

DEPARTMENT OF THE INTERIOR.

557.3

S. F. BAIRD. MA

BULLETIN

OF

THE UNITED STATES

GEOLOGICAL AND GEOGRAPHICAL SURVEY

OF

THE TERRITORIES.

F. V. HAYDEN,

U. S. GEOLOGIST-IN-CHARGE.

1877.



VOLUME III.

WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1877.

ART. XXXII.—DESCRIPTION OF CAMBARUS COUESI, A NEW SPECIES OF CRAWFISH FROM DAKOTA.

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A small collection of Crustacea made by Dr. Coues in Dakota in 1873 contains the following new species:—

CRUSTACEA MACRURA.

Family ASTACIDÆ.

CAMBARUS COUESI, *n. sp.*

Rostrum broad; twice as long as broad; deeply excavated above; margins nearly parallel, slightly converging anteriorly; sides grooved; anterior portion in advance of the lateral teeth much produced, narrow, longer than the transverse measurement at the base between the lateral teeth; point and lateral teeth acute, prominent; tips corneous. The ridge on the upper surface of the carapace at the base of the rostrum on either side sulcate; externally spine at the anterior extremity prominent. Carapace subcylindrical; superior surface smooth, punctate; sides roughly granular; lateral spine long, acute; a minute spine on anterior edge of the carapace below the termination of the lateral fissure; areola narrow widening posteriorly. External antennæ nearly as long as the body; spine externally on first and second basal articles, that on the second article small and acute; lamina longer than the rostrum, broad; apex spinous; a long, acute spine on the under surface of the basal article of the internal antennæ, situated above the middle on the inner edge, hooked forward. Epistome broader than long; apex truncated or concave; sides oblique; margin straight or sinuous. External maxillipeds hairy below and internally. Abdomen smooth, sparsely punctate slightly longer than the cephalo-thorax.

Anterior feet long and slender; hands long, punctate externally, smooth, and sparsely punctate internally, spiny tuberculate above; tubercles arranged in a double row; fingers long, slender, compressed, more than half the length of the hand, internally and externally punctate, smooth, externally grooved. Movable finger spiny tuberculate on the superior edge; cutting edges closely approximated, toothed, tips curved, and corneous; immovable finger bearded at the base of the cutting edge internally. Carpus longer than broad, sulcate above; a row of tubercles on the inner edge of the sulcus; a stout spine on the middle of the inner surface, a smaller one more posteriorly; two spines on the under surface; the spines all long and acute; two small, acute spines on the superior surface of the arm, just behind the anterior

margin; a double row of spines on the under surface; the anterior ones and those on the outer row are the largest, those on the inner row smaller and of a greater number.

Third pair of legs hooked. First pair of abdominal legs long, deeply bifid; external part longer, and tapering to an acute point; internal part broadly compressed.

Closely allied to *Cambarus virilis* Hagen, but presents the following points of difference, which were observed to hold good in all the twenty-two specimens collected from one locality when compared with twenty-three specimens of *C. virilis* from the Souris or Mouse River:—Body more cylindrical, less depressed; sides less inflated; in fact, the general appearance of the species, in all its parts, is more slender and less robust than *C. virilis*. Rostrum narrower, longer, more deeply excavated above; anterior portion of the rostrum in advance of the lateral teeth narrower and more produced, longer than its transverse measurement at the base. In *C. virilis* the anterior portion of the rostrum is not longer than broad at its base between lateral teeth. Point of the rostrum, lateral teeth, the spines on the ridge at the base of the rostrum, and those on the sides of the carapace, are long, acute, and more prominent than in *C. virilis*; in the latter, the spines in these situations, except on sides of carapace, are short and obtuse. Finally, the hands of the anterior pair are longer and more slender, and the internal part of the first abdominal legs is more broadly compressed.

Length of body 2.7 inches; external antennæ 2.4 inches; anterior pair of legs 2.1 inches.

Locality, Red River of the North. Obtained from the stomach of a Pelican shot in May, 1873, on the Red River near Pembina. The bird was sick and unable to fly; the Crawfish must, therefore, have been secured in this locality. Collected by Dr. Elliott Coues, U. S. A., then Surgeon and Naturalist of the United States Northern Boundary Survey, to whom the species is dedicated.

A second species of the same genus was also taken by Dr. Coues in Dakota:—

CAMBARUS VIRILIS, Hagen.

Cambarus virilis, Hagen, Illustr. Catal. Mus. Comp. Zoölogy, No. 3; Monograph of the North American Astacidæ, p. 63, pl. 1, figs. 23-28; pl. 2, figs. 128-132; pl. 3, fig. 155; pl. 8.

Locality, Souris or Mouse River, Dakota.

The following observations on the color of this Crawfish were furnished by Dr. Coues:—“In bed of stream among stones, in shallow water, very abundant. Carapace variegated with lighter and darker shades of brown: tail segment darker and more uniform brown, with large symmetrical dark brown spots, one on each side. Claws green, speckled with darker, with the protuberances yellow and reddish; other legs paler greenish. Below, including under side of the claws, greenish-white, the claws speckled with dark spots. Antennæ rich brown.”