

Anisomysis (Paranisomysis) ohtsukai (Crustacea, Mysidacea),
a New Mysid from Japan

By

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Abstract A new species of the genus *Anisomysis*, subgenus *Paranisomysis*, *A. (Paranisomysis) ohtsukai* n. sp. is described. This species is distinguishable from allied species by the number of prominent flagellate denticles on the second segment of mandibular palp and the shape and armature of telson. Key to the species of the Japanese *Anisomysis* is given.

The genus *Anisomysis* comprises more than 35 species and is one of the dominant mysids in warm-water coastal regions of the Indo-West Pacific. In Japan, nine distinct species have been reported, so that the new species described herein is a tenth member of the genus.

BĂCESCU (1973 b) divided the genus *Anisomysis* into two subgenera based on the condition of the mandibular palp, subgenus *Paranisomysis* with prominent flagellate denticles along the inner margin of the second segment of mandibular palp and subgenus *Anisomysis* without such denticles. The present new species belongs to the subgenus *Paranisomysis*.

The type specimens are deposited in the National Science Museum, Tokyo (NSMT).

Anisomysis (Paranisomysis) ohtsukai sp. nov.

(Fig. 1)

Type series. Holotype (NSMT–Cr 11437), adult male (3.8 mm); allotype (NSMT–Cr 11438), adult female with embryos (4.5 mm); paratypes (NSMT–Cr 11439), 5 adult males and 5 adult females; Kuchi-no-erabu Island, Kagoshima Prefecture, Japan (30°15'N, 130°15'E), hand-net during SCUBA diving, 22 September 1988, presented by S. OHTSUKA.

Body length. Adult male, 3.6–4.1 mm; adult female, 3.8–4.5 mm.

Description. Frontal margin of carapace produced in triangular rostrum with obtusely pointed apex, not extending to base of antennular peduncle; lateral margin of rostrum nearly straight (Fig. 1 A, B); antero-lateral corner of carapace not produced; posterior margin emarginate, leaving last two thoracic somites exposed dorsally.

Eye large; cornea globular, occupying 2/3 of whole organ; eyestalk short, with groove between cornea (Fig. 1 A, B).

Antennular peduncle of male more robust than that of female, 3-segmented, first

segment as long as succeeding 2 segments combined, armed on distolateral corner with several setae, one of which is thick and growing laterally, then anteriorly (Fig. 1 A); in female, first segment much longer than succeeding 2 segments combined, third segment armed on distolateral corner with 2 long and one short setae (Fig. 1 B).

Antennal scale extending beyond distal end of antennular peduncle by 2/5 of its length, curved outwardly, setose all round, 7.5 times longer than broad, distal suture present at distal sixth (Fig. 1 A–C). Antennal peduncle short, extending to proximal third of scale, 3-segmented (Fig. 1 C).

Second segment of mandibular palp with inner margin armed with 9 flagellated denticles, which are bigger in middle part and smaller in proximal and distal parts; third segment rectangular, 2/5 of second segment in length, with 2 setae on outer margin and 6 setae on distal margin (Fig. 1 D).

Endopod of second thoracic limb with carpopropodus shorter than merus, dactylus 1/3 of carpopropodus in length, 1.5 times longer than broad, terminal claw straight and long (Fig. 1 E). Endopods of third to eighth thoracic limbs with ischium becoming longer towards posterior pairs, carpopropodus undivided into subsegments (Fig. 1 H–K).

Penis cylindrical with several short setae on apex (Fig. 1 F).

Abdomen composed of 6 somites, first to fifth somites subequal, sixth somite 1.5 times longer than fifth.

Fourth male pleopods biramous, endopod very small, unsegmented; exopod elongated, reaching near distal end of telson, 3-segmented, first segment 2.7 times longer than second segment, third segment slightly shorter than second segment (1:0.9), terminating into 2 setae of same length (Fig. 1 G). Other pleopods of male and all pleopods of female uniramous and unsegmented.

Uropod long and slender; exopod curved outwardly, outreaching distal margin of telson for 3/5 of its length; endopod straight, shorter than exopod (Fig. 1 L).

Telson 2/3 as long as sixth abdominal somite, 1.5 times longer than broad, divided into two parts by deep constriction at distal 2/7; proximal part about as long as broad, armed with 4 spines on lateral margin near constriction; distal part wider than long, trapezium with distal margin very slightly concave, armed with 5 or 6 spines on each lateral margin and 4 pairs of spines on distal margin, distal spines longer than lateral ones (Fig. 1 L).

Etymology. The species is named in honor of the collector, Dr. S. OHTSUKA.

Remarks. The new species is closely related to *Anisomysis lamellicauda* (HANSEN, 1912) from Fiji and *Anisomysis marisrubri* BĂCESCU, 1973 a, from the Red Sea in the telson with lateral deep constriction and truncate distal margin. Differences among these three species are shown in Table 1.

Fig. 1. *Anisomysis ohtsukai* n. sp. A, C–L, Holotype. B, allotype. A, B, Anterior end in dorsal view; C, antenna; D, mandible; E, endopod of second thoracic limb; F, penis; G, fourth pleopod; H–K, endopod of third, fourth, sixth and seventh thoracic limbs; L, uropod and telson.

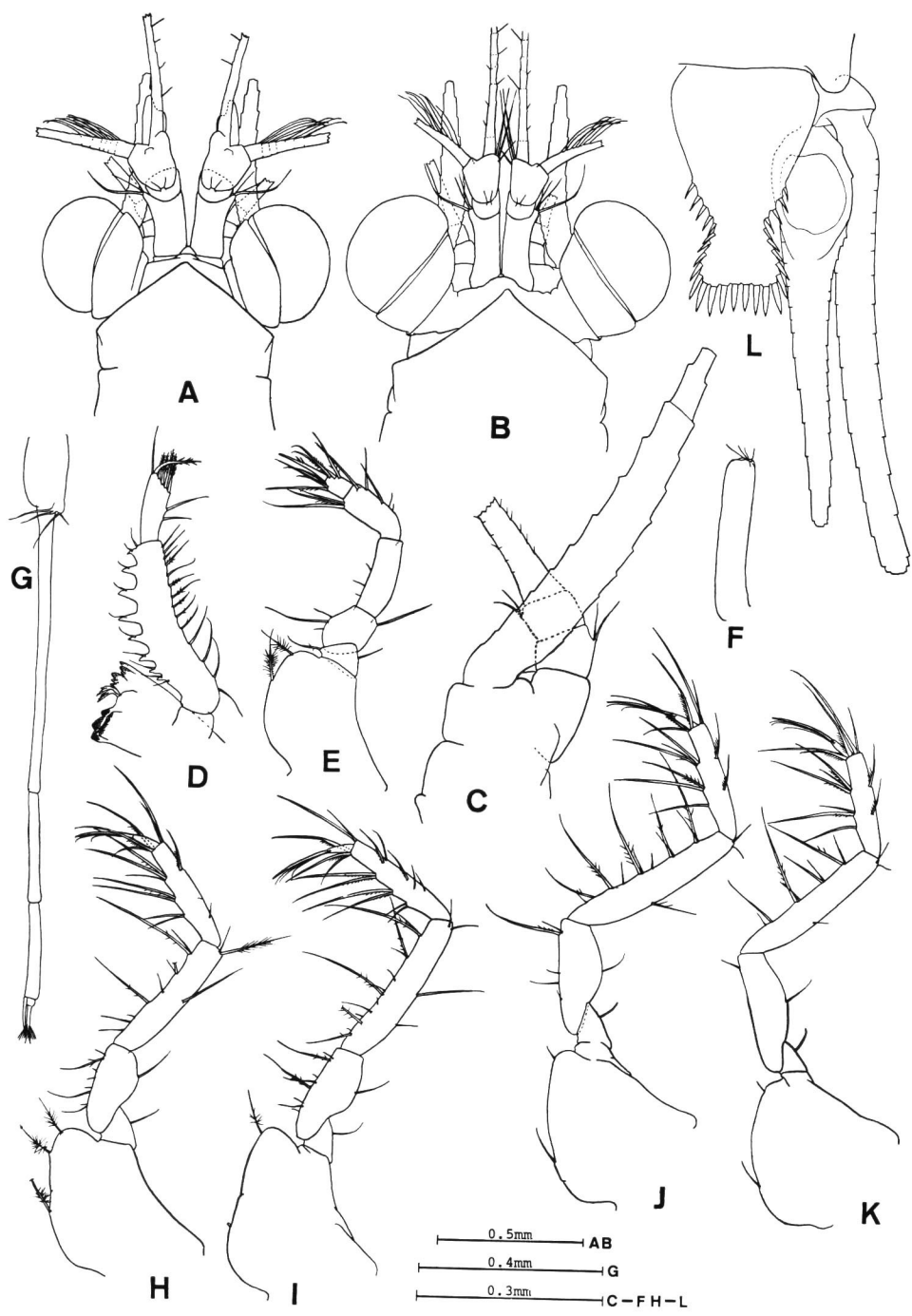


Table 1. Morphological comparison among *Anisomysis* (*Paranisomysis*) *ohtsukai* sp. nov., *A. (P.) lamellicauda* HANSEN and *A. (P.) marisrubri* BĂCESCU.

	<i>A. ohtsukai</i> n. sp.	<i>A. lamellicauda</i>	<i>A. marisrubri</i>
Apex of rostrum	Narrowly rounded	Very acute	Narrowly rounded
Second segment of mandibular palp	With 9 denticles on inner margin	With 13 denticles on inner margin	With 7 denticles on inner margin
Proximal part of telson	As long as broad, with 4 spines	As long as broad, with 4 spines	Longer than broad, with 7 spines
Body length (mm)	Female: 3.8-4.5 Male : 3.6-4.1	Female: 5.8	Female: 6

Among *Anisomysis* in Japanese waters, *A. ijimai* NAKAZAWA, 1910 and *A. acuminata* MURANO, 1990 provide with the telson with lateral deep constriction, but the distal margin of telson is not truncate but rounded, Moreover, the new species is different from *A. ijimai* in the length of antennal scale and from *A. acuminata* in the shape of rostrum.

Key to the Species of the Japanese *Anisomysis*

- 1. Inner margin of second segment of mandibular palp with peculiar flagellate denticles.2 (Subgen. *Paranisomysis*)
- Inner margin of second segment of mandibular palp with ordinary plumose setae.6 (Subgen. *Anisomysis*)
- 2. Telson with sinus on distal end.*A. hosakai* MURANO, 1990
- Telson with rounded or truncate distal margin. 3
- 3. Telson with truncate distal margin.*A. ohtsukai* n. sp.
- Telson with rounded distal margin. 4
- 4. Telson with shallow lateral constriction, widest part of distal dilated part about 1.2 times as wide as narrowest part.*A. ryukyuensis* MURANO, 1990
- Telson with deep lateral constriction, widest part of distal dilated part about twice as wide as narrowest part. 5
- 5. Apical part of rostrum lengthened narrowly.*A. acuminata* MURANO, 1990
- Rostrum low triangular, not lengthened anteriorly. ..*A. ijimai* NAKAZAWA, 1910
- 6. Eyes with cornea divided into dorsal and ventral parts by groove.
- *A. bipartoculata* II, 1964
- Eyes with cornea more or less globular, not divided into two parts. 7
- 7. Telson triangular.*A. mixta* NAKAZAWA, 1910
- Telson of other shapes. 8
- 8. Distal end of telson deeply cleft, margin of cleft unarmed.
- *A. pelewensis* II, 1964
- Distal end of telson with shallow or slight depression, depression with spines. .. 9

9. Telson 1.7 times as long as broad; depression of telson very slight, with pair of small spines. *A. akajimaensis* MURANO, 1990
- Telson 1.5 times as long as broad; depression of telson shallow but distinct, with 3 pairs of spines. *A. aikawai* II, 1964

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