

**Redescription of *Bathymunida brevirostris* (YOKOYA, 1933)**  
**(Crustacea, Decapoda, Galatheidae)**

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# Redescription of *Bathymunida brevirostris* (YOKOYA, 1933)

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In 1933 YOKOYA described among the collection of the decapod Crustacea inhabiting the continental shelf around Japan made by "Soyo Maru" a new species of *Munida*, which species was transferred later into *Bathymunida*. The species account in the original description is very short, and since then no man can provide any sufficient information about it, for that species as well as that genus represents one of the rarest members. In 1969 an expedition to Tsushima Island, situated between Korea and Kyushu, was made under the joint auspices of Kyushu University and the National Science Museum, Tokyo. From the collection of the Crustacea three specimens of *Bathymunida brevirostris* were sorted out. In addition, a full set of "Soyo Maru" material of the Crustacea, which has been retained in the University of Tokyo, was recently replaced under the superintendence of the Zoological Laboratory, Kyushu University. The material is in much poorer condition and it is here ascertained that the type specimen of this species is no longer present. For this reason the opportunity is taken to provide a detailed account and illustrations of the species. The specimens are preserved in the collection of the Zoological Laboratory, Kyushu University.

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## *Bathymunida brevirostris* (YOKOYA, 1933)

(Figs. 1, 2)

*Munida brevirostris* YOKOYA, 1933, p. 64, fig. 28—North of Gotô.

*Bathymunida brevirostris* van DAM, 1938, p. 201.

*Material.* East coast of Tsushima I., 34°16.0' N, 129°31.5' E, 105 m deep, sand & shells, Aug. 5, 1968—1 ♂, 2 ovig. ♀♀, ZLKU 15775-15777.

*Description.* Ovigerous female, ZLKU 15775. The carapace is slightly broader than long, including the rostrum. One gastric and one cardiac spines strongly developed are present, between which lies a deep groove extended anterolaterally. Transverse ridges are not present on the surface but a posteriorly placed one. Instead of the absence of them tubercular scales are scattered above uniformly.

The central spine of the rostrum is minute, the lateral (supraorbital) spines exceed the former. Behind the latter is a pair of spines. The carapace has a pair of spines on the postcervical region, two spinules following behind. Laterally the hepatic region bears a well-developed anterolateral spine and a minute one, the anterior branchial region has

two spines of which the anterior is the smaller, and the posterior branchial region is with two spines of equal size. Outside of the cardiac spine are rather long plumose setae.

Abdominal segments are transversely carinated dorsally. The anterior ridge on the second abdominal segment has four blunt spines, the central two being distinct but the outer two minute. The posterior ridge is weak with two slight projections behind the former distinct ones. The following two segments have each two spines on the anterior ridge.

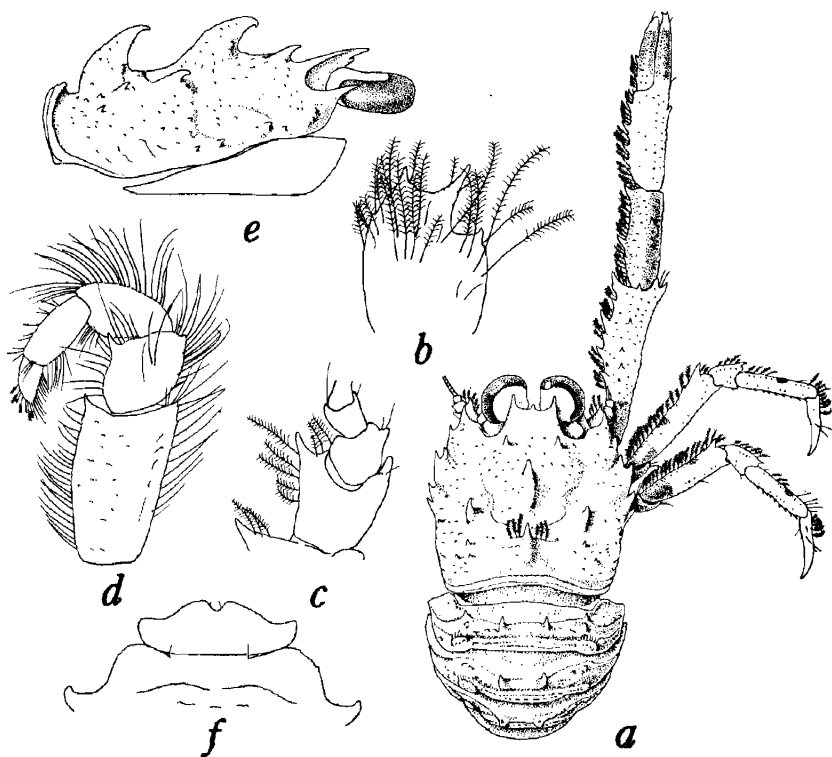


Fig. 1. *Bathymunida brevis* (YOKOYA), ovigerous female, *a*, animal in dorsal view,  $\times 4.5$ ; *b*, basal segment of left antennule,  $\times 22$ ; *c*, left antennal peduncle,  $\times 22$ ; *d*, endopod of left third maxilliped,  $\times 15$ ; *e*, carapace in lateral view,  $\times 7.5$ ; *f*, anterior part of sternal segments,  $\times 15$ .

The basal antennular segment is setose as represented in Fig. 1, *b*, with two terminal spines, the inner one being the shorter, and one outer marginal spine of small size placed rather distally. The antennal peduncle (Fig. 1, *c*) likewise has plumose setae internally. The first and the second segments have each a sharp spine at the inner distal margin.

The third maxilliped is very setose (Fig. 1, *d*). The ischium is about twice as long as the merus, having a minute inner terminal marginal spine. It is flat and forms no cutting edge but a carina without denticles. The merus is especially setose, with a central spine internally.

The anterior part of thoracic sternites (Fig. 1, *e*) is quite different from those of

*Munida*, the third thoracic one to which the third maxilliped attaches protrudes anteriorly at the center with a small embayment.

The cheliped is cylindrical, tuberculate and spinose internally and dorsally, measuring more than twice as long as the carapace. For armature refer to Fig. 1, *a*. The inner margin is furnished with short plumose setae. The fingers are not gaping and slightly shorter than the palm which is of equal length to the wrist. The cutting edges of the fingers are equipped with very minute tubercles. The distal end of the movable one is broken, the same of the immovable one ends in a sharp point and is biramous.

The first and the second walking legs are present and similar but the third is missing. The merus is slightly scaly or tuberculate, and has no definite row of spines along the outer (anterior) margin, excepting two spines on the distal third, the distalmost being the larger. The inner distal marginal end produces to form a spine. The outer margin is furnished as in the cheliped with short plumose setae. The carpus is likewise with plumose setae externally and has a strong spine exterodistally. The propodus has a few plumose setae on the proximal portion and is with about 9 horny spines along the internal margin. The dactylus is slender, slightly shorter than the preceding segment, and terminates in a sharp point. The outer margin has proximally 4-5 plumose setae, and the inner is almost smooth but has one or two minute notches with small horny spines or setae.

Pereiopods have no epipods.

*Colour.* After preservation in five per cent of formalin for two months the carapace is of light orange red. The abdomen is pale brown, the fourth and fifth segments being light orange red. The cheliped is in ground pale brown with orange red markings on the whole fingers, entire wrist and the proximal portion of the arm (Fig. 1, *a*). The walking legs are same in ground to the cheliped, but have the markings of orange red colour on the middle portion of the propodus and the proximal half of the merus. The corneal region is brown.

*Measurements.* The male is 6.7 mm, ovigerous females 5.3 to 4.9 mm in carapace length.

*Remarks.* In the original description it is mentioned that there is a longitudinal carina or projection between the supraorbital spines. Contrary to this, the present material does not bear such a projection. YOKOYA (1933) erected this species based upon a single male specimen having most of the thoracic appendages missing. Therefore included in this article is a detailed description of the cheliped and walking legs. It further is to be noted that the male before me has a strongly developed cheliped. The leg exceeds beyond the rostrum by about 6.5 times of the carapace length,

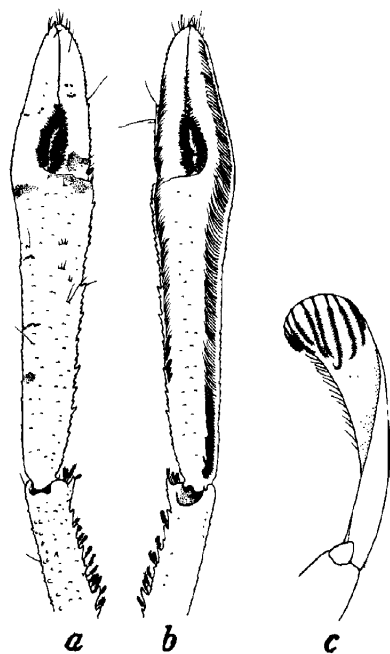


Fig. 2. *Bathymunida bevvirostris* (YOKOYA), # male, *a*, distal segments of left cheliped, dorsal view,  $\times 3.5$ ; *b*, the same, ventral view,  $\times 3.5$ ; *c*, distal part of right second pleopod,  $\times 26$ .

which fact contrasts with that in the ovigerous specimen in which the proportional ratio of the same is 2.5. Morphologically, in addition, the cheliped of the male is depressed distally, having gaping fingers that measure half the length of the palm and are with a tooth on the cutting edge of the movable one. Further, the gaping portion is thickly furnished with plumose setae. The ventral surface is fringed marginally with plumose setae (Fig. 2, *b*). The wrist is slightly shorter than the preceding segment, and is scattered above with tubercular teeth. As regards the above-mentioned characters when compared with the ovigerous there is, as far as I know, no example to be applied. Although there is no chance to elucidate this subject without comparing many more specimens, such a fact will prove to be a sexual dimorphism.

The first pleopod of the male is absent, the second is simple, having long setae distally (Fig. 2, *c*).

Taxonomically there is no confusion about this species. According to van DAM (1938) the species is distinguished from the other five known species by the shape of the rostrum and the presence or absence of transverse ridges on the carapace.

*Distribution.* Known only from the north coast of Kyushu, Japan in depths between 105 and 106 m. The present material was dredged at no great distance from the type locality.

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