

Graham's Skate, *Dipturus grahamorum*

Report Card assessment	Sustainable		
IUCN Red List Australian Assessment	Least Concern (Endemic to Australia)	IUCN Red List Global Assessment	Least Concern
Global Assessors	Graham, K.		
Australian Assessors	Kyne, P.M., Heupel, M.R., White, W.T., Simpfendorfer, C.A. (Shark Action Plan) & Rigby, C.L.		
Report Card Remarks	Possible population reduction in ~20% of range, stable catches and limited fishing pressure in rest of range.		

Summary

Graham's Skate is a small and common deepwater ray endemic to subtropical to temperate waters of eastern Australia in a relatively restricted range. It is incidentally caught in deepwater trawl fisheries and released; post-release mortality is suspected to be high. It is caught in the Commonwealth Southern and Eastern Scalefish Fishery (SESSF) with significant declines in all skate species noted over 20 years from 1977–1997. This species was a small component of those catches. It likely has undergone some population decline

in the southern part of the SESSF (~ 20% of its range) which historically had high fishing pressure in the species' preferred depth range. However, north of Sydney, catches of the species were stable from 1977–1997, likely due to less intensive fishing pressure in that region at the species' preferred depths. It is currently assessed as at low risk from the SESSF. Its vulnerability was assessed as low and medium for fishing and climate change, respectively. Given a possible population reduction in ~ 20% of its range, stable catches and limited fishing pressure elsewhere, Graham's Skate is assessed as Least Concern (IUCN) (Kyne et al. 2021) and Sustainable (SAFS).



Distribution

Graham's Skate is endemic to subtropical to temperate waters of eastern Australia (Last et al. 2016). It occurs in a relatively restricted range from Moreton Bay (Queensland) to Bermagui (New South Wales) (Last and Stevens 2009).

Stock structure and status

The species is common and available population trend information suggests that catches were stable over most its range from 1996–1997 with some possible historical population reduction in the most southern part of its range (Last and Stevens 2009, Graham 2015).

Fisheries

Graham's Skate is an incidental catch of trawl fisheries. In the southern part of its range, it is caught in the Commonwealth Trawl Sector (CTS) of the Commonwealth Southern and Eastern Scalefish Fishery (SESSF) and released as it is too small to be of commercial value, though post-release mortality is suspected to be high (Graham 2015). It is currently assessed as at low risk from the SESSF (Sporcic et al. 2021). In recent years, an estimated 30% of 'mixed skates' are retained in the CTS (Daley and Gray 2020). There was a decline of 75–88% in mean catch rates of deepwater skates in this sector over 20 years from 1977–1997, with these catches including small numbers of Graham's Skate (Graham et al. 2001, Graham 2015). The species has likely gone undergone some population decline in southern New South Wales (approximately 20% of its range) due to the historically high levels of fishing pressure in its preferred depth range (Graham 2015, Kyne et al. 2021). However, in waters north of Sydney, catches were stable from 1977–1997 which is likely due to less intensive fishing pressure in that region at the species' preferred depths (Graham 2015). It may also be caught in the New South Wales Ocean Trawl Fishery and the Queensland East Coast Trawl Fishery, though there is no species-specific catch data and effort is relatively minimal in its preferred depth range (Graham 2015, Johnson and Barnes 2023). The species vulnerability to fishing and climate change in southern waters was assessed as low and medium, respectively (Walker et al. 2021).

Habitat and biology

Graham's Skate is demersal on the continental shelf and slope at depths of 145–490 m but mostly occurs at 250–450 m (Last et al. 2016). Maximum size is at least 64 cm total length (TL) and males mature at approximately 54 cm TL (Last et al. 2016). Little else is known of its biology.

Longevity and maximum size	Longevity: unknown Max size: at least 64 cm TL
Age and/or size at maturity (50%)	Males: ~ 54 cm TL Females: unknown

CAAB Code: 37 031029

Link to IUCN Page: <https://www.iucnredlist.org/species/195448/68620997>

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

References

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