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Distributional Notes on Fishes from Northern Georgia with Comments on the Status of Rare Species



Southeastern Fishes Council PROCEEDINGS

DEDICATED TO THE PRESERVATION OF SOUTHEASTERN FISHES

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Distributional Notes on Fishes From Northern Georgia With Comments on the Status of Rare Species

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The historical distribution of the darters *Etheostoma trisella*, *Percina aurolineata*, and *Percina lenticula* in northern Georgia has been in question since their description over a decade ago. In spite of the fact that fish collections from northern Georgia are numerous (Satterfield, 1961; Dahlberg and Scott, 1971), there is a paucity of recently published information on fishes from the region. An interest in ascertaining the status of the above-mentioned percids, as well as

the possible occurrence of other interesting faunal elements, has prompted us to make a number of collections in several of northern Georgia's larger streams. Collections have been made in the Conasauga, Cartecay, Ellijay, and Etowah rivers of the upper Coosa system, as well as in the upper Chattahoochee, Altamaha, and Savannah systems (Fig. 1). No collections of added significance were recorded from the latter three systems, but within the Coosa system significant discoveries were the addition of *Noturus munitus* to the Georgia fauna as well as valuable information on the distributions and/or status of *Ericymba buccata*, *Notropis lutipinnis*, *Ictalurus brunneus*, and the rare darters *E. trisella*, *P. antesella*, *P. aurolineata*, *P. lenticula*, *P. sp.*, cf. *macrocephala*, and *P. sp.*, cf. *caprodes*.

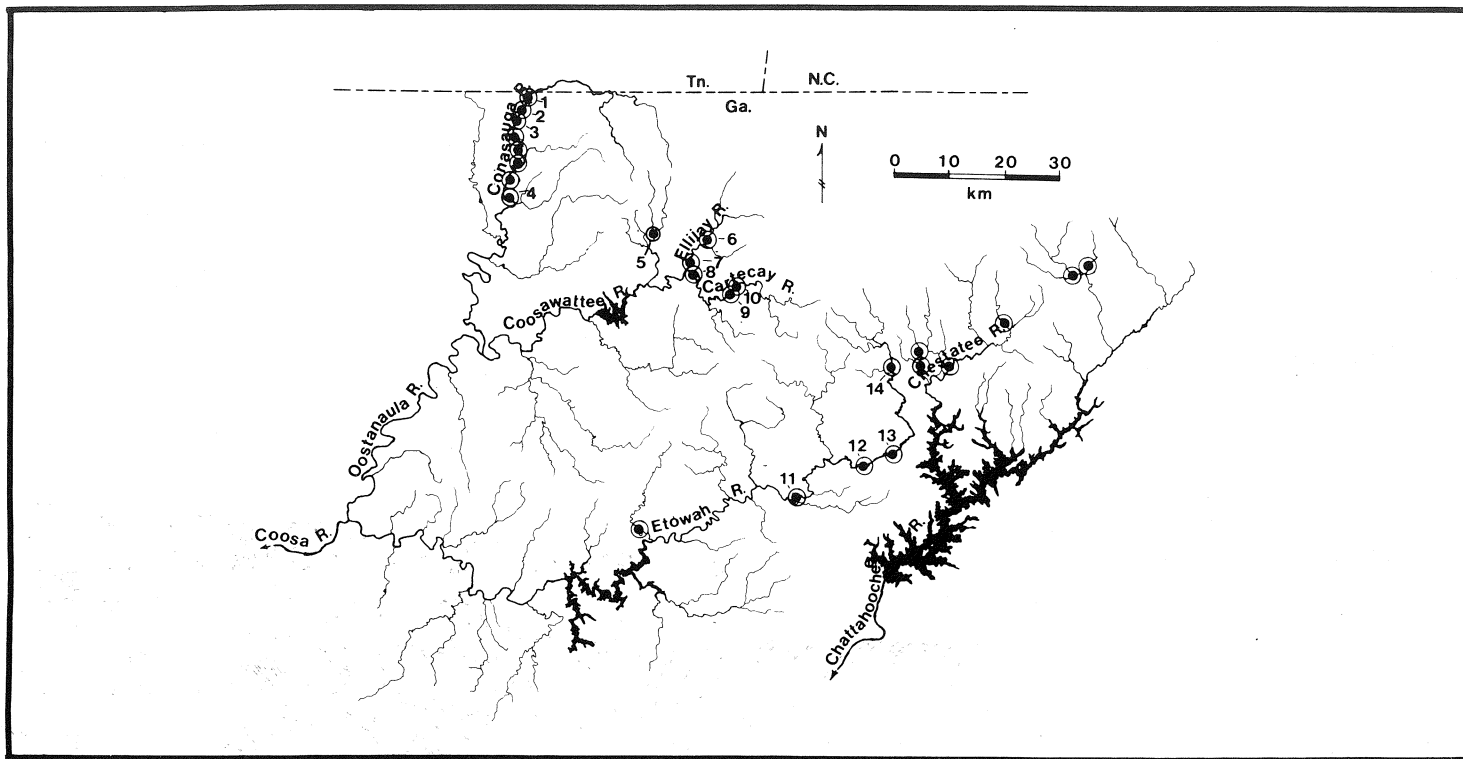


Figure 1. Locations of collecting sites in the Coosa and Chattahoochee river systems of northern Georgia. Localities cited in the species accounts are numbered.

Ericymba buccata Cope. Silverjaw minnow. The silverjaw minnow has not previously been reported from the Mobile River basin above the Fall Line, although it is relatively common in the adjacent Chattahoochee system (Wallace, 1973). A single specimen of *E. buccata*, 26.8 mm standard length (SL), was collected from the Etowah River just below U.S. Hwy. 19, 6.9 airm S of Dawsonville, Dawson Co. (SITE 12) on 26 August 1978, constituting, to our knowledge, the first record of the silverjaw minnow from the upper Coosa system.

Notropis lutipinnis (Jordan and Brayton). Yellowfin shiner. Previously records of *N. lutipinnis* are available from the Savannah, Ogeechee, Oconee, and Ocmulgee rivers of the Atlantic slope and the Chattahoochee River of the Gulf slope. Three collections from the Etowah River represent the first known collections of the yellowfin shiner from the Coosa system and the entire Mobile River basin: at St. Hwy. 52, 7.2 airm W of Dahlonga, Lumpkin Co. (SITE 14), on 7 Sept. 1978 (46, 16-69 mm SL) and 10 Sept. 1978 (8, 43-62); and at Co. Rd. 90861, 22.0 airm E of Canton, Cherokee Co. (SITE 11), on 9 Sept. 1978 (1, 31). A morphometric and meristic analysis revealed no significant differences between this population and specimens from the Altamaha drainage.

Ictalurus brunneus (Jordan). Snail bullhead. This species has previously been recorded from the Savannah, Altamaha, and Apalachicola river systems in Georgia (Yerger and Relyea, 1968). Two collections from the Etowah River represent the first records of the snail bullhead from the Mobile basin: at St. Hwy. 53, 6.4 airm SE of Dawsonville, Dawson Co. (SITE 13), on 6 Sept. 1977 (3, 40-50); and SITE 12, on 26 Aug. 1978 (1, 48). The specimens were captured in riffles with hard, rocky bottoms and moderate current, as is typical for this species.

Noturus munitus Suttkus and Taylor. Frecklebelly madtom (Fig. 2). Not previously known from Georgia, the frecklebelly madtom was described by Suttkus and Taylor (1965) from the Pearl River in Louisiana and Mississippi, the Tombigbee River in Mississippi, and the Cahaba River in Alabama. Stiles and Etnier (1971) reported its occurrence in the Conasauga River, a tributary to the upper Coosa River system in Bradley Co., Tennessee. Eight collections of *N. munitus* from three localities in the Etowah River, Dawson and Cherokee counties represent the first collections from Georgia: SITE 13, on 6 Sept. 1977 (2, 57-69), 1 Sept. 1978 (9, 24-83), and 25 Oct. 1978 (19, released); SITE 12, on 26 Aug. 1978 (1, 53), and 1 Sept. 1978 (4, 14-52); and SITE 11, on 7 Sept. 1978 (3, 52-63), 9 Sept. 1978 (4, 56-69), and 25 Oct. 1978 (1, 73).

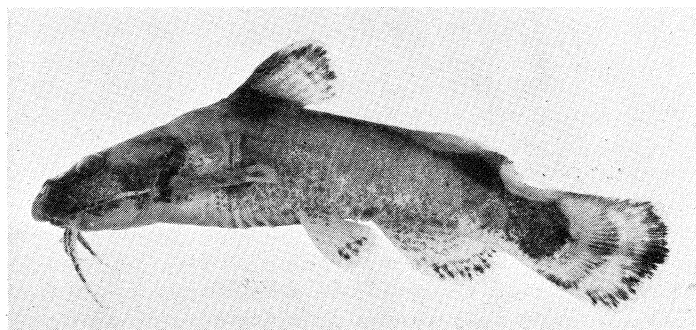


Figure 2. *Noturus munitus* (64 mm SL) SITE 11.

Etheostoma trisella Bailey and Richards. Trispot darter. This uncommon darter was known from only two specimens from one locality in Georgia. This site, Swamp Creek, a small

tributary to the Conasauga River near Dalton, Whitfield Co., underwent extensive habitat alteration following construction for Interstate 75. Howell and Caldwell (1967) considered *E. trisella* extirpated at this site and, despite repeated collections in the area, found no more specimens in the state. Etnier (1970) reported the discovery of a viable population in the Bradley Co., Tennessee portion of the Conasauga River near the Georgia border. On 29 Aug. 1978, 12 specimens were collected from three localities in the Conasauga River in northern Georgia: 0.8 km below Tennessee border, Murray-Whitfield county line (SITE 1), (4, 29-33); 4.0 km N of St. Hwy. 2, Murray-Whitfield line (SITE 2), (2, 25-29); and 2.4 km S of St. Hwy. 2, Murray-Whitfield line (SITE 3), (6, 26-45). These localities are approximately 65.9 river km from the only previously known *E. trisella* collections in Georgia.

Percina aurolineata Suttkus and Ramsey. Goldline darter. The goldline darter was known from the Coosawattee system in the vicinity of Ellijay, Gilmer Co., Georgia (Suttkus and Ramsey, 1965). The following collections extend the range of *P. aurolineata* 18 river km upstream in the Coosawattee system and provide a better understanding of the distribution of the goldline darter in northern Georgia.

Ellijay River, Gilmer Co: 8.8 airm NNE Ellijay (SITE 6), on 25 Sept. 1977 (2, 36-41), 1 Sept. 1978 (29, 25-68), 7 Sept. 1978 (11, 26-60), and 10 Sept. 1978 (11, 44-68); and at St. Hwy. 52 at Ellijay (SITE 7), on 25 Aug. 1978 (2, 46-58).

Cartecay River, Gilmer Co: along St. Hwy. 52, 3.2 airm SE Ellijay (SITE 8), on 25 Aug. 1978 (1, 57); 9.1 airm SE Ellijay (SITE 9), on 1 Sept. 1978 (6, 49-61); and at Co Rd. 91010, 9.8 airm SE Ellijay (SITE 10), on 1 Sept. 1978 (3, 61-67).

Mountaintown Creek, Gilmer Co: at St. Hwy. 52, 12.8 airm W Ellijay (SITE 5), on 1 Sept. 1978 (1, 60).

Habitat ranged from shallow moderately flowing riffles 10 cm or more in depth in the upper Ellijay to runs 1 m deep over boulders in the lower Ellijay and Cartecay. All habitats were well vegetated, predominantly by *Podostemum*.

Percina lenticula Richards and Knapp. Freckled darter (Figs. 3 and 4). Previous Georgia records of *P. lenticula* were from eight specimens collected in 1950 by Clarence M. Tarzwell, who conducted a survey of the Allatoona impoundment area, Etowah River (Richards and Knapp, 1964). Collections we made on 7 and 9 Sept. 1978 at Co. Rd. 90861 (SITE 11) of the Etowah River in Cherokee Co., yielded two specimens (119-120) and one specimen (101), respectively. An additional specimen (48) was captured in the Conasauga River, 2.4 river km S of St. Hwy. 286, Murray-Whitfield county line (SITE 4), on 29 Oct. 1978.

Despite the extensive amount of collecting previously conducted in northern Georgia, it is obvious that much still remains to be discovered regarding fish distributions. Additional collecting of large stream habitats may reveal significant information. The present records of *Noturus munitus* represent the first known specimens from Georgia and apparently represent a healthy population in the Etowah River above Allatoona reservoir. This species will surely be captured in the Conasauga River in Georgia as it has been collected in the Tennessee portion of that river, virtually at the Georgia border (Stiles and Etnier, 1971). Ramsey (1976) listed *N. munitus* as endangered in Alabama, citing construction of several dams on the Alabama River as the cause of its extirpation in the main channel of the river. It is suggested that the frecklebelly madtom be considered as threatened in

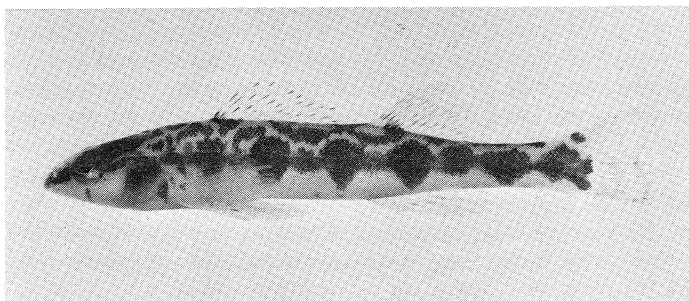


Figure 3. *Percina lenticula* (48 mm SL) SITE 4.

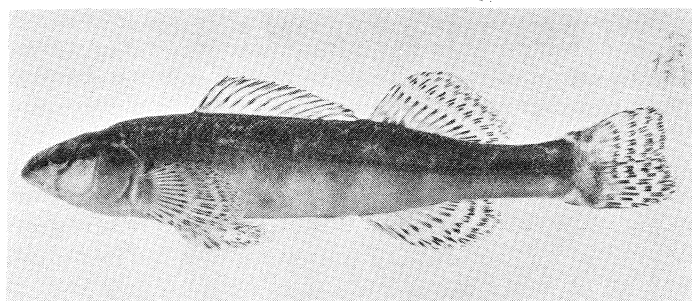


Figure 4. *Percina lenticula* (119 mm SL) SITE 11.

Georgia also, due to the threat of additional habitat alteration.

The status of *Percina aurolineata* has recently been under review. Existing populations in the upper Cahaba River in Alabama have been considered endangered by Ramsey (1976) due to habitat degradation. Water quality in the Cahaba River has been gradually deteriorating due to a combination of urbanization and increased strip mining activity. Stiles (1978) concluded that the goldline darter warranted threatened status nationally, stating that the Coosawattee population needed further investigation. Our collections indicate that the populations of *P. aurolineata* presently existing in the Ellijay and Cartecay rivers are strong and viable. The presence of this population supports a threatened status on a national basis. The riverine habitat above Carter Reservoir in the Coosawattee drainage (Coosawattee, Ellijay, and Cartecay rivers) should be protected as critical habitat.

The collection of *Notropis lutipinnis* and *Ictalurus brunneus* from the Etowah River represents the first records for these species from the Mobile River basin. We suggest that they, along with *Ericymba buccata*, gained access to the Etowah River through stream capture between the upper Etowah and Chestatee rivers, a capture first noted by Campbell (1896). Stream capture in this vicinity was suggested by Ramsey (1965) as the method through which *Hypentelium etowanum* and *Notropis xaenoccephalus* gained access to the Chattahoochee River system from the Etowah. The transfer of *N. lutipinnis*, *E. buccata*, and *I. brunneus* may represent a reciprocal transfer of faunas, or less likely, an introduction by man. Other species of the Chattahoochee system may be found in the Etowah drainage with more intensive collecting.

Percina lenticula was previously known from only eight specimens in Georgia from the Etowah River in Cherokee County. The biology of this large darter is almost completely unknown. It typically inhabits large rivers where the adults occur in fast, deep riffles over a bottom of rock and gravel. The juvenile specimen from the Conasauga was collected in a

gently flowing, vegetated riffle over fine gravel and silt. A better understanding of the ecology and habitats of the freckled darter could lead to a more thorough knowledge of its distribution in northern Georgia.

The Georgia portion of the Conasauga River in which we collected *Etheostoma trisella* and *P. lenticula* is a zone of habitat transition. Here the river changes from a predominantly upland habitat that is more characteristic of a lowland Gulf Coast stream with fine, silty substrates, slower flow and more frequently occurring pools. Downstream range extensions within the Conasauga were also noted for the geographically restricted darter species *Percina antesella*, *P. (Alvordius) sp.*, cf. *macrocephala* (Fig. 5), and *P. (Percina) sp.*, cf. *caprodes* (Fig. 6). These darters, previously known only from Tennessee, are coextensive with *Etheostoma trisella* in the Georgia portion of the river occurring downstream to an area 2.4 km south of the St. Hwy. 2 crossing (SITE 3).

Representative specimens of the fishes collected during this survey have been deposited in the following collections: Collection of Fishes, University of Tennessee; Collection of Fishes, Eastern Kentucky University, Richmond, Kentucky; and in the private collections of the authors.

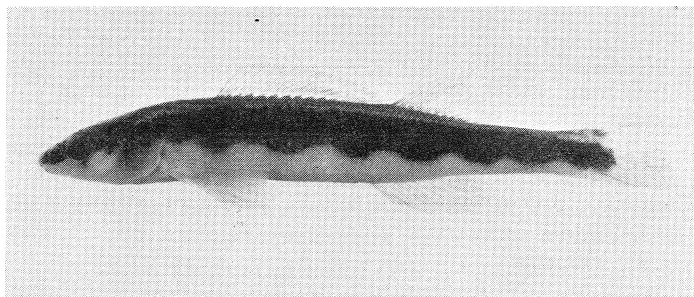


Figure 5. *Percina (Alvordius) sp.*, cf. *macrocephala* (65 mm SL) SITE 3.

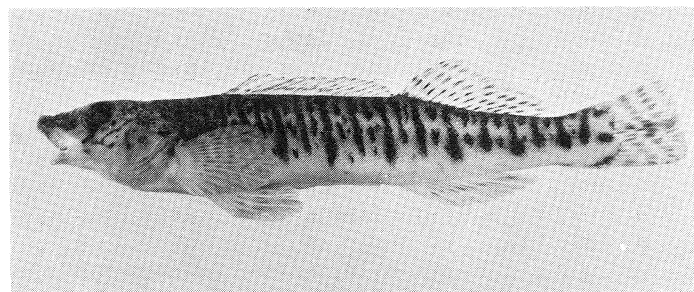


Figure 6. *Percina (Percina) sp.*, cf. *caprodes* (105 mm SL) SITE 3.

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(continued on next page)

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ANNUAL MEETING CHATTANOOGA

SFC will meet on 27 April at 4:30 p.m. in Grote Hall, Room 129, on the University of Tennessee, Chattanooga, campus. The meeting will follow the paper sessions of the Southeastern Division of the American Society of Ichthyologists and Herpetologists which are held in conjunction with the Association of Southeastern Biologists.

STATUS UPDATE ON PUFFISH

The Lake Eustis pupfish, *Cyprinodon variegatus hubbsi*, is generally distributed in eight headwater lakes of the Oklawaha River in Florida and is locally abundant. In a report for the Florida Game and Fish Commission, Vince Guillory documents the current status of the pupfish and recommends that the fish be removed from threatened status and be regarded as a species of special concern. Guillory warns that the area should be carefully monitored for eutrophication and development to assure that the habitat does not deteriorate in the future.

TOMBIGBEE RIVER LOSES GROUND

Construction of the \$1.8 billion Tennessee-Tombigbee Waterway continues following a ruling by a Federal Judge in Mississippi on March 12. The court ruled that plaintiffs in the case waited too long to file their complaint, and sidestepped the issue of authorization which was argued for eight days in Greenville during January. The project authorized in 1946 to be built "not less than 170 feet wide" is now being constructed 300 feet wide. The central question of whether the Corps of Engineers can make such modifications without Congressional authorization remains unanswered in the 55 page decision.

A request for review rests in the hands of the Fifth Circuit Court of Appeals in New Orleans. Legal questions concerning the project economics and environmental regulations remain to be heard.

Meanwhile, Senator Gaylord Nelson (WI) has introduced a bill to deauthorize the project. Calling Tenn-Tom "the biggest boondoggle of them all", Nelson was joined by three co-sponsors in the Senate.