

## Ogilby's Chimaera, *Chimaera ogilbyi*

Report Card assessment	Recovering		
IUCN Red List Australian Assessment	Near Threatened	IUCN Red List Global Assessment	Near Threatened
Global Assessors	Finucci, B. & Kyne, P.M.		
Australian Assessors	Kyne, P.M., Heupel, M.R., White, W.T., Simpfendorfer, C.A. (Shark Action Plan) & Rigby, C.L.		
Report Card Remarks	Significant declines due to historically high fishing pressure though following fishing pressure decline and management changes, population seems to have stabilised, possibly at low levels.		

### Summary

Ogilby's Chimaera is a medium-sized deepwater chimaerid that occurs in Australia, Indonesia and Papua New Guinea. It occurs throughout Australia except in the most northern waters. It is an incidental catch in mainly trawl fisheries and has undergone significant historical population decline in the Commonwealth Southern and Eastern Scalefish Fishery (SESSF). However, following a decline in fishing pressure and management changes, the population in the SESSF seems to have stabilised possibly at low

levels. It is still assessed as at high risk in the southeast trawl sector due to a lack of information on its proportion in significant catches of undifferentiated Chimaeridae species. This region represents approximately ~20% of its Australian range and elsewhere fishing pressure is generally low. It is also encountered in the Queensland East Coast Trawl Fishery (ECTF) deepwater sector, though only at its upper depth range. The species would also have some refuge in the network of marine parks. Its vulnerability to fishing and climate change was assessed as medium and low, respectively. Given historic significant declines of >90% but a more recent stable population and that the decline was in about 20% of its range and elsewhere fishing pressure in its range is generally low, Ogilby's Chimaera is assessed as globally and in Australia as Near Threatened (IUCN) (Kyne et al. 2021) and Recovering (SAFS).



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

### Distribution

Ogilby's Chimaera is found in tropical to temperate waters in Australia, Indonesia, and Papua New Guinea (Finucci et al. 2018). It occurs throughout Australia except for the most northern waters, and it ranges from Cairns southwards and around Australia to Darwin (Northern Territory) (Finucci et al. 2018).

### Stock structure and status

Ogilby's Chimaera has undergone significant historic population declines in the Commonwealth Southern and Eastern Scalefish Fishery (SESSF) however the population seems to have stabilised following fishing effort reduction and management changes (Graham et al. 2001, Walker and Gason 2007).

### Fisheries

Ogilby's Chimaera is an incidental catch of trawl fisheries and to a lesser extent, line fisheries. There was a decline of 96% in mean catch rates of Ogilby's Chimaera in the SESSF over 20 years from 1977–1997 (Graham et al. 2001). Thus, this species has undergone significant population decline in southeast Australia due to the historically high levels of fishing pressure (Finucci and Kyne 2020). Fishing pressure has since declined significantly in the SESSF and from 1994–2004, the species standardised catch-per-unit effort in the SESSF showed no trend suggesting the population has stabilized due to decline in fishing pressure and changes in fisheries management (Walker and Gason 2007, Finucci and Kyne 2020). Annual catches in the SESSF were 10.2 t between 2000–2006 with retention of 89% of the catch for its flesh (Walker and Gason 2007). Ogilby's Chimaera was assessed at low risk in the Great Australian Bight Trawl sector and at high risk in the Commonwealth Trawl sector due to the unknown proportion of this species catches in Chimaeridae undifferentiated logbook catches (15.7 tonne retained from 2012–2016) (Sporcic et al. 2021a,b). This southeast area represents about 20% of its Australian range and elsewhere while limited information is available on incidental catch, fishing pressure is generally low (Kyne et al. 2021). It is also reported from the Queensland East Coast Trawl Fishery (ECTF) deepwater sector though the sector generally fishes to a maximum depth of ~200 m and thus, at the upper limit of its preferred range (Rigby et al. 2016). It may also be encountered in the Commonwealth Northwest Slope Trawl Fishery and the Western Deepwater Trawl Fishery that operate at depths of 200–700 m, though both fisheries have limited effort with only 1–6 active vessels and chondrichthyans have been assessed as at low risk in these fisheries (Zhou et al. 2009, Patterson et al. 2022). The species vulnerability to fishing and climate change in southern Australia was assessed as medium and low, respectively (Walker et al. 2021). It would receive some refuge in the Commonwealth Marine Park Network (Parks Australia 2023).

### Habitat and biology

Ogilby's Chimaera is demersal on the continental shelf and slope at depths of 139–872 m and mostly at 200–500 m (Finucci et al. 2018). Maximum size is 104 cm total length (TL) and 60 cm body length (Finucci et al. 2018). Males mature at 53–63 cm TL and 33 cm BDL and females mature at 63–72 cm TL (Rigby et al. 2016).

Longevity and maximum size	Longevity: unknown Max size: 104 cm TL, 60 cm BDL
Age and/or size at maturity (50%)	Males: 53–63 cm TL Females: 63–72 cm TL

**CAAB Code:** 37 042001

**Link to IUCN Page:** <https://www.iucnredlist.org/species/130420951/124450455>

**Link to page at Shark References:** <https://shark-references.com/species/view/Chimaera-ogilbyi>

### References

- Finucci, B., White, W.T., Kemper, J.M. and Naylor, G.J.P. 2018. Redescription of *Chimaera ogilbyi* (Chimaeriformes; Chimaeridae) from the Indo-Australian region. *Zootaxa* 4375(2): 191–210.
- Finucci, B. and Kyne, P.M. 2020. *Chimaera ogilbyi*. *The IUCN Red List of Threatened Species* 2020: e.T130420951A124450455

- Graham, K.J., Andrew, N.L. and Hodgson, K.E. 2001. Changes in the relative abundances of sharks and rays on Australian South East Fishery trawl grounds after twenty years of fishing. *Journal of Marine and Freshwater Research* 52: 549–561.
- 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.
- Parks Australia 2023. Australian Marine Parks. <https://parksaustralia.gov.au/marine/parks/>
- 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.
- Rigby, C.L., White, W.T., and Simpfendorfer, C.A. 2016. Deepwater chondrichthyan bycatch of the Eastern King Prawn Fishery in the southern Great Barrier Reef, Australia. *PLoS ONE* 11(5), e0156036.
- Sporcic, M., Bulman, C.M. and Fuller, M. 2021a. *Ecological Risk Assessment for the Effects of Fishing. Report for Southern and Eastern Scalefish and Shark Fishery (Commonwealth Trawl Sector): Otter trawl Sub-fishery 2012-2016*. Report for the Australian Fisheries Management Authority. 277 p.
- Sporcic, M., Bulman, C.M. and Fuller, M. 2021b. *Ecological Risk Assessment for the Effects of Fishing. Report for Southern and Eastern Scalefish and Shark Fishery, Great Australian Bight Sector: Otter trawl sub-fishery 2012–2016*. Report for the Australian Fisheries Management Authority. 174 p.
- Walker, T. I., and Gason, A. S. 2007. *Shark and other chondrichthyan byproduct and bycatch estimation in the Southern and Eastern Scalefish and Shark Fishery*. Final report to Fisheries Research and Development Corporation Project No. 2001/007. Primary Industries Research Victoria: Queenscliff, Victoria, Australia.
- Walker, T.I., Day, R.W., Awruch, C.A., Bell, J.D., Braccini, J.M., Dapp, D.R., Finotto, L., Frick, L.H., Garcés-García, K.C., Guida, L., Huveneers, C., Martins, C.L., Rochowski, B.E.A., Tovar-Ávila, J., Trinnie, F.I. and Reina, R.D. 2021. Ecological vulnerability of the chondrichthyan fauna of southern Australia to the stressors of climate change, fishing and other anthropogenic hazards. *Fish and Fisheries* 22(5), 1105–1135.
- Zhou, S., Fuller, M. and Smith, T. 2009. *Rapid quantitative risk assessment for fish species in additional seven Commonwealth fisheries*. Marine and Atmospheric Research, CSIRO, Cleveland, Australia.