

Purple Eagle Ray, *Myliobatis hamlyni*

Report Card assessment	Depleting		
IUCN Red List Australian Assessment	Vulnerable*	IUCN Red List Global Assessment	Near Threatened
Global Assessors	White, W.T., Kyne, P.M. & Last, P.R.		
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 previously intense in parts of east coast range prior to management changes and marked effort reductions and significant declines suspected however low fishing pressure in west coast range, may be naturally rare.		

*The Australian assessment status is more recent than the Global assessment and the different status aligns with a less evidentiary and more precautionary approach to Red List assessments rather than any new available information.

Summary

The Purple Eagle Ray is a medium-sized demersal and semi-pelagic ray that occurs patchily in tropical and subtropical waters across Southeast Asia and has a disjunct east and west Australian range. It is rarely seen across most of its range but like other eagle rays may be caught incidentally by trawl and net fisheries. In Australia, it was originally noted from Moreton Bay and has been reported from Swain Reefs. The Queensland East Coast Trawl Fishery operates across this range, with higher fishing effort in the southern

Moreton Bay area, although it has not been reported from the ECTF in recent years. In New South Wales (NSW), an intense offshore Ocean Trawl Fishery (OTF) operated across its range for decades and although catches were very low in trawl research surveys, these surveys noted a 70% decline in catch rates over 20 years. However, since the early 1990s, effort in the OTF has declined markedly by 80%. Its range in Western Australia has very low fishing pressure. The species would receive refuge in the Commonwealth Marine Parks Network. Given its exposure to intense New South Wales fisheries, its relatively restricted habitat range, and its rarity, it is suspected to have undergone significant population decline in the east coast but unlikely to have declined on the west coast. Therefore, the Purple Eagle Ray was assessed in 2016 as globally Near Threatened (IUCN), and more recently in Australia as Vulnerable (IUCN) (Kyne et al. 2021) and following a precautionary approach, Depleting (SAFS).



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Distribution

The Purple Eagle Ray occurs in tropical and subtropical waters off northern Australia and patchily in Southeast Asia from Indonesia to Japan (Last et al. 2016). In Australia, it has a disjunct east and west coast range: on the east coast, it occurs from Swain Reefs (Queensland) to Swansea (New South Wales)

and on the west coast it has been reported off Forestier Island and Shark Bay (Western Australia) (White et al. 2015, 2016).

Stock structure and status

There is currently no information on population size, structure, or trend for the species. The species is rarely seen in Australian waters and may be naturally uncommon (White et al. 2016).

Fisheries

The Purple Eagle Ray is rarely seen across most of its range (White et al. 2016), though like other eagle rays it is likely caught incidentally by trawl and net fisheries. In Australia, it was originally reported from the Cape Moreton area which has significant levels of trawl effort by the Queensland East Coast Trawl Fishery (ECTF). The specimen from Swain Reefs was incidentally caught in the ECTF while targeting champagne lobster, which is a low effort fishery (White et al. 2016). The species not been recently reported from the ECTF or in other Queensland fisheries, despite observer and research surveys (Kyne et al. 2021). Its range in New South Wales has been subject to long-term and intense offshore trawl fishing pressure and although catches were very low in trawl research surveys, the surveys revealed a 70% decline over two decades with 13 recorded in 1976–1976 to 1979 compared with four recorded in 1996–1997 (White et al. 2016). Since the early 1990s, effort in the NSW Ocean Trawl Fishery has declined markedly by 80% (Johnson and Barnes 2023). In Western Australia, its depth range overlaps with two Commonwealth fisheries, the Northwest Slope Trawl Fishery and the Western Deepwater Trawl Fishery which both operate at 200 m and deeper (Patterson et al. 2022). Both fisheries have limited effort with only 1–6 active vessels and as the Purple Eagle Ray is of little commercial value, it is likely released if caught. Although post-release mortality is unknown, chondrichthyans have been assessed as at low risk in these fisheries (Zhou et al. 2009). The species would receive refuge in the Commonwealth Marine Parks Network that came into effect in 2018 which include zoning and gear restrictions (Parks Australia 2023).

Habitat and biology

The Purple Eagle Ray is demersal and semi-pelagic on the continental shelf and upper slope at depths of 117–367 m (Last et al. 2016, Weigmann 2016). Maximum size is at least 114 cm disc width (DW) and males mature at approximately 65 cm DW (Last et al. 2016). Little else is known of its biology.

Longevity and maximum size	Longevity: unknown Max size: at least 114 cm DW
Age and/or size at maturity (50%)	Males: ~65 cm DW Females: unknown

CAAB Code: 37 039004

Link to IUCN Page: <https://www.iucnredlist.org/species/60124/68634957>

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

References

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