

RARE *and precious*

GREY NURSE SHARKS ARE CALM AND PLACID MARINE MARVELS WHO HAVE AN UNFOUNDED BAD REPUTATION. THESE MISUNDERSTOOD SHARKS WERE THE FIRST LEGALLY PROTECTED SHARKS IN THE WORLD AND THEIR CRITICALLY ENDANGERED CONSERVATION STATUS MEANS THEY ARE A RARE AND PRECIOUS ANIMAL.

Toothy Smiles. Despite their large size, these gentle giants glide through the water with surprising grace. Both male and females usually grow up to 3 metres long, while the longest Grey Nurse shark ever recorded was a huge 4.5 metres!

Despite their name, Grey Nurse sharks are actually a bronze shade on their dorsal or upper surface and pale underneath on their ventral surface. Younger sharks have red or brown spots on their fins and rear but these fade away as they grow.

A distinctive feature of the Grey Nurse shark is their clearly-visible long, slender teeth that have a relatively smooth surface. Three rows of teeth are usually present on both jaws and they act as a fork, designed for grabbing prey. While their teeth are large, they are not very strong and break easily. The prominence of its teeth gives the Grey Nurse shark a deceptively menacing appearance.

Man Eaters or Misunderstood? While the Grey Nurse shark is a majestic and calm-natured marine animal, it was hunted by fishermen on a massive scale between the 1950s and 1970s due to its fearsome looks and inaccurate reputation as a man eater.

Luckily, people finally recognised that these creatures are no major threat to humans and are rarely aggressive unless provoked. In 1984, New South Wales legislation made the Grey Nurse shark a protected species, making it the first shark in the world to be protected by law. It is believed that the Grey Nurse shark is now extinct in Victoria and is listed as Critically Endangered on the east coast of Australia.

“It is believed that the Grey Nurse shark is now extinct in Victoria and is listed as Critically Endangered on the east coast of Australia.”

Cool Characteristics. Whether you find them intimidating or intriguing, the Grey Nurse shark is a mesmerising creature with some seriously cool characteristics. Its jaws can extend by up to 10 centimetres, thrusting its razor sharp teeth forward to grab and slice prey. While it may look like a fearsome smile, the fact that they consume their prey whole means they can only eat animals smaller than their mouth.

Humans are definitely not on the menu! Grey Nurse sharks mostly feed on fish and small sharks, but they are also partial to squid, octopus and crayfish.

Grey Nurse sharks also have the ability to achieve near neutral buoyancy – meaning that they can hover almost motionless above the bottom of the ocean floor while they rest. They can do this by swallowing air at the surface of the water and holding it in their stomachs. Bubbles can be seen trailing out of their gills as they regulate the amount of air that is passing through their stomach.

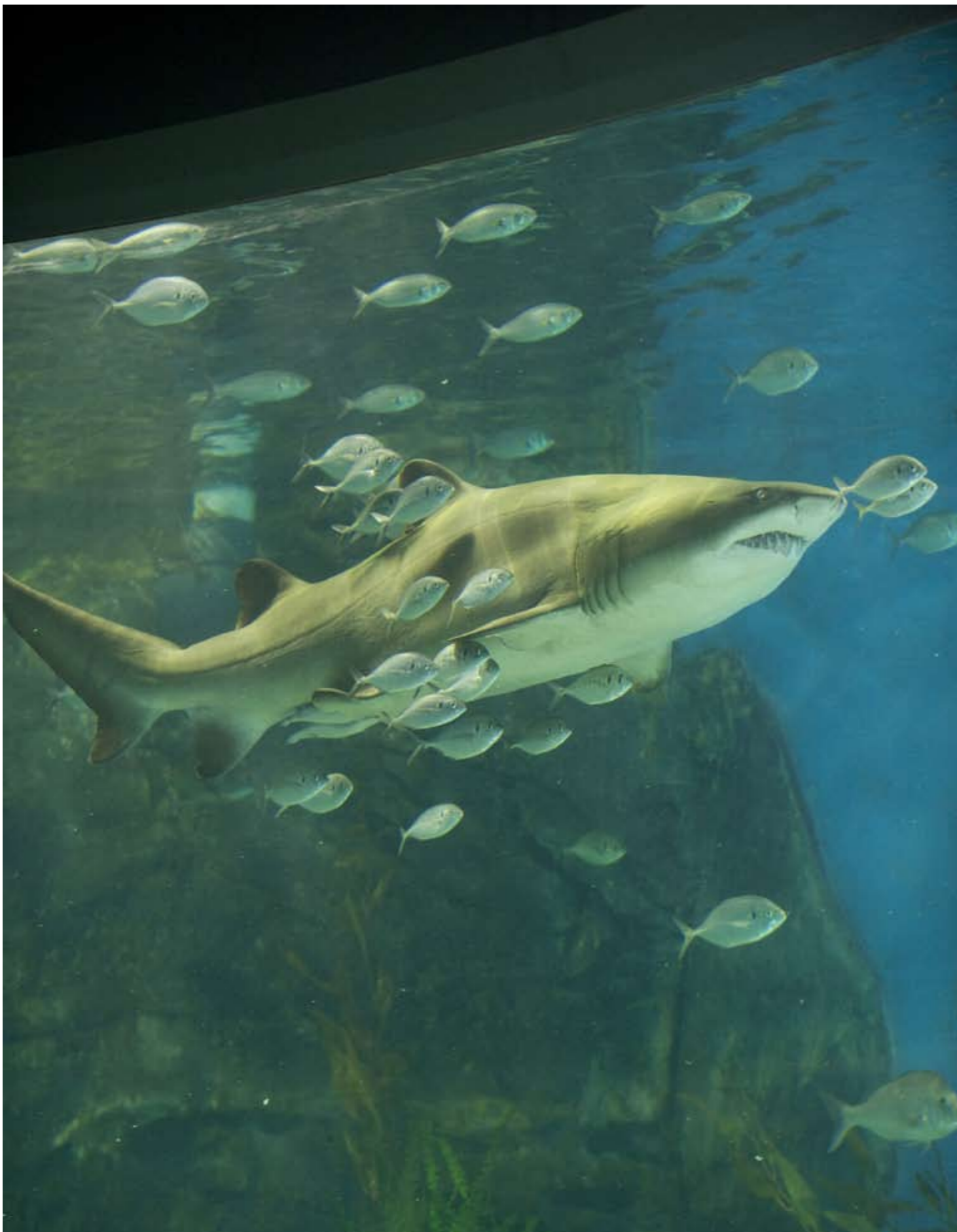
And then there is this animal’s extremely unusual breeding behaviour.

Tough Love. As with most sharks, the breeding habits of the Grey Nurse shark could be described as a case of tough love. The male sharks show their interest in a female by biting them. While the females have developed a tough skin for dealing with this courtship ritual, it is not uncommon to see bite marks or scars on their bodies during mating season.

Grey Nurse shark eggs are fertilised and hatched inside the mother’s two uteri. When the sharks are big enough, they break free from their egg capsule and turn cannibal, eating one another until there are only two embryos remaining. This gestation period lasts around 9 to 12 months and when they are born the shark pups measure around one metre long.

World-First Research. The inaugural Melbourne Aquarium and BHP Billiton Research Scholarship tackled the big issues first with a world-first study into the reproduction strategies of Grey Nurse sharks. Monash University student Jonathan Daly completed a challenging research project titled “Development of Assisted Reproductive Technologies in Captive Fish” for his Doctor of Philosophy studies, which compiled over four years of research.

The project investigated the reproductive anatomy of Grey Nurse sharks and other surrogate species by using innovative ultrasound technology and developing artificial insemination techniques. The information gained has provided a valuable insight and a greater understanding of this once-misunderstood marine marvel.



fast facts

NAME: Grey Nurse Shark (*Carcharias taurus*) **Length:** 3.2 metres **Population:** Estimated between 300 and 500 on the east coast of Australia **Conservation Status:** Critically Endangered on the east coast of Australia **Lifespan:** 20 to 25 years **Features:** Bronze upper surface and pale underneath with long prominent teeth.