

Mangrove Whipray, *Urogymnus granulatus*

Report Card assessment	Sustainable		
IUCN Red List Australian Assessment	Least Concern	IUCN Red List Global Assessment	Vulnerable
Global Assessors	Manjaji-Matsumoto, B.M., White, W.T., Fahmi, Ishihara, H. & Morgan, D.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 low, BRDs significantly reducing catch, marine parks provide refuge.		

Summary

The Mangrove Whipray is a medium-sized and rare continental shelf ray distributed across tropical and subtropical waters of northern Australia and the Indo-Pacific. Juveniles inhabit mangroves and estuaries and adults mostly inhabit coral reefs. It is caught incidentally and retained for its meat in at least Southeast Asia where significant population declines have occurred due to unregulated fishing pressure and habitat



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loss. In Australia, it is caught incidentally and rarely in mostly trawl 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 large rays by 94%. The Mangrove Whipray is considered moderately vulnerable to climate change due to its rarity and habitat specificity. 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 Mangrove Whipray is assessed as globally Vulnerable (IUCN) and in Australia, as Least Concern (IUCN) (Kyne et al. 2021) and Sustainable (SAFS).

Distribution

The Mangrove Whipray occurs in tropical and subtropical waters of northern Australia and patchily across the Indo-Pacific to the Arabian Seas (Last et al. 2016). In Australia, it has a wide range from Bribie Island (Queensland) to the Dampier Peninsular (Western Australia) (Last et al. 2016).

Stock structure and status

There is currently little information on population size, structure, or trend for the species, other than it is considered a rare species (Manjaji-Matsumoto et al. 2020). The population is inferred to have declined significantly across Southeast Asia due to high levels of mostly unregulated exploitation and

mangrove habitat loss. However, in Australia, fishing pressure is limited and managed, the species has considerable refuge from fishing, and thus, the population is suspected to be stable (Manjaji-Matsumoto et al. 2020, Kyne et al. 2021).

Fisheries

The Mangrove Whipray is taken incidentally across the Indo-Pacific in a variety of fishing gears and is retained for its meat and highly-valued skin (except in Australia) (White et al. 2006, Manjaji-Matsumoto et al. 2020). In Australia, it is taken in the Commonwealth Northern Prawn Fishery (NPF) and possibly in the Queensland East Coast Trawl Fishery, the Gulf of Carpentaria (GoC) Developmental Fishery, and GoC Inshore Fishery. It is also possibly caught in the Northern Territory Demersal Fishery (DF) and Western Australian prawn fisheries and Pilbara Fish Trawl Fishery. Bycatch reduction devices (BRDs) have been mandated in most of these fisheries since the early-mid 2000s and reduce the catch of the large rays by >94%, though they may not be as effective at excluding juveniles; the rarity of Mangrove Whipray captures in the NPF precluded determining the level of species-specific reduction due to BRDs (Brewer et al. 2004, Gaughan and Santoro 2021). 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. The Mangrove Whipray was considered at low risk of overfishing in the NPF due to estimated fishing mortality being below levels leading to population reduction (Zhou and Griffiths 2008). The species is considered moderately vulnerable to climate change due to its rarity and habitat specificity (Chin et al. 2010). 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 Mangrove Whipray is demersal on the continental shelf at depths of 0–85 m with juveniles occurring mainly in mangroves and estuaries and adults mostly on coral reefs (Last et al. 2016, Martins et al. 2020). Maximum size is at least 141 cm disc width (DW), greater than 350 cm total length and males mature at 55–65 cm DW (Last et al. 2016). Little else is known of its biology.

Longevity and maximum size	Longevity: unknown Max size: 141 cm DW
Age and/or size at maturity (50%)	Males: 55–65 cm DW Females: unknown

CAAB Code: 37 035019

Link to IUCN Page: <https://www.iucnredlist.org/species/161431/177282313>

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

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