

Rosyside Dace*Clinostomus funduloides*

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DESCRIPTION

**Taxonomy and Basic Description**

The Rosyside Dace belongs to the minnow family (Cyprinidae) and the genus *Clinostomus*, which includes 5 recognized taxa (Warren et al. 2000). It is the only member of the *Clinostomus* in South Carolina (Rohde et al. 2009).

Adult Rosyside Dace reach a total length of 56 to 109 mm (2.2 to 4.3 in.) (Rohde et al. 2009). Overall coloration is olive with a diffuse, dark lateral stripe and usually a red bar or slash behind the opercle. The lower sides of breeding males are bright red. The body is laterally compressed and covered with small scales. The snout is pointed and features a large, oblique mouth (Rohde et al. 2009).

Status

The Rosyside Dace is considered secure (G5) on a global scale and is not currently ranked in South Carolina (SNR) (NatureServe 2013). It is currently stable according to Warren et al. (2000).

POPULATION SIZE AND DISTRIBUTION

The Rosyside Dace occurs on the Atlantic Slope from the Delaware River drainage, Pennsylvania to the Savannah River drainage, South Carolina and in portions of the upper Tennessee River drainage as well as the upper Ohio River drainage (Rohde et al. 2009). It is found in all of South Carolina's river basins primarily in the Piedmont and Blue Ridge, with some records from the Inner Coastal Plain. Based on South Carolina Stream Assessment data (2006-2011), the mean statewide density estimate for Rosyside Dace in wadeable streams was 0.12 per 100 m² (95% confidence interval: 0.08 – 0.16).

HABITAT OR NATURAL COMMUNITY REQUIREMENTS

The Rosyside Dace prefers flowing pools of clear headwater streams and occasionally larger streams (Rohde et al. 2009).

CHALLENGES

Primary threats to the Rosyside Dace include loss of forested land and especially the removal of riparian cover along Piedmont and Blue Ridge streams. Land development, siltation and

hydrologic alterations such as channelization and construction of impoundments also threaten this species.

CONSERVATION ACCOMPLISHMENTS

South Carolina Stream Assessment data have facilitated the calculation of standardized abundance (density) estimates for this species at multiple spatial strata including statewide, river basin, level-IV ecoregion, and “ecobasin” (ecoregion x river basin). These estimates, for the first time, provide an objective measure of current population status that will serve as a baseline for following future population trends and gauging the effectiveness of conservation actions.

Educational materials have been developed in order to raise public awareness of nongame species and their ecological importance to the natural history of South Carolina’s aquatic habitats, including:

- The Reel Art program creates a topic for secondary school students and judges the artists’ submissions (e.g. a list of the Piedmont Fishes of SC to select from as subjects for drawing or painting).
- We compiled information and photographs for the development of nongame fish description web pages which are currently in development.
- We developed the Blackwater River Guide and interactive Powerpoint.
 - <http://www.dnr.sc.gov/education/pdf/BlackwaterInteractivePoster.pdf>
 - <http://www.dnr.sc.gov/education/pdf/BlackwaterRivEdGuide.pdf>
- We developed and printed the Fish Species of Concern Coloring Book (2009).
 - <http://www.dnr.sc.gov/aquaticed/pdf/SCFishesofConcernColoringBook.pdf>

CONSERVATION RECOMMENDATIONS

- Use South Carolina Stream Assessment decision-support GIS modeling tools to identify levels and spatial distributions of critical habitat factors to sustain the species in geographic areas of interest.
- Use South Carolina Stream Assessment decision-support GIS modeling tools to identify priority regions and watersheds at greatest risk of decline in stream integrity.
- Protect critical habitats 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.
- Encourage responsible land use planning.
- Consider this species’ needs when participating in the environmental permit review process.
- Continue to develop educational materials in order to raise public awareness of nongame species and their ecological importance to the natural history of South Carolina’s aquatic habitats.
- Educate motor vehicle operators of the negative effects of crossing streams at multiple locations and using stream bottoms as trails.

MEASURES OF SUCCESS

Successful conservation of Rosyside Dace habitats would produce expected population densities comparable to or exceeding those observed in the South Carolina Stream Assessment (2006 – 2011) for given ecoregions, river basins, and ecobasins. A success criterion would be cooperation of SC landowners in achieving the foremost goal of the Southeastern Aquatic Resource Partnership's 2008 Southeast Aquatic Habitat Plan which states that 85% of lands within 30 m (100 ft.) of streams or rivers should be maintained in natural vegetation. Preservation of large tracts of forested Piedmont and Blue Ridge landscapes would represent a major accomplishment.

LITERATURE CITED

- Rohde, F. C., R. G. Arndt, J. W. Foltz and J. M. Quattro. 2009. *Freshwater Fishes of South Carolina*. The University of South Carolina Press, Columbia. 544 pp.
- NatureServe. 2013. NatureServe Explorer: An online encyclopedia of life [web application]. Version 7.1. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>. (Accessed: March 26, 2013).
- Warren, M.L., Jr., B.M. Burr, S.J. Walsh, H.L. Bart, Jr., R.C. Cashner, D.A. Etnier, B.J. Freeman, B.R. Kuhajda, R.L. Mayden, H.W. Robison, S.T. Ross and W.C. Starnes. 2000. Diversity, distribution, and conservation status of the native freshwater fishes of the southern United States. *Fisheries* 25(10):7-31.