Common Name: SLY CRAYFISH

Scientific Name: *Procambarus* (*Pennides*) *versutus* (Hagen)

Other Commonly Used Names: none

Family: Cambaridae

Rarity Ranks: G5/S1

State Legal Status: Rare

Federal Legal Status: none

Description: The sly crayfish is dorsally tan or brown with cream and black markings. Striking cream-colored stripes run horizontally along the sides of the carapace and abdomen. The rostrum bears spines lateral to the tip and a central ridge (carina). There are two distinctive cervical spines on either side of the carapace. The claws are dark, but the tubercles on the claws are even darker. The abdomen is brown and is covered with black blotches; these black markings form a horizontal band with irregular edges along the sides of the abdomen. The areola is 2-3 times as long as broad and comprises 24 - 28 percent of the total length of the carapace. Males of this species may reach a maximum total body length of over 90 mm (3½ inches). Mature females are about the same size, but males have notably larger claws.

Similar Species: The sly crayfish has a distinctive color pattern in life that makes it easy to distinguish from other crayfishes within in its range. However, it may be difficult to distinguish from preserved specimens of the white tubercled crayfish (*Procambarus spiculifer*). The dark (vs. white) tubercles of the sly crayfish are a helpful character.

Habitat: The sly crayfish has been found only in clear, free-flowing streams. During the day they are usually found within debris, aquatic plants (e.g., golden club, *Orontium aquaticum)*, and washed out root masses along the banks of sand-bottomed streams. They move out over the sand to forage at night. They may dig simple burrows into the banks of streams. This species is usually found in low pH (acidic) streams, whereas the white tubercled crayfish in usually found in streams of near neutral pH. High quality habitat for the sly crayfish occurs in Pine Knot Creek and other eastern tributaries of Upatoi Creek.

Diet: No studies of the sly crayfish diet are known. Crayfishes are considered opportunistic omnivores and are likely to feed on live and decaying vegetation, aquatic insect larvae, small fishes, and dead animal matter.

Life History: The only life history information published is found in notes provided by Hobbs (1981). Hobbs examined only five specimens from Georgia, but in Alabama and Florida he reported males in reproductive condition from all months of the year and egg-bearing females from April to June. Stanton (2006) also collected males in reproductive condition throughout the year in Georgia, but rarely encountered egg-bearing females.

Survey Recommendations: Disturbing the substrate around aquatic plants and debris upstream from a net is productive. Because crayfish are typically more active at night, trapping may also be effective.

Range: The sly crayfish is distributed within the Chattahoochee River system in Chattahoochee and Marion counties. With the exception of a few small creeks draining directly into the Chattahoochee River from Fort Benning, Georgia records of the sly crayfish are restricted to the Upatoi Creek system. This species is also found in creeks across southern Alabama and in the panhandle of Florida.

Threats: The sly crayfish is threatened in Georgia by its small geographic range and land uses within that range. The Chattahoochee County habitat lies within federal property, the Fort Benning Military Reservation. This habitat has been well protected in the past, but could be threatened by increased military training occurring on base. Two of the best Marion County localities have been impacted by recent highway construction.

Georgia Conservation Status: Fort Benning has natural resource management programs in place and has the ability to provide considerable protection to this species.

Conservation and Management Recommendations: Conserving populations of the sly crayfish will require general watershed-level conservation practices, such as protection of riparian zones and adherence to best management practices for forestry, agriculture, and highway construction. Special efforts should be made to protect important populations in Black, Juniper, and Pine Knot Creeks. Fort Benning should include this species in future conservation planning efforts. Non-native crayfishes should never be used for bait. Instead, anglers should use crayfishes collected from the river system they will be fishing in and should never release unused bait crayfish back into Georgia waters.

Selected References:

Bouchard, Raymond William. 1976. Crayfishes and shrimps. *In*: Herbert Boschung, editor, Endangered and threatened plants and animals of Alabama. Alabama Museum of Natural History Bulletin 2:13-20.

Hagen, Herman A. 1870. Monograph of the North American Astacidae. Illustrated Catalogue of the Museum of Comparative Zoology at Harvard College 3: 117.

Horton H., Jr. 1981. The crayfishes of Georgia, Smithsonian Contributions to Zoology, 318: vii-549.

Stanton, George E. 2006. Evaluation of conservation status of six west Georgia, Chattahoochee-Flint River crayfish species. Columbus State University, report to the Georgia Department of Natural Resources, Georgia Natural Heritage Program. 60 pp.

Taylor, Christopher A., Gunter A. Schuster, John E. Cooper, Robert J. DiStefano, Arnold G. Eversole, Premek Hamr, Horton H. Hobbs III, Henry W. Robison, Christopher E. Skelton, and Roger F. Thoma, 2007. A reassessment of the conservation status of crayfishes of the United States and Canada after 10+ years of increased awareness. Fisheries 32(8): 372-389.

Author of Species Account: George E. Stanton

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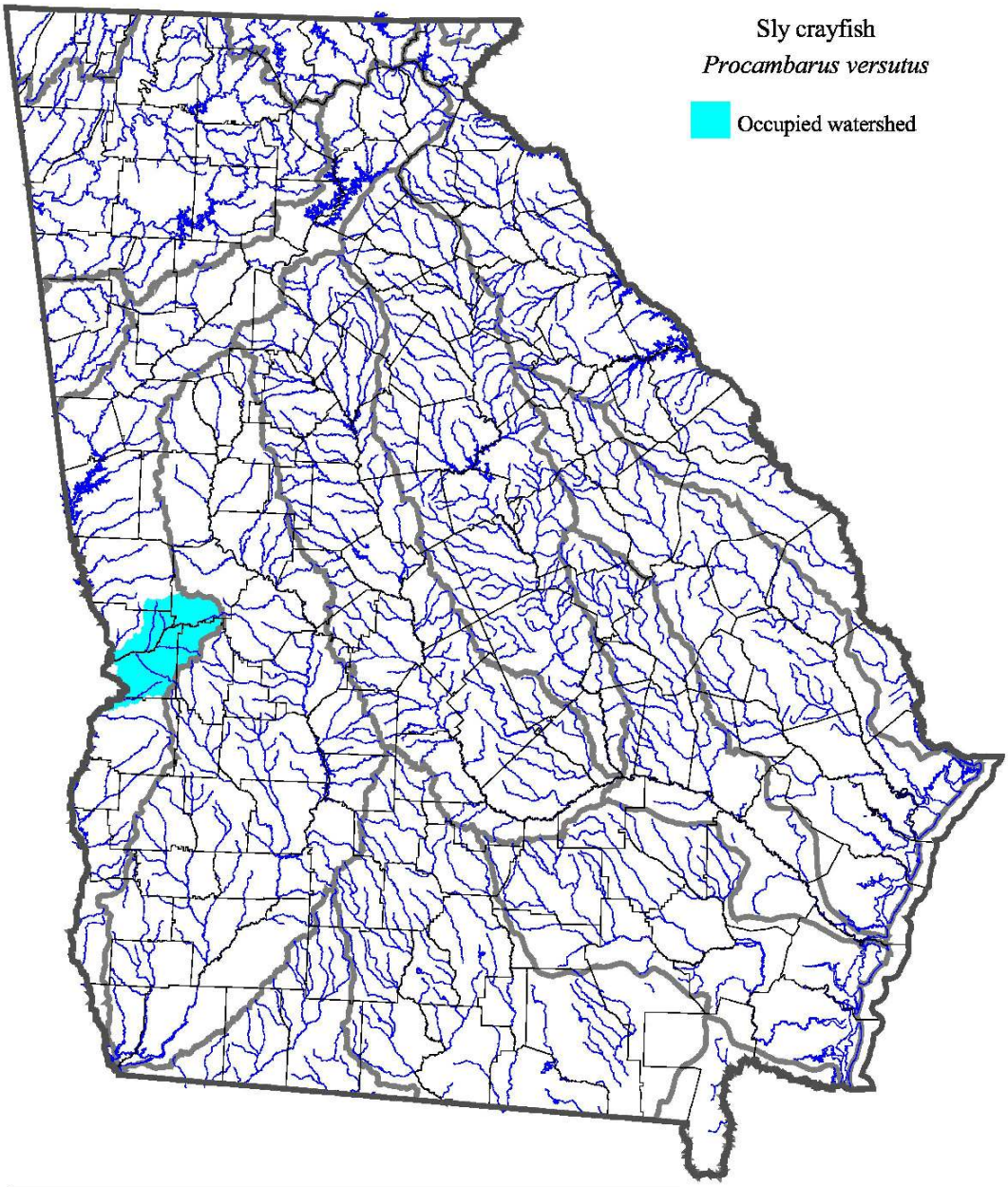

Watersheds (Huc 10) with known occurrences. Streams, county lines, and major river basin boundaries are also shown. Map generated from GADNR (Nongame Conservation Section) data on December 18, 2008.