

Giant Chimaera, *Chimaera lignaria*

Report Card assessment	Sustainable		
IUCN Red List Australian Assessment	Least Concern	IUCN Red List Global Assessment	Least Concern
Global Assessors	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 with no current fishing effort in Australia in its preferred depth range and previously minimal catches.		

Summary

The Giant Chimaera is a large and abundant deepwater chimaerid that occurs in temperate waters of Australia and New Zealand. In Australia, it occurs in a relatively restricted range off Tasmania and southern seamounts. It was a minor incidental catch of trawl fisheries, previously taken in the Commonwealth Southern and Eastern Scalefish and Shark Fishery (SESSF) and possibly in the South Tasman Rise Trawl



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Fishery (STRTF). However, it is unlikely to be currently caught in Australian fisheries as trawling deeper than 700 m has been prohibited in the SESSF and the STRTF has been closed. It has been assessed as at low risk in the SESSF and 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 fishing effort in its preferred depth range, and catches in waters less than 700 m deep were previously minimal. Therefore, the Giant Chimaera is assessed as Least Concern (IUCN) (Kyne et al. 2021) and Sustainable (SAFS).

Distribution

The Giant Chimaera is found in temperate waters of Australia and New Zealand (Last and Stevens 2009). In Australia, it occurs in a relatively restricted range off Tasmania and southern seamounts; it may occur more widely in the Southern Ocean (Last and Stevens 2009, Dagit 2015).

Stock structure and status

There is currently no information on population size, structure or trend for the species; however, it is abundant in research and commercial trawls (Dagit 2015).

Fisheries

The Giant Chimaera was an incidental catch of trawl fisheries. It was caught in the Commonwealth Southern and Eastern Scalefish Fishery (SESSF) with an estimated annual catch of 97 kg between 2000–

2006, all at depths greater than 600 m and all of which was released (Walker and Gason 2007). Fishing deeper than 700 m has been prohibited since 2007, which would provide the species refuge at depth as it mostly occurs deeper than 800 m and the Giant Chimaera was assessed as at low risk in the SESSF (Sporcic et al. 2021). It may have been previously 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). 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 Giant Chimaera is demersal on the continental slope and plateau at depths of 400–1,800 m though mostly deeper than 800 m (Dagit 2015). Maximum size is 142 cm total length (TL) and 128 cm pre-caudal filament length (PCFL) (Dagit 2015, Kyne et al. 2021). Males mature at approximately 60 cm body length (BDL) and females at approximately 70 cm BDL (Dagit 2015). Nothing else is known of its biology.

Longevity and maximum size	Longevity: unknown Max size: 142 cm TL, 128 cm PCFL
Age and/or size at maturity (50%)	Males: ~60 cm BDL Females: ~70 cm BDL

CAAB Code: 37 042008

Link to IUCN Page: <https://www.iucnredlist.org/species/60185/68617238>

Link to page at Shark References: <http://shark-references.com/species/view/Alopias-vulpinus>

References

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