

Bentfin Devilray, *Mobula thurstoni*

Report Card assessment	Sustainable		
IUCN Red List Australian Assessment	Near Threatened	IUCN Red List Global Assessment	Endangered
Global Assessors	Marshall, A., Barreto, R., Bigman, J.S., Carlson, J., Fernando, D., Fordham, S., Francis, M.P., Herman, K., Jabado, R.W., Liu, K.M., Pardo, S.A., Rigby, C.L., Romanov, E., Smith, W.D. & Walls, R.H.L.		
Australian Assessors	Kyne, P.M., Heupel, M.R., White, W.T., Simpfendorfer, C.A. (Shark Action Plan) & Rigby, C.L.		
Report Card Remarks	Significant declines in population globally, regionally connected and minimal threats in Australia. Listed on EPBC Act (Migratory), CITES Appendix II, CMS Appendices I & II.		

Summary

The Bentfin Devilray is a large ray that is highly-mobile and globally distributed in tropical to temperate pelagic waters. Due to its very low biological productivity, it is highly susceptible to exploitation. In Australia, it only known from limited records and is caught infrequently. If caught, it would be released as it has been a protected species in all Australian Commonwealth waters since 2015, and is protected in West Australian waters. Globally, significant population declines have occurred in



much of its distribution due its very low biological productivity, current and ongoing high levels of industrial and artisanal fishing pressure, and demand for its meat and high-value gill plates. These declines include rapid localised depletions in Australian regional waters, that is, Indonesia and Philippines. As the species is migratory and individuals in Australia are connected regionally to the global population, the Australian status is influenced by the global status. However, fisheries interactions in Australia are minimal and thus, the Bentfin Devilray is assessed as Endangered globally (IUCN) and in Australia as Near Threatened (Kyne et al. 2021) and Sustainable (SAFS). The species is listed as Migratory (EPBC Act), and on CITES Appendix II and CMS Appendices I & II.

Distribution

The Bentfin Devilray is circumglobal in tropical to temperate waters (Lawson *et al.* 2017). In Australia, it has a disjunct known range, occurring in the northeast (Queensland) and northwest (Western Australia), although this is based on limited records and it may occur more widely (Last et al. 2016, Kyne et al. 2021).

Stock structure and status

The Bentfin Devilray is highly-mobile and migratory and connected to at least regional populations (Kyne et al. 2021). The global population has declined significantly due to current and ongoing high levels of exploitation and demand for its meat and high-value gill plates throughout much of its distribution, including regionally within Southeast Asia where rapid localised depletions have occurred (Marshall et al. 2019). This significant decline is also likely to have impacted the population both occurring and visiting Australian waters, however, in Australia the threats are minimal (Kyne et al. 2021).

Fisheries

The Bentfin Devilray is targeted and caught incidentally in industrial and artisanal coastal and pelagic fisheries, including purse seines and gillnets, and is retained for its highly valued gill plates and for its meat (except in Australia) (Marshall et al. 2019). In Australia, it does not frequently interact with fisheries due to its pelagic habitat and behaviour that limits its catchability in Australian fisheries (Kyne et al. 2021). *Mobula* spp. are infrequently caught in gillnets in the Queensland East Coast Inshore Fishery (Harry et al. 2011) and this species is considered at precautionary medium risk from the fishery based mainly on its low productivity; precautionary indicates the low frequency of interactions is not expected to have a significant or long-term impact on its sustainability (Jacobsen et al. 2021). If it is captured, it is released as it is a protected species in all Australian waters since 2015 when it was listed as a migratory species under the *Environment Protection and Biodiversity Conservation Act 1999*, and is protected in West Australian waters. Across northern Australia, parts of the species' range have low fishing effort and the species would receive refuge in the marine parks (Parks Australia 2023).

Habitat and biology

The Bentfin Devilray is pelagic from the surface to a depth of 100 m in neritic and oceanic waters (Weigmann 2016, Marshall et al. 2019). Maximum size is 189 cm disc width (DW) and possibly to 220 cm DW and males mature at 150–158 cm DW and females at 150–163 cm DW (Marshall et al. 2019). Litter size is one large pup (70–90 cm DW) and occasionally two, born possibly every 1–3 years (Stevens et al. 2018, Marshall et al. 2019).

Longevity and maximum size	Longevity: unknown Max size: 189 cm DW
Age and/or size at maturity (50%)	Males: 150–158 cm DW Females: 150–163 cm DW

CAAB Code: 37 041003

Link to IUCN Page: <https://www.iucnredlist.org/species/60200/124451622>

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

References

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