

Great White Shark

Carcharodon carcharias

CoP13 Prop. 32 (Australia, Madagascar) List the great white shark (*Carcharodon carcharias*) in Appendix II (currently in Appendix III)

SSN VIEW: SUPPORT ADOPTION OF PROPOSAL

- The great white shark is listed as Vulnerable by the IUCN and is protected on Appendix I and II of the Convention on Migratory Species (CMS).
- This species meets the criteria for Appendix II because it is internationally traded, many wild populations are declining and international trade is having a detrimental impact on wild populations.
- There is evidence of high demand and an unregulated, unreported trade. International demand exists for jaws, fins, cartilage, meat, liver oil, leather and neonates. Teeth and jaws have been recorded in trade in India, Maldives, South Pacific, Thailand, East and Southern Africa, Europe, North America and South America, with jaws valued at up to US\$ 50,000.
- Populations are naturally small and many are declining as evidenced by fisheries studies, beach meshing programs, game fish captures and catch-per-unit-effort information from commercial captures. If trade continues unchecked, further declines will occur given the high value of jaws and the increasing demand for shark fin.
- An Appendix II listing will support efforts by range states to conserve this keystone species.

GENERAL BIOLOGY

Life history characteristics of the great white shark render it extremely vulnerable to over-exploitation. The great white shark is an apex predator with naturally small population levels, late maturity, low fecundity, low natural mortality; these characteristics mean that this species has a particularly low intrinsic rate of population increase. Female great white sharks do not reach sexual maturity until they reach 4.5 - 5.0 meters in length, at the age of about 15 years. Mature females produce a litter of two to nine pups on a less than annual basis, following a 12-month gestation period. On average, great whites only have four to six litters in a lifetime. There is believed to be high mortality rate of pups within the first year. These biological traits, coupled with small population levels, make it difficult for great white shark populations to recover from sharp declines resulting from trade-driven over-fishing. Also as an apex predator with a role of keeping prey species in check, the removal of great whites significantly disrupts the natural balance of the marine ecosystem.

POPULATION DECLINES

Current rates of exploitation are highly unsustainable. Where detailed population data are available, they indicate dramatic declines in great white shark abundance. There is evidence that the species has suffered a global population decline of at least 20% over the last three generations. Data from the Adriatic, South Africa and Australia indicates great white shark population declines of at least 50% over the last 20-30 years in those regions. One group of researchers documented even more serious declines in the North Atlantic, although the total extent of that decline remains under discussion. No datasets have been identified showing recovery for any population, even after several years of protection.

INTERNATIONAL TRADE

Jaws and teeth are the most valuable great white shark products in trade. These trophies and curios are available through internet trading sites for up to US\$ 425 for a tooth and up to US\$ 50,000 for a set of large jaws. Bidding started at US\$ 10,000 for the jaws of a pregnant female killed in a New Zealand fishery in November 2003. There is evidence of a high demand, including 77,000 hits on a Yahoo internet search for 'sell white shark teeth'.

Trade in shark fin generally is on the increase. FAO records show that the international fin trade increased from 32,000 kg in 1980 to 335,000 kg in 1990. These figures are probably under-estimated as the trade is poorly regulated and much of the trade goes unreported. The value of fins continues to rise. Great white shark fins are considered highly desirable in Hong Kong, a major importer, exporter and re-exporter of shark fin.

The liver of the great white shark is used to make oil used in medicines. Its carcasses are used for fish-meal and fertilizer, its skin for leather and its meat for human consumption. In South Korea, great white shark meat commands the highest prices of any shark species, fetching wholesale prices of up to US\$ 7.60 per kg.

IMPLEMENTATION

Great white shark jaws, teeth and fins are distinctive and will not create look-alike problems. A forensic DNA test is able to detect the presence of great white shark genetic material from among that of up to ten different commercially fished shark species. The diagnostic test is quick, inexpensive and accurate - producing reliable results within 24 hours for less than US\$ 100 per batch. Australia plans to implement DNA testing at its import and export points by the end of 2004 and will make an Operational Manual available to other countries.

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AN APPENDIX II LISTING WILL COMPLEMENT FAO ACTION

The FAO International Plan of Action (IPOA) for the Conservation and Management of Sharks recognizes that commercial pressure on shark species has dramatically expanded in recent decades. The IPOA notes the need to pay special attention to vulnerable or threatened species, and to facilitate identification and reporting of species-specific trade data. The FAO lacks the capacity or the mandate to regulate international trade. CITES is the appropriate mechanism to regulate international trade and the only means to achieve this effectively.