

Archemyobia (Nearchemyobia) latipilis sp.n.
(Acari: Prostigmata: Myobiidae) parasitic on marsupials in
Panama and Brazil

by

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(Received for publication August 29, 1980)

Abstract: *Archemyobia (Nearchemyobia) latipilis* sp. n. is described from specimens parasitizing marsupials in Panama and Brazil. It is distinguished from *A. (N.) pectinata* Méndez, 1972, mainly by the structure of the chaetotaxy.

In the present paper we describe a new species of Myobiidae belonging to the subgenus *Nearchemyobia*, genus *Archemyobia*. The known taxa of *Nearchemyobia* have been found only on marsupials of the family Didelphidae. However, it is possible that mites of this subgenus may parasitize members of the family Caenolestidae, the other American marsupial group.

Archemyobia (Nearchemyobia) latipilis sp.n.

This new species is very close to *Archemyobia (Nearchemyobia) pectinata* Méndez, 1972, described from *Philander opossum fuscogriseus* in Panama, but it differs from it by the following characters:

- Female:**
1. Different shape and disposition of genital and anal setae: the *a i* are thick, curved and situated very close to *a e*. In *A. pectinata* the *a i* are more anterior, more close to each other and far from *a e*
 2. The distance *d4-13* is 70 μm as opposed to 30 μm in *A. pectinata*.
 3. Some ventral setae are much longer: *ic 2* 120 μm ; *ic 4* 40-45 μm . In *A. pectinata* these setae are 36 μm and 25 μm , respectively.
 3. The antero-ventral seta of trochanters III is thick but very finely attenuated apically. In *A. pectinata* this seta is a blunt spine.
 5. The large foliate striate ventral setae are trapezoidal and wide (18 μm for coxals II and 12 μm for coxals III). In *A. pectinata* these setae are not expanded and narrower posteriorly (coxals II 12 μm , coxals III 10 μm). Moreover, the *ic 3* and coxals III end in a very thin and short projection, which is absent in *A. pectinata*.

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Male: The size is larger, the setae *d 2* are relatively much longer, the *ic 2* are much longer, the coxals III and the *ic 3* are shorter and broader, and the *d 3* and *l 3* are present.

Description:

Female (Fig. 1): Holotype 618 μm long (gnathosoma included) and 240 μm wide. In one paratype 585 μm x 243 μm . Dorsum: anterior setae foliate-striate and very wide (*v i*=30 μm ; *v e*=45 μm ; *sc i*=33 μm) in their anterior half and very thin in their posterior half. Setae *d 1 - d 4* and *l 2* foliate-striate 9-12 μm wide in their anterior half. Setae *l 3* much thinner and 39 μm long. Anals and genitals *g 5 - g 7* close together. Venter: setae *ic 1* thin, 18 μm long; *ic 2* thin, 120 μm long; *ic 3* foliate-striate 27 μm long and 12 μm wide; *ic 4* thin, 45 μm . Coxals I and IV thin; coxals II and III foliate-striate and distinctly expanded posteriorly. Legs and gnathosoma as in *A. pectinata*. Coxae with 2-3-3-2 setae. Number of setae on legs II-IV: Trochanters 3-3-3. Femora 5-3-3. Genua 7-6-6. Tibiae 6-6-6. Tarsi 7-6-6.

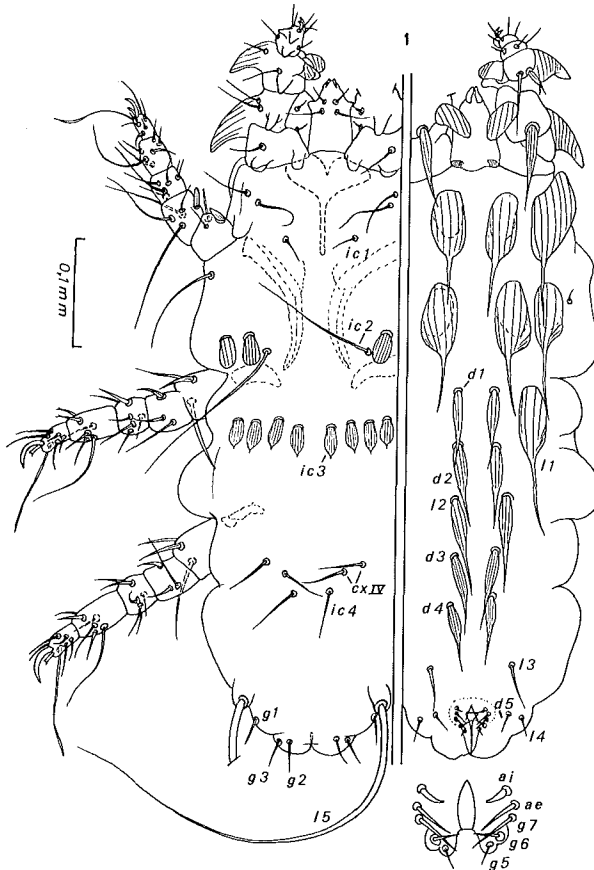


Fig. 1. *Archemyobia (Nearchemyobia) latipilis* sp. nov. Ventral-dorsal view of female.

Male (Fig. 2): Length 453 μm , width 180 μm . Dorsum: Setae *v i*, *v e*, *sc i*, *sc e*, and *l 1* as in female. There are 9 pairs of perigenital setae, one postero-external large (*d 1*), the other much smaller. Behind this area there are 4 pairs of unequal setae, being the most anterior long, foliate and striate (*d 2*), the others are thin and much shorter. Aedeagus 150 μm long. Venter as in the female, except that the *ic 3* and the coxals III are narrower, especially the external pair, and that the *ic 4* and coxals IV are shorter. Legs and gnathosoma as in the female.

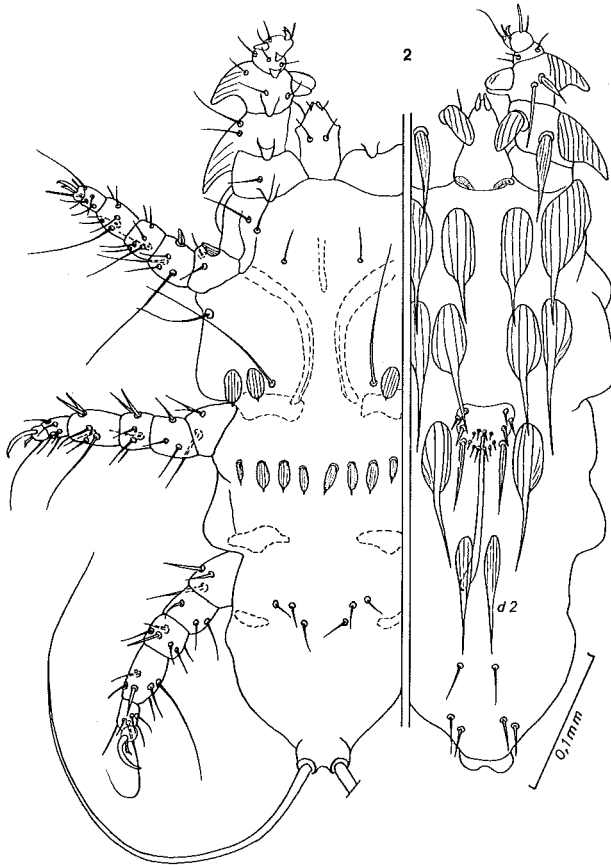


Fig. 2. Same. Ventral-dorsal view of male.

Tritonymph: Length 570 μm , width 210 μm . Dorsum: Setae as in *A. pectinata* except that setae *v e*, *sc e* and *l 1* end in a much longer posterior prolongation. Venter: as in *A. pectinata* but setae *ic 2*, *ic 3*, coxals II and III are relatively longer, more attenuated near their apex and bear a very thin apical prolongation.

Deutonymph: Length 460 μm , width 155 μm . It differs from the tritonymph mainly by the presence of only one pair of shell-shaped setae on coxae I, of only one pair of setae on coxae II and III, and the absence of setae on coxae IV.

Protonymph: Length 420 μm , width 150 μm . It differs from the deutonymph mainly by the absence of setae *ic* 4 and of coxals II and III.

Larva: Length 380 μm , width 150 μm . It is characterized by the presence of only 3 pairs of legs and by the absence of coxal setae.

Type material : Holotype female ex *Caluromys derbianus*(δ), from Aguacate, Capira, Province of Panama, Panama, 25. I. 1980, collected by H. Montenegro; 1 female paratype from the same animal. Allotype male and the following paratypes: 3 males, 15 females, 25 nymphs and 5 larvae, ex *C. derbianus* (Coll. No. 11535) deposited in the Senckenberg Museum Frankfurt, from Parana do Inkare, Brasil, 31. VII. 1925, collected by F.S.L.; 1 paratype female ex *C. philander* (Coll. No.76.4.26.1) housed in the British Museum, from Manaos, Brasil, collected by A. Fain.

Holotype, allotype, and a series of paratypes have been deposited in the Institut Royal des Sciences Naturelles de Belgique. Other paratypes have been distributed among the Department of Zoology, Catholic University of Nijmegen, The Netherlands, the Gorgas Memorial Laboratory, Panama City, Panama, and other institutions.

Genus *Archemyobia* Jameson, 1955

Subgenus *Nearchemyobia* Fain & Lukoschus, 1976

The subgenus *Nearchemyobia* was created for the species presenting a foliate-striated aspect of the *ic* 3, of the coxae II, and of III setae. The type species is *Archemyobia dimidiata* Fain, 1973.

Key to the species of the subgenus *Nearchemyobia*

(Females only)

1. Absence of coxal setae IV. Setae *l* 3 strong, longer than *d* 4. Setae *ic* 3 and coxals III progressively attenuated at apex. From *Monodelphis dimidiata*, Brazil *A. (N.) dimidiata* Fain, 1973.
Presence of 1 or 2 pairs of coxal setae IV. Other characters variable. 2
2. Presence of 1 pair of coxal IV setae. From *Monodelphis americana iheringi*, Brazil *A. (N.) brasiliensis* Jameson & Lukoschus, 1969.
Presence of 2 pairs of coxal setae 3
3. Setae *ic* 4 much longer (105 μm) than the coxals IV (25-30 μm). Setae *l* 3 thick and striate in basal half. Setae *ic* 3 and coxals III progressively attenuated apically. From *Caluromys philander trinitatis*, *A. (N.) trinidadensis* Tibbets, 1957.
Setae *ic* 4 only slightly longer (45 μm) than coxals IV (25-42 μm). Setae *l* 3 narrower and not striate basally. Setae *ic* 3 and coxals IV very wide and not progressively attenuated apically but with a rounded posterior margin ending or not in a very thin and short prolongation. 4

4. Setae *ic 3* and coxals III not inflated posteriorly and without very thin terminal prolongations. Setae *ic 2* 36 μm , *ic 4* 25 μm . Distance *d 4 - l 3* 30 μm . Setae *a i* thin and far from *a e*. Coxals II not inflated posteriorly and 12 μm wide. Trochanters III with a blunt spine anteroventrally. From *Philander opossum fuscogriseus*, Panamá. *A. (N.) pectinata* Méndez, 1972.
- Setae *ic 3* and coxals III inflated posteriorly and ending in very thin and short prolongation. Setae *ic 2* 120 μm long, *ic 4* 40-45 μm . Distance *d 4 - l 3* 70 μm . Setae *a i* thick, curved and situated very close to *a e*. Coxals II trapezoidal, 18 μm wide. Trochanters III with anteroventral spine gradually attenuated apically. From *Caluromys derbianus*, Panamá and Brazil, and *C. philander*, Brazil *A. (N.) latipilis* n. sp.

RESUMEN

Se describe e ilustra la especie *Archemyobia (Nearchemyobia)latipilis*, un ácaro que se encuentra en la piel de las zarigüeyas *Caluromys derbianus* (en Panamá y Brasil), así como en *C. philander* (en Brasil). Presentamos una clave para separar las especies del subgénero *Nearchemyobia* Fain & Lukoschus.

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