

Alewife Floater

Anodonta implicata

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DESCRIPTION

Taxonomy and Basic Description

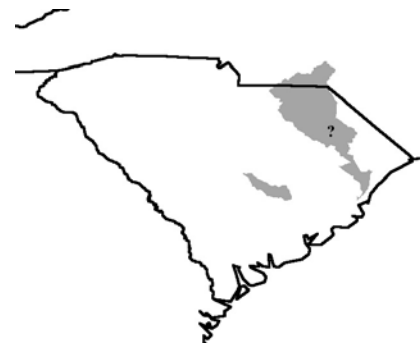
The shell of the Alewife Floater is elliptical and oblong to ovate. The shell surface has irregular growth lines which may form ridges. The anterior margin of the shell is narrowly rounded; the posterior margin is bluntly pointed below the midline. The ventral and dorsal margins are straight. The shell surface is smooth and varies from almost shiny to rough. The color of the shell is yellowish-brown to greenish-brown to reddish-brown and becomes dark brown to black with age. Shells of immature Alewife Floaters have fine green rays. The inner surface of the shell varies from white to salmon or purple and is generally darker in the beak cavity. Alewife Floaters can reach a length of 142 mm (5.7 in.) (Bogan and Alderman 2004, 2008).

Status

Nature Serve (2011) currently identifies this species as globally secure (G5). It is not ranked in South Carolina, but is ranked as critically imperiled (S1) in North Carolina. It is recommended for listing as S1 in South Carolina (John Alderman pers. comm.).

POPULATION SIZE AND DISTRIBUTION

The Alewife Floater is mainly a northern species with a primary range extending from Maryland to Canada, with disjunct populations in the Chowan and Pee Dee River basins in North Carolina. Shells only have been found in the Santee River Basin of South Carolina (Alderman 2005). Although it has not actually been found in the Pee Dee River Basin of South Carolina, its host fish has been reported to be the alewife, an anadromous species. Therefore, the species must travel through South Carolina as developing glochidia and should occur as an adult somewhere in the Pee Dee River Basin in South Carolina (Bogan and Alderman 2004, 2008). Fuller (1978) thought the species might be found eventually in the Outer Coastal Plain of South Carolina, particularly in the lower portions of rivers.



HABITAT AND NATURAL COMMUNITY REQUIREMENTS

The Alewife Floater is found in streams, rivers, and pools and in a variety of substrates including silt, sand, and gravel. Its distribution appears to be controlled by the distribution of its host fish,

the alewife, *Alosa pseudoharengus*. Fuller (1978) suggested that other clupeids might also serve as hosts for this species.

CHALLENGES

Little is known about what might adversely affect the Alewife Floater's habitat. Since, it appears to be dependent upon the alewife for reproduction, dams obstructing alewife migration through the Pee Dee watershed are likely to threaten the Alewife Floater as well.

CONSERVATION ACCOMPLISHMENTS

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

CONSERVATION RECOMMENDATIONS

- Conduct additional surveys in the Pee Dee Basin to determine Alewife Floater presence and abundance in this state.
- Explore the need to list the Alewife Floater within South Carolina based on survey results.
- Facilitate the travel of anadromous fishes such as the alewife by keeping rivers and streams free of artificial obstructions or by using fish ladders at dams. Monitor areas upstream of fish ladders or locations where obstructions have been removed to determine if the Alewife Floater has extended its range upstream.
- Conserve populations of alewife to insure propagation of the Alewife Floater.
- Protect critical habitats for the Alewife 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 Alewife Floater.
- Encourage responsible land use planning.
- Consider this species' needs when participating in the environmental permit review process.
- Educate off-road motor vehicle operators of the negative affects of crossing streams at multiple locations and using stream bottoms as trails.

MEASURES OF SUCCESS

Completion of a thorough survey of the Pee Dee River Basin and documenting the Alewife Floater's presence or absence will be one measure of success. In the past, extensive surveys in the Pee Dee River Basin did not locate any Alewife Floaters (Savidge 2006). If the species is present downstream of obstructions, its return to sites upstream of former obstructions after fish passages are constructed will indicate successful use of such passages for the Alewife Floater's fish hosts.

LITERATURE CITED

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