

Wiki Page

Haley Burke

Bluegill_LM3: *Lepomis macrochirus*

Location

Stream in Little Mulberry Park – Dacula, Georgia, USA (34.04516° N, 83.88981° W)

Stream Description: First Order Headwater Stream

Shannon Diversity Index (H'): 1.683153888



Taxonomy

Kingdom: Animalia

Class: Actinopterygii

Family: Centrarchidae

Genus: *Lepomis*

Species: *L. macrochirus*

Morphological Characteristics

The bluegill is a tall and flat fish, resembling a compressed saucer shape. It is an olive-green or blue-green color on top with a yellow or orange belly. It has five to nine dark, vertical lines along the flat sides of its body. The bluegill gets its name from the powder blue or purple-blue iridescence color of its lower jaw and gill cover. Its earflap is entirely black, differentiating it from other sunfish species. They can get up to 16 inches long and weigh as much as 4 ½ pounds. However, most are between 4 and 6 inches, weighing less than half a pound. Bluegills have one dorsal fin with 6 to 13 dorsal fin spines and 11 to 12 dorsal fin rays. There is a small black dot located at the base of its dorsal fin. Additionally, bluegills have a small mouth.

Ecology

Bluegills primarily live in freshwater sources; however, they have been found in brackish water. They like quiet waters like ponds, lakes, and slow-moving streams. They are tolerant of temperatures ranging between 5 and 33°C, but prefer 18 to 27°C. They are native to the eastern side of North America, from the Great Lakes and Mississippi Valley to the Atlantic coast. Bluegills range from northeastern Mexico to southeastern Canada. They have been introduced to many places in Europe, Asia, South Africa, and South America and are considered an invasive species in some areas. They can live with dissolved oxygen levels as little as 1 mg/l for short periods of time, but do much better with at least 5 mg/l.

Since the mouths of bluegills are small, they mostly feed on small invertebrates and aquatic insects. However, they will feed on anything that can fit in their mouths. To avoid predation, young bluegills feed in heavily weeded areas and juveniles are also known to eat the eggs of other bluegills. Larger bluegills are able to escape predation and feed on zooplankton more openly. Bluegills are preyed upon by larger fish, such as bass, bullhead catfish, carp, and yellow perch.

Bluegills become sexually mature at around two to three years but can vary depending on water temperatures. They spawn in late spring to early summer when water temperatures are between 18 to 27°C. They build nest colonies, ranging in size from a few nests to over a hundred. Males build their colonies in shallow water, using their tail to create a circular area. They then attract a female by grunting and swimming around its nest. Female bluegills can lay 2,000 to 80,000 eggs per year but up to 20,000 per spawning event. Afterwards, the female leaves and the male is left to guard the nest. Eggs take two to five days to hatch, and the male continues to protect the nest for five to ten more days.

DNA Sequence

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