Common Name: HIGHSCALE SHINER

Scientific Name: *Notropis hypsilepis* Suttkus and Raney

Other Commonly Used Names: none

Previously Used Scientific Names: none

Family: Cyprinidae

Rarity Ranks: G3/S3

State Legal Status: Rare

Federal Legal Status: none

Description: A slender, compressed minnow reaching 64 mm (2.5 in) total length, the highscale shiner is characterized by large eyes set high on the head, a small subterminal mouth, and a blunt snout. The dorsum is pale yellow, with the uppermost scales darkly outlined. A broad, clear stripe lays over a narrower, dusky stripe along the sides. This dark lateral band continues onto the snout. At the base of the caudal fin is a wedge-shaped spot that is distinctly separated from the lateral stripe. The anterior lateral-line scales are elevated, meaning that the exposed portion of the scale is much higher than wide. Lateral line scales are also punctuated with black pigment. There are 7 anal fin rays and a pharyngeal tooth count formula of 2-4-4-2.

Similar Species: This species is most likely to be confused with the clear chub (*Hybopsis winchelli*), which differs from the highscale shiner in having a maxillary barbel and a pharyngeal tooth count formula of 1-4-4-1. Small bluestripe shiners (*Cyprinella callitaenia*) may also appear similar, but have a 1-4-4-1 pharyngeal tooth count formula and a crescent of dark pigment between the upper lip and the eye. The Coosa shiner (*Notropis xaenocephalus*) has been recorded from a few locations in the Chattahoochee River system, upstream of Lake Lanier. It differs from the high scale shiner by having a terminal mouth and lacking elevated lateral-line scales.

Habitat: Highscale shiners are primarily found in tributary streams, often near stream confluences with larger rivers. These shiners inhabit runs and pools over sand and bedrock substrates.

Diet: Probably aquatic insects or terrestrial insects captured from stream drift.

Life History: The highscale shiner probably spawns in late spring or early summer; however, little else is known about this small minnow's life history.

Survey Recommendations: This species is vulnerable to seining and backpack electrofishing. Because small minnows are often mis-identified, it is appropriate to retain a small number of voucher specimens during surveys.

Range: The highscale shiner primarily occurs in the Chattahoochee and Flint river systems of Georgia and Alabama, from the headwaters of these systems to just below the Fall Line. The majority of records are within the Piedmont portion of the Chattahoochee River system, downstream from Lake Lanier This minnow is also known from a tributary to the upper Tallulah River (Savannah River drainage) in Georgia. Check the Fishes of Georgia Webpage for a watershed-level distribution map.

Threats: Highscale shiners have a limited range and occur uncommonly. Habitat loss in the upper Chattahoochee and Flint river systems as a result of tributary impoundment for water-supply reservoirs and intensive development, plus the corresponding sediment and contaminant input, threaten the highscale shiner's survival.

Georgia Conservation Status: With the exception of some middle Chattahoochee tributaries in eastern Alabama, the entire range of the highscale shiner lies within Georgia. The status of this species has not been rigorously assessed, but the species is widely distributed in the Piedmont portions of the Flint and Chattahoochee River systems (below Lake Lanier). The species is more sparsely distributed upstream of Lake Lanier and most records in this area pre-date the 1960s. The Tallulah River system record dates 1955.

Conservation and Management Recommendations: Conserving populations of the highscale shiner depends on maintaining and restoring habitat and water quality in tributaries and the main channels of the upper Chattahoochee and Flint river systems. It is essential to eliminate sediment runoff from land-disturbing activities such as roadway and housing construction, maintain forested buffers along stream banks, eliminate inputs of contaminants such as fertilizers and pesticides, and maintain natural patterns of stream flow. Watershed clearing and urban development can lead to unnaturally flashy stormwater runoff, which scours stream channels and results in lower baseflows. For these reasons, promoting natural infiltration of stormwater runoff from developed areas is an important element in protecting stream habitats for fishes and other aquatic organisms. Impounding streams should be a last resort for developing water supplies.

Selected References:

Boschung, H. T. and R. L. Mayden. 2004. Fishes of Alabama. Smithsonian Institution, Washington D.C. 736pp.

Dahlberg, M. D., and D.C. Scott. 1971. The freshwater fishes of Georgia. Bull. Georgia Acad. Sci.

29:1-64.

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. 820pp.

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

Suttkus, R. D. and E. C. Raney. 1955. *Notropis hypsilepis*, a new cyprinid fish from the Apalachicola River system of Georgia and Alabama. Tulane Studies in Zoology 2: 161-170.

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, Dec 2009: added similar species, conservation status, and general edits.
Z. Abouhamdan, April 2016: updated link