

## Spotted Eagle Ray, *Aetobatus ocellatus*

Report Card assessment	Sustainable		
IUCN Red List Australian Assessment	Least Concern	IUCN Red List Global Assessment	Vulnerable
Global Assessors	Kyne, P.M., Dudgeon, C.L., Ishihara, H., Dudley, S.F.J. & White, W.T.		
Australian Assessors	Kyne, P.M., Heupel, M.R., White, W.T., Simpfendorfer, C.A. (Shark Action Plan) & Rigby, C.L.		
Report Card Remarks	Australian incidental catches low, BRDs significantly reducing catch, marine parks provide refuge.		

### Summary

The Spotted Eagle Ray is a large pelagic and common continental shelf species distributed across tropical and subtropical waters of northern Australia and the wider Indo-Pacific. Due to its generally low biological productivity, it is susceptible to exploitation. The species is targeted and caught incidentally and retained for its meat in at least Southeast Asia. Across Southeast Asia and the Indian Ocean, significant population declines have occurred due to mostly unregulated fishing pressure and habitat loss. 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 this species by >90%. Many parts of the species' range across northern Australia have low fishing effort and it would receive significant refuge in the extensive network of marine parks. The Spotted Eagle Ray is assessed as globally Vulnerable (IUCN) and in Australia, as Least Concern (IUCN) (Kyne et al. 2021) and Sustainable (SAFS).



### Distribution

The Spotted Eagle Ray occurs in tropical and subtropical waters of northern Australia and across the Indo-Pacific from the Central Pacific Islands to Japan and South Africa (Last et al. 2016). In Australia, it ranges from Sydney (New South Wales) to Shark Bay (Western Australia) (Last and Stevens 2009).

### Stock structure and status

Genetic analyses suggest stocks in Qatar are distinct from the those of the rest of the Indo-Pacific and further taxonomic investigation is needed (White et al. 2010). The population is inferred to have declined significantly across the Southeast Asia and Indian Ocean region, due to high levels of mostly

unregulated exploitation and inshore habitat loss, whereas in Australia and the Central Pacific Islands, fishing pressure is limited and populations are inferred to be stable (Kyne et al. 2015).

## Fisheries

The Spotted Eagle Ray is targeted and taken incidentally across the Indo-Pacific (except Australia) in a wide variety of fishing gears and retained for its meat and the aquarium trade (Kyne et al. 2015). In Australia, it is caught incidentally in low numbers in the Commonwealth Northern Prawn Fishery (NPF), the Queensland East Coast Trawl Fishery (ECTF) and Inshore Fishery (East Coast and Gulf of Carpentaria), and beach protection programs (Stobutzki et al. 2000, Harry et al. 2011, Sumpton et al. 2011, Pears et al. 2012, DPI 2021), and likely in low numbers in other trawl fisheries across its Australian range. Bycatch reduction devices (BRDs) are mandated in some of these fisheries since the early-mid 2000s and have been shown to reduce the catch of Spotted Eagle Ray by >90%, though they may not be effective at excluding juveniles (Brewer et al. 2004). If it is caught, it would be released in most of these fisheries as elasmobranch retention is prohibited, although post-release mortality is unknown. The Spotted Eagle Ray was considered at low risk of being unsustainably fished in the NPF and likely also in the ECTF, where a sympatric eagle ray species was assessed as at low risk (Zhou and Griffiths 2008, Campbell et al. 2018). 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 across its Australian range.

## Habitat and biology

The Spotted Eagle Ray is pelagic on the continental shelf from inshore to offshore waters at depths of 0–40 m (Last et al. 2016, Weigmann 2016). Maximum size is 300 cm disc width (DW) and 880 cm total length (TL) and maximum age estimated to 19 years, based on the congeneric Naru Eagle Ray (*Aetobatus narutobiei*; previously *A. flagellum*) (Yamaguchi et al. 2005). Males and females mature at 4–6 years with males mature at 100–130 cm DW and females at 150–160 cm DW (Fowler et al. 2005, Last et al. 2010, Schluessel et al. 2010). Litter size is 2–10 (usually <4) pups (Last et al. 2016).

Longevity and maximum size	Longevity: estimated 19 years Max size: 300 cm DW, 880 cm TL
Age and/or size at maturity (50%)	Males: 4–6 years, 100–130 cm DW Females: 4–6 years, 150–160 cm DW

**CAAB Code:** 37 039003

**Link to IUCN Page:** <https://www.iucnredlist.org/species/42566169/42566212>

**Link to page at Shark References:** <https://shark-references.com/species/view/Aetobatus-ocellatus>

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