

length almost three times its greatest width), slightly curved outward and ending in a sharp spine, equals the rostrum.

Basal segment of antennal scale with a prominent spines on anterior lateral borders. Chelipeds slender, not tuberculated, slightly hairy; fingers shorter than hand, opposed margins of the fingers straight, hand smooth; carpus smooth; a spine on inner and outer distal borders. Meros smooth with one spine on upper and one on outer side, and two below, all spines on distal 1-3. Third pair of legs hooked, fifth pair with a small roundish tubercle on basal joint.

Anterior abdominal appendages strong and of moderate length, tips reaching between third pairs of legs, bifid at apex, apex of inner part posterior and acute, its tip turned slightly outward, outer bluntish.

Color of this species somewhat mottled with bluish on antennal scale and rostrum, forming cross bars.

This is apparently a small species. The largest specimens taken were females, length (from tip of acumen to posterior margin of telson) of largest specimens,  $2\frac{1}{2}$  inches. The size of average males,  $2\frac{1}{4}$  inches.

This species is easily recognized by its long, slender acumen, small hand, slender antennal scale and its small size. Found in St. Francis River at Greenway and Big Bay. It is by no means abundant. This and young of one other species, *C. palmeri*, are all I found in the St. Francis River.

Named in honor of Dr. Walter Facon, to whom we owe more than to anyone else our knowledge of North American crayfishes.

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#### EXPLANATION OF FIGURES.

1. Dorsal view of specimen, x, 1.31.
2. Abdominal appendage, inner view, x, 4.35.
3. Abdominal appendage, posterior view, x, 4.35.
4. Epistoma, x, 4.

The drawings were made by Miss Allie Simonds, Arkansas University, Class 1895.

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Oct. 22, 1894, Fayetteville, Ark.

**A New Bassalian Type of Crabs.**—In a recent number of the Journal of the Asiatic Society of Bengal (v. 63, part 2, No. 3), a most remarkable crab has been described and illustrated by Messrs. A. Alcock and A. R. Anderson. It has been designated (p. 141) as "*Archæ-*

*oplax*, a Gonoplacid (?) crab of a remarkably antique facies, which appears to be closely connected also with *Cymopolia*.”<sup>3</sup>

The description and figures appear to me to indicate that the new crab has no close relationships with either the Gonoplacids or *Cymopolia*.

Through the kindness of Miss Rathbun, of the Invertebrate department of the U. S. National Museum, I have been able to study specimens of all types and compared them with the data respecting *Archæoplax*, and could find no special features of agreement. *Archæoplax*, it seems to me, must be considered entirely independently of the types with which it has been contrasted.

I may preface the further remarks I have to make with the statement that the crab so called by Messrs. Alcock and Anderson cannot retain the name given to it by them—*Archæoplax*—as precisely the same form had been bestowed more than 30 years ago on an extinct genus, also of the superfamily of Grapsoidea, represented by fossils from Gay Head, Mass. *Archæoplax signifera* was the name given by W. Stimpson to miocene tertiary remains found there, and described in the Boston Journal of Nat. Hist. (vol. 7, p. 584, 1863).

As a new name is therefore necessary, I would suggest as eminently appropriate for the crab made known by Messrs. Alcock and Anderson, the generic designation *Retropluma* (*retro*, back or backward, and *pluma*, a soft feather). The applicability will become evident in due course.

When I first saw the figure of the mouth parts I inferred that the external pair of maxillipeds had been lost, but Messrs. Alcock and Anderson expressly declare (p. 182) that “the external maxillipeds are so small and slender as to leave completely exposed the mandibles, the wide endostome, and a part of the wide and produced efferent branchial channels.” They give the figures as those of a perfect animal, and apparently had a number of specimens.<sup>4</sup> We are, therefore, placed in the dilemma of assuming that the crab differs radically from all others, or that the learned authors may have been mistaken; I prefer, in this dilemma, to leave the question open for re-examination by the original describers.

The new type, however, differs in another character almost as remarkable as would be such an extreme and anomalous modification of the maxillipeds supposed by its describers.

<sup>3</sup> It is later (p. 180) suggested that “its nearer affinities are, perhaps, with the *Macrophthalmines*.”

<sup>4</sup> “Bay of Bengal, at almost all stations off the Coromandel coast, from 140 southwards, between 100 and 250 fms.” P. 183.

“The fifth pair of trunk legs is quite unique in form and disposition: they arise quite close to the middle line of the body and high up, almost on the back; they are short, being considerably less than the breadth of the carapace in length, and are very slender and flexible; and they are so thickly fringed with shaggy hairs as to appear like feathers.”

This peculiar modification of the last pair of limbs is very unlike that of the corresponding legs in the notopodous or anomorous brachyurans, and indicates that some special function may be assumed. The loss of geniculation and the straightness, the slenderness and flexibility, and the dense hairylike covering must mean something. May it not be that the peculiarly modified limbs have been specialized for purposes of aërication of an increased vascular supply, and that they have become functionalized as branchiæ? Until some better hypothesis can be suggested or tested by histological examination, bold as it may seem, the explanation cannot be considered irrational.

As has been already remarked, *Retropluma* has no close relationship with the forms compared with it or with any other known types. It should, therefore, be regarded as the representative of an independent family—*Retroplumidæ*—especially characterized by the peculiarly modified fifth pair of feet, want of true orbits, and position of the antennæ. For the present it may be retained in the superfamily or tribe *Grapsoidæ*, on account of the reduced number of branchiæ (“six on each side”) and form of body. If, however, the illustrations and description of the mouth parts are correct, it must be widely removed. The only known species is *Retropluma notopus*.

I cannot appreciate any “remarkably antique facies in the new crab.” On the contrary, it appears to be a form excessively modified for deep sea life.—THEO. GILL.

**Note on the Occurrence of *Hyla andersonii* in New Jersey.**—About the middle of June, 1889, Mr. Louis M. Glackens and the writer were engaged in general biological studies along the Atsion and Batsto Creeks, in Atlantic and Burlington Counties, New Jersey. On the night of June 17th we stopped at Pleasant Mills. Shortly before sundown a thunder storm arose, just previous to and during which the frogs became very noisy in a swampy thicket near by.

The note was an unfamiliar one and invited investigation, which resulted in the capture of two specimens of this handsome and rare species. The shrill quack-ack, which at the time was compared to the note of a frightened guinea fowl, and which is not unlike the call of a