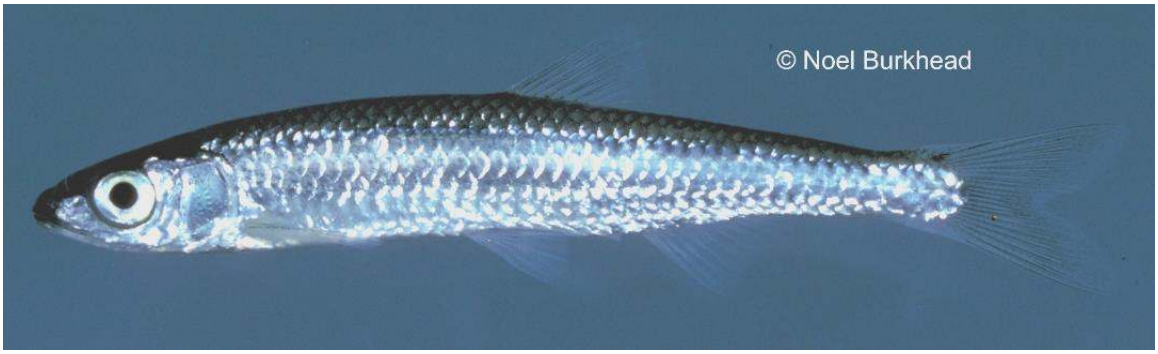

Common Name: SILVER SHINER

Scientific Name: *Notropis photogenis* (Cope)

Other Commonly Used Names: none

Previously Used Scientific Names: none

Family: Cyprinidae

Rarity Ranks: G5/S1

State Legal Status: Endangered

Federal Legal Status: none

Description: The silver shiner is a slender, laterally compressed fish that reaches lengths approaching 150 mm total length (5.9 in). It is characterized by two black crescents between the nostrils, a large terminal mouth on a long snout, large eyes, and a dorsal fin origin behind the pelvic fin origin. There are 10-11 anal fin rays and a pharyngeal tooth count formula of 2-4-4-2. The back is a light olive color, the sides are bright silver with blue reflective stripes, and the lips are black.

Similar Species: The very common Tennessee shiner (*Notropis leuciodus*) could be confused with a young silver shiner. In contrast to the silver shiner, this species has 8-9 anal rays, a 1-4-4-1 pharyngeal tooth count formula, and a distinctive, rectangular-shaped caudal spot. The telescope shiner (*Notropis telescopus*) is also similar, but differs in having variably sized and shaped dorsolateral scales that form zig-zag stripes down the back.

Habitat: Silver shiners are found in rocky runs and riffles in small and large rivers with firm substrates. They prefer clear waters and flowing pool and run habitats.

Diet: Silver shiners feed mainly on terrestrial insects, but aquatic insects and other macroinvertebrates have been reported as prey items. Schools of silver shiners feed near the surface and have been seen jumping from the water to feed on flying insects.

Life History: Spawning has not been observed for silver shiners. Tuberculate males have been collected from late April to mid June in Tennessee and Virginia. They have been found in smaller streams during the presumed spawning season in Tennessee, indicating an upstream migration to spawn, since they are normally found in large streams. Sexual maturity for these fish is reached at 1-2 years of age; maximum age is about 3 years.

Survey Recommendations: The deeper pools and runs inhabited by this species are difficult to sample. Night seining was effective at capturing relatively large numbers of silver shiners in a large river in Virginia.. If this species does migrate into smaller streams to spawn, then sampling efficiency may be higher during the late spring.

Range: This species occurs in Lake Erie and Ohio River drainages from New York and Ontario to Michigan and south to north Georgia and Alabama. In Georgia, the silver shiner has been collected only from Betty Creek, a tributary of the Little Tennessee River in Rabun County. It has also been collected within the North Carolina portion of Brasstown Creek, which begins in Georgia. Check the Fishes of Georgia Webpage for a watershed-level distribution map.

Threats: The silver shiner is imperiled in Georgia because of its limited distribution. It is associated with relatively silt-free bottoms, which suggests vulnerability to sedimentation. Threats to the existence of the silver shiner in Georgia include impacts from poor land use practices as a result of farming, road-building, and increasing urbanization. Much of the riparian buffer along streams has been impacted or eliminated in the more developed region of Rabun County. This allows for an increase in sunlight, which can result in changing water temperatures, and also allows sediment and excess nutrients to reach the stream more quickly. Hydrologic alteration as a result of increased areas with paving and other impervious surfaces is also a threat.

Georgia Conservation Status: The species is at high risk of extirpation from Georgia waters. The last confirmed record from Betty's Creek was in 1966. It may still occur in the mainstem Little Tennessee River.

Conservation and Management Recommendations: Conservation of the silver shiner and other stream fishes in the Little Tennessee River system depends upon maintaining and improving habitat quality. It is essential to eliminate sediment runoff from land-disturbing activities (such as roadway and housing construction), inputs of contaminants (such as fertilizers and pesticides), and chronic discharges of industrial effluent and sewage. Existing stream buffers should be maintained and there are many opportunities to enhance and widen riparian zone habitats by planting native trees and shrubs along creeks and streams. Watershed clearing and urban development can lead to unnaturally flashy storm water runoff, which scours stream channels and results in lower baseflows. For these reasons, containing and slowly releasing stormwater runoff from developed areas is an important element in protecting stream habitats for fishes and other aquatic organisms. .

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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, July 2009: similar species, conservation status, and general account update.
Z. Abouhamdan, April 2016: updated links