

# Threatened Species of the Northern Territory

## Spear-tooth Shark

### *Glyphis glyphis*

#### Conservation status

**Australia: Critically Endangered**

*Environment Protection and Biodiversity Conservation Act 1999*

**Northern Territory: Vulnerable**

*Territory Parks and Wildlife Conservation Act 1976*

#### Description

The Spear-tooth Shark is a medium-sized whaler shark that grows to 2–3 m long. The dorsal surface is grey while the ventral surface is paler, and there is an inconspicuous pale stripe along the flanks. It has a short, broadly rounded snout and small eyes. The anal fin is about the same size as the second dorsal fin.

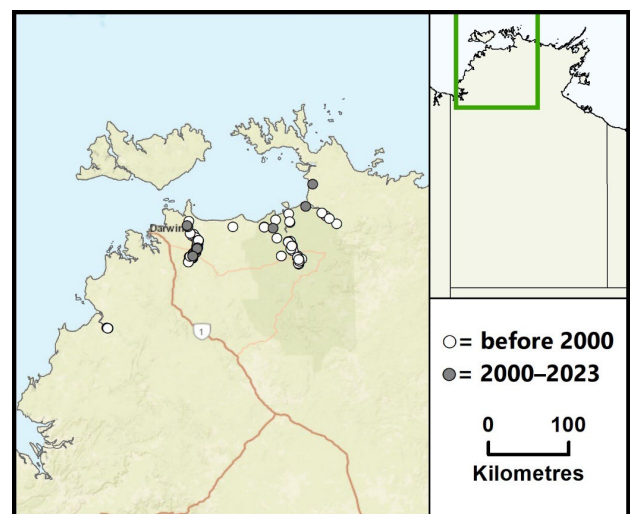
Individuals from the Wenlock River, on the west coast of Cape York Peninsula, differ in the colour of the pectoral from those in the Northern Territory (NT)<sup>1</sup>. The taxonomic significance of this difference, if any, is unknown.

#### Distribution

The distribution of the Spear-tooth Shark is not well known. It occurs in the eastern Gulf of Carpentaria and in some rivers of Cape York Peninsula in Queensland (Qld), and, in the NT, in the Alligator Rivers region across to the Adelaide River east of Darwin. The species also occurs in the Fly River area of New Guinea. Specimens from the Bizant River in Qld were collected in shallow, freshwater upper reaches of the river but none have been collected there since the original discoveries in 1982.



Photo: P. Kyne & G. Johnson



Known localities of the Spear-tooth Shark in the NT  
([nrmmaps.nt.gov.au](http://nrmmaps.nt.gov.au))

Records of the Spear-tooth Shark in the NT have come from brackish waters in the Adelaide, Daly and Alligator rivers<sup>2</sup>.

NT conservation reserves where reported: Kakadu National Park.

#### Ecology and life-history

Very little is known of the biology of the Spear-tooth Shark. The small eyes and slender teeth suggest that it is primarily a fish feeder adapted to life in turbid waters<sup>3</sup>. Stomach contents of specimens from the Wenlock River have included prawns, burrowing gobies, Smalleye Gudgeons *Prionobutis microps*, benthic-feeding Scaly Jewfish *Nibeasquamosa* and Bony Bream *Nematalosa erebi*, indicating that the

sharks hunted close to, and among, soft substrate<sup>4</sup>.

Individual Speartooth Sharks move up and down stream in response to tidal cycles, traveling up to 25 km in a particular direction over one tidal cycle<sup>5</sup>.

Other shark species in the genus *Glyphis* have low fecundity, small litters and breed every one or two years. It is likely the reproductive biology of the Speartooth Shark is similar.

Genetic research indicates that each river system should be treated as a distinct stock, population and management unit. Each has limited capacity for recovery via immigration following localised declines or extinctions<sup>2</sup>.

## Threatening processes

Potential threats in NT waters include illegal fishing, as well as mortality resulting from entanglement in commercial gillnets. Negative impacts from fishing activities have been reduced but illegal fishing, including possible use of juveniles as bait in crab fisheries, is an ongoing threat. The deliberate capture and destruction of Speartooth Sharks is illegal in the NT.

## Conservation objectives and management

The managing authority for the Speartooth Shark in the NT is the Fisheries division of the Department of Industry, Tourism and Trade.

The research and management priorities for the Speartooth Shark are to: i) investigate the distribution, status, biology, life history and habitat requirements of the species; ii) monitor and limit the impacts of fishing; and iii) educate fishers on the protected status of river sharks and safe methods of release.

## References

- <sup>1</sup> H. Larson and S. Peverell personal communication to M. Usher (2021).
- <sup>2</sup> Kyne, P.M., Davies, C-L., Devloo-Delva, F., Johnson, G., Amepou, Y., Grant, M.I., Green, A., Gunasekara, R.M., Harry, A.V., Lemon, T., Lindsay, R., Maloney, T., Marthick, J., Pillans, R.D., Saunders, T., Shields, A., Shields, M., Feutry, P. 2021 Molecular analysis of newly-discovered geographic range of the threatened river shark *Glyphis glyphis* reveals distinct populations. Report to the National Environmental Science Program, Marine Biodiversity Hub. Charles Darwin University and CSIRO.
- <sup>3</sup> Fowler, S., 1997. River shark discovered in Sabah. Shark News. *Newsletter of the IUCN Shark Specialist Group* 9, 11.
- <sup>4</sup> Peverell, S.C., McPherson, G.R., Garrett, R.N., Gribble, N.A. 2006. New records of the River Shark *Glyphis* (Carcharhinidae) reported from Cape York Peninsula, northern Australia. *Zootaxa* 1233, 53–68.
- <sup>5</sup> Pillans, R.D., Stevens, J.D., Kyne, P.M., Salini, J. 2005. Acoustic tracking of *Glyphis* sp. A in the Adelaide River, Northern Territory, Australia. Department of the Environment and Heritage, Canberra.