

***Marumomysis hakuhoae* new genus, new species, from the Sulu Sea (Crustacea: Mysidacea: Mysidae: Erythropini)**

MASAAKI MURANO

Institute of Environmental Ecology, Shin-Nippon Meteorological & Oceanographical Consultants Co. Ltd. (METOCEAN), 1334-5 Riemon, Ooigawa-cho, Shida-gun, Shizuoka 421-0212, Japan (e-mail: murano@notes.metocean.co.jp)

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Abstract: A new mysid species representing a new genus is described. The new mysid is characterized by the small eyes fused to each other along the median line and lacking visual elements completely, the antennal scale without an apical lobe, the antennular peduncle with a ventral carina on the first segment, and the telson with lateral and apical median spines without an articulation at the base.

Key words: *Marumomysis*, Mysidae, new genus, taxonomy, Sulu Sea

Introduction

During a cruise (KH-72-1) to southeastern Asian seas by the R/V *Hakuho Maru* of the Ocean Research Institute, University of Tokyo, blind mysid specimens were collected from the deep basin of the Sulu Sea. They are described herein as a new genus and a new species. The type specimens are stored at the National Science Museum, Tokyo (NSMT).

***Marumomysis* new genus**

Diagnosis

Carapace produced anteriorly into evenly rounded rostral plate. Eyes small, fused along median line, without visual elements. Antennular peduncle with first joint provided with triangular ventral carina. Antennal scale large, without terminal lobe; outer margin naked, terminating in strong triangular process. Mandible with large molar portion; third segment of palp rectangular, densely armed with setae on distal margin. Labrum with long frontal process. Endite from basis of first thoracic endopod developed, armed on inner margin with 2 kinds of setae, one of them thick, relatively short and trifurcated at apex. Endopod of uropod armed on inner margin of statocyst region with 1 spine furnished with fine setae. Telson truncate; lateral margin dentate; apical margin with 3 pairs of long spines and 1 median short spine, lateral denticles and apical median spine with-

out articulation at base.

Type species

Marumomysis hakuhoae, new species.

Etymology

The genus is named in honor of Dr Ryuzo Marumo, Emeritus Professor of the University of Tokyo, who was the chief scientist of *Hakuho Maru* cruise, KH-72-1. It is feminine in gender.

Remarks

The new genus resembles the genus *Mysimenzies*, established by Băcescu (1971) for the reception of an adult female specimen from the hadal zone at about 6200 m depth in the Peru Trench, in many aspects, especially in the reduced eyes, the ventral carina on the first antennular peduncle segment, the large antennal scale, the first thoracic endopod with a developed endite on the basis, and the telson with lateral spines without articulation at the base. The generic differences, however, are recognized as follows. (1) In *Mysimenzies* the antennular peduncle is provided with a sensory organ in the first joint, while such an organ is lacking in the new genus. (2) In the new genus the labrum has a spiniform median process anteriorly, while in *Mysimenzies* there is no median process. (3) In the new genus the first thoracic leg is provided with a flagelliform exopod, whereas

in *Mysimenzies* it possesses no exopod.

The male specimen of *Marumomysis hakuhoae* is badly damaged, so that I cannot comment on its maturity with certainty. If it is an adult, the small-sized processus masculinus may be an indicative character for the genus.

Băcescu (1971) placed the genus *Mysimenzies* in the tribe Erythropini by virtue of the characteristics of the second thoracic endopod, the marsupium composed of three pairs of oostegites, the non-divided exopod of the uropod, the statolith in the endopod of the uropod, the reduced pleopod in the female, etc. He considered, however, that the exact systematic position of *Mysimenzies* could be elucidated only if the morphology of the male was known, because the genus has characters found in members of the primitive families. Some of the primitive characters mentioned by Băcescu (1971), such as the absence of the exopod of the first thoracic endopod and the antennular sensory organ, do not agree with the features of the present new genus. Furthermore, the present male specimen bears well-developed, multi-segmented pleopods. The new genus *Marumomysis* clearly belongs to the tribe Erythropini based on these characters.

***Marumomysis hakuhoae* new species (Figs 1, 2)**

Material

Holotype (NSMT-Cr 12496), adult female with embryos in marsupium (13.2 mm); allotype (NSMT-Cr 12497), 1 probable adult male divided into two parts; Sulu Sea, 08°44.6'N 119°05.4'E to 08°44.8'N 119°06.2'E; 2030–2030 m, plankton net installed in mouth of 3-m beam trawl; 25 May 1972.

Description

Carapace produced anteriorly into broadly rounded rostrum extending to base of antennular peduncles; anterolateral corner rounded; posterior margin emarginate dorsally, leaving last thoracic somite uncovered; posterolateral lobe covering anterior half of first abdominal somite (Fig. 1A–C).

Eyes small, fused along median line, without visual elements, covered by carapace extending past basal half; each half with anterior margin rounded, with long horn projecting anteriodorsally (Fig. 1B, C).

Antennular peduncle of female rather small; first joint longer than broad, with pronounced triangular ventral carina, proximal end of outer margin with small swelling armed with 3 short setae, outer distal corner slightly produced and armed with several setae; second joint short, half as long as broad, armed with 1 seta near distal end of outer margin and 2 setae on inner distal corner; third joint narrowest, slightly longer than broad (Fig. 1C, D). Third joint of male with processus masculinus very small, armed with long setae (Fig. 1E).

Antennal scale large, overreaching distal end of antennal peduncle for 1/3 of its length, 3.7 times as long as maximum width at proximal third, obliquely truncate apically, completely lacking terminal lobe; outer margin straight, smooth, terminating in strong triangular process (Fig. 1C, F). Antennal peduncle slender, slightly overreaching distal end of antennular peduncle; first joint short, as long as broad; second joint longest, 3 times as long as broad, occupying slightly more than half of peduncle length; third joint twice as long as broad (Fig. 1F). Outer distal corner of antennal sympod with strong process, inner distal corner with 2 bluntly pointed processes (Fig. 1F).

Mandible with large molar portion; third segment of palp unique in shape within Erythropini, rectangular, broadened distally, outer margin with 1 seta at about middle, distal margin armed densely with 6 longer and 12 shorter setae (Fig. 1G). Maxillule of usual type within Erythropini except for 1 long seta on inner margin of inner lobe (Fig. 1H). Maxilla with distal segment of endopod oval, bearing many setae but no spines; exopod relatively slender, slightly extending beyond distal margin of proximal segment of endopod (Fig. 1I). Labrum with long slender anterior spine (Fig. 1J).

Endopod of first thoracic leg small; endite from basis developed, armed on lateral margin with 2 types of setae, one relatively short and trifurcated at tip, another normal, slender and feathered; apical margin of endite with 3 spines and 3 setae (Fig. 2A). Exopod of first thoracic leg present but number of segments unknown due to damage. Endopod of second thoracic leg relatively slender, ischium with 9 long and short setae on inner margin; merus longest, as long as carpopropodus and dactylus combined, with few setae; carpopropodus with long and short setae on distal half; dactylus more than twice as long as broad, hirsute (Fig. 2B).

Female with 3 pairs of oostegites, anteriormost pair smaller than others but functional. Male with slender, hooked sternal processes.

Abdomen slender; first 5 somites subequal; sixth somite extremely elongate, nearly equal to preceding 3 somites together, 2.5 times as long as broad (Fig. 1A).

Female pleopods uniramous, unjointed, increasing in length towards posterior pairs (Fig. 2C, D). Third pleopod of male developed, with both rami 8-segmented and equal in length, showing no modification; endopod with side lobe developed (Fig. 2E); endopod of fifth male pleopod 8-segmented, not modified; other pleopods broken off in male specimen.

Endopod of uropod slender, tapering, overreaching apical end of telson for 1/4 of its length, armed on inner margin near statocyst with 1 slender spine furnished with fine setae; exopod of uropod slender, extending beyond apex of endopod for 1/4 of its length (Figs. 1A, 2F).

Telson truncate, 4/5 of last abdominal somite in length, slightly more than twice as long as broad at base; lateral margin slightly concave, provided with 11 denticles along whole length, distalmost denticle located at terminal end

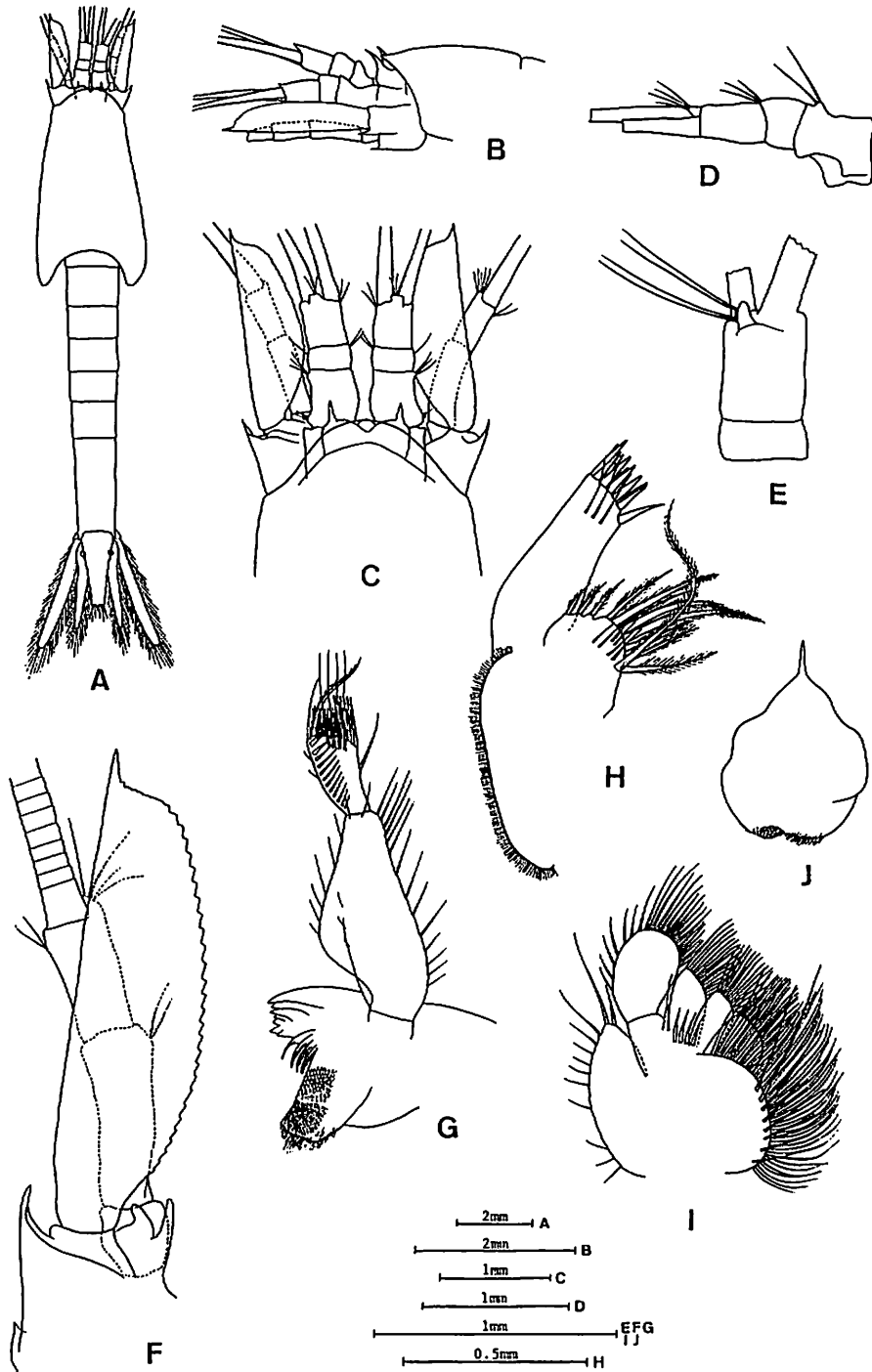


Fig. 1. *Marumomysis hakuhoae* new genus, new species; A–C, F–J: holotype; D, E: allotype. A. Whole body, dorsal view. B. Anterior end of body, lateral view. C. Same, dorsal view. D. Antennule, lateral view. E. Same, ventral view. F. Antenna, dorsal view. G. Mandible and mandibular palp. H. Maxillule. I. Maxilla. J. Labrum.

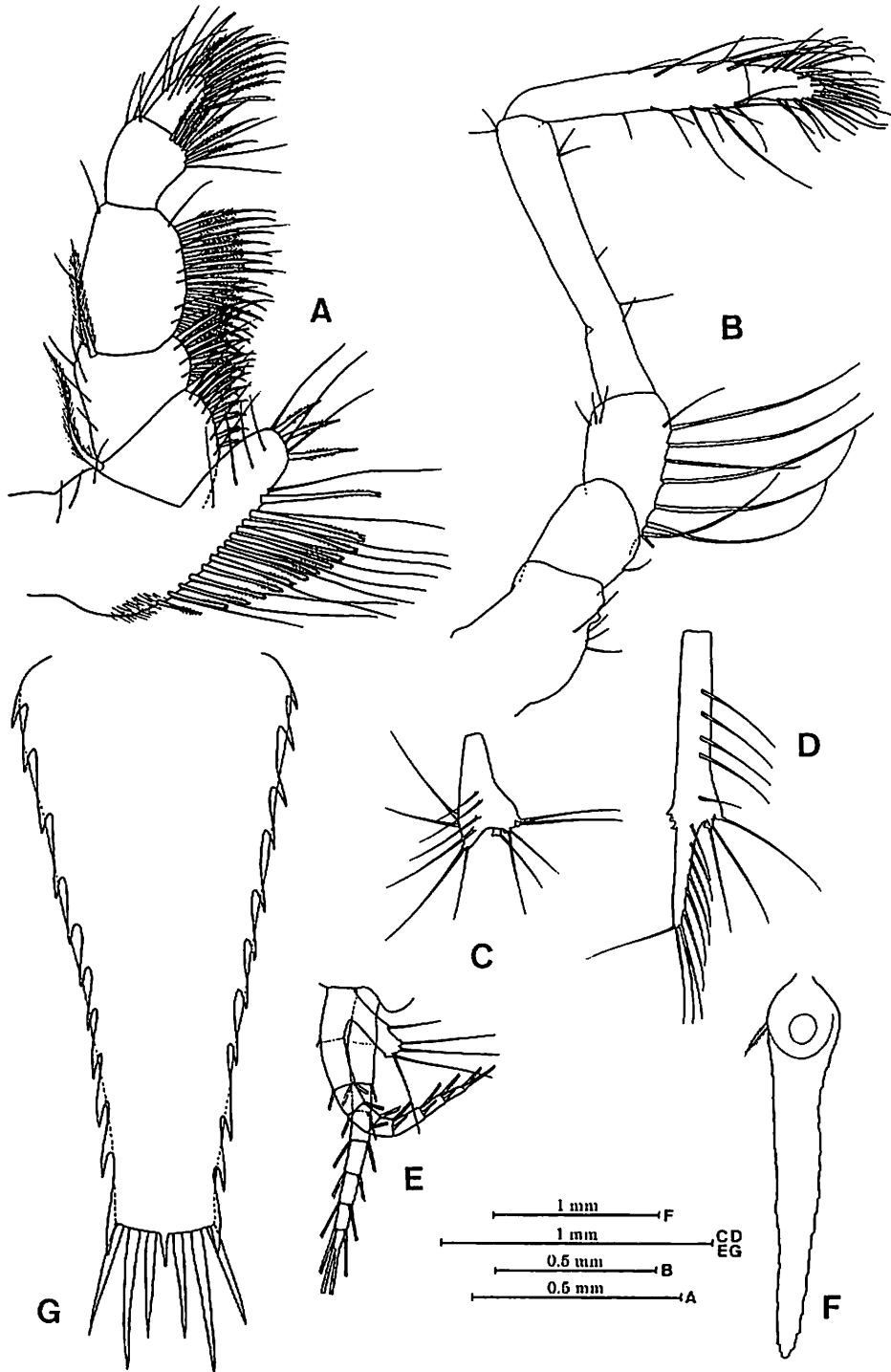


Fig. 2. *Marumomysis hakuhoae* new genus, new species; A–D, F, G: holotype; E: allotype. A. Endopod of first thoracic leg. B. Endopod of second thoracic leg. C. First pleopod. D. Fifth pleopod. E. Third pleopod. F. Endopod of uropod. G. Telson.

and extending posteriorly beyond distal margin of telson, these denticles without articulation at base; distal margin slightly convex, approximately 1/3 of breadth of base, armed with 3 pairs of long segmented spines with middle pair longest and 1/4 as long as telson and 1 short unsegmented median spine, plumose setae absent (Fig. 2G).

Etymology

The species name, *hakuhoae*, is derived from the R/V *Hakuho Maru*.

Remarks

As stated in the "Remarks" of the genus, this species resembles *Mysimenzies hadalis* Băcescu, 1971, but is easily

distinguished from the latter by many characters. Recently, Murano & Mauchline (1999) recorded ?*Mysimenzies* sp. from a depth of 3463 m in the Northeast Atlantic. The new species is clearly different from it in the shape and armature of the telson.

Literature Cited

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