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**A New Species of the Anthurid Isopod Genus *Eisothistos*
from Osaka Bay, Middle Japan***

Noboru Nunomura
Toyama Science Museum

大阪湾から発見された*Eisothistos*属ウミナナフシ(甲殻類, 等脚目)の1新種

布村 昇
富山市科学文化センター

大阪湾阪南町下荘港等から発見されたウミナナフシ亜目等脚類の一種を新種, *Eisothistos nipponicus* (和名, カワリウミナナフシ) として記載した。本種は地中海ナポリ湾で知られている *Eisothistos macrurus* WÄGELE と類似するが, (1)頭部の形態, (2)尾肢及び腹尾節の形態, (3)触角の剛毛が少な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-2306)。

During a faunal survey of Osaka Bay, Honshu Island, Japan, two queer anthurid specimens were collected by Mr. Michio Ohtani and his co-workers and handed to me for identification. Later, two additional specimens from the same bay and from Tachibana Bay, Shikoku Island, were also sent to me. At closer examinations, they proved to represent a new species of the genus *Eisothistos*.

Before going further, I wish to express my sincere gratitude to Professor Saburo Nishimura of the Kyoto University for his kindness in reading manuscript, to Mr. Michio Ohtani for his generosity in giving me a chance to study the interesting specimens, and to Dr. G. C. Poore of the National Museum of Victoria for his kindness in supplying me with copies of Hale's and Haswell's papers indispensable for the present study.

***Eisothistos nipponicus*, n. sp.**

(Jap. name: Kawari-uminanafushi, new)

Figs. 1-3

Material examined: 1♀ (holotype, 4.8 mm in body length and 1 sex-indeterminable specimen, Shimoshō Harbour, 0.4 m in depth, Hannan-chō, Sennan-gun, Osaka Pref., coll. Kazuki Ami and Sadami Kitano, Oct. 13, 1982; 1♀ (paratype, 3.6 mm, in body length), from the above mentioned locality, coll. Kazuki Ami and Nobufumi Sawa, Feb. 2, 1983; 1♀ (paratype, 4.3 mm in body length), Kokatsu-Jima, Tachibana Ura, Tachibana Bay, Tokushima Pref., Shikoku. Type series is deposited as follows: holotype (TOYA-Cr-2306) at the Toyama Science Museum, 1 paratype (OMNH-Ar-2908) at the Osaka Museum of Natural History, and 1♀ (NSMT-Cr

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8971) at the National Science Museum, Tokyo.

Habitat: The specimens were discovered either on the thalli of algae, *Ulva pertusa* KJELLMAN and *Gelidium amansii* (LAMOUREUX) LAMOUREUX, or on the colonies of some sessile animals such as *Hydroides ezoensis* OKUDA, *Mytilus edulis* LINNAEUS and *Balanus* (*Balanus*) *trigonus* DARWIN.

Description: Body rather robust, about 6.7 times as long as wide. Proportions: $C = 1 < 2 < 3 > 4 > 5 = 6 > 7$. Cephalon extremely short, about twice as broad as long. Exopod of uropod triangular, endopod of uropod lanceolate. First to fourth pleonal somites short

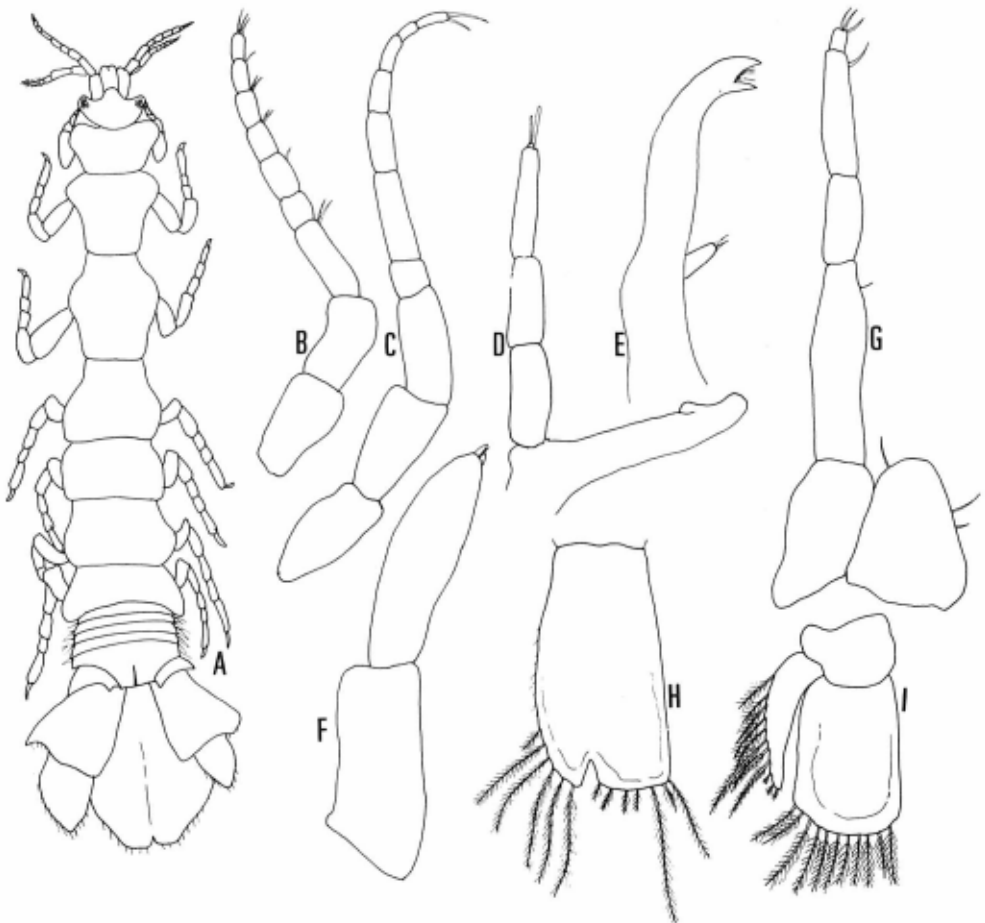


Fig. 1. *Eisothisios nipponicus*, n. sp.

A: Dorsal view. B: First antenna. C: Second antenna. D: Mandible. E: First maxilla. F: First maxilla of another specimen. G: Maxilliped. H: Pleopod I. I: Pleopod II (A-C, G-I: Holotype, D-F: Paratype).

and similar in shape and size. Fifth pleonal somite long with a deep cleft at medial part of the posterior end. Pleotelson broad with a medial cleft at the tip. Body colour white in alcohol. Each eye composed of 4~5 dispersed ocelli. Anterolateral angles of cephalon slightly exceeding forward the rostral projection.

First antenna (Fig. 1 B) composed of 9 segments, reaching the anterior part of the first antenna.

Second antenna (Fig. 1 C) composed of 10 segments, almost as long as the first antenna.

Mandible (Fig. 1 D) slender with 2-segmented palp.

First maxilla (Fig. 1 E) long and sword-shaped.

Maxilliped (Fig. 1 G) 5-segmented, with 2 large teeth and 3 small teeth at the tip.

Peraeopod I (Fig. 2 A). Basis oblong; ischium rectangular; merus almost square; carpus

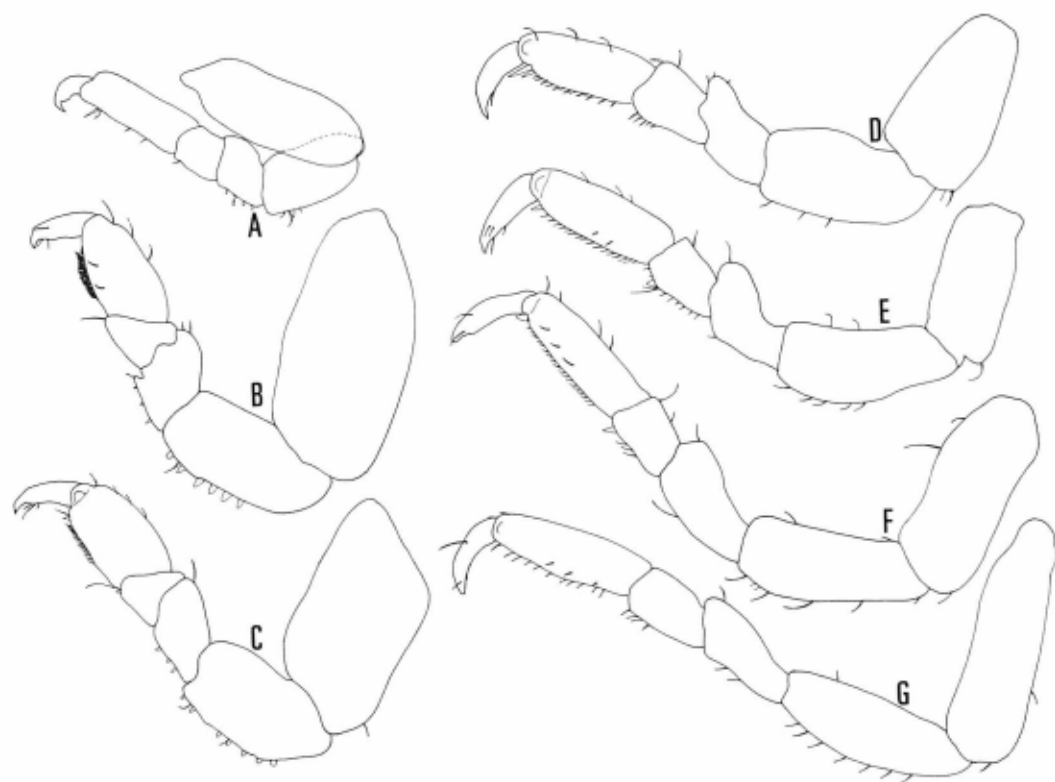


Fig. 2. *Eisothis nipponicus*, n. sp.

A-G: Peraeopods I-VII (All: Holotype).

short and almost square; propodus rather stout.

Peraeopods II-III (Fig. 2 B-C) similar in shape. Basis stout; ischium rectangular with 6~7 protuberances on inner border; merus almost square with 3 protuberances on inner margin; carpus triangular with a long seta at distal inner margin; propodus rather stout with many spines on inner margin.

Peraeopods IV-VII (Fig. 2 D-G) similar in shape. Basis and ischium oblong; merus and carpus rectangular; propodus oblong with a series of setae on inner margin.

Endopod of pleopod I (Fig. 1 H) rectangular with a cleft at distal margin.

Pleopods II-V (Fig. 1 I) similar in shape. Exopod narrow and lanceolate with 11~12 plumose setae on distal margin.

Remarks: Another specimen (Fig. 3 A-G) from the same locality as the holotype shows some differences, being characterized by longer antenna and the possession of long setae on peraeopods. This specimen is considered to be a male, but either penis or stylus of second pleopod was not recognized.

Hitherto, 7 species, as far as I am aware, have been discovered as valid in the genus *Eisothistos* from various parts of the world. The present new species is most closely allied

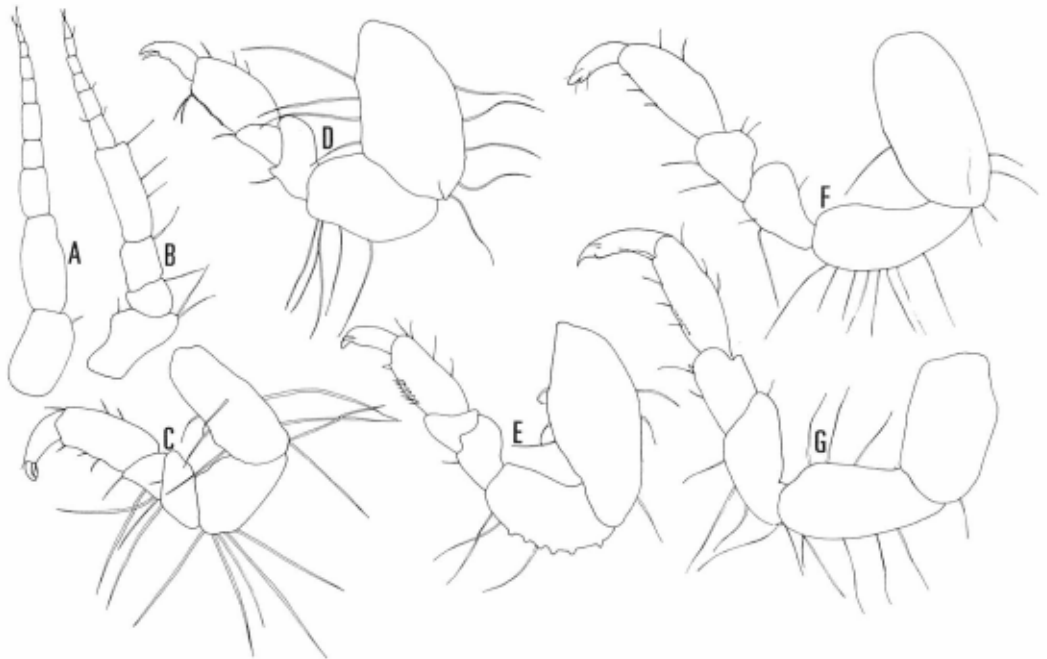


Fig. 3. A specimen considered to be *Eisothistos nipponicus*, n. sp.
A: First antenna. B: Second antenna. C: Peraeopod I.
D-E: Peraeopods III-IV (All: A sex indeterminable specimen)

to *Eisothis macrurus* WÄGELE from Naples Bay, but the former differs from the latter in the following features: (1) shape of cephalon, (2) shape of uropoda, (3) shorter pereopod, (4) shape of antennae and so on.

References

- BARNARD, K. H., 1925. Revision of the family Anthuridae. J. Linn. Soc. 36: 109-160.
- HALE, H., 1925. Isopoda and Tanaidacea, in Scient. Rept. Australes. Antarct. Exped. ser. C. Zoology and Botany 2 (2): 1-45.
- HASWELL, W. A., 1884. On a new Crustacean found inhabiting tubes of Vermilia (Serpulidae). Proc. Linn. Soc. N. S.W. 9 (3): 676-680, Pls. 36-37.
- KENSLEY, B., 1976. Isopodan and Tanaidacean Crustacea from St. Paul and Amsterdam Islands, Southern Indian Ocean. Ann. S. Afr. Mus. 69 (11): 261-323.
- SCHULTZ, G. A., 1969. How to know the marine Isopod Crustaceans. Wm C. Brown Company Publishers, Hampton, 359 pp.
- TATTERSALL, W. M., 1920. Tanaidacea and Isopoda. Br. Antarct. Exped. Zool. 3 (8): 191-258.
- VANHÖFFEN, E., 1914. Die Isopoden der Deutschen Südpolar Expedition, 1901-1903, Vol. XV. Zool. VII (4): 449-598.
- WÄGELE, J. W., 1979. Morphologische Studien an *Eisothis* mit Beschreibung von drei neuen Arten (Crustacea, Isopoda, Anthuridea). Mit. Zool. Mus. Univ. Kiel., 1 (2): 1-19.