

First Report of Palaemonid Shrimp *Onyccaris callyspongiae* (Decapoda: Caridea: Palaemonidae) from Korea

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ABSTRACT

As a result of taxonomic study on shrimps collected from Korean waters, one species of the palaemonid shrimp turned out to belong to the genus *Onyccaris* unreported from Korea. *Onyccaris callyspongiae* is redescribed and reported for the first time from Korea.

Key words: Palaemonidae, *Onyccaris callyspongiae*, Korea

INTRODUCTION

In Korea, 18 species belonging to 4 genera (4 in *Macrobrachium*, 10 in *Palaemon*, 3 in *Exopalaemon*, 1 in *Pelidlimenaeus*) in the family Palaemonidae have been reported (Kim and Kim, 1997; Cha et al., 2001). The present taxonomic study on shrimps collected from Korean waters revealed that one species collected from Jeju-do, belongs to the genus *Onyccaris* unreported from Korea. Therefore, *Onyccaris callyspongiae* increases Korean Palaemonidae fauna to 19 species of 5 genera. The specimens were collected by scuba diving. The abbreviation "cl" refers to carapace length from tip of rostrum to the posterior dorsal margin. Drawings were made with the aid of a camera lucida.

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SYSTEMATIC ACCOUNTS

Family Palaemonidae Rafinesque, 1815

Genus **Onycocaris* Nobili, 1904

*****Onycocaris callyspongiae* Fujino and Miyake, 1969 (Fig. 1)**

Onycocaris callyspongiae Fujino and Miyake, 1969, p. 422, figs. 10-12; Chace and Bruce, 1993: 86.

Material examined. 14 ind., Beomseom (Jeju-do) 2 Jul. 1993; 12 ovi., 16 ind., 27 Jul. 1997 (S. H. Kim); 5 ind., Munseom (Jeju-do) 1 Jul. 1993, 1 ovi., 1♂, 6 Oct. 1995; 21 ovi., 15 ind., 12 Aug. 1996; 6 ovi., 9 ind., 19 Jan. 1997; 1 ovi., Sincheonri (Jeju-do) 18 Aug. 1994; 3 ovi., 17 ind., Supseom (Jeju-do) 29 Jul. 1997; 2 ovi., Hyeongjeseom (Jeju-do) 28 Jul. 1997.

Description. Body small, smooth, and rather stout.

Rostrum (Fig. 1A, B) short and triangular shaped in dorsal view, without any dorsal tooth; upper margin slightly carinated, descending downwards, and distal end slightly directed upwards, reaching to middle of eyestalk.

Carapace smooth and swollen; orbital angle bluntly pointed; anterior margin behind basicerite concave.

Eye short, rather broad and subquadrate; cornea placed at anterolateral side of eyestalk.

First segment of antennular peduncle elongated; second segment shorter than third; stylocerite small, forming a small lobe directed forwards, and not reaching to middle of first segment.

Antennal scale small, more than twice as long as broad, extending to distal end of third antennular segment; outer margin terminating in a small spine which not overreaching distal end of inner blade.

Third maxilliped (Fig. 1C) with ultimate and penultimate segments almost subequal in length; antepenultimate long and broad; exopod slightly extending beyond distal end of antepenultimate.

First pereopod (Fig. 1D) slender, overreaching distal end of antennular peduncle by distal 2/3 of carpus and chela; palm about 2.5 times as long as movable finger; carpus slender and becoming broader distally, and subequal to merus in length.

Second pereopods (Fig. 1E, F) large and strong, both being similar in shape, and subequal. Chela compressed. Fingers grooved on opposable surfaces, hence bimarginal, margins denticulate throughout. Movable finger with outer margin thinly expanded and obscurely crenulated in distal half, bearing two small blunt teeth in proximal half; many tufts of long setae present near edge; inner margin bearing 4-5 irregular teeth; several tufts of long setae present near edge. Immobile finger with outer margin thinly expanded and obscurely crenulated in distal half, and bearing several small and irregular teeth; distal lateral flange for reception of movable finger present; inner margin bearing several teeth; long setae placed near edges. Palm high and surface entirely smooth, about 1.5 times as long as broad, and twice as long as movable finger. Merus slightly longer than carpus and armed with a stout spinelike projection at inferior distal margin. Ischium bearing a strong spinelike projection on inferior distal margin.

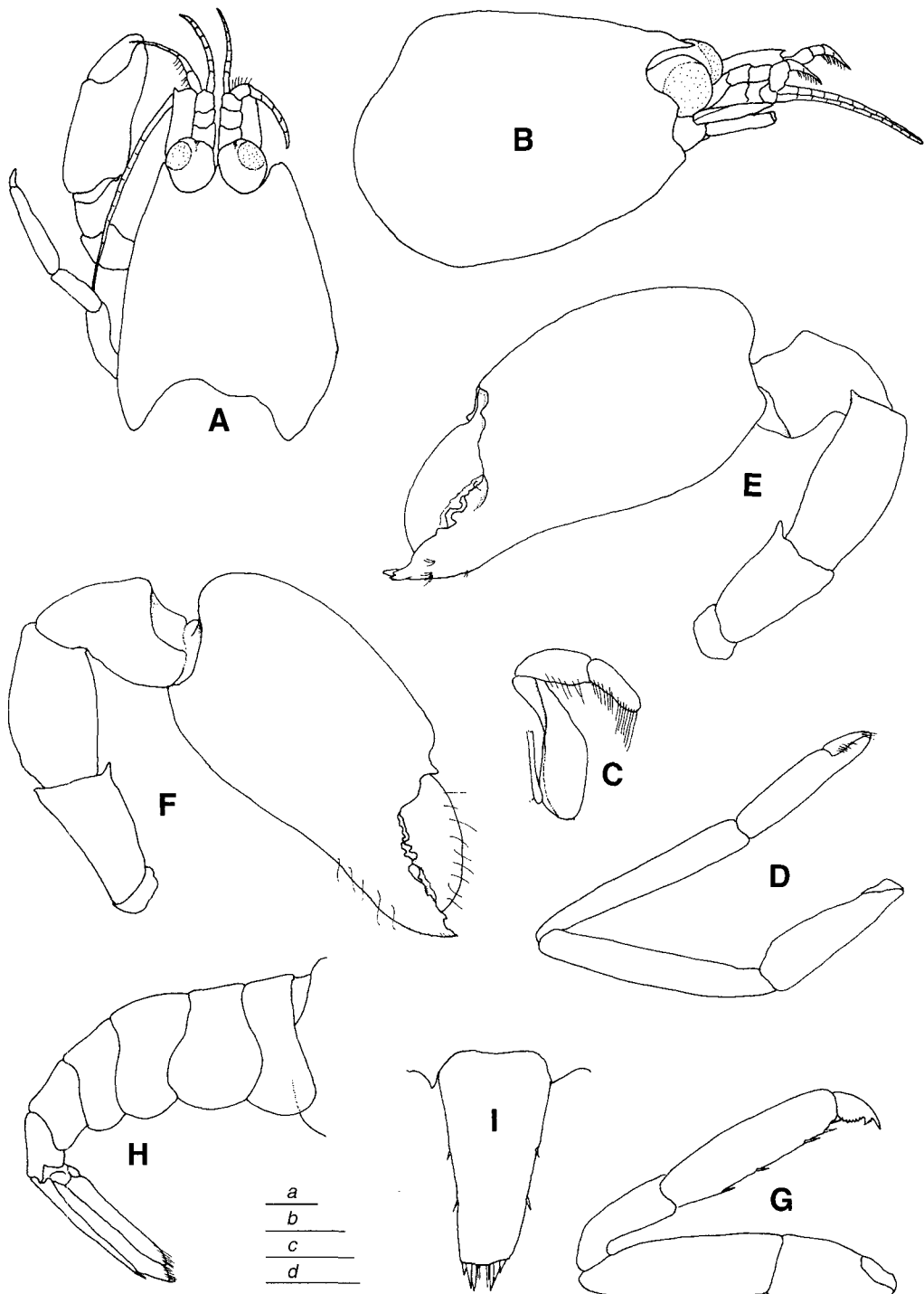


Fig. 1. *Onycocaris callyspongiae*, cl 2.5 mm: A, anterior region, dorsal view; B, same, lateral view; C, right third maxilliped; D, right first pereopod, outer face; E, left second pereopod, outer face; F, same, inner face; G, right third pereopod; H, abdomen; I, telson. Scale bars = 0.5 mm (a-d), a: A, B, H; b: I; c: E, F; d: C, D, G.

Third, fourth, fifth pereopods robust, similar one another.

Third pereopod (Fig. 1G) with dactylus biunguiculate; lower process short and somewhat broad with fine serration; inferior margin behind lower process convex and serrated. Propodus stout, about 3.9 times as long as dactylus, bearing 5 small spinules on inferior margin. Carpus subcylindrical, about 0.6 times as long as propodus. Merus almost same as long as propodus.

Fourth and fifth pereopods equal in shape.

Abdomen (Fig. 1H) smooth, being slender in male, swollen in ovigerous female; ventral margins of first four segments round.

Telson (Fig. 1I) rather broad, tapering to end, bearing two pairs of minute dorsal spines at lateral margins, proximal of which situated slightly before middle of telson; posterior margin bearing three pairs of movable spines, outer one smallest and inner two much longer and subequal.

Type locality. Tomoika, Amakusa Islands, southern Kyushu, Japan.

Distribution. Tanzania and Japan (Chace and Bruce, 1993). Jeju-do, Korea

Remark. According to Fujino and Miyake, 1969, this species was found in the stomach cavities of sponges, *Callyspongia elegans* and *C. confederata*. The present specimens were also found in the same sponge species.

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REFERENCES

- Cha, H. K., J. U. Lee, C. S. Park, C. I. Baik, S. Y. Hong, J. H. Park, D. W. Lee, Y. M. Choi, K. Hwang, Z. G. Kim, K. H. Choi, H. Sohn, M. H. Sohn, D. H. Kim and J. H. Choi, 2001. Shrimps of the Korean waters. Busan, Nat. Fish. Res. Dev. Inst., pp. 1-188.
- Chace, F. A., Jr. and A. J. Bruce, 1993. The caridean shrimps (Crustacea: Decapoda) of the *Albatross* Philippine expedition 1907-1910, Part 6: Superfamily Palaemonoidea. *Smithson. Contrib. Zool.*, **543**: 1-152.
- Fujino, T. and S. Miyake, 1969. Studies on the genus *Onycocaris* with descriptions of five new species (Crustacea: Decapoda: Palaemonidae). *J. Fac. Agric. Kyushu Univ.*, **15**(4): 403-448.
- Kim, H. S. and W. Kim, 1997. Order Decapoda. In *The Korean Society of Systematic Zoology, ed., Lists of Animals in Korea (Excluding Insects)*. Seoul, pp. 212-223.

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한국미기록 꼬마발톱새우 (십각목: 생이절: 징거미새우과)의 보고

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요 약

최근 새우류의 분류학적 연구 결과, 징거미새우류 1종이 국내에서는 처음 보고되는 꼬마발톱새우속 (*Onycocaris*)에 속하는 것으로 밝혀졌다. 꼬마발톱새우 (*Onycocaris callyspongiae*)를 재기재하여 한국에서 처음 보고한다.