

Western Shovelnose Stingaree, *Trygonoptera mucosa*

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. & White, W.T.		
Australian Assessors	Kyne, P.M., Heupel, M.R., White, W.T., Simpfendorfer, C.A. (Shark Action Plan) & Rigby, C.L.		
Report Card Remarks	Common, low levels of fishing pressure, and significant refuge.		

Summary

The Western Shovelnose Stingaree is a common small species endemic to temperate continental shelf waters of southern Australia. It is an incidental catch of trawl fisheries and was caught in the Great Australian Bight Trawl (GABT) Sector of the Commonwealth Southern and Eastern Scalefish Fishery, though catches were relatively minor and the fishery now operates in mainly deeper waters than the range of this species. It is caught in the Western Australian small-scale inshore



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scallop and prawn trawl fisheries which are low effort and managed with limited entry and seasonal closures. It would be released as rays are prohibited from retention in Western Australian state fisheries, though post-release mortality for trawl caught stingarees is generally high and stingarees typically abort their embryos when captured. The species would receive considerable refuge as most of the Western Australian area within the 200 m isobath is protected from trawling. The species vulnerability was assessed as low for fishing and climate change. Therefore, the Western Shovelnose Stingaree is assessed as Least Concern (IUCN) (Kyne et al. 2021) and Sustainable (SAFS).

Distribution

The Western Shovelnose Stingaree is endemic to temperate waters in southern Australia (Last et al. 2016). It occurs in a wide range from near Glenelg (South Australia) to Dongara (Western Australia) (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 locally common (Last and Stevens 2009, Kyne and White 2009).

Fisheries

The Western Shovelnose Stingaree is taken incidentally in trawl fisheries and possibly in small-scale finfish net fisheries in Western Australia. It is caught in the Great Australian Bight Trawl (GABT) Sector of the Commonwealth Southern and Eastern Scalefish Fishery with an estimated annual average catch of 1.5 tonnes between 2000–2006 which was all released, though the GABT generally now operates at depths greater than the range of this species (Walker and Gason 2007, Patterson et al. 2022). The species was not noted in recent trawl surveys or risk assessment of the GABT, likely as catches were either zero or negligible. It is a minor incidental catch in the Spencer Gulf Prawn Trawl Fishery in South Australia (Burnell et al. 2015). In Western Australia, there are three small-scale fisheries that target scallops (*Ylistrum baloti*) and to a lesser extent prawns, across its range, that is, Abrolhos Islands and Mid-West Trawl, South West Trawl, and South Coast Trawl. Reconstructed annual catches for this species from South Coast Trawl in the 1990s were negligible (M. Braccini pers. comm. 2022). All these fisheries are relatively low effort and managed with limited entry, seasonal closures, and mandatory bycatch reduction devices (BRDs), although BRDs are not highly effective at excluding small rays such as this species (Griffiths et al. 2006, Kangas et al. 2019, Gaughan and Santoro 2021). If caught, the Western Shovelnose would be released as rays have been prohibited from retention in Western Australian (WA) commercial fisheries since 2006 (Evans and Molony 2010). However, 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). Within the 200 m isobath in WA, more than 90% of the area may never have been trawled due to a combination of spatial trawl closures and marine parks, providing significant refuge for the species (Gaughan and Santoro 2021). Further, inshore areas of the Great Australian Bight have limited effort. The species vulnerability to fishing and climate change in southern waters was assessed as low (Walker et al. 2021).

Habitat and biology

The Western Shovelnose Stingaree is demersal on the continental shelf at depths of 0–40 m (possibly to 95 m) though usually in depths less than 20 m; occurs on sandy substrates and near seagrass beds (Last et al. 2016, Wellington et al. 2018). Maximum size is at least 47 cm total length (TL) and maximum age estimated to 17 years (White et al. 2002). Males mature at approximately 2 years and 31–34 cm TL and females at approximately 5 years and 39 cm TL (White et al. 2002). Litter size is 1–2 pups (White et al. 2002).

Longevity and maximum size	Longevity: estimated 17 years Max size: at least 47 cm TL
Age and/or size at maturity (50%)	Males: ~2 years, 31–34 cm TL Females: ~5 years, 39 cm TL

CAAB Code: 37 038015

Link to IUCN Page: <https://www.iucnredlist.org/species/60082/68648164>

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

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