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A NEW CRAYFISH FROM NORTH CAROLINA

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THE new crayfish described below was first noticed among several specimens of *Cambarus b. blandingii* presented to me by Dr. A. S. Pearse in the fall of 1933. These specimens came from a pond near Fayetteville, North Carolina. A single male of the first form was present in the collection. Not wishing to describe a new species from a single specimen I wrote Dr. Pearse a letter stating the desirability of obtaining more of the new crayfish. He has recently provided me with more specimens. It is a pleasure, in view of Dr. Pearse's interest in these animals, to name the new species after him.

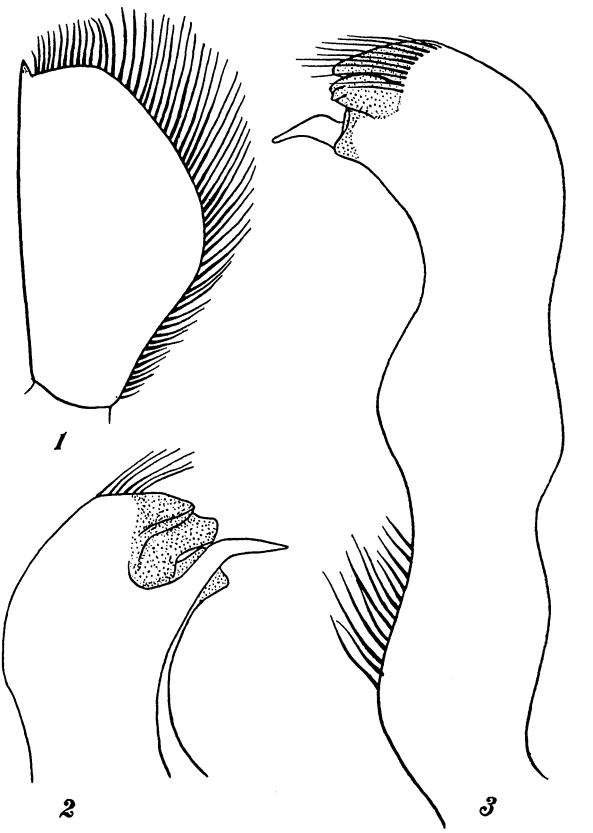
GENUS *CAMBARUS*
Subgenus Ortmannicus
(as now defined)

Cambarus pearsei, new species

MALE FORM I.—Rostrum without lateral spines, smooth above with scarcely a trace of punctations except along thin margins; margins gently rounded to tip; no distinct acumen.

Antennal scale with outer margin slightly convex; apex of inner margin truncate, margin irregularly curved; greatest width at about mid-length. Postorbital ridges without anterior spines. No lateral spines on cephalothorax.

Cephalothorax rounded, punctate, laterally granulate on anterior section; cephalic groove uninterrupted on the sides; areola in narrowest point less than one-half width of rostrum



Drawn with the aid of a camera lucida. The stippled areas in Figures 2 and 3 represent the extent of the corneous apical teeth.

FIG. 1. Antennal scale of *Cambarus pearsei.*
FIG. 2. Inner lateral view, tip of male first form sexual appendage.
FIG. 3. Outer lateral view, first form male sexual appendage.

at base; posterior section of carapace less than one-half length of anterior section.

Chelae weak; palm subcylindrical; chelae with scale-like tubercles above and below; each finger with a longitudinal ridge above; immoveable finger with two rounded tubercles placed some distance apart; moveable finger with a single tubercle situated anteriorly to basal tubercle of immoveable finger. Carpus with a single prominent spine and with several tubercles. Merus with biserial row of fine spines below, dorsal surface with cluster of sharp tubercles extending along entire length of appendage.

Hooks on third and fourth pairs of pereiopods; hooks on fourth pair simple, not bituberculate.

First abdominal appendages with the apical tooth-bearing portion distinctly curved posteriorly; extreme apex with a cluster of setae; horny teeth three in number; apical tooth rather blunt; second tooth which lies below the apical tooth (due to the curving of the apex) with secondary sculpturing in the form of an excavation near the tip; third tooth flattened and elongated; soft inner ramus bent and curved obliquely outward and posteriorly, not exceeding the apex.

MALE FORM II.—Unknown.

FEMALE.—Chelae not as long as in first form male specimens. Annulus ventralis moveable; bituberculate; fossa and sinus extending between tubercles and curving to the left (ob-

Measurements in millimeters			Quotients	
Sex	Anterior cephalothorax	Posterior cephalothorax	Anterior width in length of cephalothorax[1]	Length of sexual appendage in cephalothorax
♂ I	17.0	7.4	3.4	4.1
♂ I	20.0	9.2	3.6	3.9
♀	17.8	8.8	3.6	
♀	19.0	8.8	3.7	
♀	18.6	8.8	3.6	
♀	16.0	7.8	3.5	

[1] The anterior width is the distance between the bases of the antennal scales.

servers left with the crayfish in ventral view, anterior end up) then sloping to the middle of the anterior margin.

COLOR.—The carpace and chelae of this species are a uniform dull brown. The abdomen has a black mid-dorsal streak with a lighter streak on either side.

HOLOTYPE.—Male form I. No. 53792 University of Michigan Museum of Zoology collection of crustaceans. Allotype: Female, No. 53793 in the same collection. Paratypes from the type locality in the same collection have catalogue number 53794. A male and female of this species have been deposited in the United States National Museum.

TYPE LOCALITY.—Pond and ditch on Highway No. 22, south of Fayetteville, Cumberland County, North Carolina. The collections were made on July 4, 1933, and March 25, 1934, by Dr. A. S. Pearse.

RELATIONSHIPS.—This crayfish apparently has its closest affinities with the following species group: *blandingii, versutus, spiculifer, lecontei, hayi,* and *viae viridis.* The relationship is particularly manifest in the structure of the male gonopodium. The crayfish with hooks on the third and fourth pairs of pereiopods (the *blandingii* section of Ortmann) now number about 17 species or even more if subspecies and forms of doubtful relationships are included. Of the previously described species of crayfish in this section only *hinei, alleni,* and *viae viridis* consistently lack rostral spines, *fallax* and *troglodytes* occasionally lack them.

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