Common Name: SNAIL DARTER

Scientific Name: *Percina tanasi* Etnier

Other Commonly Used Names: none

Previously Used Scientific Names: none

Family: Percidae

Rarity Ranks: G2G3/S1

State Legal Status: Endangered

Federal Legal Status: Threatened

Description: A small but robust fish reaching up to 90 mm (3.5 in) in total length, the snail darter is distinguished by four dark brown saddles that cross and contrast with the lighter brown dorsum. The saddles extend downward and join a lateral band formed by 9-12 indistinct blotches along each side. The eyes are positioned high on the head, with a dark blotch below each orbit. The dorsal and caudal fins are lightly banded, and on males the anal fin is noticeably elongated. Breeding males develop blue-green and gold coloration. The species name "tanasi" is for the name of the village on the Little Tennessee River that served as capital of the Cherokee Nation. The modern day derivation of tanasi is "Tennessee."

Similar Species: In the Tennessee River drainage of north Georgia, the snail darter occurs with two other species of *Percina*, the logperch (*P. caprodes*) and the dusky darter (*P. sciera*). The most distinctive characteristic of the snail darter are its four dark brown saddles which extend down and forward to contact the series of ten or so lateral blotches along the lateral line. The logperch (*Percina caprodes*) has numerous thin dark dorsal saddles that extend well down the sides and give the speces a distinctive “tiger stripe”

appearance. The dusky darter (*Percina sciera*) has seven to nine dark dorsal saddles which may be distinct, vague, or essentially absent.

Habitat: The snail darter inhabits larger creeks and small rivers, where it occurs in areas with moderate to swift flow over mixed sand and gravel. Similar to its close relative, the amber darter, the snail darter has dorsal saddles which provide cryptic coloration when the fish is over gravel and sand stream bottoms. This species also shares the amber darter's ability to burrow into sand and gravel substrata.

Diet: The snail darter specialized on small river snails and limpets. It also consumes aquatic insect larvae.

Life History: Spawning takes place from February to April in gravel shoals. Males aggressively court females; spawning pairs most likely bury eggs into the gravel. Following hatching, larvae drift downstream to deeper-water areas; juveniles return to the shoal habitats occupied by adults later in the summer. Sexual maturity is reached at age 1-2; life span is 3-4 years.

Survey Recommendations: The snail darter can be captured with a seine net, although it's preference for areas with strong current can make capture difficult unless a large net and several people are involved.

Range: The snail darter is endemic to the upper Tennessee River system in Alabama, Tennessee, and Georgia. In Georgia, the snail darter is known only from South Chickamauga Creek downstream of the Swanson Mill Dam at Graysville. Check the Fishes of Georgia Webpage for a watershed-level distribution map.

Threats: Extensive impoundment of the upper Tennessee River system has removed suitable habitat from most of the snail darter's native range. Isolated populations survive in larger tributaries where the principal threat is stream habitat degradation resulting from failure to employ Best Management Practices (BMPs) for forestry and agriculture, failure to control soil erosion from construction sites and bridge crossings, and increased stormwater runoff from developing urban and industrial areas.

Georgia Conservation Status: The snail darter was given federal status of Endangered in 1975, but was reclassified as Threatened in 1984 after several new populations were discovered in the upper Tennessee River system. In Georgia, it is especially vulnerable due to its occurrence in a single stream reach draining an area that is rapidly developing. As part of a status survey for the snail darter, 18 sites were surveyed in South Chickamauga Creek during 2005. Only 5 individual snail darters were encountered, all of which were downstream of the Georgia border. This survey spanned 18 km of the snail darter's historic range in the system, but the species was only detected within a 4.5 km reach. The last confirmed record of the snail darter in Georgia was from 1983.

Conservation and Management Recommendations: Large stream and river-dependent fishes including the snail darter can only be conserved by protecting habitat quality in

sufficiently long reaches to meet the needs of all life stages, and to support the diverse aquatic invertebrate populations on which these fishes feed. It is essential to minimize sediment runoff from land-disturbance activities, such as roadway and housing construction, and to control the input of contaminants such as fertilizers and pesticides. Forested buffers along the banks of the river and the smaller tributary streams that feed the river should be protected. Maintaining natural streamflow patterns by preventing excessive water withdrawal or unnaturally flashy runoff (such as from urban stormwater runoff) is also an essential element of protecting riverine habitat quality. The snail darter population in South Chickamauga Creek is in an area of rapid urban and suburban development, and is especially susceptible to detrimental effects associated with the expansion of Chattanooga, Tennessee and Ringgold, Georgia. Therefore, special efforts should be taken to minimize contaminant and sediment runoff to streams in this area.

Selected References:

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Date Compiled or Updated:
B. Freeman, 1999: original account
K. Owers, Jan, 2009 Updated status and ranks, added fish atlas link, converted to new format, minor edits to text
K. Owers-Update April 10th, 2009 Added Ashton and Layzer source
G. Dinkins, Aug, 2009: general update of entire account
B. Albanese, Sep 2009: added CFI picture, updated status with Ashton and Layzer paper, checked Heritage and Fish Atlas databases for most current record in Georgia.
Z. Abouhamdan, April 2016: updated links