

FIVE NEW FUR-MITES (ACARI) FROM *Allactaga sibirica* FORSTER, 1778

(Results of the Mongolian-German Biological Expeditions since 1962, No. 81)

By

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With 19 figures

We describe here five new species of fur-mites found by one of us (F. L.) on several specimens of *Allactaga sibirica* FORSTER, 1778, from S. W. Mongolia. These animals had been collected by the Mongolian-German Biological Expeditions 1974 and 1975, organized by the Martin-Luther-University Halle—Wittenberg (Department of Zoology, Section of Biological Sciences, by Dr. M. STUBBE, Dr. R. PIECHOCKI, K. UHLENHAUT), the Mongolian State University Ulan-Bator (Department of Zoology, by Dr. N. DAWAA) and the Ministry of Forestry in MPR (Hunting Association, by Z. BALŽINNJAM).

The holotypes of the new species have been deposited in the Zoological Museum of the Humboldt University Berlin. Paratypes in University Ulan-Bator.

FAMILY LISTROPHORIDAE MEGNIN & TROUESSART, 1884

Genus *Afrolistrophorus* FAIN, 1970

Afrolistrophorus stubbei spec. nov.

This new species is clearly distinguished from the other members of the genus in both sexes by the elongated aspect of the body and the great number of striations. The female differs by the great distance between the anterior and posterior legs, the poor sclerotization of the dorsal shield and the complete absence of hysterosomal shield.

This species is named for Dr. M. STUBBE, who kindly allowed the junior author to collect these mites in the collection of the Department of Zoology, Martin-Luther-University Halle-Wittenberg, GDR.

Female (fig. 1): Holotype 549 μ long and 135 μ wide (maximum width). In one paratype these measurements are 595 $\mu \times$ 134 μ . The prescapular shield is 108 μ long the postscapular shield 105 μ long, the latter is mainly sclerotized in its median region, the lateral parts being very poorly punctated. Striations very numerous, there are 18 striations on the postscapular shield (along a lateral line between setae *l* 1 and *d* 1. Behind the *d* 1 setae until posterior

extremity there are approximately 100 transverse striations. Hysterosoma without shield. Setae of the body very thin and relatively short (less than 30μ). The $d \gamma$ and $l \gamma$ are short. Bursa ventral at 30μ from posterior extremity. Legs thin, relatively short.

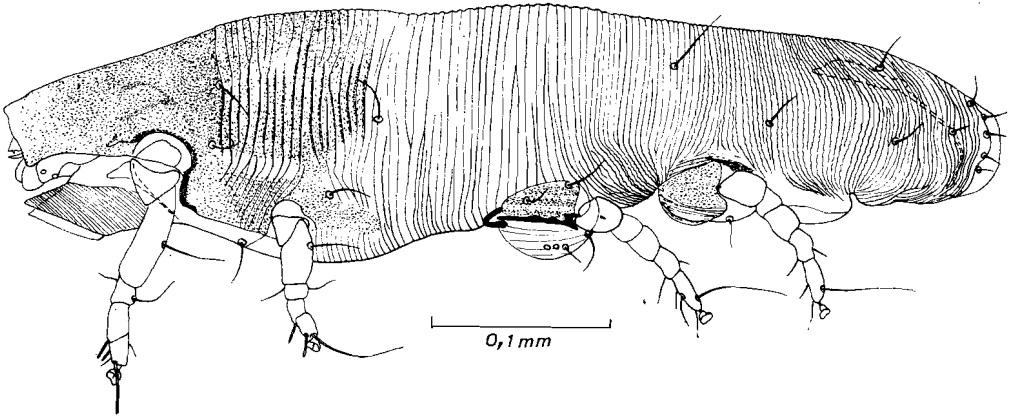


Fig. 1. *Afrolistrophorus stubbei* sp. n. Holotype female.

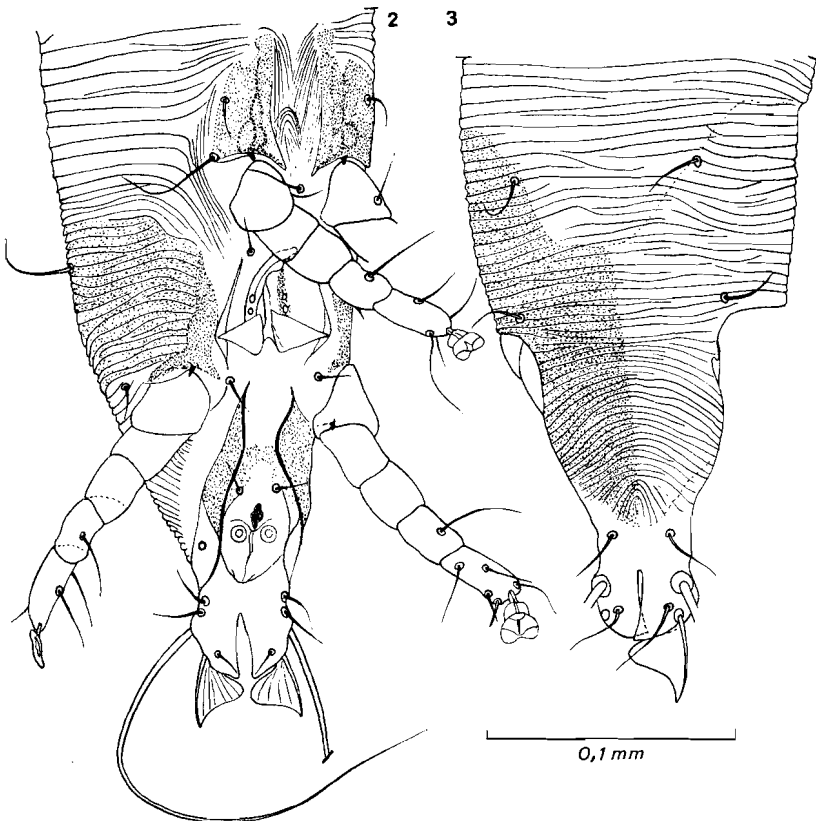


Fig. 2—3. *Afrolistrophorus stubbei* sp. n. Posterior region of the male in ventral (2) and dorsal (3) view.

Male (fig. 2—3): Allotype $510\ \mu$ long and $138\ \mu$ wide (maximum width in oblique view). Prescapular and postscapular shields as in the female. Hysterosoma bearing a very poorly sclerotized shield with anterior border incised. Opisthosoma $105\ \mu$ long, ending into two large lobes. The setae $d\ 5$ are large, they are membranous and triangular. Anal suckers small. Penis stout, $45\ \mu$ long and slightly curved. Posterior legs relatively long.

Host and locality

The mites were fixed on the hairs of *Allactaga sibirica* (Dipodidae, Dipodinae), from Bulgan-gol, S. W. Mongolia, 21. V. 1975 (Rodents collected by Dr. M. STUBBE) (Holotype and 2 paratype females, allotype male).

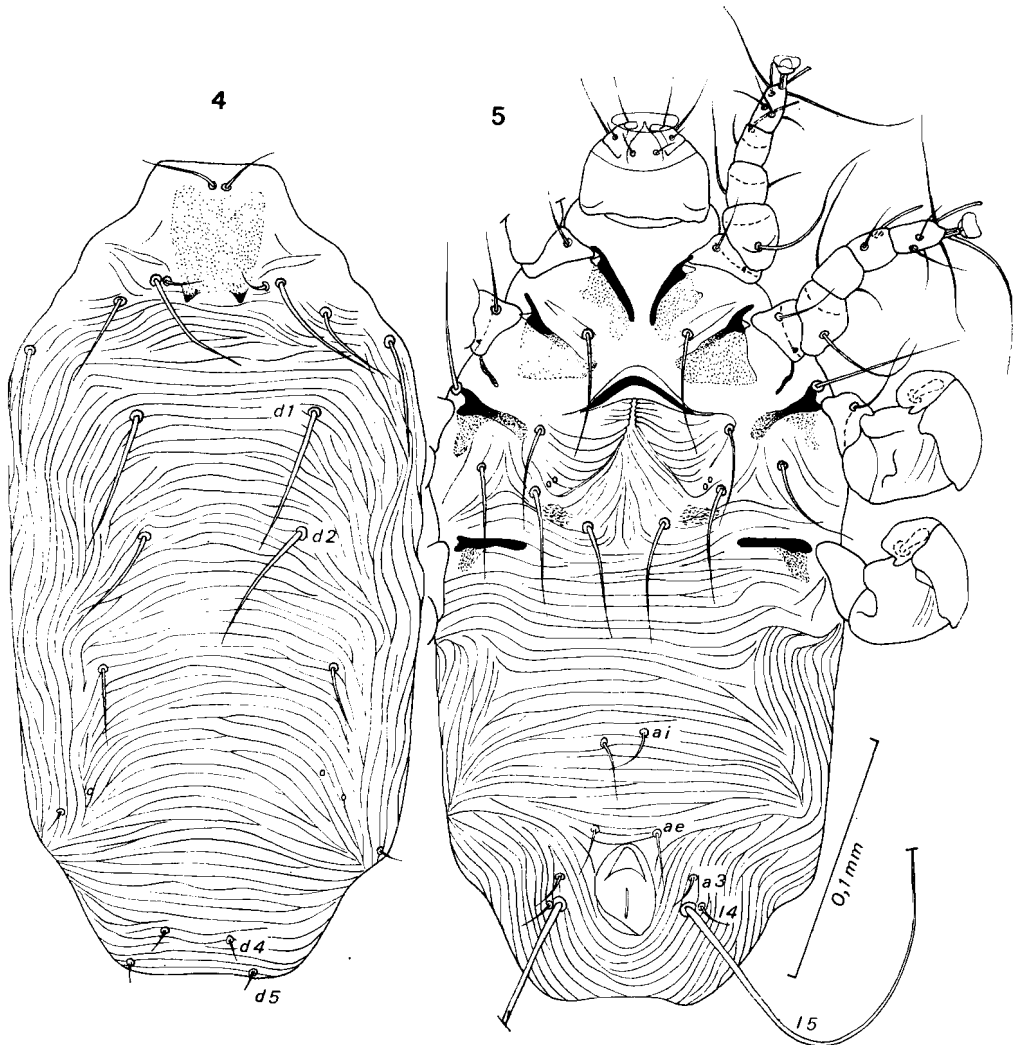


Fig. 4—5. *Criniscansor allactaga* sp. n. Holotype female, in dorsal (4) and ventral (5) view.

FAMILY MYCOPTIDAE GUNTHER, 1942

Genus *Criniscansor* POPPE, 1889*Criniscansor allactaga* spec. nov.

The genus *Criniscansor* contained until now, four species: *C. criceti* POPPE, 1889, *C. deomys* FAIN, 1970, *C. congolensis* FAIN, 1970 and *C. apodemi* FAIN, MUNTING and LUKOSCHUS, 1969. Only the first species is known from adult specimens. The new species that we describe here is distinguished from *C. criceti* in the female by the much greater size of the *d* 1 and *d* 2 setae, the presence of the *d* 4 and the *a* 3, the presence of two rounded prolongations at

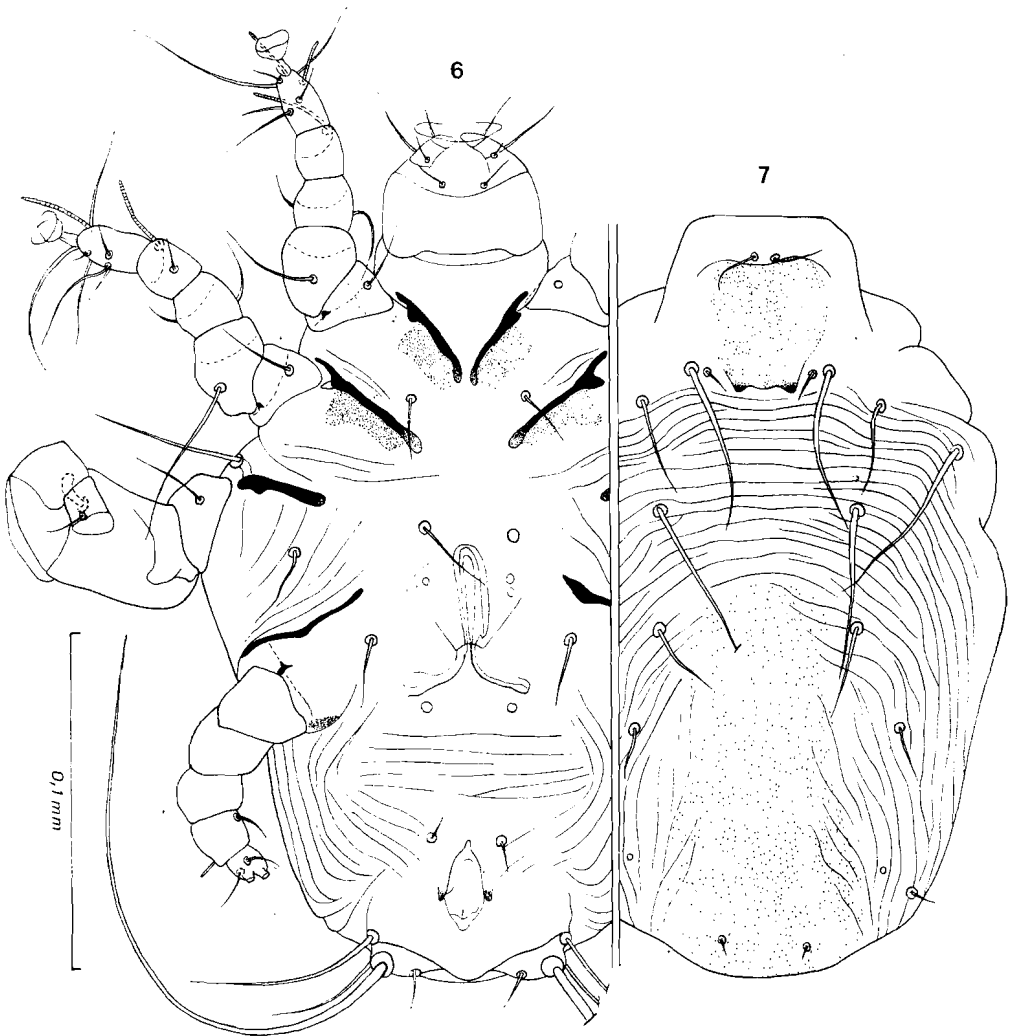


Fig. 6—7. *Criniscansor allactaga* sp. n. Allotype male, in ventral (6) and dorsal (7) view.

the posterior border of the propodosomal shield, the more anterior situation of the vulva. The male differs by the absence of anal suckers, the different shape of the penis, the wider aspect of the posterior extremity and the straight aspect of the posterior extremity.

Female (fig. 4—5): Holotype 350 μ long (gnathosoma included) and 165 μ wide (maximum width). *Dorsum* uniformly striated except in the anterior part where is a small punctate shield ending posteriorly by two small rounded scales. The setae *sc e*, *d 1*, *d 2*, *l 1* and *b* are thick and 50 μ , 54 μ , 53 μ , 36 μ and 45 μ long respectively. *Venter*: scales absent. All epimera free. A well-formed epigynium is present. Setae *cx I*, *cx III*, *ga*, *gm* and *gp* are 33 to 40 μ long. The *a 3* are present. Legs well formed. The genu I and II are devoid of solenidions. On tarsus I the $\omega 1$ and $\omega 3$ are situated in the apical third of the segment. On tarsus II the $\omega 1$ is subapical.

Male (fig. 6—7): Allotype 249 μ long and 150 μ wide. *Dorsum* as in the female but the striations are absent in the middle of the opisthonotum which is slightly sclerotized. *Venter*: epimera free. Absence of scales. Penis long and curved at 360°. Anus without suckers. Anterior legs as in the female.

Host and locality

The mites were attached to the hairs of *Allactaga sibirica*, from Char-nur, W. Mongolia, 5. VI. 1975 (Animal collected by Dr. M. STUBBE) (Holotype and 2 paratype females, allotype male).

FAMILY GLYCYPHAGIDAE BERLESE, 1887

Genus *Sciuroopsis* FAIN, 1969 comb. nov.

= *Rodentopus* (*Sciuroopsis*) FAIN, 1969

We raise here the taxon *Sciuroopsis* FAIN, 1969 to the generic rank.

The genus *Sciuroopsis* contained so far eight species, all known from rodents. The new species that we describe here (*Sciuroopsis sibirica*) presents long claws on legs I—II, as in *S. sciuri* FAIN, 1965 and *S. heterocephali* FAIN, 1969. It differs from the first species by the different situation of the dorsal setae, the thicker size of the *vi* and *ve* setae, the presence of thick folds in the anterior region of the dorsum, the barbed aspect of some setae of legs I—II. It differs from *S. heterocephali* by the longer and much thinner aspect of the setae of femora and trochanter I—II, the thicker and shorter aspect of legs I—II.

Sciuroopsis sibirica spec. nov.

This species is known only after the hypopial stage.

Hypopus (fig. 8—9, 12—14): Holotype 265 μ long and 143 μ wide. *Dorsum*: anterior region with several folds obliquely directed. There is no true sejugal furrow. Setae *vi* and *ve* thickened and with short barbs. Other dorsal setae very short and thin. Opisthonotum slightly punctate. *Venter*: as in the other species of the genus. Coxae III and IV relatively large. Palposoma absent, represented by one pair of thin setae. Legs I—II short and thick. Tarsi I to IV are 21 μ , 24 μ , 27 μ and 13 μ long respectively. Claws I and II 18 μ and 17 μ long. Femora I—II with a thin seta bearing very short barbs. Solenidions *phi* of tibia I 33 μ long. Tarsi III with two unequal rather long setae.

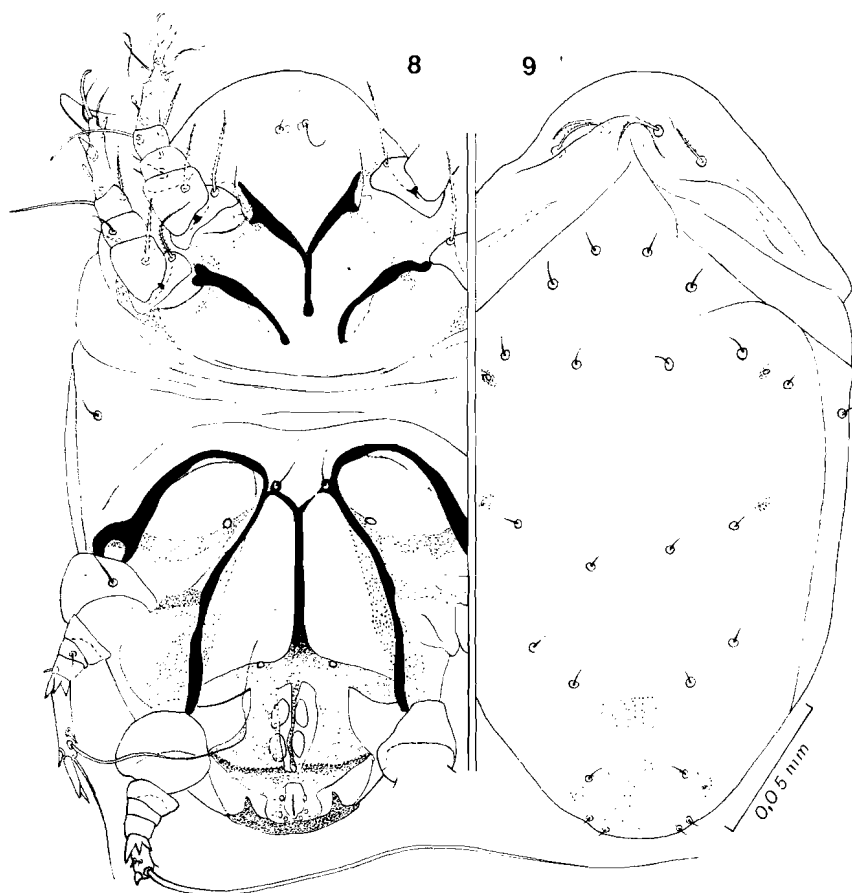


Fig. 8—9. *Sciuroopsis sibirica* sp. n. Holotype hypopus, in ventral (8) and dorsal (9) view.

Host and locality

The hypopi were embedded into the hair-follicles of the vibrissae of the face of *Allactaga sibirica*, from Bulgan-gol, S. W. Mongolia, 28. V. 1974 (Animal collected by M. STUBBE) (Holotype and 52 paratypes, all hypopi).

Genus *Dermacarus* HALLER, 1880

Dermacarus mongolicus spec. nov.

This new species belongs to a group of species presenting free epimera III and IV and a thin dorsal seta in the apical third of tarsi I—II. It differs from the species of this group by the small development of the clasping apparatus, the shape of the epimera III, the aspect of femoral I seta very thin and long and of femoral II seta also thin but much shorter.

Hypopus (fig. 10—11, 15—17): Holotype 363 μ long and 240 μ wide. Anterior extremity

very broad and rounded. Posterior extremity slightly concave. *Dorsum* soft, except posterior part of opisthosoma which is slightly punctate. Sejugal furrow well developed. Setae *vi* very short. Other setae thin and short, the longest are the *l 1* ($15\ \mu$) and *l 2* ($12\ \mu$). *Venter*: gnathosomal setae slightly shorter than solenidion alpha. Epimerites II very long. Epimerites III with apex abruptly curved internally and poorly sclerotized. Clasping organ small. Anterior claspers longer than wide and with 4 ribs, posterior claspers with 5–6 ribs. Genital suckers divergent. Tarsi I–IV $45\ \mu$, $43\ \mu$, $30\ \mu$ and $29\ \mu$ long respectively. Tarsi I with a $\omega 1$ and $\omega 3$ subequal and situated in the basal half of the segment. Setae of femora I and II thin, $110\text{--}120\ \mu$ and $30\ \mu$ long respectively. Solenidion of tibia II twice shorter than the tarsus I.

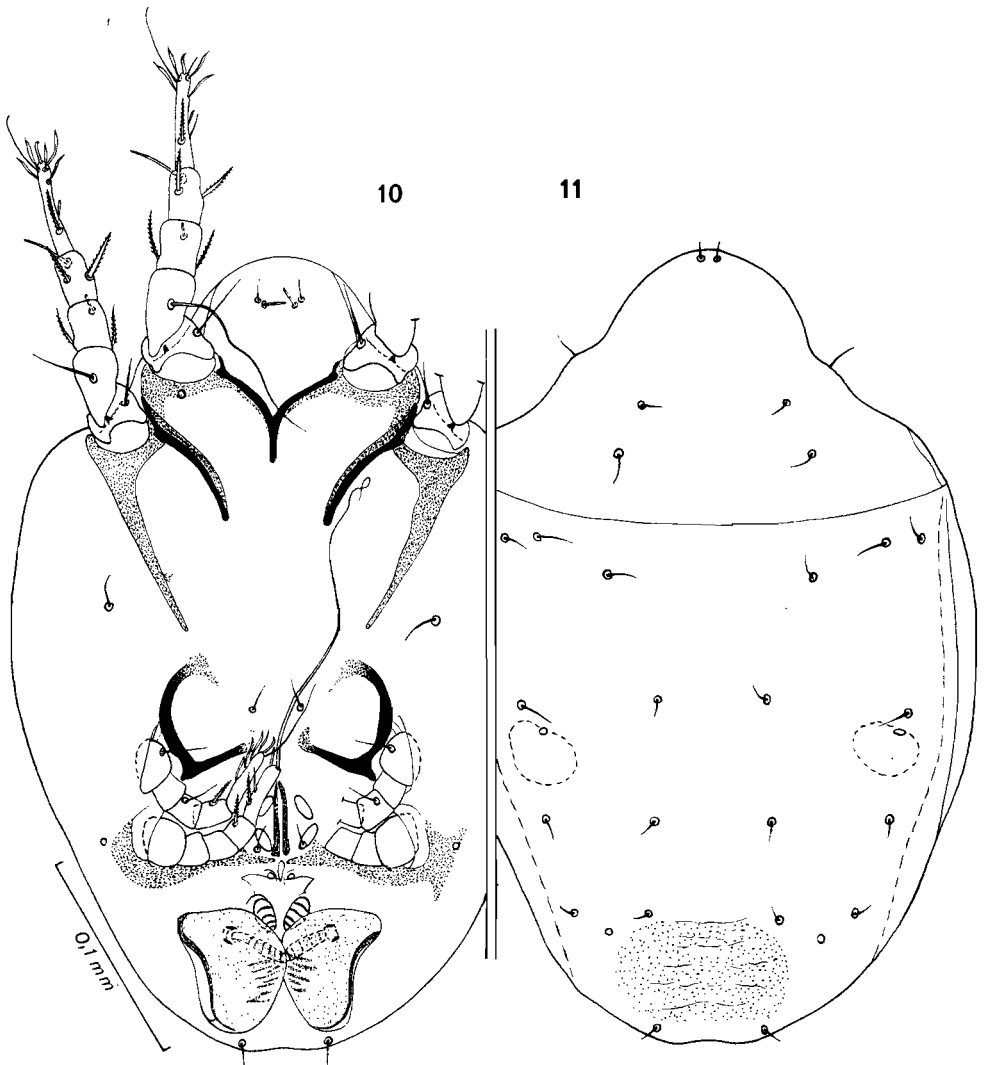


Fig. 10–11. *Dermacarus mongolicus* sp. n. Holotype hypopus, in ventral (10) and dorsal (11) view.

Host and locality

The mites were attached to the hairs of *Allactaga sibirica*, from Chovd-gol (20 km N. W. from Kobdo), W. Mongolia, 2. VI. 1975 (Rodent collected by M. STUBBE) (Holotype and 25 paratypes, all hypopi).

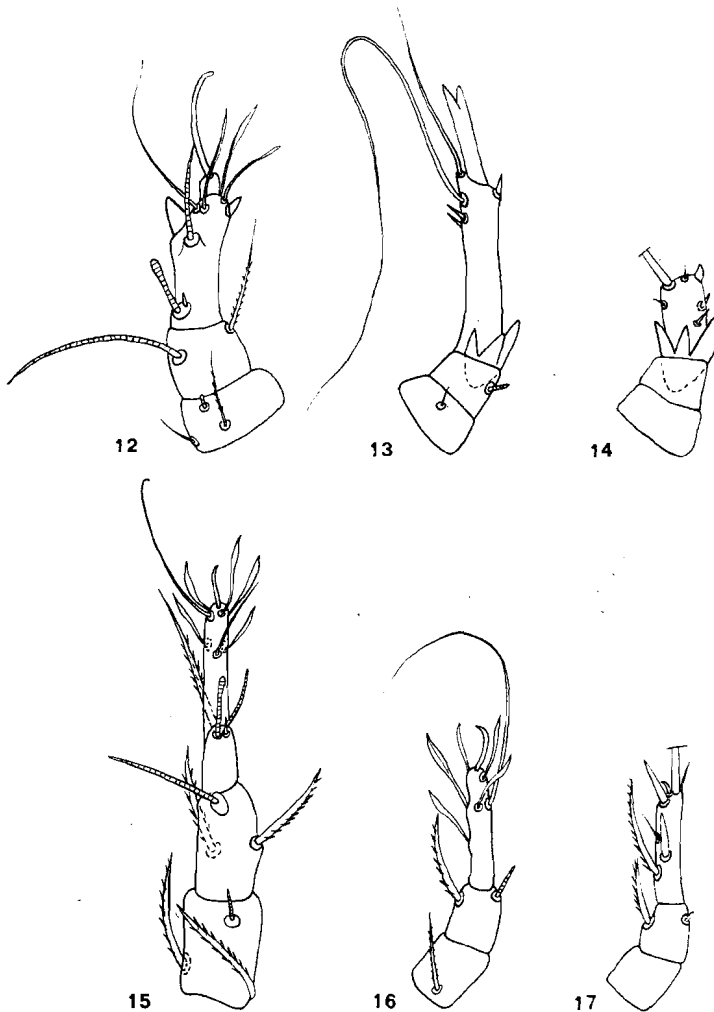


Fig. 12—17. Fig. 12—14 — *Sciuroopsis sibirica* sp. n. Hypopus. Tarsus, tibia and genu I (12), III (13) and IV (14).

Fig. 15—17 — *Dermacarus mongolicus* sp. n. Hypopus. Tarsus, tibia and genu I (15), III (16) and IV (17).

FAMILY MYOBIIDAE MEGNIN, 1877

Genus *Radfordia* EWING, 1938Subgenus (*Austromyobia*) LAWRENCE, 1954

The subgenus *Austromyobia* contained, so far, 9 species. The new species that we describe here presents the same coxal chaetotaxy as *R. (A.) jaculus* FAIN and LUKOSCHUS, 1976 also from a Dipodidae. It is distinguished from that species by the greater length of *ic 1* setae ($90\ \mu$ instead of $50\ \mu$) and the smaller length of the *ic 2*, *ic 3* and *ic 4* setae ($23\ \mu$, $26\ \mu$ and $27\ \mu$, instead of $100\ \mu$, $120\ \mu$ and $165\ \mu$ in *R. (A.) jaculus*.)

Radfordia (Austromyobia) allactaga spec. nov.

Female (fig. 18–19): Holotype $448\ \mu$ long (gnathosoma included) and $315\ \mu$ wide. Dorsum: the *ve* setae short, with a strong tooth, and thinner than *sc i*. The *sc e* much

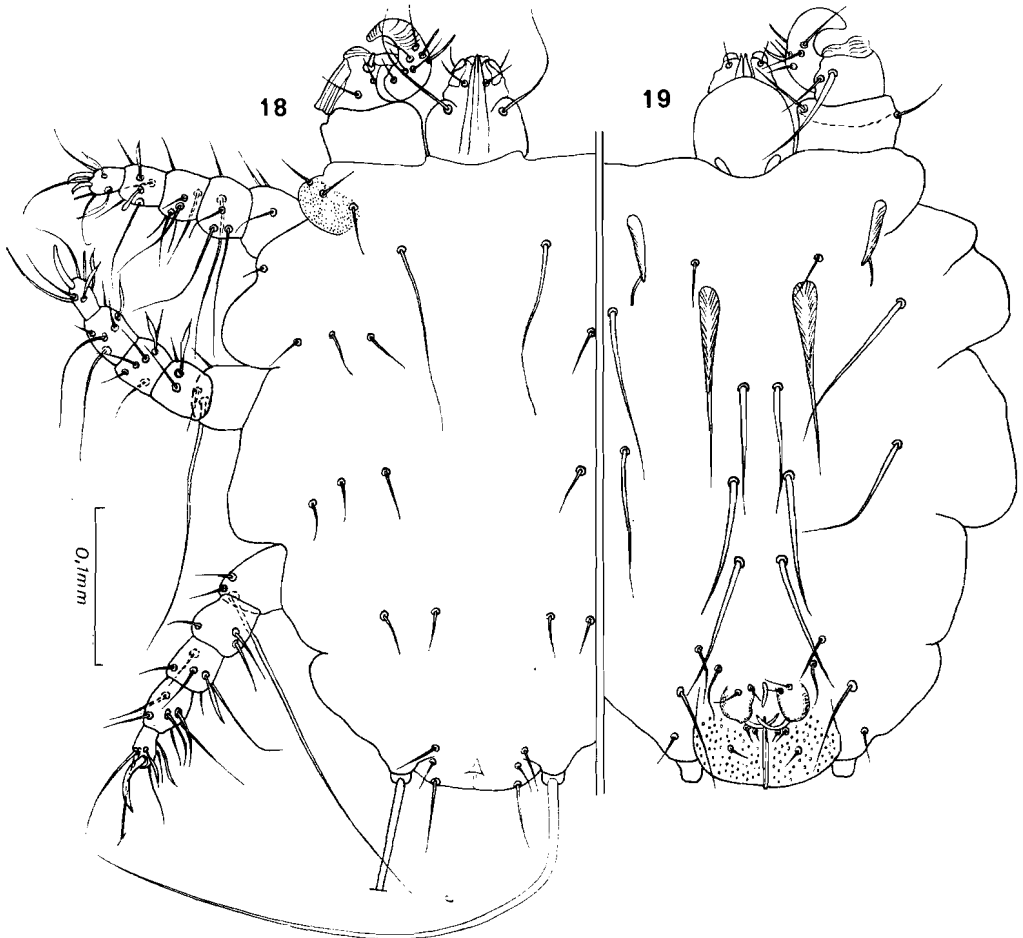


Fig. 18–19. *Radfordia (Austromyobia) allactaga* sp. n. Holotype female in ventral (18) and dorsal (19) view.

thinner than *sc i*. The *sc i*, *d 1*, *d 2*, *l 1* and *l 2* subequal in width. Genital *g 7* setae strong and curved. The cuticle behind the genital area is very finely verrucose. *Venter*: coxae with 3-3-2-1 setae. The *ic 1*, *ic 2*, *ic 3* and *ic 4* setae are 90 μ , 23 μ , 26 μ and 27 μ long respectively. *Chaetotaxy of legs II—IV*: trochanters 3-3-3, femora 5-3-3; genua 7-6-6; tibiae and tarsi 6-6-6. Some of these setae are partly membranous. Coxa and trochanter I without a lateral hook-like projection.

Host and locality

The mites were attached to the hairs of *Allactaga sibirica*, from Bulgan-gol, S. W. Mongolia, 21. V. 1975 (Rodent collected by M. STUBBE) (Holotype female and 1 protonymph, 1 deutonymph, 13 tritonymphs paratypes).

Summary

Five new species of fur-mites from *Allactaga sibirica* FORSTER, 1778, in Mongolia, are described: *Afrolistrophorus stubbei* sp. n. (Listrophoridae), *Crinicansor allactaga* sp. n. (Myocoptidae), *Sciuroopsis sibirica* sp. n. (Glycyphagidae), *Dermacarus mongolicus* sp. n. (Glycyphagidae) and *Radfordia (Austromyobia) allactaga* sp. n. (Myobiidae).

Zusammenfassung

Fünf neue Arten fellbewohnender Milben von *Allactaga sibirica* FORSTER, 1778 werden aus der Mongolei beschrieben: *Afrolistrophorus stubbei* sp. n. (Listrophoridae), *Crinicansor allactaga* sp. n. (Myocoptidae), *Dermacarus mongolicus* sp. n. (Glycyphagidae), *Sciuroopsis sibirica* sp. n. (Glycyphagidae) und *Radfordia (Austromyobia) allactaga* sp. n. (Myobiidae).

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