

Shortfin Mako (Indo-West Pacific subpopulation), *Isurus oxyrinchus*

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| Report Card assessment | Depleting | | |
| IUCN Red List Australian Assessment | Refer to Indo-West Pacific subpopulation Assessment - Vulnerable | IUCN Red List Global Assessment | Vulnerable |
| Assessors | Cailliet, G.M., Cavanagh, R.D., Kulka, D.W., Stevens, J.D., Soldo, A., Clo, S., Macias, D., Baum, J., Kohin, S., Duarte, A., Holtzhausen, J.A., Acuña, E., Amorim, A. & Domingo, A. | | |
| Report Card Remarks | Low and managed catches in Australia, but likely has connectivity with the remainder of the fished and unmanaged Indo-West Pacific population | | |

Summary

The Shortfin Mako is a large bodied, highly mobile, pelagic shark that is widespread throughout tropical and temperate waters of all oceans. The species comprises three known subpopulations: Atlantic, Eastern North Pacific and Indo-West Pacific. The Shortfin Mako is a targeted species, a bycatch in tuna longline fisheries, and is an important coastal recreational species. The Atlantic subpopulation appears to have undergone a significant decline, catches declined rapidly in the Mediterranean from where it then disappeared, and conversely it appears to have been relatively stable in the Eastern North Pacific. In many regions there is inadequate management resulting in continuing fishing pressure. It has high value meat and fins, is long lived with late age at maturity for females that only breed every three years. Therefore, it is assessed as globally Vulnerable (IUCN). It is listed on Appendix II of the Convention on Conservation of Migratory Species (CMS).



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The Indo-West Pacific subpopulation, which includes Australia, is captured by tuna and shark longline fisheries throughout much of its range. In the Indian Ocean it is considered fully to over-exploited. In the Western Pacific its status is uncertain. Catches in Australia are low, and there are regulations in Australian managed pelagic longline fisheries that limit its retention. Although species-specific data are not currently available from the Indo-West Pacific, given the declines observed where it is heavily fished in the Atlantic, declines in the Indo-West Pacific are likely based on continuing high levels of exploitation. Therefore, the Indo-West Pacific subpopulation is assessed as Vulnerable (IUCN) and in Australia, Transitional Depleting (SAFS) given the likely connectivity with the Indo-West Pacific population.

Distribution

The Shortfin Mako is a cosmopolitan species. The Indo-West Pacific subpopulation occurs from the western Indian Ocean across to the eastern Pacific Ocean. It is found throughout Australian waters, with the exception of the Arafura Sea, Torres Strait and Gulf of Carpentaria (Last and Stevens 2009).

Stock structure and status

The Shortfin Mako comprises three known subpopulations: Atlantic, Eastern North Pacific and Indo-West Pacific. In the Atlantic, catches of the species appear to have declined by 40-50% over 14 years (Cailliet et al. 2009). In the Mediterranean, the catches rapidly declined from 1950-1970 and the Shortfin Mako eventually disappeared (Cailliet et al. 2009). In the Eastern North Pacific, the population appeared relatively stable from 1994-2003 (Cailliet et al. 2009). There is currently little information on population size, structure, or trend for the Indo-West Pacific subpopulation of Shortfin Mako. Although species-specific catch data are not currently available from the Indo-West Pacific region, given the observed declines in Shortfin Mako populations where it is fished in the Atlantic, declines in the Indo-West Pacific region are inferred based on continuing high levels of exploitation.

Fisheries

The primary threat to the Shortfin Mako (Indo-West Pacific subpopulation) is fishing. It has high quality meat which is marketed fresh, frozen, smoked and dried-salted for human consumption along with the fins (Compagno 2001). It is considered to account for 10% of all North Atlantic shark catches and 5-7% of the swordfish longline catches (Ebert et al. 2013). Throughout much of its range in the Indo-West Pacific region, the species is targeted by shark longline fisheries, hook and line and gillnet fisheries and is a bycatch of pelagic tuna longline fisheries. It is also targeted by recreational fisheries in New Zealand, South Africa and Australia. The fishing pressure has been high for over 50 years (Anderson and Simpfendorfer 2005, ICCAT 2005, White et al. 2006). Finning and discarding has also been reported to be occurring in offshore and high seas fisheries (Anderson and Simpfendorfer 2005). A review of fisheries management in the Indian Ocean suggested that the Shortfin Mako is fully or over exploited (De Young 2006).

Habitat and biology

The Shortfin Mako is found in pelagic and continental shelf waters, occurring from the surface to depths of at least 500 m (Compagno 2002). The species have been reported to make extensive movements of thousands of kilometres (Cailliet et al. 2009). Maximum size is approximately 400 cm total length (TL) (Compagno 2001). Maximum age is estimated at 29-32 years. Males mature at 7-9 years and 195-204 cm TL and females at 18-21 years and 265-307 cm TL (Cliff et al. 1990, Francis and Duffy 2005, Bishop et al. 2006, Natanson et al. 2006). Litter size is 4-25 pups and females breed every three years (Mollet et al. 2000).

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| Longevity and maximum size | Longevity: estimated 29-32 years Max size: ~400 cm TL |
| Age and/or size at maturity (50%) | Males: 7-9 years, 195-204 cm TL Females: 18-21 years, 265-307 cm TL |

Link to IUCN Page: <http://www.iucnredlist.org/details/39341/0>

Link to page at Shark References: <http://shark-references.com/species/view/Isurus-oxyrinchus>

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