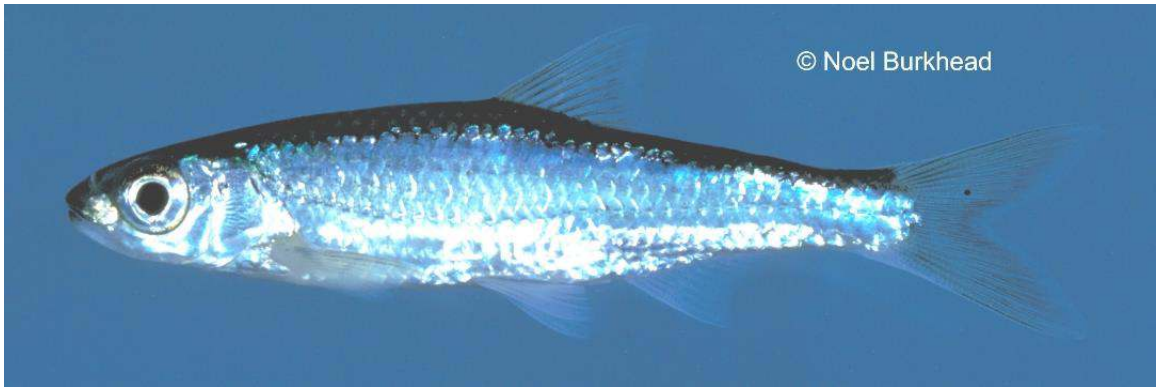

Common Name: POPEYE SHINER

Scientific Name: *Notropis ariommus* (Cope)

Other Commonly Used Names: none

Previously Used Scientific Names: originally described as *Photogenis ariommus.* The telescope shiner (*Notropis telescopus*) was at one time considered a subspecies of the popeye shiner.

Family: Cyprinidae

Rarity Ranks: G3/S1

State Legal Status: Endangered

Federal Legal Status: none

Description: The popeye shiner is silver with very large eyes, a slightly pointed snout, and a large terminal mouth. The eyes are more than 1.5X the length of the snout. There are 9 anal rays (8-10), a 2-4-4-2 pharyngeal tooth count formula, and a dorsal fin that is positioned directly over the beginning (i.e., the origin) of the pelvic fins. In breeding males, the rays of the dorsal and caudal fins are distinctly outlined in black. The popeye shiner is a medium-sized minnow attaining a maximum total length of approximately 90 mm (3.5 in).

Similar Species: The popeye shiner is easily confused with the telescope shiner (*Notropis telescopus*), which differs in having a typical anal ray count of 10 (vs. 9), anterior lateral-line pores that are distinctly "stitched" with pigment (vs. weakly stitched or not stitched), and irregular dorsolateral scale margins forming wavy lines (vs. scale margins normal, forming straight lines). Small striped shiners may also be similar, but have distinctly elevated (i.e., higher than wide) anterior lateral line scales and fine lines running along the back.

Habitat: The popeye shiner is found in clear warmwater streams, usually in association with gravel-cobble substrates and moderate currents in runs and flowing pools. It is

primarily known from larger creeks and rivers.

Diet: Little is known. In a recent study, adult and immature insects were found among the stomach contents of several specimens. The large eye suggests that this species may be a sight feeder.

Life History: There is very little known about the biology of this species. Spawning occurs from April to late June, based upon tubercle and gonadal development.

Survey Recommendations: This schooling species is probably vulnerable to seining. Its reportedly low abundance suggests that significant sampling effort may be needed to detect this species when present.

Range: The popeye shiner has a widespread but spotty distribution throughout the Ohio River basin, which includes the Tennessee drainage on the southern edge this species' range. It is usually an uncommon species and is apparently extirpated from many river systems. Georgia records are known only from the South Chickamauga and Lookout Creek systems and represent the only known extant populations within a southern tributary to the Tennessee River drainage. Check the Fishes of Georgia Webpage for a watershed-level distribution map.

Threats: The popeye shiner was uncollected for a 50-year period (1894-1948) at several sites where it had been previously taken. In some streams in Virginia, the popeye shiner was not collected until the 1970s or later, in spite of these areas having been collected over the past 100 years by various ichthyologists. The popeye shiner has apparently been extirpated from Ohio Basin tributaries to the north of the river and has not been collected in Alabama since 1889. Various hypotheses have tried to account for this, the most probable being either failure to sample larger stream habitats adequately or the fact that the popeye shiner is very sensitive to the detrimental effects of siltation and sedimentation. Specific threats to their large river habitat in Georgia include urbanization from the greater Chattanooga area, isolation by impoundments, and non-point source pollution from agricultural areas.

Georgia Conservation Status: The popeye shiner is know from a single collection in Lookout Creek (1959) and from a handful of collections in the South Chickamauga Creek system. The last confirmed record in South Chickamauga Creek was in 1993.

Conservation and Management Recommendations: Conservation of populations of popeye shiners in Georgia will depend upon maintaining habitat quality in the South Chickamauga Creek system. Streams in this area of Georgia are very susceptible to modification. The West Chickamauga Creek system is currently extremely silted due to poor land-use practices and has lost several species of fishes. It is essential to eliminate sediment runoff from land-disturbing activities (such as roadway and housing construction) and inputs of contaminants (such as fertilizers and pesticides). Forested buffers should be maintained and restored along the banks of the mainstem and the smaller tributary streams. Maintaining natural streamflow patterns by preventing

excessive water withdrawal or unnaturally flashy runoff (such as from urban storm water runoff) is another essential element of protecting stream habitat quality. The popeye shiner and other fishes that similarly depend on clean gravel habitats and moderate currents are especially vulnerable to streamflow depletion, because habitats with swift currents are diminished at low flows.

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Author of Account: Byron J. Freeman

Date Compiled or Updated:
B. Freeman, 1999: original account
K. Owers, Jan, 2009: Added picture, updated status and ranks, added fish atlas link, converted to new format, minor edits to text
B. Albanese, Dec 2009: minor updates throughout, similar species, and conservation status.
Z. Abouhamdan, April 2016: updated link