

# Threatened Species of the Northern Territory

## GREEN SAWFISH

### *Pristis zijsron*

#### Conservation status

Australia: Not listed

Northern Territory: Vulnerable

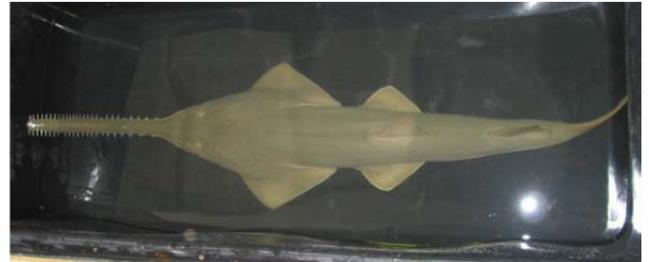


Photo: Stirling Peverell

#### Description

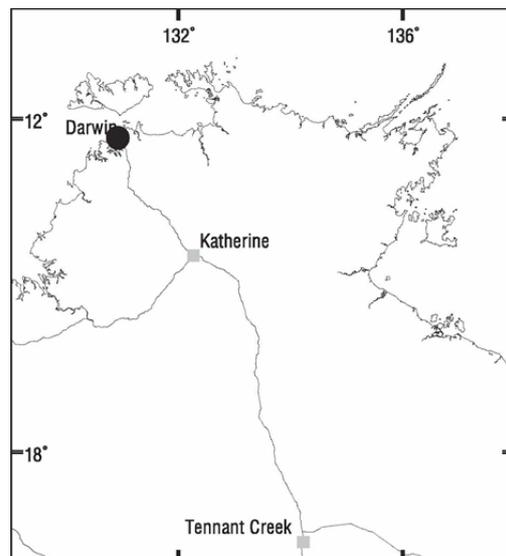
The green sawfish is a large, robust shark-like sawfish growing to a length of 5m although reported to reach 7.3m. The rostrum (snout) is slender with 24 to 34 pairs of lateral teeth. The teeth are present on the basal quarter of the blade becoming much closer together toward the tip. The body is greenish-brown or olive above and whitish below, and the skin rough. Pectoral fins are broadly triangular with broad bases and dorsal fins tall and pointed with the first dorsal fin positioned slightly behind the pelvic fin origin. The lower lobe of the caudal fin is small and the posterior margin of the caudal fin almost straight (Last and Stevens 1994).

#### Distribution

The green sawfish is widely distributed in the northern Indian Ocean, around Indonesia and Australia. It is the most commonly encountered sawfish species in Australian waters (Last and Stevens 1994) and is more commonly found in Australian tropical waters. In the Northern Territory, specimens have been collected only in Buffalo Creek in Darwin Harbour. However, there have been anecdotal sightings of the species in coastal areas of Garig

Gunak Barlu National Park and literature records show its occurrence in the Arafura Sea and around Groote Eylandt.

*Conservation reserves where reported:*  
Garig Gunak Barlu National Park



Known location of the Green Sawfish  
● = post 1970

#### Ecology

The green sawfish occurs in areas with a muddy substrate and is frequently found in shallow water (Stead 1963). Across its range, it has been reported to inhabit marine inshore waters, estuaries, lagoons and freshwater, but

most records are from marine and estuarine areas (Thorburn *et al* 2003; Peverell *et al.* 2004).

Sawfish may move into marine waters after the wet, and during the wet season enter estuarine or more fresh waters to breed (Peverell 2005).

Sawfish generally feed on slow-moving shoaling fish, which are stunned by sideswipes of the snout, and molluscs and crustaceans that are swept out of the mud by the saw (Allen 1982). Aspects of reproduction by the green sawfish in Australian waters are not well known but anecdotal information suggests they bear up to 20 live young. This is a long-lived species: sexual maturity is attained at about 6 years; and the life span is about 25 years (S. Peverell *unpubl.*).

### Conservation assessment

The species is listed as Critically Endangered worldwide on the 2006 IUCN Red List of Threatened Species, based on IUCN criteria A2abcd+3cd+4bcd, noting that "it is extremely vulnerable to capture by target and bycatch fishing throughout its range, which has contracted significantly as a result. All populations are now seriously depleted, with records having become extremely infrequent over the last 30- 40 years"

<http://www.flmnh.ufl.edu/fish/organizations/ssg/RLassess2006.pdf>; Cavanagh *et al.* 2003). Pogonoski *et al.* (2002) recommended that its status in Australia should be Endangered.

In southern waters, this once common species was regularly recorded as bycatch in commercial fisheries but it is now critically endangered in NSW. The green sawfish regularly hinders barramundi gillnetters (Last and Stevens 1994) and is therefore likely to suffer as a result of estuarine fishing operations in the Northern Territory. It is listed as an endangered species under the NSW Fisheries Management Act 1994.

The species appears to be widespread in Territory waters but susceptibility to fishing practices has been demonstrated in other States. In the Northern Territory, it is classified as **Vulnerable** (under criterion A2d) due to:

- an inferred population reduction of >30% over the last 10 years or three generations where the causes of the reduction have not ceased (based on potential levels of exploitation).

Declines are inferred based on susceptibility to fishing.

### Threatening processes

Incidental capture in commercial prawn and fish trawling and gillnetting are threatening processes (Stobuzki *et al.* 2002). Targetted fishing may also threaten the species as the flesh is acceptable in the dried fish trade (Grant 1978). Fishing appears to have led to the decline of the species in southern states. In the Moreton Bay area, for example, there have been no reports of the species since the 1960s (Johnson 1999)

### Conservation objectives and management

The managing authority for this species is the Fisheries section of the Department of Primary Industry, Fisheries and Mines. Currently there is no management program for the green sawfish in the Northern Territory.

The research priorities are:

- (i) to investigate the distribution and status of the species.
- (ii) to assess the impacts of fishing operations in estuarine areas.

### Compiled by

Simon Stirrat  
Helen Larson  
John Woinarski  
[May 2006]

### References

- Allen, G.R. (1982). *A Field Guide to Inland Fishes of Western Australia*. (Western Australian Museum, Perth.)
- Grant, E.M. (1978). *Guide to Fishes*. (Department of Harbours and Marine, Brisbane.)
- Johnson, J.W. (1999) Annotated checklist of the fishes of Moreton Bay, Queensland, Australia. *Memoirs of the Queensland Museum* 43, 709-762.

- Last, P.R., and Stevens, J. D. (1994).  
*Sharks and Rays of Australia*.  
(CSIRO, Melbourne)
- Peverell, S.C. (2005). Distribution of  
sawfishes (Pristidae) in the Queensland Gulf of  
Carpentaria, Australia, with notes on their ecology.  
*Environmental Biology of Fishes* **73**, 391-402.
- Peverell, S., Gribble, N., and Larson, H.  
(2004). Sawfish. In *Description of key species groups  
in the northern Planning Area*. pp, 75-83. (National  
Oceans Office, Hobart.)
- Stead, D.G. (1963). *Sharks and Rays of Australian seas*.  
(Angus and Robertson, Sydney.)
- Stobutzki, I., Miller, J.M., Heales, D.S., and Brewer, D.T.  
(2002). Sustainability of elasmobranchs caught as  
bycatch in a tropical prawn (shrimp) trawl fishery.  
*Fishery Bulletin* **100**, 800-822.
- Thorburn, D.C., Peverell, S., Stevens, S., Last, J.D., and  
Rowland, A.J. (2003). *Status of freshwater and  
estuarine elasmobranchs in Northern Australia*.  
Report to Natural Heritage Trust, Canberra.