

Dwarf Sawfish, *Pristis clavata*

Report Card assessment	Depleted		
IUCN Red List Australian Assessment	Endangered	IUCN Red List Global Assessment	Critically Endangered
Global Assessors	Grant, M.I., Charles, R., Fordham, S., Harry, A.V., Lear, K.O., Morgan, D.L., Phillips, N.M., Simeon, B., Wakhida, Y. & Wueringer, B.E.		
Australian Assessors	Kyne, P.M., Heupel, M.R., White, W.T., Simpfendorfer, C.A. (Shark Action Plan) & Rigby, C.L.		
Report Card Remarks	Significant historical population declines and now protected in Australia but still susceptible to capture. Listed on EPBC Act (Vulnerable & Migratory), CITES Appendix I, CMS Appendix I & II.		

Summary

The Dwarf Sawfish is a large inshore coastal and estuarine ray now restricted to tropical southern New Guinea and northern Australia. Historically, it occurred across the Indo-West Pacific; however, it is now possibly extinct in most of its former range due to intense exploitation and habitat degradation. Its toothed rostrum makes it highly susceptible to capture and it is retained (outside of Australia) for its valuable fins and rostrum, and for its meat. In Australia, it was protected in all Commonwealth Australian



waters under the EPBC Act in 2009 and a recovery plan is in place. It is also protected in state/Territory waters, yet it is still susceptible to capture, particularly in inshore gillnet fisheries. This protection, management measures, and inshore marine parks have reduced mortality over the past 10–20 years. In Western Australia (WA) and parts of the Northern Territory (NT), populations appear to be recently improving with relatively dense populations now present. However, over the longer past three generations (60 years), population reductions are inferred to be 30–49% in WA, 50–79% in NT, and suspected to be >80% in Queensland. A weighting according to the relative size of the range in each state/territory leads to overall suspected reduction of 50–79%. Therefore, the Dwarf Sawfish is assessed as globally Critically Endangered (IUCN), and in Australia as Endangered (IUCN) (Kyne et al. 2021) and Depleted (SAFS). The species is listed on CITES Appendix I and CMS Appendix I and II.

Distribution

The Dwarf Sawfish is now restricted to tropical southern New Guinea and northern Australian waters. Historically, it occurred patchily across the Indo-West Pacific and is now possibly extinct throughout its east Indian and Southeast Asian range (Faria et al. 2013, Grant et al. 2022). In Australia, it has a wide range and is found from Cape York Peninsula (Queensland) to the Pilbara coast (Western Australia) (Grant et al. 2022).

Stock structure and status

The Dwarf Sawfish has undergone large scale population declines, range contraction, and possible regional extinction in the Indo-West Pacific outside of Australia, probably prior to the 1960s (Grant et al. 2022). In Australia, significant population declines, although largely unquantified, also likely occurred prior to the 1960s–1970s due to gillnet and trawl fisheries pressure and habitat modification (Kyne et al. 2021, Grant et al. 2022). Distinct genetic stocks of the Dwarf Sawfish exist in the Gulf of Carpentaria, north coast of Northern Territory, and Western Australia (Phillips et al. 2011, Phillips 2017). The species historically occurred on the Queensland east coast but records were sparse and recent records are rare and unconfirmed (Grant et al. 2022). In Western Australia (WA), and possibly also in parts of the Northern Territory (NT), the populations appear to be recently improving with relatively dense populations now present in both WA and NT (Kyne et al. 2013, Morgan et al. 2021, Grant et al. 2022). However, over the longer period of the past 60 years, population reductions are inferred to be 30–49% in WA, 50–79% in NT, and suspected to be >80% in Queensland (Grant et al. 2022).

Fisheries

The Dwarf Sawfish is incidentally caught in fisheries, with its rostrum making it highly susceptible to entanglement in gillnet and trawl fisheries and outside Australia, it is retained for its valuable fins and rostrum, and for its meat (Grant et al. 2022). In Australia, it is an incidental catch of the Commonwealth Northern Prawn Fishery (NPF) and state and Territory trawl and gillnet fisheries. However, due to its inshore habitat preference, it is taken less frequently by trawl fisheries than other sawfishes and its main threat is inshore gillnet fisheries (Kyne et al. 2021, Grant et al. 2022). Gillnet fisheries that are likely, or known, to interact with Dwarf Sawfish including the Gulf of Carpentaria Inshore Fishery (Peverell 2005), Northern Territory Barramundi Fishery (Field et al. 2013), and the Kimberley Gillnet and Barramundi Fishery (Braccini et al. 2021). Habitat degradation, particularly on the Queensland east coast likely impacted the Dwarf Sawfish historically (Grant et al. 2022). The Dwarf Sawfish is assessed as at high risk in the NPF due to its life history and susceptibility to capture (Sporcic et al. 2021a, b). However, it became a protected species in all Australian Commonwealth waters when it was listed as Vulnerable in 2009 and Migratory in 2015 under the *Environment Protection and Biodiversity Conservation Act 1999*, and a recovery plan is in place; it is also protected in State/Territory waters. Mortality may still be high however if they are caught, as they may be killed or have the rostrum removed for extraction from the fishing gear (Morgan et al. 2016). Despite this, protection and management, such as spatial gillnet and other fishery closures, and inshore marine parks, have reduced mortality over the past 10–20 years (Kyne et al. 2021, Grant et al. 2022). In Western Australia, the fishery closures and low fishing effort have led to the region probably supporting the most significant refuge area for the Dwarf Sawfish globally (Morgan et al. 2021).

Habitat and biology

The Dwarf Sawfish is demersal in shallow coastal and estuarine habitats including tidal flats and mangroves at depths of 0–20 m (Last et al. 2016, Grant et al. 2022). Maximum size is at least 318 cm total length (TL) and maximum age estimated as 34 years (Peverell 2009). Males mature at an estimated 8 years and 255–260 cm TL with females inferred to mature at a similar age and size (Thorburn et al. 2008, Peverell 2009, Morgan et al. 2011, Morgan et al. 2021). Litter size is estimated to be 1–13 pups (Peverell 2009).

Longevity and maximum size	Longevity: estimated 34 years Max size: at least 318 cm TL
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Age and/or size at maturity (50%)	Males: 8 years, 255-260 cm TL Females: unknown
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CAAB Code: 37 025004

Link to IUCN Page: <https://www.iucnredlist.org/species/39390/68641215>

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

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