

First Report of Snapping Shrimp *Synalpheus neomeris* (Decapoda: Caridea: Alpheidae) from Korea

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ABSTRACT

As a result of taxonomic study on shrimps collected from Korean waters, one species of the snapping shrimp turned out to be new to Korean fauna. *Synalpheus neomeris* is redescribed and reported for the first time from Korea.

Key words: Alpheidae, *Synalpheus neomeris*, Korea

INTRODUCTION

In Korea, 15 species belonging to 6 genera (9 in *Alpheus*, 1 in *Betaeus*, 1 in *Synalpheus*, 1 in *Stenolpheops* as *Chelomalpheus*, 2 in *Athanas*, 1 in *Salmoneus*) in the family Alpheidae have been reported (Kim and Kim, 1997; Miya, 1997; Kim, 1998; Yang, 1999, 2003; Cha et al., 2001; Yang and Anker, 2003; Koo and Kim, 2003). The present taxonomic study on shrimps collected from Korean waters revealed that one species of the snapping shrimp from Jeju-do is new to Korean fauna. Therefore, the present *Synalpheus neomeris* increases Korean Alpheidae fauna to 16 species of 6 genera. A provisional key to the known species of *Synalpheus* reported from Korean waters is prepared. The specimens were collected by scuba diving and obtained from fishing boat. 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 Alpheidae Rafinesque, 1815

Genus *Synalpheus* Bate, 1888

Key to Korean species of *Synalpheus*

1. Meri of third and fourth pereopods without spine on inferior margin *S. tumidomanus*
 Meri of third and fourth pereopods with spine on inferior margin *S. neomeris*

**Synalpheus neomeris* (De Man, 1897) (Fig. 1)

Alpheus neomeris De Man, 1897: 734 [part].

Synalpheus Gravieri Coutière, 1905: 870, pl. 70, fig. 2; Miya, 1972: 66, pl. 13.

Synalpheus neomeris: Banner and Banner, 1975: 357, fig. 22; 1985: 51; Chace, 1988: 81; Hayashi, 1996: 223, figs. 297b, 298b, 299b, 300b.

Material examined. 2 ovi., Seogipo (Jeju-do) 9 Feb. 1971 (B. J. Rho); 4 ind., 9 Mar. 2002; 1 ind., 20 Aug. 2002 (S. H. Kim); 1 ind., Munseom (Jeju-do) 19 Sep. 1995 (S. H. Kim); 1 ind., Hyeongjeseom (Jeju-do) 7 Oct. 1995 (S. H. Kim); 1 ind., Beomseom (Jeju-do) 6 Jun. 2001 (S. H. Kim).

Description. Rostrum (Fig. 1A, B) long, far overreaching lateral ocular teeth, arising from anterior margin of carapace, directed forward distally; tip bearing several setae. Ocular hoods separated from rostrum by slightly depressed groove, with narrowly acute teeth at tips bearing several setae. Pterygostomial margin produced as narrowly rounded lobe below basicerite.

Stylocerite narrowly elongate, slightly overreaching distal end of first antennular segment which nearly as long as sum of second and third segments; second segment slightly longer than third segment.

Scaphocerite with lateral spine falling short of distal end of third antennular segment; inner blade well developed, slightly overreaching distal end of second antennular segment; cleft between inner blade and lateral spine deep, arising from proximal 1/3 of scaphocerite. Basicerite (Fig. 1A, B) with spine dorsally; lateral spine reaching to almost proximal 1/2 of scaphocerite. Carpocerite overreaching distal end of antennular peduncle by 2/3 length of third antennular segment.

Third maxilliped (Fig. 1B) overreaching distal end of carpocerite by more than distal 1/3 of ultimate segment.

Major chela of first pereopod (Fig. 1C, D) about 2.5 times as long as broad; palm about 4.4 times as long as fingers, terminating in sharp tooth on superior distal margin. Merus about 2.5 times as long as broad, armed with almost invisible minute tooth at distal end of superior margin.

Minor chela of first pereopod (Fig. 1E) about 3.9 times as long as broad; palm slightly longer than fingers. Merus almost 2.8 times as long as broad, armed with almost invisible minute tooth at distal end of superior margin.

Chela of second pereopod (Fig. 1F) with fingers subequal to palm. Carpus about 2.9 times as

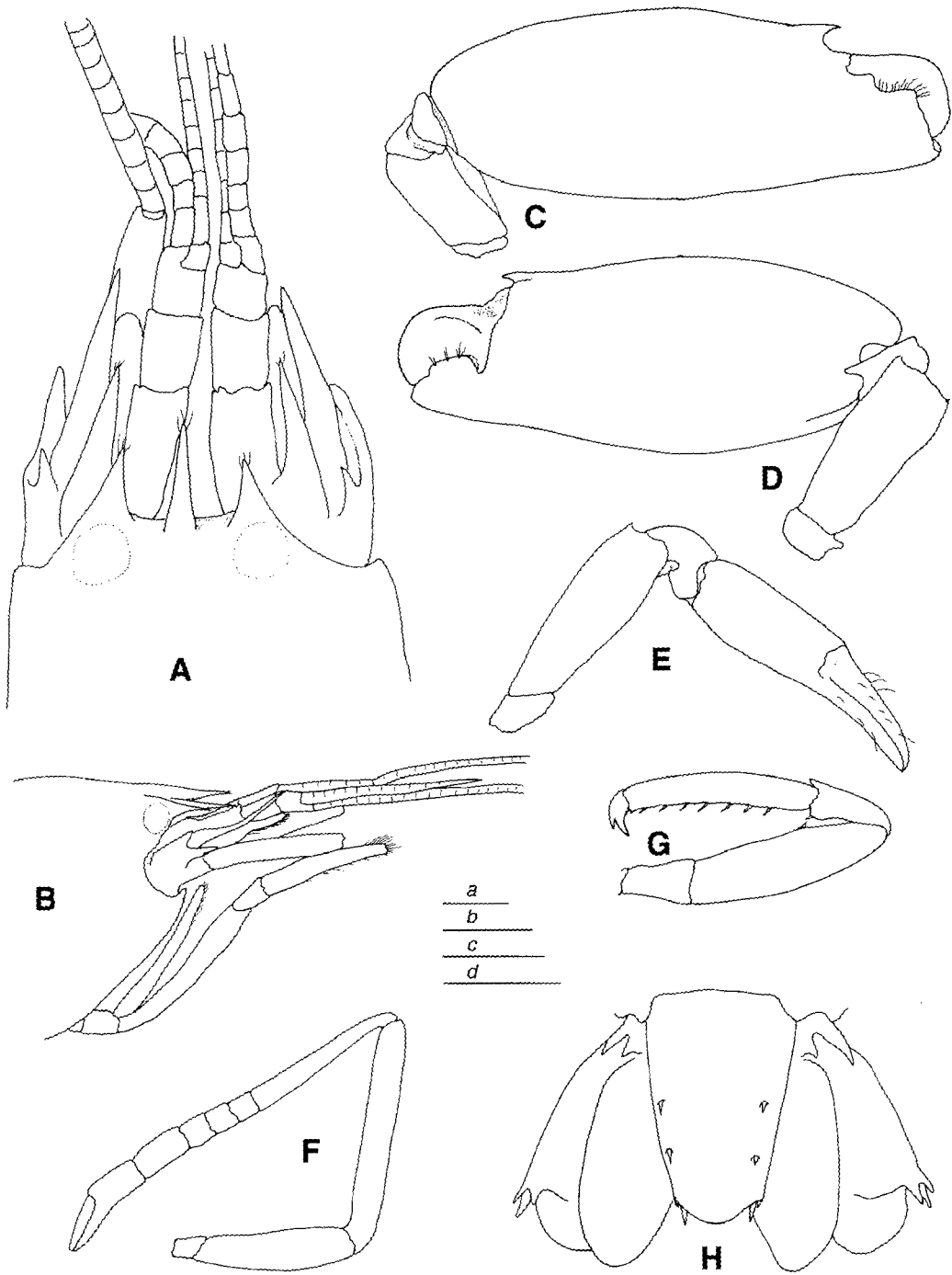


Fig. 1. *Synalpheus neomeris*, ovigerous female, cl 6 mm: A, anterior region, dorsal view; B, same, lateral view; C, large (left) first pereopod, inner face; D, same, outer face; E, small (right) first pereopod, outer face; F, left second pereopod; G, left third pereopod; H, telson and uropods. Scale bars = 1 mm (a-d), a: B; b: C-G; c: f; d: A.

long as chela and composed of five segments; first segment slightly longer than sum of distal four segments; second, third and fourth subequal; fifth almost same length as sum of third and fourth segments. Merus shorter than carpus. Ischium shorter than merus.

Third, fourth, and fifth pereopods with dactyli biunguiculate; lower process about 3 times longer and 3 times stouter than upper process.

Propodus of third pereopod (Fig. 1G) slightly more than 5 times as long as dactylus; inferior margin armed with eight spines throughout length in addition to distal one. Carpus less than half as long as propodus with one movable spine at distal end of inferior margin. Merus about 4 times as long as broad with one movable spine at distal 1/3 of inferior margin.

Carpus of fourth pereopod with one movable spine at distal end of inferior margin. Merus with one movable spine at distal 1/3 of inferior margin.

Carpus and merus of fifth pereopod with no movable spine.

Telson (Fig. 1H) with dorsal surface armed typically with two pairs of spines; anterior pair situated at middle of telson; posterior pair located at distal 1/4 of telson; posterior margin with two pairs of strong outer spines; inner pair more than 3 times as long as outer pair.

Uropodal exopod with lateral margin slightly convex; diaeresis with two immovable spines laterally; one movable spine between these two immovable spines.

Type locality. Mergui Archipelago, Burma.

Distribution. Suez Canal, Red Sea, eastern Africa, Persian Gulf, Thailand, Japan, Philippines, Indonesia, and Australia; shallow subtidal to 250 meters, commonly associated with alcyonarians, sometimes with sponges (Chace, 1988). Jeju-do, Korea.

Remark. The present species shows the variation in the number of spines on the inferior margin of merus of the third pereopod. The number of spine varies one to three.

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요 약

최근 새우류의 분류학적 연구 결과 딱총새우류 1종이 한국에서는 지금까지 보고되지 않은 종으로 밝혀졌다. 큰발톱세이마뺨딱총새우 (*Synalpheus neomeris*)를 재기재하고 한국에서 처음 보고한다.