

Herbsts nurse shark

Odontaspis ferox



Illustration by Pat Tully

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Introduction

Herbts nurse sharks are a rarely encountered species that looks very similar to the grey nurse shark. Grey nurse sharks are found in shallower inshore waters, while Herbts nurse sharks are generally found at depths of 150–600 m off the NSW coast. The species has a wide but irregular distribution throughout the warm temperate and tropical waters of the Atlantic, Indian and Pacific oceans, and the Mediterranean Sea. In Australasia, they have been recorded off NSW, eastern Victoria, north-western Australia, New Zealand and the Kermadec Islands.

The Herbts nurse shark is named locally after the first collector of the species in Australia. Internationally, its names include small-toothed sand tiger shark and bumpy-tail ragged-tooth shark.

Herbts nurse sharks are listed as a protected fish in NSW under the *Fisheries Management Act 1994*. Heavy penalties apply for taking or possessing them.

Description

Herbts nurse sharks are large, bulky sharks with a long, conical snout. They are medium to dark grey above, fading to white on the belly. Juveniles may have dusky margins and tips on both dorsal fins and the tail fin, sometimes with darker spots scattered on the flanks. The first dorsal fin is bigger than both the second dorsal fin and the anal fin, a feature that distinguishes them from grey nurse sharks, which have two dorsal fins of similar size.

Herbts nurse sharks can also be distinguished from grey nurse sharks by their teeth. Herbts nurse sharks have slender fang-like teeth with two or three pairs of small lateral cusplets near the base of each tooth, whereas grey nurse sharks have a single pair of lateral cusplets on each tooth.

The origin of the Herbts nurse shark's first dorsal fin is over the free rear end of pectorals, and the front of the second dorsal fin is above the back of the pelvic fins. A notch is present immediately in front of the tail.

Habitat and ecology

- Herbts nurse sharks usually live in relatively deep water on insular and continental shelves and upper slopes, and around seamounts. They have been caught off NSW in depths up to 850 m, and there are also records of the species from open waters of the Indian Ocean.



- Around oceanic islands such as Cocos-Keeling and the Kermadecs, individuals are occasionally seen by divers in depths less than 30 m at sites adjacent to deepwater drop-offs.
- The Herbts nurse shark is a large shark growing to about 4.5 m in length and over 700 kg in weight.
- Herbts nurse sharks are opportunistic carnivores, consuming squid, octopus, crustaceans and small bony fish.
- Little is known about reproduction in the species. Pups are born at about 100 cm in length and become sexually mature at around 250 cm (males) and 350 cm (females). No information is known on the number of pups in a litter but it is likely that only one or two are produced after a 1–2 year gestation.
- They have not been implicated in attacks on humans.

Why are Herbts nurse sharks protected?

- The endangered grey nurse shark may be misidentified as the Herbts nurse shark, so the protection of both species will assist in the recovery of grey nurse sharks.
- Herbts nurse sharks almost certainly have low fecundity making them susceptible to depletion by commercial fishing. The species is taken as incidental by-catch on the outer continental shelf and continental slope by commercial trawlers.
- Herbts nurse shark numbers have significantly declined in the NSW south-east trawl grounds. NSW Fisheries research surveys caught 30 individuals between 1975 and 1985, but only five individuals during the following 10 years.

What conservation actions are underway?

- Maintaining bans on landing Herbts nurse sharks in NSW waters and encouraging complementary arrangements in other waters.
- Educating fishers on the best ways to identify and return any live incidentally caught Herbts nurse sharks to the water.
- Implementing the Protected, Threatened and Pest Species Sighting Program. Report any sightings of the species on the NSW Department of Primary Industries 24 hour automated message-taking service by calling (02) 4916 3877.
- Implementing the Commercial Fisheries Threatened and Protected Species Interaction Reporting arrangements.

Legal implications

Taking or possessing Herbts nurse sharks (or any other species of protected fish) is an offence and heavy penalties apply. For corporations these penalties can include fines of up to \$55 000 while individuals can face fines of up to \$11 000 and up to 3 months in prison.

Bibliography and further reading

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