

longitudinally traversing the propodos, which does not exist in *Penæus velutinus*. But the great distinction from other species exists in the form of the ventral surface of the posterior somites of the pereion in the female, and in that of the petasma attached to the first pair of pleopoda in the male. In the female, originating within the posterior margin of the ultimate somite of the pereion, are two flat plates, separated from each other by a median furrow; they proceed forwards as far as the anterior margin of the penultimate somite, and anteriorly are widened outwards. The third pair of pereiopoda carries the oviducts, each of which opens by a small foramen at the extremity of an elongated tubercle, that is directed obliquely backwards nearly to the anterior margin of the thelycum; and there exist no long and slender teeth between the coxæ of the second pair as in *Penæus velutinus*. The first pair of pleopoda in the female does not differ materially from that in *Penæus velutinus*, but in the male the petasma differs in having the extremity of the left side, which is the longer, and which projects forwards in *Penæus velutinus*, coiled up and doubled inwards in this species (fig. 3"). Consequently the following distinctions will be found to be means of ready diagnosis in determining *Penæus philippinensis* from *Penæus velutinus*, namely, the length and horizontal position of the rostrum; the furry character of the synnhipod of the mandibles; the arrangement of the petasma attached to the first pair of pleopoda in the males; the absence of the long, spine-like, ventral teeth between the second pair of pereiopoda in the females; the reduced depth of the carina on the dorsal surface of the last two somites of the pleon, and the shortness of the telson, which is armed with three articulated spines and a small fixed tooth on each side behind and above the posterior spine.

The above description is drawn from specimens which were taken amongst the Celebes Islands, and it applies to all the adult forms.

In the younger males, judging from a solitary half-grown specimen, the foliaceous ramus of the first pair of pleopoda is neither broad nor well developed, and is probably immature. The extremity of the vas deferens projects from the coxa of the posterior pair of pereiopoda, and when elongated falls into a groove on the posterior surface of the petasma, and is probably in this way directed and held in position during coition.

From the branchial chamber of one or two male specimens I took a large species of *Bopyrus*.

*Penæus fissurus*, n. sp. (Pl. XXXVI. fig. 1).

Rostrum reaching but little beyond the extremity of the first joint of the first pair of antennæ; dorsal margin furnished with six small teeth and one remotely posterior upon the gastric region, from which a small carina passes to the posterior margin of the carapace; inferior margin ciliated. Pleon compressed and carinated from the third somite. The posterior margin of the fourth, fifth, and sixth somites