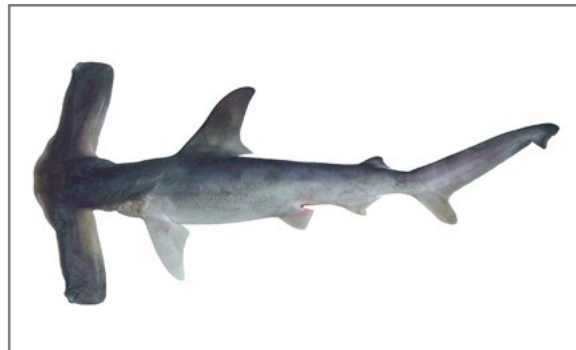


Winghead Shark, *Eusphyra blochii*

Report Card assessment	Depleting		
IUCN Red List Australian Assessment	Vulnerable	IUCN Red List Global Assessment	Endangered
Assessors	Smart, J.J. & Simpfendorfer, C.		
Australian Assessors	Kyne, P.M., Heupel, M.R., White, W.T. & Simpfendorfer, C.A. (Shark Action Plan)		
Report Card Remarks	Globally in decline but in Australia evidence of some decline due to commercial catch of managed fisheries. Listed on CITES Appendix II.		

Summary

The Winghead Shark is highly distinctive and widely distributed across the Indo-West Pacific. It is a bycatch of net and trawl fisheries. The species is long lived and has a segregated distribution that makes it vulnerable to heavy localized fishing effort. In southern Asia and Indonesia where fishing effort is concentrated in coastal regions, the species is inferred to have declined significantly. Therefore, it is assessed globally as Endangered (IUCN). In Australia, it is caught in gillnet and trawl fisheries in northern Australia making up relatively all amounts of total catch. However, its preference for river mouth habitats where fishing can be more concentrated, its susceptibility to capture, and evidence of connection to areas outside of Australian waters means that the Australian population may be declining, but not currently to below levels that allow sustainable catch. Therefore, in Australia it is assessed as Vulnerable (IUCN) (Kyne et al. 2021) and Depleting (SAFS). The species is listed on CITES Appendix II.



Distribution

The Winghead Shark occurs in tropical regions from the Arabian Gulf through southeast Asia and Papua New Guinea. In Australia, it occurs in northern waters from Gladstone (Queensland) to Monte Bello Islands (Western Australia) (Last and Stevens 2009, Harry et al. 2011).

Stock structure and status

The species is heavily exploited in some parts of its range, especially in the Gulf of Thailand, India, and Indonesia (Simpfendorfer and Smart 2016). Only one individual was seen in market surveys in Indonesia during which approximately 20,000 sharks were recorded (William White, CSIRO, pers. comm. 2015). Recent catch data from India identifies sharks to species level and has no mention of the Winghead Shark (Varghese et al. 2013). As they have previously been recorded there, severe population declines are suspected. Declines in the Winghead Shark in southeast Asia and elsewhere

in the Indo-West Pacific are inferred given the widespread historical and continuing declines of demersal fisheries in this region (Stobutzki et al. 2006). In Australia, there is limited data available on the status of the population. However, it occurs mostly near the mouths of rivers where gillnet and trawl fisheries can be most intense targeting species such as barramundi, threadfin and prawns. There is also genetic evidence that the Australian population has links to Papua New Guinea where the population is believed to more heavily fished (Smart and Simpfendorfer 2016). Thus, it has been inferred that the Australian population may have declined, possibly by more than 30%, over the last few decades (Kyne et al. 2021). As such a precautionary SAFS assessment of Depleting is warranted.

Fisheries

In Australia, the Winghead Shark is taken in low numbers in several net and trawl fisheries across its range; in the Queensland East Coast Finfish Fishery (ECIFF), Gulf of Carpentaria Inshore Finfish Fishery, Northern Prawn Fishery, and the Pilbara trawl fishery (Stobutzki et al. 2002, Western Australia Department of Fisheries 2010, Harry et al. 2011). The largest catches of the species in Australia are in the Northern Territory Offshore Net and Line Fishery (ONLF) at 11–21 t between 2007–2012. However, operational changes in the fishery have since decreased the catch to 4–10 t in recent years (NT Fisheries 2020). Recent ecological risk assessments for the NT ONLF (NT Fisheries 2020) and Queensland ECIFF (Jacobsen et al. 2021) give this species a High, and Precautionary High risk rating, respectively. This suggests the risk of overfishing the species in these fisheries needs to be carefully managed. All fisheries in which the species are taken have management measures in place to address these risks, with catch limits, gear restrictions, and no-retention provisions (in the Northern Prawn Fishery).

Habitat and biology

The Winghead Shark occurs on the continental shelf and is mainly found in coastal nearshore waters around river mouths. Maximum size is 186 cm total length (TL) with maximum age estimated at 21 years (Last and Stevens 2009, Smart et al. 2013). Males mature at 108 cm TL and 5.5 years and females at 120 cm TL and 7.2 years (Smart et al. 2013).

Longevity and maximum size	Longevity: estimated 21 years Max size: 186 cm TL
Age and/or size at maturity (50%)	Males: 5.5 years, 108 cm TL Females: 7.2 years, 120 cm TL

CAAB Code: 37 019003

Link to IUCN Page: <https://www.iucnredlist.org/species/41810/68623209>

Link to page at Shark References: <http://www.shark-references.com/species/view/Eusphyra-blochii>

References

- Harry, A.V., Tobin, A.J., Simpfendorfer, C.A., Welch, D.J., Mapleston, A., White, J., Williams, A.J., and Stapley, J. 2011. Evaluating catch and mitigating risk in a multispecies, tropical, inshore shark fishery within the Great Barrier Reef World Heritage Area. *Marine and Freshwater Research* 62: 710–721.
- Jacobsen, I., Walton, L., Pidd, A. and Lawson, A. 2021. *East Coast Inshore Fishery – Large Mesh Nets (Gillnets and Rig Nets) vol 2 Ecological Risk Assessment. Species of Conservation Concern*. Fisheries Queensland, Queensland Government.
- Kyne, P.M., Heupel, M.R., White, W.T. and Simpfendorfer, C.A. 2021. *The Action Plan for Australian Sharks and Rays 2021*. National Environmental Science Program, Marine Biodiversity Hub, Hobart
- Last, P.R. and Stevens, J.D. 2009. *Sharks and Rays of Australia*. Second Edition. CSIRO Publishing, Collingwood, Australia.
- NT Fisheries 2020. *Northern Territory Offshore Net and Line Fishery. Ecological Risk Assessment 2020*. Northern Territory Government.
- Smart, J.J. and Simpfendorfer, C. 2016. *Eusphyra blochii*. The IUCN Red List of Threatened Species 2016: e.T41810A68623209

- Smart, J. J., Harry, A. V., Tobin, A. J. and Simpfendorfer, C. A. 2013. Overcoming the constraints of low sample sizes to produce age and growth data for rare or threatened sharks. *Aquatic Conservation: Marine and Freshwater Ecosystems* 23: 124–134.
- Stobutzki, I.C., Miller, M.J., Heales, D.S. and Brewer, D.T. 2002. Sustainability of elasmobranchs caught as bycatch in a tropical prawn (shrimp) trawl fishery. *Fishery Bulletin* 100: 800–821.
- Stobutzki, I.C., Silvestre, G.T., Abu Talib, A., Krongprom, A., Supongpan, M., Khemakorn, P., Armada, N., and Garces, L.R. 2006. Decline of demersal coastal fisheries resources in three developing Asian countries. *Fisheries Research* 78: 130–142.
- Varghese, SP, Vijayakumaran, K, Gulati, DK. 2013. *Pelagic megafauna bycatch in the tuna longline fisheries off India*. Indian Ocean Tuna Commission.
- Western Australia Department of Fisheries. 2010. *The Bycatch Action Plan for the Pilbara Fish Trawl Interim Managed Fishery*. Fisheries Management Paper No. 244. Western Australian Department of Fisheries, Perth.