

Chauga Crayfish

Cambarus chaugaensis

Contributor (2005): Jennifer Price (SCDNR)
Reviewed and Edited (2012): William Poly (SCDNR)

DESCRIPTION

Taxonomy and Basic Description

The Chauga Crayfish is olive-green with dark olive-brown mottling, orangish or yellowish to red fingertips, and robust, well-developed chelae. It has large, well-developed eyes. The chelae have two rows of tubercles along the mesial surface of the palm and the fingers have well-defined longitudinal ridges. Mature males range in size from approximately 50-78 mm (2-3.1 in.), while females range from 50 mm (2 inches) to 70 mm (2.8 inches) in total length (Hobbs 1981).

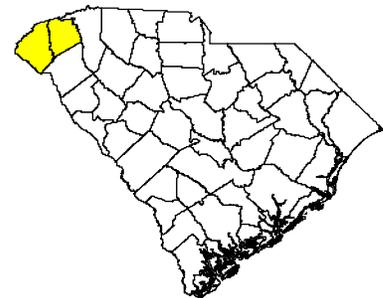


Status

NatureServe (2011) currently identifies the Chauga Crayfish with a ranking of critically imperiled (S1) in Georgia and imperiled (S2) in South Carolina and North Carolina. Taylor et al. (2007) recommended listing this as a threatened species in South Carolina, North Carolina, and Georgia; it had been listed as endangered previously (Taylor et al. 1996). Recently, the Chauga Crayfish was included on a list of 404 species being petitioned for consideration as candidates for federal protection (United States Fish and Wildlife Service 2011).

POPULATION SIZE AND DISTRIBUTION

In South Carolina, the Chauga Crayfish is restricted to the upper Savannah River Basin, particularly the Chauga and Chattooga River Basins in Oconee County. NatureServe (2011) reports that it has been found at 18 localities in Oconee County and Pickens County. Most of its range in South Carolina lies within Sumter National Forest. This species has also been found at one site in Georgia and in 3 counties in North Carolina (Eversole et al. 2002, NCSM records, NatureServe 2011).



HABITAT AND NATURAL COMMUNITY REQUIREMENTS

The Chauga Crayfish is found at sites with medium to large cobble and boulders as substrate and little sediment accumulation. The Chauga Crayfish is found in both high and low order streams, but it is more abundant in higher order streams (Eversole et al. 2002).

CHALLENGES

Because of its extremely restricted distribution, the Chauga Crayfish is in need of protection. Even though the Chauga River population appears to be fairly stable, this very small distribution is cause for great concern. Although the river basin in which this species occurs is within the Sumter National Forest and is currently relatively pristine, the Chauga Crayfish seems particularly sensitive to sedimentation, since it inhabits rocky sites free of sediment accumulation (Eversole et al. 2002). Logging could adversely affect water quality and bank stability necessary for the survival of this species.

CONSERVATION ACCOMPLISHMENTS

The majority of the distribution of the Chauga Crayfish lies within Sumter National Forest land, and the US Forest Service has funded survey efforts for this species (Eversole et al. 2002).

CONSERVATION RECOMMENDATIONS

- Initiate the process to achieve South Carolina special concern status for the Chauga Crayfish.
- Continue to conduct surveys to monitor the abundance of the Chauga Crayfish.
- Continue to work with the US Forest Service to ensure that operations on Sumter National Forest do not negatively impact habitat for the Chauga Crayfish.

MEASURES OF SUCCESS

Achieving listing of the Chauga Crayfish as a South Carolina special concern species would be considered a sign of success. An increase or no net decrease in numbers of individuals collected in future surveys in the Sumter National Forest would be considered a sign of success.

LITERATURE CITED

- Eversole, A.G., D.R. Jones and S.M. Welch. 2002. Crayfish of the Sumter National Forest: Chauga and Chattoga watershed. A final report to meet requirements of a cost-share agreement between Clemson University and Andrew Pickens Ranger District of the Sumter National Forest. 16 pp.
- Hobbs, H.H. Jr. 1981. The Crayfishes of Georgia. Smithsonian Contributions to Zoology. 318. 549 pp.
- NatureServe. 2011. NatureServe Explorer: An online encyclopedia of life [web application]. Version 7.1. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>.
- United States Fish and Wildlife Service (USFWS). 2011. Endangered and threatened wildlife and plants; partial 90-day finding on a petition to list 404 species in the southeastern

United States as endangered or threatened with critical habitat. *Federal Register* 76:
59836–59862.