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## On Some Shrimps from the Philippine Sea

Yu YOKOYA and Keishi SHIBATA

In June and July 1963 a survey was made east of the Luzon Island by the Faculty of Fisheries Nagasaki University's training ship "Nagasaki Maru" in association with a programme of exploration of tuna fishing and deep scattering layers.

The following four shrimps which were collected during the above period by 6 feet Isaac-Kidd midwater trawl net, are new to science.

*Sergestes grandipes* n.sp., *Sergestes formosensis* n.sp., *Sergestes latirostris* n.sp., and *Hoplophasiphaeu philippinensis* n.gen. n.sp.

Tribe	PENEIDEA ORTMANN	CRUSTACEA LIBRARY
Family	SERGESTIDAE DANA	SMITHSONIAN INST.
Genus	<i>Sergestes</i> H. MILNE-EDWARDS	RETURN TO W-119

### *Sergestes grandipes* n. sp. (Fig. 1)

Loc. 13°-57'N 125°-29'E. Depth 100m. Date, July 1, 1963, 19h-20h.

Body slender moderately compressed. Carapace one and two thirds as long as abdomen without telson. dorsally obtusely carinate, and this carina is elevated as a rostrum at the anterior end of the carapace. The rostrum is laterally compressed, directed upwards and forwards; its base occupies about one thirteenth the length of the carapace. A minute tooth is on each side of the rostrum just below the base. On the lateral surface a little elevated line is visible on the posterior half of the carapace; below this elevated line branchiae are exposed.

First pair of antennae long and slender; the three jointed peduncle, which is about one and a half times as long as the carapace, bears two flagella, a longer and a shorter; the longer one is considerably stout, one and two thirds as long as the peduncle at the base, while the shorter one is only one-sixth as long at the peduncle. In the second antenna the scaphocerite almost reaches the distal end of the peduncle of the first antenna. First maxilliped exceeds a little, the distal end of the penultimate joint of the second maxilliped, in which terminal two joints are abruptly bent as seen in many other species of the genus. The third maxilliped is extraordinary large and long, and exceeds the distal end of the peduncle of the first antenna by the length of terminal two joints.

In five pairs of pereopods the first pair is simple, while succeeding two

pairs of legs successively diminished in length.

In the abdominal somites the first is shorter than any of others, and successively posteriorly increasing in length to the fifth one which is nearly as long as one half of the sixth. The telson is a little shorter than the sixth abdominal somite. The sixth abdominal appendage exceeds, in length, the telson.

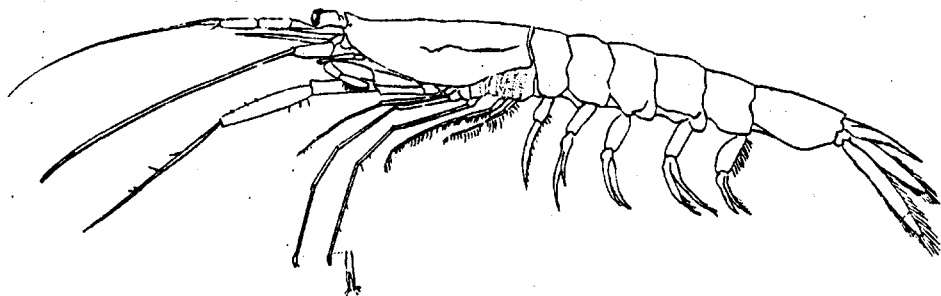


Fig. 1 *Sergestes grandipes* n. sp.  $\times 2.3$

This species distinguishable from other species of this genus in enormously large size of the third maxilliped.

*Sergestes formosensis* n. sp. (Fig. 2)

Loc.  $21^{\circ}-42'N$   $123^{\circ}-05'E$ . Depth 100m. Date, July 10, 1963, 20h-21h.

Body moderately compressed. Carapace a little longer than one half of abdomen with telson. A small rostral horn is on the anterior end of the carapace, the base of the rostrum occupies one-seventh the length of the carapace. Eye-stalk long and slender about one fifth as long as carapace. Anterior two abdominal somites are subequal in length and shorter than any of succeeding two somites. The next or the fifth somite is nearly as long as the first or the second and as long as one-half of the sixth somite, which

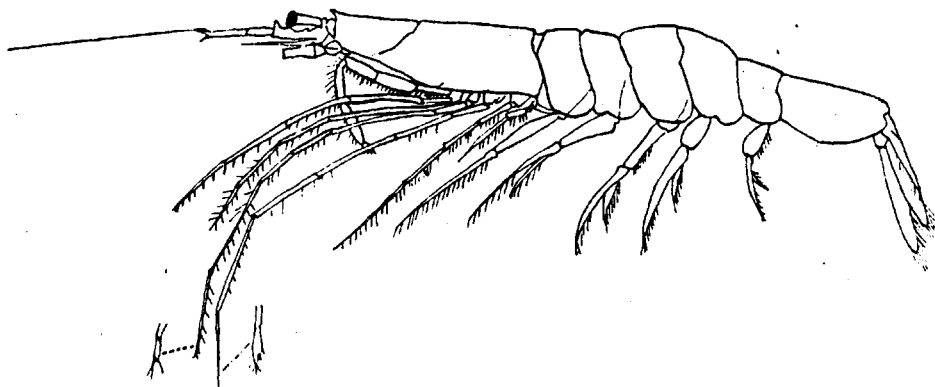


Fig. 2. *Sergestes formosensis* n. sp.  $\times 2.4$

is a little longer than the telson.

The peduncle of the first antenna two-thirds as long as the carapace and bears two flagella, a longer and a shorter. The scaphocerite of the second antenna exceeds the distal end of penultimate joint of the peduncle of the first antenna. The second maxilliped is rather short and terminal three joints abruptly bent as seen in other species of the genus. The next or the third maxilliped is long and slender. The next pair of the first pereiopod is similar in shape to the third maxilliped, but does not attain to the distal end of above side third maxilliped. The second and the third pereiopods are similarly shaped and terminally provided with a minute chela. Succeeding two pairs of pereiopods successively diminished in length and the last pair is shortest of all.

In the pleopods, the first is very long.

*Sergestes latirostris* n. sp. (Fig.3)

Loc. 13°-03'N 125°-50'E. Depth 40m. Date, July 2, 1963, 19h-20h

Body rather stout. Carapace nearly one-fourth as long as abdomen including telson. Rostrum rather conspicuous and directed obliquely forwards and upwards; its base occupies one-sixth the length of the carapace. A branchiostegal tooth. Eye large spherical; diameter of cornea nearly as long as rostral base.

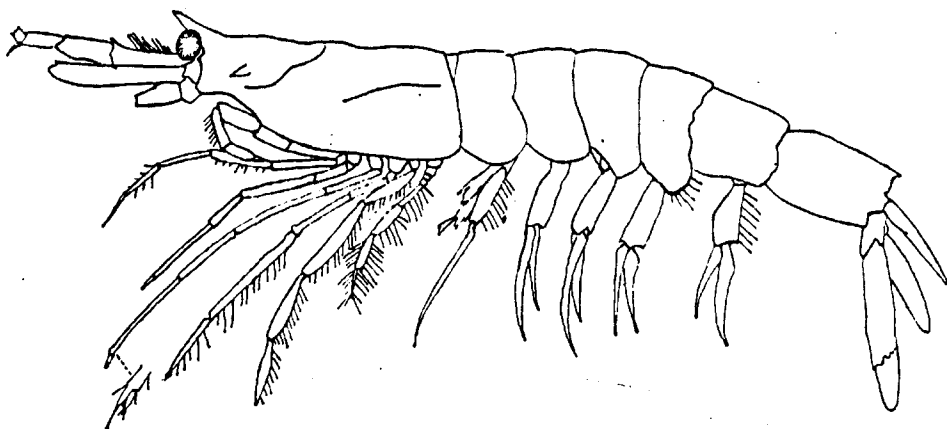


Fig. 3 *Sergestes latirostris* n. sp.  $\times 2.3$

The first pair of antennae long; the peduncle three articulated, nearly as long as two-thirds of the carapace, bears two flagella longer and shorter, but longer one unfortunately missing in the specimen; the shorter flagellum is about one-sixth as long as the peduncle. In the second antenna the scaphocerite reaches the distal end of the second peduncular joint of the first antenna.

The second maxilliped rather stout and its distal end of the antepenultimate joint scarcely attains the anterior end of the carapace, while the terminal three joints are abruptly bent itself.

The third maxilliped slender exceeds the anterior end of the carapace by the length of the terminal three joints.

In the pereopods, anterior three pairs are slender and cylindrical in shape while the posterior two pairs considerably flattened and decreased in length, the last pair shortest of all.

In the abdominal somites anterior four are subequal in length; the fifth is a little larger than the fourth; the former is about two-thirds as long as the sixth and the telson.

Tribe EUCYPHIDEA ARTMANN

Family PASIPHAEIDAE BATH

Genus *Hoplopasiphaea* n.gen.

Mandible flat and simple; its incisor border is serrated; provided with a two jointed palp. Rostrum rather long with some numbers of teeth on upper and lower margins. Exognath on each of thoracic appendage. Anterior two pairs of legs; chelate of similar features.

*Hoplopasiphaea philippinensis* n.gen. n.sp. (Fig. 4 & 5)

Loc. 13°-17'N 125°-50'E. Depth 100m. Date, July 3, 1963, 19h-20h.

Rostrum is almost as long as the rest of carapace and provided with eleven teeth above, six below; the posterior four teeth on the upper border are behind the eye. Abdomen including telson as long as three times of the carapace without rostrum. Anterior two somites of abdomen are dorsally rather rounded, while the third one is provided with an obtuse carina which elongates from the posterior margin of the somite to a point. Succeeding three somites are also provided with obtuse carinae and elongate but not so conspicuous as those of the third

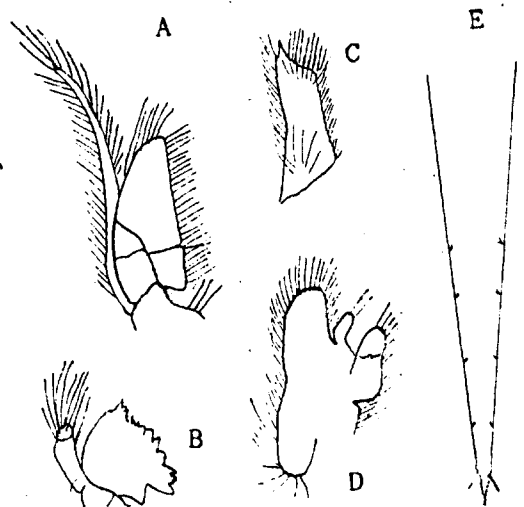


Fig. 4. *Hoplopasiphaea philippinensis*.  
A. 2nd.maxilliped; B. 2nd.mandible;  
C. 1st. maxilla; D.2nd.maxilla; E.telson.  
A to D  $\times 1.5$ , E  $\times 5$

somite. The fifth abdominal somite is a little longer than the next, which is a little longer than three-fourth the length of the telson. The dorsal surface of the telson is furnished with a pair of obtuse carina on which there are three pairs of minute spinules and, behind this paired carina, the telson elongates to a point. This elongated portion is about one eleventh as long as the rest of the telson and at the base of this elongation there are a pair of spines. In the first pair of antennae, the carpopocrite is pretty well is rather developed, the three articulated peduncles bear two flagella ; the inner one stout at the base while the outer one slender through all the length; both of the two flagella exceed the distal end of the rostrum. The scaphocerite of the second antenna is rather slender, and attains the level of four fifths of the rostrum ; its flagellum long and slender.

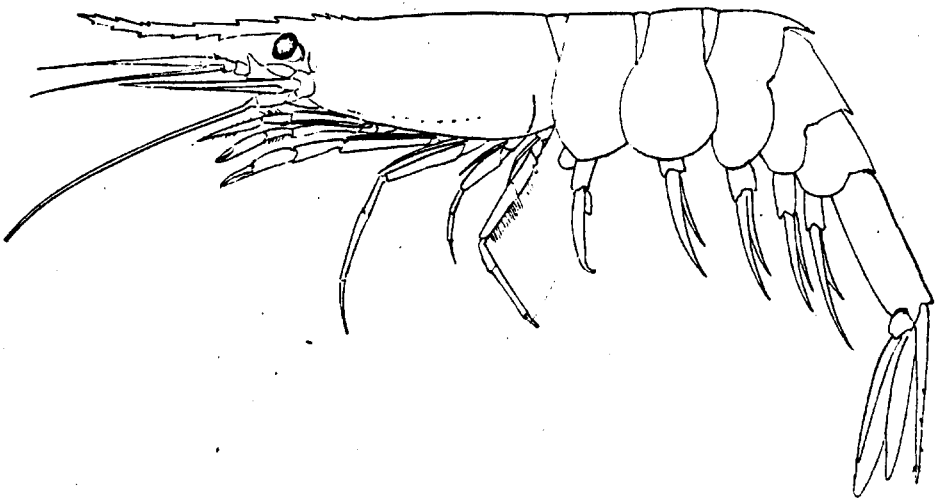


Fig. 5. *Hoplopsiphaea philippinensis* n.gen. n.sp.  $\times 2$

The mandible (Fig. 4-B) is flat and its incisor border shows continuous serration; a trace of articulation is noticeable near the distal end of the palp. Each of all thoracic appendages is provided with an exognath. The endognath of the third maxilliped exceeds the distal end of the chelate of the first pereopod. The second pair is nearly as long as the first, but a little longer than the first. Third pereopod that has terminal two long joints is longer than any of thoracic appendages. Terminal two joints of fourth pereopod pretty short and thus the fourth leg is much shorter than the third. The last pair of legs has the terminal joint rather stout and short.

In the pleopods, the endopodite of the first pair elliptical in shape, while those of the succeeding four pairs are ordinary and long. The sixth abdominal appendage is rather long and slender ; almost reaches the distal end of the telson. Eggs rather large; its longitudinal diameter is a little more than 1 mm.

and few in number.

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