

EXECUTIVE SUMMARY: OCEANIC WHITETIP SHARK



Indian Ocean Tuna Commission
Commission des Thons de l’Océan Indien



Status of the Indian Ocean oceanic whitetip shark (OCS: *Carcharhinus longimanus*)

CITES APPENDIX II species

TABLE 1. Oceanic whitetip shark: Status of oceanic whitetip shark (*Carcharhinus longimanus*) in the Indian Ocean.

Area ¹	Indicators	2016 stock status determination
Indian Ocean	Reported catch 2015 ² : Not elsewhere included (nei) sharks ³ 2015: Average reported catch 2011–2015: Av. not elsewhere included 2011-2015 (nei) sharks ³ :	211 t 57,125t 248 t 49,785 t
	MSY (1,000 t) (80% CI): F _{MSY} (80% CI): SB _{MSY} (1,000 t) (80% CI): F ₂₀₁₄ /F _{MSY} (80% CI): SB ₂₀₁₄ /SB _{MSY} (80% CI): SB ₂₀₁₄ /SB ₀ (80% CI):	unknown

¹Boundaries for the Indian Ocean = IOTC area of competence

²Proportion of catch estimated or partially estimated by IOTC Secretariat for 2015: 0%

³Includes all other shark catches reported to the IOTC Secretariat, which may contain this species (i.e., SHK: sharks various nei; RSK: requiem sharks nei).

Colour key	Stock overfished(SB _{year} /SB _{MSY} < 1)	Stock not overfished (SB _{year} /SB _{MSY} ≥ 1)
Stock subject to overfishing(F _{year} /F _{MSY} > 1)		
Stock not subject to overfishing (F _{year} /F _{MSY} ≤ 1)		
Not assessed/Uncertain		

NOTE: IOTC Resolution 13/06 on a scientific and management framework on the conservation of shark species caught in association with IOTC managed fisheries, prohibits retention onboard, transshipping, landing or storing any part or whole carcass of oceanic whitetip sharks.

TABLE 2. Oceanic whitetip shark: IUCN threat status of oceanic whitetip shark (*Carcharhinus longimanus*) in the Indian Ocean.

Common name	Scientific name	IUCN threat status ³		
		Global status	WIO	EIO
Oceanic whitetip shark	<i>Carcharhinus longimanus</i>	Vulnerable	–	–

IUCN = International Union for Conservation of Nature; WIO = Western Indian Ocean; EIO = Eastern Indian Ocean

Sources: IUCN 2007, Baum et al. 2006

CITES - In March 2013, CITES agreed to include oceanic whitetip shark to Appendix II to provide further protections prohibiting the international trade; which will become effective on September 14, 2014.

³The process of the threat assessment from IUCN is independent from the IOTC and is presented for information purpose only

INDIAN OCEAN STOCK – MANAGEMENT ADVICE

Stock status. There remains considerable uncertainty about the relationship between abundance, standardised CPUE series and total catches over the past decade (Table 1). The ecological risk assessment (ERA) conducted for the Indian Ocean by the WPEB and SC in 2012 (IOTC–2012–SC15–INF10 Rev_1) consisted of a semi-quantitative risk assessment analysis to evaluate the resilience of shark species to the impact of a given fishery, by combining the

biological productivity of the species and its susceptibility to each fishing gear type. Oceanic whitetip shark received a high vulnerability ranking (No. 5) in the ERA rank for longline gear because it was estimated as one of the least productive shark species, and was also characterised by a high susceptibility to longline gear. Oceanic whitetip shark was estimated as being the most vulnerable shark species to purse seine gear, as it was characterised as having a relatively low productive rate, and high susceptibility. The current IUCN threat status of 'Vulnerable' applies to oceanic whitetip sharks globally (Table 2). There is a paucity of information available on this species in the Indian Ocean and this situation is not expected to improve in the short to medium term. Oceanic whitetip sharks are commonly taken by a range of fisheries in the Indian Ocean. Because of their life history characteristics – they are relatively long lived, mature at 4–5 years, and have relatively few offspring (<20 pups every two years), the oceanic whitetip shark is likely vulnerable to overfishing. Despite the limited amount of data, recent studies (Tolotti et al., 2016) suggest that oceanic whitetip shark abundance has declined in recent years (2000-2015) compared to historic years (1986-1999). Available pelagic longline standardised CPUE indices from Japan and EU, Spain indicate conflicting trends as discussed in the full Executive Summary for oceanic whitetip sharks. There is no quantitative stock assessment and limited basic fishery indicators currently available for oceanic whitetip sharks in the Indian Ocean therefore the stock status is **uncertain** (Table 1).

Outlook. Maintaining or increasing effort with associated fishing mortality can result in declines in biomass, productivity and CPUE. The impact of piracy in the western Indian Ocean has resulted in the displacement and subsequent concentration of a substantial portion of longline fishing effort into certain areas in the southern and eastern Indian Ocean. It is therefore unlikely that catch and effort on oceanic whitetip sharks will decline in these areas in the near future, and may result in localised depletion.

Management advice. A precautionary approach to the management of oceanic whitetip shark should be considered by the Commission, noting that recent studies suggest that longline mortality at haulback is high (50%) in the Indian Ocean (IOTC-2016-WPEB12-26), while mortality rates for interactions with other gear types such as purse seines and gillnets may be higher. Mechanisms need to be developed by the Commission to encourage CPCs to comply with their recording and reporting requirement on sharks, so as to better inform scientific advice.

The following key points should be noted:

- **Maximum Sustainable Yield (MSY):** Not applicable. Retention prohibited.
- **Reference points:** Not applicable.
- **Main fishing gear** (2011–15): Gillnet; gillnet-longline.
- **Main fleets** (2011–15): I.R. Iran; Sri Lanka; Madagascar; China.