

## MARSUPIALICHUS MARMOSAE, N. SP. (AGARINA: GLYCYPHAGIDAE) FROM MARMOSA ROBINSONI ISTHMICA

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**Abstract:** *Marsupialichus marmosae*, a new species of mite from the Panamanian Mouse Opossum, *Marmosa robinsoni isthmica*, is described from the hypopial nymph. A new definition of the genus *Marsupialichus* Fain is given.

The description of the new species of *Marsupialichus* contained in this paper is based on specimens of the hypopial nymph recovered from the South American Mouse Opossum, *Marmosa robinsoni isthmica*, in Panama. There are 5 other known species in this genus, as follows: *M. andrettai* Fain, 1967, *M. brasiliensis* Fain, 1967, *M. johnstoni* Fain, 1969, *M. lukoschi* Fain, 1969 and *M. marsupialis* Fain, de Cock & Lukoschus, 1972.

### *Marsupialichus marmosae*, n. sp. FIG. 1-10

**Hypopus** (holotype): ex *Marmosa robinsoni isthmica* Goldman, Rodman, Panama Canal Zone, 21.IX. 1972, N. Guerrero. A large series of paratypes also represented by the hypopial nymphal stage. Mites were found attached to the base of hairs of hind legs and at the base of the tail.

Holotype in the U. S. National Museum of Natural History (no. 3588). Paratypes distributed as follows: British Museum (Natural History), London; Bernice P. Bishop Museum, Honolulu; Zoologisches Museum, Hamburg; Rijksmuseum van Natuurlijke Historie, Leiden; Institut Pasteur, Cayenne; Gorgas Memorial Laboratory, Panama; Institut des Sciences Naturelles, Bruxelles; and in collections of authors.

**Description:** *Venter* (FIG. 1). Epimera I fused in Y-shape, epimera III and IV fused (holotype and many paratypes show fusion broken by pressure of cover glass). Epimerites II strongly sclerotized and fused with epimera III (in the majority of paratypes fusion is broken). Epimerites IV always free. Palposoma with 2 pairs of setae (5-8  $\mu$ ) and 2 very short solenidia ( $\alpha$ ). Vertical internal setae barbed and lying ventrally. Genital opening provided with 2 pairs of broad genital suckers and 1 pair of *g m* setae. Pilicolous organ with 2 pairs of opisthosomal projections: 1 sclerotized and laterally directed, the other weaker. External clasper with 9-10 ridges; internal clasper with 10-11 ridges. Area between legs III and IV with distinct lateral hooks protruding from lateral border. *Dorsum* (FIG. 2). Cuticle finely punctate, showing less sclerotization on opisthosomal area.

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Sejugal furrow well developed, having lateral portion slightly bowed backwards. Opisthosomal groove distinct. Two pairs of lateral pores present: 1 pore lateral to each *l 2*, the other located between *h* and *l 1*. *Chaetotaxy of idiosoma*. Setae *v i*, *v e*, *sh*, barbed; dorsals in row 1-5 (2-4  $\mu$ ), short and setiform; laterals 1-4 and *s c x* very short, lateral 5 longer (8  $\mu$ ). *Legs* (FIG. 3-10). Similar to those of other species of genus, with characteristic leaf-like and barbed setae. Legs I and II armed with single sharp claw (7  $\mu$ ); legs III and IV with slightly bifid claws (6, 3  $\mu$ ). All tarsi with 1 dorsomedian preapical seta implanted in a deep pit. Length of tarsi I-IV: 18, 18, 23, 26  $\mu$ , respectively. *Chaetotaxy* (number of setae): tarsi (I to IV) 8-8-8-8, tibiae 2-2-1-1, genua 2-2-1-0, femora 1-1-0-1, trochanters 1-1-1-0. *Solenidiotaxy*: tarsi (I to IV) 2-1-0-0, tibiae 1-1-1-1, genua 1-1-0-0. On leg I, *w 1* and *w 3* are 7-8  $\mu$  and 12-13  $\mu$  long, respectively. Length of holotype 189  $\mu$ , width 140  $\mu$ . In 10 paratypes (length  $\times$  width) 192  $\mu$  (189-206  $\mu$ )  $\times$  144  $\mu$  (140-154  $\mu$ ).

**Discussion:** The hypopus of *Marsupialichus marmosae*, n. sp. is characterized by the presence of strongly developed hooks on the posterior margin of the pilicolous organ and also along the lateral margins of metapodosoma between legs III and IV. This last feature has been also observed in *Marsupialichus marsupialis*.

Hooks on the pilicolous organ do not seem to be prevalent in the genus *Marsupialichus* but are typical in the related genera *Labidophorus*, *Orycteroxenus*, *Rhynchocyonopus*, *Neotetracopus* and *Paralabidophorus*.

Characters such as very small *alpha* solenidion on the palposoma, the typical shape of epimera III and IV, the structure of the claws (claws I to III of nearly equal size), the rather poor development of the solenidion of tibia III, free epimerites IV and the solenidiotaxy of legs, along with other details, leave no doubt as to the generic position of *M. marmosae*.

In his original definition of the genus *Marsupialichus*, which was based on the species *M. andrettai* and *M. brasiliensis*, Fain (1967) stated that hooks are absent on pilicolous organs and on the dorsal opisthosomal groove. With the finding of *M. johnstoni* and *M. lukoschi*, a new definition of the genus was given by Fain (1969). Fain confirmed "l'absence complète d'apophyses recourbées ou de crochets sur les faces latérales de l'hysterosoma, sur les trochanters et fémurs postérieurs et sur l'organe pilicole.... Notons encore qu'un sillon dorsal postérieur incomplet est présent chez certaines espèces, et que les épimères III et IV sont fusionnés, alors que les épimerites IV sont libres."

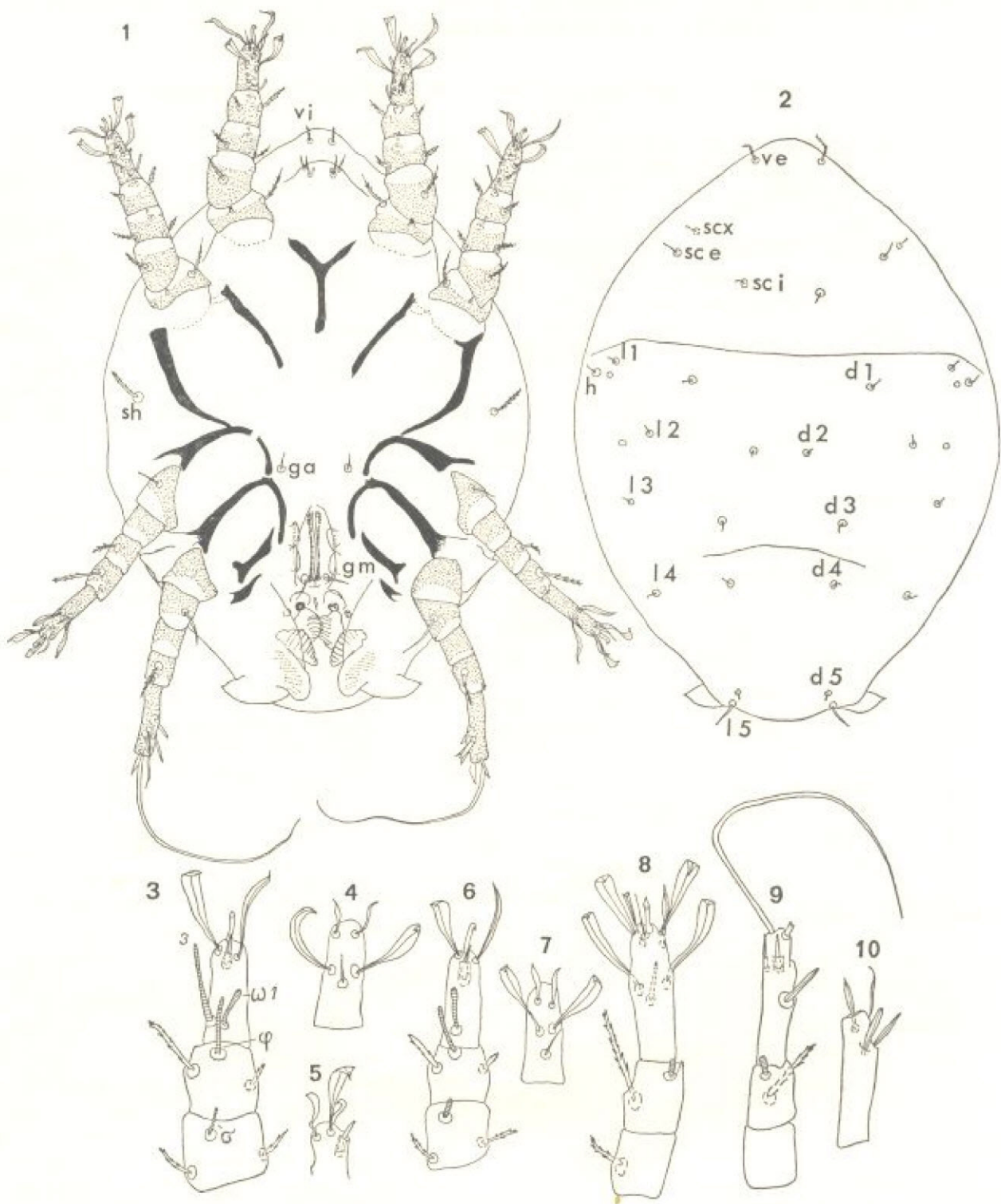


FIG. 1-10. *Marsupialichus marmosae*, n. sp. (1) Ventral view of holotype. (2) Dorsal view of holotype. (3-10) Leg segments: (3) dorsal view of leg I, (4) ventral view of tarsus I, (5) lateral view of tarsus I, (6) dorsal view of leg II, (7) ventral view of tarsus II, (8) dorsal view of leg III, (9) dorsal view of leg IV, (10) ventral view of tarsus IV.

At this time we consider it necessary to modify the definition of the genus in order to accommodate *Marsupialichus marmosae*, n. sp.

Genus **MARSUPIALICHUS** Fain, 1967, **new definition**

This genus is intermediate between *Dermacarus* Haller, 1880 and *Labidophorus* Kramer, 1877.

Tarsal claws as in *Dermacarus*: claws III equal or subequal to claws I-II but less curved. Epimera III and IV fused. Without hooks or projections on trochanters and femora III-IV. Hooks directed laterally may be present on lateral surface of hysterosoma and on clasping organ. Two pairs of hairs and 1

pair of very short, quite vestigial solenidia present on palposoma. *s cx* and *v e* present.

#### LITERATURE CITED

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