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A Philosciid Isopod (Crustacea) collected from Hahajima Island, Bonin Islands, Japan*

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小笠原諸島母島産ヒメワラジムシの一種（甲殻綱，等脚目）

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岩手大学の石沢夢紫さんが小笠原諸島母島境ヶ岳付近のアカギ林やヒメツバキ林，長浜方面のテリハボク林で,見かけない等脚目を発見し,その標本が筆者の元に送られてきた。筆者の研究により，この種が *Papuaphilocia* 属の未記載の種類であることが分かった。また，この標本により小笠原諸島にも *Papuaphiloscia* 属が分布することが明らかになった。本種は沖縄島照首山から知られている *Papuaphiloscia terukubiensis* Nunomua, 1992と最も類似するが，(1)目が存在するもののより小さいこと，(2)第２触角がより長く，第３胸節後半に達すること，(3)尾肢の外肢がより長いことなどが相違するが，雄が未発見であるので，新種を創設しない。

キーワード：等脚目，ワラジムシ，ヒメワラジムシ属，ミナミワラジムシ，小笠原，母島，分布，分類

A philosciid isopod, collected from, Hahajima island, Bonin Islands, was examined and it proved to belong the genus *Papuaphiloscia* and it is the first record of the genus from Bonin Islands. The present species is most closely allied to *Papulaphiloscia terukubiensis* Nunomura, 1992. But the present specimens differs from terukubiensis by the following features: (1) smaller eye consisting less numerous ommtidia, (2) longer antenna and (3) longer exopod of uropod. But no male specimens has been collected, therefore, I refrained from establishing a new species.

Key words: Isopoda, Oniscidea, Philosciidae, *Papuaphiloscia,* distribution, taxonomy, biogeography, Bonin Islands, Hahajima

Ms. Yumeshi Ishizawa, graduated student of Iwate University happened to find an unfamiliar looking Isopod crustacean. At first these specimens were studied by her and then later, they were handed to me for identification. At the results of my study, they proved to represent an undescribed species of the genus *Papuaphiloscia.* But no male specimens were obtained, therefore, I refrained from establisling a new species.

Before going further, I wish to express my sincere gratitude to Ms. Yumeshi Isizawa, graduated student of Iwate University and Prof. Shoichi Yoshida, of the same University for their kindness for giving me to examine these interesting materials.

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Order Isopoda
Suborder Oniscidea
Family Philosciidae
Genus *Papuaphiloscia*

Papuaphiloscia sp.
(Fig. A-N)

Material examined; 3♀♀ (4.6～5.3mm in body length), *Schima mertensiana*-forst, Mt.Sakaigadake, 320m in altitude, Hahajima Island,. Bonin Islands, July 8, 2000, coll. Yumeshi Ishizawa. The specimens are deposited at the Toyama Science Museum, (TOYA Cr-12841～12843).

Description; Body elongated, 3.0 times as long as wide. Color white in alival state. Cephalon with weakly protruded medial process and lateral margins. Eye small, each eye composed of 5～6 ommatidia. Pereonal somites with noduli lateralis on the dorsal surface of each somite (Table 1). Pleon abruptly narrower than the pereon. Pleotelson with rounded posterior margin.

Table. 1. Position of noduli lateralis on pereonal somites

	d/c	b/c
1	0.12	0.86
2	0.30	0.57
3	0.08	0.42
4	0.47	0.44
5	0.15	0.56
6	0.09	0.33
7	0.28	0.16

Antenna (Fig. C) rather long, reaching posterior half of pereonal somite 3; mutual length of flagellum is 2: 2: 3. Right mandible (Fig. D): pars incisiva 3-headed; lacinia mobilis 2-headed; 3 setal rows; processus molaris is represented by a single setae. Left mandible (Fig. E): pars incisiva 3-headed; lacinia mobilis 4-headed; 3 setal rows; processus molaris is represented by a single setae. Maxillula (Fig. F): inner lobe with 2 plumose setae at the tip ; outer lobe with 8 simple teeth.. Maxilla (Fig.G) normal. Maxilliped (Fig. H): endite with an acute projection at inner distal angle, a protruded area and 2 setae on inner margin; palp slender. Pereopod 1 (Fig. I): basis 2.5 times as long as wide, with 5～10 setae on both margin; ischium 2/5 time as long as basis; merus half length of basis, with 6 setae on inner margin; carpus as long as merus, with 4～5 setae on basal half, a long seta at the middle area and 6 short setae on the distal area of inner margin; propodus a little longer than carpus, with 5 setae on inner margin and 10 setae on outer margin. Pereopod 2 (Fig. J): basis 2.2 times as long as wide, with 4～6 setae on inner margin and 9～10 setae on outer margin; ischium 40% as long as basis, with 4 setae on inner margin and a seta at sternal margin; merus 1.2 times as long as wide, with 5 setae on inner margin and a seta at outer distal angle; carpus 1.4 times as long as merus, with 6 setae on inner margin, 2 setae on distal margin and 4～5 setae on outer margin; propodus 1.2 times as long as merus, with 6 setae on inner margin 7～8 setae on outer margin; dactylus with a strong tooth and 3～4 small teeth on inner margin and a sensory seta. Pereopod 3: Basis 3.7 times as long as wide, with several short setae on both margins; ischium 2/5 as long as basis with 3 setae on inner margin; merus 9/20 as long as basis with 6～8 setae on inner margin, 3～4 setae on outer margin; carpus a little longer than merus; propodus as long as carpus, with 2 longer and several shorter setae on inner margin and 7～9 setae on outer margin. Pereopod 4: basis 3.5 times as long as wide, with 8～10 setae on inner margin and 8 setae on outer margin; ischium 1/3 as long as basis, with 3～4 setae on inner margin and a seta on outer margin; merus a little longer than ischium, with 4～5 setae on inner margin and 3～4 setae on outer margin; carpus 1.3 times as long as merus, with 10～12 setae on inner margin and 4～5 setae on

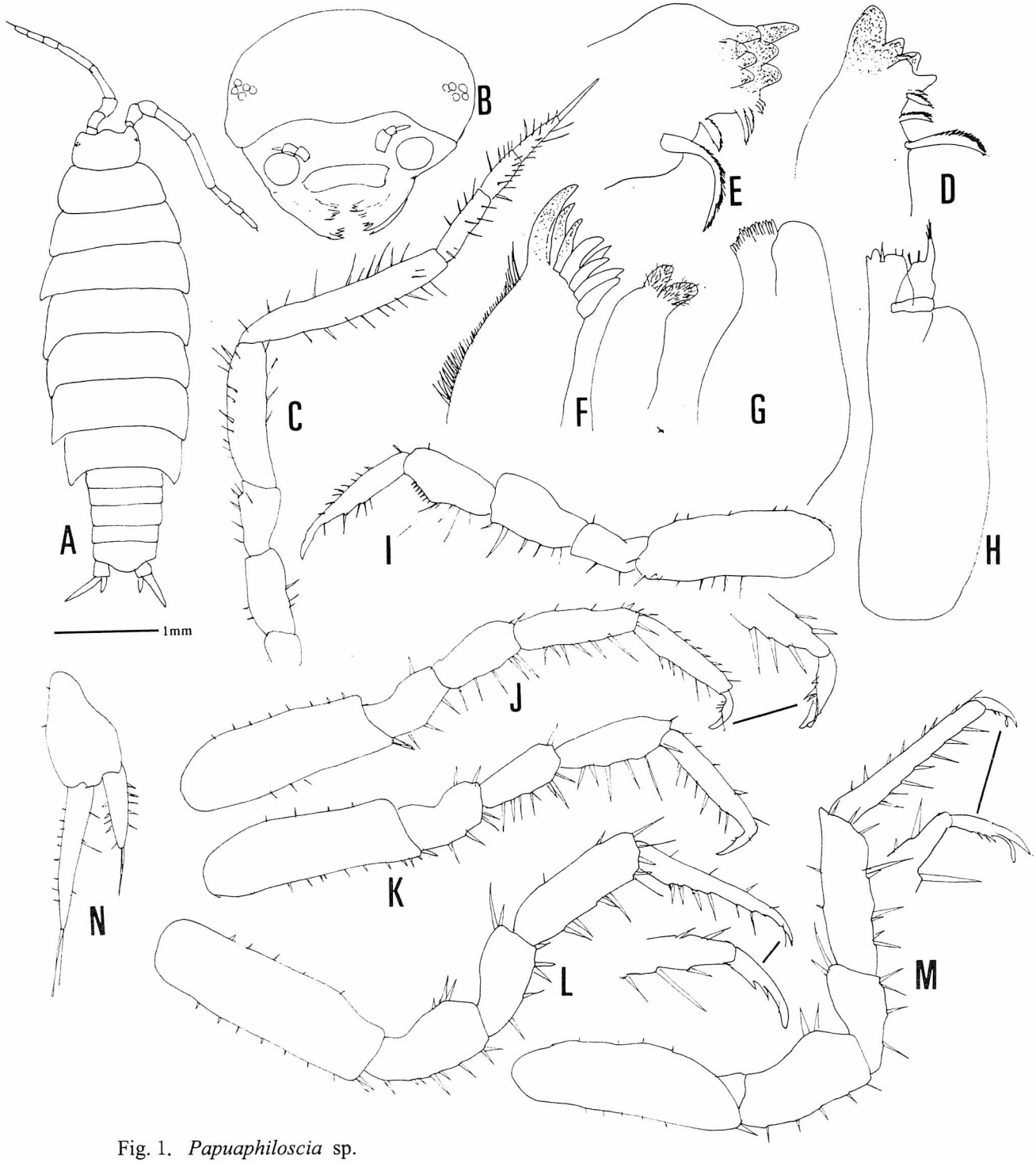

Fig. 1. *Papuaphiloscia* sp.

A: Dorsal view. B: Anterior view of cephalon. C: Antenna. D: Right mandible. E: Left mandible. F: Maxillula. G: Maxilla. H: Maxilliped. I～J: Pereopods 2. K～M: Pereopods 5～7. N: Uropod (All: Females from Hahajima).

outer margin; propodus a little longer than merus, with 7～8 setae on inner margin and 7～9 setae on outer margin. several shorter setae on inner margin and 6-8 short setae on outer margin. Pereopod 5 (Fig. K): basis 3.0 times as long 6-7as wide, with setae on inner margin and setae on outer margin; ischium 45% as long as basis, with 4～5 setae on inner margin and 2～3 setae on outer margin; merus as long as ischium, with 8 setae on inner margin and 2 setae on outer distal area; carpus 1.3 times as long as merus, with 5～6 relatively long setae on inner margin and 2 setae on distal margin; propodus only slightly longer than carpus with 6～7 setae on inner margin and 5 setae on outer margin. Pereopod 6 (Fig. L): basis 3.1 times as long as wide, with 7～8 setae on inner margin, 2 setae at inner distal angle and 4～6 setae on outer margin; ischium almost half the length of basis, with 8～10 setae on inner margin and 2～3 setae on outer margin; merus a little shorter than ischium, with 4 setae on inner margin and 2 setae at outer distal angle; carpus 1.6 times as long as merus, with 6～7 setae on inner margin 2～3 setae on outer margin and 4～5 setae on distal margin; propodus a little longer than carpus with 6 setae on Inner margin and 4 setae on outer margin; dactylus with 2～3 setae on inner margin and a sensory seta. Pereopod 7 (Fig. M): basis 3.2 times as long as wide, with 5 setae on inner margin, 5～6 setae on outer margin and a seta at inner distal angle; ischium 2/3 as long as basis, with 5 setae on inner margin and 2 setae on outer margin; merus 3/5 as long as ischium, with 4 setae on inner margin and 2 setae at outer distal angle; carpus as long as ischium, with 8 setae on inner margin and 2～3 setae on outer margin; propodus 1.2 times as long as 7～8 setae on inner margin and 7～8 setae on outer margin dactylus with 3 teeth on inner margin, a seta on outer margin and a sensory seta. Uropod (Fig. N): basis 1.5 times as long as wide; exopod 1.3 times as long as basis, with 10 setae on outer margin, 3～5 setae on inner margin and 2 long setae at tip; endopod half length of exopod, with 5～6 setae on both margins and 2～3 setae at tip.

A gravid female with 8 eggs in brood pouch.

Remarks: The present species is most closely allied to *Papulaphiloscia terukubiensis* Nunomura, 1992. But the present specimens differ from *terukubiensis* by the following features: (1) smaller eye consisting less numerous ommtidia, Nunomura described "each eye 4 ommatidia" but it ha s actually 14 or more ommatida as the fig (Nunomura, 1992): (2) longer antenna and (3) longer exopod of uropod. But no male specimens has been collected, therefore, I refrained establishing a new species.

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