DRAFT EXECUTIVE SUMMARY: BIGEYE THRESHER SHARK

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

Status of the Indian Ocean bigeye thresher shark (BTH: *Alopias superciliosus*)

TABLE 1.Bigeye thresher shark: Status bigeye thresher shark(*Alopias superciliosus*) in the Indian Ocean.

Area[1]	Indicators		2016 stock status determination
Indian Ocean	Reported catch 2015:	0 t	
	Not elsewhere included (nei) sharks[2] 2015:	57,125t	
	Average reported catch 2011–15:	94 t	
	Av. not elsewhere included (nei) sharks[2] 2011–15:	49,785 t	
	MSY (1,000 t) (80% CI):	unknown	
	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):		

[1]Boundaries for the Indian Ocean = IOTC area of competence
[2]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).

TABLE 2. Bigeye thresher shark: IUCN threat status of bigeye thresher shark (*Alopias superciliosus*) in the Indian Ocean.

Common name	Scientific name	IUCN threat status[3]		
		Global status	WIO	EIO
Bigeye thresher shark	*Alopias superciliosus*	Vulnerable	–	–

IUCN = International Union for Conservation of Nature; WIO = Western Indian Ocean; EIO = Eastern Indian Ocean
[3]The process of the threat assessment from IUCN is independent from the IOTC and is presented for information purpose only
Sources: IUCN 2007, Amorim et al. 2009

NOTE: IOTC Resolution 12/09 *On the conservation of thresher sharks (family Alopiidae) caught in association with fisheries in the IOTC area of competence*, prohibits retention onboard, transhipping, landing, storing, selling or offering for sale any part or whole carcass of thresher sharks of all the species of the family Alopiidae[1].

INDIAN OCEAN STOCK – MANAGEMENT ADVICE

Stock status. There remains considerable uncertainty in the stock status due to lack of information necessary for assessment or for the development of other indicators of the stock (Table 1). The ecological risk assessment (ERA) conducted for the Indian Ocean by the WPEB and SC in 2012 (Murua et al., 2012) 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. Bigeye thresher shark received a high vulnerability ranking (No. 2) in the ERA rank for longline gear because it was characterised as one of the least productive shark species, and highly susceptible to longline gear. Despite its low productivity, bigeye thresher shark has a low vulnerability ranking to purse seine gear due to its low susceptibility for this particular gear. The current IUCN threat status of 'Vulnerable' applies to bigeye thresher shark globally (Table 2). There is a paucity of information available on this species and this situation is not expected to improve in the short to medium term. Bigeye thresher sharks are commonly taken by a range of fisheries in the Indian Ocean. Because of their life history characteristics – they are relatively long lived (+20 years), mature at 9–3 years, and have few offspring (2–4 pups every year), the bigeye thresher shark is vulnerable to overfishing. There is no quantitative stock assessment and

[1]Scientific observers shall be allowed to collect biological samples from thresher sharks that are dead at haulback, provided that the samples are part of the research project approved by the Scientific Committee (or the Working Party on Ecosystemsand Bycatch).

limited basic fishery indicators currently available for bigeye thresher shark in the Indian Ocean therefore the stock status is **uncertain**.

Outlook. Current longline fishing effort is directed to other species, however bigeye thresher sharks is a common bycatch in these fisheries. Hooking mortality is apparently very high, therefore IOTC regulation 10/12 prohibiting retaining of any part of thresher sharks onboard and promoting life release of thresher shark may be largely ineffective for species conservation. Maintaining or increasing effort, with associated fishing mortality, can result in declines in biomass, productivity and CPUE. However there are few data to estimate CPUE trends, in view of IOTC Resolution 12/09 and reluctance of fishing fleet to report information on discards/non-retained catch. 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 other areas in the southern and eastern Indian Ocean. It is therefore unlikely that catch and effort on bigeye thresher shark will decline in these areas in the near future, which may result in localised depletion.

Management advice. The prohibition on retention of bigeye thresher shark should be maintain. Mechanisms need to be developed by the Commission to encourage CPCs to comply with their reporting requirement on sharks, so as to better inform scientific advice.

The following key points should also be noted:

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