

***Urothoe convexa*, a New Gammarid Species from Korea (Amphipoda: Urothoidae)**

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Urothoe convexa, a new species of gammaridean amphipods from Korea, is described and illustrated. The present new species is similar in morphology to *U. carda* from Bay of Nhatrang, Vietnam. But, the palm of gnathopod 2 of the present species is more convex than that of *U. carda*.

KEY WORDS: Amphipoda, Urothoidae, *Urothoe convexa*, Korea

In a collection of marine invertebrates from Songho-ri, Ch'önnam Province in Korea, there occurred a new species of gammaridean amphipods belonging to the genus *Urothoe* Dana, 1852. This sand-dwelling species was compared morphologically with *U. carda* which is the most closely related species. The type materials are deposited in the Department of Molecular Biology, Seoul National University.

Family Urothoidae Bousfield, 1978
Genus *Urothoe* Dana, 1852

***Urothoe convexa*, new species (Figs. 1, 2)**

Material Examined.-Holotype: ♂, body length: 4 mm; Songhori Beach, Ch'önnam Province, Korea; May 2, 1990. Allotype: ♀, body length: 3.8 mm, collection details same as holotype. Paratypes: 1 ♂, 4 ♀, collection details same as holotype.

Description of holotype male.-Head with short rostrum; eye large, circular, black in alcohol; lateral cephalic lobe just below eye broadly rounded; ventral margin of head rounded distally.

Antenna 1 (Fig. 1A) short; primary flagellum longer than peduncular article 3, composed of five-segments, and with two small spines on tip of segment 5; accessory flagellum two-segmented, segment 2 shorter than segment 1. Antenna 2 (Fig. 1B) longer than body length; peduncular arti-

cle 4 with four groups of spines along sub-dorsal margin in inner part; peduncular article 5 with a series of eight cup calceoli along sub-dorsal margin; flagellum very long, composed of 47 segments, and each proximal segment with small calceoli.

Article 5 of gnathopod 1 (Fig. 1C) expanded ventrodistally; article 6 slender, about 0.63 times as long as article 5, and without palmar margin. Coxa of gnathopod 2 (Fig. 1D, E) with concave posterior margin, and with one seta on roundly produced ventroposterior corner; article 5 slenderer than article 5 of gnathopod 1; article 6 slender, slightly shorter than article 5, with convex palmar margin bearing four setae, and no palmar defining spines.

Coxae 3, 4 with moderately concave ventral margins. Dorsal margin of article 2 of pereopod 3 with one spine distally. Each ventrodistal margin of article 5 of pereopods 3, 4 (Fig. 1F, G) with two spines. Dactyls of pereopods 3, 4 with concave part on inner-distal margin, inner margin not serrate.

Coxa of pereopod 5 (Fig. 1H) with parallel dorsal and ventral margins, and ventral margin expanded distally; article 2 with dilatant dorsal and ventral margins, and posteroventral margin not pointed, rather blunt; article 5 of pereopod 5 broader than article 4; dactyl without spine. Dac-

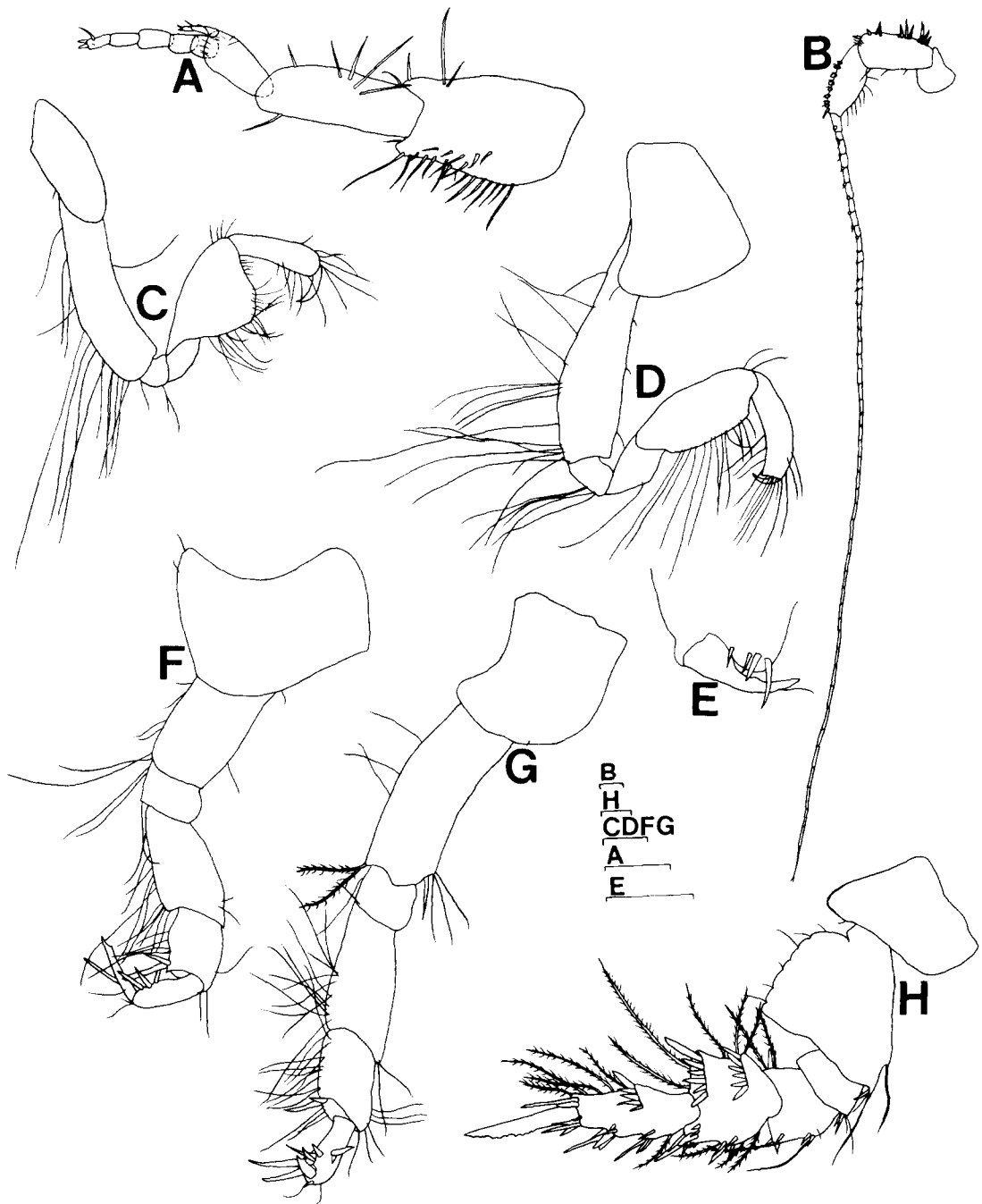


Fig. 1. *Urothoe convexa*, new species, holotype male, body length: 4 mm: A, inner view of right antenna 1; B, inner view of right antenna 2; C, right gnathopod 1; D, right gnathopod 2; E, inner view of dactyl and distal part of article 6 of right gnathopod 2; F, right pereopod 3; G, right pereopod 4; H, right pereopod 5. Scale bars = 0.1 mm.

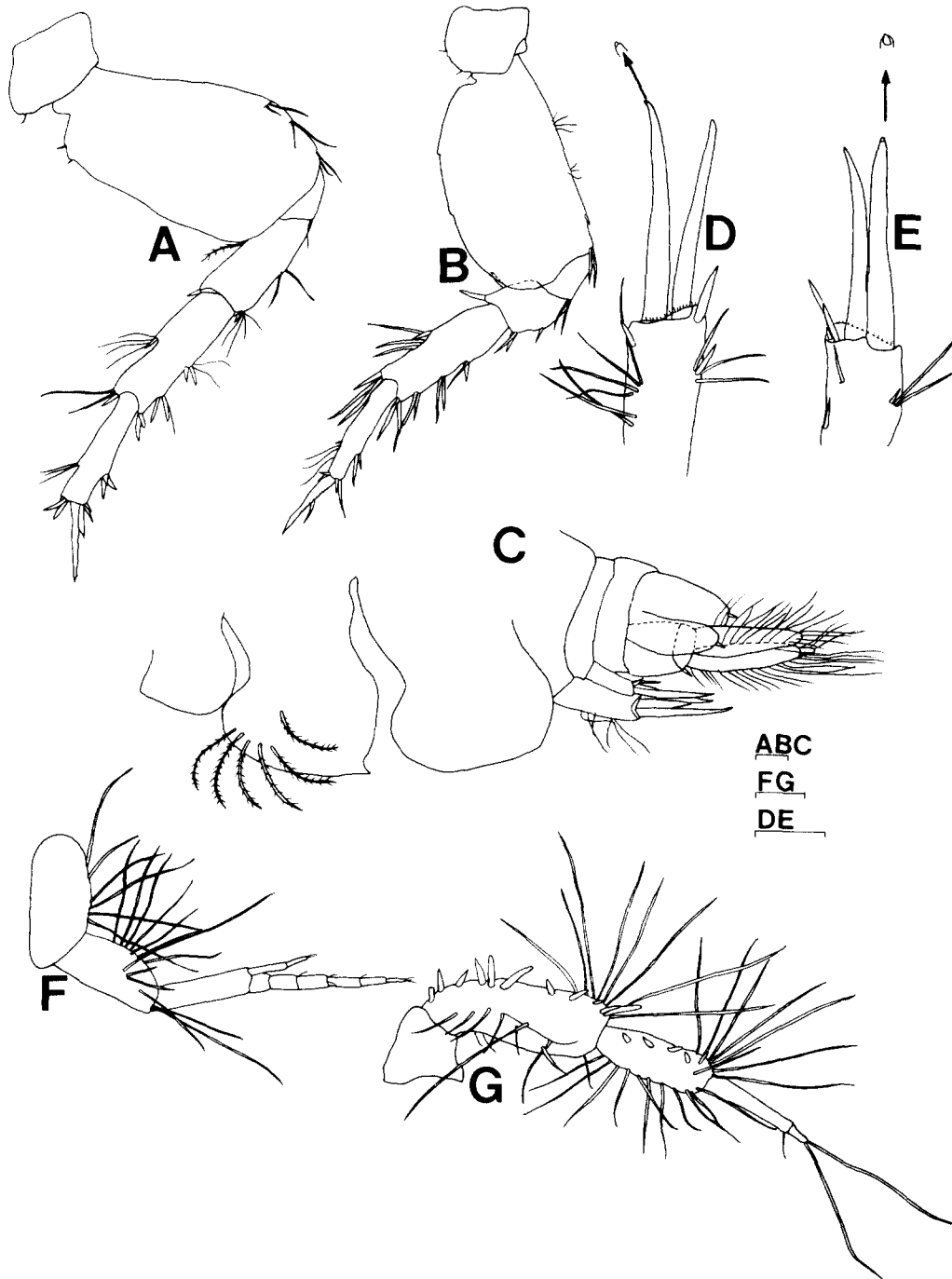


Fig. 2. *Urothoe convexa*, new species, holotype male, body length: 4 mm: A, right pereopod 6; B, right pereopod 7; C, left pleonal epimera 1-3 and uropods and telson; D, rami and distal part of peduncle of uropod 1; E, rami and distal part of peduncle of uropod 2. Allotype female, body length: 3.8 mm: F, antenna 1; G, antenna 2 (peduncular articles 1-3 were broken). Scale bars = 0.1 mm.

tyls of pereopods 5-7 with serrate dorsal margins.

Pleonal epimeron 2 (Fig. 2C) with six plumose setae, posterodistal corner produced with one point tooth, and posterior margin convex. Posterior margin of pleonal epimeron 3 produced convexly, and posterodistal corner blunt.

Uropod 1 (Fig. 2D) reaching to distal end of uropod 2; peduncle with two spines on outer-dorsal margin and one spine on inner-dorsal margin; rami equal in length. Peduncle of uropod 2 (Fig. 2E) with one spine on inner-dorsal margin and two spines on inner-dorsal margin distally; rami equal in length. Inner ramus of uropod 3 slightly over-reaching to distal end of article 1 of outer ramus; outer ramus two-articulate, and article 2 about 0.13 times as long as article 1. Telson (Fig. 2C) deeply cleft, and each apex of lobes with one spine.

Description of allotype female.-Differing from holotype male in the following characteristics: Eye small. Antenna 1 (Fig. 2F) bearing peduncular article 3 as long as peduncular article 2; primary flagellum six-segmented; accessory flagellum composed of two segments, and segment 2 elongated. Peduncular article 4 of antenna 2 (Fig. 2G) with 11 spines along subdorsal margin; peduncular article 5 with 5 spines along subdorsal margin; flagellum composed of two segments, and with two long setae on distal end of segment 2.

Remarks.-Barnard (1962) separated the species of *Urothoe* into four groups based on the morphologies of gnathopods 1, 2. Following the scheme of Barnard (1962), Imbach (1967) represented a key to the species of genus *Urothoe*. In this key, she separated firstly species into subgroups according to morphological conditions of gnathopods 1, 2 (Imbach, 1967: 72-74).

2 and the shape of pereopod 5. However, this species differs from *U. carda* in the following characters: (1) Rami of uropods 1, 2 of *U. carda* bear minute teeth along the entire length, while in the present species rami have no teeth; (2) Pleonal epimeron 2 of *U. carda* bears more plumose setae than that of the present species; (3) Ventral margins of coxae 3, 4 of *U. carda* are more concave than those of the present species; (4) Article 6 of gnathopod 2 of the present species is longer than that of *U. carda*; (5) The palm of gnathopod 2 of the present species is more convex than that of *U. carda*.

Habitat.-Sand beach.

Etymology.-The specific name, *convexa* (Latin noun), meaning convexity, refers to the more convex palm of gnathopod 2 of the present species compared with that of *U. carda* which is the most closely related species with the present species. The gender is feminine.

Urothoe carda belongs to the group (key A of Imbach, 1967) which contains the species bearing palmless gnathopod 1 and bearing gnathopod 2 with distinct palm. The present species agrees well with *U. carda* in the shape of palm of gnathopod

References

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옆새우류의 1신종, *Urothoe convexa*

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전남 송호리에서 채집한 옆새우류 1종을 *Urothoe convexa*라고 명명하고 기재하였다. 이 종은 *U. carda*와 형태적으로 유사하나 제 2 약지의 손바닥이 *U. carda*의 그것보다 더 볼록하다.