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A NEW SPECIES OF CAMBARUS FROM LOUISIANA.

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The types and cotypes of the new species described herein were collected by Professor Jas. S. Hine on July 12, 1905, in a small freshwater pool, $\frac{1}{4}$ mile from Gulf Beach, near Cameron, Cameron Parish, Louisiana. There are 2 males of the first form, and 4 females. They were found associated with a number of large and small individuals of *Cambarus (Cambarus) clarki* Gir.

CAMBARUS (CAMBARUS) HINEI Spec. nov.

(See Fig. 1).

Description of male of the first form.

Rostrum triangular, about twice as long as broad on the basis; margins very slightly convex, almost straight, rather evenly converging to the acute tip, with a very slight indication of lateral angles at the base of the short acumen. No marginal spines. Upper face of rostrum flat at the base, slightly concave toward the tip; margins slightly elevated. Postorbital ridges short, divergent posteriorly, sharp at anterior end, but without distinct spine. Carapace ovate, slightly compressed, punctate. Infraorbital angle blunt. Branchiostegal spine small. Cervical groove sinuate. No lateral spines on carapace. Areola as long as or slightly shorter than half of the anterior section of carapace, very wide, with 4 or 5 irregular rows of punctations.

Abdomen as wide as, and longer than carapace. Anterior section of telson with two spines on each side, posterior section rounded.

Epistoma with anterior part triangular. *Antennal scale* rather broad, broadest in the middle. *Flagellum* longer than carapace, but shorter than body.

First pereiopod subcylindrical. Hand elongate, subcylindrical, very slightly compressed, margins subparallel. Surface covered with fine granulations and a few short, scattered hairs. Palm long; fingers remarkably short, hardly over one-third as long as palm, with some scattered hairs. Cutting edges without tubercles. Carpopolite short, and almost smooth, without distinct sulcus on upper side, and without spines or tubercles on inner side. Meropdite smooth, without tubercles or spines, its lower margin densely pilose.

Ischiopodites of third and fourth pereiopod with hooks, that of the third is long and strong, conical, that of the fourth is smaller, but distinct and of similar shape. *Coxopodite* of fourth pereiopod with a prominent, semicircular, compressed tubercle; that of the fifth pereiopod with a small, conical tubercle.



First pleopod rather short and stout, reaching to the coxopodite of the third pereiopods. Its distal third is thinner than the proximal part, slightly tapering, gently but distinctly curved backward. Tip truncate, with two sharp, pointed, triangular horny teeth, belonging to the outer part. Inner part pointed at tip, point straight, slightly directed outward, distinctly longer than truncated part, and also longer than the horny teeth. Inner face of inner part with a row of beard-like hairs.

The male of the second form is unknown.

Fig. 1. Cambarus hinei spec. nov Male sexual organ of left side, inner view. Enlarged.

us In the *female*, the *chelipeds* are much shorter, ale chiefly so the hand, and the fingers are only slightly shorter than the palm. Hand hardly granulated, but with scattered hairs, more

abundant than in the male. Pilosity of lower margin of meropodite wanting. *Annulus ventralis* a simple, rounded, low tubercle with an S-shaped fissure.

Measurements: 3 (Type): Total length: 35 mm.; carapace: 16, areola: 5, width of areola: 2.75; abdomen: 19 mm.; length of hand: 13 mm., width of hand: 3.5, length of palm: 9.5, of fingers: 3.5 mm. 9 (Type): Total length: 45 mm.; carapace: 21, areola: 7, width of areola: 3.5, abdomen: 24 mm.; hand: 9.5 palm: 5.5, fingers, 4 mm.

The shape of the male organs places this species in the subgenus Cambarus (see Ortmann, Pr. Amer. Philos. Soc. 44. 1905, p. 96, and Ann. Carnegie Mus. 3. 1905 p. 437). The hooks of the pereiopods and the subcylindrical chelae place it in the section of C. blandingi. The shape of the rostrum and of areola indicate the group of C. alleni. Within the latter group it stands rather isolated with regard to the male organs, which show a rather primitive conformation, within exception of the distinct backward curve of the distal part. The shape of the rostrum is peculiar on account of the almost triangular outline (similar to C. advena), with hardly any traces of lateral angles in the place of marginal spines. The areola is exceptionally broad, broader than in any of the known species of this group. The most striking character (disregarding the male organs) is furnished by the chelae of the male, since the fingers are unusually short, shorter than in any other species of the genus. Thus the new species is well characterized by the shape of the rostrum, of the areola, chelipeds, and the male sexual organs.

Its distribution agrees with that of the *alleni-group*, in so far as it belongs of the lowlands of the coastal plain of the southern United States. It is the most western locality known for this group, being close to the Texas state-line (disregarding the Mexican C. wiegmanni).

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