

Coral Sea Maskray, *Neotrygon trigonoides*

Report Card assessment	Sustainable		
IUCN Red List Australian Assessment	Least Concern	IUCN Red List Global Assessment	Least Concern
Global Assessors	Sherman, C.S., Rigby, C.L. & Derrick, D.		
Australian Assessors	Kyne, P.M., Heupel, M.R., White, W.T., Simpfendorfer, C.A. (Shark Action Plan) & Rigby, C.L.		
Report Card Remarks	Abundant and significant refuge in unfished areas and marine parks.		

Summary

The Coral Sea Maskray is a small continental shelf ray in tropical and subtropical waters of eastern Australia and New Caledonia. It is abundant in at least the southern part of its Australian range. In New Caledonia, it is not threatened by fisheries. In Australia, it is caught incidentally in the East Coast Trawl Fishery (ECTF) where it is one of the main elasmobranch bycatch species in the Scallop sector. It is released as elasmobranch retention is prohibited and although post-release mortality is suspected to be high, overall less than 25% of its total Australian range is fished. An ecological risk assessment that incorporated proportion of its range fished and fishing mortality compared to sustainable fishing mortality found the risk from the ECTF was low. In addition to refuge in areas not fished, the species also has considerable refuge within the Great Barrier Reef Marine Park and Moreton Bay Marine Park. Therefore, the Coral Sea Maskray is assessed as globally and in Australia as Least Concern (IUCN) (Kyne et al. 2021), and Sustainable (SAFS) in Australia.



Distribution

The Coral Sea Maskray occurs in tropical and subtropical eastern Australia and New Caledonia (Last et al. 2016a). In Australia, it is found from Cape Melville (Queensland) to northern New South Wales (Last et al. 2016). However, its distribution is not fully resolved due to taxonomic uncertainty of the species and the *Neotrygon* genus (Last et al. 2016b, Sherman et al. 2021).

Stock structure and status

There is currently no information on population size, structure, or trend for the species. However, in southern Queensland, it is relatively abundant on inshore sand flats (Pierce et al. 2011, Sherman et al. 2021).

Fisheries

The Coral Sea Maskray is incidentally caught in trawl fisheries. In New Caledonia, this species is not threatened by fisheries (Sherman et al. 2021). In Australia, it is taken in the Queensland East Coast Trawl Fishery (ECTF) where it is one of the dominant bycatch species in the Scallop sector, accounting for 23% by number of the elasmobranchs (Courtney et al. 2007). It accounts for 3% by number of the elasmobranch bycatch in the shallow Eastern King Prawn sector and is also likely encountered in other shallow water trawl sectors (Campbell et al. 2018). It would be released as elasmobranch retention is prohibited, however, post-release survival has found to be low for *Neotrygon* species in trawl nets in Papua New Guinea and capture-induced parturition has been reported for other *Neotrygon* species and dasyatids (Adams et al. 2018, White et al. 2019). Bycatch reduction devices have been mandatory since 2002, although their effectiveness is limited at excluding small rays such as this species (Griffiths et al. 2006). It was assessed as at low risk from the ECTF based on proportion of its range fished and fishing mortality (Campbell et al. 2018). The ECTF trawls across approximately 28% of the Coral Sea Maskray's range south of the Great Barrier Reef Marine Park and less than 25% of its total range, providing it significant refuge from fisheries (Campbell et al. 2018, Sherman et al. 2021). Further, the Great Barrier Reef Marine Park and Moreton Bay Marine Park in Australia, and the Coral Sea Nature Park in New Caledonia provide refuge.

Habitat and biology

The Coral Sea Maskray is demersal inshore on the continental shelf at depths of 0–50 m (Last et al. 2016a, Sherman et al. 2021). It occurs on both sandy substrates and coral reefs (Last et al. 2016a). Maximum size is 47 cm disc width (DW) and maximum age estimated at 13 years (Pierce and Bennet 2009, Pierce et al. 2009). Males mature at 4 years and 29 cm DW and females at 6 years and 30 cm TL (Pierce and Bennet 2009, Pierce et al. 2009). It has an annual reproductive cycle and a litter size of 1–3 pups (Pierce et al. 2009).

Longevity and maximum size	Longevity: 13 years Max size: 47 cm DW
Age and/or size at maturity (50%)	Males: 4 years, 29 cm DW Females: 6 years, 30 cm DW

CAAB Code: 37 035031

Link to IUCN Page: <https://www.iucnredlist.org/species/104167060/104167071>

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

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