

Bight Skate, *Dipturus gudgeri*

Report Card assessment	Depleting		
IUCN Red List Australian Assessment	Near Threatened (Endemic to Australia)	IUCN Red List Global Assessment	Near Threatened
Global Assessors	Treloar, M.A.		
Australian Assessors	Kyne, P.M., Heupel, M.R., White, W.T., Simpfendorfer, C.A. (Shark Action Plan) & Rigby, C.L.		
Report Card Remarks	Likely historic population reduction in a quarter of its range and limited productivity, yet considerable refuge in remainder of range.		

Summary

The Bight Skate is a large deepwater ray endemic to mostly temperate waters of southern Australia in a wide range. It is caught in the Commonwealth Southern and Eastern Scalefish Fishery (SESSF) and mostly released; post-release mortality is unknown. In recent years, an estimated 30% of 'mixed skates' are retained in the SESSF. Significant declines in all skate species were noted in SESSF surveys over 20 years from 1977–1997 with the Bight Skate dominating the skate catches across all survey grounds at depths of 330–605 m.



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Thus, it likely has undergone significant population decline in southeast Australia which accounts for approximately a quarter of its range. Fishing pressure has since declined significantly in the SESSF, though pressure is ongoing and the Bight Skate is assessed as at high risk in the Commonwealth Trawl Sector of the SESSF but at low risk in the Great Australian Bight Trawl Sector where fishing pressure is lower. The species would have refuge in considerable part of its range that are unfished or lightly fished and in the network of marine parks. Its vulnerability to fishing and climate change was assessed as medium and low, respectively. Given significant declines in about a quarter of its range and limited productivity yet significant refuge elsewhere, the Bight Skate is assessed as Near Threatened (IUCN) (Kyne et al. 2021) and Depleting (SAFS).

Distribution

The Bight Skate is endemic to subtropical and temperate waters of southern Australia (Last et al. 2016). It occurs in a wide range from Tweed Heads (New South Wales) to Geraldton (Western Australia) (Last and Stevens 2009).

Stock structure and status

The Bight Skate likely has undergone significant historic population declines in the Commonwealth Southern and Eastern Scalefish Fishery (SESSF) (Graham et al. 2001). However, fishing pressure has

since declined and catch rates increased overall from 2000–2006 in the SESSF, though it is a short time-series and in the latter years there was a decrease in catch rates (Walker and Gason 2007).

Fisheries

The Bight Skate is an incidental catch of trawl and longline fisheries. It is caught in the Commonwealth Southern and Eastern Scalefish Fishery (SESSF) with an estimated annual average catch of 88 tonnes between 2000–2006 and a small proportion retained for consumption and the remainder released; post-release mortality is unknown (Walker and Gason 2007, Kyne et al. 2021). From 2000–2006 there was an increasing trend in catch-per-unit effort of the Bight Skate (Walker and Gason 2007). In recent years, an estimated 30% of ‘mixed skates’ are retained in the SESSF (Daley and Gray 2020). There was a decline of 75–88% in mean catch rates of deepwater skates in the SESSF over 20 years from 1977–1997 with the Bight Skate dominating catches across the survey grounds at depths of 330–605 m (Graham et al. 2001). Thus, it has likely gone undergone significant population decline in southeast Australia (approximately 25% of its range) during that time due to the historically high levels of fishing pressure (Treloar 2016). Fishing pressure has since declined significantly in the SESSF and fishing deeper than 700 m has been prohibited since 2007, however fishing pressure is ongoing in the southeast and the Bight Skate is assessed as at high risk in the CTS but at low risk in the Great Australian Bight Trawl Sector where effort is significantly lower (Sporcic et al. 2021a, b). It may be caught in the Commonwealth Western Deepwater Trawl Fishery that operates at 200–700 m depths. The fishery has limited effort with only 1–3 active vessels and chondrichthyans have been assessed as at low risk in the fishery (Zhou et al. 2009, Patterson et al. 2022). There are considerable areas of the species range that are unfished or lightly fished which would provide refuge (Kyne et al. 2021). It would also some receive refuge in the Commonwealth South-east and South-west Marine Parks Networks which include zoning and gear restrictions (Parks Australia 2023). The species vulnerability to fishing and climate change was assessed as medium and low, respectively (Walker et al. 2021).

Habitat and biology

The Bight Skate is demersal on the continental shelf and slope at depths of 160–765 m though mostly at 400–550 m (Last et al. 2016). Maximum size is at least 184 cm total length (TL) and maximum age estimated to at least 16 years (Treloar 2016). Males mature at approximately 13 years and 120 cm TL (Treloar 2016).

Longevity and maximum size	Longevity: estimated at least 16 years Max size: at least 184 cm TL
Age and/or size at maturity (50%)	Males: ~13 years, ~120 cm TL Females: unknown

CAAB Code: 37 031010

Link to IUCN Page: <https://www.iucnredlist.org/species/161535/68621107>

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

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