

Largetooth Sawfish (Indo-West Pacific subpopulation), *Pristis pristis*

Report Card assessment	Depleted		
IUCN Red List Australian Assessment	Refer to Indo-West Pacific subpopulation Assessment – Critically Endangered	IUCN Red List Global Assessment	Critically Endangered
Assessors	Kyne, P.M., Carlson, J. & Smith, K.		
Report Card Remarks	Listed as Vulnerable on EPBC, CITES Appendix I, CMS Appendix II, protected in all states in Australian range		

Summary

The Largetooth Sawfish is a very large tropical sawfish that was widely distributed. The species comprises four distinct subpopulations: Eastern Atlantic, Western Atlantic, Eastern Pacific and Indo-West Pacific. All four subpopulations have undergone significant population declines and the species is now apparently extinct in many former range states. In most others, records are rare and therefore the species is assessed as globally Critically Endangered (IUCN). The Indo-West Pacific subpopulation was once widespread however, large scale population declines and extirpations have occurred across the Indo-West Pacific range, and while there is uncertainty regarding its status in parts of the region, Australia now likely comprises a high proportion of the Indo-West Pacific subpopulation (indeed, the global population of the species). Recent records from elsewhere in the Indo-West Pacific are now extremely rare; in places the species was once described as ‘common’ or ‘abundant’. In Australia, all sawfishes have also undergone significant, albeit largely unquantified declines, and although protection and management is in place in Australia (EPBC Act and State legislation), there is no evidence to suggest population recovery at this time. In the Indo-West Pacific, a population reduction of $\geq 80\%$ is inferred based on a reduction in extent of occurrence from 1969 to the present. Much of the species’ former Indo-West Pacific range, with the exception of northern Australia, is subject to intense human pressure, particularly through generally unregulated and unmanaged fisheries, and habitat loss and degradation in critical sawfish habitats. Therefore, the Indo-West Pacific subpopulation is assessed as Critically Endangered (IUCN) and in Australia, Overfished (SAFS). Listed on Appendix I of CITES and Appendix I and II of CMS.



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Distribution

The Indo-West Pacific subpopulation of the Largetooth Sawfish was formerly wide ranging from parts of the Western Indian Ocean through India and southeast Asia to New Guinea and northern Australia.

Its current distribution is now patchy across its range. It had been confirmed from several major river systems of Papua New Guinea, Indonesia and Malaysia, Cambodia, Viet Nam and the Philippines (Roberts 1978, Tan and Lim 1998, Compagno et al. 2005, Stevens et al. 2005). Its occurrence in many of these rivers is now uncertain or non-existent. It may now be extinct in several range states, including South Africa, the Seychelles, Thailand and others; elsewhere it has been severely depleted. Northern Australia may be the last viable population stronghold in the Indo-West Pacific, although it may persist in remote parts of the region. In Australia, it occurs across the tropical north from the northeast coast of Queensland, across Cape York, the Gulf of Carpentaria, the Northern Territory and the Kimberley region (Western Australia). It has occurred as a vagrant to southwestern Australia (Last and Stevens 2009).

Stock structure and status

The species comprises four distinct subpopulations: Eastern Atlantic, Western Atlantic, Eastern Pacific and Indo-West Pacific. All four subpopulations have undergone significant population declines and the species is now apparently extinct in many former range states. In northern Australia there was evidence of significant genetic structure in *P. pristis*, which has strong habitat partitioning with freshwater juveniles and marine adults (Phillips et al., 2017). While there have been large population declines throughout its range, Australia remains one of the few locations where there are demonstrated viable populations (Morgan et al 2011). There are almost no data on population status of Largetooth Sawfish across the Indo-West Pacific. ; all populations are however, probably severely depleted. Although the St Lucia estuary system of South Africa was once an important breeding area, sawfishes (including Largetooth Sawfish) now appear to be extinct in that country. They also now appear to be absent from southern Mozambique (S. Pierce pers. comm. 2012) and while once common in the Zambezi River (Wallace 1967) no recent sightings have been documented. Madagascar, the Seychelles, Pakistan and India, amongst other Indian Ocean range states, have all seen depletions of sawfishes, including Largetooth Sawfish. In southeast Asia, localised depletions and extinctions of sawfishes have been reported or inferred from across the region. All sawfish species have undergone significant, albeit largely unquantified, declines in Australia.

Fisheries

The primary threat to the Largetooth Sawfish is fishing. The long toothed rostrums of sawfishes make them extraordinarily vulnerable to entanglement in any sort of net gear, gillnetting and trawling in particular. The exploitation of elasmobranchs is high in many parts of the Largetooth Sawfish's range in the Indo-West Pacific, particularly in coastal areas and freshwater systems. Unregulated and unmanaged fisheries, and habitat loss and degradation all threaten sawfishes across the region. In addition to fishing mining activities, in northern Australia, New Guinea and elsewhere, pose a risk to Largetooth Sawfish through freshwater habitat alteration or potential pollution events. Alterations to river courses are a realised threat to Largetooth Sawfish which migrate upstream in early life stages. These range from smaller barrages and road crossing in northern Australia to large scale river alterations in southeast Asia. In Australia, net fisheries account for the greatest bycatch of sawfish (all species) (80.2%) followed by trawling (16.6%), line fishing (9.2%) and recreational fishing (0.3%) (Stevens et al. 2005). This species is protected under both federal (EPBC) and state legislation, and a recovery plan is in place. A number of Queensland, Northern Territory and Western Australian inshore net fisheries continue to catch Largetooth Sawfish incidentally. Despite requirements to release these, there is no doubt a continuing level of bycatch associated mortality. Its international trade is restricted by a CITES Appendix I listing. It is listed on Appendix I and II of the Convention on Migratory Species.

Habitat and biology

The Largetooth Sawfish are generally restricted to shallow (<10 m) coastal, estuarine, and fresh waters (Thorburn et al. 2007, Whitty et al. 2008, Whitty et al. 2009). Juveniles occur in freshwater and estuarine areas, while adults are mostly marine. Maximum size is 656 cm total length (TL) although it has been estimated up to 700 cm TL (Compagno and Last 1999). Maximum age is estimated at 35 years in northern Australia (Peverell 2008). Males mature at 280-300 cm TL and females at approximately 300 cm TL with age at maturity estimated at 8-10 years (Thorburn et al. 2007, Peverell 2008, Whitty et al. 2008). The litter sizes are 1-13 with an average of 7 pups (Thorson 1976).

Longevity and maximum size	Longevity: estimated 35 years Max size: 656 cm TL
Age and/or size at maturity (50%)	Males: estimated 8-10 years, 280-300 cm TL Females: estimated 8-10 years, 300 cm TL

Link to IUCN Page: <https://www.iucnredlist.org/species/18584848/18620395>

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

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