

Common Stingaree, *Trygonoptera testacea*

Report Card assessment	Sustainable		
IUCN Red List Australian Assessment	Near Threatened (Endemic to Australia)	IUCN Red List Global Assessment	Near Threatened
Global Assessors	Kyne, P.M. & Last, P.R.		
Australian Assessors	Kyne, P.M., Heupel, M.R., White, W.T., Simpfendorfer, C.A. (Shark Action Plan) & Rigby, C.L.		
Report Card Remarks	Abundant but low productivity, low post-release survival, significant catches though declines in effort from historic levels.		

Summary

The Common Stingaree is a small and abundant species endemic to subtropical and temperate continental shelf waters of Australia's east coast. It is a regular incidental catch of trawl and seine fisheries and is caught in the Commonwealth Southern and Eastern Scalefish Fishery (SESSF) and while historically there was a dramatic decline in deeper stingarees caught in that fishery, fishing pressure has declined significantly and it is now assessed as at low risk in the SESSF. It is one of the dominant bycatch species in the Queensland East Coast Trawl Fishery (ECTF) and is also assessed as at low risk from the ECTF. It is also caught in estuarine trawl and seine fisheries as its habitats include estuarine areas. It is released when caught although post-release mortality for trawl caught stingarees is generally high and stingarees typically abort their embryos when captured. It may receive some refuge in state and Commonwealth marine parks. Given its overlap with fisheries, low productivity and post-release survival, significant catches in some fisheries, but a reduction in fishing effort, it is suspected that the population has undergone a reduction approaching 30% over the last three generation lengths (30 years), and thus, it is assessed as Near Threatened (IUCN) (Kyne et al. 2021) and Sustainable (SAFS).



Distribution

The Common Stingaree is endemic to subtropical to temperate waters in eastern Australia (Last et al. 2016). It occurs in a relatively restricted range from Caloundra (Queensland) to Cape Howe (New South Wales) (Last and Stevens 2009, Kyne and Last 2019).

Stock structure and status

There is currently no information on population size, structure, or trend for the species. However, it is abundant across its range (Last and Stevens 2009, Kyne et al. 2021).

Fisheries

The Common Stingaree is a regular incidental catch of trawl and seine fisheries (Kyne and Last 2019). It is caught in the Commonwealth Southern and Eastern Scalefish Fishery (SESSF) with an estimated annual catch of 31 tonnes between 2000–2006; the catch trend over that period was indeterminable (Walker and Gason 2007). There was a decline of 66% in mean catch rates of stingarees in the SESSF over 20 years from 1977–1997, and though the surveys that documented this decline were deeper than the depth range of this species, it indicates the declines that can occur when stingarees are heavily fished (Graham et al. 2001, Kyne et al. 2021). Fishing pressure has declined significantly in the SESSF and the Common Stingaree is now assessed as at low risk from the fishery (Sporcic et al. 2021). The species is one of the dominant bycatch species in the eastern king prawn sector of the Queensland East Coast Trawl Fishery (ECTF) and although bycatch reduction devices (BRDs) have been mandatory since 2002, their effectiveness is limited at excluding small rays such as this species (Griffiths et al. 2006, Kyne and Last 2019). However, it is also assessed as at low risk from the fishery (Campbell et al. 2018). In New South Wales, it is caught in the Ocean Trawl Fishery, estuarine trawl and seine fisheries, and beach seine fisheries (DPI 2004, Kyne and Last 2019). The species is released when caught, though, post-release mortality for trawl caught stingarees is generally high and urolophids typically abort their embryos when caught which can reduce population viability (Rigby et al. 2016, Adams et al. 2018, Campbell et al. 2018). The state and Commonwealth Marine Parks networks may provide some refuge for the species (Parks Australia 2023). The species vulnerability to fishing and climate change in southern waters was assessed as low (Walker et al. 2021).

Habitat and biology

The Common Stingaree is demersal in estuarine, sand, and reef habitats on the continental shelf at depths of 0–135 m but mostly at depth of less than 60 m (Last et al. 2016). Maximum size is 52 cm total length (TL) and males mature at approximately 35 cm TL and females at 41 cm TL (Kyne et al. 2016, Last et al. 2016). Litter size is 1–2 pups (Kyne et al. 2016, Last et al. 2016).

Longevity and maximum size	Longevity: unknown Max size: 52 cm TL
Age and/or size at maturity (50%)	Males: ~35cm TL Females: 41 cm TL

CAAB Code: 37 038006

Link to IUCN Page: <https://www.iucnredlist.org/species/60085/68648424>

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

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., Courtney, A., Wang, N., McLennan, M. and Zhou, S. 2018. *Estimating the impacts of management changes on bycatch reduction and sustainability of high-risk bycatch species in the Queensland East Coast Otter Trawl Fishery*. FRDC Final Report Project number 2015/014, Brisbane, Queensland.
- Department of Primary Industries (DPI) 2004. Ocean Trawl Fishery. Environmental Impact Statement. Public Consultation Document. NSW Department of Primary Industries.
- 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.
- Griffiths, S. P., Brewer, D. T., Heales, D. S., Milton, D. A. and Stobutzki, I. C. 2006. Validating ecological risk assessments for fisheries: assessing the impacts of turtle excluder devices on elasmobranch bycatch populations in an Australian trawl fishery. *Marine and Freshwater Research* 57: 395–401.
- Kyne, P.M. and Last, P.R. 2019. *Trygonoptera testacea*. *The IUCN Red List of Threatened Species* 2019: e.T60085A68648424.

- 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-east Marine Parks Network. <https://parksaustralia.gov.au/marine/parks/south-east/>.
- 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 (Commonwealth Trawl Sector): Otter trawl Sub-fishery 2012-2016*. Report for the Australian Fisheries Management Authority. 277 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.