ARCHEMYOBIA BRASILIENSIS SPEC. NOV. (MYOBIIDAE : TROMBIDIFORMES) FROM MONODELPHIS AMERICANA IHERINGI

BY

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AND

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Investigating a *Monodelphis americana iheringi* (THOMAS), preserved in alcohol at the Museum van Natuurlijke Historie, Leiden, one of us (F. L.) found a myobiid mite, which deviates from species so far described.

This mite proves to be an hitherto unknown species of the genus *Archemyobia* Jameson (1955), and fits the description for that genus : " Leg I rather long for the family, of five segments ; with two conspicuous and strongly curved tarsal claws, quite unlike leg I of the adults of any known myobiid genus ; second and third segments of leg I with hook-like lateral projections ; the two tarsal claws on leg II subequal ; paired tarsal claws on leg III and IV unequal, the posterior claw on each leg about one-fourth as large as the anterior claw ; body about two and onehalf time as long as broad ; from marsupials ".

Archemyobia brasiliensis spec. nov.

Female (holotype). — With the characteristics of the genus. Length including gnathosoma 500 μ, width 195 μ.

Dorsum (fig. 1). — Body transversely striated with exception of the anal and genital regions. Lateral setae I-III (*l I-III*) and submedian setae I-II (*sm* I-II) of an hitherto unknown shape, somewhat like those of the genus *Ewingana* (DUSBÁBEK, 1968) : large, widely expanded, lengthwise striated, sharply tapered to a long whip ; at the outside the striation is running from the bottom side transversal upward (fig. 3). The hairs are placed in a longoval loop (*Lo*) with a larger surface cleaving (*Sc*) to the dorsum. Setal loops not at the beginning, but at one-half to one-third of the enlarged part. Laterals I with long craniad projections, extending between trochanteres I and II close to the lateral surface. Pores of the

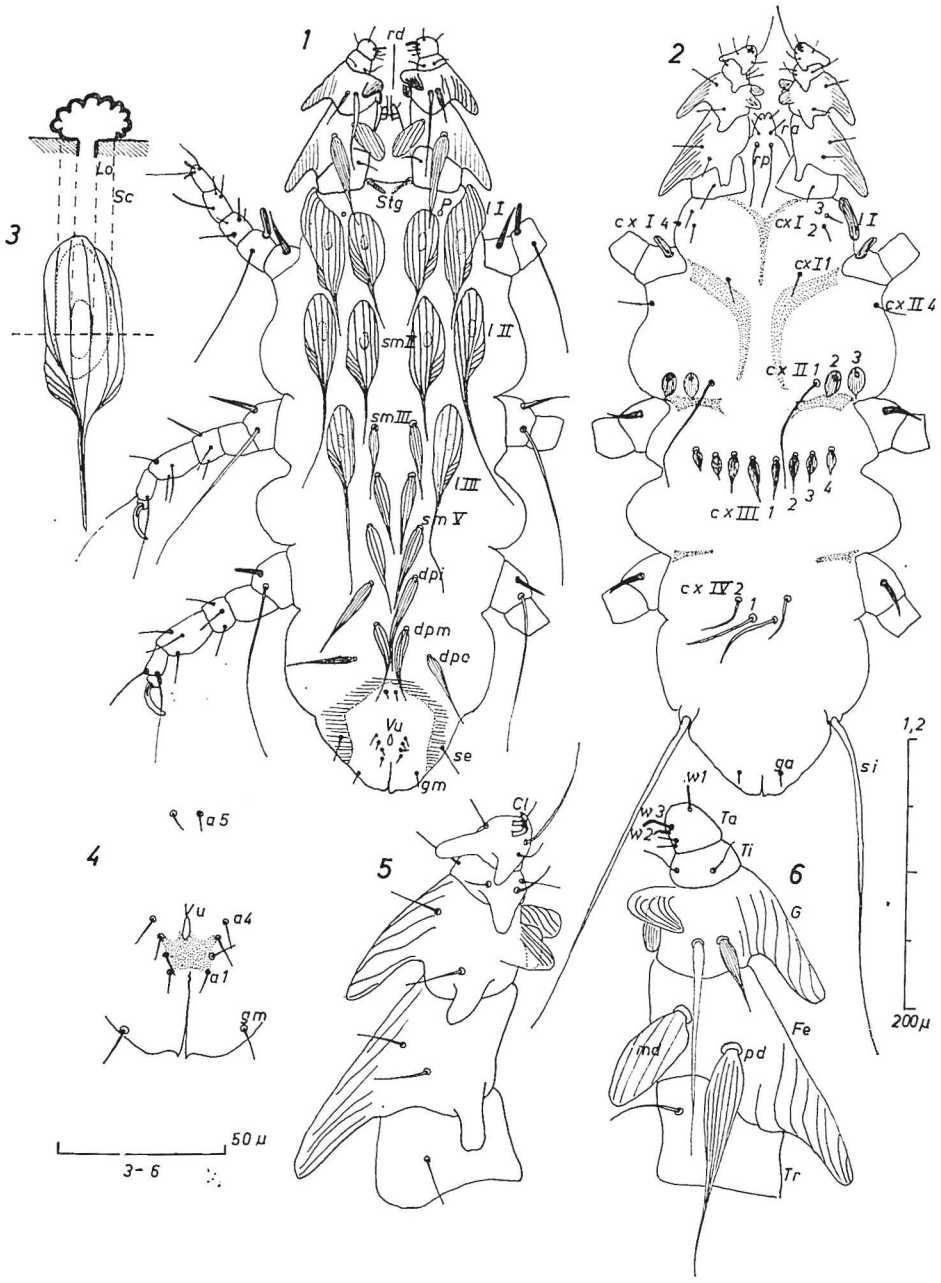

FIG. 1-6 : *Archemyobia brasiliensis* spec. nov. female (holotype).
1. — Dorsum. 2. — Venter. 3. — Submedian seta with cross-section.
4. — Vulvar region. 5. — Leg I venter. 6. — Leg I dorsum.

dorsal glands between *sm I* and *l I*. Submedian setae III-V and setae dorsal posterior interior (*dpi*), median (*dpm*) and exterior (*dpe*) thick, lengthwise striated. Sacral exterior setae (*se*) setiform. Vulva (*Vu*) without vulvar valves, without genital hooks (fig. 4). Five pairs of little setiform anal setae. Region between vulva, *a 1* and *a 3* sclerotized. Genital opening terminal with only two pairs of genital setae (*gm* and *ga*), setae genital posterior are absent.

Venter (fig. 2). — Epimerae I-IV beneath the delicately striated surface. Epimerae I fused to a long sternum ; epimerae II separated, almost reaching epimerae III ; epimerae III and IV short. Four pairs of coxal setae in the coxal regions I-III, two pairs in the coxal region IV. Coxal setae I 1-3 (*cx I 1-3*) short setiform, *cx I 4* hidden beneath the lateral projection of lateral I ; *cx II 1* filiform, *cx II 2-3* enlarged, lengthwise striated with setal loops at one-fourth of their length ; setiform *cx II 4* near trochanter I. Coxal setae III enlarged, lengthwise striated, outwards shorter. Long setiform striated *cx IV 1-2*. Setae sacral interior (*si*) 260 μ.

Gnathosoma specialized to stinging and sucking apparatus. Pedipalps, consisting of two movable segments carrying one hair each, and hypostome close the mouth opening on the lateral and ventral side. Gnathosoma with three pairs of rostral setae : ventral the long rostral posterior (*r p*) and the short anterior (*r a*), dorsal to the base of the palps, directed towards the mouth opening setae rostral dorsal (*r d*). Stigmata (*Stg*) dorsal at the back of the gnathosoma. Chelicerae with little barbs.

Legs. — The legs are placed laterally. All legs with five free segments and two claws. Legs II-IV with pretarsus, where the claws are placed dorsally. Legs I (fig. 5, 6) only very slightly compressed ; tarsi and tibiae broader than long. Clasping tubercles : lateral posterior on tarsus, genu and femur ; ventro-median on tarsus, tibia, genu and femur ; lateral anterior only on the genu. These 3 (4 ?) tubercles seem to be modified setae as in the nymphs of several myobiid genera. The remarkable large claws (*Cl*) are double-pointed. Legs II (fig. 7) with relative small double-pointed claws of unequal size. Setae latero-anterior on trochanter and femur club-shaped. Legs III and IV with very unequal claws, the anterior large and sickle-shaped, the posterior short, slender and double-pointed. Dorso-median setae on trochanteres III and IV and femora II very long (— 120 μ).

Chaetotaxy : tarsi 6-6-6-6 ; tibiae 6-6-6-6 ; genua 7 (8 ?)-8-6-6 ; femora 4-5-3-3 ; trochanteres 2-2-3-3.

Solenidiotaxy : tarsi 3-2-0-0.

Male and developmental stages are unknown.

Host : Monodelphis americana iheringi (Thomas).

Type locality : Porto Real, Brazil, 1890, host deposited with the Museum van Natuurlijke Historie, Leiden, No. 19615.

Type : deposited in the Museum van Natuurlijke Historie, Leiden, No. P 1148.

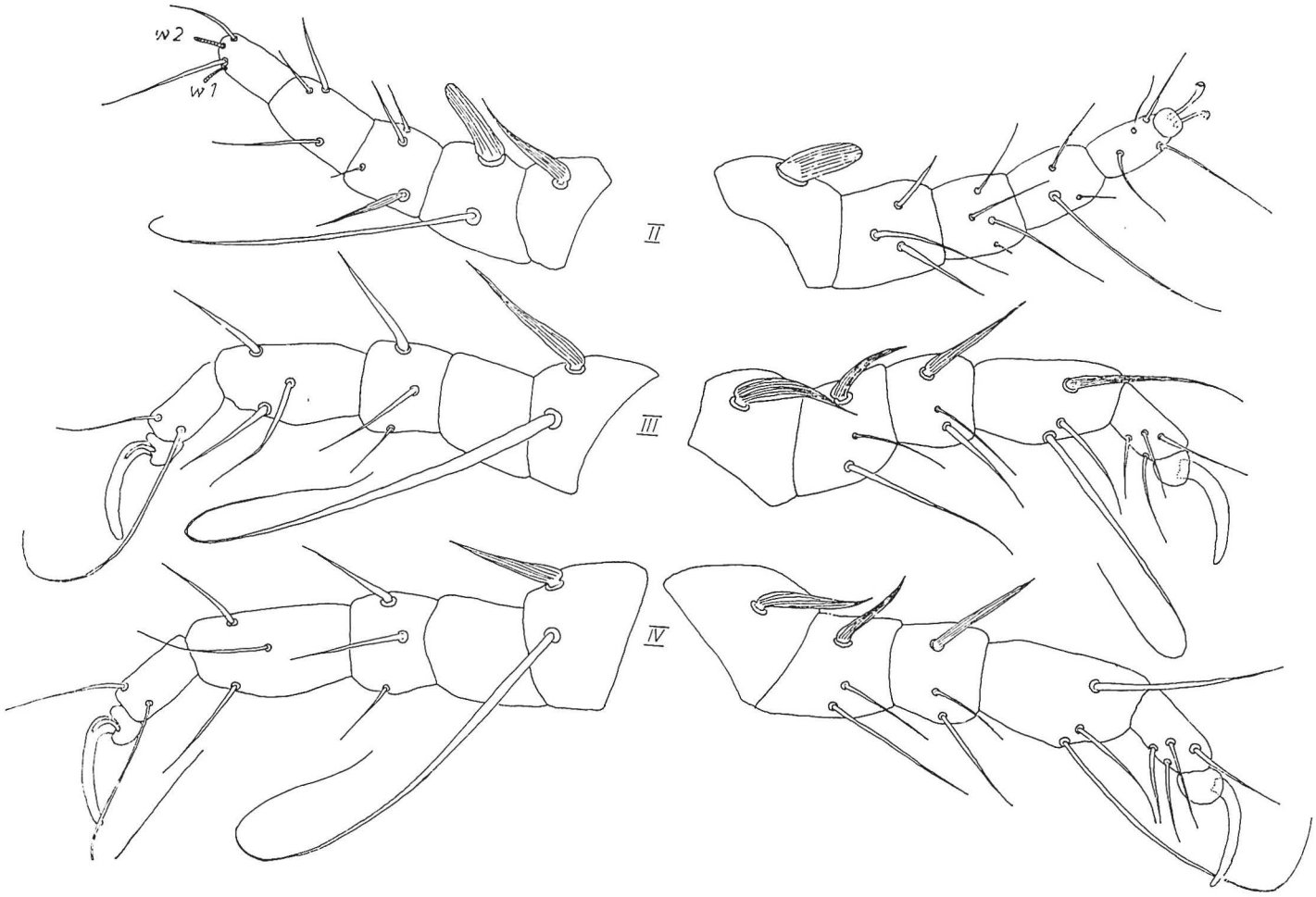

FIG. 7 : *Archemyobia brasiliensis* spec. nov. female, legs II-IV. Left side dorsally, right side ventrally.

Remarks on the nomenclature of setae.

In this primitive species possessing most of the setae present in the genera of Myobiidae we are using a more detailed nomenclature for the body setae.

On the dorsum there are present 3 pairs of laterals, 5-6 pairs of submedians and 3 pairs of circumanals. Those last setae, in this study called dorsal posterior setae and detailed named as to their position, may have the same shape as submedians III-V like the species described above, or some or all may be of another shape. If one of them (*dpi*) has the same shape as submedians III-V, authors sometimes state six pairs of submedians and only two pairs of circumanals. In this species it should be possible to mention seven pairs of submedians and only one pair of circumanals. Since three pairs of dorsal posterior setae are present in all myobiid genera, except in species with very minute hairs, we propose to divide the rows of paramedian hairs in submedian setae and dorsal posterior setae, even if some of them have the same shape as the submedians.

In all myobiid genera two pairs of sacral setae are present : the long sacral interior (terminal setae) and the short sacral exterior (*se*). Accessory sacral setae occur in hypertriche species.

Genital opening and vulva within an unstriated area with usually three pairs of genitals : genital anterior, median and posterior, and five pairs of anal setae. The vulva being displaced to the back the numerical order must run as shown in fig. 4. In genera with vulvar valves and genital hooks always *a 3* are situated on the valves.

The lateral projections of setae lateral I are similar to those in *Radfordia bachai* (Howell & Elzinga, 1962) (= *Lavoimyobia hughesi* (Paran, 1966)).

The visible epimerae clearly divide the venter into coxal fields. Coxal fields I-III each with four pairs of setae, coxal field IV in this species only with two pairs, but with three pairs in the related species *Archemyobia inexpectatus* (Jameson, 1955). Setae 4 of the coxal fields I and II are situated at the lateral side near the trochanteres (not always figured in the descriptions). In more specialized genera some of the coxal setae are lacking. Posterior to coxal region IV may be present in some hypertriche species, e.g. *Eadiea ingens* Vitzthum (1914), *Eadiea blairi* Radford (1936), *Eadiea michaeli* Poppe (1896) various numbers of ventral setae and accessory sacral setae.

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