Introduction

Green Sawfish are a large species of ray with an elongated, tooth-studded rostrum (snout). They were once widely distributed in the northern Indian Ocean, South and South-East Asia and around northern Australia and have been recorded as far south as Jervis Bay. However, the species has suffered a complete population decline as a result of fishing and accidental capture in prawn trawl and gill nets. The last confirmed sighting of Green Sawfish in NSW was in 1972 from the Clarence River at Yamba. Their large size and rostrum make them highly vulnerable to entanglement in nets and difficult to remove, consequently rarely surviving capture.

Green Sawfish were listed as an endangered species in NSW in October 2000. However, in 2008 the Fisheries Scientific Committee reviewed the conservation status of the species and subsequently determined Green Sawfish to be a *species presumed extinct* in NSW.

Description

Green Sawfish have a shark-like body and a flattened head, with a narrow blade-like rostrum studded with 24-28 pairs of ‘rostral teeth’. They are greenish brown or olive in colour on their upper surfaces and pale whitish below. Green Sawfish can grow to at least 5 metres in Australian waters.

Sawfish are similar in appearance to sawsharks, but key differences include the fact that sawfishes have the gill openings on the underside (not the side) of the head, and sawfishes do not have a pair of barbels (or whiskers) on the snout.

Habitat and ecology

- Green Sawfish are bottom dwelling rays commonly found in near-shore coastal environments, including estuaries, river mouths, embankments and along sandy and muddy beaches. They have been found in very shallow water less than 1 metre deep to offshore trawl grounds over 70 metres deep.
- They feed on slow-moving, shoaling fish such as mullet, which they stun with sideswipes of their rostrum. The rostrum is also used to sweep other prey, such as molluscs and small crustaceans out of the sand and mud.
- Green Sawfish are sexually mature after 9 years or at least 2-3 metres in length. Like all sharks and rays, they have internal fertilisation and give birth to a limited number of live young.
The Green Sawfish (*Pristis zijsron*) is one of the largest sawfish species belonging to the family Pristidae. They differ from the Eastern Sawshark by lacking barbels (whiskers), gill slits on the undersurface of the head and its much larger size. *Photo © CSIRO Marine Research.*

The Eastern Australian Sawshark (*Pristiophorus peroniensis*) is a recently described species that is closely related to the Common Sawshark (*Pristiophorus cirratus*). It is found off southeastern mainland Australia at depths of between 100 and 630 metres. It can grow up to 1.36 metres in length. It is distinguished from the Green Sawfish by its smaller size, colouration, shape of its snout and the barbels on its snout. *Photo: © CSIRO Marine Research.*

Figure 2: Differences between the Green Sawfish and the Eastern Australian Sawshark

Figure 3: A Green Sawfish tagged with a radio tracking device (Photo: S. Peverell)
Why did Green Sawfish become extinct in NSW?

• The toothed rostrum of the Green Sawfish combined with their active hunting behaviour makes them highly susceptible to capture in all fisheries that utilise nets.
• Deliberate capture for sale of the fins (for the shark-fin soup trade), flesh and saws.
• Land reclamation and degradation of the soft bottom areas that they use for feeding and breeding.
• Green Sawfish are long-lived, produce few young and mature later in life. This limits the ability for the species to recover from threats.

Legal implications

Although Green Sawfish are presumed to be extinct, there is a possibility that they may still occur in some areas. Species presumed extinct have the legal status of threatened species. As with all threatened species in NSW, it is illegal to catch, keep, buy, sell, possess or harm Green Sawfish without a specific permit, licence or other appropriate approval.

There can also be significant penalties for causing damage to the habitat of a threatened species without approval.

The impact of developments or activities that require consent or approval (in accordance with the *Environmental Planning and Assessment Act 1979*) must be assessed and considered by consent or determining authorities. Where such actions are likely to result in a significant impact on a threatened species or its habitat, a detailed species impact statement must be prepared.

How can you help?

Be on the lookout for the species in your local area.

If you think you may have found the species, report the sighting via the NSW DPI online form.

Bibliography and further reading

