

Pencil Shark, *Hypogaleus hyugaensis*

Report Card assessment	Sustainable		
IUCN Red List Australian Assessment	Least Concern	IUCN Red List Global Assessment	Least Concern
Assessors	Simpfendorfer, C. & Compagno, L.J.V.		
Australian Assessors	Kyne, P.M., Heupel, M.R., White, W.T. & Simpfendorfer, C.A. (Shark Action Plan)		
Report Card Remarks	In Australia, stable and low level catch rates.		

Summary

The Pencil Shark is a small shark with a patchy distribution in the Indo-West Pacific. It is taken as bycatch in a number of fisheries across its range. There are some life history data available, but age and growth information is



Source: CSIRO National Fish Collection. License: CC BY Attribution

lacking. Its patchy distribution and naturally low abundance throughout its range, and presence in countries with significant fisheries (Taiwan, Japan) increase the potential for increases in fishing pressure to cause population reduction. However, given that Australia represents a significant portion of its range, the species is assessed as globally Least Concern (IUCN). In Australia, the low level and recent stability of catch suggest this species is sustainably fished. Therefore, the species is assessed in Australia as Least Concern (IUCN) (Kyne et al. 2021) and Sustainable (SAFS).

Distribution

The Pencil Shark has a patchy and disjunct distribution in tropical and warm temperate waters of the western Pacific and western Indian Ocean. In Australia, it is reported from Cairns (Queensland) to Port Hedland (Western Australia) (Last and Stevens 2009).

Stock structure and status

The species is apparently rare or uncommon except off southern Australia. Catch rate data from southwestern Australia indicate that the population was stable until 1999. There are no new data available from this region, but effort levels have remained stable or reduced. There is currently no other information on population size, structure, or trend for the species.

Fisheries

There are no targeted fisheries for the species, but it is caught as bycatch in a number of fisheries throughout its range, including Australia, South Africa, and Japan. It is taken in demersal gillnets of commercial temperate shark fishers in Western Australia (Simpfendorfer and Donohue 1998). Catch and effort data in this fishery from 1989–1990 show that although catches have decreased from 12

tonne to 6 tonne over this period the catch rates have remained stable, suggesting there has been little impact on the population (Simpfendorfer et al. 2002). Little is known of the species in Taiwan and Japan, but both countries have large inshore demersal fisheries that may catch the species. The Pencil Shark is also caught in trawl fisheries off the east coast of southern and east Africa, including the shrimp trawl fishery off KwaZulu-Natal (Bass et al. 1975). Little data are available for this fishery, but intensive fishing may have caused some decline in the stocks.

Habitat and biology

The Pencil Shark is mainly demersal on the continental shelf in depths of 40–230 m, rarely to 480 m. Maximum size is at least 150 cm total length (TL) with males mature at approximately 98 cm TL and females at approximately 102 cm TL (Simpfendorfer et al. 2002, Last and Stevens 2009).

Longevity and maximum size	Longevity: unknown Max size: at least 150 cm TL
Age and/or size at maturity (50%)	Males: ~98 cm TL Females: ~102 cm TL

CAAB Code: 37 017006

Link to IUCN Page: <https://www.iucnredlist.org/species/39354/68630213>

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

References

- Bass, A.J., D'Aubrey, J.D. and Kistnasamy, N. 1975. Sharks of the east coast of southern Africa. III. The families Carcharhinidae (excluding *Mustelus* and *Carcharhinus*) and Sphyrnidae. *South African Association for Marine Biological Research*. Oceanographic Research Institute. Investigational Reports.
- 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*, 2nd edition. CSIRO, Melbourne, Australia.
- Simpfendorfer, C.A. Kitchingman A.M. and McAuley, R.B. 2002. Distribution, biology and fisheries importance of the pencil shark, *Hypogaleus hyugaensis* (Elasmobranchii: Triakidae), in the waters off south-western Australia. *Marine and Freshwater Research* 53: 781–789.
- Simpfendorfer C.A. and Donohue, K. 1998. Keeping the fish in fish'n'chips: research and management of the Western Australian shark fishery. *Marine and Freshwater Research* 49: 593–600.