

DESCRIPTIONS OF TWO NEW SPECIES OF FRESH-WATER CRABS FROM COSTA RICA.

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THE Museo Nacional de Costa Rica has recently sent, through Mr. J. Fid. Tristan, a number of crabs and shrimps to the United States National Museum for identification. Among them were found two new species of *Pseudothelphusa*.

PSEUDOTHELPHUSA MAGNA, new species.

(Plates XXIX; XXX, figs. 7-10.)

Closely allied to *P. richmondi*, Rathbun.¹ Carapace wider than in *P. richmondi*, branchial region more swollen, cervical suture sinuous. The surface is covered with flattened granules, some of which on the anterior half of the carapace are large and dark-colored, looking like scales, but almost smooth to the touch. The frontal lobes seen from above are separated by a broad and deep notch; margin uneven, more advanced in its inner portion, passing gradually into the orbital margin; the curve is much less abrupt than in *P. richmondi*. In Plate XXIX a portion of the maxilliped shows beneath the front. The front seen from before is much wider and less deep than in *P. richmondi* and the outer margins more oblique (Plate XXX, figs. 6 and 7). The external angle of the orbit is nearly as advanced as the front, while in *P. richmondi* it is much less so. The spines or spinules of the lateral margin are proportionally smaller than in *P. richmondi*. The eyes also are much smaller than in *P. richmondi* and do not fill one-half the depth of the orbit. The first abdominal appendage of the male is similar in character to that of *P. richmondi*. It has three teeth at the extremity on the upper side. (See upper left-hand portion of fig. 9.) The longitudinal plate on the

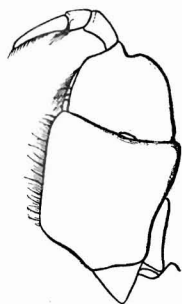


Fig. 1.

OUTER MAXILLIPED OF
PSEUDOTHELPHUSA
MAGNA.

Natural size.

¹ Proc. U. S. Nat. Mus., XVI, 1893, p. 654, pl. LXXV, figs. 6-10.

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inner side of the lower portion, shown in Figure 10, is much longer than the corresponding part in *P. richmondi*. The merus of the outer maxillipeds is longer and narrower in this species.¹

Chelipeds unequal, large and strong. The merus has a row of very stout conical teeth on its inner margin, as a rule becoming smaller proximally and continued on the ischium; the lower edge has a row of small tubercles; the outer margin has a wide band of prominent squamose tubercles, which, toward the carpus, become rugose lines. The palmar portion of the manus is longer than in *P. richmondi*, the margins of its surface less convex.

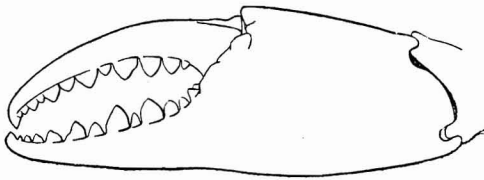


Fig. 2.

LARGE HAND OF PSEUDOTHELPHUSA MAGNA.

About three-eighths natural size.

The outer surface of carpus, propodus and dactylus is covered with a network of dark brown, and numerous granules of still darker color. The teeth of the fingers have a dark band across their bases and a lighter line around their cutting edges. Ambulatory legs thick, meri with edges rough or slightly spinulose. Inner lower margin of meri of first pair with prominent tubercles. This margin is smooth in *P. richmondi*.

Dimensions.—Largest male, length 84 mm., width 135 mm.

Color.—Yellowish brown.

Habitat.—Pozo Azul, 800 or 1,000 feet above the sea, two males (Nos. 19048, 19049, type, U. S. N. M.) collected by J. C. Zeledon, April 4, 1888; Rio Maria Aguilar, one male, collected by A. Lizano, May 29, 1891; also one female (No. 19050, U. S. N. M.) collected by J. Fid. Tristan; Rio Torres, one male, collected by J. Fid. Tristan.

This species is the largest of the known *Pseudothelphusidae*.

PSEUDOTHELPHUSA TRISTANI, new species.

(Plate XXX, figs. 1-5.)

Carapace smooth and shining, inconspicuously granulate near the lateral margins; grooves deep; branchial region much swollen in its anterior half. Front with a well-marked crest, which is rough with punctæ but not tuberculate, and terminates at the orbital border just behind the insertion of the eye. Lower and outer margins with a prominent punctate ridge. Outer half of the superior orbital border finely crenulate; inferior border crenulate. Antero-lateral margin denticulate, and with two well-marked teeth behind the orbit.



Fig. 3.

OUTER MAXILLIPED OF PSEUDOTHELPHUSA TRISTANI.

About four times natural size.

¹ Compare fig. 1 in text with fig. 9, pl. LXXV, Vol. XVI, Proceedings U. S. National Museum.

The sixth segment of the abdomen in the male is shorter than the seventh; the seventh is very broad and obtuse. The appendages of the first segment (Plate XXX, figs. 3 and 4) are very different from those of any other species that I have seen. The character of the chelipeds is shown in Plate XXX, figs. 1 and 2. The carpus, propodus and dactylus are granulate. The ambulatory legs are spinulose above; the propodal joints are spinulose below.

Dimensions.—Length of male, 18.7 mm.; width, 30.8 mm. Length of female, 18 mm.; width, 29.9 mm.

Color.—Very dark brown; lower side and legs lighter.

Habitat.—"La Mina," Rio Torres, north of San José, 1,130 meters above the sea. One male (No. 19047, U.S.N.M.) and one female, collected by J. Fid. Tristan, August 7, 1894.

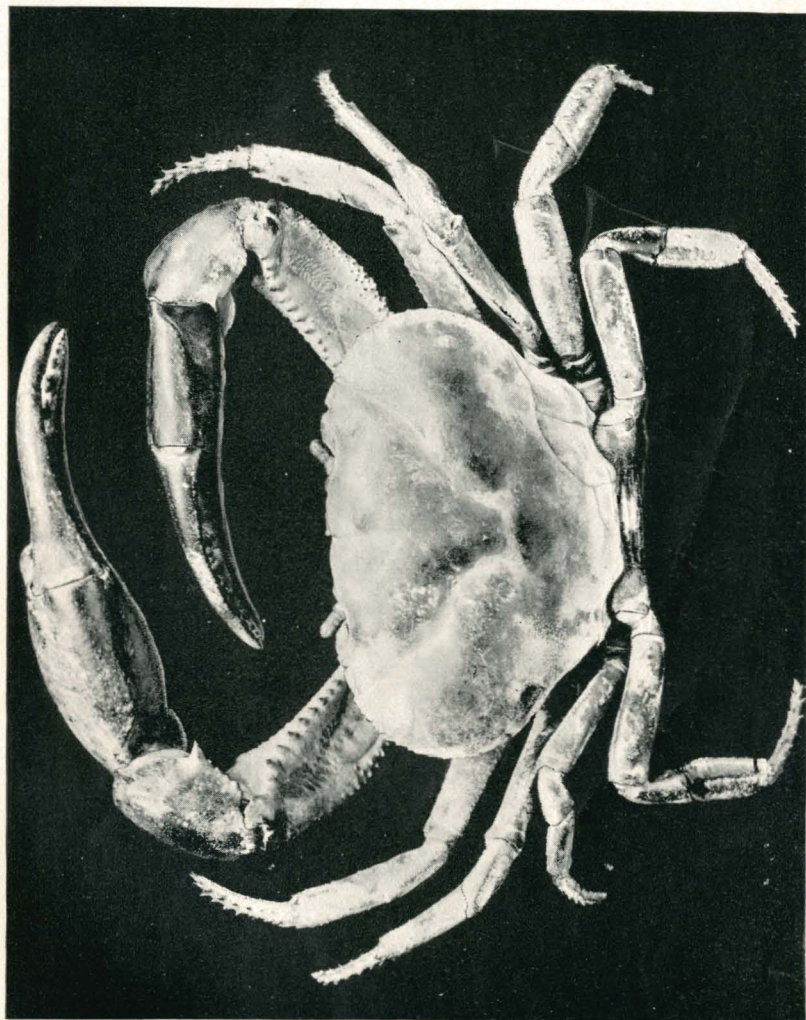
EXPLANATION OF PLATES.

PLATE XXIX.

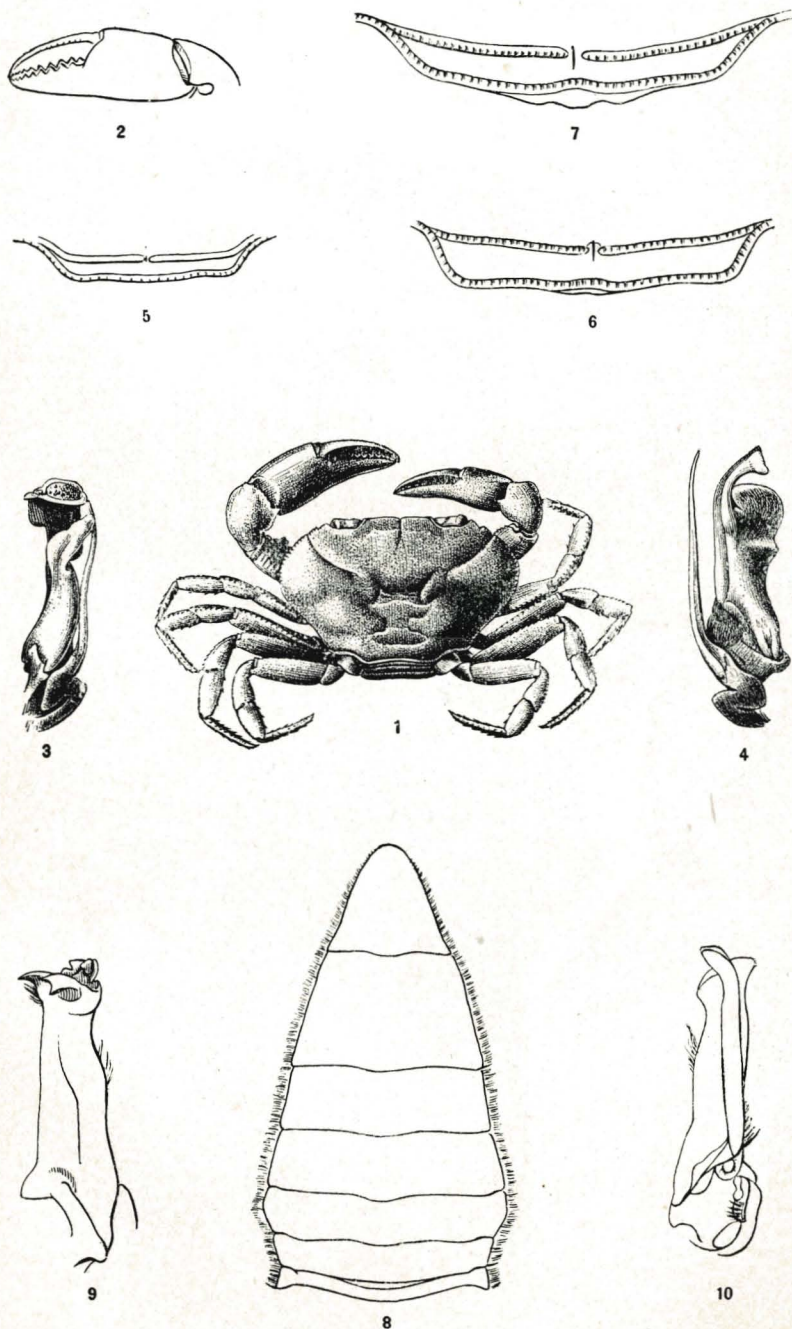
Pseudothelphusa magna, male. Less than one-half natural size.

PLATE XXX.

- Fig. 1. *Pseudothelphusa tristani*, male. Natural size.
2. *Pseudothelphusa tristani*, male, large hand. Slightly enlarged.
3. *Pseudothelphusa tristani*, male, right abdominal appendages, outer side. Three and one-half times natural size.
4. *Pseudothelphusa tristani*, male, left abdominal appendages, lower side. Four times natural size.
5. *Pseudothelphusa tristani*, front. About two and one-half times natural size.
6. *Pseudothelphusa richmondi*, front. About two and two-thirds natural size.
7. *Pseudothelphusa magna*, front. About one and one-third natural size.
8. *Pseudothelphusa magna*, abdomen of male. Slightly reduced.
9. *Pseudothelphusa magna*, male, first abdominal appendage of right side, outer view. One and one-half times natural size.
10. *Pseudothelphusa magna*, male, first abdominal appendage of right side, lower view. One and one-half times natural size.



PSEUDOTHELPHUSA MAGNA, MALE
FOR EXPLANATION OF PLATE SEE PAGE 379



FRESH-WATER CRABS OF THE GENUS PSEUDOTHELPHUSA

FOR EXPLANATION OF PLATE SEE PAGE 379