

Black Ghostshark, *Hydrolagus homonycteris*

Report Card assessment	Sustainable		
IUCN Red List Australian Assessment	Least Concern	IUCN Red List Global Assessment	Least Concern
Global Assessors	Theiss, S.M., Huveneers, C. & Ebert, D.A.		
Australian Assessors	Kyne, P.M., Heupel, M.R., White, W.T., Simpfendorfer, C.A. (Shark Action Plan) & Rigby, C.L.		
Report Card Remarks	Deepwater and common species with no current fishing effort in its Australian depth range.		

Summary

The Black Ghostshark is a medium-sized and common deepwater chimaerid that occurs in temperate waters of Australia and New Zealand. In Australia, it occurs in a relatively restricted range off southern Australia, including Tasmania and southern seamounts. It was an incidental byproduct of trawl



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fisheries, previously taken in the Commonwealth Southern and Eastern Scalefish and Shark Fishery (SESSF) and in the South Tasman Rise Trawl Fishery (STRTF), and retained for its good quality edible flesh. However, there is no longer any fishing in its Australian depth range of 870–1,450 m as trawling deeper than 700 m has been prohibited in the SESSF and the STRTF has been closed. Its vulnerability was assessed as low for both fishing and climate change. The population is suspected to be stable in Australia as there is no current fishing effort in its Australian depth range. Therefore, the Black Ghostshark is assessed as Least Concern (IUCN) (Kyne et al. 2021) and Sustainable (SAFS).

Distribution

The Black Ghostshark is found in temperate waters of Australia and New Zealand (Last and Stevens 2009). In Australia, it occurs in a relatively restricted range off southeastern Australia from Ulladulla (New South Wales) to Portland (Victoria) and Tasmania and its southern seamounts (Last and Stevens 2009).

Stock structure and status

There is currently no information on population size, structure or trend for the species; however, it is reportedly common (Theiss et al. 2015).

Fisheries

The Black Ghostshark was an incidental catch of trawl fisheries. It was a byproduct in the Commonwealth Southern and Eastern Scalefish Fishery (SESSF) with an estimated annual catch of 958 kg between 2000–2006, with 83% of this retained for its good quality flesh (Walker and Gason 2007,

Theiss et al. 2015). Fishing deeper than 700 m in the SESSF has been prohibited since 2007, which would provide the species complete refuge at depth as it occurs deeper than 870 m and it was not included in a recent risk assessment of the SESSF. It was also previously commonly caught in the South Tasman Rise Trawl Fishery (STRTF) which operated at average depths of 900–1,000 m from 1997–2007 (Clark and O’Driscoll 2002, Last and Stevens 2009). The fishery was closed within the Australian Fishing Zone in 2007 to protect the depleted target stocks of Orange Roughy (*Hoplostethus atlanticus*) (Emery 2020, Patterson et al. 2022). The species vulnerability to fishing and climate change was assessed as low (Walker et al. 2021).

Habitat and biology

The Black Ghostshark is demersal on the continental slope and seamounts at depths of 870–1,450 m in Australia and at 500–1,400 m depths in New Zealand (Last and Stevens 2009, Theiss et al. 2015). Maximum size is at least 108 cm total length (TL), 101 cm pre-caudal filament length (PCFL), and 66 cm body length (BDL) (Theiss et al. 2015, Kyne et al. 2021). Males mature at approximately 55 cm BDL and females at approximately 60 cm BDL (Didier 2008). Nothing else is known of its biology.

Longevity and maximum size	Longevity: unknown Max size: at least ~108 cm TL, 101 cm PCFL, 66 cm BDL
Age and/or size at maturity (50%)	Males: ~55 cm BDL Females: ~60 cm BDL

CAAB Code: 37 042010

Link to IUCN Page: <https://www.iucnredlist.org/species/195433/68629582>

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

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