Tropical Gar

Pejelagarto (Spanish)

Atractosteus tropicus

Class: Actinopterygii
Subclass: Neopterygii
Order: Lepisosteiformes
Family: Lepisosteidae
Genus: Atractosteus

Distribution
Nicaragua, Costa Rica, Caribbean and Pacific drainages of southern Mexico and Central America

Habitat
Tropical freshwater in the range of 22 to 28 ° C

Food
Mainly cichlids and other fish

Reproduction
Large schools form to cast thousands of eggs in shallow water.
Eggs, which are toxic to warm-blooded creatures, are laid in gelatinous masses.

The freshwater tropical gar is the southern most gar species. Many researchers regard the gar as an evolutionary link. They are considered to be among the most primitive of the predaceous, bony fish because they closely resemble fossilized gars from 75 million years ago.

This fish inhabits backwaters and slow moving sections of rivers and lakes in natural wetlands. It is often found in the deepest part of warm, stagnant waters in lowland areas, although sometimes it will be visible on the surface of the water and resemble a floating log.

Gar jaws have numerous sharply pointed, needle-like teeth for capture of evasive prey. The upper jaw has two rows of large teeth on either side. Its predatory behaviour is composed of slow overall movement followed by a rapid strike, rather than active pursuit.

They enter shallow lakes at the beginning of the dry season to spawn and are also known to reproduce in June and July when rains are heaviest. Flooded rivers increase the littoral area and provide an ideal spawning habitat of flooded vegetation. After laying large sticky eggs, the adults return again to the river leaving the fry to fend for themselves.

Development
Reported to reach lengths of up to 1.5 metres in the wild.

Larvae sport a pair of brown and yellow lines on their flanks. They adhere to the vegetation in which they were hatched through to their fifth day, at which point they become free swimming and begin to feed. Larvae grow at a rate of about 1 mm per day for their first 15 days, at which point they average about 20 mm total length.

Characteristics
Long, cylindrical, torpedo-like bodies with long snouts.

Tropical gar have shorter, broader snouts than the longnose gar. Their dorsal and anal fins are placed well back on the body and nearly opposite each other. The heterocercal tail fin is rounded and a little lopsided. Body colouring is generally brown or olive and may have a spotted pattern. The underbelly is a lighter colour.

Adaptations
Heavily armoured with hard, bony, ganoid scales.
They can breathe both air and water.
Their vertebrae have a ball-and-socket structure similar to that found in some reptiles.

Their scales have a smooth, shiny surface of ganoin, a substance similar to enamel, which protects them like a suit of armour. Some native cultures used the scales as armour, arrowheads and adornment on their tribal dress. Ganoid scales are still used today in making jewelry. A specialized vascular swim bladder, which is directly connected to the throat, serves double duty as a lung. Most gar surface periodically to take a gulp of air, especially when oxygen in the water is depleted in warm or stagnant water.

Status/ Threats
Over-fishing, growing regional consumer demand and habitat alteration has led to a decline in natural populations. They are now grown in aquaculture facilities to help satisfy the demand.

They are sold as ornamental fish for the aquarium trade, though they are supposedly hard to find. Many sold are reportedly from the wild. They serve a recreational fishing industry in South America. They are a food fish in Guatemala and are considered a delicacy in southern Mexico where they are an integral part of local culture. Tropical gars are sold in every seafood restaurant in Tabasco. Pressure on their populations has led to the listing of the species as susceptible.

Sightings at Caño Palma
Near the boathouse.

Tropical gar are most often seen on canoe trips into Tortuguero Park. They tend to sit at the surface of the water and all you see is a swirl and a fast movement and they are gone. Occasionally you see one near the boathouse. They are usually almost 1 m long.

References

Agbayani, Eli (2001) *Atractosteus tropicus, Tropical gar.* Retrieved September 8, 2008 from http://www.fishbase.org/Summary/SpeciesSummary.php?id=7326
Aguilera, Carlos; Mendoza, Roberto; Rodríguez, Gabino; and Márquez, Gabriel (2002) *Morphological Description of Alligator Gar and Tropical Gar Larvae, with an Emphasis on Growth Indicators.* Retrieved September 8, 2008 from http://afs.allenpress.com/perlserv/?request=get-abstract&doi=10.1577%2F1548-8659(2002)131%3C0899%3AMDOAGA%3E2.0.CO%3B2&ct=1