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PALEONTOLOGY.—*A new* Callianassa *from the Cretaceous of South Dakota.*[1]

MARY J. RATHBUN, U. S. National Museum.

In 1927 a number of fossil crustaceans collected by William L. Russell of the South Dakota Geological Survey were received through Dr. Carl O. Dunbar of the Peabody Museum of Yale University. They came from the Cretaceous of South Dakota and represent an undescribed species of *Callianassa*.

Callianassa cheyennensis, sp. nov.

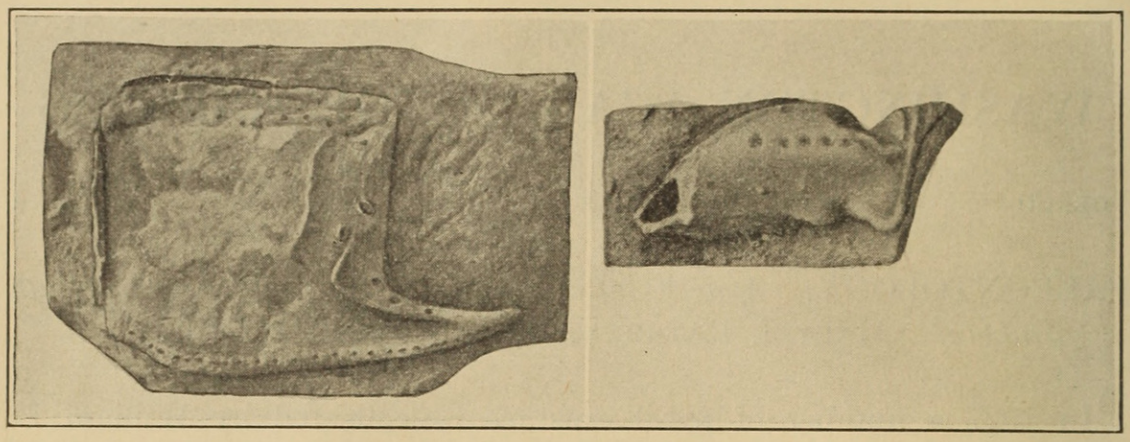
Type-locality.—Very top of Pierre shale and just below Fox Hills sandstone; collected along both banks of the Missouri River at several points between the mouth of the Cheyenne River and the Cheyenne Agency; 17 fragmentary specimens showing portions of the chelae. Type in the Geological Museum at the University of South Dakota at Vermillion.

Measurements.—Propodus of left cheliped, holotype, length to end of finger 14.6, length to sinus between fingers 10, greatest height 10.6, distal height of palmar portion 9.2 mm.

Description.—The type-specimen (Fig. 1) shows the inner face of a propodus of a left and probably major cheliped. Palm short and high, the greatest height equal to the length through the middle. Upper margin straight or a little convex, rounding down at each end. Proximal end not exactly at right angles to upper margin but forming a slightly acute angle. Considering the upper margin as horizontal, the lower margin after rounding down from the proximal end slopes gradually upward to the tip of the finger. Surface nearly flat. Finger (propodal) narrow, its base less than a third the height of the distal end of the palm; from the base it narrows rapidly to a slender extremity and curves gradually upward. On the inner surface of the hand there is, close to the lower margin, a row of hair sockets of which 27 can be made out; this does not include a few that may be at the proximal end. On the upper margin the sockets are fewer and more distant but the number cannot be determined. On the inner surface near the margin of the finger there is a curved row of three small distant sockets; the two distal of these are paired by a socket higher up, either on or just over the finger edge. At the distal end of the palm near the sinus between fingers there are two large sockets,

[1] Received November 18, 1929.

much larger than any others. A little below the upper margin in a straight line not quite parallel with the margin, but sloping a little downward distally to the condyle articulating with the dactylus, there is a row of linear spaced sockets of which about 9 can be made out. A few more sockets are scattered over the inner surface.



Callianassa cheyennensis.

FIG. 1. Inner view of propodus of left cheliped, × 3. Holotype.

FIG. 2. Inner view of dactylus of right cheliped, × 4. Paratype.

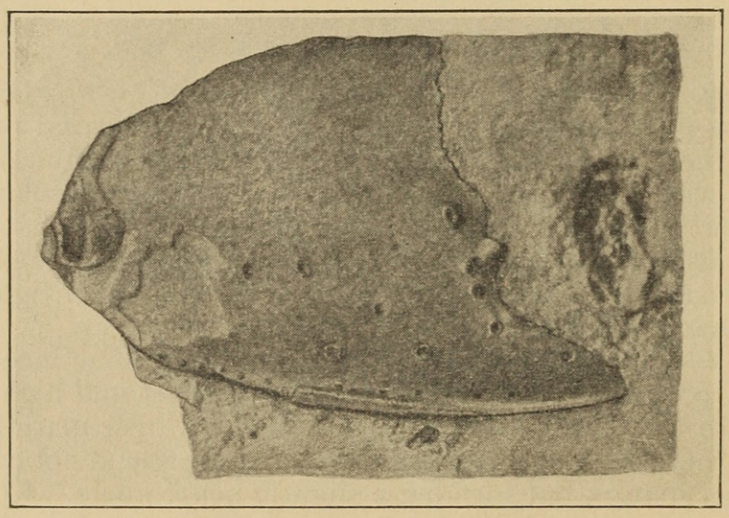


FIG. 3. *Callianassa cheyennensis.* Paratype. Outer view of propodus of right cheliped, × 4.

The paratype (Fig. 3) is a right palm with the outer surface exposed. If, as I assume, it is the same species as the holotype, it is a minor chela of a larger specimen. The upper portion is broken off, the outer surface is convex from top to bottom and the inner is flat. Parallel to the lower margin outside there is a row of rather large well separated sockets 12 of which are visible, running on to the finger. A large socket near the sinus between the fingers is by far the largest of a series of 5 which follow the line of the propodal finger; and on the edge there is a row of small, evenly spaced sockets at least 7 in number. Below the middle of the palm there are 5 or 6 distant fair-sized sockets making 2 subparallel oblique lines. On the distal edge of the palm between the fingers there is a strong tuberculiform tooth pointing distad.

The movable finger (Fig. 2) belongs to a right chela, perhaps to the propodus just described, near which it lies; it is very thick, upper surface broad, upper margin convex except for a deep transverse sinus which embraces the articulating condyle. Two sockets transversely placed on upper surface not far from sinus. On inner surface just below upper margin there is a row of 5 prominent oblique sockets. Further down at the middle two small sockets are disposed longitudinally; 2 sockets on lower surface and a broad triangular subbasal tooth. The thin prehensile edge is nearer the outer surface; it, as well as the tip, are incomplete.

Affinity.—The specimens have been compared with 3 specimens of *C. whiteavesii* Woodward[2] from Sounding Creek, N.W. Territory. In this species the palm is definitely longer than wide, its proximal end is at right angles to both upper and lower margins, although the latter begins to slope upward at about the middle of its length, making the proximal half of the palm higher than the distal half. None of the specimens show the inner surface. The outer surface is less convex than in *cheyennensis*, its upper edge thin and not bent over so far on to the inner side. A smooth, blunt ridge runs inward from the upper edge of the propodal finger and fades out about half way along the palm. The surface below this is flattened or a little concave. In the new species this surface is evenly convex. Close to the upper edge in *whiteavesii* there is a row of lengthwise punctae 12 of which can be made out. Near and parallel to the proximal end, a row of 6 punctae, visible on the counterpart of Woodward's fig. 2*b;* and a row of 3 punctae arranged lengthwise and slightly obliquely at the middle of the palm and pointing toward the upper edge of the propodal finger (on the counterpart only of fig. 2*b*). The fingers are of about equal size. On the original of Woodward's fig. 2*a* there is a large, depressed, transverse socket on the palm near and parallel to the dactylus.

BOTANY.—*Botanical notes on, and descriptions of, new and old species of Venezuelan plants.*—III. *Old and new species of Euphorbiaceae (Conclusion).*[1] H. PITTIER, Caracas, Venezuela.

Croton redolens Pittier, sp. nov. (Sect. *Eluteria*)

Arbuscula redolens, aromatica, coma depressa, ramis contortis, nodosis, glaberrimis, cortice griseo tectis, ramulis novellisque dense fulvo-tomentosis; foliis alternis, petiolatis, membranaceis, petiolis laminis 2–3-plo brevioribus, teretibus, tomentellis, apice 2–7-glandulosis, glandulis brevissime stipitatis, laminis late ovatis, subcordiformibus, basi leviter emarginatis rotundatisve, 5–7-nerviis, apice acutatis obtusiusculis, supra velutinis vel praeter nervis parce stellulatis, subtus dense cano-tomentellis, marginibus plus minusve sinuato-dentatis, dentibus villosulis; stipulis inconspicuis; racemis terminalibus axillaribusve, pedunculatis, rhachi anguloso, longitudinaliter sulcato, fulvescente-tomentello; bracteis inconspicuis; floribus flavescentibus virescentibusve, pedicellatis, haud congestis, foemineis remotis 1–3 basalibus, masculinis 1–4-fasciculatis, cito deciduis; *flor. foem.:* pedicello crasso calyce subaequante, calyce haud accrescente extus tomentoso intus

[2] Geol. Mag. n. s. **7**: 435. *pl. 17, fig. 2.* 1900.

[1] The two first contributions on new and old species of Venezuelan plants appeared in THIS JOURNAL **19**: 175–186 and 351–357. 1929. Received November 15, 1929.