

LAVENDER BURROWING CRAYFISH

Creaserinus byersi

Order: Decapoda
Family: Cambaridae
FNAI Ranks: G4/S2
U.S. Status: none
FL Status: none



Description: Although some individuals of this small, burrowing crayfish are lavender to bluish, others may be pinkish brown to dark brown or even yellowish; however, the chelae typically have a purplish cast. Adult body length, excluding the claws, is ca. 2 in. (5 cm). Specific identification is based on fine morphological features, including structure and ornamentation of the gonopods, the modified first pleopods (swimmerets beneath the abdomen) of reproductive (form I) males. Characteristic features include: abdomen considerably narrower than thorax and shorter than carapace, areola obliterated, short rostrum in adults that is devoid of spines, eyes reduced but pigmented, base of immovable finger of chela not bearded, base of movable finger of chela with distinct excision, single row of very long setae along ventrolateral surface of hand, pleopods bent caudally at an angle of 90° or more and terminating in 2 distinct parts, and absence of a proximomesial spur on the first pleopods of males (illustrations in Hobbs 1941, 1942, 1989; Ainscough et al. 2013). Though not likely to be seen at the surface, the presence of this species is revealed by the mud ball chimneys it constructs during burrow excavation and maintenance. Chimneys and mud balls are proportional to crayfish size, with the tallest chimneys topping 3 inches. Note: literature prior to 2017 included this species in *Cambarus* or *Fallicambarus*.

Similar Species: The combination of primary burrowing habits, relatively small abdomen, and purple tint on chelae, in conjunction with other fine morphological characters noted above, serve to distinguish *C. byersi* from other crayfish that share its range in the western Florida panhandle. Given similarities among Florida's many species of crayfishes, identification should be confirmed by an expert. Because other crayfish may construct similar burrows along streams and wetlands within its range, the presence of mud chimneys alone is not sufficient to confirm this species' occurrence.

Habitat: This primary burrower builds complex burrows near the edges of wetlands, particularly seepage areas (sometimes with pitcher plants, orchids, and sphagnum) and creek margins. Populations frequently inhabit roadside swales that abut such wetlands.

Seasonal Occurrence: Crayfish remain in their burrows year-round, although they may move on the surface or in flooded ditches following heavy rains. Burrows are often plugged with mud, perhaps more so in winter. Little is known of the species' life history. Hobbs (1942) captured first form (reproductive) males in April and June but did not collect specimens in other seasons.

Florida Distribution: The species is known in Florida from only five river drainages (Perdido, Escambia, Blackwater, Yellow/Shoal, and East Bay) in the four westernmost counties (Escambia, Santa Rosa, Okaloosa, Walton) of the Panhandle.

Range-wide Distribution: The range of this species extends into Alabama and Mississippi.

Conservation Status: Given the abundance of potential habitat across its range, conservation concern would seem to be minimal, although habitat patchiness can make primary burrowing crayfish susceptible to local population threats. This species' small Florida range makes the protection of wetlands within the Perdido, Escambia, Blackwater, Yellow/Shoal, and East Bay river drainages important. Several documented sites in Florida are on conservation lands.

Protection and Management: Protect streams, seepage, and other wetlands associated with species occurrences from pollution, siltation, impoundment, drainage, and fragmentation. Protected upland buffers should extend at least 50 m from wetlands.

References: Ainscough et al. 2013; Crandall and De Grave 2017; Hobbs 1941, 1942, 1989.



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