

***Hobbseus yalobushensis*** Fitzpatrick and Busack 1989

Yalobusha riverlet crayfish



Form I male. Photo by SB Adams.



Gonopod, form I male. Photo by SB Adams. Female, annulus ventralis. Photo by SB Adams.

**Distribution, Habitat, and Behavior**

*Hobbseus yalobushensis* occurs in streams in the headwaters of the Yalobusha River in Calhoun, Chickasaw, and Webster counties, Mississippi (Fitzpatrick and Busack 1989; Mississippi crayfish database, this website). Fitzpatrick (2002) also reported the species from Attala and Choctaw counties, Mississippi, but the locations of voucher specimens from those counties are unknown.

Fitzpatrick and Busack (1989) collected specimens in streams from February to June, which suggests that the species is not a primary burrower. The type locality was a shaded

stream reach, 1 - 2 m wide and up to 0.7 m deep, flowing slowly through agricultural land. The type specimens were collected by dipnet on bare clay with some leaf litter nearby. Fitzpatrick (1996) noted that the species “seems to prefer small watercourses with firm bottoms.”

### **Life Colors and Distinctive Characters**

Fitzpatrick and Busack (1989) described the color of *H. yalobushensis* as highly variable, ranging from brown with dark blotches on the back and nearly black on the sides to uniformly tan except for two dark, longitudinal, dorso-lateral lines. Chelae are orange-brown dorsally with essentially dark brown fingers that are nearly white on the tips.

### **Size**

The maximum size reported is a female with a carapace length (CL) of 21.8 mm. Form I males range from 14.8 to 18.0 mm CL. The three type specimens had CL of 14.1 -16.5 mm, post-orbital CL of 11.5 - 13.2 mm, and of total body lengths of about 29.5 - 33.0 mm (Fitzpatrick and Busack 1989).

### **Most Like**

*Hobbseus yalobushensis* is most closely related to *H. prominens* and *H. petilus*. Form I male *H. yalobushensis* can be distinguished from the other two species by the mesial process of the gonopod that is equal in length, or only slightly longer, than the central projection, rather than much longer as in the other two species (Fitzpatrick and Busack 1989). *H. yalobushensis* is also distinguished from the others in having “heavy, non-uniform tuberculate ornamentation” on the dorsal surface of the palm of the chela.

Unlike the other species in the genus, female *H. yalobushensis* have a well-developed, long trough through the anterior portion of the annulus ventralis (Fitzpatrick and Busack 1989).

### **Life History**

Form I males were collected in March, April, and June, and immature individuals were collected from January through March (Fitzpatrick and Busack 1989). Nothing else is published about the species' life history.

### **Crayfish Associates**

The species has been collected with *Cambarus striatus*, *Procambarus hayi*, *P. vioscai*, and an undescribed (as of 1989) species of *Orconectes* (Fitzpatrick and Busack 1989). Recently, the species was also collected with *P. hybus* (unpublished data, SB Adams).

### **Conservation Status**

IUCN Red List ranking: Endangered B1ab(iii)

American Fisheries Society ranking: Endangered.

Heritage global ranking: G3 (vulnerable to extirpation or extinction).

State of Mississippi: Tier 1 (in need of immediate conservation action and/or research)(MDWFP 2005).

See (Taylor et al. 2007) for further explanation of American Fisheries Society and Heritage rankings.

### **Species Description**

Fitzpatrick, J. F., Jr. and C. A. Busack. 1989. *Hobbseus yalobushensis*, a new crawfish from central Mississippi (Decapoda: Cambaridae). Proceedings of the Biological Society of Washington 102:637-643.

### **Literature Cited**

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### **Fact sheet author**

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