

of the fourth pair of pereopoda to the posterior margin of the sternum; the inner margins are brought into contact and turned downwards, and form the cleft of which de Haan writes (*vide* fig 1<sup>'''</sup>, ♀). The oviducts open at the base of the coxæ of the third pair of pereopoda by a foramen placed at the extremity of a short tubercle, the margin of which is copiously fringed with hairs. The first pair of pleopoda has the outer ramus long, flat, and subfoliaceous, and the inner reduced to little more than a rudimentary bud.

In the male the two oval plates are not present, but a small sharp prominence exists in the median line towards the anterior portion of the ventral surface of the posterior somite. The vas deferens debouches near the base of the coxa, where that joint articulates with the pereion.

The first pair of pleopoda has the external ramus similar to that of the female, but the inner branch is altogether altered from its normal form and condition. It articulates with the basal joint near its base, and is developed into a large, membranous and flexible plate, longitudinally folded on itself, and united with its fellow in the median line by a series of small cincinnuli, which thus form a large petasma that overlies the sexual apparatus.

The other pairs are biramose, but have the outer branch twice as long as the inner.

Milne-Edwards records his specimen from the coast of India, and Siebold obtained that which de Haan described from Japan.

Rather than multiply species upon grounds of slight variation, I have thought that as *Penæus monodon* has never been figured, and varies in some points in almost every description, and as the Challenger specimens so closely resemble *Penæus semisulcatus*, and correspond with the description given by Milne-Edwards and de Haan, they may be accepted as the typical form of the species.

Dr. Camil Heller, in his account of the "Novara" Crustacea, has described a species under the name of *Penæus tahitensis*,<sup>1</sup> the figure of which varies but little from this species, but the description does not agree with his figure. He says that the inferior margin is without teeth ("margine inferiore edentulo"), but represents three teeth in his figure; he also says that the flagella reach to the last tooth on the rostrum, but figures them as being as long as the carapace. If the figure be correct, the species corresponds very closely with that given by Dana as *Penæus carinatus*, and which I think there is little doubt is identical with *Penæus monodon*. The extremity of the rostrum is very slightly turned up in both de Haan and Dana's specimens, whereas in the type according to Milne-Edwards the rostrum is straight, and the Challenger specimens agree with this.

Heller's species is 120 mm. in length, and was taken off the Island of Tahiti, while Dana's *Penæus carinatus* was taken near Singapore.

*Penæus esculentus*, Haswell, taken at Port Jackson, probably belongs to this species also.

<sup>1</sup> Reise der Fregatte "Novara," Crustacea, p. 121, Taf. xi. fig. 2.