A NEW CRAB OF THE GENUS *CYMONOMUS* (CRUSTACEA: BRACHYURA) FROM OFF BÔSÔ PENINSULA, CENTRAL JAPAN

By

Masatsune TAKEDA

房総半島沖より得られたマメヘイケガニ科の1新種

武田正倫

Reprinted from
Researches on Crustacea, No. 11
Carcinological Society of Japan
甲殻類の研究 第 11 号 別刷
December 1981

Researches on Crustacea, No. 11 Carcinological Society of Japan Odawara Carcinological Museum Azabu-Juban 3-11, Minatoku, Tokyo (Issued-Dec. 25, 1981)

A NEW CRAB OF THE GENUS *CYMONOMUS* (CRUSTACEA: BRACHYURA) FROM OFF BÔSÔ PENINSULA, CENTRAL JAPAN

With 2 Text-figures

By

Masatsune TAKEDA

(Department of Zoology, National Science Museum, Tokyo)

房総半島沖より得られたマメヘイケガニ科の1新種

插图 2

武田正倫

(国立科学博物館 動物研究部)

Dr. Masaaki Murano of the Tokyo University of Fisheries kindly provided the National Science Museum with some decapod crustaceans collected from two stations off the east of Nojima-zaki, Bôsô Peninsula by the modified Omori's bottom-net (cf. Omori, 1969) during the cruise of the R/V *Umitaka-Maru*. The results of the identifications are as follows.

St. UM-79065 $-34^{\circ}58.5'$ N, $140^{\circ}05.0'$ E $\sim34^{\circ}59.2'$ N, $140^{\circ}05.4'$ E, $110\sim120$ m deep; Aug. 7, 1979.

ANOMURA

Pomatochelidae

Pomatocheles jeffereysi (Miers, 1879)—1⊋

BRACHYURA

Latreillidae

Latreillia phalangium DE HAAN, 1835—1 ô

Majidae

Pugettia quadridens pellucens RATHBUN, 1932-1 young \$\operature{4}\$

Hyastenus elongatus (ORTMANN, 1893)—1 ô

Portunidae

Lissocarcinus laevis (MIERS, 1886)—1€

St. UM-79068—34°57.5′N, 140°07.5′E \sim 34°57.7′N, 140°07.4′E, 335 \sim 260 m deep; Aug. 7, 1979

MACRURA

Pandalidae

Plesionika martia (A. MILNE EDWARDS, 1883)—5 exs

Crangonidae

Crangon sagamiense BALSS, 1913-14 exs

BRACHYURA

Tymolidae

Tymolus uncifer (Ortmann, 1893)—1 \updownarrow , 1 \updownarrow , 1 juv.

Cymonomus umitakae sp. nov.—1♀

Leucosiidae

Ebalia tuberculata (A. MILNE EDWARDS, 1873)—1♀

Corystidae

Podocatactes hamifer (ORTMANN, 1893)—1 ♂

Recently, GAMÔ (1980) described a new species of the Cumacea based on a subadult female which was obtained from the station 79068. In this paper is described a new species of the Brachyura from the same station.

Before going to describe it, I wish to express my gratitude to Dr. M. MURANO who kindly placed the specimens at my disposal for study.

Genus Cymonomus A. MILNE EDWARDS, 1880

Cymonomus umitakae sp. nov.

(Text-figs. 1, 2)

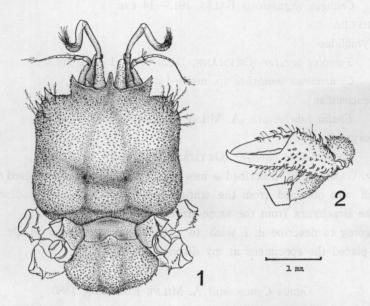
Holotype and its description. A female (NSMT-Cr 7437) from Umitaka-Maru St. 79068, 2.8 mm in length (excluding rostrum) and also 2.8 mm in breadth of carapace.

Carapace quadrate and densely covered with microscopical tubercles to be frosted in its appearance; dorsal surface rather uneven, with a pair of prominent depressions at each side of gastro-cardiac separation and with a deep furrow along posterior border of carapace; protogastric and median gastric regions indistinctly demarcated by shallow and narrow furrows.

Eyestalk horizontal, firmly and nearly longitudinally fixed, and sparsely covered with minute tubercles, tapering only slightly. Rostrum narrow and directed obliquely downward, tapering gradually and reaching nearly half way of eyestalk. Frontal border concave rather distinctly just at upper part of eyestalk, and shallowly at outside of this part or upper part of peduncle of antennule; frontal region prominent as a whole, with a produced external angle at each side, which is sharp at its apex and fringed with some spinules on its outer border.

Anterior border of carapace quite transverse outside of frontal external angle; anterolateral angle of carapace armed with a spine, and a similar spine at some distance

behind it; lateral border of carapace weakly concave near the middle and then gently convex posteriorly; thus, greatest breadth of carapace is taken at posterior part of branchial regions of both sides; several long, feathered silky hairs are on anterolateral part of carapace.



Text-figs. 1, 2. Cymonomus umitakae sp. nov., holotype. Carapace in dorsal view (1) and left cheliped in outer view (2).

Third maxillipeds long and sparsely covered with minute tubercles and feathered hairs; some tubercles on outer border of merus are prominent and spiniform; merus elongated and articulated with carpus at its inner median part; in natural position, antennules of both sides are folded in this quadrate area made by this characteristic articulation.

Unfortunately, right cheliped and following all legs are missing. Left cheliped spiny and not heavy; several spines on carpus, palm and fingers are markedly long and curved forward; fingers about as long as palm, leaving a long narrow gape through more than half the length.

Remarks. Dell (1971) described two new species of Cymonomus from New Zealand and enumerated the previous records of the species. The numbers of the species and subspecies including one described by Griffin and Brown (1976) are fourteen in all, and they are divided into two groups, viz., the granulatus group with the rostrum beyond the tip of the eyestalk, and the quadratus group with the rostrum shorter than the eyestalk.

In the quadratus group, to which the new species is referred, C. andamanicus

ALCOCK from the Andaman Islands and Japan, *C. valdiviae* LANKESTER from off East Africa and the north of Cerum, and *C. bathamae* DELL from New Zealand may be close to the new species. At first, the new species is surprisingly different from them in having the eyestalks which are fixed as usual, but nearly longitudinal to be parallel to each other and to the rostrum. In the early known species the eyestalks are directed obliquely outward at the angle of about 30 to 45°. In *C. andamanicus* the rostrum is triangular and the frontal external angle is quite inconspicuous. In *C. valdiviae* the anterolateral part of the carapace, the eyestalk and the antennal peduncles are distinctly spiny.

Most of the species are known only by one sex, but *C. bathamae* was described from considerable numbers of the specimens and noted about the differences between both sexes. In addition to the usual differences in the abdomen and the size of the chelipeds, the carapace is rather more swollen and the front is considerably wider in the female. Otheriwse, judging by the figures the rostrum of the female is shorter and narrower than that of the male. The new species differs from *C. bathamae* in having the distinctly quadrate carapace, the spine-tipped anterolateral angle of the carapace, the acute rostrum, and the more prominent frontal external angle.

References

ALCOCK, A., 1905. Natural history notes from the R.I.M.S. Ship "Investigator", Capt. T.H. Heming, R.N., commanding. Ser. III, no. 9. On a new species of the dorippoid genus *Cymonomus* from the Andaman Sea, considered with reference to the distribution of the Dorippidae; with some remarks on the allied genus *Cymonomops*. Ann. Mag. nat. Hist., (7), 15: 565-577.

Dell, R.K., 1971. Two new species of crabs of the genus Cymonomus from New Zealand (Crustacea: Brachyura). Rec. Dominion Mus., 7: 55-64.

GAMÔ, S., 1980. Platysympus muranoi sp. nov. (Cumacea, Crustacea) from Japan. Sci. Repts. Yokonama Natl. Univ., (II), 27: 1-6.

GRIFFIN, D. J. G. and D. E. BROWN, 1976. Deepwater decapod Crustacea from eastern Australia: Brachyuran crabs. *Rec. Austr. Mus.*, 30: 248-271.

Lankester, R.R., 1903. On the modification of the eye peduncles in crabs of the genus Cymonomus. Quart. J. microsc. Sci., (n.s.), 47: 439-463, pls. 33, 34.

Omori, M., 1969. A bottom-net to collect zooplankton living close to the sea-floor. *J. oceanogr. Soc. Jap.*, 25: 291-293.

摘 要

マメヘイケガニ科に属すツノダシマメヘイケガニ属はいずれも小形種で、多くは深海産であって個体数も少ない。 限柄が固定されているのが特徴的で、限そのものも機能を果たしていない。 限柄と額角の相対的な長さから2つのグループ、すなわち、限柄の方が長い quadratus 群と額角の方が長い granulatus 群に分けられる。これが自然分類にかなっているかどうかは別として、何よりも便利である。ほとんどは各群の中の亜種として扱われてきたが、それは単に古

い命名法を継承しているにすぎない。いずれも独立種と考えることが可能で,そうすると既知種はインド西太平洋海域から 8 種,西大西洋から 4 種,東大西洋から 2 種ということになる。日本からはツノダシマメヘイケガニ C. japonicus BALSS, 1922, インドツノダシマメヘイケガニ C. and a manicus ALCOCK, 1905, ツノナシマメヘイケガニ C. curvirostris SAKAI, 1965 が知られている。ここに記載した新種は房総半島野島崎沖から得られた雌 1 個体にもとづいている。すべての歩脚が失なわれているが,額角と眼柄の形態によって他種から 容易に区別される。眼柄がほとんどまっすぐに固定され,また額角が細くて眼柄の半分ほどに達することが 著しい特徴である。和名はウミタカツノダシマメヘイケガニを提唱する。