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A Newly Record Species of Caprella (Crustacea, Amphipoda, Caprellidae) from Korea

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ABSTRACT

From examination of caprellid specimens collected from south coast, *Caprella Japonica* is found and newly reported from Korea. We redescribe it in detail with figures which show a couple of differences as compared with the previous description from Japan.

Key words: Caprella, Amphipoda, Korea

INTRODUCTION

Study on Korean caprellids was introduced by Mayer (1903). Since then, there have been serveral studies on Korean caprellid found (Kim and Lee, 1975, 1978; Lee and Kim, 1980; Lee, 1986; Lee, 1988; Lee and Lee, 1993; Lee and Lee, 1996).

As a part of the continuous study on Korean caprellids we investigated caprellids collected in the coast of South Sea in Korea during the period from July 1998 to July 2002.

Among them specimens collected from seaweed *Zostera* sp. in intertidal flat are turned out to be a new record from Korea. As a result, Korean caprellid found consists of 32 species in 5 genera.

Figures were drawn by using a drawing tube. All specimens are deposited in the Department of Advanced Science, Dankook University.

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RESULTS

Order Amphipoda Latreille, 1816 단각목 Suborder Caprellidea Leach, 1814 바다대벌레아목 Family Carpellidae Leach, 1814 바다대벌레과 Genus Caprella Lamarck, 1804 바다대벌레속

Caprella japonica (Schurin, 1935) 일본바다대벌레 (신청) (Figs. 1-2)

Eugastraulax japonicus Schurin, 1935, pp. 200-202, fig. 2; Utinomi, 1947, pp. 70-71, figs. 1-2; McCain & Steinberg, 1970, p. 50.

Caprella japonica Arimoto, 1971, p. 17; Vassilenko, 1974, pp. 231-233; Arimoto, 1976, pp. 63-66.

Material examined. 6 \diamondsuit \diamondsuit , 3 \diamondsuit \diamondsuit , Dangsa (Ulsan-si), July 6, 1998 (Y. Eun).

Redescription. Adult male: Body (Fig. 1A) length about 13 mm, long and slender. Surface of body smooth. Pereonites III and IV subequal and longer than any other pereonite; pereonites II and V subequal and a little shorter than pereonite III or IV; pereonite VI a little shorter than pereonite V; pereonite VII a little shorter than pereonite VI; pereonite I shortest of all pereonites; head round, about 3 times as long as pereonite I (Fig. 1A).

Antenna 1 (Fig. 1A) a little shorter than 1/3 of body length; its flagellum 13 segmented. Antenna 2 (Fig. 1A) a little longer than peduncle of antenna 1, with setae.

Mouthparts (Fig. 2) typical of genus. Incisor of left mandible divided into 6 teeth, lacinia mobilis also separated into 5 teeth, with setal row of 3 plumose setae (Fig. 2E); incisor of right mandible divided into 6 teeth, lacinia mobilis divided into 6 teeth, with setal row of 2 plumose setae (Fig. 2F); left molar with 1 seta at outer end (Fig. 2E). Inner and outer lobes of lower lip (Fig. 2D) with numerous setules on distal margin. Outer lobe of maxilla 1 with dentate distal margin carrying 2 or 3 fork-like branched strong teeth; segment 1 of palp very short; segment 2 of palp longer than outer lobe, with 5 spiniform teeth on distal margin, many long setae on surface (Fig. 2C). Inner lobe of maxilla 2 with many long plumose setae on apical margin; outer lobe with many long setae on distal margin (Fig. 2B). Inner lobe of maxilliped with several setae at apical margin; outer lobe about as long as inner lobe, with 5 spiniform teeth and many long setae on inner margin; segment 1 of palp short and stout, segment 2 with 6 long and 2 short setae on inner margin, segment 3 slightly shorter than 2, its distal and inner margins crowded with long setae (Fig. 2A).

Gnathopod 1 (Fig. 1E) with propodus about twice as long as wide; propodus with a pair of grasping spines near proximal end; inner margin of dactylus and propodus serrated.

Gnathopod 2 (Fig. 1F) attached to about middle part of pereonite II; its basal segment very short, and shorter than its breadth; propodus about 4 times as long as broad and rectangular form; palmar spine at middle part of palm and 4 subspines, triangular tooth distally, palm with several setae.

Gills (Fig. 1A) elongated, about 6.5 times longer than its greatest width, slightly shorter than half of pereonite III.

Pereopod 5 (Fig. 1B) about 2/3 of pereonite V; its segment 1 shorter than its breadth; pereopod 6 (Fig. 1C) about 1.17 times as long as pereopod 5; pereopod 7 (Fig. 1D) about 2 times longer

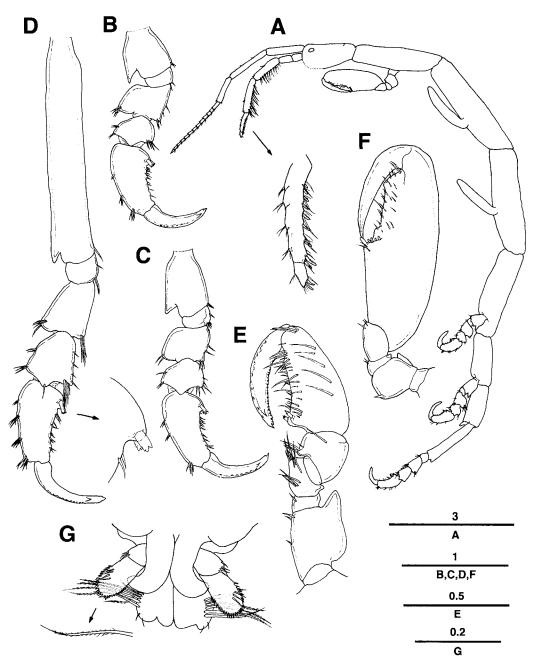


Fig. 1. Caprell japonica (Schurin, 1935), male. A, lateral view; B, pereopod 5; C, pereopod 6; D, pereopod 7; E, gnathopod 1; F, gnathopod 2; G, abdomen. Unit of scales is mm.

than pereopod 6, its segment 1 longer than any other segment, about 4.3 times as long as segment 3; length of propodus of pereopod 5-7 almost twice its breadth, basally with 2 grasping spines, these spines divided into 4 distally.

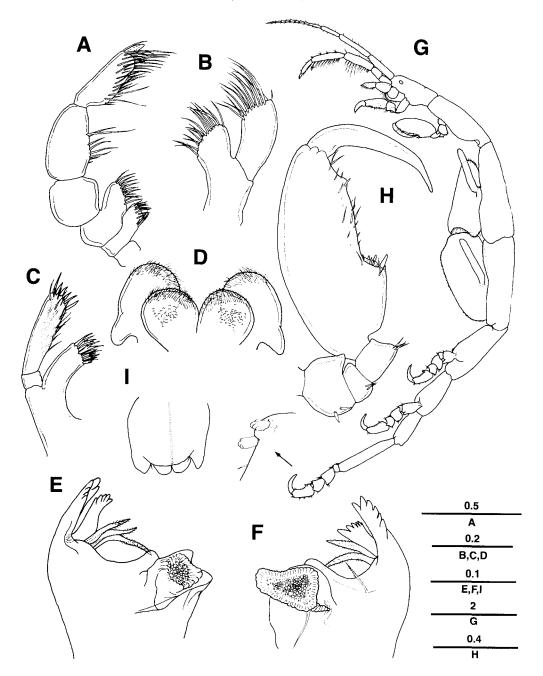


Fig. 2. Caprella japonica (Schurin, 1935). A-F, mouthpart of male; G-I, female. A, left maxilliped; B, maxilla 2; C, maxilla 1; D, lower lip; E, left mandible; F, right mandible; G, lateral view; H, gnathopod 2; I, abdomen. Unit of scale is mm.

Abdomen (Fig. 1G) typical of genus; a pair of appendages with serrated teeth apically and on outer and inner margin; penes medial, long and the distal end curved outward; with a pair of lobes,

each lobe with 6 long plumose setae on outer margin and 2 setae at distal part.

Female. Body (Fig. 2G) length about 12 mm. Surface of body smooth. Pereonites III and IV subequal and longer than any other pereonite, pereonites II and V subequal and a little shorter than pereonite III or IV, pereonite VI a little shorter than pereonite VI, pereonite I shortest of all pereonites; head round (Fig. 2G).

Antenna 1 (Fig. 2G) subequal to 1/3 of body lengh; and its peduncle shorter than antenna 2; 10-segmented flagellum about 1.6 times longer than peduncular segment 2.

Gnathopod 2 (Figs. 2G, H) attached to anterior part of pereonite II, propodus not so long as in male, and outer edge slightly convex, length more than twice of its greatest breadth. Palm of propodus with 1 palmar spine at proximal part, 2 subpalmar spines.

Gills (Fig. 2G) elongated, about as long as half of pereonite III.

Abdomen (Fig. 2I) typical of genus; with a pair of lobes.

Type locality. Peter the Great Bay.

Remarks. Our description for the male specimens in the coast of South Sea in Korea differs from Utinomi (1947)'s description in the characteristic of each lobe of abdomen and gnathopod 2. Our specimens appear that each lobe of abdomen is furnished with 6 long plumose setae on the outer margin, but Utinomi (1947)'s description didn't mention them in his description.

In our specimens, gnathopod 2 has 4 subspines at the middle part of palm, while Utinomi's specimens have a subspine.

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한국산 바다대벌레속(갑각강, 단각목, 바다대벌레과)의 1미기록종

이 경 숙·은 예 (단국대학교 첨단과학부 생물학전공)

요 약

1998년부터 2002년까지 남해의 바다대벌레류를 조사한 가운데 당사에서 채집된 시료를 바탕으로 하였다. 그 중 *Caprella japonica*는 한국미기록종으로 밝혀져 재 기재하였다. 이로써 한국산 바다대벌레류는 5속 32종이 된다.