

日本産多足類の分類学的研究 I

三宅島でみいだされたヒトフシムカデ属の1新種

誌名	Edaphologia
ISSN	03891445
著者名	高野,光男
発行元	日本土壤動物研究会
巻/号	19号
巻号補足	
掲載ページ	p. 35-39
発行年月	1979年5月

農林水産省 農林水産技術会議事務局筑波産学連携支援センター
Tsukuba Business-Academia Cooperation Support Center, Agriculture, Forestry and Fisheries Research Council
Secretariat



TAXONOMICAL STUDIES ON THE JAPANESE
MYRIAPODA-I. A NEW SPECIES OF THE
GENUS *MONOTARSOBIUS* (CHILOPODA: LITHO-
BIIDAE) FROM MIYAKE-JIMA ISLAND

By

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日本産多足類の分類学的研究—I
三宅島でみいだされたヒトフシムカデ属の1新種

高野光男*

Synopsis

A new species of centipede belonging to the genus *Monotarsobius*, *M. shinoharai* sp. nov., is described from Miyake-jima Island, Central Japan. The new species is easily distinguishable from the known species of the genus by the presence of only 3 pairs of ocelli and 14th and 15th legs with flattened paraxial side.

Ten species of the genus *Monotarsobius* have hitherto been known from Japan. Among them, the two species, *M. elegans* SHINOHARA and *M. crassipes holstii* POCKOCK, were reported from Miyake-jima Island. In December of 1975, the author collected another unknown species of *Monotarsobius* from the island and describes it as a new species.

Before going further, the author wishes to express his hearty thanks to Mr. K. SHINOHARA of Koiwa Senior High School (Tokyo) for his valuable suggestion.

***Monotarsobius shinoharai* sp. nov.**

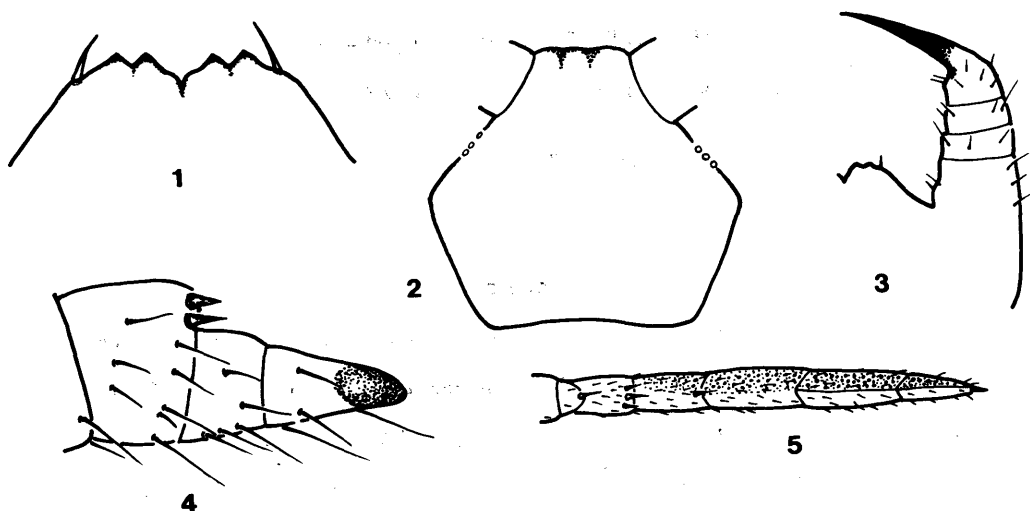
(The Japanese name: Shinohara-hitofushimukade)

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Size. Length: 6 - 7 mm; breadth 0.7-0.9 mm.

Colour. Pale yellow or yellow.

Head. Subpentagonal, as broad as long; the breadth almost similar to that of 7th tergite. Posterior weakly concave; a pair of posterior depressions faint or absent. Antennae a little shorter than one-third



Figs. 1-5. *Monotarsobius shinoharai* sp. nov. — 1: Forcipular teeth (ventral). 2: Head (dorsal). 3: Forcipule and forcipular teeth (ventral). 4: Female gonopod (dorsal). 5: The 15th leg (ventral)

of body length, comprising of 20-21 segments. Ocelli usually 3, rarely 4 on each side, being arranged in a single horizontal row; the intermediate ocellus the largest. Anterior border of forcipular coxosternite provided with 2+2 teeth; margins lateral to parodontal spines sloping fairly steeply backward without forming angular shoulders.

Tergites. T.1 distinctly narrower than head, with lateral borders rounded and posterior border feebly concave or straight. Posterior borders of T.3 and T.5 also feebly concave, those of T.8, T.10 and T.12 distinctly concave, and that of T.14 slightly concave or straight. All the tergites without posterior angulations.

Legs. Tarsometatarsal articulation is absent on 1st to 13th legs.

The 14th and 15th legs thickened in both sexes, though more slightly in females. The 15th legs about a quarter of body length. The 1st to 13th legs with accessory apical claws and sensory spurs, but the 14th and 15th without such organs. Femur, tibia and tarsus of the 14th and 15th legs in both sexes hypertrophied, the paraxial side being flattened and densely covered by pores. Spinulation as shown in Table 1. Coxal pores round, 2 to 3 in number on each coxa. Formula of coxal pores in females is 3 3 3 2, whereas that in males is usually 3 3 3 2 or 2 3 3 2.

Female genitalia. Two stout and short spurs on each gonopoda. Claws of gonopoda spoon-shaped.

Type-series. Holotype ♀ (NSMT-My 5): Tsubota, Miyake-jima Island, Cnetral Japan. 29-XII-1975. M. TAKANO leg. from litter. — Allotype ♂ : the same data as the holotype. — Paratypes (6 exs.): Ako, Miyake-jima Island. 30-III-1978. M. TAKANO leg.

Remarks. *Monotarsobius elegans* SHINOHARA, 1957, is most similar to the present new species, but it is distinguishable from the latter by the 17 antennal segments, the 4 ocelli on each side of head and the 14th and the 15th legs with the paraxial side not flattened. The name of the new species was dedicated to Mr. K. SHINOHARA, who made a great contribution to the study of the Japanese Myriapoda.

Table 1 The plectrotaxy of legs of *Monotarsobius shinoharai* sp. nov.

Leg	Ventral					Dorsal				
	C	Tr	P	F	Ti	C	Tr	P	F	Ti
1 st			mp	am					p	
2 nd			mp	am					p	
3 rd			mp	am					ap	
4 th			mp	am					ap	
5 th			mp	am					ap	
6 th			mp	am					ap	
7 th			mp	am					ap	
8 th			mp	am					ap	
9 th			mp	am					ap	
10 th			mp	am					ap	
11 th		m	mp	am					ap	
12 th		m	amp	am					ap	
13 th		m	amp	am					ap	
14 th		m	amp	am				p	amp	
15 th		m	amp	am				p	amp	

Table 2 Measurements of legs (in mm)

Leg	Trochanter	Prefemur	Femur	Tibia	Tarsus	Metatarsus	Total
1 st	0.09	0.23	0.24	0.24	0.46		1.26
2 nd	0.09	0.24	0.24	0.34	0.48		1.39
13th	0.09	0.24	0.26	0.35	0.56		1.50
14th	0.09	0.30	0.44	0.56	0.56	0.30	2.26
15th	0.12	0.35	0.48	0.60	0.60	0.36	2.51

Table 3 Measurements of head and dorsal plates (in mm)

Tergite	Head	Forcipular	T.1	T.2	T.3	T.7	T.9	T.14	T.15
breadth	0.9	0.75	0.75	0.7	0.65	0.75	0.9	0.7	0.4
length	0.7	0.15	0.5	0.15	0.65	0.55	0.65	0.45	0.35

Key to the Japanese species of the genus *Monotarsobius*

1. Ocelli absent *M. caecigenus* MIYOSI
- Ocelli present 2
2. Ocelli arranged in a single horizontal row 3
- Ocelli arranged in two horizontal rows 5
3. Anal legs of male without any special modification on any of segments 4
- Anal legs of male with special modification on tibia
..... *M. tuberculatus* MURAKAMI
4. Ocelli 3 on each side; paraxial side of 14th and 15th legs flat;
antennae with 20-21 segments *M. shinoharai* sp. nov.
- Ocelli 4 on each side; paraxial side of 14th and 15th legs rounded;
antennae with 17 segments *M. elegans* SHINOHARA
5. Claws of gonopods bipartite 6
- Claws of gonopods tripartite 8
6. Ocelli 5 on each side; body bicolour *M. purpureus* TAKAKUWA
- Ocelli 1 + 7-8 on each side *M. subdivisus* TAKAKUWA
7. Coxal pores 2 2 2 2 *M. obtusus* TAKAKUWA
- Coxal pores 5 5 5 5 *M. ramulosus* TAKAKUWA

8. Anal legs of male without any special modification on any of segments 9
 - Anal legs of male with special modification on tibia 10
 9. Ocelli 1~4 on each side; antennae with 19 segments; coxal pores
 4 4-5 4 3 *M. minor* TAKAKUWA
 - Ocelli 6~7 on each side; antennae with 20-25 segments; coxal pores
 3-6 4-6 4-6 4-5 *M. crassipes holstii* POCKOCK
 10. Tibia of anal legs in male with a small circular region bearing
 dense setae *M. sansanus* MURAKAMI
 - Tibia of anal legs in male bearing a conspicuous crest at distal
 end *M. nihamensis* MURAKAMI

摘 要

伊豆諸島の三宅島から得られたイシムカデ科の1新種を記載し、シノハラヒトフシムカデ(新称)
Monotarsobius shinoharai と命名した。同時に、本新種を含め、日本産ヒトフシムカデ属
Monotarsobius に属する11種の種の検索表を示した。

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