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journal or publication title	Bulletin of the Toyama Science Museum
number	22
page range	1-5
year	1999-03-25
URL	http://repo.tsm.toyama.toyama.jp/?action=repository_uri&item_id=734

Bulletin of the Toyama Science Museum №22, pp. 1－5 (1999)

A New Species of the Genus *Gnorimosphaeroma* (Isopoda, Sphaeromatidae) from the Mouth of Tonda River, Kii Peninsula, Southern Japan *

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紀伊半島富田川河口から発見されたイソコツブムシ属の一新種

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和歌山県白浜町富田川河口から採取された5頭のイソコツブムシ属の標本を新種*Gnorimosphaeroma tondaense*（和名：トンダガワイソコツブムシ）として記載した。本種は韓国から知られている*Gnorimosphaeroma anchialos* Kwonと最もよく類似するが，(1) 第2小顎の剛毛数が少ないこと，(2) 尾肢外肢が短いこと，(3) 第1胸肢の長節外縁の剛毛数が少ないこと，(4) 両触角とも鞭数が多いことで区別される。
キーワード：新種，等脚目，分類，コツブムシ科，イソコツブムシ属，紀伊半島。

A new species, *Gnorimosphaeroma tondaense*, was described on the specimens collected from the mouth of Tonda River, Kii Peninsula. This species is most allied to *Gnorimopshaeroma anchialos*, but the former is separated from the latter in the following features: (1) less numerous teeth on maxilla, (2) much shorter exopod of uropod, (3) less numerous setae on outer distal angle on merus of pereopod 1, (4) less numerous flagellar segments of both antennae.
Key words : *Gnorimosphaeroma*, Sphaeromatidae, Isopoda, New Species, Kii.

Ms. Murata, graduated student of Nara Women's University, happened to find five individuals of unfamiliar sphaeromatid isopods during her ecological survey of another sphaeromatid, *Sphaeroma wadai*. Through the courtesy of Professor Wada, Nara Women's University, they were handed over to me. At the closer examination of mine, they proved to represent a new species of the genus *Gnorimosphaeroma*.

Gnorimosphaeroma tondaense n.sp.

(Japanese name : Tondagawa－Isokotsubumushi, new)

(Fig. A－S)

Material examined : 2♂♂ (1♂holotype, 6.1 ㎜ in body length, 1♂paratype, 5.3 ㎜ in body length) and 3♀♀ (paratypes, 3.1～3.6 ㎜ in body length), mouth of the Tonda River, June, 27, 1998, coll. Yuko Murata. These specimens are deposited as follows : Holotype (TOYA－Cr 12595), and 2 paratypes (TOYA－Cr 12596～12597) at the Toyama Science Museum and 2 paratypes (OMNH－Ar 4139～4140) at the Osaka Museum of Natural History.

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*Contributions from the Toyama Science Museum, No. 204

Description : Body (Fig. A) rather short, 1.5 times as long as wide. Color brown with paler irregular patterns on the dorsal surface. Surface almost with many minute granules. Cephalon round. Eyes mediocre in size, each eye with 30 ommatidia. Pleotelson with 2 pairs of suture lines, both are almost same in length ; posterior end straight.

Antennule (Fig.B) short ; peduncle stout with 3 segments ; flagellum with 8~10 segments and each of them with an aesthetasc. Antenna (Fig.C) longer than antennule, reaching the posterior part of the third pereonal somite, composed of 5 peduncular and 14~15 flagellar segments.

Clypeus and Frontal lamina pentagonal. Right mandible (Fig.D). Pars incisiva with 3 teeth ; lacinia mobilis with 4 teeth ; 4 plumose setae ; processus molaris wide. Left mandible. Pars incisiva 4-toothed ; lacinia mobilis chitinized and 4-toothed ; plumose setae behind the lacinia mobilis ; processus molaris wide. Palp second segment with 10~11 setae third segment with 11~12 setae. Maxillula (Fig. E). Outer lobe with 10 teeth at the tip, 2 innermost teeth short, 4 inner teeth dentate and outer 4 outer teeth simple ; inner lobe with 4 long plumose setae at the tip. Maxilla (Fig.F). Inner lobe with 7~8 plumose setae ; both lobes of outer lobe with 8 setae, respectively. Maxilliped (FigG). Endite with 2 (sometimes 1) coupling hooks and many hair on inner margin and 8 plumose setae on distal angle. Palp segment 1 with a seta ; segment 2 with 13~14 setae on inner margin and 2 setae at outer distal angle ; segment 3 with 12 longer and 4~5 shorter setae on inner margin and 4 setae at outer distal angle ; segment4 with 3~4 seta around the margin ; terminal segment with 13~15 setae around the margin.

Pereopod 1 (Fig.H) rather stout as a whole. Basis rectangular with 2 setae on outer margin and a seta at inner distal angle ; ischium with dense hair on inner margin and ; merus with many short spines on inner margin and a seta at outer distal angle ; carpus triangular with a long seta at inner margin ; propodus relatively robust with 2 setae on inner margin ; dactylus bifid with 2 setae on one side.

Pereopod 2 (Fig.I).Basis rectangular with 3 setae at inner distal angle ; ischium a little shorter than basis with many short setae on inner margin ; merus with many hairs on inner margin, 2 setae at inner distal angle and 5 relatively short setae at outer distal angle ; carpus rectangular with many hair and a long seta at inner distal angle and 4 short setae at outer distal angle ; propodus rectangular with 8 setae on inner margin ; dactylus bifid.

Pereopod 3 (Fig.J). Basis rectangular with 2 setae on outer margin and a short seta at inner distal angle ; ischium rectangular with a seta at inner distal angle and many hair on inner margin ; merus with 1~2 long setae at inner distal angle and many hair on inner margin and 4 setae at outer distal angle ; carpus rectangular with a long seta on at inner distal angle and 2 setae at outer distal angle ; propodus rectangular with 2 relatively long setae on inner margin ; dactylus bifid.

Pereopod 4. Basis rectangular;ischium 2/3 as long as basis ; merus half the length of ischium with 2 setae at outer distal angle and setose on inner margin ; carpus a little longer than merus with a long seta at inner distal angle and 3 setae on outer margin ; propodus rectangular with 3 setae on inner margin and 2 setae at outer distal angle ; dactylus bifid.

Pereopod 5. Basis with short seta on outer margin and a relatively short seta at inner distal angle ; ischium with 2 short setae at outer distal angle ; merus with minute hair on both margin and a seta at inner ; carpus with 2 setae at outer distal angle and a seta at inner distal angle ; propodus with 5 setae in inner margin and many hairy on outer margin ; dactylus bifid with a seta.

Pereopod 6 (FigK). Basis rectangular with a seta at inner distal angle ; ischium with minute hair on inner margin ; merus with many hair on inner margin a relatively long seta at inner distal angle and 2 setae at outer distal angle ; carpus with 2 setae at inner distal angle and a seta at outer distal angle ; propodus with 2 setae on inner margin and a seta at outer distal angle ; dactylus bifid.

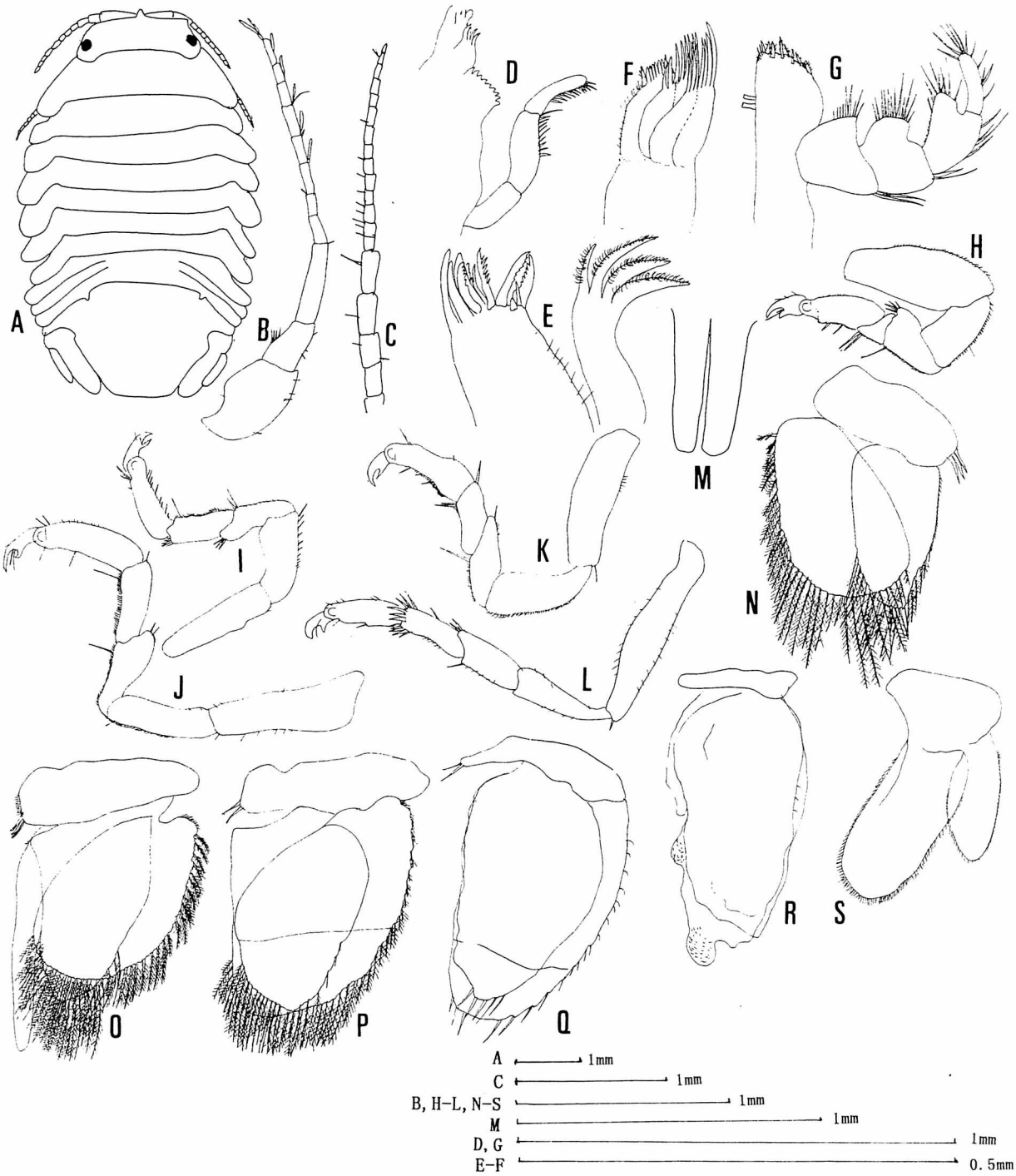


Fig.1 *Gnorimosphaeroma tondaense*, n.sp.

A. Dorsal view ; B. Antennule, C. Antenna ; D. Right Mandible ; E. Maxillula ; F. Maxilla ; G. Maxilliped ; H. Pereopod 1 ; I. Pereopod 2 ; J. Pereopod 3 ; K. Pereopod 6 ; L. Pereopod 7; M. Penes ; N. Pleopod 1 ; O. Pleopod 2 ; P. Pleopod 3 ; Q. Pleopod 4 : R. Pleopod 5 ; S. Uropod (All ; Male Holotype) .

Pereopod 7 (Fig.L) longer than the preceding ones. Basis long with 8～10 short setae on inner margin and outer margin, respectively and a seta on at inner distal angle ; ischium about half the length of basis with short setae on both margins ; merus with 2 setae on inner distal angle and 2 setae at outer distal angle ; carpus as long as merus, with 10 setae on distal margin ; propodus a little longer than carpus with 10～12 setae on distal margin ; dactylus bifid with 1 or 2 setae on one side.

Penes (Fig.M) relatively long ; each penis 5 times as long as wide.

Pleopod 1 (Fig.N). Basis with 3 coupling hooks. Endopod elliptical with about 35 plumose setae. Exopod with 55 setae around the margin.

Pleopod 2 (Fig.O). Basis with 3 coupling hooks. Endopod semicircular with about 55 setae around the margin. Stylus long with rounded tip.

Pleopod 3 (Fig.P). Basis rectangular with 3 coupling hooks. Endopod semicircular with 15～19 plumose setae. Exopod round with about 45 setae around the margin.

Pleopod 4 (Fig.Q). Basis slender with 2 setae. Endopod with 4 short setae near the tip. Exopod with 7～8 relatively longer setae and 15 shorter setae around the margin.

Pleopod 5 (Fig.R). Basis short. Endopod rectangular. Exopod rectangular with 2 bosses.

Uropod (Fig.S). Basis trapezoid ; endopod ellipsoid with many hair around the margin ; exopod 55% of endopod in length.

Etymology ; The species name is after the type locality.

Habitat : The present specimens were collected form the hole of rocks of estuary. According Fukui and Wada (1987), the bottom water salinity fluctuated from 5.6 to 19.3 ‰ in July.

Remarks : The present new species is allied to *Gnorimopshaeroma anchialos*, reported from Korea, but the former is separated from the latter in the following features : less numerous teeth on maxilla, (2) much shorter exopod of uropod, (3) less numerous setae on outer distal angle on merus of pereopod 1, (4) less numerous flagellar segments of both antennae.

The present new species is also separated from the common species in Japanese water, *Gnorimosphaeroma rayi* Hoestlandt in the following features : (1) less numerous setae on all the rami of maxilla, (2) shorter exopod of uropod, (3) less numerous setae on basis and merus of pereopod 1, and (4) more numerous flagellar segments on both antennae.

Acknowledgment

I would like to express my sincere gratitude to Professor Keiji Wada of the Nara Women's University and Ms. Yuko Murata, of the same university for their kindness of collecting such interesting specimens. This taxonomic research was financially supported partly by the Sasagawa Scientific Researcher Grant from the Japan Science Society.

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