

Brown Stingray, *Bathytoshia lata*

Report Card assessment	Sustainable		
IUCN Red List Australian Assessment	Least Concern	IUCN Red List Global Assessment	Vulnerable
Global Assessors	Jabado, R.W., Chartrain, E., De Bruyne, G., Derrick, D., Dia, M., Diop, M., Doherty, P., Finucci, B., Leurs, G.H.L., Metcalfe, K., Pires, J.D., Seidu, I., Soares, A.-L., Tamo, A., VanderWright, W.J. & Williams, A.B.		
Australian Assessors	Kyne, P.M., Heupel, M.R., White, W.T., Simpfendorfer, C.A. (Shark Action Plan) & Rigby, C.L.		
Report Card Remarks	Common and wide range, stable catches, protected in most of Western Australia, and considerable refuge in lightly fished and unfished parts of its range.		

Summary

The Brown Stingray is a large continental shelf and slope ray that occurs in tropical to temperate waters of the eastern Atlantic and Indo-Pacific. The species is caught incidentally and retained for its meat and across West Africa, India, and Indonesia, significant population declines have occurred due to mostly unregulated fishing pressure. It is common in Australia, and is an incidental catch of trawl and line fisheries with some of the catch retained for its meat; post-release



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mortality is unknown. It is caught in the Commonwealth Southern and Eastern Scalefish Fishery (SESSF) and assessed as at low risk from the fishery. It is also caught in a range of state fisheries, though catch data is limited. It has been assessed as at medium risk in the Spencer Gulf Prawn Fishery, possibly due to potentially limited productivity. In Western Australia, it is protected across most of its range due to its tourism value. It also has refuge at depth and in unfished or lightly fished areas of its Australian range. Its vulnerability in southern Australia was assessed as low for both fishing and climate change. Therefore, based on stable catches, and significant parts of its range either protected or a refuge, the Brown Stingray is assessed as Least Concern (IUCN) (Kyne et al. 2021) and Sustainable (SAFS).

Distribution

The Brown Stingray occurs in tropical to temperate waters of the eastern Atlantic and the Indo-Pacific (Last et al. 2016). In Australia, it has a wide range from Gladstone (Queensland) to Karratha (Western Australia) (Kyne et al. 2021).

Stock structure and status

The population is inferred to have declined significantly across West Africa, India, and Indonesia due to high levels of mostly unregulated exploitation, whereas in Australia, this is a common species and catches in the Southern and Eastern Scalefish Fishery were stable between 1998–2006 (Walker and Gason 2007, Jabado et al. 2021).

Fisheries

The Brown Stingray is incidentally caught in a range of fisheries and is retained for its meat (Jabado et al. 2021). In Australia, it is incidentally caught in trawl and line fisheries and is caught in the Commonwealth Southern and Eastern Scalefish Fishery (SESSF) with an estimated average annual catch of 96 tonnes between 2000–2006 with approximately one-quarter of the catch retained for its meat and the remainder released; post-release mortality is unknown (Walker and Gason 2007, Kyne et al. 2021). Over that period there were fluctuations in catch-per-unit effort but no overall trend (Walker and Gason 2007). It is assessed as at low risk in all Sectors of the SESSF in which it is taken, that is, the Commonwealth Trawl, Great Australian Bight Trawl, and Danish Seine (Sporcic et al. 2021a, b, c). It is also caught in state fisheries though catch data is limited; it is assessed as at medium risk in both the Queensland (Qld) East Coast Trawl Fishery and South Australian (SA) Spencer Gulf Prawn Fishery, due to significant overlap with trawl fisheries in Qld and in SA possibly due to potentially limited productivity (PIRSA 2014, Campbell et al. 2018). In Western Australia, it may be caught in the shark fisheries, small prawn fisheries, and Pilbara Fish Trawl Fishery. Bycatch reduction devices (BRDs) have been mandated in most prawn fisheries in Australia since the early-mid 2000s and reduce the catch of the large rays such as the Brown Stingray by >94% (Brewer et al. 2004). It is protected in Western Australia in the West Coast and South Coast Bioregions due to its tourism value for local communities, and this represents approximately one-quarter of its Australian range (DPIRD 2015, Kyne et al. 2021). The species would have some refuge at depth and in considerable areas across its range that are unfished or lightly fished (Kyne et al. 2021). The Brown Stingray’s vulnerability was assessed as low for both fishing and climate change (Walker et al. 2021).

Habitat and biology

The Brown Stingray is demersal on the continental shelf and upper slope at depths of 0–800 m (Last et al. 2016). Maximum size is 260 cm disc width (DW) and maximum age estimated to 28 years (Dale and Holland 2012, Last et al. 2016). Males mature at 8 years and 80–150 cm DW and females at 15 years and 110–160 cm DW (Jabado et al. 2021). Litter size is 2–6 pups (Jabado et al. 2021).

Longevity and maximum size	Longevity: estimated 28 years Max size: 260 cm DW
Age and/or size at maturity (50%)	Males: 8 years, 80-150 cm DW Females: 15 years, 110-160 cm DW

CAAB Code: 37 035002

Link to IUCN Page: <https://www.iucnredlist.org/species/104071039/104072486>

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

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