

Northern River Shark, *Glyphis garricki*

Report Card assessment	Undefined Stock		
IUCN Red List Australian Assessment	Vulnerable	IUCN Red List Global Assessment	Vulnerable
Assessors	Kyne, P.M., Rigby, C.L., Cheok, J., Darwall, W.R.T., Grant, I & Simpfendorfer, C.		
Austrian Assessors	Kyne, P.M., Heupel, M.R., White, W.T. & Simpfendorfer, C.A. (Shark Action Plan)		
Report Card Remarks	Rare species with uncertain stock status. Listed on EPBC Act (Endangered).		

Summary

The Northern River Shark is a very rare species found in northern Australia and Papua New Guinea. It is suggested that fewer than 10,000 mature individuals exist, but there is high uncertainty about the status of this species. It is



assessed by the Red List under small population size criterion, with little information available on population trend. It is presumably taken as bycatch in commercial and recreational fisheries. Habitat degradation is another likely threat due to its coastal and estuarine distribution. It is listed as Endangered on the *Environment Protection Biodiversity Conservation Act 1999* list of threatened species and hence protected under Commonwealth law. A recovery plan has been developed. Because of its restricted range in river systems, and hence small population size, it assessed as Vulnerable (IUCN) in Australia (Kyne et al. 2021) and Undefined Stock (SAFS) because there is insufficient evidence to determine the status of the stock. From November 2023, the species will be listed on Appendix II of the Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES).

Distribution

The distribution of the Northern River Shark is uncertain. It occurs in marine, freshwater, and estuarine habitats and is known to occur in several areas in Western Australia (Ord and King Rivers, King Sound and Joseph Bonaparte Gulf) and Northern Territory (South and East Alligator Rivers and Wessel islands) (Last and Stevens 2009). It has been confirmed as occurring in Papua New Guinea with the finding of two individuals in the coastal marine waters of the Daru region (White et al. 2015). This was the first confirmed record of this species in Papua New Guinea since the 1970s (White et al. 2015).

Stock structure and status

Genetic evidence indicates significant structuring within the species across northern Australia and Papua New Guinea (Feutry et al. 2020). The population size of the Northern River Shark is unknown but suspected to be small based on their rarity and current knowledge. Surveys targeting freshwater and estuarine elasmobranchs in northern Australia (Western Australia, Northern Territory, Queensland) in mid-late 2002 collected no *Glyphis* specimens, despite sampling in 136 sites in 38 rivers. Surveys are currently being conducted in the Northern Territory to better understand the population of the species. It is inferred that the population contains fewer than 250 mature individuals and no subpopulation contains more than 50 mature individuals.

Fisheries

The Northern River Shark may be largely restricted to freshwater and brackish parts of rivers which combined with the small population, places the species at greater risk to fishing and habitat changes than more widely ranging species. Commercial fishing in the form of gillnetting (legal or illegal) or longlining in northern Australian (Queensland Gulf of Carpentaria Inshore Finfish Fishery, Northern Territory Offshore Net and Line Fishery, Northern Territory Barramundi Fishery) probably accounts for most of the take. Recreational fishing may be in the form of illegal gillnetting or hook and line fishing (using bait and/or lures). There is likely to be some take of this species by indigenous fishers. The potential impacts of fishing operations on this species need further investigation.

Habitat and biology

The Northern River Shark is found in large tidal tropical river systems and coastal habitats with high turbidity. The juveniles and sub-adults have been found in freshwater, estuarine, and marine habitats (salinities of 2–36 part per thousand), while adults have only been recorded in marine habitats (Larson 2000, Pillans et al. 2010, White et al. 2015). Maximum size is estimated at 250–300 cm total length (TL), with males mature at approximately 142 cm TL and a 177 cm female was mature (Last and Stevens 2009). In northern Australia, a single female was recorded with 9 pups and free-swimming young have been found in October, which suggests they give birth in October (Pillans et al. 2010). Little else is known of the biology.

Longevity and maximum size	Longevity: unknown Max size: 250–300 cm TL
Age and/or size at maturity (50%)	Males: ~142 cm TL Females: unknown

CAAB Code: 37 018042

Link to IUCN Page: <https://www.iucnredlist.org/species/42712/68624151>

Link to page at Shark References: <http://shark-references.com/>

References

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