

Winghead Shark, *Eusphyra blochii*

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| Report Card assessment | Sustainable | | |
| IUCN Red List Australian Assessment | Least Concern | IUCN Red List Global Assessment | Endangered |
| Assessors | Smart, J.J. & Simpfendorfer, C. | | |
| Report Card Remarks | Globally in decline but in Australia only a minor commercial catch of managed fisheries | | |

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 be heavily exploited. The Winghead Shark is now rarely encountered in India and Indonesia where it was



previously reported. There are no data on the species' population sizes but based on anecdotal accounts and market surveys the population is suspected to have severely declined by at least 50% in Asia. Fishing across most of its range is expected to remain unchanged and it is suspected that the global population will continue to decline. Therefore, it is assessed globally as Endangered (IUCN). In Australia, it is only a small component of commercial catches, hence the population is considered to be relatively healthy. Therefore, in Australia it is assessed as Least Concern (IUCN) and Sustainable (SAFS).

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 Ingham (Queensland) to Monte Bello Islands (Western Australia) (Last and Stevens 2009).

Stock structure and status

There are no specific data available on Winghead Shark population size or trends. 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, the population is not believed to have declined substantially as it is rarely taken in fisheries.

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, Gulf of Carpentaria Inshore Finfish Fishery, Northern Prawn Fishery and the Pilbara trawl fishery (Stobutski 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 at 10,942-21,356 kg between 2007 and 2012. However, operational changes in the fishery have since decreased the catch to 12,786 kg in 2012 with this trend likely to continue (Grant Johnson, NT Fisheries, pers. comm. 2015). Elsewhere, the species is heavily exploited in some parts of its range, especially in the Gulf of Thailand, India and Indonesia (Simpfendorfer 2003). Only one individual was seen in market surveys in Indonesia during which approximately 20,000 sharks were recorded. It is therefore suspected to be overfished, as most of Indonesia's fishing effort is focused on coastal nearshore areas where it would be expected to occur (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

Habitat and biology

The Winghead Shark occurs on the continental shelf and is mainly found in coastal nearshore waters. 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).

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| 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 |

Link to IUCN Page: <http://www.iucnredlist.org/details/41810/0>

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

References

- Blaber, S., Dichmont, C.M., White, W.T., Buckworth, R.C., Sadiyah, L., Iskandar, B., Nurhakim, S., Pillans, R.D., Andamari, R., Dharmadi and Fahmi. 2009. Elasmobranchs in southern Indonesian fisheries: the fisheries, the status of the stocks and management options. *Reviews in Fish Biology and Fisheries* 19: 367–391.
- Dulvy, N.K., Fowler, S.L., Musick, J.A., Cavanagh, R.D., Kyne, P.M., Harrison, L.R., Carlson, J.K., Davidson, L.N.K., Fordham, S.V., Francis, M.P., Pollock, C.M., Simpfendorfer, C.A., Burgess, G.H., Carpenter, K.E., Compagno, L.J.V., Ebert, D.A., Gibson, C., Heupel, M.R., Livingstone, S.R., Sanciangco, J.C., Stevens, J.D., Valenti, S. and White, W.T. 2014. Extinction risk and conservation of the world's sharks and rays. *eLife* 3: e00590.
- 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.
- Last, P.R. and Stevens, J.D. 2009. *Sharks and Rays of Australia*. Second Edition. CSIRO Publishing, Collingwood, Australia.
- Simpfendorfer, C.A. 2003. *Eusphyra blochii*. The IUCN Red List of Threatened Species. Version 2014.3. SSG Australia & Oceania Regional Workshop, March 2003.
- 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.
- Stobutski, 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.
- Stobutski, 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.