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On some Crustaceans collected at the Mauritius. I

By EDWARD J. MIERS, F.L.S., F.Z.S.

(Plate XX.)

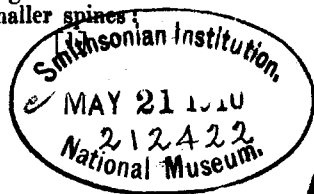
The Crustaceans which I have now the pleasure of bringing before the notice of the Society were obtained at the Mauritius by M. Robillard, and recently forwarded by him to the British Museum. They are:—(1) a fine Spider-crab, described below as *Naxia robillardi*, which was dredged at a depth of 30 fathoms [that such a large and interesting a species should have remained so long unnoticed is very remarkable; and I can only account for it on the supposition that this crab lives habitually at considerable depths, and hence has escaped the notice of collectors of the littoral forms, most of which are well known]. (2) an example of *Neptunus sieboldi*, A. M.-Edwards, a swimming crab hitherto a desideratum to the national collection; and (3) several specimens of a Hermit Crab which I think is *Cænobita perlata*, M.-Edwards: although having the inferior surface of the joints of the first three legs very hairy, these specimens in all other particulars coincide with M.-Edwards's brief description in the 'Histoire naturelle des Crustacés' (ii. p. 242, 1837), and with the excellent figure in the large illustrated edition of Cuvier's 'Règne Animal' (pl. xlv. fig. 1).

In order to complete the account of the Crustaceans received from the Mauritius through M. V. de Robillard, I have added a brief notice of a fossorial Crustacean of which two examples, both unfortunately imperfect, were sent two years ago to the British Museum by the same collector, and which I propose to designate *Callianassa mauritiana*.

NAXIA (NAXIOIDES) ROBILLARDI, sp. n. (Plate XX. fig. 1.)

The carapace is subpyriform, rather convex, and covered with long stout conical spines; of these spines about 13, situated on the gastric region, are arranged in three somewhat irregular transverse series, behind and in front of which are some smaller spines.

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57  
Mauritius  
Callianassa  
Mauritiana

2 are placed on the cardiac region, of which the posterior is very large, 3 (very large) on the intestinal region, 2 on each hepatic region, and about 7 on each branchial region, besides the marginal spines, of which there are 5; 3 are placed on each pterygostomian region, the anterior of which is situated at the antero-lateral angle of the buccal cavity; there is also a distinct but not very large præ-ocular spine. The orbits are rather small, with a lateral aspect, and with two fissures above and a large hiatus below. The spines of the rostrum are subcylindrical and very long (in the male as long as the carapace), straight, and very slightly divergent distally; they bear an accessory spine on their upper surface at some distance from the distal end, which is acute. The basal antennal joint is longer than broad, and bears a strong spine, directed obliquely downward, at its antero-external angle; the next joint is slender and very much elongated, the third also slender; these joints and the flagellum are scarcely visible in a dorsal view. The epistoma is large, but broader than long; the ischium joint of the outer maxillipedes is longer than broad; the merus joint truncated at its distal end, and with only a very small notch at its antero-internal angle above the place of articulation with the next joint. The chelipedes in both sexes are slender; in the male, however, somewhat more robust than in the female; the merus joint is cylindrical, elongated, with a strong spine above at its distal end. Carpus short, armed on its upper and outer surface with two or three small spines or tubercles; palm smooth, subcylindrical (in the male about  $3\frac{1}{2}$  times as long as broad); fingers slender, more than half as long as the palm, somewhat incurved, having between them when closed (in the male) a small hiatus at base; both fingers in their distal halves are denticulated and meet along their inner edges; the mobile finger has in the male a tubercle on its inner margin near the base. The ambulatory legs are slender and much elongated, the first pair very much longer than the following; there is a spine at the distal end of the upper surface of the merus joints in all the ambulatory legs. The dactyli, although shorter than the preceding joints, are yet elongated and slightly curved, and terminate in a small corneous claw. The segments of the postabdomen are all of them distinct in both sexes; in the male all, except the last, have a small median spine, on each side of which, on the second and third segments, is a lateral spine; in the female the first four are armed with a small median spine or tubercle. The animal is covered with a short dense yellowish-brown pubescence, which, however, is absent from the palms and fingers of the chelipedes, and partially so from the penultimate and terminal joints of the ambulatory legs, the ground-colour of the integument being, in these places, in the two dried specimens I have examined, purplish-red. Length of the carapace to the base of rostral spines in an adult male about  $2\frac{2}{3}$  inches (68 mm.), which is also the length of the spines themselves; of a chelipede about  $4\frac{1}{2}$  inches (113 mm.), of the first ambulatory legs nearly  $9\frac{1}{2}$  inches (242 mm.).

Two specimens, a male and a female, were collected. In the female the carapace is somewhat more pyriform and convex, the

rostral spines shorter, the chelipedes rather slenderer, and the first pair of ambulatory legs somewhat less elongated.

The nearest ally to this species with which I am acquainted is *Naxia* (*Naxioides*) *petersii* (*Podopisa petersii*, Hilgendorf, Monatsb. Ak. Berlin, p. 785, pl. i. fig. 5, 1878), from Mozambique, which is very probably identical with *Naxioides hirta*, Alph. M.-Edwards (Ann. Soc. Entom. France, ser. 4, v. p. 143, pl. iv. fig. 1, 1865), from Zanzibar. *N. robillardi* is at once distinguished by its greater size, by having the carapace covered with strong conical spines in the place of small irregular tubercles, and by the double hiatus in the upper orbital margin. In the last-mentioned character it resembles certain species of *Pisa* (e.g. *Pisa* (*Arctopsis*) *lanata*); but it is distinguished from that genus by the greater length and slenderness of the chelipedes and first ambulatory legs, by the narrower basal antennal joint, and the accessory spines of the rostrum; yet it may be regarded as establishing a transition to *Pisa*.

In my revision of the Maiioidea<sup>1</sup> I adverted to the insufficiency of the characters assigned to *Naxioides*, A. M.-Edw. (*Podopisa*, Hilgendorf) for distinguishing this genus from *Naxia*. As the species now described has a distinct præocular spine, even this character can no longer be cited as peculiar to the last-named genus.

#### CALLIANASSA MAURITIANA, sp. n.

Both the specimens sent by M. Robillard are imperfect; and the large chelipede, from which the principal distinctive characters are derived, does not appear to belong to either example, but to a distinct and larger individual. In the analytical table appended to M. A. Milne-Edwards's monographic revision of the genus *Callianassa*<sup>2</sup>, our new species will be arranged with *Callianassa subterranea* and *C. longimana*, inasmuch as there exists a small median rostral tooth, the terminal segment of the postabdomen and the eyes are well developed, and there is a tooth or lobe, which is itself denticulated, at the proximal end of the inferior margin of the merus joint of the larger chelipede, whose penultimate joint or palm about equals the wrist in width. It is distinguished from both the above-mentioned species, however, by the broad spinulose inferior basal lobe of the arm or merus, and by having the distal end of the palm between the bases of the fingers deeply excavated as in *C. californiensis* and *C. uncinata*; the inferior margin of the merus is armed with small granulations; the carpus (in the large chelipede) is somewhat shorter than the palm, with its upper margin acute; the palm, which is not once and a half as long as broad, narrows very slightly toward the distal end, its upper margin is rounded, except at its proximal end; the lower margin, both of wrist and palm, is minutely serrated; the upper or mobile finger is longer than the lower, and is sharply uncinated at its distal end, it has a strong blunt tooth on its inner margin near the base. I may add that the

<sup>1</sup> Journ. Linn. Soc., Zool. xiv. p. 658 (1879).

<sup>2</sup> Nouvelles Archives du Muséum, vi. p. 101 (1870).

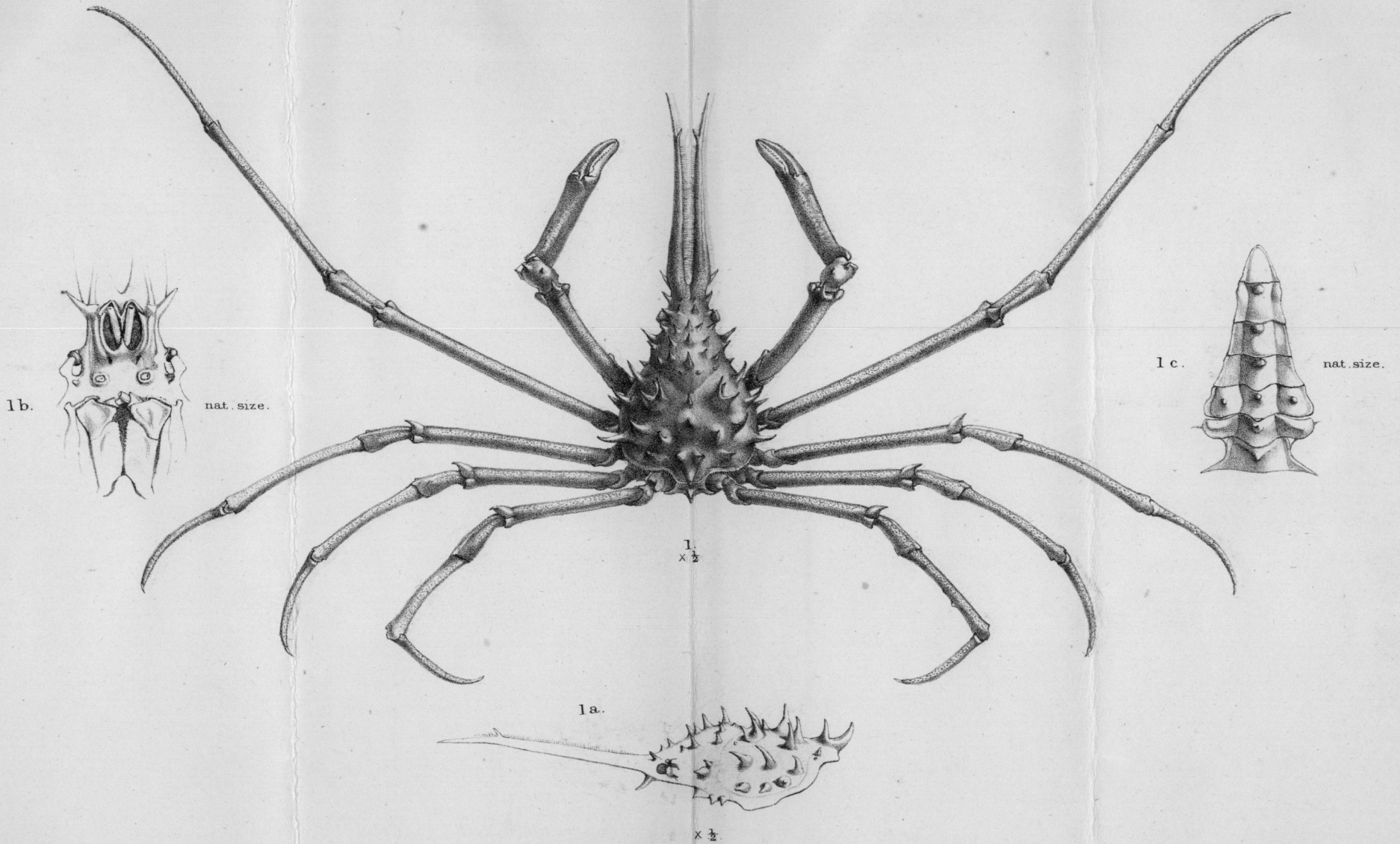
terminal postabdominal segment is shorter than in *C. subterranea*, not as long as its greatest width. Length about 3 inches 10 lines (98 mm.); of the larger chelipede, from the base of the merus joint to end of the dactylus, about 2 inches 10 lines (72 mm.).

From the American *C. californiensis* and *C. uncinata*, this species is distinguished by the much longer palm of the larger chelipede, and the much broader, less prominent, denticulated basal lobe of the arm or merus.

#### EXPLANATION OF PLATE XX.

Fig. 1. *Naxia (Naxioides) robillardi* (p. 339), adult male, reduced to about half natural size.

- 1a. Lateral view of the carapace of the same in outline, showing the elevation of the dorsal spines, reduced about half natural size.
- 1b. Antennal, orbital, and buccal regions of the same, viewed from below, natural size.
- 1c. Postabdomen of the same, natural size.



1b.

nat. size.

1c.

nat. size.

1  
x 2

1a.

x 2

Edwin Wilson, del. et lith.

Mintern Bros. imp.

NAXIA (NAXIODES) ROBILLARDI.