

Stingray (Dasyatis Pastinaca)

The *stingray* is a fascinating and unique group of fish belonging to the order *Myliobatiformes*. Known for their flattened bodies and long, whip-like tails equipped with venomous spines, stingrays are found in both freshwater and marine environments around the world. Here's a detailed description:

Physical Characteristics:

1. *Size*:

- Stingrays vary greatly in size depending on the species. Some freshwater stingrays, like the *potamotrygon* species, grow to about 12–24 inches (30–60 cm) in diameter, while larger marine species, such as the *giant oceanic manta ray*, can reach widths of up to 23 feet (7 meters).

2. *Body Shape*:

- Stingrays have a flattened, disc-shaped body with pectoral fins that extend from the sides, giving them a diamond or circular appearance.

- Their eyes are located on the top of their head, while their mouth, nostrils, and gill slits are on the underside.

3. *Coloration*:

- Coloration varies by species and habitat. Many stingrays have a mottled or spotted pattern in shades of brown, gray, black, or white, which helps them blend into their surroundings.

- Some species, like the *blue-spotted stingray*, have vibrant patterns and colors.

4. *Tail and Spine*:

- The tail is long and whip-like, often equipped with one or more venomous spines near the base.

- The spine is used for defense and can deliver a painful sting if the ray feels threatened. Some species, like the *Atlantic stingray*, have barbs that can cause serious injury.

5. *Sensory Adaptations*:

- Stingrays have electroreceptors called *ampullae of Lorenzini* on their undersides, which help them detect the electrical signals of prey buried in the sand.

Behavior:

1. *Feeding*:

- Stingrays are carnivorous and feed on a variety of prey, including crustaceans, mollusks, small fish, and worms.

- They use their flattened bodies to hover over the seabed or riverbed, uncovering prey by flapping their pectoral fins or using their snouts.

2. *Movement*:

- Stingrays swim by gracefully undulating their pectoral fins, giving them a "flying" motion through the water.

- They are often found resting on the bottom, partially buried in sand or mud.

3. *Temperament*:

- Stingrays are generally shy and non-aggressive but will defend themselves if stepped on or threatened.

- In captivity, they can become accustomed to human interaction and are often described as curious and intelligent.

***Habitat*:**

1. *Marine Stingrays*:

- Found in tropical and subtropical oceans worldwide, often in shallow coastal waters, coral reefs, and sandy or muddy bottoms.
- Some species, like the **manta ray**, are pelagic and roam open waters.

2. *Freshwater Stingrays*:

- Native to South America, particularly the Amazon and Orinoco river basins.
- Prefer slow-moving rivers, streams, and flooded forests with sandy or muddy substrates.

***Aquarium Care*:**

1. *Tank Requirements*:

- Stingrays require large, spacious tanks with plenty of open swimming space and a soft, sandy substrate to prevent injury to their delicate undersides.
- For freshwater stingrays, a minimum tank size of 180–250 gallons is recommended for smaller species, with larger tanks needed for bigger species or groups.

2. *Water Conditions*:

- **Freshwater Stingrays**:
 - Temperature: 75–82°F (24–28°C).
 - pH: 6.0–7.5.
 - Soft to moderately hard water.
- **Marine Stingrays**:
 - Temperature: 72–78°F (22–26°C).
 - pH: 8.1–8.4.
 - Salinity: 1.020–1.025 specific gravity.

3. *Tank Mates*:

- Compatible with other large, peaceful fish that occupy different levels of the tank.
- Avoid keeping them with aggressive or territorial species.

4. *Diet*:

- In captivity, stingrays can be fed a variety of foods, including shrimp, squid, fish, and specialized pellets.
- Freshwater stingrays may also accept worms and other live or frozen foods.

5. *Lifespan*:

- Stingrays can live for 10–25 years or more in captivity, depending on the species and care provided.

***Conservation*:**

- Many stingray species face threats from habitat destruction, pollution, and overfishing.
- Some species, like the *giant freshwater stingray* (*Urogymnus polylepis*), are considered endangered due to declining populations.

***Unique Features*:**

- Stingrays are closely related to sharks, sharing a cartilaginous skeleton instead of bones.
- Some species, like the *manta ray*, are filter feeders and lack a venomous spine.
- Freshwater stingrays are popular in the aquarium trade but require specialized care due to their sensitivity to water quality and space requirements.

Stingrays are captivating and elegant creatures, but they require experienced care and a well-maintained environment. They are best suited for advanced aquarists or public aquariums with the resources to meet their needs.