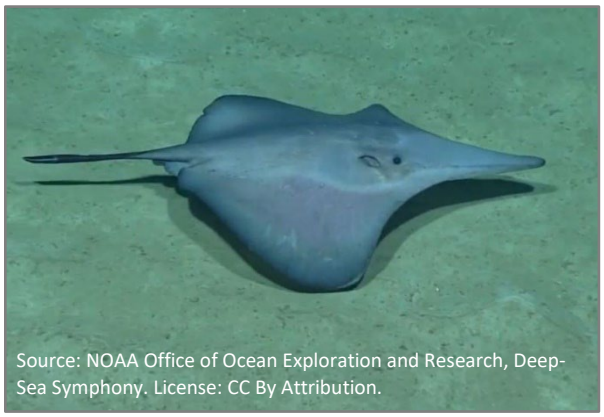
Sixgill Stingray, *Hexatrygon bickelli*

Report Card assessment	**Sustainable**		
IUCN Red List Australian Assessment	Least Concern	IUCN Red List Global Assessment	Least Concern
Global Assessors	McCormack, C., Wang, Y., Ishihara, H., Fahmi, Manjaji Matsumoto, B.M., Capuli, E. & Orlov, A.		
Australian Assessors	Kyne, P.M., Heupel, M.R., White, W.T., Simpfendorfer, C.A. (Shark Action Plan) & Rigby, C.L.		
Report Card Remarks	Fishing pressure low and significant spatial refuge in its known range.		

Summary

The Sixgill Stingray is a large deepwater demersal ray that occurs in tropical and subtropical waters of Australia and patchily across the Indo-Pacific. It is occasionally incidentally caught in deepwater fisheries of the Indo-Pacific and it is not known if it is retained. In Australia, it may be caught in Commonwealth fisheries off Queensland (Line Sector of the Coral Sea Fishery) and Western Australia (Northwest Slope Trawl Fishery and the Western Deepwater Trawl Fishery), however these all have limited effort with only 1–4 active vessels. It would be released as it as has no commercial value in Australia and the Coral Sea Fishery has handling practices to maximise post-release survival. The species has significant refuge at depth as it occurs beyond the maximum depth of the fisheries and it would also receive significant refuge in the Commonwealth marine parks across its range. Therefore, the Sixgill Stingray is assessed as Least Concern (IUCN) globally and in Australia (Kyne et al. 2021), and Sustainable (SAFS) in Australia.



Source: NOAA Office of Ocean Exploration and Research, Deep-Sea Symphony. License: CC By Attribution.

Distribution

The Sixgill Stingray has a wide and patchy distribution across the Indo-Pacific (Last et al. 2016). In Australia, is it known from tropical and subtropical waters off Flinders Reef (Queensland) and from Exmouth Plateau to Shark Bay (Western Australia) (Last and Stevens 2009). It may occur more widely in Australia given the limited surveys in its deeper depth range (Kyne et al. 2021).

Stock structure and status

There is currently no information on population size, structure, or trend for the species. It is rare in Australia (Last and Stevens 2009).

Fisheries

The Sixgill Stingray is occasionally incidentally captured across the Indo-Pacific in deepwater fisheries and it is unknown if it is retained and utilised (Compagno 1999). In Australia, it may be incidentally caught in Commonwealth line and trawl fisheries; the Coral Sea Fishery (CSF) in Queensland, and the Northwest Slope Trawl Fishery (NSTF) and the Western Deepwater Trawl Fishery (WDTF) in Western Australia. In the CSF, it may be caught in the Line Sector though the sector has limited effort with only 1-2 two vessels active in recent years and rarely fishes to depths beyond 600 m; trawling is no longer permitted (Patterson et al. 2022). The NSTF targets prawns and scampi (*Metanephrops australiensis*) at 200–600 m depths and the WDTF targets finfish and bugs (*Ibacus* spp.) at 200–700 m depths, and both fisheries have limited effort with only 1–6 active vessels (Patterson et al. 2022). Chondrichthyans have been assessed as at low risk in these two fisheries (Zhou et al. 2009). As it is of little commercial value, the Sixgill Stingray is likely released if caught and there is no information on post-release mortality though the CSF has implemented chondrichthyan handling practices to maximise post-release survival (AFMA 2010). The species would receive considerable refuge at depth as it occurs beyond the operational depths of all three fisheries. It would also receive significant refuge in the Commonwealth Coral Sea Marine Park and the North-west Marine Parks Network which include zoning and gear restrictions (Parks Australia 2023).

Habitat and biology

The Sixgill Stingray is demersal mainly on the continental and insular slope at depths of 360–1,120 m, though it has been sighted on rare occasions in shallow coastal waters (Last and Stevens 2009, Last et al. 2016). Maximum size is 170 cm total length (TL) and males mature at approximately 110 cm TL and females at approximately 113 cm TL (Last et al. 2016). Litter size is 2–3 pups (Compagno 1999, Last et al. 2016).

Longevity and maximum size	Longevity: unknown Max size: 170 cm TL
Age and/or size at maturity (50%)	Males: ~110 cm TL Females: ~113 cm TL

CAAB Code: 37 037002
Link to IUCN Page: https://www.iucnredlist.org/species/161674/68626659
Link to page at Shark References: https://shark-references.com/species/view/Hexatrygon-bickelli

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