

WIKI PAGE

Kathomias Turnage

Chattahoochee Sculpin_RS23



Scientific Classification

Domain: Eukaryota

Kingdom: Animalia

Phylum: Chordata

Class: Actinopterygii

Order: Scorpaeniformes

Family: Cottidae

Genus: *Cottus*

Species: *C. Chattahoochee*

Scientific name: *Cottus* Chattahoochee

Location: Rock Springs Park in Gwinnett County, Georgia - 34.0400° N, 84.0209° W, First

Order Headwater stream

Shannon Diversity Index

The Shannon Index (H') is a value used to measure the biodiversity in each area. Rock Springs Park had a H' value of 1.79, which is the park the *Cottus Chattahoochee* is from.

Morphology

Common characteristics of a *Cottus Chattahoochee* has a total of 6 to 8 dorsal spines, 15 to 18 total dorsal soft rays, 11 to 14 anal soft rays, and vertebrate total of 29 to 32. Other characteristics of the Sculpin is modally eight infraorbital canal pores, five bones in the suborbital series, reduced palatine teeth, flexible spine, four rays in the pelvic fin, The precopercuomandibular canals are not fused at the anterior rami of mandibles, there is two pores at the tip of the chin, pectoral rays simple, preopercular armature well-developed with two or three spines, chin is not mottled, and dorsal fins are separate.

Species Ecology

Sculpins are bottom dwellers that lack swim bladders, the main predator for the Sculpin is the trout. The sculpin move in small, quick bursts. The species' natural habitat is the rocky riffles and shoals of tiny upland streams, but it can occasionally be found in larger rivers. Small streams with gravel or cobble substrate are common ecosystems. This species' populations in the southern Chattahoochee River drainage are limited to small streams that drain forested basins and lack smaller impoundments like beaver ponds, indicating that they are particularly susceptible to thermal regimes. This species may be relatively widespread in headwater regions near the Blue Ridge physiographic province. The Sculpin is least concern in terms of

conservation status. The conservation efforts for the Sculpin include reservoirs that are thermally modified providing cooler waters for the Sculpin.

DNA Sequence

CCCCTATATCTAGTATTTGGTGCTTGAGCCGGAATAGTAGGCACAGCTTTAAGCCTCCT
AATTCGAGCAGAATTAAGTCAACCCGGCGCCCTTTTGGGGGACGATCAGATTTACAAT
GTAATTGTTACAGCCCATGCTTTCGTAATAATTTTCTTTATAGTAATACCGATTATGATCG
AGGTTTCGGGAACCTGGCTCGTTCCTTAATGATTGGCGCTCCTGATATAGCCTTTCCTC
GAATGAATAATATGAGCTTTTGACTTCTTCCCCCATCTTTTTTACTCCTCCTTGCCTCTT
CGGGAGTCGAAGCAGGGGCCGGAACCGGATGAACAGTTTATCCACCCCTCGCCGGA
AATCTCGCCACGCAGGAGCTTCTGTTGACCTAACAATCTTCTCCCTTCACCTAGCAG
GTATCTCCTCTATTCTTGGGGCAATCAACTTTATCACA ACTATCATTAATATAAAAACCC
CTGCTATTTACAATACCAGACCCCGCTATTTGTGTGGTCTGTTCTTATTACTGCTGTAC
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AAATCTTAACACCACCTTCTTTGACCCTGCCGGAGGAGGGGACCCAATCCTTTACCA
ACATCTCTTCTGATTCTTCGGTCACCCTGAAGTGTCACTACTGTGTTTCCCGGGAA