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Achelia crurispinifera, a New Pycnogonid Species from Korean Waters

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韓國產 바다거미 一新種, *Achelia crurispinifera*

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要 約

서울大學校 動物學科에 保管되어 있던 바다거미류 標本 中에서 1970年에 釜山 近海에서 採集된 암컷 한 個體와 1976年에 慶北 九龍浦에서 採集된 수컷 한 個體가 genus *Achelia*에 屬하는 一新種임이 確認되어 各各 holotype 및 paratype으로 定하고 學名으로 *Achelia crurispinifera*, 韓國名으로 "가시다리바다거미"로 命名하여 記載한다.

吻部가 圓筒形이고 다리에 긴고 많은 돌기가 나 있으며 수컷의 卵脚 第7節에 키다란 隆起가 있는 점은 이 種의 特徵으로서 genus *Achelia*의 다른 모든 記錄된 種으로부터 쉬사리 區別된다.

Achelia crurispinifera, n. sp. Figs. 1, 2

Material : 1 female (holotype), off Pusan, July 1, 1970, H.S. Kim coll.; 1 male (paratype), off Kuryongp'o, August 19, 1976, H.S. Kim coll. Both the type specimens were collected with the fish nets from unknown depths of southeastern sea of Korea.

Description : Trunk unsegmented, circular in outline. Cephalic segment wider than trunk, with several spine-tipped, small tubercles of which 1 at near the base of each chelifore, and 1 (holotype) or 2 (paratype) at near each anterior corner. Lateral processes compact, touching each other, each armed with 1 anterodistal, 1 posterodistal and small, 1 or 2 mid-distal tubercles. Ocular tubercle vertical, 1.5~2 times as tall as maximum diameter, placed on the middle of cephalic segment, with pointed apex. Eyes darkly pigmented, placed at tip of ocular tubercle. Abdomen snake's head-shaped, slender, shorter than trunk, slightly directed downward from the base, armed with several pairs of spinules

on dorsal margin.

Proboscis cylindrical, slightly constricted ventrally at basal one third, a little longer than trunk, more than twice as long as its distal width which is widest.

Chelifore long, more than 0.7 times as long as proboscis. Scape long, armed with several spine-bearing tubercles on dorsal side of distal half. Chela small, subchelate.

Palp 8-segmented, 1.3 times as long as proboscis. Fourth segment longest, slenderized from distal one third to the end. Second segment subequal in length to the fourth, with a low, spine-tipped tubercle dorsodistally. Terminal 3 segments longer than wide, not bulbous, gradually shorter distally.

Oviger 10-segmented. Oviger of female (holotype) 0.6 times as long as that of male; fifth segment longest, a little longer than the fourth; first to sixth segments smooth, without spinule; distal 4 segments armed with smooth or weakly crenulate spinules on inner sides (7 at the seventh, 5 at the eighth, 4 at the nineth and 10 at terminal segment); the spinules at the seventh and the eighth scattered; terminal segment gradually narrower distally, with spinules increasingly longer distally, 4 of which placed at tip. Oviger of

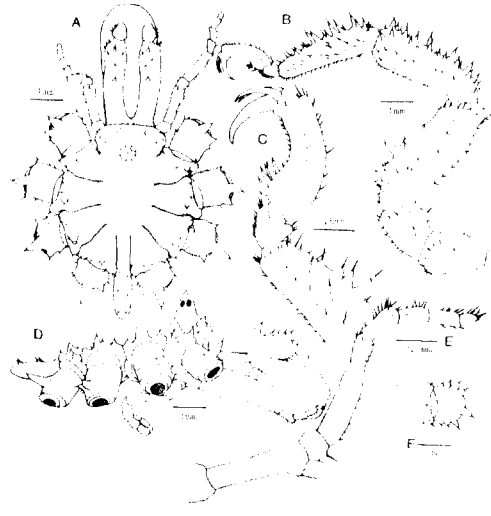

Fig. 1. *Achelia crurispinifera*, n. sp. (A-E, holotype, female; F, paratype, male). A, dorsal view; B, second leg; C, distal segments of fourth leg; D, lateral view; E, palp; F, lateral process and coxa 1 of second leg.

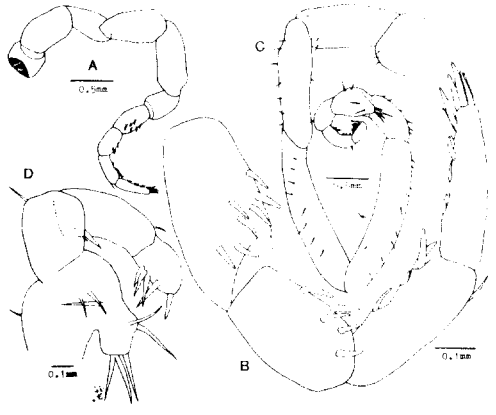

Fig. 2. *Achelia crurispinifera*, n. sp. (A, B, holotype, female; C, D, paratype, male). A, oviger of female; B, distal segments of the same; C, oviger of male; D, distal segments of the same.

male (paratype) about 1.7 times as long as that of female; fourth and fifth segments equal in length, much longer than the third; seventh segment typically with a strong protuberance at inner side, on which 5 large simple spines are beared; nineth segment with 2 spines proximally; terminal segment rather robust, a little longer than wide, with 5 simple spines on inner margin.

Legs uniform in length, not longer than twice as long as whole body length, typically armed with numerous, tall, spine-tipped, finger-like tubercles. Coxa 1 usually with 2~4 tubercles which are fewer and much smaller in female, on each anterior and posterior side, and with 1 long dorsomedian tubercle. Coxa 2 of last 2 pairs of legs in male with genital processes twice as long as their diameters. Coxa 3 slightly shorter than coxa 2, but longer than its width, with a low tubercle on dorsal side. Femur armed with a number of tubercles on both ventral and dorsal sides, much smaller on the latter, with a dorsodistal projection. Tibia 1 and tibia 2 subequal in length, each armed with numerous, spine-tipped, short or long, finger-like tubercles on dorsal side. Propodus curved, swollen proximally, with 6 or 7, closely contacted spines on heel. Terminal claw longer than half the length of propodus and about 5 times as long as its proximal width. Auxiliary claws slender, longer than half the length of terminal claw.

Table 1. Measurements (in mm) of body parts

Body parts	Holotype(female)	Paratype(male)
Body length (proboscis-abdomen)	9.3	9.8
Length of proboscis	3.7	4.0
Distal width of proboscis	1.7	1.5
Length of chelifore	3.1	3.0
Length of trunk	3.6	3.3
Length of palp	4.7	5.1
Length of abdomen	2.4	2.8
Length of oviger	4.9	8.7
Fourth leg, total length	17.09	16.05
Coxa 1	0.80	0.81
Coxa 2	1.90	1.69
Coxa 3	1.33	1.42
Femur	3.67	3.33
Tibia 1	3.33	3.04
Tibia 2	3.00	2.89
Tarsus	0.43	0.40
Propodus	1.36	1.52
Terminal claw	0.76	0.95
Auxiliary claw	0.51	0.50

Etymology : The specific name *crurispinifera* is derived from the Latin, *cruris* (leg) and *spinifer* (thorn-bearing).

Remarks : *Achelia crurispinifera*, n. sp. is a very distinct species. The long, cylindrical proboscis, strongly developed armature of the legs and a large projection on the seventh segment of male oviger of the new species are sufficient to distinguish it as a distinct species from all other known species of the genus *Achelia*. Many species of *Achelia* have long tubercles at coxa 1 and coxa 2 of the legs, but as far as we can determine, there is few species having these tubercles at tibia and femur as the new species. In the armature of the legs this species resembles *A. barnardi* Stock, 1959, but much smaller and fewer in the latter species.

A. latifrons (Cole, 1904), a North Pacific species, also known from the Korean waters (Stock, 1954), shares the same configurations of chelifore and abdomen with the new species, but easily distinguished each other at first glance by the elliptical proboscis of *A. latifrons*.

Assuming from the fact that one of the two type specimens was collected together with *Nymphon kodanii* Hedgpeth which has been found from the bathymetrical range of 75~649 fathoms (Utinomi, 1971), this species seems to be a deep water form.

The type specimens are deposited in Department of Zoology, Seoul National University.

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