Keith Ellenbogen/Oceana

A SPECIES ON THE BRINK

Bluefin tuna are in trouble in the Atlantic Ocean. The incredible value of this species creates an extraordinary incentive to ignore quotas, fish illegally and pressure regulators to disregard scientific recommendations. The International Commission for the Conservation of Atlantic Tunas (ICCAT) is the multinational management body for Atlantic bluefin tuna. ICCAT has struggled for decades to sustainably manage bluefin tuna, but it has proved to be a dismal failure in halting the decline toward commercial extinction of this iconic species.

Frustrated with the continuing inability of ICCAT to sustainably manage Atlantic bluefin tuna stocks, and the increasing illegal and unregulated take of this species, the world is now turning to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). CITES, with 175 member nations, is an international treaty that regulates or prohibits the international trade in protected species. Listing Atlantic bluefin tuna on Appendix I of CITES would prohibit all international trade in the species—a critical factor in controlling plummeting populations.

A species of extremes

The Atlantic bluefin tuna (*Thunnus thynnus)* is a truly remarkable fish. Occupying a spot at the top of the ocean's food chain, Atlantic bluefin can live 40 years, grow to 4 meters in length and weigh up to 726 kilograms.[1] They are warm-blooded and able to stabilize their body temperature even as they dive more than 900 meters into icy waters and migrate across the Atlantic Ocean each year, from North American to European waters.[2] The species also carries the dubious distinction of fetching the highest commercial prices on international markets, with individual fish selling for upwards of US$100,000. The extremely high price of Atlantic bluefin, fueled by the international sushi market, has led to rampant and unchecked overfishing (legal and illegal), driving this species toward commercial extinction.

> *"Tuna epitomize what it is to be a fish. Their sleek muscle-bound bodies cut through the water with effortless mastery, driven by high crescent tails beating side to side in rapid staccato. Pectoral fins shaped like hydroplanes flick and twist on the unseen marine breeze, lending remarkable agility to such stiff-bodied creatures."*
>
> **—CALLUM ROBERTS**
> "THE UNNATURAL HISTORY OF THE SEA"

ICCAT's management failures

ICCAT scientists predicted that if the 2007 levels of fishing mortality were to continue, the Eastern Atlantic spawning stock would plummet to 18 percent of the 1970 stock assessment level and 6 percent of the historical level.[3] This unsustainable trend is corroborated by the dramatic decline of the mean size of fish caught. Some members of ICCAT's scientific committee predict that even under a complete fishing ban, there is a significant risk that the stock will continue to decline to record lows.[4] For the western stock, ICCAT scientists noted that, even with a projected zero catch, there is the potential under high recruitment scenarios that the spawning stock would still be at risk in 2019.[5]

A self-commissioned 2008 independent review of ICCAT stated,

> ICCAT CPCs' [Contracting Parties] performance in managing fisheries on bluefin tuna particularly in the eastern Atlantic and Mediterranean Sea is widely regarded as an international disgrace and the international community which has entrusted the management of this iconic species to ICCAT deserve better performance from ICCAT than it has received to date.[6]

Sadly, these management failures have been ICCAT's signature. This was increasingly clear at its most recent meeting as it considered a response to the devastating science about the state of the species. At that meeting, Parties set a quota for the Eastern Atlantic bluefin stock that, even with perfect implementation, provides significantly less than a 50 percent chance of population recovery to Maximum Sustainable Yield by 2023. Enforcement of this new quota is hardly to be expected with the recent history of rampant illegal, unreported and unregulated (IUU) fishing in the Eastern Atlantic and Mediterranean and the lack of enactment of new enforcement provisions at the recent annual meeting. IUU fishing is estimated to have driven the most recent catch (2008) over the agreed quota by upwards of 12,000 tonnes. The quota, set at 13,500 tonnes beginning in 2010, is also notably higher than the 8,000-tonne quota for the east called for by the United States at the meeting—and we strongly believe that the science supports an even lower quota than that. This new quota is not in line with ICCAT's own scientific advice and does not include any strengthened management or compliance measures to address IUU harvest.[7]

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With ICCAT's failure to take sufficient action on behalf of this species, there is no doubt that the significant global effort inherent in a CITES Appendix I listing is needed to ensure the conservation and recovery of the North Atlantic bluefin tuna.

A species in need of CITES protection

CITES currently offers protection to more than 30,000 species around the world and has been instrumental in preventing the decline toward extinction due to trade of numerous iconic plants and animals. The Convention, with one of the largest memberships of all conservation agreements, is an impressive example of international cooperation.

As confirmed by ICCAT scientists in October 2009, the probability that the Atlantic bluefin tuna stocks (both western and eastern) are below 15 percent of the unfished, historical baseline is virtually certain, and the species thus fully qualifies for inclusion in CITES Appendix I.[8] A December 2009 review of the species by the United Nations Food and Agriculture Organisation (FAO) similarly determined that when using the unfished, historical baseline called for in CITES appendix listings,[9] both eastern and western populations of Atlantic bluefin tuna meet the criteria for listing on Appendix I.[10]

Furthermore, the same FAO panel stated that an Appendix I listing would probably reduce the bluefin catch and help to ensure that recent unsustainable catches in the East Atlantic and Mediterranean are reduced.[11] Given that most of the annual catch of Atlantic bluefin is exported internationally, a CITES prohibition on international trade of the fish would give the Atlantic bluefin tuna the time it needs to recover to sustainable levels.

CRITICAL ACTION IS REQUIRED NOW

For more than 30 years, ICCAT has had countless opportunities to take the necessary action to secure the status of Atlantic bluefin tuna stocks and, when it failed at that, to put in place a scientifically based, truly precautionary recovery plan. ICCAT has failed on both counts and the world is taking note.

In March 2010, the 15th meeting of the CITES Conference of Parties will convene and vote on the proposal, submitted by the Principality of Monaco, to list Atlantic bluefin tuna on CITES Appendix I.[12] This proposal is receiving increasing levels of international support. **It is time for countries around the world to protect Atlantic bluefin tuna with complete and vigorous support for a CITES Appendix I listing.** A CITES Appendix I listing for Atlantic bluefin tuna is the most effective and enforceable tool available to prevent the commercial extinction of these majestic animals.

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2 *Ibid.*

3 ICCAT, *Report of the Standing Committee on Research and Statistics (SCRS)* (2009), Section 8.5, "BFT—Atlantic Bluefin Tuna," Subsection BFTE–4, "Outlook," <www.iccat.int/Documents/Meetings/Docs/2009-SCRS_ENG.pdf>.

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8 ICCAT, "Extension of the 2009 SCRS Meeting to Consider the Status of Atlantic Bluefin Tuna Populations With Respect to CITES Biological Listing Criteria," Document PA2-604 (2009), pp. 9–10, <www.iccat.int/Documents/Meetings/Docs/PA2-604%20ENG.pdf>.

9 CITES Annex 5 (Resolution Conf. 9.24 [Rev. CoP14]), <www.cites.org/eng/res/09/09-24R14.shtml>.

10 FAO Ad Hoc Expert Advisory Panel, "Preliminary Summary FAO Ad Hoc Advisory Panel, Proposal number 28: Atlantic bluefin tuna" (December 2009), <www.fao.org/fileadmin/user_upload/newsroom/docs/panel_preliminary_summary.pdf>.

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Keith Ellenbogen/Oceana

POSITION ON A CITES APPENDIX I LISTING

The Pew Environment Group strongly supports the proposal by the Principality of Monaco to include the Atlantic bluefin tuna (*Thunnus thynnus)* in CITES Appendix I. The science is clear. A majority of the members of the United Nations Food and Agriculture Organisation's Ad Hoc Panel have determined that eastern and western populations of the species meet the CITES biological criteria for inclusion in Appendix I. CITES Resolution Conf. 9.24 (Rev. CoP14) clearly states that data used to estimate or infer a baseline for extent of decline of a commercially exploited aquatic species should extend as far into the past as possible. The available data on Atlantic bluefin tuna clearly show that the western and eastern stocks meet the Appendix I criteria for marked decline.

Alexandre Dulaunoy/Flickr

Scientists from the International Commission for the Conservation of Atlantic Tunas (ICCAT) predicted that if the current level of fishing mortality continued, the Eastern Atlantic spawning stock would fall to 18 percent of the 1970 level and **6 percent of the historical level**. This trend is corroborated by the dramatic decline in the mean size of fish caught, and some experts predict that even under a complete fishing ban there are significant chances that the stock will continue to decline. This falls well within the CITES definition of marked decline.

It should be stressed that the productivity of Western Atlantic bluefin is closely linked to the Eastern Atlantic and Mediterranean stock. New scientific information, which is expected to appear in the peer-reviewed literature before the CITES Conference of the Parties (CoP15) in March 2010, highlights more genetic mixing than was previously hypothesized. Therefore, management actions taken in the Eastern Atlantic and Mediterranean are likely to influence the recovery in the Western Atlantic. A higher degree of mixing than had been assumed also puts the western stock at even greater risk and makes it even more eligible for CITES Appendix I, because increasing overfishing in the Eastern Atlantic and Mediterranean, and increasing illegal, unreported and unregulated (IUU) fishing in both the Mediterranean and Eastern Atlantic will have greater negative impacts on recruitment in the Western Atlantic.

Bluefin tuna are remarkable animals, able to dive more than 900 meters and migrate thousands of kilometers each year across the ocean. But they are in trouble. Fueled by the lucrative sushi and sashimi markets around the world, the incredible value of this species creates an extraordinary incentive to ignore quotas, fish illegally and pressure regulators to disregard scientific recommendations. The best science shows that populations of Atlantic bluefin tuna are on the brink of collapse. Time is short, and the time for listing Atlantic bluefin tuna on Appendix I is now.

Stewart Butterfield/Flickr

ICCAT is the regional fisheries management body responsible for Atlantic bluefin tuna. ICCAT has struggled for decades to sustainably manage Atlantic bluefin tuna, but to date it has proved to be a dismal failure in halting the continuing decline toward commercial extinction of this iconic species. When the Atlantic bluefin tuna was considered for a CITES listing in 1992 (at CoP8), ICCAT committed to lowering quota levels to rebuild the stock. Quotas were cut in the first two years after the 1992 CITES CoP in Japan, but the quota was subsequently raised dramatically. Clearly, ICCAT management measures have been ineffective at preventing the decline of the stock. An independent review that ICCAT commissioned stated,

> ICCAT CPCs' performance in managing fisheries on bluefin tuna particularly in the eastern Atlantic and Mediterranean Sea is widely regarded as an international disgrace and the international community which has entrusted the management of this iconic species to ICCAT deserve better performance from ICCAT than it has received to date.

In addition, the lack of adequate enforcement and rampant IUU fishing for bluefin tuna have pushed actual mortality rates to three to five times the limits recommended by ICCAT scientists and up to double that agreed by ICCAT itself. International trade poses an increasing threat to the survival of this majestic species. Placing Atlantic bluefin tuna on Appendix I at CoP15 will give populations of this fish a chance to rebuild. The primary threat to this species is international trade—and that is the purview of CITES to address. While ICCAT is responsible for assigning quotas, only CITES can regulate international trade, and only CITES has the authority and ability to suspend international commercial trade until the species recovers.

The Principality of Monaco, interested in preserving the role of ICCAT in management of Atlantic bluefin tuna, has included a draft resolution to accompany its proposal that sets the parameters for transferring the species to Appendix II in the future, as well as an appropriate role for ICCAT while the Atlantic bluefin is included in Appendix I. This listing proposal is not meant to be punitive for ICCAT; rather, it is designed to provide assistance for the sustainable conservation and management of a critical species under its jurisdiction. An Appendix I listing for Atlantic bluefin would concurrently enable ICCAT to build a stronger record in terms of setting scientific quotas, enforcing those quotas and working with the global community to significantly reduce IUU fishing. The resolution would enable the CITES Parties to work with ICCAT and determine when the species had recovered sufficiently for it to be transferred to Appendix II, and would set in motion a process to do so.

RECOMMENDATION

We urge the Parties to support both the proposal itself and the accompanying resolution.

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POSITION ON CITES SHARK PROPOSALS

Of the 591 shark and ray species assessed by scientists with the International Union for Conservation of Nature (IUCN), 21 percent are threatened with extinction and 18 percent have a near-threatened status. Just as troubling, researchers lack adequate information on 35 percent of sharks and rays to make accurate population assessments.

The United Nations Food and Agriculture Organisation (FAO) estimates that more than half of highly migratory sharks are either over-exploited or depleted. Shark fishing is driven by the demand for shark fins, used in the delicacy shark fin soup. Approximately 73 million sharks are killed annually to support the international fin trade. Sharks are also caught for their meat and for other products. International trade of this magnitude is problematic, because sharks tend to grow slowly, mature late and produce few young over their lifetimes, leaving them exceptionally vulnerable to over-exploitation. Shark populations are slow to recover from depletion, and removal of these key predators risks the health of entire ocean ecosystems.

Never before have so many shark species—including three of the distinctive hammerheads—been proposed for consideration at CITES. The Pew Environment Group considers that the four shark proposals meet the criteria for inclusion in CITES Appendix II. Such listings will complement and reinforce fisheries management measures, provide much needed data and monitoring of trade and also contribute to implementation of the FAO International Plan of Action for the Conservation and Management of Sharks.

We urge all CITES Parties to support these proposals at CoP15.

Proposal 15: Scalloped hammerhead

Hammerhead shark fins are highly sought after for shark fin soup because of their large size and the high "needle count," or fibers, that make up the fin. Globally distributed, scalloped hammerhead sharks are classified by the IUCN as "Endangered." Four other shark species (smooth hammerhead, great hammerhead, sandbar and dusky sharks) are included in this proposal as look-alike species because their fins are not easily distinguished from scalloped hammerhead fins.

Proposal 16: Oceanic whitetip

This species is noted for its large, rounded fins, usually tipped with white. Oceanic whitetip sharks are threatened by harvest for the international fin trade and as bycatch in commercial fisheries. Oceanic whitetip sharks are listed on the IUCN Red List as "Critically Endangered" in the Northwest and Central Atlantic Ocean and "Vulnerable" globally.

Proposal 17: Porbeagle

Porbeagle meat is considered high quality, particularly in Europe, and fins are also in demand. The porbeagle is listed on the IUCN Red List as "Vulnerable" globally, "Endangered" in the Northwest Atlantic and "Critically Endangered" in the Northeast Atlantic and Mediterranean Sea.

Proposal 18: Spiny dogfish

This species is subject to unsustainable fisheries in several parts of its range because of strong international demand for its meat, primarily from Europe, although dogfish fins also enter international trade. Spiny dogfish are listed on the IUCN Red List as "Vulnerable" on a global basis.

RECOMMENDATION: Support all shark proposals at CITES CoP15, an unprecedented opportunity for action.

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CITES PROPOSAL 15
SCALLOPED HAMMERHEAD SHARK

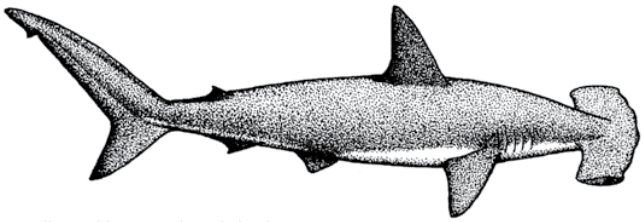
www.pewenvironment.org/cites

Doug Perrine/SeaPics.com

SCALLOPED HAMMERHEAD *(Sphyrna lewini)*	
Appendix II listing	Proposed by Palau, the United States
IUCN Red List status	**Endangered** globally

RECOMMENDATION: SUPPORT

- The Pew Environment Group applauds the submission of this proposal and urges CITES Parties to support it.
- The expert panel of the United Nations Food and Agriculture Organisation (FAO) has determined that scalloped hammerheads warrant an Appendix II listing.
- Scalloped hammerheads are exploited primarily to satisfy a growing global demand for their fins. Hammerhead fins are among the most valued in trade due to their large size and high "needle count."[1] These needles are composed of fibers, which support the fin and are prized in shark fin soup.[2]
- Little to no management exists for the international trade of scalloped hammerhead products.[3] No regional fisheries management organization oversees take of this species or any of the proposed look-alike species.
- A CITES Appendix II listing for scalloped hammerheads would greatly ensure the future sustainability of wild populations by regulating international trade in hammerhead products.



Scalloped hammerhead shark Alessandro De Maddalena/SeaPics.com

Biological vulnerability to over-exploitation:

- Low reproductive capacity, with average litters of 14 to 26 pups.[4]
- Slow intrinsic population growth in comparison with other species of sharks.[5]
- Long gestation period of eight to 12 months.[6]
- Long reproductive periodicity, reproducing only every two years.[7]

Scalloped hammerhead fisheries and trade

The scalloped hammerhead shark, one of the most distinctive creatures on the planet, is subject to targeted fisheries, illegal fishing and fishery bycatch throughout the world. Catch methods include pelagic longlines and fixed bottom nets, as well as bottom and pelagic trawls. They are exploited for their fins, meat, hide and oil.[8] Fisheries surveys in the Northwest Atlantic have documented declines of up to 98 percent,[9] and landings in the Southwest Atlantic have shown declines of up to 90 percent.[10] Unlike other species of sharks, hammerheads frequently aggregate in large numbers, which makes them more vulnerable to fishing efforts.[11] Furthermore, according to a 2008 assessment of illegal, unreported and unregulated fishing, hammerheads are among the most frequently taken shark species in illegal fishing.[12]

Species-specific trade data are limited, but market-based scientific inquiries have yielded important trade information.[13] Traders have stated that hammerhead fins are some of the most valuable in the market.[14] The three hammerhead species *(Sphyrna lewini, S. mokarran, S. zygaena)* combined make up approximately 6 percent of the identified fins entering the Hong Kong market.[15] From this information, scientists have estimated that 1.3 million to 2.7 million scalloped and smooth hammerheads are exploited for the fin trade every year.[16]

A research study published in 2009 in the journal *Endangered Species Research* documents the global nature of the scalloped hammerhead trade. Researchers performed DNA tests on shark fins obtained from the Hong Kong market and were able to determine their geographic origins. Findings from 62 fins revealed that 21 percent had originated from endangered scalloped hammerhead populations.[17]

Including scalloped hammerheads in the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) Appendix II is justified under the CITES listing criteria (Res. Conf. 9.24 [Rev. CoP14], Annex 2a [A]): Regulating trade of scalloped hammerhead products is necessary to avoid the future eligibility of this species for an Appendix I listing.

Due to the similar appearance of certain species' fins, it is unlikely that enforcement personnel could readily distinguish between scalloped hammerhead fins and dusky and sandbar shark fins once the fins have been removed from the body and entered into trade. Thus, this proposal also offers regulation of the trade of "look-alike species": smooth hammerhead, great hammerhead, sandbar and dusky sharks. (Although individual sandbar and dusky sharks do not resemble hammerheads, their fins are quite comparable when detached.) Inclusion of these species is justified under the CITES listing criteria in Annex 2b (A).

The Pew Environment Group recommends that Parties support this proposal and looks forward to providing assistance and collaboration in its implementation.

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Eric H. Cheng/SeaPics.com

OCEANIC WHITETIP SHARK *(Carcharhinus longimanus)*	
Appendix II listing	Proposed by Palau, the United States
IUCN Red List status	**Critically Endangered** in Northwest and Central Atlantic Ocean **Vulnerable** globally

RECOMMENDATION: SUPPORT

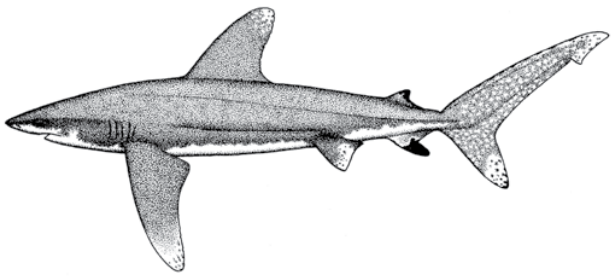
- The Pew Environment Group applauds the submission of this proposal and urges CITES Parties to support it.
- The expert panel of the United Nations Food and Agriculture Organisation (FAO) supports this listing and has declared that Proposal 16, to include the oceanic whitetip in Appendix II, is corroborated by scientific data and sufficiently meets the listing criteria.
- Oceanic whitetip sharks have experienced significant population declines in the Northwest Atlantic and the West-Central Atlantic due largely to over-exploitation fueled by a global demand for their large, high-value fins.[1]
- Despite declines, there is little to no management of trade in this species, and the scope of illegal trade is unknown.[2]
- A CITES Appendix II listing would regulate international trade in oceanic whitetip shark fins, spurring steps to sustainably manage this species.

Biological vulnerability to over-exploitation

- Long gestation period of nine to 12 months.[3]
- Low to moderate population growth rates, in comparison with other shark species.[4]
- Long reproductive periodicity, reproducing every two years.[5]
- Low reproductive capacity, with only five to six pups per litter.[6]

Oceanic whitetip fisheries and trade

The oceanic whitetip is one of the most widespread shark species and is found in all of the world's oceans.[7] Several targeted fisheries exist for oceanic whitetips, and they are frequently caught as bycatch in tuna and swordfish fisheries.[8] Although this species experiences a high catch-survival rate on longline fishing equipment, the low market value of its meat coupled with the high value and increasing demand for its fins encourages the practice of finning.[9] Fins of this species have been valued at US$45 to $85 per kilogram.[10] Thus, rather than releasing live catch or utilizing the entire shark, fishermen often remove the fins at sea and dispose of the carcass overboard. Oceanic whitetip fins are easily identifiable in trade by their white coloring, rounded shape and large size.



Oceanic whitetip shark

Alessandro De Maddalena/SeaPics.com

The size of oceanic whitetip populations is difficult to estimate, because stock assessments have not been conducted and data are generally limited.[11] However, U.S. pelagic longline surveys and observer data in the Gulf of Mexico have estimated a decline of 99 percent over four generations for this species.[12] In the Northwest Atlantic, an analysis of U.S. pelagic longline logbook data estimated declines of up to 70 percent.[13] A similar analysis of pelagic longline surveys and observer data from the Pacific yielded a 90 percent decline in biomass.[14]

Although the United Nations lists the oceanic whitetip as a highly migratory species, little progress has been made in the adoption of international conservation measures, and international catch is inadequately monitored.[15] The Pew Environment Group recommends that Parties support this proposal and looks forward to providing assistance and collaboration in its implementation.

Including oceanic whitetips in Appendix II is:

- Consistent with Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) listing criteria (Res. Conf. 9.24 [Rev. CoP14], Annex 2a[A]); regulating trade is necessary to avoid the future eligibility of this species for an Appendix I listing.
- Necessary to ensure that international trade is regulated sustainably.
- Likely to spark enhanced assessment and management of populations worldwide as countries will need to make non-detriment findings before issuing permits for international trade.
- Necessary to end the serial population depletion driven by international trade.
- In line with the FAO International Plan of Action for sharks.

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Doug Perrine/SeaPics.com

PORBEAGLE SHARK *(Lamna nasus)*	
Appendix II listing	Proposed by Sweden on behalf of European Union Member States and Palau
IUCN Red List status	**Critically Endangered** in Northeast Atlantic and Mediterranean **Endangered** in Northwest Atlantic **Near Threatened** in Southern Ocean **Vulnerable** globally

RECOMMENDATION: SUPPORT

- The Pew Environment Group applauds the submission of this proposal and urges CITES Parties to support it.
- The expert panel of the United Nations Food and Agriculture Organisation (FAO) acknowledged significant porbeagle population declines and determined that available data support the proposal to include *Lamna nasus* in CITES Appendix II.
- Porbeagle sharks are very slow growing with low reproductive capacity. Yet, they are over-exploited in bycatch and targeted fisheries for their large fins and high-value meat.[1]
- To date, governing bodies have enforced little to no international trade limitations of porbeagle shark products.[2]
- A CITES Appendix II listing would regulate international trade of porbeagle meat and fins, aiding efforts to reverse the unsustainable harvest of this species.
- Although the European Union's recent decision to end all fishing for porbeagles in the Northeast Atlantic, where the species is critically endangered, will help the species recover, the regional action does not alleviate the need for the international protections that a CITES listing provides.

Biological vulnerability to over-exploitation

- Long gestation period of eight to nine months.[3]
- Long-lived:
  - 29 to 45 years, Northwest Atlantic
  - about 65 years, Southwest Pacific[4]
- Slow to reach reproductive maturity:
  - 18 years, Northwest Atlantic
  - 26 years, Southwest Pacific[5]
- Low reproductive capacity, with litters averaging about four pups.[6]

Porbeagle fisheries and trade

The porbeagle shark is a large shark distributed throughout the temperate North Atlantic and Southern oceans. This species yields significant commercial value for its large fins and meat, and is taken in both targeted and bycatch fisheries. The combination of the porbeagle's low reproductive output and high market value makes populations especially vulnerable to over-exploitation and depletion.[7] Porbeagle sharks have been heavily exploited in the Northwest and Northeast Atlantic. In the Northwest Atlantic, female spawning stock has decreased to between 12 and 16 percent of former levels.[8] Populations are so depleted that the Canadian Department of Fisheries and Oceans (DFO) has determined that porbeagles are no longer fulfilling their role in the ecosystem.[9]

Scientific analysis of stock assessment data in the Northeast Atlantic revealed severe population declines, estimating more than a 90 percent depletion of biomass from baseline levels.[10] Over the past several

Porbeagle shark

Alessandro De Maddalena/SeaPics.com

years, scientists with various entities, including the International Council for the Exploration of the Sea (ICES), have encouraged the closure of Northeast Atlantic porbeagle fisheries. Additionally, scientists have supported practices that limit bycatch and eliminate landings of this critically endangered population.[11]

Stock information is less available for Southwest Atlantic porbeagles, but depletion in spawning stock indicates biomass is 18 percent of previous levels.[12] In the Mediterranean Sea, porbeagles have virtually disappeared from fishery record.[13] Bycatch research on Mediterranean pelagic fisheries in 1998 yielded only 15 specimens in 12 months.[14] Additionally, research on swordfish longline bycatch published in 2002 documented zero catch of *Lamna nasus* in the Western Mediterranean.[15] On the high seas, porbeagle catch numbers are unclear because of widespread underreporting.[16]

The absence of species-specific trade data has hampered efforts to determine the proportion of global catch that enters international trade. At the conclusion of International Commission for the Conservation of Atlantic Tunas (ICCAT)/ICES specialist meetings in 2009, officials recommended that high-seas fisheries stop targeting porbeagle.[17] In 2007, Germany proposed a Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) Appendix II listing for *L. nasus* at the 14th Conference of the Parties. However, the proposal did not achieve the two-thirds majority vote required for an Appendix II listing and was defeated. The CITES meeting in March 2010 presents the opportunity to secure a CITES listing for porbeagle and to enact crucial trade regulations that will help to ensure the future sustainability of this highly vulnerable species. The Pew Environment Group recommends that Parties support this proposal and looks forward to providing assistance and collaboration in its implementation.

Including porbeagle sharks in CITES Appendix II is:

- Consistent with the CITES listing criteria (Res. Conf. 9.24 [Rev. CoP14], Annex 2a [A, B]), Annex 2b (A).
- Essential for ensuring that international trade is regulated sustainably.
- Likely to spark enhanced assessment and management of populations worldwide because countries will need to make non-detriment findings prior to issuing permits for international trade.
- Necessary for ending the serial population depletion driven by international trade.
- In line with the FAO International Plan of Action for sharks.

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Andy Murch/SeaPics.com

SPINY DOGFISH SHARK *(Squalus acanthias)*	
Appendix II listing	Proposed by Sweden on behalf of European Union Member States and Palau
IUCN Red List status	**Critically Endangered** in Northeast Atlantic **Endangered** in Northwest Atlantic **Vulnerable** globally

RECOMMENDATION: SUPPORT

- The Pew Environment Group applauds the submission of this proposal and urges CITES Parties to support it.
- Spiny dogfish are in the U.N. Food and Agriculture Organisation's lowest productivity category and are extremely vulnerable to over-exploitation because of their slowness to reach reproductive maturity, lengthy gestation and small litters.[1]
- A strong international demand for spiny dogfish meat and other products has fueled unsustainable harvest of this vulnerable species.
- Fisheries records and stock assessment information have revealed steep declines in reproductive biomass of spiny dogfish around the globe.
- A CITES Appendix II listing would greatly improve the future sustainability of wild populations by assisting in the regulation of international trade in spiny dogfish products.
- Although the European Union's recent decision to end all fishing for spiny dogfish in the Northeast Atlantic, where the species is critically endangered, will help the species recover, the regional action does not alleviate the need for the international protections that a CITES listing provides.

Biological vulnerability to over-exploitation

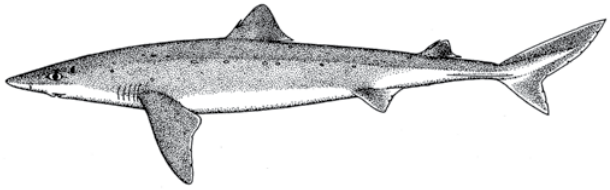
- Slow to reach maturity:
  Females:
  - 6 years, Northwest Atlantic
  - 15 years, Northeast Atlantic
  - 23 to 32 years, Northeast Pacific

  Males:
  - 10 years, Northwest Atlantic
  - 14 years, Northeast Pacific[2]
- Low reproductive capacity, with only one to 20 pups per litter.[3]
- Long lives; some stocks are thought to have individuals that live up to 100 years.[4]
- Very long gestation period of 18 to 22 months.[5]

Spiny dogfish fisheries and trade

The spiny dogfish is a high-value commercial species experiencing over-exploitation in target and bycatch fisheries. The fish are caught in bottom trawls, gillnets and line gear, and by rod and reel. Exploitation is fueled primarily by strong international demand for its meat, often sold as rock salmon, rock eel or flake. The European Union is a major importer of the meat, although fins and other spiny dogfish products are traded internationally as well.[6] This species is among the slowest growing, latest maturing and least productive of all sharks.[7]

These characteristics, in combination with a low intrinsic rate of population increase, make spiny dogfish highly susceptible to fisheries and slow to rebound from population depletion.



Spiny dogfish shark

Alessandro De Maddalena/SeaPics.com

Females have a tendency to form large aggregations, which are frequently exploited by commercial fisheries. Female spawning stock in the Northwest Atlantic declined 75 percent between 1988 and 2005.[8] Large females are highly valued in trade and frequently sought in fisheries, yet scientists report that larger females give birth to bigger litters of larger pups with higher survival rates.[9] Scientific studies have revealed that larger females carry an average of four times more embryos than smaller females.[10] Removing these females from the wild may have devastating effects on the recovery potential of exploited stocks.

Spiny dogfish declines are documented not just in the Northwest Atlantic, but also throughout most of its range. In the Northeast Atlantic, fisheries stock assessments estimate a 95 percent decline in biomass since 1905.[11] According to the Fisheries Agency of Japan, the current stock level in the Northeast Pacific is extremely low,[12] and landings have declined by more than 90 percent. In the Northwest Pacific, the landings have fallen 99 percent.[13] Stock assessments in the Black Sea revealed declines of more than 60 percent from 1981 to 1992.[14]

In 2007, Germany proposed a Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) Appendix II listing for *Squalus acanthias* at the 14th Conference of the Parties.

However, the proposal was defeated with 57 votes in favor, 36 against and 10 abstentions, short of the needed two-thirds majority.[15] In turn, no bilateral or international management measures are in place outside of catch limit agreements between Norway and the European Union. The March 2010 CITES meeting presents the opportunity to secure a listing for spiny dogfish and to enact crucial trade regulations that would help to ensure the future sustainability of this highly vulnerable species. The Pew Environment Group recommends that Parties support this proposal and looks forward to providing assistance and collaboration in its implementation.

Including spiny dogfish in CITES Appendix II is:

- Consistent with the CITES listing criteria (Res. Conf. 9.24 [Rev. CoP14], Annex 2a [A, B], Annex, 2b [A]).
- Necessary to ensure that international trade is regulated sustainably.
- Likely to spark enhanced assessment and management of populations worldwide as countries will need to make non-detriment findings before issuing permits for international trade.
- Important for reinforcing existing fisheries management.
- In line with the FAO International Plan of Action for sharks.

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UNRESOLVED QUESTIONS

The text of the CITES Convention provides for certain procedures to be followed when specimens are taken from international waters—what the Convention calls "introduction from the sea." However, the document was drafted before the U.N. Convention on the Law of the Sea[1] (UNCLOS) entered into force and leaves room for varying interpretations of how it should be applied.

Background

Since the ninth Conference of the Parties (CoP) in 1994, and at several subsequent meetings of the CITES Parties, the role of the Convention in regulating trade in marine species taken on the high seas has continued to be discussed. The effective implementation of CITES for species taken outside the jurisdiction of any state—Introduction from the Sea—is key to ensuring CITES' effectiveness as a tool in the conservation of commercially exploited and vulnerable marine species.[2] Introduction from the Sea impacts species in Appendices I (Article III.5) and II (Article IV.6).[3]

Introduction from the Sea is an important CITES provision for many marine species. The Parties discussed this issue extensively at CoP14 in 2007 and adopted a Resolution[4] and Decision[5] on it. The Decision directed the Standing Committee to continue its work to reach consensus on interpreting and implementing Introduction from the Sea for CITES-listed species. The Standing Committee's Introduction from the Sea Working Group convened September 14-16, 2009, in Geneva. The Secretariat has submitted CoP15 Document 27,[6] in consultation with the chair of the Standing Committee, based on discussions of the working group and consultations with the Parties.

Issues that the Parties have yet to clarify include the term "State of introduction" and the process for issuing certificates of introduction from the sea. Several species are already included in the CITES Appendices where this provision of the treaty is relevant, and Parties are issuing certificates. If the issue is not resolved at CoP15, Parties will continue to interpret these issues. Resolving the issue would ensure consistent interpretation on a global scale. Lack of agreement should not be used to preclude including species on the Appendices that might benefit from such listings and fully qualify for inclusion.

Article I(e) of the Convention defines "introduction from the sea" as "*transportation into a State of specimens of any species which were taken in the marine environment not under the jurisdiction of any State.*" The phrase "marine environment not under the jurisdiction of any State" was not initially defined, but it was agreed at the last CoP to mean "*those marine areas beyond the areas subject to the sovereignty or sovereign rights of a State consistent with international law, as reflected in the United Nations Convention on the Law of the Sea*"—i.e., the high seas. This definition was incorporated into CITES Resolution Conference 14.6.

Article III.5 of CITES sets out the procedure to be followed for specimens of Appendix I species that are to be introduced from the sea.[7] Article IV.6 sets out the procedure for specimens of Appendix II species.[8] The Convention does not define the term "State of introduction," so it can be interpreted to mean the *flag State* of the vessel that catches the specimen or the *port State* where it is first landed.

We draw the Parties' attention to the recent agreement at the U.N. Food and Agriculture Organisation (FAO) on a new treaty dealing with illegal, unreported and unregulated fishing and the role of port States—the Port State Measures Agreement (PSMA)—which is now open for signature.[9] The 91 countries that participated in the negotiations are virtually all CITES Parties, and all major fishing countries have been involved. It is therefore vital that the CITES Parties consider the PSMA provisions in their deliberations on the issue of Introduction from the Sea.

According to CoP15 Document 27, the working group meeting in September 2009 agreed that the term could be legally interpreted to mean either the port State of landing or the flag State of the vessel (or combinations of these), but the group could not reach consensus. We urge the Parties to find a solution that is consistent with international law and practice.

Recommendation of the Pew Environment Group

We believe that assignment of responsibility to the flag State is more consistent with international law for several reasons, including:

1. International law (e.g., UNCLOS, the U.N. Fish Stocks Agreement[10]) assigns primary responsibility for compliance to the **flag State** rather than the port State.
2. The new FAO PSMA recognizes the primacy of the **flag State**.
3. There are also ports of convenience that are willing to accept landings without checking for conformity with fisheries law (the working group raised concerns about flags of convenience).
4. If the port State is the State of introduction, it would have difficulty dealing with specimens that had been transferred at sea from the catch vessel to that of a different flag State (a "reefer") before coming to shore.
5. If the flag State fails to exercise its duties responsibly, the port State still has the right to refuse to accept the landing—this happens already and is provided for in the PSMA.
6. In other implementation matters, CITES effectively deals with jurisdictions that are not internationally recognized, and this approach could be adopted for fishing entities (the working group raised concerns about the ability to deal with non-recognized jurisdictions);
7. Many fishing jurisdictions, such as the European Union, give **flag States** the primary responsibility for compliance with domestic and international fisheries law.

Both the flag State and port State have obligations under the CITES treaty as well as relevant international law, including regional fisheries management organisation rules and measures. It is vital that port States and flag States cooperate closely in exercising these obligations, and that they both support and comply with the provisions of the CITES treaty and other applicable international law. Flag States should not land specimens of CITES-listed species that are not acquired in accordance with all relevant CITES requirements (and in conformity with other applicable international law), and port States should refuse such landings unless they can be satisfied that they were acquired in accordance with CITES and in conformity with other applicable international law.

We encourage the Parties to reach agreement on all of these issues at CoP15, but should this not be the case, the draft decision to extend the work to CoP16 should be adopted. We stress that whether or not this issue is resolved at CoP15 should have no bearing on decisions to include species in the Appendices, pursuant to Article XI of the Convention.[11]

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