

Networks for the Conservation and Management of Sharks

The international and national framework recommendations for Ecuador

Clara Fowler

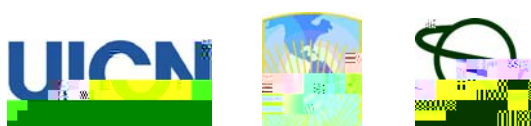


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The international and national frameworks for conservation and management of sharks

Recommendations for Ecuador

Sarah Fowler

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1. Introduction

The International Plan of Action for the Conservation and Management of Sharks (IPOA–Sharks, see Annex I) was developed by FAO in order to identify the actions required for sustainable shark management within the context and framework of the Code of Conduct for Responsible Fisheries. It was adopted by the 23rd Session of the UN FAO Committee on Fisheries (COFI) in 1999, calling upon all States to produce a Shark Assessment Report (SAR) and, if they have shark fisheries, to develop and implement National Plans of Action (NPOAs, or Shark Plans) by the following COFI session in 2001.

The overall objective of the IPOA-Sharks is to ensure the conservation and management of sharks and their long-term sustainable use. It embraces the precautionary approach and encompasses all chondrichthyan fisheries, whether target or bycatch, industrial, artisanal or recreational, within the context of four main elements: species conservation, biodiversity maintenance, habitat protection and management for sustainable use. It is supported by Technical Guidelines (FAO Marine Resources Service, 2000) addressed to decision-makers and policy-makers associated with the conservation and management of chondrichthyans. These provide general advice and a framework for States to use when developing Shark Assessment Reports, National Shark Plans and joint Shark Plans for shared transboundary species of sharks.

The IPOA–Sharks envisages the development of National Shark Plans that identify research, monitoring and management needs for all chondrichthyan fishes that occur in State waters. In

2. International context for shark conservation and management

Ecuador is Party to or a Member of the following international and regional agreements or arrangements that are of relevance to the State's shark conservation and management activities. The relevance of each of these with regards the National Shark Plan is briefly outlined below, with full texts reproduced in the appendices to this report.

The United Nations has raised the issue of shark conservation and management during its last three General Assemblies (2003–2005), noting concerns over the economic and cultural importance of sharks, their biological importance to the marine ecosystem and vulnerability to overfishing, the need for sustainable management of populations and fisheries, and the disappointing lack of progress with implementation of the IPOA–Sharks. Annex II presents the relevant sections of the Fisheries Resolutions for 2003 to 2005 and the section of the Secretary General's report for 2005 that refers to sharks.

In summary, these UNGA Resolutions have called upon States to implement the IPOA by developing and implementing national and regional plans of action, undertaking shark stock assessments, improving the collection of catch and scientific data, and to consider adopting conservation and management measures for directed and nondirected fisheries that have a significant impact on vulnerable or threatened shark stocks. Specified measures include banning directed shark fisheries conducted solely for the purpose of harvesting fins, minimizing

Although the UN FAO Code of Conduct for Responsible Fisheries and International Plans of Action including the Shark Plan) are voluntary, they have been formulated so as to be interpreted and applied in conformity with the relevant roles of international law. These not only include UNCLOS and the Fish Stocks Agreement, but also the measures outlined by the International Conference on Responsible Fishing and 'Declaration of Cancún' (1992), and the 1992 Rio Declaration on Environment and Development, particularly Chapter 17 of Agenda 21. Some of the

The aim of these listings is not to ban trade, but to ensure that fisheries supplying international trade products are sustainable. If Ecuador is to export any of these listed species, it is essential that Ecuador's Scientific Authority for sharks is able to determine the effects of trade on the sustainability of wild populations. They must, therefore, be adequately informed on the fisheries and the status of listed stocks. It would be possible for Ecuador to appoint a fisheries specialist to this role.

Some CITES Parties have taken out reservations on these shark listings, which mean that they are effectively not Party to CITES with respect to these species.

CITES's other major role in promoting the sustainable management of wild species (arguably as important, if not more important than species listings on its Appendices), is through the adoption of Resolutions and Decisions. Ecuador has recently played an important role in promoting shark conservation and management through this application of CITES, by successfully submitting a Resolution on the Conservation and Management of Sharks (CoP12 Doc. 41.2, see www.cites.org) to the 12th Meeting of the Conference of Parties to CITES in 2002. The text of the Resolution adopted by the Conference is presented in Annex IV and is still in force, but should be read in combination with the current Decisions (adopted by the 13th Conference of Parties) and associated recommendations of the Animals Committee, also presented in Annex IV.

The following are of relevance for Ecuador and may need to be taken into consideration when the Shark Plan is developed:

Parties are encouraged by Res. Conf. 12.6 to:

-

Ecuador has been Party to the Convention on the Conservation of Migratory Species (CMS), or the Bonn Convention, since 2004. CMS has 92 Parties, who recognise the need for countries to co-operate in the conservation of animals that migrate across national boundaries, if an effective response to threats operating throughout a species' range is to be made. A regional structure (Africa, America and the Caribbean, Asia, Europe and Oceania), provides a framework within which Parties may adopt strict protection measures for endangered migratory species (listed under Appendix I), or conclude Agreements for the conservation and management of migratory species with an unfavourable conservation status (listed in Appendix II). These Agreements are open to accession by all Range States of the species concerned, not just to the CMS Parties. They may cover any species that would benefit significantly from international co-operation and listed marine species include cetaceans, sea turtles and three species of shark. The whale shark *Rhincodon typus* was listed on Appendix II in 1999, the white shark *Carcharodon carcharias* on Appendices I and II in 2002, and the basking shark *Cetorhinus maximus* also on both Appendices in 2005. Several years after the listing of whale sharks, no conservation and management agreement has been adopted for this or other shark species, but the 8th Conference in 2005 agreed to begin the development of a CMS Instrument for the conservation of all migratory shark species listed on CMS. Progress towards this goal will start in 2006.

This Regional Seas Programme includes the Lima Convention for the Protection of the Marine Environment and Coastal Areas of the South-East Pacific and the Action Plan for the Protection of the Marine Environment and Coastal Areas of the South-East Pacific, together with associated projects: the Programme of Management of Coastal Resources (PMRC), Regional Programme on Environmental Education to the Sustainable Development of the South East Pacific, and the Global International Waters Assessment for the Sub-region 64 Humboldt Current. Actions for sharks are not (yet) specified under any of these initiatives.

OLDEPESCA is not a management body, but provides scientific and management advice.

The 17th Conference of OLDEPESCA Ministers, September 2005, approved a proposal for a cooperative 90-day project for the development of National Plans of Action for the conservation

As noted above, Ecuador places a high priority on implementation of the FAO Action Plans. Indeed, Ecuador reported to FAO COFI in 2001 that a Shark Assessment Report was available (possibly Martinez 1999?) and that a Shark Plan was in preparation.

The recent reports produced on shark fisheries in Ecuador (Martinez 1999, Herrera et al. 2003, Coello 2005) highlight a serious lack of information about the status of shark populations in Ecuadorian waters, which is a major impediment to developing science-based management measures. Both biological information and fisheries statistics are incomplete for sharks.

In August 2003, the Sub-secretary of State for fisheries resources (Subsecretaría de Recursos Pesqueros) and the National fisheries Institute (Instituto Nacional de Pesca) organized a workshop to establish policies and strategies as a basis for the development of the NPOA-Sharks. The workshop involved representatives of FAO in Ecuador, fisheries authorities, the Galapagos National Park, universities, NGOs and representatives of artisanal and industrial fishermen, all of whom agreed to contribute towards the development of the NPOA-Sharks. They agreed on the urgent need to conserve and manage shark populations to ensure their sustainable use, to strengthen the legal framework, to establish consultation mechanisms, to support shark conservation efforts in the Galapagos Marine Reserve and to improve scientific knowledge on shark populations.

4. Analysis of Ecuadorian regulations related to sharks

The legal framework for the conservation and management of sharks in Ecuador is inadequate and requires strengthening. Only three relevant regulations currently exist (Martinez and Viteri 2005, Coello 2005).

Ecuadorian fisheries regulations prohibit target shark fisheries, but permit the landing of bycatch taken by fisheries targeting other species (*Art. 1 del acuerdo No. 097 de la Subsecretaria de Recursos Pesqueros sobre regulaciones sobre la captura y comercializacion del tiburón, 1993*). This bycatch is very important to artisanal fishers, representing up to 30% of the income of fishermen from three landing sites in the province of Manabi (Martinez and Viteri 2005). Most of this income is obtained from the sale of shark fins.

There are no other management or regulatory measures for shark fisheries on the mainland.

It is unclear whether the local fisheries for angel sharks *Squatina* spp. (the species represented are uncertain) and various batoids (rays) are technically bycatch fisheries, a major component of multispecies fisheries, or target fisheries. Elasmobranchs are also taken in large numbers as bycatch in the shrimp fishery. All of these sources of shark mortality require careful management.

Mainland fishers land their shark bycatch whole, with fins still attached. Shark meat, although very low value, is marketed and consumed nationally, with small quantities exported to Colombia or Peru. There is also some utilisation of cartilage and jaws (of higher value than

5. Loopholes for consideration in the Shark Plan

It is widely accepted that there is an urgent need to conserve and manage shark populations in order to ensure their sustainable use, to strengthen the legal framework, to establish consultation mechanisms, to support shark conservation efforts in the Galapagos Marine

Several threatened shark species, some of which listed on international biodiversity conventions, occur within Ecuador's waters. These species are unlikely to be the subject of large-scale target commercial fisheries, but they may occur as bycatch in commercial fisheries, be targeted opportunistically where there is a market for their products, or sought as trophies by recreational fishers. Some of the following listed species or taxa may require particularly careful management in Ecuadorian waters through the introduction of fisheries regulations, quotas, bans or even strict protection through national conservation law, if national populations are not to be depleted or driven to extinction. Such initiatives will also enable Ecuador to implement the recommendations of international bodies. National management may also contribute to regional initiatives for the conservation and management of some of these species, for example, as required under the Convention on Migratory Species:

Basking shark *Cetorhinus maximus* (CITES Appendix II, CMS Appendix I and II)

Whale shark *Rhincodon typus* (CITES Appendix II, CMS Appendix II)

White shark *Carcharodon carcharias* (CITES Appendix II, CMS Appendix I and II)

CITES Animals Committee taxa of concern that could benefit from either conservation or fisheries management measures (several are also listed on UNCLOS Annex I) include the following:

Angel sharks, Family Squatinidae

Deepwater gulper sharks, Genus *Centrophorus*

Devil rays, Family Mobulidae

Freshwater Stingrays, Family Potamotrygonidae

Guitarfishes/Shovelnose rays, Order Rhinobatiformes

Requiem sharks, Genus *Carcharhinus*

deepwater shark stocks have been reduced to less than 10% of their former levels by only a few years of commercial deepwater fishing. Since the remaining populations of these sharks usually continue to be depleted through bycatch in fisheries for more abundant bony fishes or invertebrates, several species are now threatened with extinction.

Other species, including the carcharhinid and thresher sharks, will usually need to be covered

The provision, collation and analysis of sound scientific data, from both research and fisheries monitoring programmes, are of fundamental importance for all fisheries conservation and management initiatives, not solely those focused on sharks. They enable management needs to be identified and revised as necessary, and provide the data needed by managers if they are to determine whether management is being implemented effectively and providing the desired results for both the human community and fish stocks.

Providing these data services is also one of the most challenging tasks facing governments and their fisheries and wildlife managers. The problem of technical capacity to identify species is

6. Draft contents for an Ecuadorian Shark Plan

It is recommended that the Ecuadorian Shark Plan be comprised of the following sections. Some of these sections need only be summaries and can refer to more detailed information in other documents, such as the Shark Assessment Report. Comments are provided in “[*italics*]”.

1. Introduction

1.1 Issues

[Including, but not restricted to, those raised in section 4.4 above]

1.2 Key elements

FAO (2000) identifies four elements of the IPOA-Sharks relating to the principles of ‘ecologically sustainable development’ and ‘inter-generation equity’, in that they should provide ongoing benefits to successive generations of humans:

- The management requirements of shark fishery resources for sustainable use
- The particular conservation needs

1.4 Delivery, monitoring and reporting

Strategies: *[Implement the IATTC resolution and address illegal shark fishing in the Galapagos Marine Reserve by introducing a regulation prohibiting shark finning and carriage of detached fins on board fishing vessels.]*

Issues: *[closely linked with objective 7 and raises many of the same issues – these two objectives could be merged; they were only included as separate items in the original FAO*

6.2 Associated species as discarded bycatch

6.3 Species identification, distribution and stock structure of harvested species

6.4 Associated species as discarded bycatch

6.5 Fishery monitoring and data collection methods

6.6 Scientific research

6.7 Data management

6.8 Stock assessment information

6.9 Identification of species requiring 'special management'

7. Fishery management and species conservation

7.1 Resource constraints

7.2 Sustainable Development Reference System (SDRS) criteria, objectives, indicators and reference points

7.3 Options for regulating fishing

7.4 Bycatch reduction

7.5 Encouragement of full utilization

7. Shark conservation and management priorities

The following suggestions are made for shark conservation and management priorities. These have been developed in a form that can be incorporated into section 3 of the suggested Shark Plan contents and are intended for discussion at the National Workshop. There are several ways in which these priorities can be developed or categorised; by activity or by theme/desired output. Both are presented here. The first three very broad priorities are improved 'management', improved 'resources' and implementation of 'reviews'.

1. to introduce fisheries and conservation management measures, based on existing knowledge of biology and other data available. The precautionary approach should be applied where such data are not available;
2. to improve the resources available to shark monitoring and research, enabling the initiation of a significantly improved programme of research, monitoring, data collation and analysis to inform future management measures;
3. to introduce and implement a continual process of reviews of data, research outputs and fisheries performance, in order to amend the Shark Plan and fine-tune future management decisions.

These can also be made more detailed and specific, as outlined below:

1. Improve technical capacity, data collection and scientific research at species level on:
 - Catches
 - Effort
 - Landings
 - International trade
2. Introduce adaptive precautionary management in the absence of stock assessments, including measures to prevent targeted fisheries for stocks that are considered likely to have been depleted below safe biological limits.
3. Control fishing mortality by:
 - limiting fishing effort and/or catches
 - employing biological controls, such as legal minimum sizes, or maximum sizes to protect breeding stock
 - employing technical controls, such as fishing mesh or hook sizes, closed seasons and closed areas
 - closing target fisheries harvesting depleted or threatened stocks.
4. Determine biological stock structure of species occurring in Ecuadorian waters
5. Develop stock assessments and provide fisheries advice.

1. Initiate a programme to assess the presence and status of important and vulnerable shark stocks
2. Identify species/stocks in need of special protection; a suggestion would be to start with threatened species in the IUCN Red List, and species with low biological productivity.
3. Identify the major threats to each species/stock
4. Introduce appropriate conservation and fisheries management measures for each species/stock (e.g. legal protection, prohibition of certain fishing gears, closed or restricted areas)

1. Identify threats to shark biodiversity arising from increased mortality, loss or degradation

Time scale

Priority area	Activities	Time scale		
		Urgent	Short term	Medium to long term
actions	Introduce/improve protection of stocks of importance for ecotourism	X	X	X
	Evaluate status of potentially vulnerable species and introduce appropriate management		X	X

Bibliography

- Anonymous. 2004. Conservation and management of sharks. CoP13 Doc. 35. CITES, Geneva, Switzerland. www.cites.org
- Bonfil, R. 1994. *Overview of world elasmobranch fisheries*. *FAO Fisheries Technical Paper*, No. 341. United Nations Food and Agriculture Organization, Rome.
- Camhi, M., Fowler, S., Musick, J., Brautigam, A., and Fordham, S. 1998. *Sharks and their relatives - ecology and conservation*. Occasional Paper of the IUCN Species Survival Commission No. 20. IUCN/SSC Shark Specialist Group. IUCN, Gland, Switzerland and Cambridge, UK. iv + 39 pp.
- Clarke, S. and Mosqueira, I. 2002. A preliminary assessment of European participation in the shark fin trade. *Proc. 4th Europ. Elasm. Assoc. Meet., Livorno (Italy), 2000*. Vacchi M., La Mesa G., Ser

ANNEXES

Annex I. UN FAO International Plan of Action for the Conservation and Management of Sharks (IPOA–Sharks)

Food and Agriculture Organization of The United Nations

Rome, 26-30 October 1998

1. For centuries artisanal fishermen have conducted fishing for sharks sustainably in coastal waters, and some still do. However, during recent decades modern technology in combination with access to distant markets have caused an increase in effort and yield of shark catches, as well as an expansion of the areas fished.

Management of Sharks in Tokyo from 23 to 27 April 1998¹ and the Consultation on Management of Fishing Capacity, Shark Fisheries and Incidental Catch of Seabirds in Longline Fisheries held in Rome from 26 to 30 October 1998 and its preparatory meeting held in Rome from 22 to 24 July 1998².

9. The IPOA-SHARKS consists of the nature and scope, principles, objective and procedures for

19. Each State is responsible for developing, implementing and monitoring its Shark-plan.

20. States should strive to have a Shark-plan by the COFI Session in 2001.

21. States should carry out a regular assessment of the status of shark stocks subject to fishing so as to determine if there is a need for development of a shark plan. This assessment should be guided by article 6.13 of the Code of Conduct for Responsible Fisheries. The assessment should be reported as a part of each relevant State's Shark-plan. Suggested contents of a shark assessment report are found in Appendix B. The assessment would necessitate consistent collection of data, including inter alia commercial data and data leading to improved species identification and, ultimately, the establishment of abundance indices. Data collected by States should, where appropriate, be made available to, and discussed within the framework of, relevant subregional and regional fisheries organizations and FAO. International collaboration on data collection and data sharing systems for stock assessments is particularly important in relation to transboundary, straddling, highly migratory and high seas shark stocks.

22. The Shark-plan should aim to:

- Ensure that shark catches from directed and non-directed fisheries are sustainable;
- Assess threats to shark populations, determine and protect critical habitats and implement harvesting strategies consistent with the principles of biological sustainability and rational long-term economic use;
- Identify and provide special attention, in particular to vulnerable or threatened shark stocks;
- Improve and develop frameworks for establishing and co-ordinating effective consultation involving all stakeholders in research, management and educational initiatives within and between States;
- Minimize unutilized incidental catches of sharks;
- Contribute to the protection of biodiversity and ecosystem structure and function;
- Minimize waste and discards from shark catches in accordance with article 7.2.2.(g) of the Code of Conduct for Responsible Fisheries (for example, requiring the retention of sharks from which fins are removed);
- Encourage full use of dead sharks;
- Facilitate improved species-specific catch and landings data and monitoring of shark catches;
- Facilitate the identification and reporting of species-specific biological and trade data.

23. States which implement the Shark-plan should regularly, at least every four years, assess its implementation for the purpose of identifying cost-effective strategies for increasing its .od40..2(r)-8163 Tw[16.4(t)-16.4(

B. The objective of the Shark-plan.

C. Strategies for achieving objectives. The following are illustrative examples of what could be included:

- Ascertain control over access of fishing vessels to shark stocks
- Decrease fishing effort in any shark where catch is unsustainable
- Improve the utilization of sharks caught
- Improve data collection and monitoring of shark fisheries
- Train all concerned in identification of shark species
- Facilitate and encourage research on little known shark species
- Obtain utilization and trade data on shark species

A shark assessment report should *inter alia* contain the following information:

- Past and present trends for:
 - Effort: directed and non-directed fisheries; all types of fisheries;
 - Yield: physical and economic
- Status of stocks
- Existing management measures:
 - Control of access to fishing grounds

49. Urges all States to cooperate with the Food and Agriculture Organization of the United Nations in order to assist developing States in implementing the International Plan of Action for the Conservation and Management of Sharks, including through voluntary contributions to work of the organization, such as its FishCODE programme;

50. Invites the Food and Agriculture Organization of the United Nations, in consultation with relevant subregional or regional fisheries management organizations or arrangements, to prepare a study relating to the impact on shark populations of shark catches from directed and non-directed fisheries and their impact on ecologically related species, taking into account the nutritional and socioeconomic considerations as reflected in the International Plan of Action for the Conservation and Management of Sharks, particularly as they relate to small-scale, subsistence and artisanal fisheries and communities, as well as updating Technical Paper 389 of the Food and Agriculture Organization, entitled "Shark utilization, marketing and trade", in order to facilitate improved shark conservation, management and utilization, and to report to the Secretary-General for inclusion in a fisheries-related report as soon as practicable;

....

Resolution adopted by the UN General Assembly 59th session (2004)

59/25. Sustainable fisheries, including through the 1995 Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, and reat as soon ah Sssana

nondirected fisheries have a significant impact on vulnerable or threatened shark stocks, in order to ensure the conservation and management of sharks and their long-term sustainable use, including by banning directed shark fisheries conducted solely for the purpose of harvesting shark fins and by taking measures for other fisheries to minimize waste and discards from shark catches, and to encourage the full use of dead sharks;

74. *Requests* the Food and Agriculture Organization of the United Nations to develop programmes to assist States, including developing States, in carrying out the tasks mentioned in paragraph 73 above, in particular the adoption of appropriate conservation and management measures, including the banning of directed shark fisheries conducted solely for the purpose of harvesting shark fins;

75. *Reaffirms* the requests contained in paragraph 50 of its resolution 58/14, and invites the Food and Agriculture Organization of the United Nations to report to the Secretary-General, for inclusion in his report on sustainable fisheries, on progress regarding the preparation of the study mentioned therein, as well as the programmes mentioned in paragraph 74 above, and to consider at the sixty-second session of the General Assembly whether additional action is required;

76. *Reiterates* the crucial importance of cooperation by States directly or, as appropriate, through the relevant regional and subregional organizations, and by other international organizations, including the Food and Agriculture Organization of the United Nations through its FishCODE programme, including through financial and/or technical assistance, in accordance with the Agreement, the Compliance Agreement, the Code and the International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing and the International Plan of Action for the Conservation and Management of Sharks, to increase the capacity of developing States to achieve the goals and implement the actions called for in the present resolution;

....

Resolution adopted by the UN General Assembly 60th session (2005)

60/31. Sustainable fisheries, including through the 1995 Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling

Extracts from operative paragraphs:

X. Capacity-building

83. Reiterates the crucial importance of cooperation by States directly or, as appropriate, through the relevant regional and subregional organizations, and by other international organizations, including the Food and Agriculture Organization of the United Nations through its FishCode programme, including through financial and/or technical assistance, in accordance with the Agreement, the Compliance Agreement, the Code and the International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing and the International Plan of Action for the Conservation and Management of Sharks, to increase the capacity of developing States to achieve the goals and implement the actions called for in the present resolution;

.....

Secretary General's Report on Sustainable Fisheries (A/60/189, 2005)

Extracts from: III. Responsible fisheries in the marine ecosystem

C. Towards ensuring the conservation and management of sharks

49. The International Plan of Action for the Conservation and Management of Sharks (IPOA-Sharks) has been developed to address widespread concern over the increase in shark fishing and its consequences for the populations of certain shark species. The goal of IPOA-Sharks is to control directed shark fisheries and fisheries in which sharks constitute a significant by-catch to ensure the conservation and management of sharks and their long-term sustainable use. To that end, States are invited to adopt national plans of action for the conservation and management of shark stocks if their vessels conduct directed fisheries for sharks or if their vessels regularly catch sharks in non-directed fisheries. National plans should contain an assessment of the prevailing state of shark stocks and populations, associated fisheries and management frameworks and their enforcement, and strategies for achieving the objective of IPOA-Sharks, including: controlling access of fishing vessels to shark stocks; decreasing fishing effort for any stock where the catch is unsustainable; improving the utilization of sharks caught; improving data collection and the monitoring of shark species; providing training in identification of shark species; facilitating and encouraging research on little known shark species; and obtaining utilization and trade data on shark species.

50. According to FAO, only about 30 per cent of States replying to a survey reported having made an

problem. Follow-up recommendations will subsequently be made to mitigate the impacts of longlining on sharks. In addition, because bronze whaler sharks migrate between Angola and Namibia, their joint management by the two countries is currently being implemented through the programme.

57. CITES reports that several shark species have been included in the Convention's appendices and additional species may be proposed for inclusion at the fourteenth session of the Conference of Parties in 2007. Previous CITES Conferences have adopted a number of resolutions on the conservation and management of sharks and CITES has convened a workshop on the topic.

58. Since 2002, the Southeast Asian Fisheries Development Center (SEAFDEC) has implemented a regional programme on the management of fisheries and the utilization of sharks in South-East Asia. The programme involves a regional study on the implementation of the IPOA-Sharks and includes the collection of data and information at the national level on the status of shark resources and their utilization. All members have reaffirmed their intention to develop a national plan of action on sharks in 2005 and the programme will support them in the formulation and implementation of their national plans.

59. **Non-governmental organizations:** a number of non-governmental organizations have initiated activities in various forums to promote the conservation and management of sharks, in accordance with the IPOA-Sharks. WWF has worked with ICCAT and NAFO as well as CITES to promote the adoption of measures related to sharks. In its assessment of RFMOs, WWF is gathering data on measures taken by these organizations and arrangements to conserve and manage sharks.

Annex III. Inter-American Tropical Tuna Commission Resolution

The Inter-American Tropical Tuna Commission (IATTC):

Recalling that the United Nations Food and Agriculture Organization (FAO) International Plan of Action for the Conservation and Management of Sharks calls on States, within the framework of their respective competencies and consistent with international law, to cooperate through regional fisheries organizations with a view to ensuring the sustainability of shark stocks as well as to adopt a National Plan of Action for the conservation and management of sharks;

Considering that many sharks are part of pelagic ecosystems in the Convention area, and that sharks are captured in fisheries targeting tunas and tuna-like species;

Recognizing the need to collect data on catch, effort, discards, and trade, as well as information on the biological parameters of many species, as part of shark conservation and management;

Concerned that an extensive unregulated shark fishery is reported to be conducted in the eastern Pacific Ocean (EPO) by a large number of shark-fishing vessels, including some slightly smaller than 24 m

Annex IV. CITES Shark Resolution, Decisions and Listings

RECOGNIZING that sharks are particularly vulnerable to overexploitation owing to their late maturity, longevity and low fecundity;

RECOGNIZING that there is a significant international trade in sharks and their products;

RECOGNIZING that unregulated and unreported trade is contributing to unsustainable fishing of a number of shark species;

RECOGNIZING the duty of all States to cooperate, either directly or through appropriate sub-regional or regional organizations in the conservation and management of fisheries resources;

NOTING that IUCN – The World Conservation Union’s Red List of Threatened Species (2000) lists 79 shark taxa (from the 10 per cent of taxa for which Red List assessments have been made);

RECOGNIZING that the International Plan of Action on the Conservation and Management of Sharks (IPOA-sharks) was prepared by FAO in 1999 and that all States whose vessels conduct directed fisheries or regularly take sharks in non-directed fisheries are encouraged by COFI to adopt a National Plan of Action for the Conservation and Management of Shark Stocks (NPOA-Sharks);

NOTING that, through the adoption of Resolution Conf. 9.17 and Decisions 10.48, 10.73, 10.74, 10.93, 10.126, 11.94 and 11.151, Parties to CITES have previously recognized the conservation threat that international trade poses to sharks;

NOTING that two shark species are currently listed in Appendix III of CITES;

WELCOMING the report adopted at the 18th meeting of the Animals Committee that noted that CITES should continue to contribute to international efforts to address shark conservation and trade concerns;

NOTING that States were encouraged by FAO to have prepared NPOAs for sharks by the COFI 24th session held in 2001;

NOTING that there is a significant lack of progress with the development and implementation of NPOAs;

CONCERNED that insufficient progress has been made in achieving shark management through the implementation of IPOA-Sharks except in States where comprehensive shark assessment reports and NPOA-Sharks have been developed;

CONCERNED that the continued significant trade in sharks and their products is not sustainable;

THE CONFERENCE OF THE PARTIES TO THE CONVENTION

AGREES that a lack of progress in the development of the FAO IPOA-Sharks is not a legitimate justification for a lack of further substantive action on shark trade issues within the CITES forum;

INSTRUCTS the CITES Secretariat to raise with FAO concerns regarding the significant lack of progress in implementing the IPOA-Sharks, and to urge FAO to take steps to actively encourage relevant States to develop NPOA-Sharks;

DIRECTS the Animals Committee to continue activities specified under Decision 11.94 beyond the 12th meeting of the Conference of the Parties, and to report on progress at the 13th meeting of the Conference of Parties;

DIRECTS the Animals Committee to critically review progress towards IPOA-Sharks implementation (NPOA-Sharks) by major fishing and trading nations, by a date one year before the 13th meeting of the Conference of the Parties to CITES;

DIRECTS the Animals Committee to examine information provided by range States in shark assessment reports and other available relevant documents, with a view to identifying key species and examining these for consideration and possible listing under CITES;

- c) prepare a report on trade-related measures adopted and implemented by Parties that are aimed at improving the conservation status of sharks; and
- d) report on the above at the 14th meeting of the Conference of Parties.

The following recommendations are extracted from the text of the above document, which is not reproduced here in full to minimise length but should be consulted for more information.

Spiny Dogfish Shark

The Animals Committee concluded that the conservation and management status of the species is unfavorable in most regions, with many Northern Hemisphere populations severely depleted, and recommends the following:

- i. Range States and Regional Fishery Management Organizations should take steps to improve data collection and management for spiny dogfish. In particular, the United States and Canada are encouraged with urgency to work together to link existing assessment programs and establish bilateral, science-based management measures for spiny dogfish.
- ii. Parties that are Member States of the European Union are encouraged with urgency to seek and implement, via national and EU level measures, scientific advice on developing a conservation plan that allows the rebuilding of the stocks of spiny dogfish occurring and harvested in EU waters.
- iii. In regions where information on stock status is poor, range States are encouraged to develop precautionary and adaptive management measures to ensure that spiny dogfish catches are sustainable.
- iv. Parties are encouraged to report dogfish catches, landings and trade data to FAO and to train customs officials in using existing spiny dogfish codes.

Porbeagle Shark

The Animals Committee concluded that North Atlantic populations have been severely depleted and noted that quotas in EU waters apply only to non-EU fleets through access agreements. As these quotas are far higher than can be supported by the stock and do not restrict fishing effort they are not considered to be an effective management measure in this case. The Animals Committee recommended the following:

- i. ICCAT members are encouraged to collect and report data on catches and discards of porbeagle

Sawfishes Family Pristidae

This entire family (seven species) is being classified by IUCN as Critically Endangered. Records are now extremely rare, but products (particularly fins and rostra) are valuable and still enter trade in small quantities. The Animals Committee recommends that Parties that are or have been range states for Pristidae undertake, as a matter of urgency, a review of the status of these species in their coastal waters, rivers and lakes, and, if necessary, introduce conservation and trade measures to reduce extinction risk (the US has already listed smalltooth sawfish *Pristis pectinata* Latham, 1794, as Endangered and prohibited all take of the species within its 200 mile EEZ).

Gulper sharks Genus

These species live in low productivity deep ocean environments. They have low growth, reproductive and metabolic rates and are long-lived, even more so than other deep water sharks. Fisheries are driven by international demand for liver oil and meat and result in extremely rapid stock depletion. An FAO Deep Sea Workshop in December 2003 had recommended that “a precautionary approach to the management of these and other deep sea species is absolutely essential”, including monitoring of catches, landings and trade at species level, preparation of good identification guides, improved use of observers, and development of standard carcass forms to improve reporting, which should include both species and their products. The Animals Committee recommends that Parties support this approach.

School, tope, or soupfin shark

These sharks, valued for their meat and fins, are (or have been) important in target and multispecies fisheries in temperate waters world-wide. Most stocks are shared between several Range States, and in most regions are seriously depleted. Only a small number of States have achieved successful management of this biologically-vulnerable species. The Animals Committee recommends that range

Article IV lays down the conditions under which trade in specimens of species included in *Appendix II* must take place.

1. All trade in specimens of species included in Appendix II shall be in accordance with the provisions of this Article.

2. The export of any specimen of a species included in Appendix II shall require the prior grant and presentation of an export permit. An export permit shall only be granted when the following conditions have been met:

(a) a Scientific Authority of the State of export has advised that such export will not be detrimental to the survival of that species;

(b) a Management Authority of the State of export is satisfied that the specimen was not obtained in contravention of the laws of that State for the protection of fauna and flora; and

(c) a Management Authority of the State of export is satisfied that any living specimen will be so prepared and shipped as to minimiz(y)-8.5(be)23(w)23.2(s)15424.4(ng c)-8.1.8(t)(0.9048)7.4(per)0(epar)k

th(e)23.9(x)-32.2(por)-8.7(t)7.4(per)15.8(m)-35.3(i)-0.[(t)-16.3(s)15.4gr M(at)-16.3d b3(y)-8.48(t)-16.3(hat)7.4(S)1

Annex V. Oceanic shark species listed on UNCLOS Annex I

Paragraph 16 of Annex 1 to the UN Convention on the Law of the Sea (UNCLOS) lists the following taxonomic groups of sharks.

“Oceanic sharks: *Hexanchus griseus*; *Cetorhinus maximus*; Family Alopiidae; *Rhincodon typus*; Family Carcharhinidae; Family Sphyrnidae; Family Isurida.”

Family Isuridae is usually known as Lamnidae today. Family Carcharhinidae has 55 species, not all of which are oceanic. The oceanic and highly migratory species listed below should, in theory, be covered by the UN Fish Stocks Agreement. Not all species covered by Annex I and listed here occur in the Eastern Pacific or in Ecuador’s waters.

FAMILY HEXANCHIDAE SIXGILL AND SEVENGILL SHARKS

Hexanchus griseus Bluntnose sixgill shark

FAMILY RHINCODONTIDAE WHALE SHARKS

Rhincodon typus Whale shark

FAMILY ALOPIIDAE THRESHER SHARKS

Alopias pelagicus Pelagic thresher

Alopias superciliosus Bigeye thresher

Alopias vulpinus Thresher shark

Alopias sp [Eitner, 1995] Eastern Pacific thresher

FAMILY CETORHINIDAE BASKING SHARKS

Cetorhinus maximus Basking shark

FAMILY LAMNIDAE MACKEREL SHARKS

Carcharodon carcharias Great white shark

Isurus oxyrinchus Shortfin mako

Isurus paucus Longfin mako

Lamna ditropis Salmon shark

FAMILY CARCHARHINIDAE REQUIEM SHARKS

Galeocerdo cuvier Tiger shark

Rhizoprionodon spp Sharpnose sharks

Isogomphodon oxyrinchus (Müller & Henle, 1839) Daggernose shark

Carcharhinus spp Requiem sharks

Negaprion spp Lemon sharks

Prionace glauca Blue shark

Triaenodon obesus Whitetip reef shark

FAMILY SPHYRNIDAE HAMMERHEAD SHARKS

Sphyrna spp Hammerhead sharks

Eusphyra blochii Winghead shark



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