



# GRACEFUL *gliders*

WHEN WATCHING THE SMOOTH STINGRAY ELEGANTLY GLIDING THROUGH THE WATER IT IS EASY TO MAKE COMPARISONS TO THE GRACEFUL FLIGHT OF BIRDS. WITH ITS LARGE FLAT BODY AND WING SPAN OF AT LEAST 2 METRES, SMOOTH STINGRAYS ARE THE LARGEST OF ALL THE STINGRAYS.

**Crafty Camouflage.** A master at camouflage, the Smooth stingray has adapted the effective technique of countershading. The dorsal side or top of the stingray is dark grey or black and when viewed from above it blends in with the dark sea floor. At the same time its ventral or under side is a pale colour that blends in with the light background of the ocean's surface. This gives the Smooth stingray the handy ability to appear 'invisible' to its predators and prey.

**Beware the Barb!** A distinctive feature of any stingray is its long, serrated stinging barb or spine. The Smooth stingray's barb is found on the top of its short tail and is used as a defensive weapon. It has a habit of resting with the barb facing upwards, like a scorpion's tail, as a warning to predators. Smooth stingrays are actually very docile creatures that are rarely aggressive unless they feel vulnerable.

**Crushing Plates.** The mouth of the Smooth stingray is strategically positioned on the underside of its body, ideal for sifting through the sandy ocean floor. To prevent getting a mouthful of sand, they have large holes behind their eyes called spiracles that expel sand and food scraps while they eat.

Smooth stingrays do not have sharp teeth, but they do have a series of small, flat crushing teeth arranged in a 'pavement pattern' that line their jaw allowing them to grind up their food. Favourite snacks for Smooth stingrays are crabs, bivalve molluscs and other invertebrates as well as bony fish, with a particular preference for Swallowtails.

In New Zealand it is believed that the Smooth stingray makes up an important part of the Orcas daily diet. Other predators they need to look out for include the White shark and the Smooth Hammerhead shark.

**Upgrading to the New Model.** Smooth stingrays are all about out with the old and in with the new. They shed and regrow their teeth throughout their whole lives. They also frequently shed their stinging barb and grow a new one. It is not uncommon to see a Smooth stingray with multiple barbs at once as it grows a new one in preparation for shedding an old one.

**Special Senses.** Smooth stingrays are like flying metal detectors, scouring the ocean floors and hunting down prey that could not be detected using conventional senses like sight or smell. This seemingly psychic ability is actually due to electromagnetic sensors that are found on both rays and sharks. Scattered pores on the stingray's head lead to what is known as ampullae, which are connected to the nerves. These detect the weak electrical current emitted by hiding fish, giving the rays a 'sixth-sense'. Stingrays are thought to be so sensitive to electric fields that they can detect the earth's magnetic field and use it to navigate over long distances.

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**Baby Love.** Unfortunately, there is very little official data to document the breeding process of Smooth stingrays. The species is live-bearing and litters have been known to be between 6 and 14 pups. The gestation period is approximately 12 months.

**Habitat.** Smooth stingrays live off the coasts of Australia, New Zealand and southern Africa. In Australia they are most commonly found enjoying the waters of the south coast but have also be spotted around southern Queensland and Shark Bay in Western Australia.

They prefer estuaries, shallow bays, inlets, rocky reefs and the open sea floor and are rarely found deeper than 100 metres in Australia and New Zealand. Off the coast of southern Africa however they have been known to go to a depth of 480 metres.



**fast facts**

**NAME:** Smooth stingray (*Dasyatis brevicaudata*) **Length:** 4.3 metres **Weight:** 350 kilograms  
**Distribution:** Australia, New Zealand and southern Africa **Features:** Large flat body and wings, countershading colouring, serrated barb above the tail.