

### THREE NEW SPECIES OF THE GENUS *LYNXACARUS* RADFORD, 1951 FROM INSECTIVORA (ACARI: LISTROPHORIDAE)

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----- ABSTRACT— Three new species and a new subgenus *Dubininetta* subg. n. are described in the genus *Lynxacarus* Radford, 1951 (Listrophoridae) from Asiatic Insectivora: *L. echinosorex* sp. n. from *Echinosorex gymmurus*, *L. talpae* sp. n. from *Talpa micrura longirostris* and *L. taiwanensis* sp. n. from *Talpa micrura insularis*. -----

We describe here three new species of the genus *Lynxacarus* Radford, 1951 found by one of us (F. L.) in Asiatic Insectivora.

These species resemble *Lynxacarus dubinini* Dubinina, a species described from *Desmana moschata*. These four species form a small group which is distinguished from the other species of *Lynxacarus* by several characters which justify their separation in a new subgenus.

Genus *Lynxacarus* Radford, 1951  
Subgenus *Dubininetta* Subgen. nov.

DEFINITION—This new subgenus is distinguished from the typical subgenus in the male by the absence of a chitinous U-shaped frame around the anal region and the presence of a median shield on the hysteronotum; in both sexes by the smaller size of the body (males not more than 370 $\mu$  long).

Type species— *Lynxacarus (Dubininetta) talpae* spec. nov.

This new subgenus is named for Mrs. Dr. Helena Dubinina, Leningrad, who published interesting papers on Listrophoridae and described the first species of this new subgenus.

#### 1. *Lynxacarus (Dubininetta) talpae* spec. nov. (Figs. 1-3)

The male of this species bears a median shield on the hysteronotum, as in *L. dubinini*. However this new species is clearly distinct from that species, as well as from all the known species in the genus by the great length of the penis. The female is characterized by the great length of the bursa copulatrix, longer than the half of the body.

MALE (Fig. 2-3)— The holotype is 370 $\mu$  long and 108 $\mu$  wide in lateral view. Postscapular shield 50 $\mu$  long in the midline; with 6-7 transverse striations in the midline. Hysteronotum bearing in its posterior half a median shield poorly striated and not reaching the *d* 2 setae. Posterior extremity slightly incised. Penis 240 $\mu$  long, flagelliform and curved anteriorly with two long flagella arising from its base. Setae *d* 5 and *l* 5 are 45 $\mu$  and 160 $\mu$  long respectively. Legs III-IV compressed laterally and distinctly enlarged dorso-ventrally.

FEMALE (Fig. 1)— Allotype 423 $\mu$  long and 120 $\mu$  wide (laterally). Postscapular shield 57 $\mu$  long, with 7 striations in the midline. Hysteronotum soft, without punctate shields. The *d* 5 and *l* 5 are unequal, 80 $\mu$  and 140 $\mu$  long respectively, and their bases are contiguous. Bursa copulatrix very long (250-300 $\mu$ ), more sclerotized in its proximal half than in its distal half; the copulatory aperture has not been observed.

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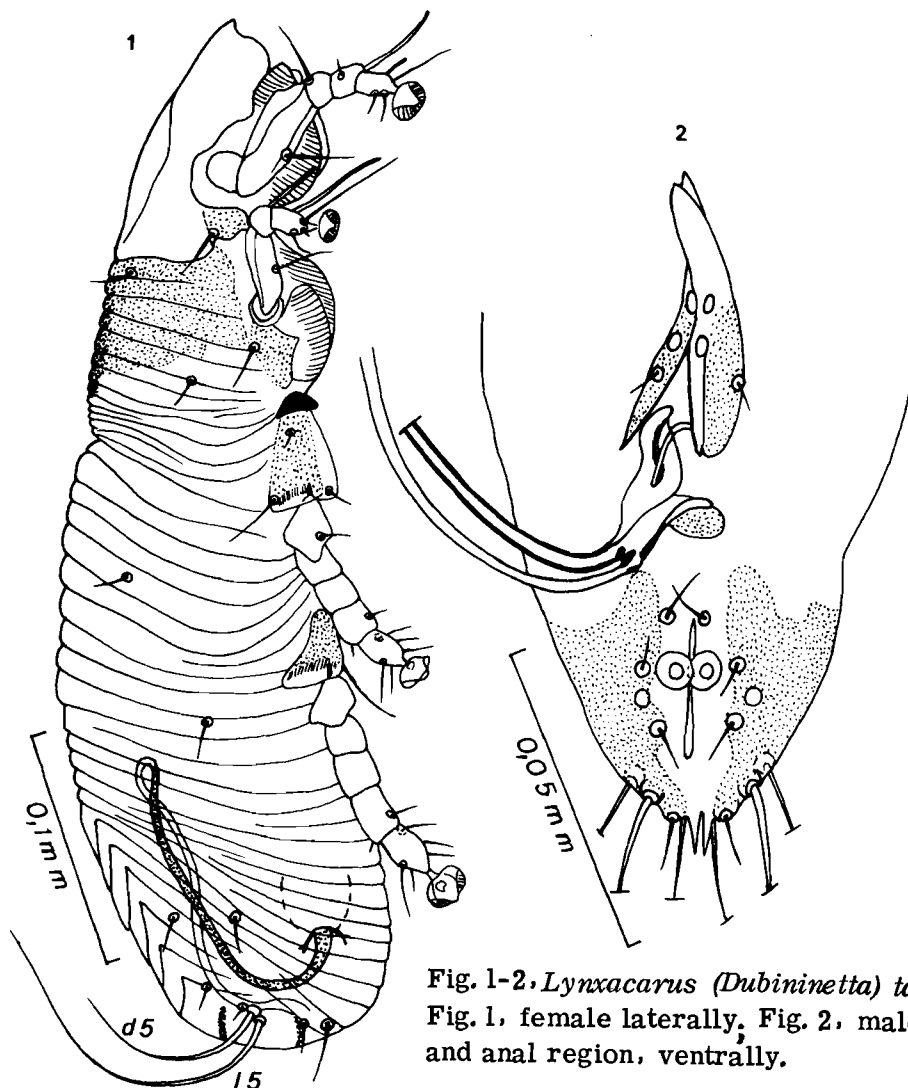


Fig. 1-2. *Lynxacarus (Dubininetta) talpae* sp. n.: Fig. 1, female laterally; Fig. 2, male, genital and anal region, ventrally.

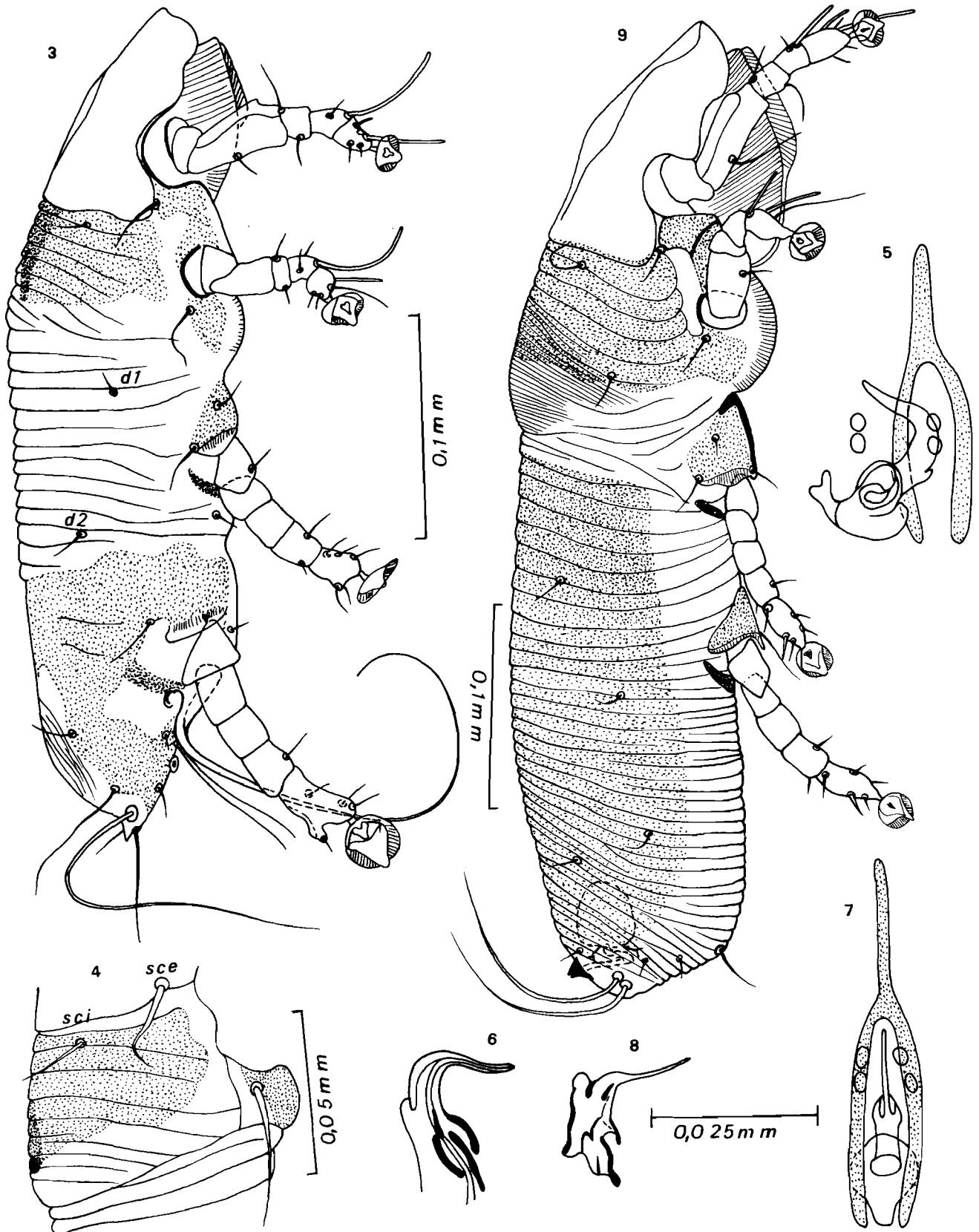
**HOST AND LOCALITY**—On *Talpa micrura longirostris* Milne-Edwards (Talpidae), from Marches Thibetanas. Animal n° 729 collected in 1912, and conserved in Museum National d' Histoire Naturelle, Paris. Holotype and 4 paratypes male, allotype and 1 paratype female, 5 nymphs paratypes. Types in Museum d' Histoire Naturelle, Paris.

2. *Lynxacarus (Dubininetta) taiwanensis* spec. nov. (Figs. 4-6)

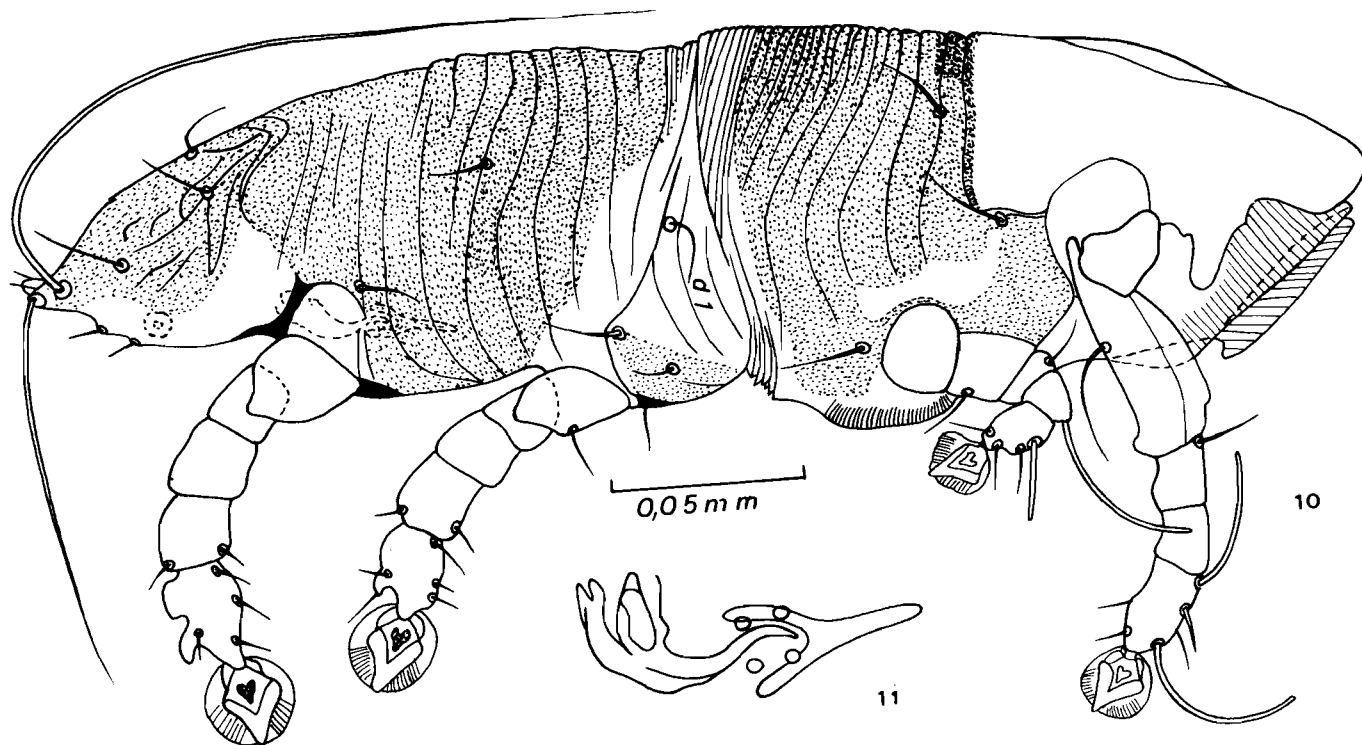
This species is close to *L. dubinini*. It, however, differs from it in both sexes by the different shape to the postscapular shield; in the male by the shape of the penis, thicker and longer and curved at its apex; in the female by the shape of the postscapular shield less developed laterally, by sclerotization of the copulatory papilla and by the chaetotaxy.

**MALE** (Fig. 4-6)—Holotype male 360 $\mu$  long and 96 $\mu$  wide (in lateral view). Prescapular shield 105 $\mu$  long. Postscapular shield 45 $\mu$  long in midline and 32 $\mu$  long along a line situated at equal distance from *sc i* and *sc e* setae. The *sc e* setae are 27 $\mu$  long and distinctly thickened in their basal half. The *l 1* and *h* setae are 35-39 $\mu$  long and their basal half is slightly thickened; the *l 2* are 45 $\mu$  long. Median hysterontal shield poorly sclerotized. Penis more developed

Fig. 3. *Lynxacarus (Dubininetta) talpae* sp. n.: male laterally; Figs. 4-6: *Lynxacarus (Dubininetta) taiwanensis* sp. n. (male)- 4, postscapular shield; 5, aedeagus and pregenital sclerite; 6, aedeagus in lateral view; Figs. 7, 8: *Lynxacarus (Dubininetta) dubinini* Dubinina (male)- 7, aedeagus and pregenital sclerite ventrally (paratype);



8. aedeagus in lateral view (specimen from *Galemys pyrenaicus*) ; Fig. 9: *Lynxacarus (Dubininetta) echinosorex* sp. n. -female in lateral view.



Figs. 10-11, *Lynxacarus (Dubininetta) echinosorex* sp. n. : Fig. 10, male in lateral view. Fig. 11, genital region.

than in *L. dubinini*, with a thick base and a narrow apical part strongly curved in its middle, the apex is directed forwards and curved ventrally. Pregenital sclerite in the shape of a tuning fork. Other characters as in *L. dubinini*.

**FEMALE**—Allotype  $452\mu$  long and  $126\mu$  wide (in ventral view). Postscapular shield with 4-5 striations,  $51\mu$  long in the midline and  $35\mu$  long along a longitudinal line situated at equal distance from *sc i* and *sc e*. The *sc e* setae have a thickened basal half as in the male. Hysteronotum without a shield. Copulatory papilla strongly sclerotized, situated dorsally immediately in front of the anus.

**HOST AND LOCALITY**— (1) On *Talpa micrura insularis* Swinhoe (Talpidae) from Taiwan (=Formosa) (animal n° 358575 collected on 6-V-1965) (Holotype and 24 paratype males, allotype and 16 paratype females, 64 paratype nymphs. (2) On *Talpa* sp., from Chuei-feng, Taiwan (animal n° 333225) (2 males, 2 females and 1 nymph, all paratypes). All these specimens were collected by one of us (F. L.) one moles from Smithsonian Museum.

Types in U. S. National Museum, Washington.

### 3. *Lynxacarus (Dubininetta) echinosorex* spec. nov. (Figs. 9-11)

This species differs from the other species in the subgenus in the male by the great size of the hysteronotal shield; in the female by the presence of a hysteronotal shield.

**MALE** (Figs. 10-11)—Holotype  $357\mu$  long and  $105\mu$  wide (in lateral view). Postscapular shield  $60\mu$  long in the midline, with about 15-20 transverse striations in midline and only 6-7 striations along a line joining *sc i* and *d l* setae. Posterior extremity slightly incised. There is a large hysteronotal shield covering almost completely the hysteronotum. Opisthosoma short (about  $50-60\mu$  long). Setae *d 5* and *l 5* are  $90\mu$  and  $200\mu$  long respectively. Legs III-IV slightly but distinctly compressed laterally and inflated dorsoventrally. Penis short curved anteroventrally and with an anterior sclerite in the shape of a tuning fork.

**FEMALE** (Fig. 9)—Allotype  $490\mu$  long and  $119\mu$  wide (in lateral view). Postscapular shield much shorter ( $60\mu$  in the midline) than the prescapular shield ( $129\mu$ ), and bearing 15-18 transverse striations in the midline and only 5 striations laterally along a line joining *sc i* and *d l*. Hysteronotum regularly striated transversely and almost completely punctate and sclerotized but distinctly more sclerotized in its anterior part,  $55\mu$  long. The *d 5* and *l 5* setae are subequal and approximately  $200\mu$  long.

**HOST AND LOCALITY**—On *Echinosorex gymmurus* (Raffles) (Erinaceidae), of Indragiri, Sumatra. Animal collected on 11-XI-1916 and conserved in the Senckenberg Museum Frankfurt a. M. (Holotype and 2 paratypes male, allotype and 3 paratypes female, 9 paratype nymphs. Type in the Senckenberg Museum Frankfurt a. M.

4. *Lynxacarus (Dubininetta) dubinini* Dubinina, 1969 tax. nov.  
(Fig. 7-8)

This species has been described from *Desmana moschata* (Talpidae) in U. S. S. R. We have found it on the same host but from an unknown locality (specimen in alcohol in Museum of Leiden).

We found numerous specimens of that species on *Galemys pyrenaicus* (Talpidae) from Moulis near Toulouse, France (23-VII-1967), from Barrège (Hautes Pyrénées) (5-VIII-1967. Animal collected by Emery) and from Villoslada, Spain 8-VII-1971 (4 males and 2 females). The mites were collected by one of us (F. L.).

On *Talpa wogura coreana*, from Sumil-li, Korea (1952) we found 5 males, 5 females and 4 nymphs which seem unseparable from *L. dubinini*.

#### REFERENCES

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Radford, C. (1951). Two new genera of parasitic mites (Acarina: Laelaptidae and Listrophoridae). Parasitology 41 (1-2): 102-104.
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