

Common Name: GOLDSTRIPE DARTER

Scientific Name: Etheostoma parvipinne Gilbert and Swain

Other Commonly Used Names: none

Previously Used Scientific Names: none

Family: Percidae

Rarity Ranks: G4G5/S2S3

State Legal Status: Rare

Federal Legal Status: none

Description: The goldstripe darter is a generally small, robust fish reaching about 75 mm (3 in) maximum total length and has a short, rounded snout. The lateral line is straight and nearly complete, with just a few un-pored scales. The gill membranes are moderately connected and a frenum is present. This darter has a light-colored stripe along the lateral line, as well as a dark suborbital teardrop, 2-4 dark spots vertically aligned at the base of the caudal fin, and numerous small spots on the upper side of the body and fins. Larger individuals may have 10-12 brownish blotches along the sides. This species lacks the bright breeding coloration characteristic of many other darters. However, male pigmentation darkens during breeding and aggressive interactions and their eyes may turn red.

Similar Species: The goldstripe darter may be separated from the Gulf darter (*Etheostoma swaini*) by having moderately (vs. narrowly) connected gill membranes and by lacking red or blue coloration on breeding males. The brown darter may also appear similar, but has an upwardly arching lateral line (vs. straight), narrowly connected gill

membranes, and scattered red spots on the sides of adults.

Habitat: Goldstripe darters are generally found in small streams and spring seeps and runs associated with aquatic vegetation, organic debris (such as wood and leaves), or slow-moving riffle habitats.

Diet: A variety of aquatic invertebrates common in small stream habitats.

Life History: Goldstripe darters probably live 2-3 years. Spawning occurs during the spring months. Females attach their adhesive eggs one at a time to plants or rocks. The aggressive males may acquire darkened lateral bars and blackened fins as they compete with each other for spawning opportunities. Little else is known of this species' life history.

Survey Recommendations: This species is vulnerable to traditional sampling methods, such as kick-seining and backpack electrofishing. Tiny headwater streams and any vegetated microhabitats should not be overlooked during survey efforts.

Range: The goldstripe darter almost always occurs below the Fall Line, from the Brazos River (Texas) northeastward to tributaries of the Mississippi River in Missouri, Kentucky, and Tennessee, and southeast to the Altamaha River drainage in Georgia. In Georgia, the goldstripe darter is known from areas below the Fall Line in the Chattahoochee, Flint, Ocmulgee, and Oconee river systems. Check the Fishes of Georgia Webpage for a watershed-level distribution map.

Threats: The goldstripe darter is vulnerable to habitat destruction and water flow depletion in small stream habitats and spring runs, which occur as a result of poor development practices and failure to employ Best Management Practices (BMPs) for forestry and agriculture. The small streams in which this species occurs are particularly vulnerable to habitat degradation. Furthermore, the isolated nature of each population makes population recolonization and recovery unlikely after man-caused or natural disturbances (e.g., droughts).

Georgia Conservation Status: The species has an extremely patchy distribution in Georgia and is only know from about a dozen sites in the state. Collections are distantly scattered in time and space. It may be more common in tiny headwater streams, which are sometimes overlooked during fish surveys. However, these habitats are also vulnerable to poor land management practices and development.

Conservation and Management Recommendations: Conserving populations of goldstripe darters requires maintaining and improving habitat quality in small streams and spring runs by eliminating sediment runoff from land-disturbing activities (such as roadway and housing construction), maintaining forested buffers along stream banks, eliminating inputs of contaminants (such as fertilizers and pesticides), and maintaining natural patterns of stream flow. There are many technical assistance and cost-sharing programs that can help farmers implement best management practices to protect small

streams. Similarly, the Georgia Forestry Commission has also developed <u>best</u> <u>management practices</u> for minimizing the impacts of forestry operations on water quality. Small streams like those typically inhabited by the goldstripe darter may frequently be overlooked as important habitats for rare aquatic species and may be degraded by relatively small-scale construction activities. Special care must be taken to protect small streams from unnecessary runoff and stream bank disturbance.

Selected References:

Etnier, D. A. and W.C. Starnes. 1993. The fishes of Tennessee. Univ. Tennessee Press, Knoxville. 681pp.

Johnson, C. E. 1994. Spawning behavior of the goldstripe darter (*Etheostoma parvipinne* Gilbert and Swain) (Percidae). Copeia 1994(3): 823-825.

Lee, S. L., C. R. Gilbert, C. H. Hocutt, R. E. Jenkins, D. E. McAllister, and J. R. Stauffer. 1980. Atlas of North American fishes. North Carolina State Mus. Nat. Hist. 867pp.

Mettee, M. F., P. E. O'Neil and J. M. Pierson. 1996. Fishes of Alabama and the Mobile Basin. Oxmoor House, Birmingham 820 pp., L.

Page, L. M. and B. M. Burr. 1991. A field guide to freshwater fishes of North America north of Mexico. Houghton Mifflin, Boston. 432pp.

Author of Account: Byron J. Freeman

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

- B. Albanese, Aug, 2009: Added similar species, conservation status and photo; general account update.
- Z. Abouhamdan, April 2016: updated links