U.S. Fish & Wildlife Service





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Conserving South Carolina's At-Risk Species:

Species facing threats to their survival

Brook floater

(Alasmidonta varicosa)



Brook floater/Photo credit: Allen Barlow

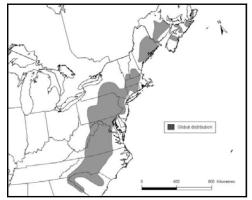
Description

The shell of the brook floater is oblong, long and rhomboid with the anterior margin abruptly curved the ventral margin long and gently concave centrally. Growth ridges are marked by concentric ridges. The outer surface is generally smooth except on the posterior slope; it is yellowish, greenish or covered with dark greenish rays in juveniles. The outer surface becomes brownish with rays partially obscured or almost black in adults. The inner shell surface is whitish or bluishwhite often with salmon, pink or purple in the beak cavity. Maximum shell length for this species is 70 mm (2.8 inches). Identification keys are provided in Bogan and Alderman (2004) for South Carolina.

Range

The brook floater is found along the east coast from eastern Canada to the Savannah River basin in South Carolina and Georgia. In North Carolina and South Carolina, populations are small, isolated, and have limited extents. In South Carolina, the brook floater occurs in several streams in the Steven's Creek basin including Beaverdam, Stevens, Turkey and Mountain Creeks. The most viable southern popula-

tion may be in the Chattooga River near Threats the South Carolina/Georgia state line. It The brook floater is particularly sensitive is also found in Flat Creek and the Lynch- to habitat degradation (silt, nutrient and es River; however, the brook floater is sewage loads, pollution) caused by poor only found in portions of this river with agricultural practices, development, loss good water quality and stable stream- of riparian corridors, impoundments, offbanks. South Carolina counties where the road motor vehicle use, and other water brook floater is known to occur are: quality issues. Chesterfield, Edgefield, Greenwood, Ker- collection and competition with exotics shaw, Lancaster, McCormick, Oconee, species such as the Asiatic clam (Corbicula and Saluda.



Brook floater range map - Canadian Wildlife Service Environment Canada

Habitat

The brook floater is found in high relief streams among boulders in sand.

Status

This species has disappeared from 60-80 sa in Canada - 2009 Massachusetts, New York, Pennsylvania, explorer.natureserve.org. New Jersey, Rhode Island, Virginia, South Carolina Department of Natural North Carolina, and South Carolina. It is Resources—State Wildlife Action Plan: not ranked in South Carolina, but is cur- 2010-2015. rently a species of special concern in this state. The U.S. Fish and Wildlife Service Contact was petitioned to list the species in April U.S. Fish & Wildlife Service 2010 and published a substantial 90-day South Carolina Field Office finding in September 2011 indicating list- 843/727-4707 ing may be warranted.

Impacts from overfluminea) and the zebra mussel (Dreissena polymorpha) have also been documented.

Management/Protection Needs

Protect the brook floater and its habitat from further degradation by following best management practices and protection of riparian areas, especially those portions along Flat Creek in the Lynches River drainage. Encourage responsible land use planning and promote good land stewardship practices through educational programs. Conduct surveys to determine the presence and location of the brook floater in South Carolina and continue to monitor known populations.

References

COSEWIC Assessment and Status Report on the Brook Floater Alasmidonta varico-

sites range-wide and its current global NatureServe. 2015. NatureServe Explorstatus is vulnerable (G3). There has been er: An online encyclopedia of life [web a sharp decline in numbers where present application]. Version 7.1. NatureServe, with significant declines being noted in Arlington, Virginia. Available http://

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