

## Barrel Floater

### *Anodonta couperiana*

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#### DESCRIPTION

#### Taxonomy and Basic Description

The ventral margin of the shell of the Barrel Floater is broadly rounded while the dorsal margin is straight. The length to height ratio of this species is approximately 1:5. The outer surface of the shell has fine green rays. Barrel floaters may reach over 100 mm (4 in.) in length (Bogan and Alderman 2004, 2008).

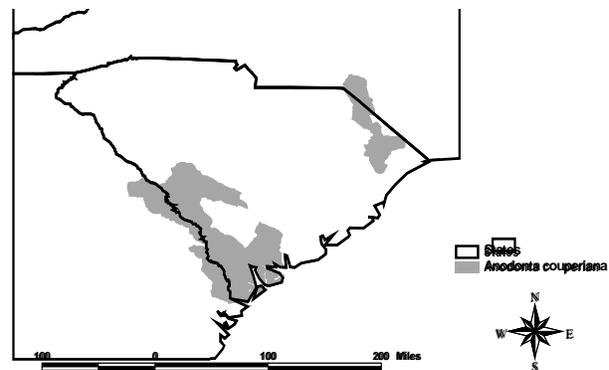


#### Status

NatureServe (2011) currently identifies the Barrel Floater as having a global rank of apparently secure (G4). This species is ranked as critically imperiled (S1) in South Carolina and is a species of special concern. The Barrel Floater has possibly been extirpated in North Carolina and its status is either not ranked or under review in Georgia and Florida.

#### POPULATION SIZE AND DISTRIBUTION

The Barrel Floater was once found from the Apalachicola region in Florida to the Cape Fear River Basin in North Carolina (Bogan and Alderman 2004, 2008). However, most records of the species in North and South Carolina are not recent, and it may have been extirpated from much of its former range (Taxonomic Expertise Committee 2004). A few populations are known in the Savannah River and its tributaries, and there are a few old records from the Little Pee Dee and Edisto Rivers. It is not clear if some of these populations still persist, since a recent survey of the Little Pee Dee failed to locate any Barrel Floaters (T. Savidge pers. comm., Jan. 25, 2005). It is quite rare when it is found (Taxonomic Expertise Committee 2004).



#### HABITAT AND NATURAL COMMUNITY REQUIREMENTS

The Barrel Floater is found in ponds or slow flowing streams with sandy or muddy bottoms. Often those bottoms are very deep with soft, unstable mud (Taxonomic Expertise Committee 2004).

## CHALLENGES

Unlike most mussels, the Barrel Floater is very tolerant of siltation; however, it is highly intolerant of pollution (Taxonomic Expertise Committee 2004). The biggest challenge to this species is the sharp decline from its previous historic range and the extreme rarity with which it is encountered. Little is known about specific challenges to this species and the causes of its decline are not fully understood.

## CONSERVATION ACCOMPLISHMENTS

There are no significant conservation accomplishments for the Barrel Floater at this time.

## CONSERVATION RECOMMENDATIONS

- Conduct surveys to determine the current status of the Barrel Floater.
- Explore the need to list the Barrel Floater within South Carolina, based on survey results.
- Closely monitor the presence of various pollutants in present and historic parts of the Barrel Floater's range. Evaluate the species' sensitivity to those pollutants and address any problems that are found.
- Consider reintroduction of the Barrel Floater to parts of its historic range, where and when conditions seem to have improved.
- Protect critical habitats for the Barrel Floater from future development and further habitat degradation by following Best Management Practices and protecting and purchasing riparian areas.
- Promote land stewardship practices through educational programs both within critical habitats with healthy populations and in other areas that contain available habitat for the Barrel Floater.

## MEASURES OF SUCCESS

An increase in the size of South Carolina's populations of the Barrel Floater will be considered a measure of success.

## LITERATURE CITED

- Bogan, A.E. and J.M. Alderman. 2004. Workbook and key to the freshwater bivalves of South Carolina. i-ii + 1-64 pp. + 5 pls.
- Bogan, A.E. and J.M. Alderman. 2008. Workbook and key to the freshwater bivalves of South Carolina (Revised Second Edition). i-ii + 1-66 pp. + 5 pls.
- NatureServe. 2011. NatureServe Explorer: An online encyclopedia of life [web application]. Version 7.1. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>.