



Shortfin Mako (*Isurus osyrinchus*)

Globally, the shortfin mako (*Isurus osyrinchus*) is assessed as Vulnerable by the IUCN Red List of Threatened Species. **The International Commission for the Conservation of Atlantic Tunas (ICCAT) ecological risk assessment of pelagic sharks caught in Atlantic longline fisheries, found shortfin makos, along with bigeye threshers, to be the most vulnerable to overexploitation.**¹ Historically, targeted commercial fisheries for shortfin makos took place in the eastern Atlantic, Mediterranean Sea, Gulf of Mexico, Caribbean, western and central Pacific, and off of Cuba and southern California.²

Between 1986 and 2000, catch analysis of US pelagic longline fishery logbooks report that mako sharks may have declined by 40 percent in the Northwest Atlantic.³ Since 1998, there have been few records of mako sharks in the central and eastern Mediterranean, an area where the species was previously considered common.⁴



Photo: Andy Murch

Of the pelagic sharks caught by Spanish longline fleets (targeting sharks and swordfish) in the Atlantic and Pacific Oceans between 2000 and 2004, 10 percent were shortfin makos.⁵

MAJOR THREATS

Shortfin makos are regularly taken as bycatch in tuna and swordfish longline fisheries worldwide. As one of the only known predators of swordfish, they are particularly vulnerable to capture in the targeted swordfish fisheries in the Atlantic and Pacific.⁶ In addition, gillnet (drift and set) and hook-and-line fisheries throughout their range pose direct threats to this species.⁷

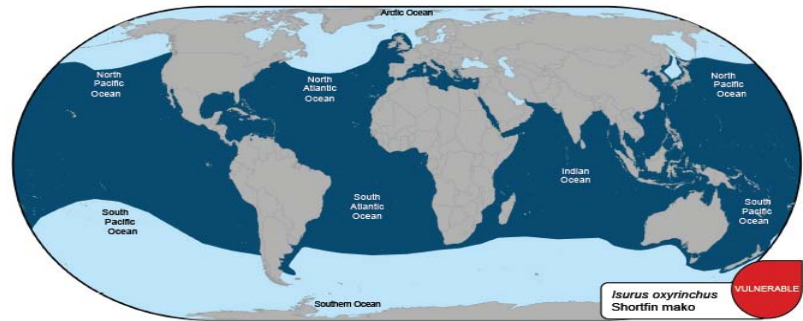
IUCN Red List status:	Vulnerable
Population Trend:	Decreasing
Age of maturity:	9 years (males), 21 years (females) ^{8,9}
Gestation period:	15-18 months ¹⁰
Litter Size:	4-25 pups ¹¹
Life span:	29-32 years ^{12,13}

Despite the increasing importance of shortfin makos to pelagic fisheries worldwide, catches have been poorly reported, and catch data are incomplete. In addition, the extent to which finning of shortfin makos occurs in high seas fisheries remains unclear.¹⁴

Shortfin makos are highly valued for their meat (commonly prepared for human consumption), skin, and fins, and their jaws and teeth are often sold and traded as ornaments.¹⁵ In addition, shortfin makos are prized by big-game sport fishers for their curiosity, speed, and their habit of leaping out of the water when hooked or in pursuit of prey. Recreational angling for mako sharks is particularly popular in New Zealand and South Africa, and recreational mako fishing has been reported in the Mediterranean.

GEOGRAPHIC DISTRIBUTION

The shortfin mako is a coastal and open ocean species. It is widespread in temperate and tropical waters of all the world's oceans. These sharks can also be found inshore where the continental shelf narrows, for example off the coasts of Southern Africa.¹⁶



Map: IUCN

Shortfin makos have also been sighted between 20-50° S between Australia and Chile, and to almost 60° southeast of New Zealand.

Shortfin makos are highly migratory sharks. For example, one study found that 36 percent of recaptured sharks were found further than 420 kilometers (260.97 miles) from their tagging sites.¹⁷

The primary source is the IUCN Red List Assessment

G.M. Cailliet *et al.*, "Isurus oxyrinchus," 2004, In IUCN 2010. IUCN Red List of Threatened Species. Version 2010.4. <www.iucnredlist.org>

¹ E.F. Cortés *et al.*, "Ecological risk assessment of pelagic sharks caught in Atlantic pelagic longline fisheries," Standing Committee on Research and Statistics, ICCAT, 2008. <http://www.iccat.int/Documents/Meetings/Docs/SCRS/SCRS-08-138_Cortes_et_al.pdf>

² L.J.V. Compagno, "Sharks of the world. An annotated and illustrated catalogue of shark species known to date. Volume 2. Bullhead, Mackerel and Carpet Sharks (Heterodontiformes, Lamniformes and Orectolobiformes)," FAO, Rome, 2001.

³ J.K. Baum *et al.*, "Collapse and conservation of shark populations in the Northwest Atlantic," *Science*, 299, 2003, p. 389-392.

⁴ G.M. Cailliet *et al.*, 2004.

⁵ J. Mejuto *et al.*, "Scientific estimations of by-catch landed by the Spanish surface longline fleet targeting swordfish (*Xiphias gladius*) in the Atlantic Ocean: 2000 -2004 period. Collective Volume of Scientific Papers of the International Commission for the Conservation of Atlantic Tunas (ICCAT)," 59, 2006, p. 1014-1024.

⁶ L.J.V. Compagno, 2001.

⁷ D.B. Holts, "Review of U.S. west coast commercial shark fisheries," *Marine Fisheries Review*, 50, 1988, p. 1-8.

⁸ S. Bishop *et al.*, "Age, growth, maturity, longevity and natural mortality of the shortfin mako shark (*Isurus oxyrinchus*) in New Zealand waters," *Marine and Freshwater Research*, 57, 2006, p. 143 – 154.

⁹ L.J. Natanson *et al.*, "Validated age and growth estimates for the shortfin mako, *Isurus oxyrinchus*, in the North Atlantic Ocean," *Environmental Biology of Fishes*, 77, 2006, p. 367-383.

¹⁰ H.F. Mollet, J.M. Ezcurra, and J.B. O'Sullivan, "Captive biology of the pelagic stingray, *Dasyatis violacea* (Bonaparte, 1832)," *Marine Freshwater Research*, 53, 2002, p. 531–541.

¹¹ *Ibid.*

¹² S. Bishop *et al.*, "Age, growth, maturity, longevity and natural mortality of the shortfin mako shark (*Isurus oxyrinchus*) in New Zealand waters," *Marine and Freshwater Research*, 57, 2006, p. 143 – 154.

¹³ L.J. Natanson *et al.*, 2006.

¹⁴ G.M. Cailliet *et al.*, 2004.

¹⁵ C. Frimodt, *Multilingual illustrated guide to the world's commercial coldwater fish*. Fishing News Books, Osney Mead, Oxford, England, 1995, p. 215.

¹⁶ V.B. Taylor and D.B. Holts. "Shortfin Mako Shark," In *California's Living Marine Resources: A Status Report*, edited by W.S. Let, C.M. Dewees, R. Klingbeil and E.J. Larson, The Resources Agency, California Department of Fish and Game, 2001, p. 336-337.

¹⁷ J.G. Casey and N.E. Kohler. "Tagging studies on the shortfin mako shark (*Isurus oxyrinchus*) in the western North Atlantic," In *Sharks: Biology and Fisheries*. J.G. Pepperell, ed. *Australian Journal of Marine and Freshwater Research*, 43, 1992, p. 45-60.