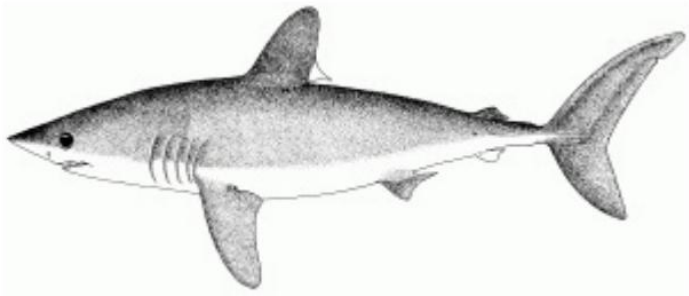
APPENDIX XIV
EXECUTIVE SUMMARY: PORBEAGLE SHARK (2025)



CITES APPENDIX II species

Table 1. Status of porbeagle shark (*Lamna nasus*) in the Indian Ocean

Area	Indicators		2024 stock status determination
Indian Ocean	Catch (2024) (t) Catch of NEI sharks (2024) (t) Mean annual catch (2020-2024) (t) Mean annual catch of NEI sharks (2020-2024) (t)	<1 15,559t [2] <1t 24,593t [2]	Unknown
	MSY (1,000 t) (80% CI)[2] F_{MSY} (80% CI) [2] SB_{MSY} (1,000 t) (80% CI) [2,3] F_{2019}/F_{MSY} (80% CI) [2] SB_{2019}/SB_{MSY} (80% CI) [2,3] SB_{2019}/SB_0 (80% CI) [2,3]		

[1]Stock boundaries defined as the IOTC area of competence; [2]Proportion of catch fully or partially estimated for 2024: 0%; [3]NEI includes all other shark catches reported to the IOTC Secretariat, which may contain this species, i.e., MSK: Mackerel sharks,porbeagles nei; SKH: Various sharks nei; THR: Thresher sharks nei

Colour key	Stock overfished (SB_{2019}/SB_{MSY}< 1)	Stock not overfished (SB_{2019}/SB_{MSY}≥ 1)
Stock subject to overfishing(F/F_{MSY}> 1)		
Stock not subject to overfishing (F/F_{MSY}≤ 1)		
Not assessed/Uncertain		

Table 2. Porbeagle shark: IUCN threat status of porbeagle shark (*Lamna nasus*) in the Indian Ocean.

Common name	Scientific name	IUCN threat status[4]
		Global status
Porbeagle shark	*Lamna nasus*	Vulnerable

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

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

Sources: Rigby et al., 2019

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Stock status. No stock assessment was carried out for porbeagle sharks in 2024. 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. The ecological risk assessment (ERA) conducted for the Indian Ocean by the WPEB and SC in 2018 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 (Murua *et al.* 2018). Porbeagle shark received a high vulnerability ranking (No. 3) 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, porbeagle shark has a low vulnerability ranking to purse seine gear due to its low susceptibility to this particular gear. The current IUCN threat status of 'Vulnerable' applies to porbeagle shark globally. There is a paucity of information available on this species and this situation is not expected to improve in the short to medium term. Porbeagle sharks are commonly taken by a range of fisheries in the Indian Ocean. Because of their life history characteristics – they are relatively long lived (+30 years), mature at around 15 years, and have few offspring (around 4 pups every one or two years), the porbeagle shark is vulnerable to overfishing. There has been no quantitative stock assessment and limited basic fishery indicators are available for porbeagle shark in the Indian Ocean. Therefore, the stock status is **unknown**.

Outlook. Current longline fishing effort is directed at other species, however, porbeagle sharks are taken as bycatch in these fisheries but it may be released by some fleets. Maintaining or increasing effort can result in declines in biomass, productivity and CPUE. However, there are few data to estimate CPUE trends and a reluctance of fishing fleets to report information on discards/non-retained catch. Preliminary analysis of IOTC catch and effort data from the Japanese and Korean fleets found catchability to have declined from 2009 through 2018 (IOTC-2023-WPEB19-20). The Japanese fleet releases porbeagle sharks caught by longline vessels which may be a reason for the decline in catches of this species.

Management advice.

While mechanisms exist for encouraging CPCs to comply with their recording and reporting requirements (Resolution 18/07), these need to be further implemented by the Commission so as to better inform scientific advice. This is considered to be a vulnerable species

The following key points should also be noted:

- **Maximum Sustainable Yield (MSY)**: Unknown
- **Reference points**: The Commission has not adopted reference points or harvest control rules for any shark species.
- **Main fishing gear**: Catches not reported since 2019, previous reports from Longline (deep-freezing) and coastal longline. (Fig 1)
- **Main fleets** : Seychelles and Taiwan, China

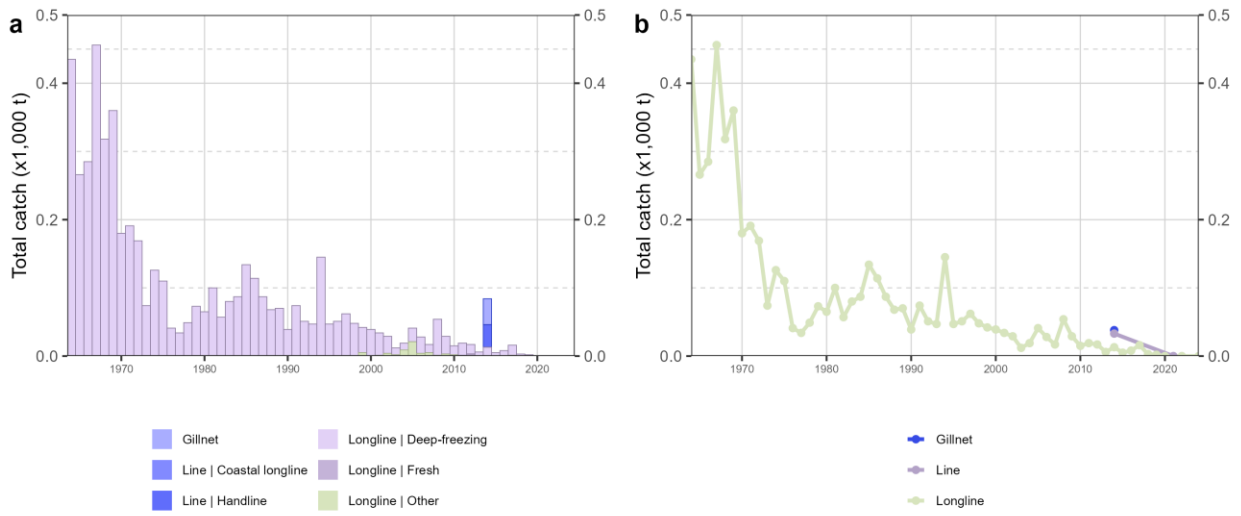
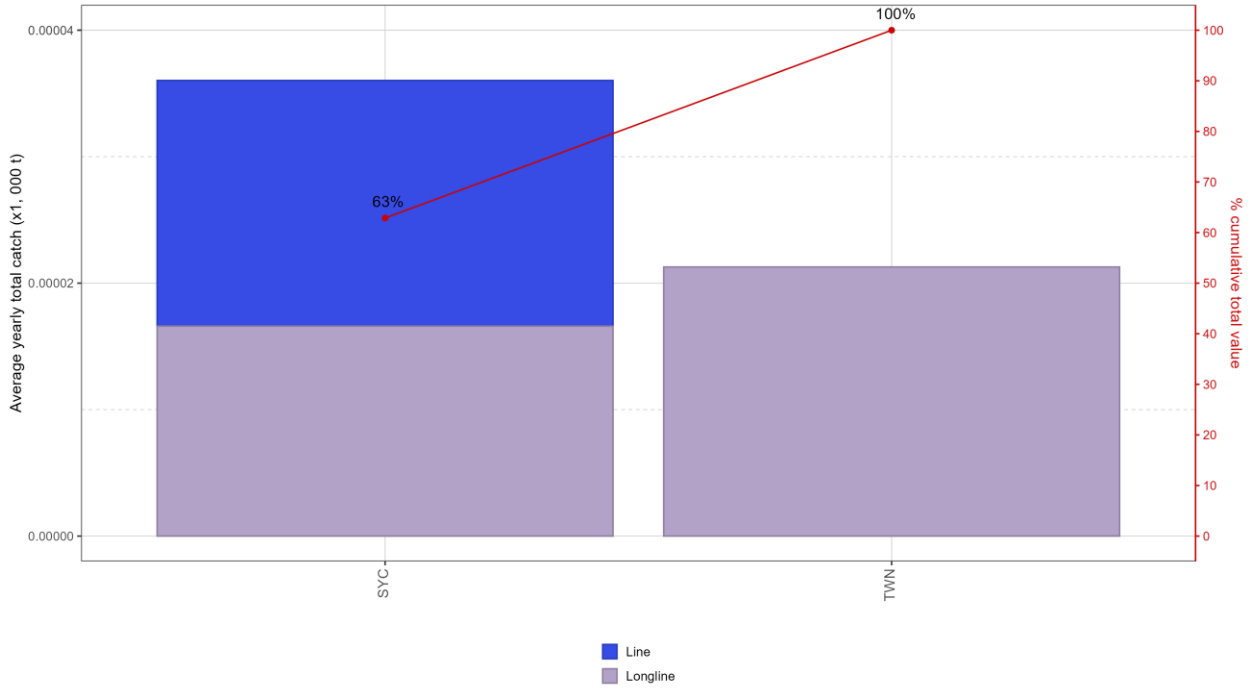


Figure 1. Annual time series of (a) cumulative retained catches (metric tonnes; t) by fishery and (b) individual retained catches (metric tonnes; t) by fishery group for porbeagle shark during 1950-2024. Longline | Other: swordfish and sharks-targeted longlines



LITERATURE CITED

Rigby, C.L., Barreto, R., Carlson, J., Fernando, D., Fordham, S., Francis, M.P., Herman, K., Jabado, R.W., Liu, K.M., Marshall, A., Pacoureau, N., Romanov, E., Sherley, R.B. & Winker, H. 2019. *Lamna nasus*. *The IUCN Red List of Threatened Species* 2019: e.T11200A500969. https://dx.doi.org/10.2305/IUCN.UK.2019-3.RLTS.T11200A500969.en. Accessed on 20 June 2024.