# REPORT OF THE BIOLOGICAL SURVEY OF MUTU BAY
## 37. CAPRELLIDS FROM ASAMUSI[1]

By

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(With 6 Text-figures)

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The material of caprellids dealt with in this paper was secured chiefly by Dr. Noboru Abe, formerly an assistant in the Asamusi Biological Station, in the vicinity of the station in June–September, 1938, and placed in my hands shortly afterwards. Besides, there are some specimens obtained by Dr. Kôjiro Katô from the same locality. Seven species including a new one are represented.

I, herewith, express my sincere thanks to Prof. S. Hôzawa, and to Drs. N. Abe and K. Katô who kindly the materials at my disposal.

### DESCRIPTION OF THE SPECIES

### 1. Caprella acanthogaster Mayer
(Fig. 1)

Mayer, 1890, p. 80; Mayer, 1903, p. 78; Utinomi, 1943, p. 271.

1) 17 ♂ 5 ♀, from the ascidian *Chelyosoma siboja*. Off Asamusi,

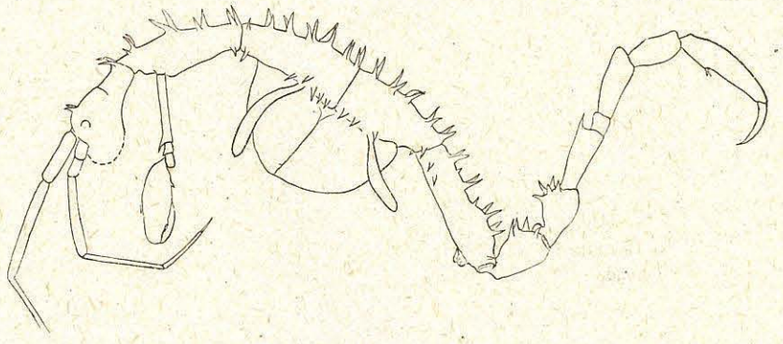

Fig. 1. *Caprella acanthogaster* Mayer, ♀. ×10.

1) Contribution from the Marine Biological Station, Asamusi Aomori-ken, No. 176.

25 m in depth. 6-VIII-1938. N. ABE.

2) 5 ♂ 6 ♀. Off Asamusi, 5–10 fathoms. VI-1938. K. KATÔ.

The description of this species is given in another paper dealing with the material from Onagawa Bay. So I give here a sketch of a female illustrating the typical arrangement of the paired dorsal projections. Those show considerable variation according to age, but very little sexual differentiation.

*Distribution in Japan.* Hokkaidô, Onagawa Bay.

### 2. Caprella acutifrons LATR. f. neglecta MAYER

(Fig. 2)

1) Numerous ♂ and ♀ specimens, on *Undaria pinnatifida*. Kamomezima. 20-VI-1938. N. ABE.

2) 27 ♂ 14 ♀, on *Sargassum Thunbergi*. Off Asamusi. II-1938. N. ABE.

In some full-grown males (over 10 mm long) among the material, the 2 basal joints of antenna 1 are very plump and longer than the peduncle of antenna 2, though shorter in younger ones. The flagellum of antenna 1 is slender and shorter than the 2nd joint and composed of 12 to 14

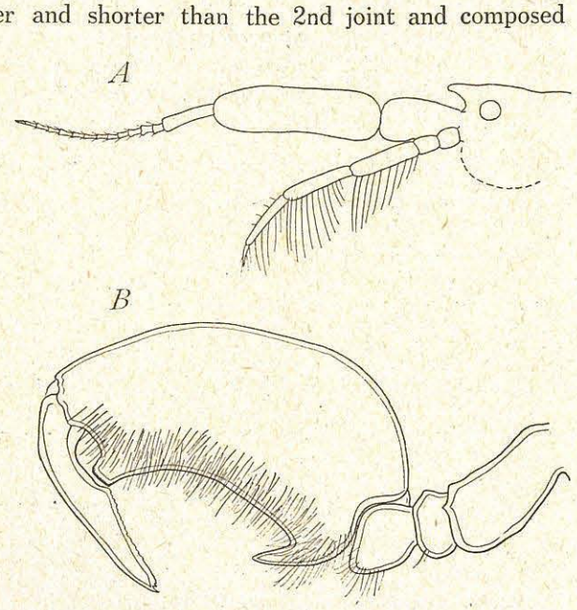


Fig. 2. *Caprella acutifrons* LATR. f. *neglecta* MAYER, over-developed ♂. *A*, antennae and head, ×10. *B*, gnathopod 2, ×10.



joints. Because of this character, such specimens approach the pelagic form *Andreae*. Yet in other characters, especially of gnathopods and peraeopods mentioned below, it conforms well with the littoral form *neglecta*:—

Hand of gnathopod 2 very plump; palm long, concave, thickly setose and devoid of poison tooth (Giftzahn); palmar angle proximal, strongly projecting downwards,. but without any trace of spine at its end; distal angle protuberant and broadly truncated; claw proximally with a deep concavity to which the corresponding projection of palm is fitted, and distally with a small denticle continued from the indented inner margin.

In peraeopods 5–7, hand segment armed proximally with clasping spines; under side of distal margin of 5th joint fringed with 8–10 spinules.

*Distribution.* From Hokkaidô to Taiwan, Hongkong.

### 3. Caprella bispinosa MAYER

(Fig. 3)

*Caprella bispinosa*, MAYER, 1890, p. 82; MAYER, 1903, p. 94;

1 ♀. Off Asamusi, 5–10 fathoms. VI-1938. K. KATÔ.

Female. Length 8.5 mm. Head smooth, eyes small. Peraeon segment 1 a trifle shorter than head, and armed with a hook-like dorsal projection at the hind end. Peraeon segment 2 about four times as long as peraeon

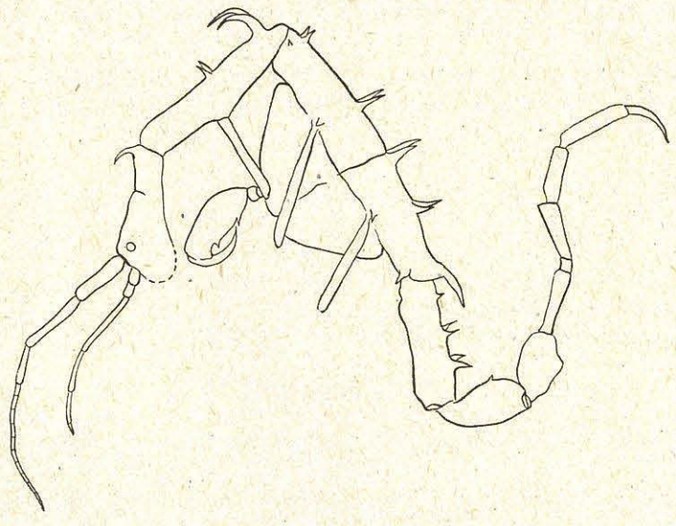

Fig. 3. *Caprella bispinosa* MAYER, ♀, ×15.

segment 1, armed with a pair of short upright projections in the middle, and a pair of long hook-like ones strongly bent forward at the hind end. Peraeon segment 3 as long as segment 2, and with 2 pairs of upright projections. Peraeon segment 4 as long as segment 3, and armed with a pair of upright projections at the anterior, a pair in the middle, and a strong process curved backward at the posterior; posterior ventro-lateral corner sharply pointed. Peraeon segment 5 nearly as long as segment 4, and armed with 3 pairs of short sharp projections.

Antenna 1 slender, a little shorter than half the body length; peduncle rather slender and shorter than antenna 2; flagellum 11–articulate. Antenna 2 about two–thirds as long as antenna 1. Gnathopod 2 attached to the centre of peraeon segment 2; 2nd joint long, slender and pointed distally; palm slightly convex, distally with a poison tooth, and more proximally with a spiniferous palmar angle projecting downwards, and 2 accessory spines near proximal pocket of palm. Gills long and linear. Hand of peraeopods 5–7, devoid of clasping spines.

*Distribution.* 45°40′ N. 135° E (Between southernmost end of Saghalien and Maritime Prov. of Siberia, "Reise von China nach der Amurmündung", Wladywostok (MAYER).

### 4. Caprella danilevskii CZERNIAWSKI
(Fig. 4)

MAYER, 1882, p. 54; MAYER, 1890, p. 58; MAYER, 1903, p. 99; ARIMOTO, 1930, p. 18; HIRO, 1937, p. 317; UTINOMI, 1943, p. 275.

1 ♂, on *Sargassum Thunbergi*. Off Asamusi, littoral. II–1938. N. ABE.

*Distribution in Japan.* Southern Saghalien, Korea Strait, Tateyama, Tanabe Bay, Onagawa Bay.

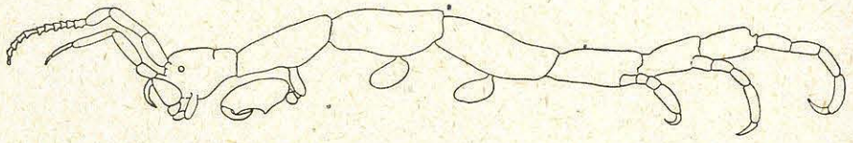

Fig. 4. *Caprella danilevskii* CZERNIAWSKI, ♂, ×8.5.

### 5. Caprella kröyeri DE HAAN

DE HAAN, 1849, p. 228; MAYER, 1882, p. 228; MAYER, 1882, p. 70; MAYER, 1890, p. 74; MAYER, 1903, p. 107; ARIMOTO, 1931, p. 11; UTINOMI, 1943, p. 277.

1) 1 ♂. Asamusi, on *Zostera marina*. 6 m in depth. 30–VIII–1938. N. ABE.



2) 19 ♂ 4 ♀. Asamusi, on *Zostera marina*. 7 m in depth. 27–IX–1938. N. ABE.

3) 1 ♂. Asamusi. 5–10 fathoms. VI–1938. K. KATÔ.

*Distribution in Japan.* Hakodate, Onagawa, Tateyama, Ômori, Misaki. Also known from Wladywostok and Tsingtau.

### 6. Caprella scaura TEMPLETON f. diceros MAYER
(Fig. 5)

1) 1 ♂. Asamusi. 5–10 fathoms. VI–1938. K. KATÔ.

2) 2 ♂. Asamusi, on *Sargassum Thunbergi*. II–1938. N. ABE.

*Distribution in Japan.* All around the coast of Japan, and Formosan Strait.

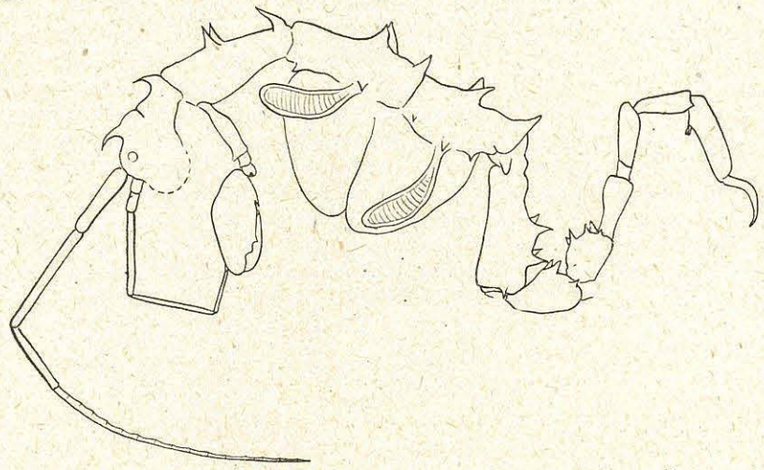

Fig. 5. *Caprella scaura* TEMPLETON f. *diceros* MAYER, ♀. ×10.

### 7. Caprella venusta, n. sp.
(Fig. 6)

2 ♂. Asamusi, on *Sargassum Thunbergi*. II–1938. N. ABE.

Male 12.2 mm in length. Body slender and smooth. Head and peraeon segment 1 subequal in length. Peraeon segments 2–3 subequal in length and a trifle shorter than thrice as long as segment 1. Peraeon segment 5 slightly shorter than segment 4. Peduncle of antenna 1 16–jointed, a little shorter than flagellum. Antenna 2 slightly longer than peduncle of antenna 1; flagellum fringed with paired serrated bristles. Gnathopod 2 attached nearly to the middle of segment 2; 2nd joint shorter than half

as long as peraeon segment 2, smooth and not pointed distally; 4th joint oval; hand oblong, with evenly convex front and hind margins; palm long with a sharp poison tooth distally, separated by a narrow sinus from tri-

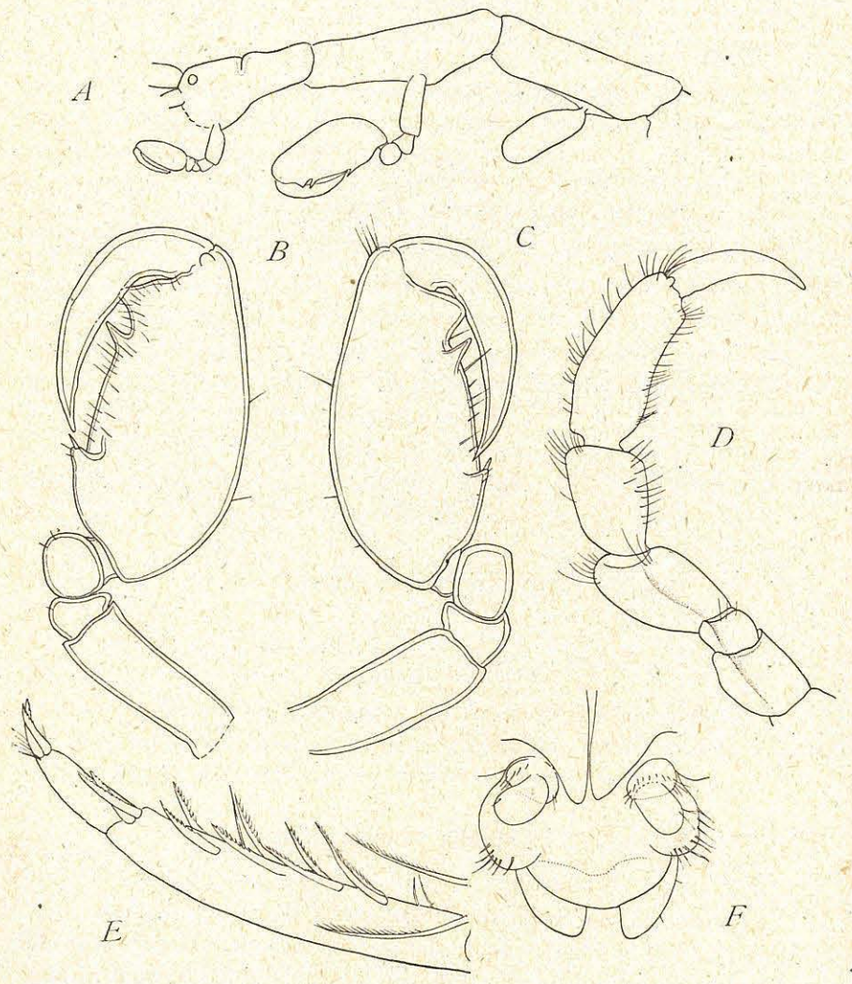


Fig. 6. *Caprella venusta*, n. sp. *A*, frontal part of body of ♂ ×10. *B*, *C*, gnathopod 2 of ♂, ×34. *D*, peraeopod 7, ×34. *E*, flagellum of antenna 2, ×97. *F*, abdomen of ♂, ×97.

angular distal projection; palmar angle nearly proximal, projecting downward, and armed with a spine at its end; claw long, with smooth inner



margin. Gills oblong, nearly as long as 2nd joint of gnathopod 2. Three pairs of posterior peraeopods somewhat slender; hand about thrice as long as wide, devoid of clasping spines. Abdomen of ordinary type; penes medial; 1st pleopod 2–jointed, short; 2nd pleopod of a simple lobe.

In the general outline of the body, the present specimen is more akin to *Caprella danilevskii* and *C. aequilibra* than to any other. However it can be distinguished from both the species in the absence of a ventral tooth at the base of gnathopod 2, and in the structure of gnathopod 2.

The collection of caprellids from Akkesi Bay, Hokkaidô, which I have examined, contains a specimen of this new species.

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