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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

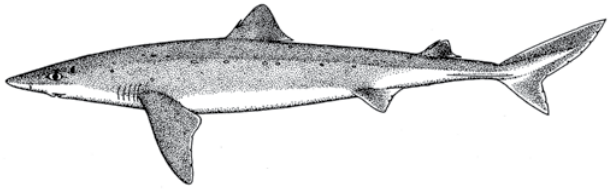
- Slow to reach maturity:
  Females:
  - 6 years, Northwest Atlantic
  - 15 years, Northeast Atlantic
  - 23 to 32 years, Northeast Pacific

  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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8 Northeast Fisheries Science Center (NEFSC), "43rd Northeast Regional Stock Assessment Workshop," Stock Assessment Review Committee consensus summary of assessments, *Northeast Fisheries Science Center Reference Document* 06-25. National Marine Fisheries Service, NOAA, USA (2006), www.asmfc.org/speciesDocuments/dogfish/annualreports/stockassmtreports/43rdSAWWorkshopReport.pdf.
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10 S. E. Campana *et al.*, "Stock structure, life history, fishery and abundance indices for spiny dogfish (*Squalus acanthias*) in Atlantic Canada," *Canadian Science Advisory Secretariat, Research Document 2007/089. Canadian Department of Fisheries and Oceans*, <www.marinebiodiversity.ca/shark/english/document/dogfish%20res%20doc%20RES2007_089_e.pdf>.
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13 *Ibid.* See also Fisheries Agency of Japan, "Spiny Dogfish *Squalus acanthias* Around Japan." In: The current status of international fishery stocks (Summarised Edition, 2004). And T. Taniuchi, "The role of elasmobranch research in Japanese fisheries," *NOAA Technical Report NMFS* 90:415-26 (1990). Fishery Agency of Japan. In Japanese.
14 K. Prodanov *et al.*, "Environmental Management of Fish Resources in the Black Sea and Their Rational Exploitation," Studies and Reviews, General Fisheries Council for the Mediterranean, 68: FAO, Rome (1997), <http://catalogue.nla.gov.au/Record/873846>.
15 CITES, "Summary record of the eighth session of Committee I," CoP14 Com. I Rep. 8 (Rev. 1), <www.cites.org/eng/cop/14/rep/E14-Com-I-Rep-08.pdf>.

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