

Abyssal Ghostshark, *Hydrolagus trolli*

Report Card assessment	Sustainable		
IUCN Red List Australian Assessment	Least Concern	IUCN Red List Global Assessment	Least Concern
Global Assessors	Compagno, L.J.V. & Dagit, D.D.		
Australian Assessors	Kyne, P.M., Heupel, M.R., White, W.T., Simpfendorfer, C.A. (Shark Action Plan) & Rigby, C.L.		
Report Card Remarks	Deepwater species not currently fished in Australia.		

Summary

The Abyssal Ghostshark is a medium-sized poorly-known deepwater chimaerid that occurs in tropical to temperate waters off Australia, New Caledonia, and New Zealand. It is caught incidentally in New Zealand deepwater trawl fisheries. In Australia, it occurs in a restricted range off Victoria at depths of 1,670–2,000 m and is beyond the depth of any commercial fisheries. It has not been



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reported from the Commonwealth Southern and Eastern Scalefish and Shark Fishery, even prior to the closure of trawling in waters deeper than 700 m. The population is suspected to be stable in Australia as there is no fishing effort in its known range. Elsewhere where it is caught, it has significant refuge at depth. Therefore, the Abyssal Ghostshark is assessed as globally and in Australia as Least Concern (IUCN) (Kyne et al. 2021), and in Australia as Sustainable (SAFS).

Distribution

The Abyssal Ghostshark occurs in tropical to temperate waters off Australia, New Caledonia, and New Zealand (Compagno and Dagit 2015). In Australia, it is only known from off Cape Everard (Victoria) (Last and Stevens 2009), though it may occur more widely given that there have been few surveys across its spatial and depth range (Kyne et al. 2021).

Stock structure and status

There is currently no information on population size, structure or trend for the species. It seems to be more common off New Zealand, though this may reflect greater fishing and survey effort (Compagno and Dagit 2015).

Fisheries

The Abyssal Ghostshark is caught incidentally by deepwater trawls off New Zealand (Compagno and Dagit 2015). In Australia, it's range is beyond the depths of any commercial fisheries. It has not been previously reported from the Commonwealth Southern and Eastern Scalefish and Shark Fishery, even prior to the closure of trawling in waters deeper than 700 m in 2007 (Patterson et al. 2022).

Habitat and biology

The Abyssal Ghostshark is benthopelagic on continental and insular slopes at depths of 610–2,000 m, though in Australia it is reported from 1,670–2,000 m (Last and Stevens 2009, Weigmann 2016). Maximum size is 110 cm pre-caudal filament length (PCFL), 120 cm total length, and 91 cm body length (Compagno and Dagit 2015, Weigmann 2016, Kyne et al. 2021). Nothing else is known of its biology.

Longevity and maximum size	Longevity: unknown Max size: 110 cm PCFL, 120 cm TL, 91 cm BDL
Age and/or size at maturity (50%)	Both sexes: unknown

CAAB Code: 37 042012

Link to IUCN Page: <https://www.iucnredlist.org/species/60197/70709551>

Link to page at Shark References: <https://shark-references.com/species/view/Hydrolagus-trolli>

References

- Compagno, L.J.V. and Dagit, D.D. 2015. *Hydrolagus trolli*. *The IUCN Red List of Threatened Species* 2015: e.T60197A70709551.
- 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.
- Patterson, H., Bromhead, D., Galeano, D., Larcombe, J., Timmiss, T., Woodhams, J. and Curtotti, R. 2022. *Fishery status reports 2022*, Australian Bureau of Agricultural and Resource Economics and Sciences, Canberra.
- Weigmann, S. 2016. Annotated checklist of the living sharks, batoids and chimaeras (Chondrichthyes) of the world, with a focus on biogeographical diversity. *Journal of Fish Biology* 88(3): 837–1037.