

## WIKI PAGE

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Chattahoochee Sculpin RS\_5\_F22 – *Cottus chattahoochee*

**Location:** Stream in Rock Springs Park, Gwinnett County, Georgia, USA (34.0400° N, 84.0209° W)

Stream Description: First Order, Headwater Stream

Shannon Diversity Index:  $H' = 1.324792053$



### **Taxonomy:**

Kingdom – Animalia

Class – Actinopterygii

Family – Cottidae

Genus – Cottus

Species – *C. chattahoochee*

### **Morphological ID:**

Dorsal spines (total): 6 – 8

Dorsal soft rays (total): 15-18;

Anal soft rays: 11 - 14;

Vertebrae: 29 - 32.

Diagnosed from all congeners except *Cottus tallapoosae* by the combination of the following characters: modally eight infraorbital canal pores; five bones in the suborbital series; reduced palatine teeth; a flexible spine and four rays in the pelvic fin; preoperculomandibular canals not fused at anterior rami of mandibles, with two pores at tip of chin; pectoral rays simple; preopercular armature well-developed with two or three spines; chin not mottled; and dorsal fins separate.

Differs from *Cottus tallapoosae* on the basis of dermal prickling well-developed, consisting of a postpectoral patch and prickles on the area immediately adjacent to the anterodorsal part of the lateral line (vs. prickles absent or reduced); a complete lateral line (vs. usually incomplete); and moderate or wide saddles (vs. narrow or moderate).

### **Species Ecology:**

Lacking swim bladders, sculpins are nonbuoyant bottom dwellers that move in short, quick spurts, making them easy prey. These fish are an important food source for trout.

Habitat includes gravel and rubble riffles of headwaters, creeks, and small rivers, as well as springs and their effluents (Page and Burr 2011).

Usual habitat is rocky shoals and riffles of small upland streams, but occasionally the species is found in larger rivers (Neely et al. (2007). Typical habitat includes small streams with gravel or cobble substrate (Neely et al. 2007). This species appears to be highly sensitive to thermal regimes; populations in the southern part of the Chattahoochee River drainage are restricted to small streams draining forested watersheds and that lack small impoundments (including beaver ponds) (Neely et al. 2007). In headwater areas near the Blue Ridge physiographic province, this species can be relatively abundant (Neely et al. 2007).

### **Conservation Status:**

LC – Least Concern

Some populations have been lost to reservoir construction and habitat degradation, but parts of the Chattahoochee mainstem near Atlanta have been thermally modified by reservoirs and provide cool-water habitats that support Chattahoochee sculpins

### **DNA Sequence:**

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TCAACTTTATCACAATATCATAAATAAAACCCCTGCTATTTACAAATACCAGACCCCGCTATTTGTGTGGTCT
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