

Murray's Skate, *Bathyraja murrayi*

Report Card assessment	Sustainable		
IUCN Red List Australian Assessment	Least Concern	IUCN Red List Global Assessment	Least Concern
Global Assessors	Dulvy, N.K., Bineesh, K.K., Cheok, J., Finucci, B., Dharmadi, Pacoureau, N. & Sherman, C.S.		
Australian Assessors	Kyne, P.M., Heupel, M.R., White, W.T., Simpfendorfer, C.A. (Shark Action Plan) & Rigby, C.L.		
Report Card Remarks	Common, at low risk, and strictly managed and monitored.		

Summary

Murray's Skate is a common and small deepwater ray that is possibly endemic to temperate waters of the Kerguelen Plateau and associated banks and includes the Kerguelen Islands (French Territory) and the Heard and McDonald Islands (HIMI) (Australian Territory). It is caught incidentally in trawl fisheries and longline fisheries. In Australian waters of HIMI, most of the catch was taken in the Patagonian Toothfish trawl fishery where catches increased from 2006–2009 then decreased to almost zero after 2014 as the proportion of longline effort in the fishery rose



Source: Australian Fisheries Management Authority.

and the proportion of trawl effort declined. Catches of this species are lower and stable in the Mackerel Icefish trawl fishery and have increased slightly recently with most of the Murray's Skate catch now taken in the Mackerel Icefish trawl fishery. Skates taken in the HIMI captured in good condition are released alive and in the longline fisheries, an average of 80% of skates are released, though post-release mortality is unknown. However, in the trawl fisheries 66% of the catches are not in good condition when hauled on board, and are retained. The species is subject to strict management in HIMI waters and catches are closely monitored. It has been assessed as at low risk from HIMI fisheries and receives refuge in shallow depths and territorial waters around HIMI that are both not permitted to be fished, and in the HIMI Marine Reserve. Therefore, Murray's Skate is assessed as globally and in Australia as Least Concern (IUCN) (Kyne et al. 2021) and Sustainable (SAFS).

Distribution

Murray's Skate is possibly endemic to temperate waters of the Kerguelen Plateau and associated banks (Williams Ridge, Elan Bank, and BANZARE Bank), including Kerguelen Islands (French Territory) and Heard and McDonald Islands (Australian Territory) (Last et al. 2016, J. Cleeland).

Stock structure and status

There is currently no information on population structure of Murray's Skate, however it has limited movement and is a common species (Nowara et al. 2017, Kyne et al. 2021).

Fisheries

Murray's Skate is caught incidentally within the Heard and McDonald Islands (HIMI) (Australian Territory), mainly in demersal trawl and longline fisheries that target Patagonian Toothfish (*Dissostichus eleginoides*) and in demersal trawl fisheries that target Mackerel Icefish (*Champscephalus gunnari*) (Nowara et al. 2017). Catches of Murray's Skate increased in the HIMI Patagonian Toothfish trawl fishery between 2006–2009 then decreased until 2014 and then to almost zero due to a shift away from trawling to longlining; since 2003, the proportion of HIMI longline effort targeting Patagonian Toothfish increased and proportion of trawl effort decreased. Catches were much lower but stable in the Mackerel Icefish trawl fishery and have increased slightly recently (Australian Antarctic Division unpubl. data 2022). Most of the Murray's Skate catch is now from the Mackerel Icefish trawl fishery. In the HIMI, skates captured in good condition are released alive and can only be retained if hauled dead, although post-release mortality is unknown; a 10-year average of 80% of skates from the longline fishery are released whereas a 10-year average of 66% of skates are retained in the trawl fishery (Australian Antarctic Division unpubl. data 2022). Retained skates are macerated and released outside the Australian EEZ as part of seabird bycatch mitigation measures (AFMA 2013). The species is managed under the Australian Fisheries Management Authority that adopt the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) bycatch limits, move-on rules, and no fishing permitted above depths of 500 m (Dulvy et al. 2020). The species was assessed as at low risk from the HIMI fisheries (Dell et al. 2019). Waters around the islands out to 13 nautical miles are closed to fishing and the HIMI Marine Reserve would provide additional refuge (Patterson et al. 2022).

Habitat and biology

Murray' Skate is demersal on the insular shelf and slope at depths of 20–1,500 m, though its more common at shallower depths of 200–500 m (Last et al. 2016, Nowara et al. 2017). Maximum size is approximately 60 cm total length (TL) with males and females mature at an estimated 5 years and approximately 31 cm TL; age estimates are based on small sample sizes and to be interpreted with caution (Nowara et al. 2017, Wong et al. 2022).

Longevity and maximum size	Longevity: unknown Max size: ~60 cm TL
Age and/or size at maturity (50%)	Both sexes: 5 years, 31cm TL

CAAB Code: 37 031048

Link to IUCN Page: <https://www.iucnredlist.org/species/161391/124476273>

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

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