Common name: CONASAUGA LOGPERCH

Scientific Name: *Percina jenkinsi* Thompson

Other Commonly Used Names: none

Previously Used Scientific Names: *Percina caprodes*

Family: Percidae

Rarity Ranks: G1/S1

State Legal Status: Endangered

Federal Legal Status: Endangered

Description: A large darter reaching a maximum of 140 mm (5.5 in) in total length, the Conasauga logperch has a conical snout and narrow vertical bars on the sides. Eight dark bars extend ventrally below the lateral line, and narrower half- and quarter-length bars separate these primary bars. The width of these primary bars is always much less than the lighter colored space between the primary bars and the half-length bar. There is a dark bar extending below the eye, a large spot at the base of the caudal fin, and light banding on the dorsal and caudal fins.

Similar Species: This fish is distinguishable from the co-occurring Mobile logperch (*Percina kathae*) in lacking a red or orange band on the first dorsal fin and by having numerous, narrow vertical bars overlying the tan upper body. The width of the primary bars in the Mobile logperch is usually equal to or a little greater than the tan spaces between the primary bar and the secondary bar.

Habitat: The Conasauga logperch inhabits riffles and runs in the main channel of the Conasauga River, generally occurring at water depths greater than 0.5 m (1.6 ft) with swift current (often greater than 0.5 m/sec or 1.6 ft/sec) over cobble and gravel.

Diet: Aquatic invertebrates.

Life History: The Conasauga logperch often finds its prey by using its conical "pig-like"

snout to turn over rocks on the stream bottom (a behavior also employed by other species of logperches, *Percina spp*.). A snorkeling observer may see other fishes, such as redeye bass, positioned just downstream of a foraging logperch, apparently waiting for invertebrates sent into the current by the stone-flipping darter. Spawning behavior and details of spawning season conditions are unknown.

Survey Recommendations: Snorkeling or seining in and near shoals along the Conasauga River are the best means of encountering Conasauga logperch, but they are hard to detect due to their rarity and low abundance. Additionally, it can be difficult to distinguish the Conasauga logperch from the more common Mobile logperch while snorkeling, especially if stream turbidity is elevated. Electrofishing for the Conasauga logperch is discouraged due to the increased risk of incidental mortality of this rare animal.

Range: The Conasauga logperch is endemic to the Conasauga River (upper Coosa River system) in southeastern Tennessee and northwestern Georgia. Its known range is an approximate 45 km (27 mile) reach of the river, from the vicinity of the mouth of Minnewauga Creek downstream to Mitchell Bridge in Georgia's Whitfield and Murray Counties. Critical habitat designated by the U.S. Fish and Wildlife Service includes the reach of the Conasauga River between the confluence of Half-way Branch in Polk County, Tennessee, downstream approximately 18 km (11 miles) to the Georgia Highway 2 bridge in Murray County, Georgia. Check the Fishes of Georgia Webpage for a watershed-level distribution map.

Threats: Loss of habitat and deteriorating water quality in the upper Conasauga River threaten the continued survival of the Conasauga logperch. The threat to this species is acute due to its extremely limited range – only 45 kilometers of river within the entire upper Coosa River basin. The Conasauga logperch does not appear to be abundant anywhere within its range, in contrast with the more common and widespread Mobile logperch. Development of water storage reservoirs adjacent to the Conasauga River may also adversely affect habitat conditions in the lower portion of the Conasauga logperch's range by altering stream flow and water temperatures.

Georgia Conservation Status: Recent survey data suggest that Conasauga logperch may be encountered less frequently than they were historically, especially in the downstream portion of their range. Increasing focus has been directed towards the status of fishes of the Conasauga River due to the recent loss or decline of several fish species (e.g., the Coosa chub (*Macrhybopsis sp. cf. M. aestivalis* and Coosa madtom (*Noturus sp. cf. N. munitus*)), decline in the aquatic macrophyte, riverweed (*Podostemum ceratophyllum*), and an apparent increase in algal production within the river. In an attempt to evaluate their current status, surveys were conducted to look for the Conasauga logperch throughout its entire range in 2008; nine individuals from five of 22 surveyed locations were encountered. Because the probability of encountering a Conasauga logperch during a survey is low, focused and consistent monitoring will be needed to distinguish a small but stable population from one that is continuing to decline.

Conservation and Management Recommendations: Conserving the Conasauga logperch depends on maintaining quality habitat in the upper Conasauga River (upstream from Dalton, GA). Conasauga logperch and other species that depend on the river are particularly vulnerable because there is no suitable refuge should conditions in the river deteriorate. Conditions in the Conasauga's tributaries directly and strongly influence conditions in the river, thus long-term viability of the Conasauga logperch population will require watershed-scale land-use management that protects the entire system. The upper portion of the Conasauga River basin is within National Forest boundaries. Downstream of the National Forest, agricultural uses become significant, while suburban development has, so far, been limited. Eliminating runoff of upland sediment and contaminants, such as fertilizers and other nutrients, pesticides, heavy metals, and surfactants is critical to protecting aquatic resources. Forested buffers should be maintained along stream banks to aid in protecting water quality. Stream buffers are essential, but offer inadequate water quality protection where surface runoff is directed to bypass buffered areas, (e.g., where surface drained agricultural fields accelerate upland runoff to streams). Protecting riverine habitat quality will require the maintenance of natural patterns of stream flow by minimizing water withdrawals, new impoundments, and impervious cover. The Conasauga logperch and other fishes that depend on riffle habitats are especially vulnerable to stream flow depletion because habitats with swift currents are diminished at low flows.

Selected References:

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Author of Account: Byron J. Freeman and Megan Hagler

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.
M. Hagler, July 2009: general update of account

Z. Abouhamdan, April 2016: updated links