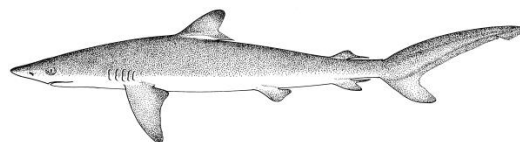


## DRAFT EXECUTIVE SUMMARY: SILKY SHARK



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

Status of the Indian Ocean silky shark (FAL: *Carcharhinus falciformis*)TABLE 1. Silky shark: Status of silky shark (*Carcharhinus falciformis*) in the Indian Ocean.

Area <sup>1</sup>	Indicators	2016 stock status determination
Indian Ocean	Reported catch 2015: Not elsewhere included (nei) sharks <sup>2</sup> 2015: Average reported catch 2011–15: Av. not elsewhere included (nei) sharks <sup>2</sup> 2011–15:	3,232 t 57,125t 3,707 t 49,785 t
	MSY (1,000 t) (80% CI): F <sub>MSY</sub> (80% CI): SB <sub>MSY</sub> (1,000 t) (80% CI): F <sub>2014</sub> /F <sub>MSY</sub> (80% CI): SB <sub>2014</sub> /SB <sub>MSY</sub> (80% CI): SB <sub>2014</sub> /SB <sub>0</sub> (80% CI):	unknown

<sup>1</sup>Boundaries for the Indian Ocean = IOTC area of competence

<sup>2</sup>Includes 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 <sub>year</sub> /SB <sub>MSY</sub> < 1)	Stock not overfished (SB <sub>year</sub> /SB <sub>MSY</sub> ≥ 1)
Stock subject to overfishing (F <sub>year</sub> /F <sub>MSY</sub> > 1)		
Stock not subject to overfishing (F <sub>year</sub> /F <sub>MSY</sub> ≤ 1)		
Not assessed/Uncertain		

TABLE 2. Silky shark: IUCN threat status of silky shark (*Carcharhinus falciformis*) in the Indian Ocean.

Common name	Scientific name	IUCN threat status <sup>3</sup>		
		Global status	WIO	EIO
Silky shark	<i>Carcharhinus falciformis</i>	Near Threatened	Near Threatened	Near Threatened

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

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

Sources: IUCN 2007, 2012

## INDIAN OCEAN STOCK – MANAGEMENT ADVICE

**Stock status.** There remains considerable uncertainty about the relationship between abundance and the nominal CPUE series from the main longline fleets, and about the 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. Silky shark received a high vulnerability ranking (No. 4) in the ERA rank for longline gear because it was estimated as one of the least productive shark species, and with a high susceptibility to longline gear. Silky shark was estimated as the second most vulnerable shark species in the ERA ranking for purse seine gear, due to its low productivity and high susceptibility for purse seine gear. The current IUCN threat status of 'Near Threatened' applies to silky sharks in the western and eastern Indian Ocean and globally (Table 2). There is a paucity of information available on this species but several recent studies have been carried out for this species in the recent years. Silky sharks are commonly taken by a range of fisheries in the Indian Ocean. Because of their life history characteristics – they are relatively long lived (over 20 years), mature relatively late (at 6–12 years), and have relatively few offspring (<20 pups every two years), the silky shark can be vulnerable to overfishing. Despite the lack of data, there is some anecdotal information suggesting that silky shark abundance has declined over recent decades, including from Indian

longline research surveys, which is described in the full Executive Summary for silky shark sharks. There is no quantitative stock assessment or basic fishery indicators currently available for silky shark in the Indian Ocean therefore the stock status is **uncertain**.

**Outlook.** Maintaining or increasing effort can probably 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 silky shark will decline in these areas in the near future, and may result in localised depletion.

**Management advice.** A precautionary approach to the management of silky shark should be considered by the Commission. 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 also be noted:

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