

Blackspotted Whipray, *Maculabatis astra*

Report Card assessment	Sustainable		
IUCN Red List Australian Assessment	Least Concern	IUCN Red List Global Assessment	Least Concern
Global Assessors	Rigby, C.L.		
Australian Assessors	Kyne, P.M., Heupel, M.R., White, W.T., Simpfendorfer, C.A. (Shark Action Plan) & Rigby, C.L.		
Report Card Remarks	Australian fishing pressure is managed and low across much of its range; marine parks provide refuge.		

Summary

The Blackspotted Whipray is a medium-sized continental shelf ray distributed across tropical and subtropical waters of northern Australia and southern New Guinea. It is common across its range and is caught incidentally and retained for its meat in Indonesia and Papua New Guinea. In Australia, it is caught incidentally in trawl and gillnet fisheries and likely released as most of these prohibit elasmobranch retention, although post-release mortality is unknown. Additionally, many of the trawl fisheries



mandate the use of bycatch Reduction Devices (BRDs) which have been shown to reduce the catch of whiprays by >95%. It is among the most commonly caught elasmobranchs in the Northern Prawn Fishery where it is at low risk from the fishery. In southern Queensland, it has been assessed at low risk from the trawl fishery but also at high risk when uncertainty in the assessment is included. Many parts of the species' range across northern Australia have low fishing effort that is managed and it receives significant refuge in the extensive network of marine parks. The Blackspotted Whipray is assessed as globally and in Australia as Least Concern (IUCN) (Kyne et al. 2021) and Sustainable (SAFS).

Distribution

The Blackspotted Whipray occurs in tropical and subtropical waters of northern Australia and southern New Guinea (Indonesia and Papua New Guinea) (Last et al. 2016). In Australia, it has a wide range from Moreton Bay (Queensland) to Shark Bay (Western Australia) (Last and Stevens 2009).

Stock structure and status

There is currently no information on population structure or trend for the species. It is very common and abundant in southern New Guinea and in the Gulf of Carpentaria, northern Australia (Last and Stevens 2009, Kyne et al. 2021).

Fisheries

The Blackspotted Whipray is taken incidentally in trawl and net fisheries. In Indonesia, it is a common catch in trawl and beach seine fisheries in the Arafura Sea and is retained for its meat, cartilage, and high value skin (White et al. 2006). In Papua New Guinea, it is commonly caught and considered at high risk from the Gulf of Papua Prawn Fishery where it may be consumed if retained (White et al. 2017, Baje et al. 2021). In Australia, it is one of the most commonly caught elasmobranchs in the Commonwealth Northern Prawn Fishery where it is considered at low risk of overfishing due to estimated fishing mortality being below levels leading to population reduction (Zhou and Griffiths 2008). It is less common catch in the Queensland East Coast Trawl Fishery (ECTF) where it has been assessed both as low and high risk; low risk based on a quantitative risk assessment that however, shifted it to high risk when uncertainty estimates were included (Campbell et al. 2018). It is also taken in the Gulf of Carpentaria (GoC) Developmental Fishery and Inshore Fishery (Jacobsen et al. 2019a, b). It is possibly caught in the Northern Territory Demersal Fishery (DF) and Western Australian prawn fisheries and Pilbara Fish Trawl Fishery. Catches in Western Australia fisheries are likely minimal as effort is limited and negligible bycatch has been reported in recent years (Gaughan and Santoro 2021). Bycatch reduction devices (BRDs) have been mandated in most of these fisheries since the early-mid 2000s and reduce the catch of whiprays by >95% (Griffiths et al. 2006). If it is caught, it would be released as elasmobranch retention is now prohibited, except in the Queensland GoC Inshore Fishery, although post-release mortality is unknown. Across northern Australia, many parts of the species' range have low fishing effort and the species would receive refuge in the extensive network of marine parks (Parks Australia 2023).

Habitat and biology

The Blackspotted Whipray is demersal on the continental shelf at depths of 0–140 m and it also occurs in mangroves (Last et al. 2016). Maximum size is 92 cm disc width (DW) and maximum age estimated to 31 years (Jacobsen 2007, White et al. 2017). Males mature at 10–12 years and approximately 44 cm DW and females at 9–12 years and approximately 67 cm DW (Jacobsen 2007, White et al. 2017). Litter size is 1–3 pups (Jacobsen 2007, White et al. 2017).

Longevity and maximum size	Longevity: 31 years Max size: 92 cm DW
Age and/or size at maturity (50%)	Males: 10–12 years, ~44 cm DW Females: 9–12 years, ~67 cm DW

CAAB Code: 37 035020

Link to IUCN Page: <https://www.iucnredlist.org/species/195455/104184896>

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

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