

NEW FAUNISTICAL DATA ON ORIBATID MITES
FROM THE PHILIPPINES, WITH A DESCRIPTION OF
A NEW SPECIES OF THE GENUS *TRACHYORIBATES*
(ACARI, ORIBATIDA, HAPLOZETIDAE)

SERGEY G. ERMILOV¹, LEONILA CORPUZ-RAROS², JEREMY C. B. NAREDO³
and ORLANDO L. EUSEBIO³

¹Institute of Environmental and Agricultural Biology (X-BIO), Tyumen State University,
Lenina str. 25, Tyumen 625000, Russia; corresponding author
E-mail: ermilovacari@yandex.ru; <https://orcid.org/0000-0002-0913-131X>

²Institute of Weed Science, Entomology and Plant Pathology, College of Agriculture and Food
Science, and Museum of Natural History, University of the Philippines Los Baños, College,
4031 Laguna, Philippines; E-mail: lcraros@up.edu.ph; <https://orcid.org/0000-0003-0562-0607>

³Entomological Museum, Museum of Natural History, University of the Philippines Los Baños,
College, 4031 Laguna, Philippines
E-mail: jbnaredo1@up.edu.ph; <https://orcid.org/0000-0003-3304-3587>
E-mail: oleusebio@up.edu.ph; <https://orcid.org/0000-0003-3115-6035>

This paper presents a list of 78 species/subspecies of 50 genera and 27 families of soil-inhabiting oribatid mites (Oribatida) collected on Sibuyan Island, Philippines; of these, two species and one genus are recorded in the Oriental region for the first time, and 14 species/subspecies and two genera are recorded in the Philippine fauna for the first time. *Trachyoribates insularis* sp. n. (Haplozetidae) is described on the basis of adults.

Key words: Oriental region, Sibuyan Island, fauna, list of taxa, taxonomy, morphology.

INTRODUCTION

The present study is based on oribatid (Acari, Oribatida) materials collected from Mount Guiting-guiting Natural Park in the Philippine Sibuyan Island. It is the first faunistical data on oribatid mites in this territory. The main goals of the current study are: to present a list of the identified taxa with notes on new findings (new records); and to describe and illustrate a new species belonging to the genus *Trachyoribates* Berlese, 1908 (Haplozetidae) as *Trachyoribates insularis* sp. n.

Trachyoribates was proposed by BERLESE (1908) with *Oribata ampulla* Berlese, 1905 as type species. At present, it comprises 22 species, which are distributed in the Afrotropical, Oriental and Australasian regions (ERMILOV 2019). The taxonomic review and solutions, a revised generic diagnosis, and an identification key to known species, distribution and habitats of *Trachyoribates* are presented by ERMILOV (2019). Earlier, five species of *Trachyoribates* (as representatives of *Magyaria* Balogh, 1963) were registered in the Philippine fauna (CORPUZ-RAROS & ERMILOV 2019), i. e. *T. agusana* (Corpuz-Raros,

1991), *T. filipinus* (Corpuz-Raros, 1979), *T. javensis* (Hammer, 1979), *T. luzonica* (Corpuz-Raros, 1991), and *T. mindanensis* (Corpuz-Raros, 1979).

MATERIAL AND METHODS

Specimens. Substrate samples containing oribatid mites were collected from 16 localities in Mount Guiting-guiting Natural Park on the Philippine Sibuyan Island (Romblon Province, Mt. Magdiwang):

- locality 1: soil and litter inside dead tree stump (museum number: JCBN 17 0613-1), 13.VI.2017 (leg. J. C. Naredo);
- locality 2: soil and leaf litter above decomposing log (museum number: JCBN 17 0613-2), 13.VI.2017 (leg. J. C. Naredo);
- locality 3: soil and leaf litter above decomposing log (museum number: JCBN 17 0613-3), 13.VI.2017 (leg. J. C. Naredo);
- locality 4: soil and leaf litter above decomposing log (museum number: JCBN 17 0613-4), 13.VI.2017 (leg. J. C. Naredo);
- locality 5: leaf litter on top and around a decomposing log (museum number: JCBN 17 0326-2), 26.III.2017 (leg. J. C. Naredo);
- locality 6: forest leaf litter (museum number: JCBN 17 0326-3), 26.III.2017 (leg. J. C. Naredo);
- locality 7: soil from/and decomposing tree (museum number: JCBN 17 0326-4), 26.III.2017 (leg. J. C. Naredo);
- locality 8: soil in crevice of tree (museum number: JCBN 17 0326-5), 26.III.2017 (leg. J. C. Naredo);
- locality 9: forest leaf litter above decomposing buttress (museum number: JCBN 17 0326-6), 26.III.2017 (leg. J. C. Naredo);
- locality 10: forest leaf litter (museum number: JCBN 17 0330-1), 30.III.2017 (leg. J. C. Naredo);
- locality 11: forest leaf litter (museum number: JCBN 17 0330-2), 30.III.2017 (leg. O. L. Eusebio);
- locality 12: forest leaf litter (museum number: JCBN 17 0330-3), 30.III.2017 (leg. O. L. Eusebio);
- locality 13: forest leaf litter (museum number: JCBN 17 0330-4), 30.III.2017 (leg. O. L. Eusebio);
- locality 14: leaf litter and duff between branches of tree (museum number: JCBN 17 0327-1), 27.III.2017 (leg. J. C. Naredo);
- locality 15: forest soil and leaf litter (museum number: JCBN 189), 3.III.2015 (leg. J. C. Naredo);
- locality 16: forest leaf litter and soil inside cave (museum number: JCBN 190), 4.III.2015 (leg. J. C. Naredo).

Mites were extracted using Berlese's funnels in laboratory conditions and preserved in 70% of ethanol.

Observation and documentation. For measurements and illustrations, specimens were mounted in lactic acid on temporary cavity slides. Body length was measured in lateral view, from tip of the rostrum to the posterior edge of the gastronotum. Notogastral width refers to maximum width of the notogaster in dorsal view (behind pteromorphs). Lengths of body setae were measured in lateral aspect. All body measurements are presented in micrometers. Formulas for leg setation are given in parentheses according to the sequence trochanter-femur-genu-tibia-tarsus (famulus included). Formulas for leg solenidia are given in square brackets according to the sequence genu-tibia-tarsus. Drawings were made with a camera lucida using a Leica transmission light microscope "Leica DM 2500".

Terminology. General morphological terminology used in this paper mostly follows that of F. Grandjean: see TRAVÉ and VACHON (1975) for references, NORTON (1977) for leg setal nomenclature, and NORTON and BEHAN-PELLETIER (2009) for overview.

Abbreviations. *Prodorsum*: *lam* = lamella; *plam* = prolamella; *slam* = sublamella; *Al* = sublamellar porose area; *kf* = keel-shaped ridge; *tu* = tutorium; *ro*, *le*, *in*, *bs* = rostral, lamellar, interlamellar, and bothridial seta, respectively; *D* = dorsophragma; *P* = pleurophragma. *Notogaster*: *c*, *la*, *lm*, *lp*, *h*, *p* = setae; *Sa*, *S1*, *S2*, *S3* = sacculi; *ia*, *im*, *ip*, *ih*, *ips* = lyrifissures; *gla* = opisthonotal gland opening. *Gnathosoma*: *a*, *m*, *h* = subcapitular setae; *or* = adoral seta; *d*, *l*, *cm*, *acm*, *ul*, *su*, *lt*, *vt*, *sup*, *inf* = palp setae; ω = palp solenidion; *cha*, *chb* = cheliceral setae; *Tg* = Trägårdh's organ. *Epimeral and lateral podosomal regions*: *1a*, *1b*, *1c*, *2a*, *3a*, *3b*, *4a*, *4b*, *4c* = epimeral setae; *Ah* = humeral porose area; *PdI*, *PdII* = pedotectum I, II, respectively; *dis* = discidium; *cir* = circumpedal carina. *Anogenital region*: *g*, *ag*, *an*, *ad* = genital, aggenital, anal, and adanal seta, respectively; *iad* = adanal lyrifissure; *Amar* = marginal porose area; *p.o.* = preanal organ. *Legs*: *Tr*, *Fe*, *Ge*, *Ti*, *Ta* = trochanter, femur, genu, tibia, and tarsus, respectively; *p.a.* = porose area; ω , σ , φ = solenidia; ε = famulus; *d*, *l*, *v*, *ev*, *bv*, *ft*, *tc*, *it*, *p*, *u*, *a*, *s*, *pv*, *pl* = setae.

LIST OF IDENTIFIED TAXA*

Lohmanniidae

Meristacarus tuloyus Corpuz-Raros, 1979: 1 (1 ex.), 3 (2 ex.). Distribution: Philippines.

Trhypochthoniidae

Afronothrus incisivus Wallwork, 1961: 2 (4 ex.), 5 (4 ex.), 7 (1 ex.), 11 (9 ex.), 14 (24 ex.). Distribution: Tropics, subtropics.

Malaconothridae

Malaconothrus aureopunctatus Hammer, 1979: 10 (4 ex.). Distribution: Indonesia, Brazil, Ethiopia. First record of the species in the Philippines.

Malaconothrus geminus Hammer, 1972: 11 (1 ex.). Distribution: Tahiti, Oriental region. First record of the species in the Philippines.

Malaconothrus pseudoadilatatus Ermilov et Corpuz-Raros, 2017: 5 (1 ex.), 8 (4 ex.). Distribution: Philippines, Costa Rica.

Malaconothrus pseudolamellatus Willmann, 1932: 2 (3 ex.), 11 (2 ex.), 12 (1 ex.), 14 (1 ex.). Distribution: Oriental region. First record of the species in the Philippines.

Hermanniidae

Phyllhermannia samarensis (Corpuz-Raros, 2009): 2 (3 ex.), 4 (1 ex.), 6 (3 ex.), 8 (1 ex.), 14 (2 ex.). Distribution: Philippines.

*Distribution: mostly from SUBÍAS (2004, online version 2022). Ptyctimous mites: not included. All examined specimens (except the holotype) are deposited in the collection of the Tyumen State University Museum of Zoology, Tyumen, Russia. References for original descriptions of species in the *List of identified taxa* section are not presented in the *References* section.

Nanhermanniidae

Cyrthermannia vicinicornuta Aoki, 1965: 1 (1 ex.), 2 (3 ex.), 4 (1 ex.), 6 (2 ex.), 7 (1 ex.), 12 (2 ex.). Distribution: Oriental region, Brazil.

Dendrohermannia monstruosa (Aoki, 1977): 2 (6 ex.), 3 (1 ex.), 4 (1 ex.), 11 (9 ex.), 12 (4 ex.), 14 (1 ex.). Distribution: Australasian and Oriental regions.

Plasmobatidae

Plasmobates asiaticus Aoki, 1973: 3 (1 ex.), 4 (1 ex.). Distribution: Japan, Oriental region.

Microtegeidae

Microtegeus reticulatus Aoki, 1965: 11 (3 ex.), 15 (1 ex.). Distribution: Oriental region.

Zetorchestidae

Zetorchestes saltator Oudemans, 1915: 5 (5 ex.), 6 (1 ex.), 9 (2 ex.), 10 (1 ex.), 12 (1 ex.), 13 (4 ex.), 15 (2 ex.). Distribution: Oriental and Palaeartic regions.

Caleremaeidae

Epieremulus braziliensis (Balogh et Mahunka, 1969): 4 (4 ex.), 12 (1 ex.), 13 (2 ex.). Distribution: Neotropical region, Philippines. Remarks. Specimens from the Philippines are morphologically similar to the original description (BALOGH & MAHUNKA 1969) based on materials from Brazil, but differ in having shorter bothridial seta.

Eremobelbidae

Eremobelba breviseta Balogh, 1968: 9 (2 ex.). Distribution: New Guinea, Oriental region.

Eremobelba japonica Aoki, 1959: 1 (5 ex.). Distribution: eastern Palaeartic and Oriental regions.

Peloppiidae

Austroceratoppia crassiseta (Balogh et Mahunka, 1967): 4 (1 ex.), 16 (1 ex.). Distribution: Oriental region.

Oppiidae

Acroppia processigera (Balogh et Mahunka, 1967): 1 (1 ex.). Distribution: Tropics, subtropics.

Acroppia hammerae Rodríguez et Subías, 1984: 1 (2 ex.), 3 (1 ex.). Distribution: Oriental region, Micronesia. First record of the species in the Philippines.

Acroppia luzonensis Ermilov et Corpuz-Raros, 2017: 9 (1 ex.). Distribution: Philippines.

Elaphoppia longisensillata (Aoki, 1983): 11 (1 ex.). Distribution: eastern Palaeartic region, Taiwan. First record of the genus and species in the Philippines.

Karenella sp.: 1 (4 ex.), 6 (1 ex.), 7 (1 ex.), 11 (2 ex.), 13 (1 ex.). First record of the genus in the Philippines.

Multioppia pseudoglabra Ermilov, 2015: 16 (2 ex.). Distribution: Vietnam. First record of the species in the Philippines.

Oppiella nova (Oudemans, 1902): 12 (1 ex.), 14 (1 ex.). Distribution: Cosmopolitan.

Pseudoamerioppia barrancensis (Hammer, 1961): 1 (2 ex.), 2 (10 ex.), 11 (1 ex.), 14 (1 ex.). Distribution: Neotropical region, Philippines.

Striatoppia modesta Mahunka, 1988: 8 (1 ex.). Distribution: Oriental region. First record of the species in the Philippines.

Suctobelbidae

Allosuctobelba sp.: 11 (1 ex.).

Suctobelbella (*Flagrosuctobelba*) *sempilumosa tahitiensis* (Hammer, 1972): 3 (1 ex.). Distribution: Oriental, Australasian and Afrotropical regions. First record of the subspecies in the Philippines.

Suctobelbella (*Ussuribata*) *acutodentata* (Hammer, 1979): 12 (1 ex.). Distribution: Indonesia. First record of the species in the Philippines.

Suctobelbella (*Ussuribata*) *variosetosa* (Hammer, 1961): 11 (1 ex.). Distribution: Tropics, subtropics, Japan.

Tectocepheidae

Tegezozetes tunicatus Berlese, 1913: 3 (1 ex.), 11 (5 ex.), 12 (1 ex.), 13 (1 ex.). Distribution: Tropics, subtropics, southern Palaearctic region.

Licneremaeidae

Licneremaeus linieatus Hammer, 1979: 3 (1 ex.), 6 (1 ex.), 11 (2 ex.), 12 (1 ex.). Distribution: Indonesia. First record of the species in the Philippines.

Licneremaeus sp.: 8 (1 ex.).

Carabodidae

Bathocephus concavus Aoki, 1978: 10 (1 ex.), 15 (2 ex.). Distribution: Japan. First record of the species in the Oriental region. Remarks. Specimens from the Philippines are morphologically similar to the original description (AOKI 1978) and redescription (FERNANDEZ *et al.* 2013) based on materials from Japan, but differ by the presence of longer notogastral seta *la* (*la* longer than *c* versus *la* and *c* similar in length) and shorter notogastral seta *dm* (*dm* shorter than *dp*, *lm*, *lp*, *h*₁, *h*₂ versus *dm* and *dp*, *lm*, *lp*, *h*₁, *h*₂ similar in length).

Bathocephus manguiati (Corpuz-Raros, 1979): 2 (1 ex.), 10 (7 ex.), 11 (8 ex.), 12 (7 ex.), 13 (2 ex.). Distribution: Philippines. Remarks. Specimens from Sibuyan Island are morphologically similar to the original description (CORPUZ-RAROS 1979) and redescription (ERMILOV & CORPUS-RAROS 2016) based on materials from other Philippine territories but differ by the presence of larger notogastral foveolae forming reticulate pattern and longer notogastral seta *da*.

Cavaecarabodes hauseri (Mahunka, 1989): 4 (2 ex.). Distribution: Oriental region. First record of the species in the Philippines.

Dampfiellidae

Dampfiella foliata Balogh et Mahunka, 1974: 3 (7 ex.), 4 (10 ex.), 5 (1 ex.), 11 (3 ex.), 12 (3 ex.). Distribution: Oriental region.

Otocepheidae

Dolicheremaeus luzonicellus Corpuz-Raros, 2008: 2 (1 ex.), 3 (15 ex.), 6 (1 ex.), 12 (5 ex.). Distribution: Philippines.

Dolicheremaeus luzonicus Corpuz-Raros, 2000: 10 (6 ex.). Distribution: Philippines.

Eremaeozetidae

Eremaeozetes sp.: 12 (2 ex.).

Retrozetes sp.: 6 (3 ex.), 12 (1 ex.).

Oribatellidae

Oribatella malaya Balogh et Mahunka, 1974: 3 (1 ex.), 4 (2 ex.), 9 (3 ex.), 10 (1 ex.), 11 (1 ex.). Distribution: Oriental region. Remarks. Specimens from the Philippines are morphologically similar to the original description (BALOGH & MAHUNKA 1974) and redescription (MAHUNKA 1987) based on materials from Malaysia, but differ by the presence of short (versus medium-sized to long) separation of lamellae anteromedially as in representatives of the genus *Ophidiotrichus* Grandjean, 1953, comparatively thin, hardly thickened (versus thick) lamellar seta and four or five (versus six to eight) teeth on tutorial cusp.

Oribatulidae

Zygoribatula undulata (Berlese, 1916): 9 (1 ex.). Distribution: Pantropical (except Neotropical) and subtropical regions. First record of the species in the Philippines.

Schelorbitidae

Euschelorbitates sp. 1: 11 (4 ex.).

Euschelorbitates sp. 2: 3 (3 ex.), 11 (8 ex.), 12 (6 ex.).

Fijibates rostratus Hammer, 1971: 14 (4 ex.). Distribution: Oriental and Australasian regions.

Perschelorbitates baluktotus Corpuz-Raros, 1980: 5 (1 ex.). Distribution: Philippines.

Schelorbitates fijiensis Hammer, 1971: 14 (9 ex.). Distribution: Australasian region, Philippines.

Schelorbitates philippinensis Corpuz-Raros, 1980: 5 (1 ex.), 12 (1 ex.), 13 (1 ex.). Distribution: Oriental region.

- Scheloribates praencisus* (Berlese, 1910): 2 (7 ex.). Distribution: Tropics, subtropics.
Scheloribates (Hemileius) lagunensis (Corpuz-Raros, 1979): 15 (1 ex.). Distribution: Philippines.
Similobates sp.: 6 (1 ex.). First record of the genus in the Oriental region.
Tuberemaeus deletus Hammer, 1979: 3 (1 ex.), 11 (17 ex.), 14 (31 ex.). Distribution: Oriental region.
Tuberemaeus fissuratus (Balogh, 1970): 14 (22 ex.). Distribution: New Guinea, Philippines.
Tuberemaeus perforatoides Hammer, 1979: 9 (1 ex.), 10 (1 ex.). Distribution: Oriental and Australasian regions.

Haplozetidae

- Haplozetes* sp.: 12 (1 ex.).
Peloribates fuscocetosus Corpuz-Raros, 1981: 4 (1 ex.). Distribution: Philippines.
Peloribates kalboprodorsalis Corpuz-Raros, 1979: 11 (3 ex.). Distribution: Philippines.
Peloribates pilipinus Corpuz-Raros, 1981: 14 (7 ex.). Distribution: Philippines.
Protoribates paracapucinus (Mahunka, 1988): 1 (1 ex.), 2 (3 ex.), 3 (3 ex.), 10 (1 ex.), 11 (3 ex.), 12 (9 ex.), 16 (1 ex.). Distribution: Tropical and Subtropical regions.
Protoribates seminudus (Hammer, 1971): 8 (1 ex.), 11 (4 ex.), 16 (4 ex.). Distribution: Australasian and Oriental regions.
Rostrozetes poensis (Mihelčič, 1957): 1 (2 ex.), 2 (13 ex.), 3 (26 ex.), 4 (6 ex.), 6 (5 ex.), 8 (3 ex.), 11 (3 ex.), 12 (7 ex.). Distribution: Afrotropical and Neotropical regions, Fiji, Korea. First record of the species in the Oriental region.
Rostrozetes shibai Aoki, 1976: 9 (4 ex.), 14 (1 ex.), 15 (2 ex.). Distribution: Oriental region, U.S.A. (Louisiana). First record of the species in the Philippines.
Rostrozetes ovulum (Berlese, 1908): 5 (5 ex.). Distribution: Tropics, subtropics.
Trachyoribates filipinus (Corpuz-Raros, 1979): 15 (6 ex.). Distribution: Philippines.
Trachyoribates insularis sp. n.: 3 (1 ex.), 13 (2 ex.), 14 (10 ex.).

Punctoribatidae

- Lamellobates orientalis* Csiszár, 1961: 10 (2 ex.). Distribution: Oriental and southern Palae-arctic regions.

Parakalummidae

- Neoribates parabulanovae* Ermilov et Martens, 2014: 2 (5 ex.), 3 (1 ex.). Distribution: Nepal. First record of the species in the Philippines.
Neoribates sp. 1: 13 (1 ex.).
Neoribates sp. 2: 6 (1 ex.).

Galumnidae

- Flagellozetes (Cosmogalumna)* sp. 1: 4 (3 ex.).
Flagellozetes (Cosmogalumna) sp. 2: 4 (2 ex.).
Galumna exigua Sellnick, 1925: 14 (3 ex.). Distribution: Oriental region.

Galumna (*Neogalumna*) sp.: 1 (1 ex.), 11 (2 ex.).

Pergalumna bimaculata Hammer, 1973: 8 (2 ex.), 9 (1 ex.). Distribution: Australasian and Oriental regions.

Pergalumna panayensis Ermilov et Corpuz-Raros, 2015: 3 (1 ex.). Distribution: Oriental region.

Pergalumna crassipora Mahunka, 1995: 9 (1 ex.). Distribution: Oriental region.

Galumnellidae

Galumnella sp.: 11 (1 ex.).

Porogalumnella reducta Mahunka, 1995: 11 (1 ex.). Distribution: Oriental region.

This list of taxa includes 78 species/subspecies of 50 genera and 27 families of soil-inhabiting oribatid mites (Oribatida) from Sibuyan Island, Philippines. Of these two species (*Bathocephus concavus*, *Rostrozetes poensis*) and one genus (*Similobates*) are recorded in the Oriental region for the first time; 14 species/subspecies (*Malaconothrus aureopunctatus*, *M. geminus*, *M. pseudolamellatus*, *Arcoppia hammerae*, *Elaphoppia longisensillata*, *Multioppia pseudoglabra*, *Striatoppia modesta*, *Suctobelbella* (*Flagrosuctobelba*) *semiplumosa tahitiensis*, *S.* (*Ussuribata*) *acutodentata*, *Licneremaeus linieatus*, *Cavaecarabodes hauseri*, *Zygoribatula undulata*, *Rostrozetes shibai*, *Neoribates parabulanovae*) and two genera (*Elaphoppia*, *Karenella*) are recorded in the Philippines for the first time.

TAXONOMY

Family Haplozetidae

Genus *Trachyoribates* Berlese, 1908

Type species: *Oribata ampulla* Berlese, 1905

***Trachyoribates insularis* sp. n.**

(Figs 1–2)

Diagnosis. Body length: 348–398. Prodorsum, notogaster (except smooth longitudinally elongate median part), pteromorph, epimeral and anogenital (except oval region between genital and anal apertures) regions, and anal plate reticulate; genital plate with several strong longitudinal stria. Rostrum pointed. Rostral and lamellar setae medium-sized, setiform, barbed; Interlamellar seta short, needleform; bothridial seta long, clavate, barbed. Ten pairs of notogastral setal alveoli present. Five pairs of genital setae. Pretarsus of all legs with three claws.

Description of adult. *Measurements.* Body length: 365 (holotype: male), 348–365 (4 male paratypes), 381–398 (8 female paratypes); notogaster width: 257 (holotype), 257–265 (male paratypes), 282–298 (female paratypes).

Integument. Body color brown. Prodorsum (except smooth basal part), notogaster (except longitudinally elongate median smooth part), pteromorph, epimeral and anogeni-

tal (except oval region between genital and anal apertures) regions, and anal plate with reticulate pattern; some cells on pteromorph elongate. Subcapitular mentum and partially subcapitular gena and antiaxial side of legs (except leg III and genu of legs I, II, IV) with small foveolae. Genital plate with several strong longitudinal stria. Lateral prodorsum (between rostral margin and tutorium) granulate.

Prodorsum. Rostrum pointed. Lamella long (3/4 of prodorsum length); cusp with small lateral tooth. Prolamella, sublamella, keel-shaped ridge, and turtorium well visible; *tu* posteriorly connected to *kf*. Sublamellar porose area oval (8–12 × 4–6). Rostral (22–28) and lamellar (34–41) setae setiform, barbed; *ro* inserted at tutorial end, *le* inserted on the lamellar end, thicker than *ro*. Interlamellar seta (6–8) needleform. Exobothridial seta not observed. Bothridial seta (49–57) with elongate clavate, barbed head. Lateral tooth of both-

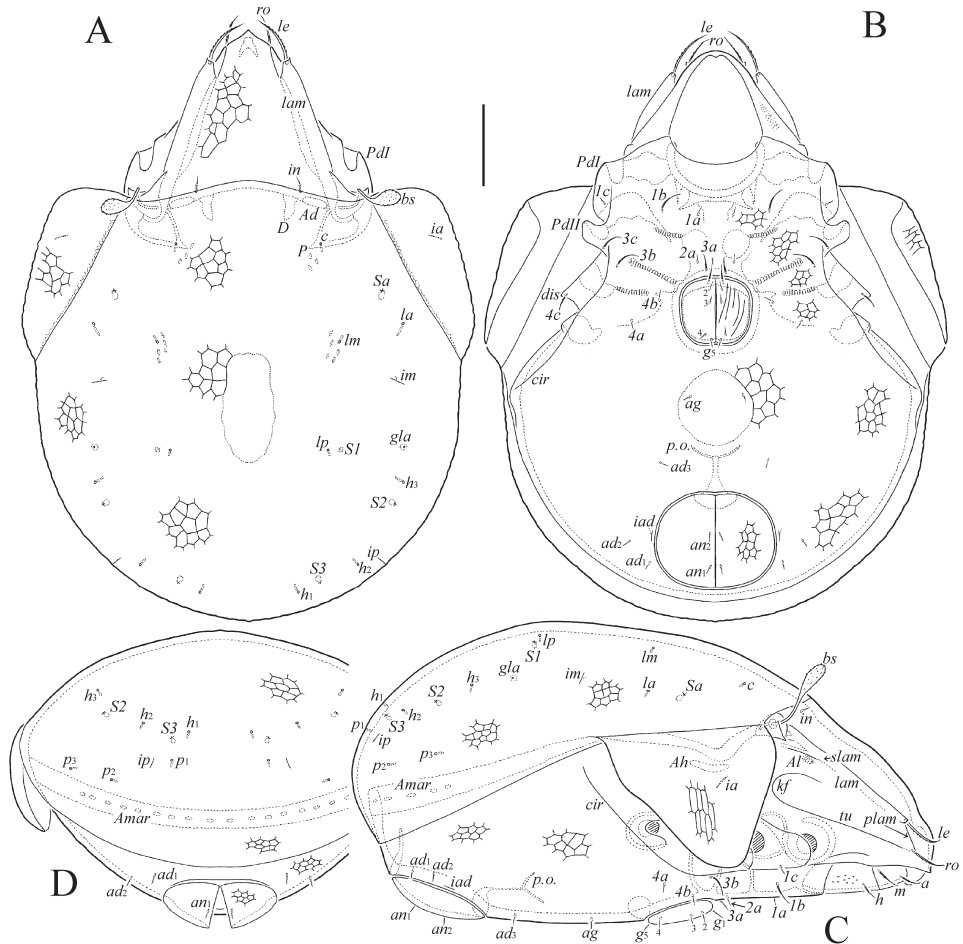


Fig. 1. *Trachyoribates insularis* sp. n., adult: A = dorsal view (legs not shown); B = ventral view (gnathosoma and legs not shown); C = right lateral view (legs not shown); D = posterior view. Scale bar 50 µm

ridium well developed. Dorsosejugal porose area poorly visible, oval (16–20 × 4–6), located posterolateral to *in*. Dorsophragma elongate.

Notogaster. Anterior notogastral margin slightly convex medially. Incision on anterior part of pteromorph (behind bothridium) absent, with poorly visible short, light ven-

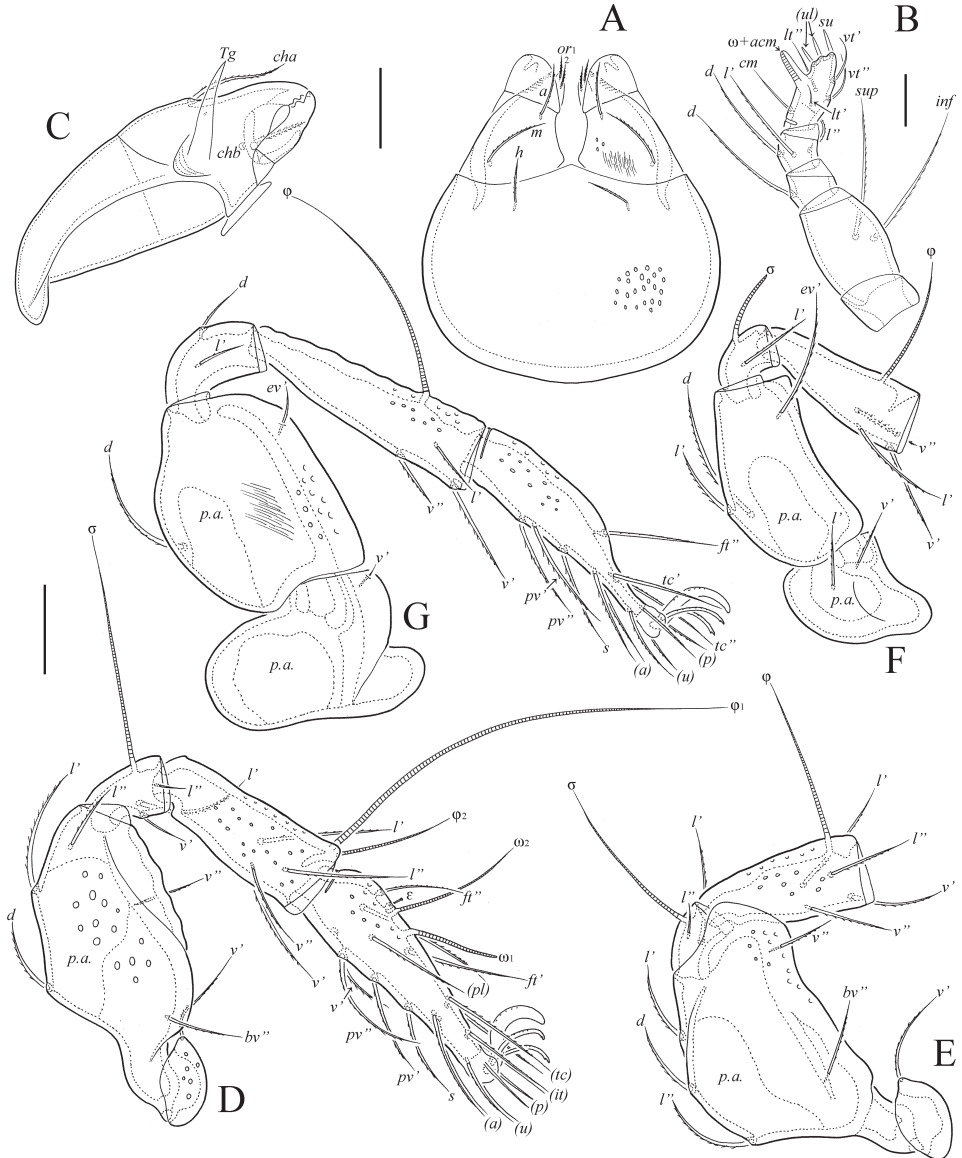


Fig. 2. *Trachyoribates insularis* sp. n., adult: A = subcapitulum, ventral view; B = palp, left, paraxial view; C = chelicera, left, paraxial view; D = leg I, right, antiaxial view; E = leg II, without tarsus, right, antiaxial view; F = leg III, without tarsus, left, antiaxial view; G = leg IV, left, antiaxial view. Scale bars 20 μm (A, C–G), 10 μm (B)

tral groove in its place. Ten pairs of setal alveoli present. Four pairs of sacculi with small opening and drop-like chamber. Distance $S1-S1$ shorter than $S2-S2$. Opisthonotal gland opening and lyrifissures ia, im, ip well visible; ih and ips not observed.

Gnathosoma. Subcapitulum size: $90-94 \times 69-73$. Subcapitular (a, h : 12-14; m , 16-18) and adoral (6-8) setae setiform, barbed. Palp (length: 57-61) with setation 0-2-1-3-9(+ ω). Postpalpal seta (4) spiniform, roughened. Chelicera (length: 102-106) with two setiform, barbed setae (cha : 28-30; chb : 18-20).

Epimeral and lateral podosomal regions. Epimeral setal formula: 3-1-3-3. Epimeral setae $1b, 3b, 3c$ (14-16) and $3a, 4c$ (10-12) setiform, slightly barbed; $1a, 1c, 2a, 4a, 4b$ (6-8) needleform. Discidium triangular. Humeral porose area Ah elongate oval; Am not observed. Circumpedal carina long, extended into pedotectum II as ventrolateral ridge.

Anogenital region. Genital seta g_1 (10-12) setiform, slightly barbed; genital seta g_2-g_5 , aggenital, anal and adanal setae (6-8) setae needleform. Adanal lyrifissure distinct. Adanal setae ad_1 and ad_2 lateral (rarely ad_1 posterior), ad_3 anterior to anal aperture. Marginal porose area represented by several rounded and oval parts. Ovipositor elongate ($147-155 \times 36-41$), blade (57-61) shorter than length of distal section (beyond middle fold; 90-94); each of the three blades with four smooth setae, $\psi_1 \approx \tau_1$ (32-30) setiform, $\psi_2 \approx \tau_a \approx \tau_b \approx \tau_c$ (8) thinly thorn-like; all coronal setae not observed.

Legs. Heterotridactylous, all claws barbed on dorsal side, lateral claws with small tooth ventrodistally. Dorsoparaxial porose area well visible on femora I-IV and on trochanters III, IV. Ventroproximal porose area on all tarsi and ventrodistal porose area on all tibiae not observed. Tibia II with broad process ventrodistally. Formulas of leg setation and solenidia: I (1-5-3-4-19) [1-2-2], II (1-5-2-4-15) [1-1-2], III (2-3-1-3-15) [1-1-0], IV (1-2-2-3-12) [0-1-0]; homology of setae and solenidia indicated in Table 1. Famulus of tarsus I short, straight, slightly swollen distally, located posterior to solenidion ω_2 . Solenidion ω_1 on tarsus I, ω_1 and ω_2 on tarsus II, σ on genu III bacilliform, other solenidia setiform.

Material examined. Holotype (male) and nine paratypes (three males and six females): locality 14; two paratypes (one male and one female): locality 13; one paratype (one female): locality 3.

Type deposition. The holotype is deposited in the collection of the Senckenberg Institute, Görlitz, Germany; twelve paratypes are deposited in the collection of the Tyumen State University Museum of Zoology, Tyumen, Russia. All specimens are preserved in 70% solution of ethanol with a drop of glycerol.

Etymology. The specific name *insularis* refers to the insular place of origin.

Table 1. Leg setation and solenidia of adult *Trachyoribates insularis* sp. n.

Leg	Tr	Fe	Ge	Ti	Ta
I	v'	$d, (l), bv'', v''$	$(l), v', \sigma$	$(l), (v), \varphi_1, \varphi_2$	$(ft), (tc), (it), (p), (u), (a), s, (pv), (pl), v', \varepsilon, \omega_1, \omega_2$
II	v'	$d, (l), bv'', v''$	$(l), \sigma$	$(l), (v), \varphi$	$(ft), (tc), (it), (p), (u), (a), s, (pv), \omega_1, \omega_2$
III	v', l'	d, l', ev'	l', σ	$l', (v), \varphi$	$(ft), (tc), (it), (p), (u), (a), s, (pv)$
IV	v'	d, ev'	d, l'	$l', (v), \varphi$	$ft'', (tc), (p), (u), (a), s, (pv)$

Note: Roman letters refer to setae, Greek letters to solenidia (except ε = famulus); single quotation mark (') designates setae on the anterior and double quotation mark (") setae on the posterior side of a given leg segment; parentheses refer to a pair of setae.

Remarks. *Trachyoribates insularis* sp. n. is morphologically most similar to *Trachyoribates filipinus* (Corpuz-Raros, 1979) (see also CORPUZ-RAROS 1991) from the Philippines in having all legs with three claws, short interlamellar seta and a pointed rostrum. However, the new species differs from the latter by the presence (versus absence) of smooth longitudinally elongate median part of the notogaster and striate genital plate, and the absence (versus presence) of notogastral setae (setal alveoli versus short setae).

*

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