

VIII. — ON THREE MACRUROUS DECAPOD CRUSTACEA, ONE OF WHICH IS NEW TO SCIENCE.

BY DR. J. G. DE MAN, OF IERSEKE. (WITH TWO TEXTFIGURES).

*Scyllarus arctus* (L.).

I am sorry to say that the key to the indopacific species of the genus *Scyllarus* Fabr., published by me at p. 68 of Part III of my work on the Decapoda Macrura of the Siboga Expedition (J. G. de Man, Siboga Exp., Monogr. 39a<sub>2</sub>, Eryonidae etc. 1916) is in part incorrect. The section  $g_1$  at p. 70 should henceforth be read as follows:

- $g_1$  Abdominal terga not at all prominent.
- $h_1$  Anterior extremity of the sternum with a deep triangular notch <sup>1)</sup>.
- $i_1$  Carapace with 2 teeth in the middle line before the cervical groove.
- $j_1$  First abdominal somite with a dark, oval spot in the middle. Calcified portion of the telson terminating in four teeth.

Both the inner and the outer margin of the proximal (outer) antennal squame armed with only one well-developed acute tooth, though one observes before the tooth of the inner and behind that of the outer margin the trace of a second obtuse prominence.

Length, outer antennae included, 56 mm. . . *sordidus* (Stimps.).

- $j_2$  First abdominal somite with no dark, oval spot in the middle. Calcified portion of the telson terminating in two teeth. . . *pumilus* Nob.

(G. Nobili, Faune Carcinol. de la Mer Rouge, Décapodes et Stomatopodes, 1906, p. 87).

- $i_2$  Carapace with 3 acute teeth in the middle line before the cervical groove.

Outer margin of the proximal (outer) antennal squame with two acute, well-developed teeth, though between the anterior tooth and the apex the margin shows sometimes traces of 3, 4 or 5 minute obtuse prominences; of the five teeth on the inner margin the second is the largest and the difference between this tooth and the others is not so great as in *Scyll. bicuspidatus* (de Man).

Length 125 mm., outer antennae included. . . . *arctus* (L.).

- $h_2$  Notch at the anterior extremity of the sternum not deep and triangular, but presenting only a minute incision in the middle of the truncate, posterior margin.

1) In very young specimens of *Scyll. arctus* (L.), that are 34 mm. long, the outer antennae included, the anterior extremity of the sternum still resembles that of *Scyll. bicuspidatus* (de Man).

Carapace with 2 teeth in the middle line before the cervical groove and with 2 minute teeth, situated abreast, between the posterior tooth and that groove. Outer margin of proximal (outer) antennal squame with two sharp teeth, of the 5 teeth on the inner margin the first is much larger than the following.

Length, outer antennae included, 25,5 mm. *bicuspidatus* (de Man).

When working at the Scyllaridae in 1915 I was enabled to study two young specimens of *Scyll. arctus* (L.) from the Gulf of Naples, belonging to the Leyden Museum (J. G. de Man, l. c. p. 84), a male long 54 mm. and a female long 34 mm., the outer antennae included. I had asked for specimens of *Scyll. arctus* of small size, in order to compare them with *Scyll. bicuspidatus*, of which the single specimen collected was 25,5 mm. long. I had not succeeded in finding a description of *Scyll. arctus* (L.), in which the notch at the anterior extremity of the sternum was described and a full-grown specimen was then not at my disposal. These two specimens are now again lying before me together with a fullgrown ova-bearing female from the Gulf of Naples long 125 mm., an adult male from Rovigno long 115 mm. and three somewhat younger specimens from the Mediterranean. The notch at the anterior extremity of the sternum appears in the larger one of the two specimens, examined in 1915, semicircular with a minute incision in the middle line, the depth being nearly already the same as in the adult (Fig. 1), but in the specimen, long 34 mm., the notch (Fig. 2) is much less deep and almost fully resembles that of *Scyll. bicuspidatus* (J. G. de Man, l. c. fig. 12a).

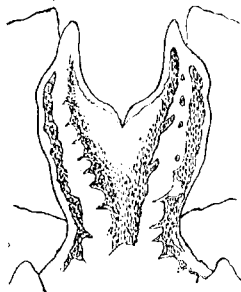


Fig. 1. *Scyllarus arctus* (L.)  
♂ 115 mm. long, outer  
antennae included. Rovigno.

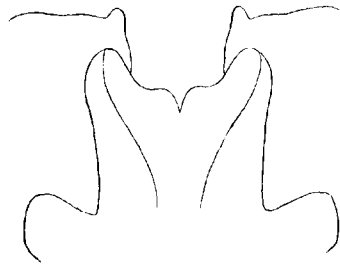


Fig. 2. *Scyllarus arctus* (L.)  
young female, 34 mm. long,  
outer antennae included. Mediterranean.

It is now evident that in 1915 the notch in the younger specimen, long 34 mm., has erroneously been considered by me as the normal form in this species, while the shape of the notch, presented by the other, long 54 mm., was regarded by me as abnormal . . . an incomprehensible

mistake indeed. In this false supposition of the notch presenting the same form in *Scyll. arctus* and *Scyll. bicuspidatus* the key of 1916 was drawn up by me.

The shape that the notch shows in the youngest specimen, long 34 mm., must, no doubt, be considered as a juvenile feature. *Scyll. bicuspidatus* will perhaps once prove to be founded on a young specimen, in which the sternal notch is also still shallow, but this species differs from *Scyll. arctus* at first sight by the carapace bearing only two teeth in front of the cervical groove: in this connection it is to be regretted that the length of the only type specimen of *Scyll. pumilus* has not been mentioned by Dr. Nobili.

*Enoplometopus longirostris* de Man.

*Enoplometopus longirostris* J. G. de Man, in: Archiv für Naturgeschichte, 53. Jahrg. 1888, p. 488, Pl. XXI, fig. 4.

1 specimen collected march 30/31, 1899, by the Siboga Expedition at Sailus Ketjil, Paternoster-islands, at the surface in the Plankton (Stat. 37).

1 specimen collected december 4/5, 1899, by the Siboga Expedition at the anchorage off Rumah Lusi, North-point of Tiur-island (Stat. 248).

The examination of the abdomen of these specimens and of a cotype from Amboina, preserved in my private collection, revealed the remarkable facts 1<sup>o</sup> that the 1st somite is destitute of appendages, 2<sup>o</sup> that the pleopods of the 2nd—5th somite bear all a well-developed appendix interna or stylamblys, of which the tip is provided with a cluster of normal cincinnuli. As far as I know in all the Nephropsidae the 1st abdominal somite bears a pair of uniramous appendages, while the pleopods of the four following somites are destitute of an appendix interna (A. Alcock, A descriptive Catalogue Indian Deep-Sea Crustacea, Calcutta 1901, p. 150 and L. A. Borradaile, in: Annals Mag. Nat. History. Ser. 7, vol. XIX, 1907, p. 473). I did not succeed in detecting the genital openings in one of the 3 specimens, that are of equal size, 23 mm. long.

According to Alcock (l. c. p. 9) in the *Macrura Astacides* the antennal scale, if foliaceous, should not conceal the terminal joint of the antennal peduncle entirely. In a young female of *Enopl. occidentalis* (Randall) from Amboina, belonging to my private collection and described by me l. c. 1888, the antennal peduncle is not entirely concealed by the antennal scale, projecting a little beyond it, but in *Enopl. longirostris* the antennal

scale extends far beyond the antennal peduncle, which it does conceal entirely.

It appears to me probable that *Enopl. longirostris* will once prove to be the young of a still unknown species, for it differs too much from *Enopl. occidentalis* or *pictus* to be considered as a young of these two.

*Processa Jacobsoni* n. sp.

1 male, collected February 1913 by Mr. E. Jacobson at Sinabang, island of Simalur, near the west coast of Atjeh, Sumatra.

Rostrum a little more than half the length of the rest of the carapace, reaching beyond the eyepeduncles almost to the distal extremity of basal antennular article; the upper border runs at first straight, though slightly ascending, forward, terminating in an acute tooth that almost reaches to the anterior border of the eyes; between this tooth that measures about  $\frac{1}{11}$  the entire length of the rostrum and the acuminate apex of the latter the upper border appears slightly concave; at the level of the apex of the acute tooth the height of the rostrum measures  $\frac{1}{4}$  the length, near the base the height is  $\frac{1}{10}$  the length. Carapace of a stout shape, the height being about half the length, the rostrum included.

Abdomen a little more than twice as long as the carapace. Lower border of 5th somite terminating posteriorly in a small acute tooth. Telson tapering rather much, at base almost 3-times as broad as at the tip, distance between the anterior pair of dorso-lateral spinules and the base of the telson a little more than one-fourth the entire length; posterior pair a little farther distant from the anterior pair than from the acute posterior extremity of the telson.

Eyes hardly reaching beyond the middle of the strongly excavated basal joint of the antennular peduncle.

Second joint of antennular peduncle five times as long as thick in a lateral view, 3rd joint almost half as long as second, the peduncle as much shorter than the antennal scale as the 3rd joint is long.

Legs of 1st pair slender. Merus of right chelate leg 6-times as long as wide in the middle, carpus two-fifths of the merus, almost 3-times as long as thick distally; chela two-thirds the length of the merus, slender, almost five times as long as wide in the plane of the fingers, fingers about half as long as the palm. Merus of the left simple leg 6,5-times as long as wide in the middle, carpus 4-times as long as thick, propodus one and a half as long as the carpus, strongly tapering, eight times as long as wide in the middle, dactylus one-fourth of the propodus.

Merus of 2nd leg divided into 7 segments, dactylus with 25 segments, those in the middle as long as broad or slightly longer than broad, chela 3-times as long as broad, fingers a little shorter than the palm.

The three posterior legs thin and slender. Whereas in the 3rd and 4th pair the carpus is longer than the merus and the propodus, in the 5th legs merus and propodus are longer than the carpus. Ischium and merus of 3rd and 4th pair spiniferous along their posterior margin, propodus of 5th legs with 3 spiniform setae along the distal half of its posterior margin; dactylus of the three legs about one-fourth the propodus.

Length 20 mm. (carapace, rostrum included, 6 mm. long, abdomen 14 mm.).

#### EXPLANATION OF THE FIGURES.

- Fig. 1. Anterior extremity of the thoracic sternum of an adult male of *Scyllarus arctus* (L.) long 115 mm., outer antennae included, from Rovigno,  $\times 4$ .  
Fig. 2. Anterior extremity of the thoracic sternum of a young female of the same species, long 34 mm., outer antennae included, from the Mediterranean,  $\times 16$ .