

Atlantic Stingray

Dasyatis sabina



Aquarium Location

Saltmarsh Aviary

Relatives

Class: Chondrichthyes – cartilaginous fishes

Order: Myliobatiformes - stingrays

Family: Dasyatidae - includes the southern and yellow stingray

The Atlantic stingray is in the subclass *Elasmobranchii* with sharks, skates and rays. These fish have a protrusible upper jaw that is not connected or fused to the skull, they have 5 to 7 paired gill slits and their bodies are smooth or covered with rough denticles or placoid scales

The Atlantic stingray is further grouped into the Batoid Fishes (*Batoidea*), which include skates, rays, guitarfishes and sawfishes. These fish share the characteristics of have a dorsoventrally flattened body, with eyes located on the top of the head, 5 paired gill slits on the underside of the body and broadly expanded pectoral fins that look similar to wings, which are not separated from the head. They also have flattened teeth to crush prey

Size

Adults can reach lengths of 2 ft (60 cm) across the disk

Description

The Atlantic stingray's body is shaped as a rhomboid disk that has rounded corners (or wings). The length of the disk is usually equal to the width

Habitat

The Atlantic stingray can live in salt or fresh water; most common in shallow coastal waters like estuaries and lagoons

Range

They are found from the Chesapeake Bay to southern Florida and around to the Gulf of Mexico

Predators

Sharks (especially the great white) and humans are the main predators of the Atlantic stingray

Diet

The Atlantic stingray will feed on tube anemones, polychaete worms (marine segmented worms), small crustaceans (like mole crabs) and clams. At the South Carolina Aquarium, Atlantic stingrays eat cut fish and clams

Reproduction

The Atlantic stingray gives birth in the late summer; pups are born live and are 3.9 in (10 cm) at birth

Fun Facts

- The barb is enveloped in a venomous tissue; the barb only is used for self defense
- Special kidneys allow them to tolerate low salinity
- Breathe through spiracles, gill openings behind the eyes, when they are resting on the bottom

Conservation Connection

This fish prefers habitats with a sand or silt/sand seabed, which allows the stingray to bury itself to hide from prey or predators. This stingray is euryhaline and can maintain adequate physiological functions at varying degrees of salinity. Stingrays found in the St. John's River system in Florida, represent the only permanent fresh water population of an elasmobranch in North America.

Atlantic stingrays are plentiful, but at least nine other species of stingrays are at a high risk for extinction. Many people in western Pacific Ocean areas value stingrays as a main source of protein. Stingray skin is processed into leather that's strong, durable and almost indestructible. At one time craftsmen used this rough leather for sandpaper; samurai warriors wore stingray leather armor. Modern tanning methods have changed the formerly stiff leather into a pliable one that's now in great demand for boots (\$800 per pair), wallets and other accessories. Additional interest in the Atlantic stingray comes from research being conducted by the biomedical and neurobiological industries on the venomous component of the tail spine and its possible future applications in those fields.

The Atlantic stingray is not listed as endangered or vulnerable with the World Conservation Union (IUCN). The IUCN is a global union of states, governmental agencies, and non-governmental organizations in a partnership that assesses the conservation status of species. However, since there's no data or restrictions on stingray catches, the Ocean Conservancy warns that a sudden surge in demand for stingray leather and food could seriously threaten several stingray populations. In addition, localized freshwater populations of this species have shown decline in health and reproduction due to water quality issues including algae blooms, storm water runoff, and wastewater discharge.