

Hobbseus orconectoides Fitzpatrick and Payne 1968

Oktibbeha riverlet crayfish

Photo not available.

Distribution, Habitat, and Behavior

Hobbseus orconectoides probably occurs only in, or very near, Oktibbeha County, MS. Fitzpatrick and Payne (1968) noted that “diligent search has not located this species outside the watershed of Sand Creek” in the Tibbee River watershed. They remarked that the species is “never abundant and is moderately plentiful only at or very near the type locality.” Hobbs (1989) and Fitzpatrick (2002) list the species as occurring in Lowndes, Oktibbeha, and Webster counties, MS, but the location of voucher specimens from outside of Oktibbeha County is not given. Moreover, in a report written between those two publications, Fitzpatrick describes the range as limited to Oktibbeha County (Fitzpatrick 1996). The MS crayfish database (this website) includes two records outside of the Sand Creek drainage, including one in the Noxubee River watershed, but both are in Oktibbeha County.

The species occurs in ponds, puddles, ditches, and streams (Fitzpatrick and Payne 1968; MS crayfish database, this website). The type locality was a 3-m deep woodland pond, where *H. orconectoides* was “found only along the shore, usually associated with emergent vegetation and shallow water” (Fitzpatrick and Payne 1968).

Fitzpatrick and Payne (1968) collected the species from September through May but not during summer, and they extracted one specimen from a burrow in May. They suggested that the species burrows during summer dry periods, and Hobbs (1989) inferred that *H. orconectoides* is probably a secondary burrower.

Life Colors and Distinctive Characters

The following character descriptions are adapted from Fitzpatrick and Payne (1968). *Hobbseus orconectoides* has a moderately wide, moderately punctate, short areola, a relatively flat rostrum with a poorly delimited acumen and no marginal spines, no cervical spines, and postorbital ridges terminating in small tubercles. The antennal scale is rounded and is widest at the midpoint. The chela is short and broad with fingers shorter than palm, and has a row of at least 15 tubercles on the mesial margin of the palm. Form I males have simple hooks on the third pair of pereopods (legs). The gonopod is straight with two short terminal elements. The corneous central projection is nearly straight, and the non-corneous mesial process angles posteriorly at about 45 degrees, extending past the tip of the central projection. The female annulus ventralis is moveable, oval, highest near the middle, and has a slightly sinuous sinus in the caudal half. No color descriptions are available.

Size

The type specimens ranged in carapace length from 18.8 to 20.5 mm (Fitzpatrick and Payne 1968).

Most Like

The carapace of *H. orconectoides* is similar to other *Hobbseus*. However, it is the only *Hobbseus* species in which the gonopods have a relatively straight central projection and a mesial process angled caudally at 45 degrees; in all others, both terminal elements curve caudally to a much greater degree. Except for *H. valleculus* and *H. yalobushensis*, females of the other *Hobbseus* species have more of an angle on the lateral sides of the annulus ventralis, creating a diamond or triangular shape. In all *Hobbseus* species except *H. orconectoides*, the sinus originates in the anterior portion of the annulus ventralis, not in the posterior half as in *H. orconectoides*.

Life History

The MS crayfish database (this website) includes collections made in every month from October through May; juveniles were collected every month and form I males in all except February. Nothing else is known about the life history of the species.

Crayfish Associates

Other crayfish species collected with *H. orconectoides* include *Fallicambarus fodiens*, *Orconectes mississippiensis*, *Procambarus acutissimus*, and *P. hayi* (Fitzpatrick and Payne 1968).

Conservation Status

IUCN Red List (2011): Endangered B1ab(iii)

American Fisheries Society ranking: Threatened

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 the American Fisheries Society and Heritage rankings.

Species Description

Fitzpatrick, J. F., Jr. and J. F. Payne. 1968. A new genus and species of crawfish from the southeastern United States (Decapoda: Astacidae). Proceedings of the Biological Society of Washington **81**:11-22.

Literature Cited

Fitzpatrick, J. F., Jr. 1996. Rare and endangered crawfishes of Mississippi. Museum Technical Report No. 93, Mississippi Department of Wildlife, Fisheries, and Parks, Jackson.

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- Hobbs, H. H., Jr. 1989. An illustrated checklist of the American crayfishes (Decapoda: Astacidae, Cambaridae, and Parastacidae). *Smithsonian Contributions to Zoology* 480:1-236.
- IUCN, International Union for Conservation of Nature. 2011. IUCN Red List of Threatened Species. Version 2011.2. <www.iucnredlist.org>. Downloaded on 03 May 2012.
- MDWFP, Mississippi Department of Wildlife, Fisheries, and Parks. 2005. Appendix VIII: Mississippi's species of greatest conservation need by ecoregion. Pages 375-380 *Mississippi's Comprehensive Wildlife Conservation Strategy 2005-2015*, version 1.1, Jackson, MS (<http://home.mdwfp.com/more.aspx>).
- Taylor, C. A., G. A. Schuster, J. E. Cooper, R. J. DiStefano, A. G. Eversole, P. Hamr, H. H. Hobbs, III, H. W. Robison, C. E. Skelton, and R. F. Thoma. 2007. A reassessment of the conservation status of crayfishes of the United States and Canada after 10+ years of increased awareness. *Fisheries* 32:372-389.

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