

Valerie Morse

**Create a page that identifies your species number (“Bluegill\_RS1”) and your name.**

Creek Chub\_LM11F22. Valerie Morse.

**Provide collection location information and Shannon H’ values associated with location.**

Collection Location: Little Mulberry Park, 3800 Hog Mountain Rd, Dacula, GA 30019. Gwinnett County.

Shannon H’ value: 1.72217852

**Provide a photo of the species sample.**



**Provide taxonomic information (Kingdom, Class, Family, Genus, Species).**

Species name: *Semotilus atromaculatus*

Taxonomy:

Kingdom – Animalia.

Phylum – Chordata.

Class – Actinopterygii.

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Order – Cypriniformes.

Family – Cyprinidae.

Genus – Semotilus.

Species – Semotilus atromaculatus.

**Provide distinguishing morphological characteristics of species.**

The Creek Chub has a dark, greenish-brown body with a black lateral line (horizontal). Coloration can range from browner to more yellow/green. It has cream colored sides with a white belly. Its body shape is round/cylindrical with a compressed posterior section. It has a large terminal mouth with a black “moustache” on its upper lip and a black dot on its dorsal fin. Juvenile males have a lateral rosy band. They have both cycloid and leptoid scales and their scale size is relatively large. The average size of a Creek Chub is 2-6 inches, large specimens can be up to 12”.

**Provide basic ecology of species (habitat, reproduction, species interactions).**

Habitat: Creek Chub can be found in the eastern 2/3 of the United States and in southeastern Canada.

They are usually found in streams and rivers, but they also have been documented in the great lakes.

They prefer weedy areas where they can hide from predators. They also like areas with gravel, mud, rocks, clay, detritus, etc. They tend to stick to the edges of pools, rivers, and streams. In small streams, they are often a dominant species. They can live in a temperature range of 1.7°C – 32°C (35°F - 89°F).

Species Interactions: Creek chub live in schools from birth to late adulthood. Developing creek chub stay within the same 50-meter radius. As they grow older, they venture out of their 50m range and engage in aggressive behavior with other members of their species. If another fish invades its territory, a creek chub will perform parallel swim and will direct physical blows to the head of the opposing fish. They are opportunist feeders and are usually carnivores, feeding on insects, other fish, insect larvae, etc., but will also eat vegetation and plant detritus. Juveniles feed in the early morning, while larger adults feed in the afternoon. They only feed during the day and they prefer to feed when temperatures are higher. Food availability for Creek Chub is limited by different types of chub, trout, and other animals. They are preyed upon by birds and fish such as loons, kingfishers, brown trout, northern pike, and smallmouth bass.

Reproduction: When it is time to breed, males migrate to a spawning ground, then create a spawning site. The spawning site usually consists of a small pit surrounded by pebbles to protect the eggs. Females enter the spawning area, where the male wraps his body around her pectoral fin and fertilization occurs. The female then deposits 25-30 eggs and leaves the area. The male will defend the nest from predators as the eggs develop. During mating season, males grow small bumps called tubercles that are used when defending the nest from other males.

**Provide DNA sequence information (if available).**

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