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Cirolana albicauda, a New Cirolanid Isopod from the Sea off Owase, Middle Japan*

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三重県尾鷲市沖から発見されたスナホリムシ(甲殻類、等脚目)の一新種

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1984年5月，三重県尾鷲市沖の熊野灘の表層稚魚ネットによって採集されたスナホリムシの一種を新種, *Cirolana albicauda*(和名：オジロスナホリムシ）として記載した。本種は，*Cirolana* 属の中でもかなり特異な種であるが，胸肢の形態等から類推して，アメリカ合衆国西岸等から知られている *Cirolana polita* (STIMPSON) と類似している。しかし,(1)胸肢長節後端の著しい突出のあること，(2)胸部基板の突出の弱いこと，(3)頭部前縁中央に凹みのあること，(4)尾肢内肢後端が完全であること，(5)顎脚交尾鉤刺の数が多いこと等によって区別される。

なお，本種の完模式標本は富山市科学文化センターで保管される (TOYA-Cr-3751)。

In May, 1984, a survey on the plankton at Kumanonada, off Owase City, Mie Prefecture was carried out by Dr. Sekiguchi and some scientists. Among the animals obtained during this survey, some peculiar isopod specimens were collected. These specimens were then proposed at my disposal for identification through the courtesy of Dr. Sekiguchi of the Mie University. At closer examinations of mine, they proved to represent a new species of the genus *Cirolana*.

Before going further, I wish to express my sincere gratitude to Dr. Hideo Sekiguchi of the Mie University for his kindness in giving me a chane to examine these interesting specimens.

Cirolana albicauda n. sp.

(Jap. name : Ojiro-sunahorimushi)

(Figs. 1 and 2)

Material examined : 12 ♂♂ (1 ♂ holotype, 14.7mm in body length and 11 ♂♂, paratypes, 10.1～18.0 mm in body length) and 10 ♀♀ (1 ♀ allotype, 15.0 mm in body length, 9 ♀♀ paratypes, 15.8～17.2 mm in body length) by a gill net, almost sea surface, the sea off Owase City, Mie Prefecture, lat. 34° 03.25'N, long. 136° 17.71'E. Kumano-nada coll. Hideo Skiguchi, at night, May 21, 1984. Type series is deposited as follows : holotype male (TOYA-Cr-3751), allotype (TOYA-Cr-3752) and 14 paratypes (TOYA-Cr-3753～3766) at the Toyama Science Museum, 2 paratypes (OMNH-Ar-2940～2941) at the Osaka Museum of Natural History, 2 paratypes (NSMT-Cr-9018) at the National Science Museum, Tokyo and 2 paratypes (YCM-

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CI-878～879) at the Yokosuka City Museum.

Description: Body ovate-lanceolate, about 3 times as long as wide. Body length up to 18 mm. Dorsal surface smooth. Body colour purplish brown from cephalon to the 5th

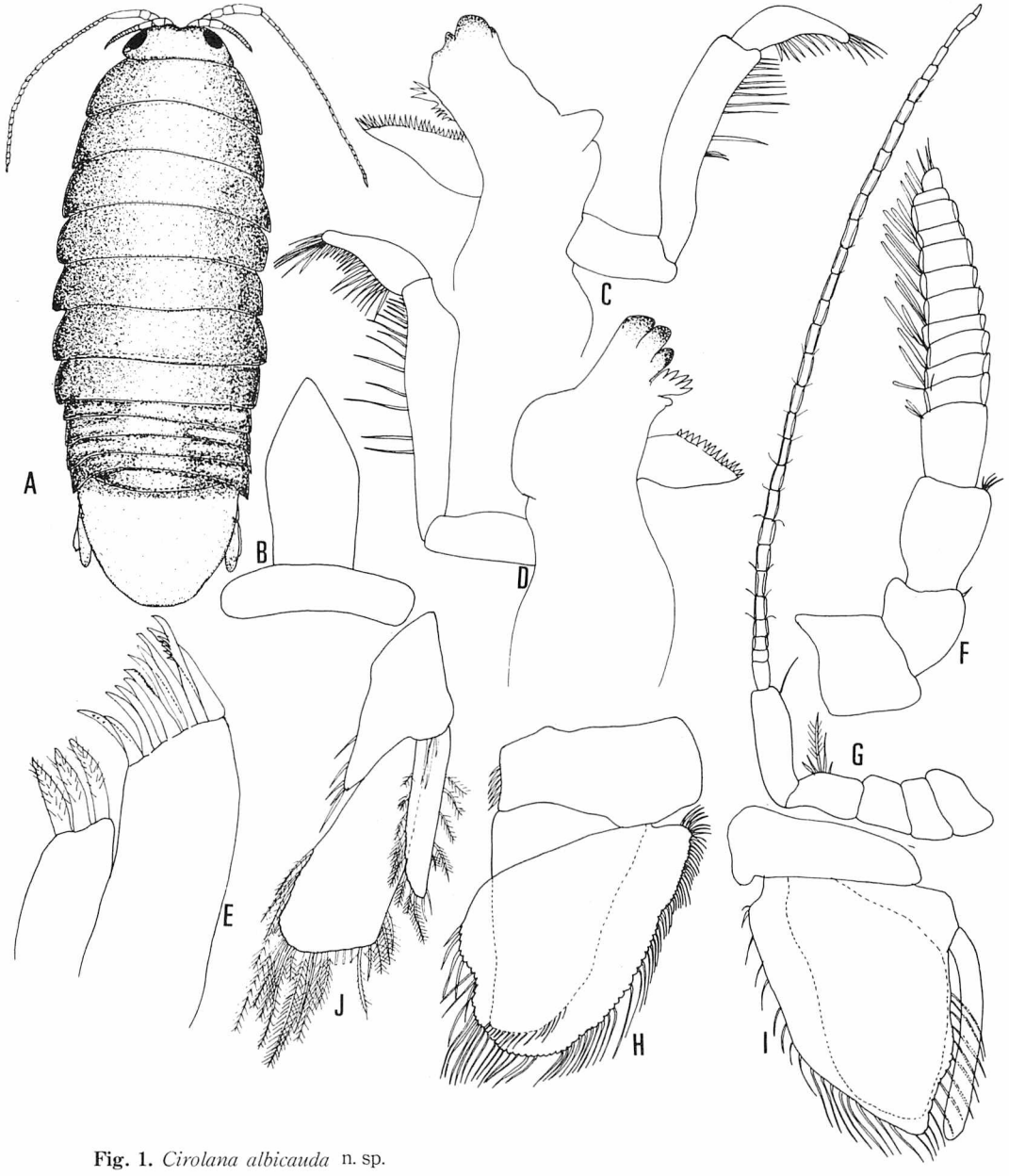


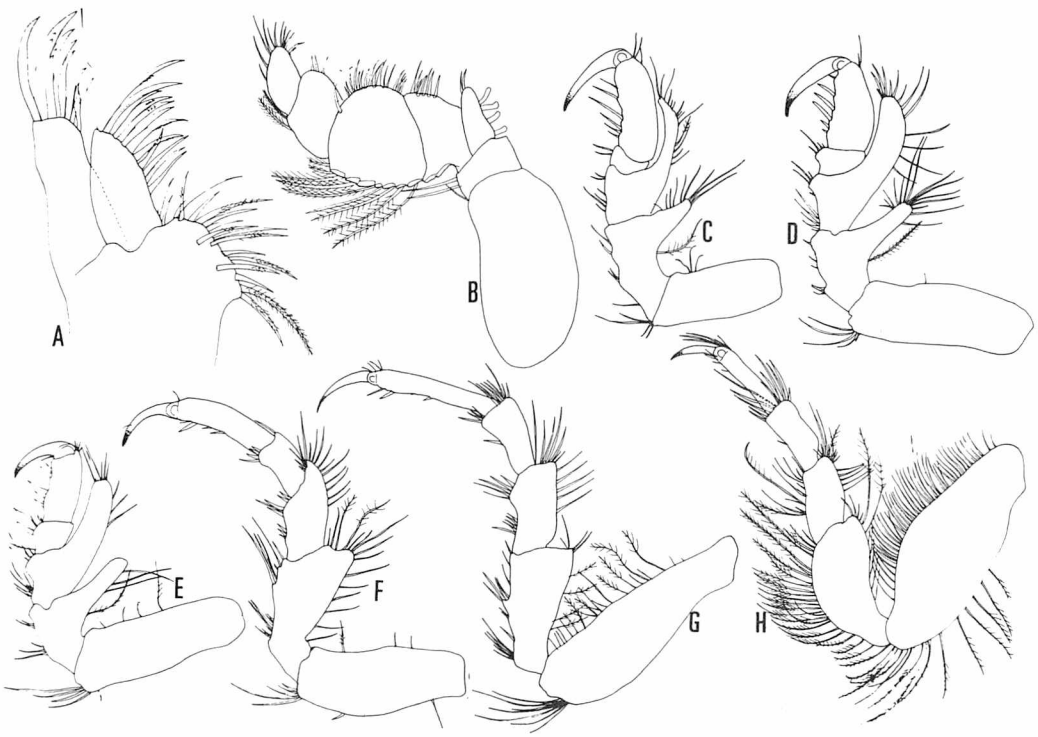
Fig. 1. *Cirolana albicauda* n. sp.

A. Dorsal view ; B. Frontal lamina and clypeus ; C. Left mandible ; D. Right mandible; E. Maxilla 1 ; F. Antenna 1 ; G. Antenna 2 ; H. Pleopod 1 ; I. Pleopod 2 ; J. Uropod. (All : holotype male).

pleonal somite but white only in pleotelson in alcohol. Cephalon short with a shallow dent at antero-medial part. Eyes well developed, each eye composed of 60~70 ommatidia. All the peraeonal somites subequal in length. Pleonal somites 1-4 subequal in length but pleopod 5 is overlapped by the preceding one. Pleotelson semicircular and without any decoration and any seta.

Antenna 1 (Fig. 1F) short, reaching anterior part of peraeonal somite 1 ; peduncle composed of 3 segments ; flagellum composed of 12 segments,each segment short and with a few aesthetascs. Antenna 2 (Fig. 1G), reaching posterior margin of peraeonal somite 3, compoed of 5 peduncular segments and 30 flagellar segments.

Frontal lamina (Fig. 1B) tongue-shaped. Right mandible (Fig. 1D) ; pars incisiva 3-toothed ; lacinia mobilis not chitinized and 5-toothed ; palp 3-segmented, 2nd segment with 14 setae on inner margin and terminal segment with 24 setae on distal and inner margins. Left mandible (Fig. 1C) similar to the right one. Maxilla 1 (Fig. 1E) normal ; outer ramus with 10 apical teeth, 5 of which longer than the others ; endopod with 3 circumplumose setae at the tip. Maxilla 2 (Fig. 2A) rectangular ; inner ramus bearing 12 spines on distal and medial margins; outer ramus a little longer than the inner one, length of spines increasing towards the distal



Fig, 2. *Cirolana albicauda* n. sp.

A. Maxilla 2 ; B. Maxilliped ; C~E. Peraeopods 1~3 ; F~H. Peraeopods 5~7.

(A~B : allotype female, C-H : holotype male).

margin ; inner ramus with 14～15 setae, 8 of which are circumplumose ones. Maxilliped (Fig. 2B) slender ; endite narrow with 2 setae at the tip and 4 coupling hooks on inner margin.

Peraeopods 1-3 (Fig. 2 C-E) similar in shape ; basis rectangular ; ischium triangular and postlateral corner protruded remarkably ; merus also protruded and reaching to the middle part of propodus ; carpus short ; propodus rectangular with 5～6 setae on inner margin.

Peraeopods 4-6 (Fig. 2 F-G) similar in shape : basis rectangular ; merus recangular but increasing towards the distal margin ; carpus rectangular but 2/3 time longer than merus ; propodus elongated. Peraeopod 7 similar to the peraeopod 6 but more setose than the preceding one.

Pleopod 1 (Fig. 1 H) ; basis with 6 retinacula ; exopod with sinuate margin with many setae and a shallow dent on inner margin.

Pleopod 2 in male (Fig. 1 I) ; endopod with rod-shaped copulatory stylet, reaching as far as endopod ; endopod triangular ; exopod narrow.

Female : There is no noticeable characteristic other than endopod of pleopod 2.

Remarks : Though present new speecies seems to occupy a rather peculiar position, this species resembles *Cirolana polita* (STIMSPON) from the West coast of North America. The present new species is separated from *polita* in the following features : (1) noticeable projections of merus and ischium of peraeopods 1-3, (2) less noticeable projections of epimera all the peraeonal somites, (3) presence of small concavity on the anterior part of cephalon, (4) entire margin of endopod of uropod and (5) more numerous number of coupling hooks on maxilliped.

References

BOWMAN, T. E.., N. L. BRUCE, and J. D. STANDDY 1981. Recent Introduction of the Cirolanid Isopod Crustacean *Cirolana arcuata* into San Francisco Bay. J.Crustacean Biol., 1(4) : 545- 557.

BRUCE, N. L. 1980., The Cirolanidae (Crustacea : Isopoda) of Australia. Heron Island and the Capricon Group. Bull. Mar. Sci. 30 (1) :108-130.

KUSSAIN, O. G. 1979., Marine and brackish water Isopod Crustacea, suborder Flabellifera. Nauka, Leningrad, 1-472 (in Russian).

RICHARDSON, H. 1905., A Monograph on the Isopod of North America. Bull. U. S. natn. Mus., 54 : 1-724.