

THE ROLE OF CITES IN THE CONSERVATION AND MANAGEMENT OF SHARKS

(Revised and updated from AC18 Doc.19.2)

Introduction

1. Concern over increasing levels of international trade in shark¹ products and unmanaged exploitation of shark¹ populations was raised at the 9th Conference of the Parties to CITES (CoP 9) in November 1994. A CITES Resolution, proposed by Panama following an agenda point on Shark Trade which was supported by a discussion paper provided by the USA, was redrafted by a working group, reintroduced and adopted without opposition.
2. This Resolution (Conf. 9.17 'The Status of International Trade in Shark Species') expressed concern that some shark species are heavily utilised for their fins, skins and meat. It noted that levels of exploitation in some cases are unsustainable and may be detrimental to the survival of certain species, that sharks were not specifically managed or conserved by any multilateral or regional agreement for the management of marine fisheries and the ongoing initiatives to foster international cooperation in the management of fisheries resources. It expressed concern that the international trade in parts and products of sharks lacked adequate monitoring and control.
3. The Resolution identified a number of actions necessary to address these concerns (Table 1). It directed the CITES Animals Committee to compile and review existing data on the biological and trade status of shark species subject to international trade, and to prepare a discussion paper on these data prior to the 10th CoP in 1997. In addition, Parties to CITES, FAO and other international fisheries management organisations were also asked to establish programmes to provide biological and trade data in time for the 11th CoP in 2000.
4. As a result of the data and ten recommendations (Table 2) presented by the Animals Committee (AC) to CoP10 in Doc. 10.51, entitled 'Biological and Trade Status of Sharks', the following decisions were adopted:
 - Decision 10.48 (Table 3), directed to Parties
 - Decision 10.93 (Table 4), directed to FAO
 - Decision 10.73 (Table 5), directed to AC and Secretariat
 - Decision 10.74 (Table 5), directed to AC Chair
 - Decision 10.126 (Table 6) directed to Secretariat.
5. Following presentation of data from FAO to CoP11 in 2000, it appeared that Resolution Conf. 9.17 had largely been implemented (mostly through the development and adoption of the voluntary FAO International Plan of Action for the Conservation and Management of Sharks (IPOA-Sharks)). This Resolution was therefore repealed, and the following two Decisions adopted concerning outstanding Resolution Conf. 9.17 instructions regarding monitoring of the implementation of the FAO IPOA-Sharks and improving international records of trade in shark products:
 - Decision 11.94 (Table 7) directed to AC Chair
 - Decision 11.151 (Table 7) directed to Secretariat.
6. The Animals Committee has continued actively to monitor and report on progress in shark fisheries management, and Resolution Conf. 9.17 has resulted in the collection of increased quantities of data on landings and trade which might aid in the future management of these species. It also led to the development of the voluntary FAO IPOA-Sharks which should, if implemented, deliver most of the necessary management and monitoring activities identified by CITES Parties as necessary to deliver sustainable shark fisheries management and trade.

¹ The term 'shark' refers to all the chondrichthyan fishes: sharks, skates, rays and chimaeras.

7. The FAO IPOA-Sharks and its associated Technical Guidelines for Conservation and Management of Sharks were elaborated within the framework of the FAO Code of Conduct for Responsible Fisheries. The IPOA-Sharks was endorsed by FAO COFI and formally adopted by the FAO Conference in 1999. Although voluntary, all shark fishing States are encouraged to implement it by developing Shark Assessment Reports and National Plans of Action (NPOAs, or Shark Plans). The latter should, *inter alia*, aim to improve species-specific catch and landings data collection, monitoring and management of shark fisheries. The IPOA also recognises the importance of international collaboration on data collection and management of transboundary, straddling, highly migratory and high seas shark stocks.
8. This document reviews progress with the various action points identified in Resolution Conf. 9.17, the Animals Committee report Doc. 10.51, and subsequent CITES Decisions in order to assess the extent to which the biological, management and trade status of shark populations has been improved. It draws upon a document (AC18 Doc. 19.2) prepared for the Animals Committee earlier in 2002 which reviews the extent to which the FAO IPOA-Sharks has delivered improved management of shark populations.

Analysis and discussion of progress against Resolution Conf. 9.17 and subsequent Decisions

9. Most of the actions identified in Resolution Conf. 9.17 should, by now, be well underway through the framework laid down in the FAO IPOA-Sharks. The review undertaken for the 18th Animals Committee meeting by the IUCN SSC Shark Specialist Group and TRAFFIC (Doc.19.2) has, however, demonstrated negligible progress in implementing the IPOA-Sharks by shark fishing states and Regional Fisheries Management Organisations (see Table 8 and Annex and summary in the following two paragraphs). This situation has arisen because the IPOA-Sharks is wholly voluntary: States and RFMOs are not obliged to undertake any of the actions urged by FAO in the IPOA and it appears that few consider it to be a priority.
10. At least 86 (Clarke and Mosqueira 2002) and up to 125 (Parry-Jones 1996) nations are known to export shark fin into Hong Kong, and 113 States report shark landings to FAO (with 18 major shark fishing nations reporting landings exceeding 10,000 t/yr). However, only 29 States have reported any progress with IPOA implementation (Annex). Of these, just five States have Shark Assessment Reports (SAR) or National Plans of Action (NPOA) available for public consultation and review. Only one of the 18 major shark fishing nations has a SAR (draft) and only two have completed NPOAs (plus one draft NPOA). All of the NPOAs reviewed fail to meet some of the standards recommended by FAO (see AC18 Doc. 19.2). No documents were available from other shark fishing States to support statements to COFI of progress with implementation.
11. Several Regional Fisheries Management Organisations (RFMOs) have a mandate enabling them to implement conservation and management measures for sharks and other bycatch species, and hence to implement the IPOA-Sharks. Only a few have actually implemented specific measures for sharks beyond basic catch reporting requirements (Table 8).
12. The other major outstanding recommendation from Resolution Conf. 9.17 and Doc 10.51, implemented through Decisions 10.126 and 11.151, concerns the improvement of statistics on trade in sharks and shark parts (Table 7). The World Customs Organisation (WCO) has informed the CITES Secretariat that there is no opportunity to elaborate identification codes within the WCO's Harmonised System, as originally proposed by CITES Parties in recognition of the importance of collecting these data. Such collection of statistics for trade in shark products could only be obtained through monitoring of trade in shark species listed on CITES Appendices or, for unlisted species, if Parties add appropriate shark commodity identification codes to their national customs data recording systems.
13. As noted in Doc 10.51 (para. 48), 'the limitations of existing published fisheries and trade data reduce their utility for fisheries assessment and management'. Existing data are incomplete, do not accurately reflect international trade, fail to record significant amounts of trade in shark products, and may over-estimate volumes of trade in certain products that are counted several times during repeated processing and transshipment. International trade data does not account for domestic consumption or reflect some aspects of the overall mortality of sharks as a result of particular fishing practices (e.g. discarding, drop-out from nets, high grading *etc.*). However, quantified trade data, derived from improved reporting of international trade in shark products both from CITES-listed and unlisted species, are potentially important management tools for several reasons. They may, under some circumstances, be used to:
 - provide rough estimates of extraction rates for sharks (by number and weight) by those states not undertaking adequate monitoring of shark catches and landings;

- assess the efficacy of shark fishery management regimes and discard regulations and identify discrepancies arising from transshipment at sea or finning activities by comparing trade data with fisheries data;
 - monitor extraction rates by species (by extrapolating from DNA analysis or other methods for identifying the species composition of a representative proportion of products in trade); and
 - monitor and project trends over time in the volume and value of shark trade and hence consumer and trader demand, relative fisheries extraction rates and potentially even relative fishing effort.
14. The status of some shark species (e.g. whale shark *Rhincodon typus*, spiny dogfish *Squalus acanthias*) has deteriorated further during the eight years since Resolution Conf. 9.17, as a result of continued unregulated or poorly regulated and unsustainable fisheries, driven at least partly by the demand for their products being met by international trade. Lack of fisheries and trade data prevent analysis of trends for other biologically-vulnerable species, but it seems likely that several could be similarly affected. Camhi *et al* 1998 describe the well-documented history of shark stocks that have collapsed after only a very short period of fisheries exploitation and some shark fisheries have expanded dramatically since the early 1990s. For example, shark stocks in Senegal and Gambia collapsed during the 1990s as a result of over-exploitation to supply the fin trade, causing redirection of fishing effort to neighbouring west African countries (Ducroq, in Fowler *et al.* in press). Europe's participation in supplying the shark fin market, measured by imports to Hong Kong, has increased from negligible levels in the early 1990s to 13% of the total in 2001, and import volumes of shark fin to Hong Kong have been increasing by 5% annually during the past few years (Clarke and Mosqueira 2002).

Conclusions

15. The concerns expressed by Parties through the adoption of Resolution Conf. 9.17 in 1994, regarding the over-exploitation of some shark species to meet the demand for sharks and shark products in international trade, have not yet been addressed effectively through improved shark fishery management and trade monitoring measures by shark fishing and trading nations. Demand for and volumes of some shark products in international trade have risen and the status of some stocks has deteriorated, while most remain unmonitored and unmanaged.
16. Specific actions identified by Resolution Conf. 9.17, Doc 10.51 and subsequent Decisions which have not been delivered to any significant extent by the majority of Parties through implementation of the IPOA-Sharks (exceptions are largely those few states that were already managing their shark fisheries), or through other available mechanisms include:
- i) Improvement of identification, recording and reporting, at species level, of landings and by-catch;
 - ii) Improvement of statistics identifying different shark products in international trade;
 - iii) Initiation of research and management efforts by Parties to CITES which operate shark fisheries, including data collection, compilation of life history information, biological parameters, distribution, and reduction of by-catch mortality;
 - iv) Improved subscription to and implementation of principles and practices in:
 - the FAO Code of Conduct for Responsible Fisheries;
 - the FAO Precautionary Approach to Fisheries (Part I: Guidelines on the Precautionary Approach to Capture Fisheries and Species Introductions);
 - the FAO Code of Practice for Full Utilisation of Sharks.
17. The IPOA-Sharks would, if widely and effectively implemented, deliver significant improvements in shark fisheries management and species conservation. It is, however, wholly voluntary and the large majority of those States that lacked shark management plans prior to the development and adoption of the IPOA-Sharks appear not to have improved their capacity to manage these vulnerable species.
18. CITES has the potential to play an important role in actively supporting and encouraging the implementation of the voluntary IPOA-Sharks and other measures directed at facilitating the management of shared and/or other vulnerable stocks of commercially fished and internationally traded shark species. For example, monitoring and regulation of international trade in shark products by CITES Parties would provide important information, control and sustainability benefits, either independently of or

alongside the fisheries management benefits that would be delivered if the IPOA-Sharks was implemented. CITES can contribute to sustainable fisheries management by:

- Providing mechanisms that would support implementation of existing national, bilateral and multilateral fisheries management measures for listed species;
- Providing a tool to combat illegal, unreported and/or unregulated (IUU) fishing, where this targets listed species that primarily enter international trade; and
- Providing a standardised global monitoring system for application of trade-related measures to marine fish.

Recommendations

19. IUCN SSG and TRAFFIC believe it is important for the future sustainability of shark fisheries and the conservation of threatened species that CITES take a more active role than its current 'watching brief' with regard to FAO progress towards the conservation and management of shark species. In particular the 12th Meeting of the Conference of Parties to CITES should:
- i) Direct the Secretariat to raise with FAO concerns regarding the significant lack of progress in implementing the IPOA-Sharks and urge FAO to take steps to encourage the implementation of the IPOA by States and RFMOs.
 - ii) Discuss how CITES processes can be used more effectively to increase the availability and quality of data on international trade in shark products and assist in the implementation of the IPOA-Sharks. This might include:
 - Regular reviews of overall progress under those Resolutions and Decisions relevant to shark fisheries and trade;
 - Expanded dialogue between CITES Management and Scientific Authorities and national fisheries and other agencies responsible for fisheries management with regard to improving management of shark fisheries and trade;
 - Expanded dialogue between the CITES Secretariat, the CITES Animals Committee (or a working group thereof) and the FAO Committee on Fisheries and staff within the Fisheries Department, as discussed by the eighth session of the FAO Committee on Fisheries Sub-Committee on Fish Trade;
 - Discussion between the CITES Animals Committee and FAO concerning the outcome of the review by a working group of the COFI Sub Committee on Trade of the implementation of Resolution Conf. 9.24 (Listing Criteria to annotate the appendices to the Convention);
 - Increased trade monitoring and controls through inclusion of threatened and potentially threatened species in Appendix II;
 - Inclusion in Appendix III of species for which implementation of trade controls are of particular concern for specific range states; and
 - Reviews of the status of certain unlisted shark species of particular concern (see 19.iii below).
 - iii) Instruct the Chair of the Animals Committee to continue activities specified under Decision 11.94 beyond CoP12.
 - iv) Encourage Parties' CITES Authorities to obtain information on shark stock status and IPOA implementation from their fisheries departments and report directly on progress to future meetings of the Animals Committee.
 - v) Encourage RFMOs to report directly to the CITES Animals Committee on their data collection, development of regional databases, analyses of shark stock status and overall progress with IPOA implementation.
 - vi) Request FAO regularly to repeat a review of reported shark landings data (in Shotton 1999 Volume II) in order to monitor progress with improvement in data reporting by States.

20. Recognizing that activities under CITES may assist with the implementation of the IPOA-Sharks by facilitating 'reporting of species-specific biological and trade data' and providing 'special attention to vulnerable or threatened shark stocks'², the following issues are also of relevance:
- i) The Great white shark (*Carcharodon carcharias*) and Basking shark (*Cetorhinus maximus*) are listed in Appendix III, by Australia and the UK respectively. Parties are urged to assist Australia and the UK in their shark conservation efforts by reporting on certificates of origin or export as appropriate.
 - ii) If proposals for the inclusion of shark species within the CITES Appendices are submitted for COP12, every effort should be made to ensure that the best available scientific and trade data are available and assessed in considering whether they currently meet the criteria of Resolution Conf. 9.24, irrespective of potential future management that might be delivered in future under the IPOA-Sharks. FAO recommendations arising from its review of the CITES listing criteria should be considered in this context.
 - iii) Given that most shark species in international trade occur in the territorial waters and/or are fished by more than one Party, the Parties should establish a process (for example through a technical workshop to review biological and trade information) to identify those species both meriting and likely to benefit from inclusion in CITES Appendix II. The Parties should ensure that this process considers species of particular concern, including (but not restricted to):
 - the highly migratory and straddling stocks of sharks listed on the UN Fish Stocks Agreement as requiring international management,
 - species identified by the IUCN Red List as under particular threat, and
 - species of concern identified in State or RFMO Shark Assessment Reports.
21. Recognising that Decision 11.151 cannot result in more detailed classification of shark products, Parties should be encouraged to introduce their own customs code or sub-codes for shark parts and derivatives in order to improve data reporting on the import, export and re-export/transshipment of shark products. This should include as a minimum the following categories: shark meat (dried, fresh, frozen); shark fins (unprocessed dried, unprocessed frozen, processed tinned, and processed dried); shark leather; shark cartilage; shark oil; and other products. Such recording should preferably be undertaken at species level.
22. CITES should address relevant outstanding issues regarding the listing of marine species on the Appendices, including clarifying the implementation of 'Introduction from the sea' as defined in paragraph (e) of Article 1.

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² Text taken from paragraph 22 of the IPOA-Sharks outlining aims of Shark Plans

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Table 1: Progress with implementation of Resolution Conf. 9.17

Actions in Res. Conf. 9.17	Progress
<i>Parties were urged to:</i>	
Submit to the Secretariat all available information concerning the trade and biological status of sharks, including historical catch and trade data on shark fisheries	The US National Marine Fisheries Service prepared a discussion paper on shark status and fisheries world-wide (Doc.AC.13.6, Oliver 1997). Japan reported on the status of pelagic sharks taken by their research vessels and longline fleets (Doc.AC.13.6.1 & Annex, Matsunaga and Nakano 1996, Nakano 1996).
<i>The Animals Committee was directed, with the assistance of experts to:</i>	
Review such information, and information made available in consultation with FAO and other international fisheries management organisations and, where appropriate, to include information made available by non-governmental organisations	FAO (Doc.AC.13.6.4), ICCAT and OLDEPESCA provided information on their activities. Various NGO reports were prepared: a Shark Specialist Group report on the biology and conservation status of sharks (Doc.AC.13.6.2, later published as Camhi et al. 1998), a TRAFFIC network report on their global overview of the utilisation of and trade in sharks and related species (Doc.AC.13.6.3, summarising Rose 1996), a TRAFFIC International and Center for Marine Conservation report on international shark fisheries management (Weber and Fordham 1997).
Summarise the biological and trade status of sharks subject to international trade	The Animals Committee reviewed and compiled existing data provided by the above sources on the biological and trade status of shark species subject to international trade.
Prepare a discussion paper on the biological and trade status of sharks, at least six months prior to CoP10	The Animals Committee report based on the above (Doc 10.51) was presented to the 10th CoP in 1997 (recommendations are listed in Table 2). The report was adopted by the 10 th CoP, which agreed that the CITES Secretariat should communicate the relevant recommendations to FAO and other management and/or research organisations and establish liaison with these bodies to monitor implementation.

<i>The Ninth Conference of the Parties requested:</i>	
<p>FAO and other international fisheries management organisations to establish programmes to further collect and assemble the necessary biological and trade data on shark species, and that such additional information be provided no later than six months prior to CoP11</p>	<p>Special inquiry on shark fisheries undertaken in 1996. A consultant reviewed all available biological and fishery data on sharks, including those resulting from the inquiry, and prepared a report on the biological status of sharks world-wide (1996 draft later published as Castro <i>et al.</i> 1999).</p> <p>At this time FAO also intended to:</p> <ul style="list-style-type: none"> ▪ review the trade status of sharks and shark parts ▪ commission a study on species identification using DNA analysis ▪ commission the preparation of case studies on shark fishery management [Shotton (ed) 1999.] ▪ update the shark species catalogue [underway, 2002] and the technical paper on shark utilisation [Vannuccini 1999]. <p>The 17th session of the Co-ordinating Working Party on Fishery Statistics (Hobart, March 1997) noted some progress in improving the collection of catch, bycatch and discard data by various organisations and that several observer programmes had been implemented. Apart from FAO and ICCAT (ICCAT finalised a work plan for collecting statistics on shark species, and produced a new shark species-specific shark bycatch reporting form in 1996), no other regional fishery organisation had implemented schemes specifically for sharks (CITES Doc 10.51, Visser 2002).</p>
<p>All nations utilising and trading specimens of shark species to cooperate with FAO and other international fisheries management organisations, and to assist developing States in the collection of species-specific data</p>	<p>Discussions were held at FAO's 22nd session of its Committee on Fisheries (COFI) in 1997 with many delegations noting that conservation and effective management of shark populations merited further examination. FAO, with Japan and the United States, therefore proposed an expert consultation to be held in 1998 with a view to developing a plan of management. This was held and led to the adoption by FAO in 1999 of the International Plan of Action for the Conservation and Management of Sharks (IPOA-Sharks). COFI also called upon Regional Fisheries Management Organisations (RFMOs) and other competent organisations to examine shark conservation management.</p>
<p>FAO and other international fisheries management organisations to fully inform the CITES Secretariat of progress on collection, elaboration and analyses of data</p>	<p>FAO attended CoP10 as an Observer and reported verbally to the Conference that activities were to move ahead with: case studies in fisheries on sharks; revision of the species catalogue; revision of the 1978 FAO Monologue on Shark Utilization and marketing; DNA analysis of shark populations; and the development of an expert consultation on sharks to be co-ordinated by Japan & USA with a view to developing a plan of management (see above).</p>

Table 2: Implementation of recommendations in CITES Animals Committee Doc. 10.51, Biological and Trade Status of Sharks, directed towards the implementation of Resolution Conf. 9.17

Recommendation	Implementation
Parties should, in collaboration with FAO and other regional fisheries organisations, improve methods to accurately identify, by species, record and report landings of sharks from directed fisheries and sharks taken as a bycatch in another fishery	Decision 10.48 Table 3 (1)
Parties that have a shark fishery and/or trade in sharks and shark parts and derivatives should establish appropriate species-specific recording and reporting systems for all sharks that are landed as a directed catch or a bycatch	Decision 10.48 Table 3 (2)
In an effort to improve statistics on trade in sharks and shark parts and derivatives the Secretariat, in collaboration with FAO, should consult the World Customs Organisation to establish more specific headings within the standard six-digit Customs tariff headings adopted under the Harmonized System tariff classification, to discriminate between shark meat, fins, leather, cartilage and other products	Decision 10.126 Table 6 (1) Decision 11.151 Table 7 (1)

<p>It is suggested that FAO should, as a matter of urgency, initiate a work programme involving:</p> <ul style="list-style-type: none"> i) Changing the manner in which it requests members to record and report data on shark landings; ii) Giving a consultancy to design and undertake an inquiry on the availability of biological and trade data on sharks (commenced in 1996) iii) Updating the Shark World Species Catalogue and the 1978 Shark Utilisation and Marketing Monograph; and iv) Finalizing and publishing the World Catalogue of Rajiformes 	<p>Decision 10.93 Table 4 (1)</p>
<p>It is also suggested that FAO should transmit the results of the consultancy to the CITES Secretariat for circulation to and comment by the Parties to the Convention</p>	<p>Decision 10.93 Table 4 (2)</p>
<p>Parties that have a shark fishery should initiate efforts to:</p> <ul style="list-style-type: none"> i) Collect species-specific data on landings, discards and fishing effort ii) Compile information on life history and biological parameters such as growth rate, life span, sexual maturity, fecundity and stock-recruitment relationships of sharks taken in their fisheries iii) Document the distribution of sharks by age and sex, as well as their seasonal movements and interactions between populations; and iv) Reduce mortality of sharks captured incidentally in the course of other fishing activities 	<p>Decision 10.48 Table 3 (3)</p>
<p>Parties are encouraged to initiate management of shark fisheries at the national level and develop international/regional bodies to coordinate management of shark fisheries throughout the geographic range of species that are subject to exploitation, in order to ensure that international trade is not detrimental to the long-term survival of shark populations</p>	<p>Decision 10.48 Table 3 (4)</p>
<p>The Conference of the Parties to the Convention should urge FAO to encourage its member States that have a shark fishery, or a fishery that takes sharks as a bycatch, to implement the principles and practices elaborated in :</p> <ul style="list-style-type: none"> i) the FAO Code of Conduct for Responsible Fisheries; ii) the FAO Precautionary Approach to Fisheries, Part 1: Guidelines on the Precautionary Approach to Capture Fisheries and Species Introductions; and iii) the FAO Code of Practice for the Full Utilisation of Sharks 	<p>Decisions 10.93 Table 4 (3)</p>
<p>FAO, in collaboration with the CITES Secretariat and the CITES Animals Committee, should convene a consultative meeting involving FAO representatives, fisheries biologists/managers, intergovernmental fisheries organisations and non-governmental organisations with expertise on shark management to develop a programme to further the implementation of Res. Conf. 9.17</p>	<p>Decision 10.73 Table 5 (1)</p>
<p>The Secretariat should communicate the relevant recommendations to FAO and other intergovernmental fisheries management and/or research organisations and establish liaison with these bodies to monitor implementation</p>	<p>Decision 10.126 Table 6 (4)</p>

Table 3: Implementation of Decision 10.48, regarding biological and trade status of sharks

This Decision was intended to achieve effective implementation of Resolution Conf. 9.17. Most of its recommendations are addressed by the voluntary FAO International Plan of Action for the Conservation and Management of Sharks (IPOA-Sharks).

	Action points in Decision 10.48	Progress (see also AC18 Doc 19.2 and Table 8 and Annex)
1	<p>The Parties concerned should, in collaboration with FAO and RMFOs, improve methods to accurately identify, by species, record and report landings of sharks from directed fisheries and sharks taken as a bycatch in another fishery.</p>	<p>The FAO IPOA-Sharks urges Parties to develop National Plans of Action (NPOAs) which should include developing and implementing measures to facilitate improved species-specific landings data, and training in identification in shark species. Very few have done so. A few RFMOs have implemented or recommended measures beyond basic catch reporting requirements (e.g. NAFO, ICCAT).</p>
2	<p>Parties that have a shark fishery and/ or trade in sharks and shark parts and derivatives should establish appropriate species-specific recording and reporting systems for all sharks that are landed as a directed catch or a bycatch.</p>	<p>The FAO IPOA-Sharks urges Parties to establish such systems. Very few Parties have done so.</p>

3	<p>Parties with a shark fishery should initiate efforts to:</p> <ul style="list-style-type: none"> i) Collect species-specific data on landings, discards and fishing effort ii) Compile information on life history and biological parameters such as growth rate, life span, sexual maturity, fecundity and stock-recruitment relationships of sharks taken in their fisheries iii) Document the distribution of sharks by age and sex, as well as their seasonal movements and interactions between populations; iv) Reduce mortality of sharks captured incidentally in the course of other fishing activities 	<p>The FAO IPOA-Sharks urges Parties to do so. Specifically:</p> <ul style="list-style-type: none"> i) The Shark Plan should aim to: 'Improve data collection and monitoring of shark fisheries' and 'facilitate improved species-specific catch and landings data.' The Shark Assessment Report should contain information on 'past and present trends for: fishing effort and yield' ii) The Shark Plan should aim to 'Facilitate the identification and reporting of species-specific biological data' and should contain a 'description on the prevailing state of shark stocks, populations and associated fisheries.' The Shark Assessment Report should contain information on 'Status of Stocks'. iii) Addressed under 'species-specific biological data' and 'shark stocks and populations' (see ii above) and in <i>FAO Tech. Guidelines for Responsible Fisheries</i> No. 4 Suppl. 1. iv) Addressed in <i>FAO Technical Guidelines for Responsible Fisheries</i> No. 4 Suppl. 1 (para 6.3). <p>Implementation of the IPOA-Sharks by Parties is very poor (see Table 8 and Annex).</p>
4	<p>Parties concerned are encouraged to initiate management of shark fisheries at the national level and establish international/regional bodies to coordinate management of shark fisheries throughout the geographic range of species that are subject to exploitation, in order to ensure that international trade is not detrimental to the long-term survival of shark populations</p>	<p>Parties are urged to implement shark fishery management at national level by the IPOA-Sharks. The IPOA guidelines also state that 'international collaboration on data collection and data sharing systems for stock assessment is particularly important in relation to transboundary, straddling, highly migratory and high seas shark stocks.' Most Parties have not initiated national, regional or international management efforts. Some regional coordination of data collection has been initiated by some RFMOs (see item 1 above).</p>

Table 4: Implementation of Decision 10.93, directed to the Food and Agriculture Organization of the United Nations (FAO)

	Suggested actions for FAO	Progress
1	<p>As a matter of urgency, initiate a work programme involving:</p> <ul style="list-style-type: none"> i) Changing the manner in which it requests members to record and report data on shark landings; ii) Continuing a consultancy, commenced in 1996, to design and undertake an inquiry into the availability of biological and trade data on sharks; iii) Updating the Shark World Species Catalogue and the 1978 Shark Utilisation and Marketing Monograph; <p>and</p> <ul style="list-style-type: none"> iv) Finalizing and publishing the World Catalogue of Rajiformes. 	<p>Most of these actions are addressed by the IPOA-Sharks (see Tables 7 & 8)</p> <ul style="list-style-type: none"> i) The Shark Plan should aim to 'facilitate improved species-specific catch and landings data and monitoring of shark catches.' ii) See Castro <i>et al.</i> 1999 and other FAO publications cited in reference list, prepared in response to 10.93 and proposals of the Technical Working Party on Conservation and Management of Elasmobranchs, April 1998, Tokyo, Japan. iii) Revised and expanded three volume edition of "Sharks of the World" is in preparation. Volume II published (2002), Volume I almost complete, Volume III due late 2002/early 2003. Updated shark utilisation volume published as Vannuccini 1999. iv) First planning meeting for preparation of 3 volume catalogue "Batoids of the World" held (March 2002).
2	<p>Transmit the results of the consultancy to the CITES Secretariat for circulation to and comment by the Parties to the Convention.</p>	<p>The Chair of the Animals Committee attended the 1998 FAO Technical Working Group as an observer.</p>
3	<p>Encourage its member States that have a shark fishery, or a fishery that takes sharks as a bycatch, to implement the principles and practices elaborated in : the FAO Code of Conduct for Responsible Fisheries; the FAO</p>	<p>The IPOA-Sharks and the associated Technical Guidelines for Conservation and Management of Sharks were elaborated within the framework of the Code of Conduct for Responsible Fisheries and cover these principles and practices. Although voluntary, all States</p>

<p>Precautionary Approach to Fisheries, Part 1: Guidelines on the Precautionary Approach to Capture Fisheries and Species Introductions; and the FAO Code of Practice for the Full Utilisation of Sharks.</p>	<p>are encouraged to implement the IPOA-Sharks.</p>
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Table 5: Implementation of Decisions 10.73 and 10.74, directed to the CITES Animals Committee

Directed actions	Progress
<p>Decision 10.73: The CITES Animals Committee, together with the CITES Secretariat, shall cooperate in the expert consultation organised by the FAO Committee of Fisheries to develop and propose guidelines leading to a plan of action for the conservation and effective management of sharks, in an effort to further the implementation of Resolution Conf. 9.17</p>	<p>The Chair of the Animals Committee and a Secretariat representative attended the FAO Expert Consultation on the development of a Plan of Action for the Conservation and Management of Sharks in Rome, October 1998, and the subsequent COFI meeting which adopted the IPOA.</p>
<p>Decision 10.74: The Chairman of the Animals Committee shall serve as liaison with FAO and with intergovernmental fisheries management and/or research organisations in relation to all activities concerning the implementation of Resolution Conf. 9.17</p>	<p>The Chairman of the Animals Committee has reported regularly to the Animals Committee on this liaison. Final report due at COP 12.</p>

Table 6: Implementation of Decision 10.126, directed to the CITES Secretariat

	Directed actions	Progress
1	<p>In an effort to improve statistics on trade in sharks and shark parts and derivatives and in collaboration with FAO, consult the World Customs Organisation to establish more specific headings within the standard six-digit Customs tariff headings adopted under the Harmonized System tariff classification, to discriminate between shark meat, fins, leather, cartilage and other products;</p>	<p>See Decision 11.151, Table 7.</p>
2	<p>Circulate to the Parties for comments the results transmitted to it of the consultancy mentioned in Decision 10.93</p>	<p>Unclear whether there has been action against this point</p>
3	<p>Together with the CITES Animals Committee, cooperate in the expert consultation organised by the FAO Committee of Fisheries to develop and propose guidelines leading to a plan of action for the conservation and effective management of sharks; and</p>	<p>A Secretariat representative and the Animals Committee Chair attended the FAO Expert Consultation on the development of a Plan of Action for the Conservation and Management of Sharks in Rome, October 1998. This was adopted in 1999. Implementation by Parties is very poor.</p>
4	<p>Communicate the relevant recommendations to FAO and other intergovernmental fisheries management and/or research organisations and establish liaison with them to monitor implementation of these recommendations</p>	<p>Unclear whether there has been action against this point</p>

Table 7: Implementation of Decisions 11.94 and 11.151

The 11th Conference repealed Resolution Conf. 9.17, which was largely implemented by 2000. These Decisions concern outstanding Resolution Conf. 9.17 instructions regarding monitoring the implementation of the FAO IPOA-Sharks and improving international records of trade in shark products.

Actions	Progress
<p>Decision 11.94. The Chairman of the Animals Committee shall maintain liaison with the Secretary of</p>	<p>Results of liaison reported regularly to meetings of the Animals Committee. The following recommendations for inclusion in the Chair's report to the 12th Conference of Parties were agreed by the 18th AC</p>

<p>the Committee on Fisheries of the United Nations Food and Agriculture Organization to monitor the implementation of the International Plan of Action for the Conservation and Management of Sharks, and report at the 12th meeting of the Conference of the Parties on progress made with this</p>	<p>meeting in Costa Rica, April 2002, and will be conveyed to COP12. CITES should:</p> <ul style="list-style-type: none"> - Raise with FAO concerns over the significant lack of progress in implementing the IPOA-Sharks and urge FAO to take steps to encourage the implementation of the IPOA by States and RFMOs. - Instruct the Chair of the Animals Committee to continue activities specified under Decision 11.94 beyond CoP12. - Encourage Parties' CITES Authorities to obtain information on IPOA implementation from their fisheries departments and report directly on progress to future meetings of the Animals Committee. - Discuss the potential role for CITES in assisting FAO Parties in the implementation of the IPOA-Sharks, especially in respect of international trade in sharks and their parts and derivatives. - Include a separate COP Agenda item for the discussion of the Chair's report on the implementation of the International Plan of Action for the Conservation and Management of Sharks (IPOA-Sharks). Should no working document be submitted by a Party, then the AC requests the Secretariat to prepare one before the June 6th deadline for submission of documents for COP12.
<p>Decision 11.151. The Secretariat is instructed to continue to liaise with the World Customs Organisation to promote the establishment and use of specific headings within the standard tariff classifications of the Harmonised System to discriminate between shark meat, fins, leather, cartilage and other products</p>	<p>The subject has been raised twice at meetings with WCO and once in a written form. The WCO responded that there was no opportunity for further elaboration of identification codes within the Harmonized System, other than that the WCO could include a single code for all species listed on CITES Appendices thus flagging up those species for customs officers.</p> <p>This suggestion, if implemented, would not assist with monitoring of unlisted shark species.</p>

Table 8: Potential coverage of shark species by a selection of regional fisheries organisations, and main activities undertaken in relation to sharks¹

Most RFMOs covering fisheries where significant impacts on or catches of sharks could be expected have a mandate that would enable conservation and management measures to be implemented for shark and other bycatch species. Few have implemented specific measures for sharks beyond basic catch reporting.

RFMO	Mandate under Convention	Measures implemented for Sharks
Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR)	All living marine resources	No conservation measures adopted that are specific to sharks. Individual countries' scientific observers may record shark bycatch.
Commission for the Conservation of Southern Bluefin Tuna (CCSBT)	Ecologically-related species (ERS) associated with SBT (inc. predators & prey); collect scientific information; report on status of ERS; ERS Working Group established.	ERS Working Group has flagged shark catches as an issue for consideration; no specific actions yet taken.
Inter-American Tropical Tuna Commission (IATTC)	Can investigate fish taken by vessels fishing for tuna; collect statistical information; and recommend management measures designed to keep population at levels that permit maximum sustained catch. Bycatch working group established.	Various resolutions relating to the need to investigate measures to assess and reduce bycatch. Estimating catches and incidental fishing mortality of sharks and rays and assessing impacts on these species. Require purse seiners to promptly release unharmed, to the extent practicable, all sharks, billfishes, rays. Any further agreed bycatch measures to be implemented from 1 January 2003.
International Convention for the Conservation of Atlantic Tuna (ICCAT)	Focus on tuna & tuna-like species, but includes activities relating to such other species of fishes exploited in tuna fishing.	Requires submission of shark data (catch by quarter, area, gear, species and year). Shark workshop (Sept. 2001) reviewed available statistics for Atlantic and Mediterranean pelagic sharks, with emphasis on

¹ This information is intended as an overview only and is not exhaustive of the types of measures that an RFO may be able to apply or of measures that an individual RFO may have adopted that could potentially impact on sharks.

RFMO	Mandate under Convention	Measures implemented for Sharks
		Atlantic blue (<i>Prionace glauca</i>), porbeagle (<i>Lamna nasus</i>), and shortfin mako (<i>Isurus oxyrinchus</i>), with a view to planning an assessment in the future' Recommended members to develop and conduct observer programs to collect accurate data on shark catches by species, incl. discards.
Indian Ocean Tuna Commission (IOTC)	Covers tuna and tuna-like species. No explicit coverage of other species in any context.	In 1999, agreed to 5 year research plan on predation by marine mammals & sharks in the context of an ecosystem-based approach. Nominal catch & discards of non-target species recorded.
Northeast Atlantic Fisheries Organisation (NAFO)	Applies to all marine resources except marine mammals, highly migratory, anadromous & sedentary species	Members to provide reports on progress on developing NPOA for sharks to NAFO for circulation among members. Require reporting of catch of shark species. No assessment of shark resources.
South East Atlantic Fisheries Organisation (SEAFO) Not yet in force	All living marine resources except sedentary organisms under a coastal State's jurisdiction and highly migratory species in Law of the Sea Convention (LOSC) Annex I. Take account of the impact of fishing on ERS; implement measures for these if necessary.	Convention requires reporting by vessels of shark (Order Selachomorpha) catches (shot by shot), transshipments and on-board product.
Sub Regional Fishing Commission (SRFC: Mauritania, Senegal, Gambia, Guinea Bissau, Republic of Guinea and Cabo Verde Islands).	Implement sub-regional projects for scientific data collection, control and surveys. Recent Sub-regional Plan of Action for Sharks (four countries have sent letter of confirmation to FAO; two to follow shortly). No specific measures undertaken yet.	SRPOA-Shark recommends: 1. Prohibit fishing, transport and trade of Pristidae and Rhynchobatidae; 2. Adopt systematically precautionary approach for shark fisheries; 3. Harmonise catch data at regional level; 4. Invite foreign fishing nations to communicate shark by-catch data (industrial vessels generally don't land in the countries); 5. prohibit finning and encourage full utilization of sharks.
Western & Central Pacific Fisheries Convention (WCPFC) Not yet in force	Applies to all highly migratory fish stocks in LOSC Annex I. Assess impacts of fishing on non-target, dependent & associated species & adopt measures to minimise catch / impacts if necessary. Collect information on target & non-target species. Apply precautionary approach.	No specific measures under the Convention for sharks. While highly migratory sharks are a primary species under the Convention, more likely to be dealt with under the provisions for non-target species.

The five page Annex to this paper: 'Summary Table of IPOA-Sharks implementation', updated from the similar Table presented in AC18 Doc.19.2, may be downloaded from the Shark Specialist Group website: www.flmnh.ufl.edu/fish/Organizations/SSG/SSGDefault.html

ANNEX. Summary Table of IPOA-Sharks implementation¹

This Annex, updated from an original Table in AC18 Doc 19.2, lists the 18 major elasmobranch fishing States (names in bold) whose annual landings reported to FAO exceed 10,000t, and all the States reporting on progress at COFI in February 2001. The first four columns are only completed for the major elasmobranch fishing States. Landings data are for 1999, taken from FAO Capture Production database for sharks, rays & chimaeras. Fin imports are for the year 2000.

Country	Importance of Shark Fisheries (Target and Bycatch)				Situation reported to COFI, February 2001		Situation in May 2002	
	Annual landings (tonnes)	National Shark Fisheries	Distant Water Shark Fisheries	Hong Kong Fin Imports (kg dry wt).	SAR	NPOA	SAR	NPOA
Angola					No	Intention to prepare in near future	No information	No information
Argentina	27,517	Yes	No	41,118	Yes	No information	No ²	No (workshop in 2000 and meeting in 2001) ²
Australia	10,236	Yes	Yes (bycatch)	52,963	Final draft available	No information	Yes	No, but in the process of being developed
Bangladesh					No	No	No ³	No ³
Barbados					No	In preparation	No information	No information
Benin					No	Intention to prepare in near future	No information	No information
Brazil	17,820	Yes	Yes	185,654	Yes	In preparation	In prep., due end 2002 ⁴	In prep., due end 2002 ⁴
Cambodia					No	No	No ³	No ³
Cameroon					No	No information	No ⁵	No ⁵
Cap Vert					No	In preparation	No***	No***
Canada	11,122	Yes		56,079	In preparation	In preparation	For some target species ⁶	For some target species ⁶
China					No	No	No ³	No ³
Columbia					No	Intention to prepare in near future	No information	No information
Costa Rica					Yes (COFI 2001/3), but 'no info' stated in summary paper	Intention to prepare in near future	Basic information only ⁷	No information ⁷
Cote d'Ivoire					In preparation	No	No information	No information
Cuba					Yes	No information	A yearly SAR is prepared ⁸	No ⁸
Cyprus					No	No	No information	No information
DR Congo					In preparation	No information	No information	No information

¹ Refer to last page of this document for list of sources of information

ANNEX to: The Role of CITES in the Conservation and Management of Sharks

IUCN SSC Shark Specialist Group and TRAFFIC

Country	Importance of Shark Fisheries (Target and Bycatch)				Situation reported to COFI, February 2001		Situation in May 2002	
	Annual landings (tonnes)	National Shark Fisheries	Distant Water Shark Fisheries	Hong Kong Fin Imports (kg dry wt).	SAR	NPOA	SAR	NPOA
Dominica					No	No information	No information	No information
Ecuador					Yes (COFI 2001/3), but 'no info' stated in summary paper	In preparation	No information	No information
EC	Es 65,786 Fr 23,323 UK 17,558	Yes	Yes	Es 970,412 Fr 3,467 UK –	No	In preparation. Preliminary draft available	No – though briefly dealt with in draft NPOA	Preliminary draft (EC). Italy has draft in progress ⁹
Egypt					No	No	No ¹⁰	No ¹⁰
Eritrea					No	No	No information	No information
Fiji					No	Intention to prepare in near future	No ¹¹	No ¹¹
Gambia					In preparation	No	No ^{***}	No ^{***}
Ghana					No	No	No information	No information
Grenada					No	No	No ¹²	No ¹²
Guinea					No	No information	No ^{***}	No ^{***}
Guinea Bissau					No	In preparation	No ^{***}	No ^{***}
Haiti					No	No	No information	No information
Honduras					No	No	No information	No information
Iceland					No	No	No information	No information
India	72,966	Yes		315,591	No	Intention to prepare in near future	No ³	No ³
Indonesia	116,190	Yes		597,012	Yes	Intention to prepare in near future	No, although studies have been carried out in 2000-01 on shark biology and fisheries ^{**}	No ^{**}
Iran					No	No	No information	No information
Jamaica					No	No	No information	No information
Japan	35,948	Yes	Yes	254,207	Yes	In preparation (before COFI). Completed (at COFI)	No information (but see ^{**})	Yes
Kenya					No	No	No information	No information
Kuwait					No	No	No information	No information

ANNEX to: The Role of CITES in the Conservation and Management of Sharks

IUCN SSC Shark Specialist Group and TRAFFIC

Country	Importance of Shark Fisheries (Target and Bycatch)				Situation reported to COFI, February 2001		Situation in May 2002	
	Annual landings (tonnes)	National Shark Fisheries	Distant Water Shark Fisheries	Hong Kong Fin Imports (kg dry wt).	SAR	NPOA	SAR	NPOA
Latvia					No	No information	No information	No information
Lithuania					No	No	No information	No information
Madagascar					No	No	No ¹³	No ¹³
Malaysia	25,125	Yes		11,895	Yes	No	No**	No**
Maroc					No	In preparation	No information	No information
Marshall Islands					No	In preparation	No information	A draft document has been prepared: 'Assistance in formulating a NPOA-Sharks and Seabirds in the Republic of the Marshall Islands' ¹⁴
Mauritania		Yes	No		No	No	No	No ¹⁵
Mauritius					No	No	No ¹⁶	No ¹⁶
Mexico	35,239	Yes		269,765	Yes	In preparation	No ¹⁷	Have a draft document as a basis for NPOA ¹⁷
Myanmar					No	No	No**	No**
Namibia					No	Intention to prepare in near future. (Verbally stated preparation underway).	No ¹⁸	Draft undergoing internal governmental review ¹⁸
New Zealand	19,810	Yes	No	13,387	No	Intention to prepare in near future	In progress but no draft seen ¹⁹	In progress but no draft seen ¹⁹
Nigeria	15,373	Yes		5,291			No ²⁰	No ²⁰
Niue					No	No	No ²¹	No ²¹
Norway					No	Intention to prepare in near future	No information	No information
Pakistan	54,958	Yes		55,298	No	Intention to prepare in near future	No ³	No ³
Palau					No	No	No information	No information
Panama					No	No information	No information	No information
Peru					Yes	In preparation	No information	No information

ANNEX to: The Role of CITES in the Conservation and Management of Sharks

IUCN SSC Shark Specialist Group and TRAFFIC

Country	Importance of Shark Fisheries (Target and Bycatch)				Situation reported to COFI, February 2001		Situation in May 2002	
	Annual landings (tonnes)	National Shark Fisheries	Distant Water Shark Fisheries	Hong Kong Fin Imports (kg dry wt).	SAR	NPOA	SAR	NPOA
Philippines					In preparation	In preparation	No ^{22**}	NPOA Planning workshop envisaged in 2002 ^{22**}
Republic of Korea	16,397	Yes	Yes	16,260	No	No	No ³	No ³
Romania					No	No	No information	No information
Senegal					In preparation	No	No ^{***}	No ^{***}
Seychelles					In preparation	In preparation	Available in Lestang 1999 ²³	No information ²³
Sierra Leone					No	Intention to prepare in near future	No information	No information
South Africa					No	No	Will be available in 2002 ²⁴	Will be available in 2002 ²⁴
Sri Lanka	29,360	Yes		54,535	No	No	No ³	No ³
Sudan					No	No	No information	No information
Suriname					No information	No information	No information	No information
Taiwan	42,933	Yes	Yes	639,869			No	No
Thailand	19,000	Yes		34,235	No	In preparation	No ^{**}	No ^{**}
Tonga					No	Intention to prepare in near future	No information	No information
Tunisia					No	No	No information	No information
Turkey					No	No	No information	No information
Uruguay					No information	Intention to prepare in near future	No ²⁵	No, but planned this year ²⁵
United States of America	37,559	Yes		298,821	Yes	In preparation (before COFI). Completed (at COFI)	Regular shark assessments carried out	Yes
Vietnam					No	Intention to prepare in near future	No ^{**}	No ^{**}

Information sources for Annex:

² Gustavo Chiaramonte, Museo Argentino de Ciencias Naturales, Argentina

³ Veravat Hongskul, Senior Fishery Officer, FAO Asia and the Pacific

⁴ Ricardo Rosa, University Federal de Paraiba, Brazil

⁵ Salvador Ngoande, Department of Fisheries, Cameroon

⁶ Steve Campana, Bedford Institute of Oceanography, Canada (Canada's approach has been to first focus on the development of plans for directed fisheries, such as the Canadian Atlantic Pelagic Sharks Management Plan).

⁷ Rodrigo Rojas, Costa Rica

⁸ Lic. Leonel Espinosa Diaz, MIP, Cuba

⁹ Marino Vacchi, ICRAM, Italy: In addition to the EC draft plan, Italy had a meeting re: Regional Plan of Action in 2001 and has a draft plan in progress

¹⁰ Ahmed Barrania, Egypt

¹¹ Loraini Sivo, Ministry of Fisheries and Forestry, Fiji

¹² Paul E. Phillip, Fisheries Officer, Grenada

¹³ Lyn Robinson, Madagascar

¹⁴ Mike McCoy, Gillett Preston and Associates, Hawaii

¹⁵ M. Ducroq, FIBA, Mauritania

¹⁶ I. Jehangeer, Principal Fisheries Officer, Mauritius

¹⁷ Leonardo Castillo, CICESE, Mexico

¹⁸ J.A. Holtzhausen, Ministry of Fisheries and Marine Resources, Namibia

¹⁹ Malcolm Francis, National Institute of Water and Atmospheric Research, New Zealand

²⁰ B.B. Solarin, NIOMR, Nigeria

²¹ B. Pasisi, Government Fisheries Advisor, Niue

²² Moonyeen Alava, WWF Philippines and Andy Oliver, USA

²³ Seychelles Fishing Authority

²⁴ Malcolm Smale, Port Elizabeth Museum, South Africa

²⁵ Andres Domingo, DINARA, Uruguay

*** Cape Verde, Gambia, Guinea, Guinea Bissau, Mauritania and Senegal have formulated a Subregional Plan of Action, adopted in September 2001 and the Sub-Region NPOA officers met in March 2002 to prioritise actions (Amadou Saine, Gambia and Mathieu Ducrocq, Mauritania).

** SEAFDEC (Brunei Darussalam, Indonesia, Japan, Malaysia, Myanmar, Philippines, Singapore, Thailand and Vietnam) is developing a research project on sharks which may form the basis of SAR and plans to develop a regional Plan of Action (Ahmad B. Ali, SEAFDEC and Veravat Hongskul, Senior Fishery Officer, FAO Asia and the Pacific).