

## Dusky Skate, *Pavoraja umbrosa*

Report Card assessment	Sustainable		
IUCN Red List Australian Assessment	Least Concern (Endemic to Australia)	IUCN Red List Global Assessment	Least Concern
Global Assessors	Smyth, W.		
Australian Assessors	Kyne, P.M., Heupel, M.R., White, W.T., Simpfendorfer, C.A. (Shark Action Plan) & Rigby, C.L.		
Report Card Remarks	Common and limited fishing effort across its restricted range.		

### Summary

The Dusky Skate is a small deepwater species endemic to subtropical eastern Australia where it occurs in a restricted range. There is limited fishing effort across its range on the upper continental slope from southern Queensland to central New South Wales. It may be taken incidentally in deepwater trawl fisheries, that is, the Queensland East Coast Trawl Fishery (ECTF) and the New South Wales Ocean Trawl Fishery (OTF). It has not been reported from the ECTF, likely as it rarely operates at its depth range. In the OTF, species-specific catches of softnose skates are not reported, though observed catch rates of softnose skates were low. Therefore, the Dusky Skate is assessed as Least Concern (IUCN) (Kyne et al. 2021) and Sustainable (SAFS).



### Distribution

The Dusky Skate is endemic to subtropical Australia (Last et al. 2016). It occurs in a restricted range on the east coast from Moreton Island (Queensland) to Cape Hawke (New South Wales) with an extent of occurrence of approximately 20,000 km<sup>2</sup> (Last and Stevens 2009, Kyne et al. 2021)

### Stock structure and status

There is currently no information on population size, structure, or trend for the species. However, it is apparently common (Last and Stevens 2009).

### Fisheries

The Dusky Skate is possibly an incidental catch of deepwater trawl fisheries that operate within its range, that is, the Queensland East Coast Trawl Fishery (ECTF) and the New South Wales Ocean Trawl Fishery (OTF) (Smyth 2015, Kyne et al. 2021). It has not been reported from the ECTF, possibly as the fishery rarely operates to the depth range of this species. In the OTF, although there is no species-

specific catch data, if it is encountered, catches are likely minimal as softnose skates (Arhynchobatidae) and skates (Rajidae) undifferentiated and combined, were noted in only 4% of observed shots over two years (2017/18–2018/19) (Johnson and Barnes 2023). There is limited fishing effort across the narrow range of this species, that is, along the upper continental slope from southern Queensland to central New South Wales.

### Habitat and biology

The Dusky Skate is demersal on the continental slope at depths of 360–730 m (Last et al. 2016). Maximum size is approximately 37 cm total length (TL) with males mature at approximately 32–35 cm TL (Last et al. 2016). Little else is known of its biology.

Longevity and maximum size	Longevity: unknown Max size: ~37 cm TL
Age and/or size at maturity (50%)	Males: ~32–35 cm TL Females: unknown

**CAAB Code:** 37 031026

**Link to IUCN Page:** <https://www.iucnredlist.org/species/70681387/70681738>

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

### References

- Johnson, D.D. and Barnes, T.C. 2023. *Observer-based survey of the prawn trawl sectors (inshore & offshore prawn) of the New South Wales ocean trawl fishery. Retained and discarded catch characteristics*. Fisheries Final Report Series | No. 163. NSW Department of Primary Industries.
- Kyne, P.M., Heupel, M.R., White, W.T. and Simpfendorfer, C.A. 2021. *The Action Plan for Australian Sharks and Rays 2021*. National Environmental Science Program, Marine Biodiversity Hub, Hobart.
- Last, P.R. and Stevens, J.D. 2009. *Sharks and Rays of Australia*. Second Edition. CSIRO Publishing, Collingwood, Australia.
- Last, P., White, W., Carvalho, M.R. de, Séret, B., Stehmann, M. and Naylor, G.J.P. 2016. *Rays of the World*. CSIRO Publishing, Clayton, Victoria, Australia.