

Southern Stingray

Dasyatis americana

Relatives: Southern rays are distantly related to sharks and skates. They belong to the Family Dasyatidae which includes 70 species of stingray. There are only 9 other species in the same genus, *Dasyatis*, including the red stingray and rough-tail stingray.



Appearance: These stingrays have a flat, diamond-shaped body with an indistinct head. They are gray to dark brown in color, with a pale belly. Southern stingrays have one or more venomous barbs located on their whip-like tail which they use in defense. The barbs are made of modified scales, or “dermal denticles”. These barbs have toxins and mucus in their grooves, produced by glands located on the underside of the spine.

The mouth of a southern ray, like all rays, is conveniently located on the underneath side of its body. This allows the stingray to have easy access to bottom-dwelling prey. They have a row of five gill slits that are located on the underneath side. They also have additional openings, called spiracles, on the top just behind their eyes. These help the stingrays breathe more easily while resting on the bottom. Instead of sucking sandy water in through their gills, they can pull clear water in through the spiracles and then force it out through the gills.

Size:

- **Males:** 2½ feet across
- **Females:** 4 feet across
- Maximum recorded weight- 300 pounds
- Tail can be twice as long as the body

Range: Southern stingrays can be found in the tropical and subtropical waters of the western Atlantic Ocean, the Caribbean and the Gulf of Mexico, down the coast to southeastern Brazil.



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Habitat: These stingrays make their home in shallow coastal waters to a depth of 180 feet. They prefer lagoon or coral reef habitats where there are sandy bottoms and seagrass bed.

Feeding: Southern stingrays feed during the day and night. They look for shellfish, worms, shrimp, crabs, and small fish along the sandy bottom. To locate their prey, these stingrays have electroreceptors on their snout as well as excellent senses of smell and touch. Once they have found their food, they uncover it by blowing water out through their mouth and flapping their “wings” over the sand.

They have flattened teeth that help them crunch their hard-shelled prey. The teeth are arranged in multiple rows and are all about the same size, except for the slightly smaller teeth at the corners of the mouth. The structure of the teeth differs slightly between adult males, and females/immature males. These stingrays spit out the shells of the animals they eat, and only swallow the soft body parts. Other species of fish are known to follow the southern stingray as they feed because they stir up extra bits of food as they go.

Breeding: Southern stingray males become sexually mature at about 1½ feet across, and the females at about 2½ feet across. It is thought that they may reproduce once or twice per year.

These stingrays are ovoviviparous with a 4½ -7½ month gestation period. Litter size ranges from 2-10, and scientists have found a direct correlation between the size of female and the litter size. Pups are 7-13 inches across and weigh ½-2½ pounds at birth. Before they are born, the pups’ wings are rolled up on each side like crepes!

Behavior: When not feeding, southern stingrays bury themselves in the sand with only their eyes and spiracles visible. They can be found individually, in pairs, or in loose groups. If threatened, they will raise their tail like a scorpion and stab their attacker with their venomous barb. These stingrays are known to visit “cleaning stations” where smaller fish such as the bluehead wrasse or Spanish hogfish will pick and eat parasites and mucus off of their body.

Predators: Large fish, including lemon and hammerhead sharks, will prey on Southern stingrays.

Lifespan: Unconfirmed

Conservation: Southern stingrays are currently listed globally as **Data Deficient** by the IUCN, meaning that “there is inadequate information to make a direct, or indirect, assessment of its risk of extinction based on its distribution and/or population status”. They are listed as **Least Concern** in the U.S., meaning that they “have been evaluated against the criteria and do not qualify for Critically Endangered, Endangered, Vulnerable or Near Threatened” in this area. They are considered **Vulnerable** in Brazil, which

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means that they are “considered to be facing a high risk of extinction in the wild” in this area.

The late maturity and low reproductive rate of southern stingrays makes them susceptible to over-fishing. Southern rays are not commercially fished in the U.S. They are harvested commercially in Venezuela, Colombia and Brazil, and are taken as by-catch throughout their range. Loss of their inshore habitats is also a potential threat to their populations. Southern rays have been artificially concentrated around resort areas where they are fed by snorkelers and divers, and have become an economically important aspect of the tourist industry in these areas. The potential Impacts of these operations on the rays’ populations are yet unknown.