MADEIRAN DECAPOD CRUSTACEANS IN THE COLLECTION OF THE MUSEU MUNICIPAL DO FUNCHAL. II. NEW RECORDS OF *SYSTELLASPIS CRISTATA* (FAXON), *HETEROCARPUS ENSIFER* A. MILNE EDWARDS, AND *H. LAEVIGATUS* BATE

By ARMANDO J. G. FIGUEIRA [1])

Among the shrimps received since the beginning of 1958, further specimens of *Systellaspis cristata*, *Heterocarpus ensifer* and *H. laevigatus* were found. Considering that these finds are of a certain interest, particularly in the case of *H. laevigatus*, a complementary note to the former records published in the previous article is given below.

Systellaspis cristata (Faxon), 1893

Acanthephyra cristata Faxon, 1893, p.206.

Systellaspis cristata Figueira, 1957, p.34, fig.3, pl.II, fig.2.

Material seen:

One female; Reg.No.14339; carapace length abt.13mm.; July 1958. Very poor condition. From stomach of *Aphanopus carbo* Lowe.

Apart from minor damages, the tip of the rostrum is broken off; the posterior third of the carapace and the first 3 abdominal segments are badly damaged; also the pereiopods are lost. However, enough characters (carina on the 4th abdominal segment, non-crenate hind margins of the fourth and fifth abdominal segments, and a carina near the lower margin of carapace) are left to make a correct identification possible.

Heterocarpus ensifer A. Milne Edwards, 1881

Heterocarpus ensifer A. Milne Edwards, 1881, p.8; Figueira, 1957, p.40, fig.4, pl.III, fig.2.

Material seen:

One female; Reg.No.13452; carapace length 24.7mm.; 14.I.1958. Apart from having the tip of the rostrum broken off, the specimen is in fair condition. According to fishermen, found in stomach of *Aphanopus carbo* Lowe.

One ovigerous female; Reg.No.14513; carapace length 30mm.; 5.VIII. 1958. A portion of the rostrum is broken off, and some of the post-

1) Assistant, Museu Municipal do Funchal

erior pereiopods are lost; otherwise the specimen is in good condition. According to fishermen, found in stomach of *Aphanopus carbo* Lowe.

Upper margin of rostrum, in specimen No.13452, armed with 18 teeth, four of which are placed on the carapace, and one more or less above the orbit. Lower margin of rostrum of the same specimen with 11 teeth; judging from the shape of the existing part, it is unlikely that the rostrum possessed more teeth on the margins of the lacking part.

A great portion of the rostrum of specimen No.14513 is broken off. However, there are still 13 teeth on the upper margin, 5 of which are on the carapace, and 1 more or less above the orbit. Lower margin of the existing part with 4 teeth.

The abdomen, in both specimens, apart from the sharp dorsal carina on the 3rd and 4th segments, shows a feeble and obtuse carina on the 2nd segment. The first segment, at first sight, also seems to have a very feeble carina. This is due to the presence, on the dorsal face of the segment, of an obtuse elongate tubercle, which apparently tends to increase in size at a greater rate than the animal. So that, in the smallest specimen at hand (No.12111, carapace length 22.3mm., reported on in the previous article) this tubercle is almost non-existent. In the two largest specimens examined (No.8180, carapace length 33mm., also reported on in 1957, and No.14513, carapace length 30mm.), this tubercle is distinctly developed.

Telson, in both specimens, armed with 4 pairs of lateral spines.

Carpus of shorter second pereiopod, in both specimens, with 7 joints, and that of longer second pereiopod, with 18; merus of second longer pereiopod, in specimen No. 13452, with 6 joints, and in specimen No. 14513, with 7 joints. In the two specimens reported on in 1957, the carpus of the shorter second pereiopod, in the larger especimen, has 6 joints, and 7, in the smaller. In both specimens, the carpus of the second longer pereiopod has 18 joints, and the merus, 6.

It would be interesting to know if the small tooth-shaped process on the inferior part of the orbit of *H. ensifer* is also present in other species of the genus. In *H. grimaldii* A. Milne-Edwards & Bouvier, as well as in *H. laevigatus* Bate, as mentioned in 1957, it is absent.

Heterocarpus laevigatus Bate, 1888

Fig. 1.

Heterocarpus laevigatus Bate, 1888, p. 636, pl.CXII, fig.3; Figueira, 1957, p.41, figs. 5 & 6, plate IV, fig. 1.

On the 19th January 1958 a damaged male specimen of *Heterocarpus* (carapace length 40mm.) was brought to the Museum. Though it lacks the

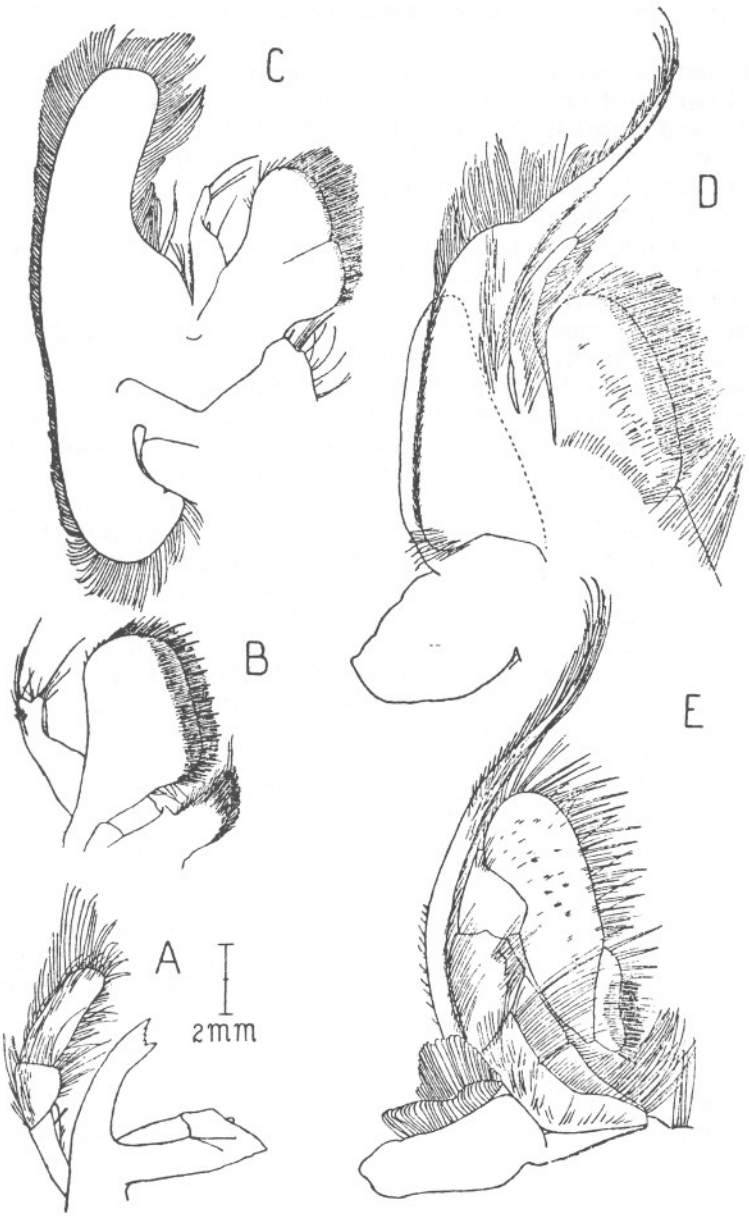

FIG.1. — *Heterocarpus laevigatus:* A mandible; B maxillula; C maxilla; D first maxilliped; E second maxilliped.

rostrum, the author has no doubts in referring it to *H. laevigatus* Bate.

Dorsal carina of carapace with 7 teeth; of these, one is placed in front of the orbit, and another on the basal part of the rostrum; the latter is broken off just in front of it, but it is likely that no more teeth were present. Dorsally, and slightly before the posterior border, the carapace bears the usual minute blunt tubercle.

Pterygostomian spine as figured in the previous article; the antennal spine of the right side slightly shorter, and that of the left side somewhat shorter than in the above mentioned figure.

Outline of the rounded carina of the 3rd abdominal segment, in the present specimen, slightly less convex than in the specimen dealt with in 1957, however, though more than in the "Illustrations of the *Investigator*". It is quite possible, as suggested in 1957, that the outline of the dorsal border of the 3rd abdominal segment, in this species, tends to become less convex with growth of the animal. Carina of the 4th abdominal segment not very distinct, only becoming visible after removal of the very minute scales covering it. Carina of the 5th segment, though the scales overlying it have been removed, rather indistinct. Dorsal face of the 6th segment very slightly grooved. Pleura of the 4th, 5th and 6th abdominal segments with an acute spine posteriorly. Inner uropods slightly surpassing tip of telson. Telson with 3 pairs of lateral spines, furrowed dorsally along almost its whole length, and with a tuft of setae on the proximal end of this furrow.

Antennular peduncle well in advance of the middle of the scaphocerite. Width of the scaphocerite, nearly 1/3 its own length.

For the mandible, maxillula, maxilla, first and second maxillipeds, see fig.1. Third maxilliped reaching slightly beyond the extremity of the antennal scale. First left pereiopod (the right one is lost) does not reach the extremity of the antennal scale. Second shorter pereiopod reaching more or less the middle of the antennal scale. Second longer pereiopod surpassing by the fingers the antennal scale. The third right pereiopod and the pereiopods of the 5th pair have lost the 3 distal segments and the greater part of the 4th. The third left pereiopod and the pereiopods of the 4th pair are lost. On the posterior margin of the remaining part of the right 3rd pereiopod one spine can be seen, and the posterior margin of the ischium bears two spines. The posterior margin of the ischia of the 5th pair of pereiopods, does not, as usual, bears any spine.

The endopod of the first pleopod, apart from being slightly broader transversally, resembles that of the Madeiran specimen dealt with in 1957.