international skin market. The Panel concluded that trade is an important driver for the targeted fisheries. In addition, an unknown proportion of the global trade originates from the bycatch in other commercial fisheries.

Fisheries management: Fishery removals are poorly documented. The species are caught in direct fisheries and as bycatch in coastal and offshore fisheries. The proposal suggests that approximately 4 600 individuals are caught annually to supply the trade in gill rakers. Important fishing countries have not adopted specific measures for manta rays, or NPOA-Sharks. Management measures exist, including the banning of the harvesting and/or trade of manta rays in a few range States.

The Panel noted various risk factors for the conservation of manta rays including their low productivity, the seasonal and predictable aggregations, the lack of reliable catch and population information and the lack of management at regional and international levels in most areas.

Likely effectiveness of a CITES listing for the conservation of the species: As there is a proportion of the fishery driven by the international gill raker trade, it is likely that this will be further regulated

and monitored if this species is included in Appendix II. The listing would only be effective in addressing concerns about the conservation of the species when combined with strengthened national and international management.

FAO Expert Advisory Panel assessment report:

ceja river stingray

- CoP16 Proposal 47 -

Species: *Paratrygon aiereba* – ceja river stingray

ASSESSMENT SUMMARY

CITES biological listing criteria

The Panel noted that the supporting statement of the proposal included many unsubstantiated claims, making evaluation difficult. There is no information available to infer population status and trends. Thus, it was not possible to evaluate whether the populations meet the biological criteria for a CITES Appendix II listing under decline. The species is widely distributed (not meeting the restricted area criterion) and the populations are not believed to meet the criterion of a small population.

Comments on technical aspects of the proposal

Biology and ecology: *P. aiereba* is the only species of the genus *Paratrygon*. The species occurs across a large area of the Amazon and Orinoco river basins. It is considered a higher trophic predator, with low fecundity and a large potential maximum size, compared with other freshwater stingrays. *P. aiereba* is a low-to-medium-productivity species.

Trade: The available data indicate that *P. aiereba* is traded internationally for ornamental use and possibly for consumption but the extent of this trade and the effects on the populations are unknown.

Fisheries management: In addition to international trade, the species is also harvested for other purposes, including domestic consumption and removal to reduce local populations to avoid incidents with tourists (population control). The relative importance of these sources of mortality is unknown. Overall, considering that the capture of the species for the ornamental fish trade is prohibited in Brazil and that the number of specimens legally traded from Colombia according to the proposal is very low, it seems unlikely that harvesting for the ornamental fish trade can be considered as a significant cause of any population change.

There are specific regulations to control ornamental harvest and trade in Colombia and Brazil, but there are no specific management measures in other range States. Specific regulations concerning other uses (food, recreational, population control, etc.) appear to be lacking across the region. This factor as well as the existence of illegal cross-border trade and the unregulated fisheries constitute risk factors for the sustainable use of the species.

Likely effectiveness of a CITES listing for the conservation of the species: The Panel did not find any supporting evidence that a CITES Appendix II listing will probably have an impact on the conservation of the species. Strengthening management by range States will be required in order to address properly the existing concerns about the conservation and sustainable use of the species.

FAO Expert Advisory Panel assessment report: ocellate river stingray and rosette river stingray - CoP16 Proposal 48 -

Species: *Potamotrygon motoro* (ocellate river stingray) and *Potamotrygon schroederi* (rosette river stingray).

ASSESSMENT SUMMARY

CITES biological listing criteria

Evidence of decline in abundance is reported for Colombia, but not to the extent required for consideration in Appendix II. In Brazil, the available information indicates that populations showed no trend. The data available are not sufficient to determine whether the species qualify globally under the decline criteria. The two species are distributed across a large area of South America, although different for each species (thus, they cannot be considered under the restricted area criterion) and the populations do not appear to meet the criterion of a small population.

Comments on technical aspects of the proposal

Biology and ecology: The biology of *P. motoro* has been extensively studied while *P. schroederi* is less studied, resulting in less information being available. Both species occur in the various freshwater environments, including large and small rivers, floodplains and lakes in South America. *P. motoro* and *P. schroederi* have different distribution areas and habitat preferences, with the distribution of *P. schroederi* being less extensive and limited to the Amazon and Orinoco river basins.

The population dynamics of both species are poorly known and very few data are available to infer their productivity, status and trends. However, the available information suggests that *P. motoro* has a medium productivity whilst the productivity of *P. schroederi* is probably lower than that of *P. motoro*.

Trade: Considering the high prices of these freshwater stingrays in the ornamental fish trade and the number of individuals exported, it seems that trade is one of the drivers of exploitation. Export data for Colombia and Brazil indicate that at least 99 000 *P. motoro* and 15 000 *P. schroederi* were exported from the two countries between 1999 and 2011. Exports of *P. motoro* from Peru varied from 7 800 to 30 000 individuals per year between 2000 and 2005. Legal exports from Brazil in the last decade have fluctuated in response to changes in national regulations on international trade. It is likely that the increase in captive breeding may be reducing dependence on wild stocks.

Fisheries management: *P. motoro* and *P. schroederi* are harvested for the ornamental trade and food production. In addition, a negative fishery exists (a fishery that removes stingrays to reduce interaction with tourists). The relative importance of these sources of mortality is unknown. There are specific regulations to control ornamental harvest and trade in Colombia and Brazil (the two main exporters). There are no specific management measures in other range States. This factor as well as the illegal cross-border trade of individuals and the unregulated fisheries for other uses constitute risk factors for the sustainable use of the species.

Likely effectiveness of a CITES listing for the conservation of the species: A CITES Appendix II listing might enhance the existing measures to control harvest for the ornamental trade that are partially implemented by some of the exporting countries. Harvesting for other uses, including for food and population control, will not be affected by a CITES listing. At present, the Panel is not in a position to assess the relative importance of international ornamental trade *vis-à-vis* other sources of mortality. Strengthening management at country level will be required in order to address the existing concerns about the sustainability of the species.

The Panel noted that the recommendation in paragraph c of Decision 15.85 (to list the species in Appendix III) has not been acted upon by range States. The Panel considers that the implementation of this recommendation will improve trade data, which at present are inadequate.

The potential difficulty in identifying the species in trade will be the main implementation issue of a possible listing, especially considering that this family has polychromatism (wide inter- and intra-specific colour variation) and hybrids are in international trade.