

Alligator gar (*Atractosteus spatula*)

The *alligator gar* (*Atractosteus spatula*) is one of the largest and most ancient freshwater fish species in North America. Known for its prehistoric appearance and impressive size, it is often referred to as a "living fossil" due to its resemblance to ancient fish species. Here's a detailed description:

Physical Characteristics:

1. *Size*:

- Alligator gars are among the largest freshwater fish, capable of reaching lengths of up to 10 feet (3 meters) and weighing over 300 pounds (136 kg).
- In captivity, they typically grow to about 6–8 feet (1.8–2.4 meters), depending on tank size and conditions.

2. *Body Shape*:

- They have a long, cylindrical body covered in thick, diamond-shaped ganoid scales, which are incredibly tough and provide excellent protection.
- The head is broad and flattened, resembling that of an alligator, with a long, tooth-filled snout.

3. *Coloration*:

- The body is typically olive or brownish-green on the back, fading to a lighter yellow or white on the underside.
- The scales have a metallic sheen, giving the fish a distinctive appearance.

4. *Fins*:

- The dorsal and anal fins are set far back on the body, near the tail.
- The tail fin is heterocercal, meaning the upper lobe is longer than the lower lobe, a characteristic shared with ancient fish species.

5. *Teeth*:

- They have two rows of sharp, conical teeth in the upper jaw, which are used to grasp and hold prey.

Behavior:

1. *Predatory Nature*:

- Alligator gars are apex predators, feeding on fish, crustaceans, waterfowl, and small mammals.
- They are ambush hunters, using their stealth and speed to catch prey.

2. *Breathing*:

- They have a unique ability to breathe both air and water, thanks to a highly vascularized swim bladder that functions like a lung.
- This adaptation allows them to survive in low-oxygen environments, such as stagnant waters.

3. *Temperament*:

- Generally solitary and non-aggressive toward humans, but they are formidable predators in their natural habitat.
- In captivity, they are relatively docile but require careful handling due to their size and sharp teeth.

***Habitat*:**

1. *Natural Environment*:

- Found in slow-moving rivers, lakes, bayous, and estuaries in the southeastern United States, particularly in the Mississippi River basin and Gulf Coast regions.
- Prefers warm, shallow waters with plenty of vegetation and hiding spots.

2. *Water Conditions*:

- Temperature: 72–82°F (22–28°C).
- pH: 6.5–8.0.
- Tolerates a wide range of water conditions, including brackish water.

***Aquarium Care*:**

1. *Tank Requirements*:

- Due to their enormous size, alligator gars are not suitable for most home aquariums. They require extremely large enclosures, such as public aquariums or custom-built ponds.
- A minimum tank size of several thousand gallons is necessary for an adult alligator gar.

2. *Tank Mates*:

- Compatible with other large, robust fish that can coexist with a top predator.
- Avoid keeping them with smaller fish, as they may be seen as prey.

3. *Diet*:

- In captivity, they can be fed live or frozen fish, shrimp, and other meaty foods.
- They may also accept large pellets or other prepared foods, but live prey is preferred.

4. *Lifespan*:

- Alligator gars are long-lived, with lifespans of 50–70 years or more in the wild and in well-maintained captivity.

***Conservation*:**

- The alligator gar is not currently considered endangered, but its populations have declined in some areas due to habitat destruction, overfishing, and misconceptions about its impact on game fish populations.
- Conservation efforts, including regulated fishing and habitat restoration, are underway to protect this ancient species.

***Cultural Significance*:**

- The alligator gar has a fearsome reputation due to its size and appearance, but it plays a crucial role in maintaining the balance of aquatic ecosystems.
- It is sometimes targeted by anglers for sport fishing, as it is considered a challenging and impressive catch.

The alligator gar is a fascinating and ancient fish, but it requires specialized care and a massive enclosure. It is best suited for public aquariums or experienced fishkeepers with the resources to provide for its needs.