

富山県,有峰の森林土壌から見出されたタテイレコダニ科の新種

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A New Species of Oribatid Mites of the Family Oribotritiidae from Toyama in Central Japan

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Abstract A new species of oribatids (Acari: Oribatida: Oribotritiidae), *Sabacarus japonicus* sp. n., was described from the forest soil in Toyama Prefecture in Japan. This is the first record of *Sabacarus* species from Holarctic Region. The species characterized by posterior recurved shape of notogaster, lamellar setae situated very near to long interlamellar setae, genua IV without seta, nine pairs of genital setae, and two pairs of exobothridial setae.

Key words: *Sabacarus japonicus*, new species, Toyama, Japan, Oribatida

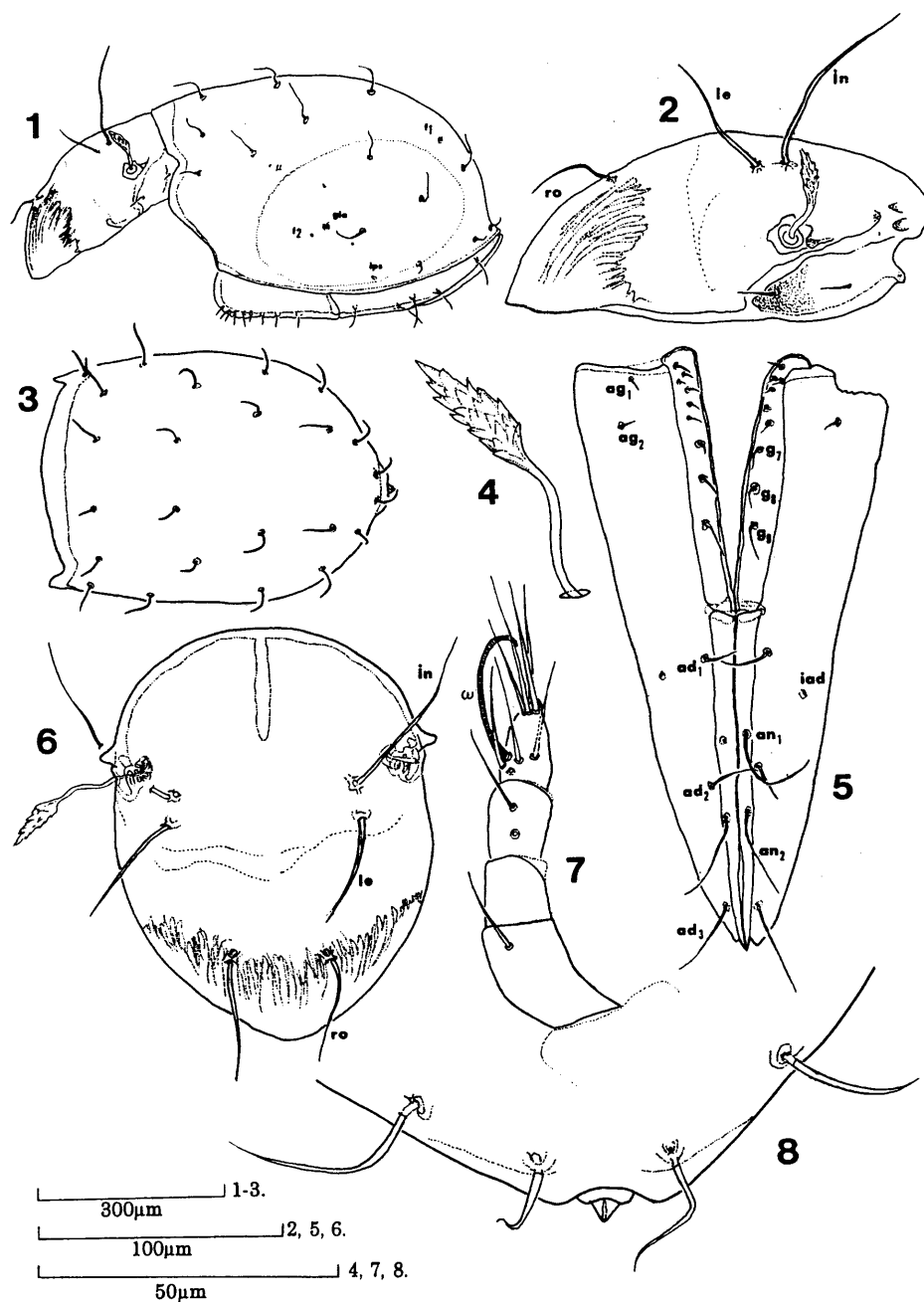
In the soil mite collection from Toyama Prefecture in Japan, the authors found unknown species of oribatids belonging to the family Oribotritiidae, which is described here as a new species. The species of the genus *Sabacarus* have been collected in Holotropical Region as yet; RAMSAY and SHEALS (1969) described *S. corneri* collected from Oriental Region and HAMMER (1970) described *S. ranokaoensis* from Neotropical Region. This species is the first species of the genus found in Holarctic Region (Palaeartic Region). The authors are grateful to Mr. Hisashi NEGORO of Toyama Science Museum who took the soil sample and Mrs. Yoshiko HIRAUCHI of Niikawa Girl's High School who offered them a chance to see the interesting material.

Sabacarus japonicus sp. n.
(Japanese name: *Mame-irekodani*)
(Figs.1-12)

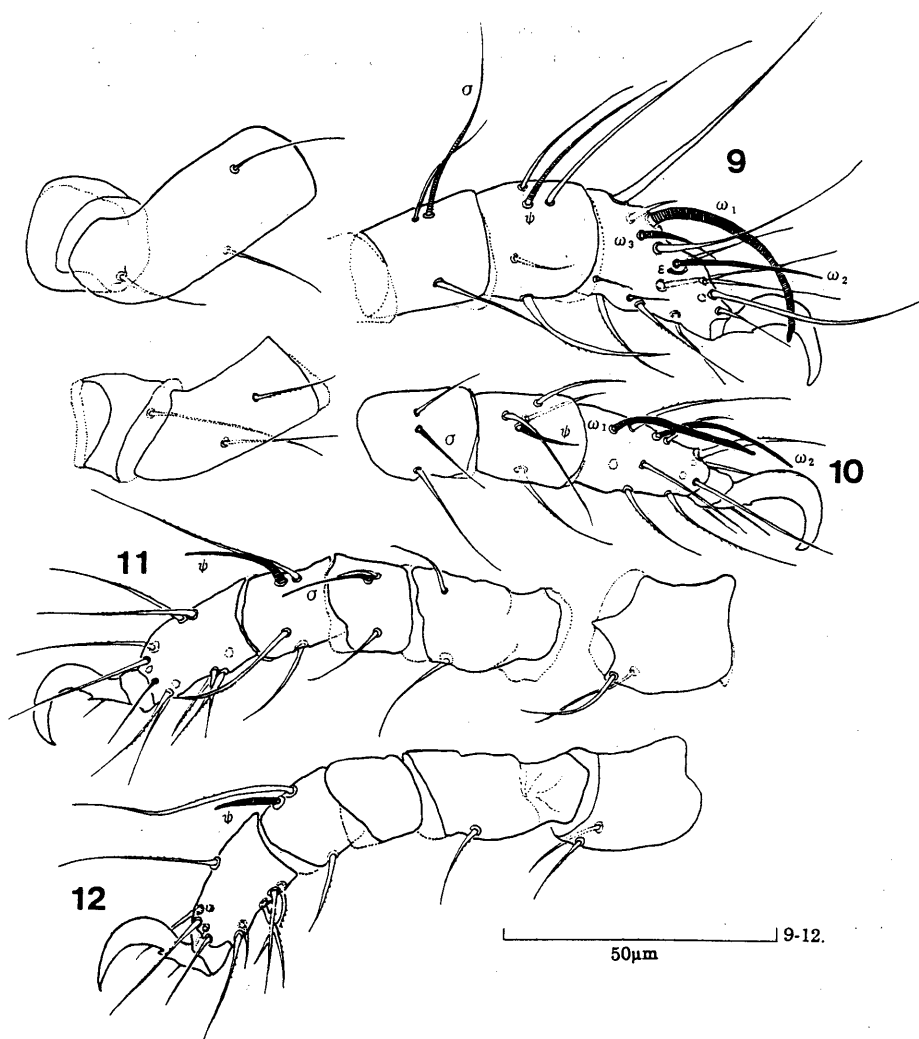
Measurement. Aspis length 171-187 μ m (av. 177 μ m by 8 exs.), aspis height 75-78.5 μ m (av. 78 μ m by 3 exs.), aspis width 127-137 μ m (av. 130 μ m by 4 exs.), notogaster length 305-337 μ m (av. 317 μ m by 6 exs.), notogaster height 171-221 μ m (av. 197 μ m by 5 exs.), notogaster width 186-216 μ m (av. 201 μ m by 2 exs.).

Elementary chaetotaxy. Body setae: *ntg*: (14 + 14); *g*: (9+9); *ag*: (2+2); *an*: (2+2); *ad*: (3+3). Leg setae: I (1-2-2-4-15), II (1-2-2-4-11), III (2-2-2-3-11), IV (2-1-0-2-11). Solenidia: I (1-1-3), II (1-1-2), III (1-1-0), IV (0-1-0). Legs monodactyle

Aspis. (Fig. 2, 6) Median ridge almost lacking or very weakly developed as a short, low



Figs. 1-8. *Sabacarus japonicus* sp. n. — 1: Lateral. 2: Lateral view of aspis. 3: Dorsal view of notogaster. 4: Sensillus. 5: Genito-anal region. 6: Dorsal view of aspis. 7: Palp. 8: A posterior part of notogaster.



Figs. 9-12. *Sabacarus japonicus* sp. n. — 9: Leg I. 10: Leg II. 11: Leg III. 12: Leg IV.

ridge near the anterior margin of aspis. Lateral carinae completely absent. Rostral area carries a pattern of longitudinal striations. Rostral, lamellar and interlamellar setae smooth; *ro* curved downward, shorter than *le*; *le* weakly sigmoid at the middle portion, shorter than *in*, inserted very near to *in*; *in* weakly sigmoid at the middle portion also, thin at tip, about 1/2 as long as aspis. Two exobothridial setae (*ex1*, *ex2*) found on each side, straight and similar in length to each other. Sensillus terminating in a flattened, lanceolate head with scale-like sculpture. Bothridial squama rounded triangular and located above and posterior to bothridium.

Notogaster. (Fig. 1, 3) Flat anteriorly, rounded posteriorly with brim on the posterior

edge. Fourteen pairs of notogastal setae smooth, bending on their proximal part toward anterior direction. Insertion pores of the setae large and rounded. Setae *ps1* and *ps2* inserted in very low position near the postero-ventral angle on the corner of posterior recurved brim-like part (Fig. 8).

Genito-anal region. (Fig. 5) Genital plate with 9 setae, becoming progressively longer toward posterior ones. Sideways, *g2* and *g3* inserted very close together. Two pairs of short aggenital setae of equal length. Anal plate with 2 setae; *an1* a little longer than *an2*. Among 3 pairs of adanal setae *ad3* shorter than the others.

Infracapitulum. Palp 3-segmented, with a feeble indication of separation at line of fusion of femur and genu (Fig. 7); palpal tarsus with 9 setae; eupathidia separated at base.

Legs. (Fig. 9-12) None of the tarsal solenidia has a coupling seta. Tarsus I: One solenidion ω_1 inserted most anteriorly and the longest among solenidia; ω_2 inserted most posteriorly; ω_3 shortest, inserted between ω_1 and ω_2 ; famulus ε short and near from ω_2 . Tibia I: one solenidion accompanied by a very long seta. Genu I one solenidion accompanied by a short seta. Tarsus II: ω_1 and ω_2 equal in length; ω_1 inserted posterior to ω_2 . Tibia II; with 4 setae; One solenidion accompanied by a long seta. Genu II: Solenidia without accompanying seta. Tibia III: One solenidion accompanied by a fairly long seta. Tibia IV: Very long seta *d* and not coupled with solenidion. Genu IV without seta.

Eggs. The specimens examined have 0-3 eggs par individual (av. 1.45 by 11 exs.). All specimens (14 exs.) have ovipositor.

Type series. Holotype (NSMT-Ac10795) and 13 paratypes (NSMT-Ac10796~10808): *Larix* forest (1, 100m above sea level) in Nishitani, Arimine area, Ohyama-machi, Toyama Prefecture, Japan. May 18, 1994. Hisashi NEGORO leg. From litter and surface soil. The type series is deposited in the collection of National Science Museum, Tokyo.

Remarks. The new species is differs from *Sabacarus corneri* RAMSAY and SHEALS, 1969 from Kinabalu (1615m) in North Borneo and *Sabacarus ranokaoensis* HAMMER, 1970 from Easter Island in (1) posterior recurved shape of notogaster (Fig. 1), (2) lamellar seta inserted very near to much longer interlamella seta (Fig. 2, 3), (3) *an1* located between *ad1* and *ad2*, *an2* between *ad2* and *ad3* (Fig. 5), (4) genu IV without seta (Fig. 12), (5) nine pairs of genital setae (Fig. 5), and (6) two pairs of exobothridial setae (Fig. 2).

摘 要

島野智之・青木淳一（横浜国立大学 環境科学研究センター 〒240 横浜市保土ヶ谷区常盤台 79-7）：富山県、有峰の森林土壌から見出されたタテイレコダニ科の新種。

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富山県大山町有峰西谷のカラマツ林の森林土壌からササラダニ類タテイレコダニ科の新種が見出されたので命名記載した。マメイレコダニ *Sabacarus japonicus* sp. n. は、後体部後縁のそり返りと、桁毛が長い桁間毛に近接すること、第IV脚の膝節(genu)に毛がないこと、生殖門板毛が9対あること、胴感杯外毛が2対あることにより既知種と区別される。

New Species of Oribatid Mites of Family Oribotritiidae, Japan.

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