

Wide Stingaree, *Urolophus expansus*

Report Card assessment	Sustainable		
IUCN Red List Australian Assessment	Least Concern (Endemic to Australia)	IUCN Red List Global Assessment	Least Concern
Global Assessors	Kyne, P.M. & Treloar, M.A.		
Australian Assessors	Kyne, P.M., Heupel, M.R., White, W.T., Simpfendorfer, C.A. (Shark Action Plan) & Rigby, C.L.		
Report Card Remarks	Abundant, catch trends stable, and refuge in lightly fished areas and marine parks.		

Summary

The Wide Stingaree is a small and abundant continental shelf and upper slope species endemic to temperate waters in a wide range across the Great Australian Bight to Perth. It is incidentally caught in the Great Australian Bight Trawl (GABT) Sector of the Commonwealth Southern and Eastern Scalefish Fishery and in the Western Deepwater Trawl Fishery (WDTF). Catch trends in the GABT were stable and in the most recent survey of the GABT, this species was unusually abundant and dominated the survey catches. The WDTF has limited effort with only 1–3 active vessels and chondrichthyans have been assessed as at low risk in this fishery. All catches in the GABT, and likely the WDTF, are released though post-release mortality for trawl caught stingarees is generally high and stingarees typically abort their embryos when captured. The species vulnerability was assessed as low for both fishing and climate change. It would have refuge in lightly fished areas of its range and also in the Commonwealth South-west Marine Parks Network. Therefore, the Wide Stingaree is assessed as Least Concern (IUCN) (Kyne et al. 2021) and Sustainable (SAFS).



Distribution

The Wide Stingaree is endemic to temperate waters of southern Australia in a wide range (Last et al. 2016). It occurs from Port Lincoln (South Australia) to Perth (Western Australia) (Last and Stevens 2009).

Stock structure and status

There is currently no information on population size, structure, or trend for the species, although it is abundant (Walker and Gason 2007).

Fisheries

The Wide Stingaree is taken incidentally in trawl fisheries and is caught in the Great Australian Bight Trawl (GABT) Sector of the Commonwealth Southern and Eastern Scalefish Fishery. There were fluctuations in catch-per-unit effort between 2000–2006 but there was no overall trend (Walker and Gason 2007). There was an estimated annual average catch of 35 tonnes with most catches between 0–200 m depth and all catch released (Walker and Gason 2007). Post-release mortality for trawl caught stingarees is generally high (Campbell et al. 2018) and urolophids typically abort their embryos when caught which can reduce population viability (Rigby et al. 2016, Adams et al. 2018). The Wide Stingaree dominated the 2021 survey catch in the GABT, accounting for 64% of the total catch compared to 23% in 2018 surveys; the reason for this unusual abundance is unknown (Knuckey et al. 2021). The species was assessed at low risk from the GABT Sectors (Sporcic et al. 2021). The Wide Stingaree is also possibly caught incidentally by the Western Deepwater Trawl Fishery which targets finfish and bugs (*Ibacus* spp.) at 200–700 m depths (Patterson et al. 2022). As it is of little commercial value, it is likely released if caught. Trawl effort has declined considerably in this fishery since the late 1980s and currently it has limited effort with only 1–3 active vessels (Patterson et al. 2022). Chondrichthyans have been assessed as at low risk in this fishery (Zhou et al. 2009). The species vulnerability was assessed as low for both fishing and climate change (Walker et al. 2021). It would receive refuge in the Commonwealth South-west Marine Parks Network that came into effect in 2018 which include zoning and gear restrictions (Parks Australia 2023).

Habitat and biology

The Wide Stingaree is demersal on the outer continental shelf and upper slope at depths of 130–420 m though mostly at 200–300 m (Last and Stevens 2009, Last et al. 2016). Maximum size is approximately 52 cm total length (TL) and males mature at 7 years and 36 cm TL and females at approximately 38 cm TL (Kyne and Treloar 2019).

Longevity and maximum size	Longevity: unknown Max size: ~52 cm TL
Age and/or size at maturity (50%)	Males: 7 years, 36 cm TL Females: ~38 cm TL

CAAB Code: 37 038008

Link to IUCN Page: <https://www.iucnredlist.org/species/60092/68649334>

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

References

- Adams, K.R., Fetterplace, L.C., Davis, A.R., Taylor, M.D. and Knott, N.A. 2018. Sharks, rays and abortion: The prevalence of capture-induced parturition in elasmobranchs. *Biological Conservation* 217, 11–27.
- Campbell, M.J., McLennan, M.F., Courtney, A.J. and Simpfendorfer, C.A. 2018. Post-release survival of two elasmobranchs, the eastern shovelnose ray (*Aptychotrema rostrata*) and the common stingaree (*Trygonoptera testacea*), discarded from a prawn trawl fishery in southern Queensland, Australia. *Marine and Freshwater Research* 69: 551–561.
- Knuckey, I., Koopman, M. and Hudson, R. 2021. *Resource Survey of the Great Australian Bight Trawl Sector–2021*. R. 2019/0837. Fishwell Consulting. Report for Australian Fisheries Management Authority.
- Kyne, P.M. and Treloar, M.A. 2019. *Urolophus expansus*. *The IUCN Red List of Threatened Species* 2019: e.T60092A68649334.
- 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.
- Last, P., White, W., Carvalho, M.R. de, Séret, B., Stehmann, M. and Naylor, G.J.P. 2016. *Rays of the World*. CSIRO Publishing, Clayton, Victoria, Australia.
- Parks Australia 2023. South-west Marine Parks Network. <https://parksaustralia.gov.au/marine/parks/south-west/>.
- 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. 2021. *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., Huveneres, 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.