

Oconee Stream Crayfish

Cambarus chaugaensis

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DESCRIPTION

Taxonomy and Basic Description

The Oconee stream crayfish is olive green with dark olive brown mottling, orangish or yellow 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 mm (2 inches) to 78 mm (3.1 inches), while females range from 50 mm (2 inches) to 70 mm (2.8 inches) in total length (Hobbs 1981).

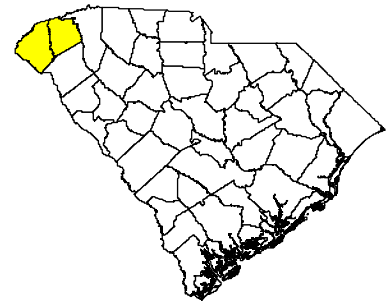


Status

NatureServe (2004) currently identifies the Oconee stream crayfish with a ranking of critically imperiled (S1) in Georgia and imperiled (S2) in South Carolina and North Carolina. Taylor et al. (1996) recommended listing this as an endangered species in both South Carolina and Georgia.

POPULATION DISTRIBUTION AND SIZE

In South Carolina, the Oconee stream crayfish is restricted to the upper Savannah River basin, particularly the Chauga and Chattooga River basins in Oconee County. NatureServe (2004) 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 (NatureServe 2004) and one or two sites in North Carolina (Eversole et al. 2002).



HABITAT AND NATURAL COMMUNITY REQUIREMENTS

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

CHALLENGES

Because of its extremely restricted distribution, the Oconee stream 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 Oconee stream 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 Oconee stream crayfish lies within national forest land, and the US Forest Service has funded survey efforts for this species (Eversole et al. 2002).

CONSERVATION RECOMMENDATIONS

- Imitate the process to achieve South Carolina special concern status for the Oconee stream crayfish.
- Continue to conduct surveys to monitor the abundance of the Oconee stream crayfish.
- Continue to work with the U.S. Forest Service to ensure that operations on Sumter National Forest do not negatively impact habitat for the Oconee stream crayfish.

MEASURES OF SUCCESS

Achieving listing of the Oconee stream 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.