

Acari domum meliponinarum
brasiliensium habitantes

10. **Melissotydeus macrosolenus** gen.n., sp.n.
(Acari : Tydeidae)*

by H.M. ANDRE**

Summary

A new genus and a new species of Tydeinae are described. The co-occurrence of two setae on femur IV in a Tydeinae is discussed.

The genus *Tydeus* is a very successful group in the Tydeidae. First, this genus comprises a great number of species and seems to be the richest genus of the family. This expresses in a high diversity of the striation pattern (striated, reticulated, basket-wave like, etc) and the shape of setae (plumose, serrate, etc.) Second, this genus is considerably successful from an ecological point of view. Indeed, *Tydeus* species have been recorded in numerous habitats : soil, bark, orchards, crops, house dust, stored product, associated with insects or mammals, in beehive, etc. Lastly, whatever the selection criterion applied in a cladistic analysis, the genus *Tydeus* corresponds to the most primitive state which all the other genera of the subfamily Tydeinae have been derived from. It is thus very interesting to find new Tydeinae likely to fill the gap between the genus *Tydeus* and the other tydeid subfamilies. This opportunity was offered to me by examining a few mites collected in nests of Meliponinae (Hymenoptera, Apidae) in Brazil.

* Received for publication : 23 January 1985.

** Musée royal de l'Afrique centrale, Entomology Section, B-1980 Tervuren (Belgium).

Definition of *Melissotydeus* gen. n.

The new genus belongs to the subfamily Tydeinae and is defined by the following characters :

Prodorsum : recurved ; number of eyes : undetermined. *Opisthosoma* : dorsal chaetotaxy : 10 (*l2* and *h1* missing) ; poroidotaxy : 3 ; genital organotaxy : Ad (0, ? - 6-4), T (4-4) ; epimeral formulae : Ad and T (3-1-4-2) ; coxal organs. *Legs* : chaetotaxy : I (8-4-3-3-1) II (6-2-2-3-0) III (5-2-1-2-1) IV (5-2-1-2-0) in the adult and tritonymph ; eupathidia on tarsus I : (*p*), (*tc*) and *ft''* ; solenidiotaxy : 2 ; femur IV undivided. *Palp* : (6-2-2) + ω with a double eupathidium at the tip of the tarsus.

Etymology : the generic name refers to the greek term, μελισσα, meaning bee since the genus has been discovered in a bee nest.

Type-species : *Melissotydeus macrosolenus* sp. n. (see below).

Description of *Melissotydeus macrosolenus* sp.n.

(fig. 1, A-H)

In addition to the generic characters above-mentioned, the species is distinctive in several points. First, the dorsal striation pattern on the opisthosoma is unique in Tydeinae and suggests a kind of fingerprint between setae (*d3*) and (*d4*) (fig. 1, B). Besides, the notches on the striae of the idiosoma and legs are well conspicuous (fig. 1, A). Lastly, most dorsal setae on the legs are widely serrate and the solenidia ω I and ω II are rocketlike and remarkably well-developed (fig. 1, D-G).

Etymology : the name is derived from the Greek μακρος and σωλην meaning large pipe because of the size of solenidia.

Type material : 1 ♀ holotype, from the nest of *Partamona* (*Partamona*) *mourei* (Apidae, Meliponinae), in Mucajai (Roraima, Brazil), collected by J.M.F. Camargo, 15 August 1980.

1 ♀ paratype from the nest of *Frieseomellita modesta* (Apidae, Meliponinae), in Livramento (Amazonas, Brazil) collected by J.M.F. Camargo, 26 July 1980 ; 1 tritonymph paratype : same data as the ♀ paratype.

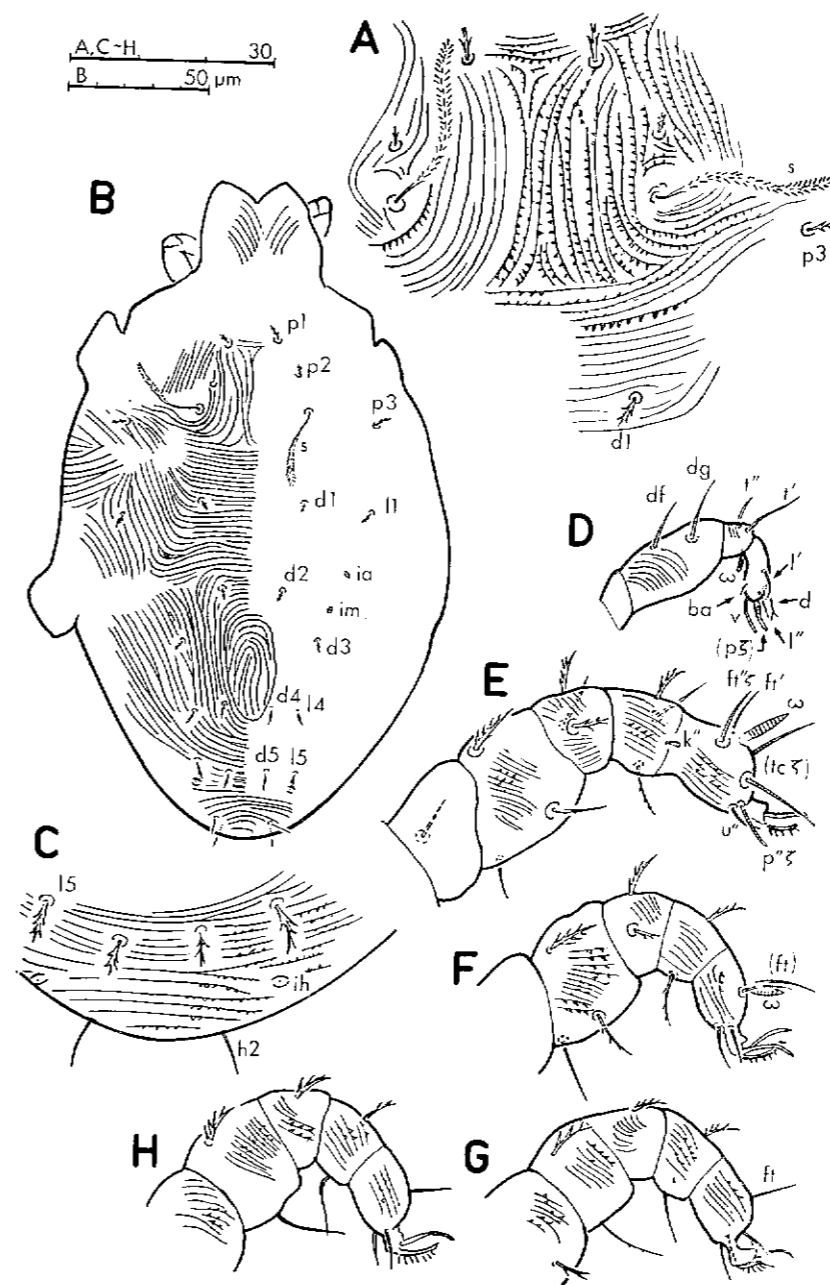


FIG. 1. — *Melissotydeus macrosolenus* gen. n., sp. n. Prodorsum (A), overall dorsal view (B) with a detail of the tip of the opisthosoma (C) ; paraxial view of the palp (D) and antiaxial views of legs I (E), II (F), III (G) and IV (H).

The holotype and tritonymph paratype are deposited in the collections of dept. Zoologia, Escola Superior de Agricultura « Luiz de Queiroz », University of São Paulo, Piracicaba, São Paulo ; the ♀ paratype in the author's collection.

Discussion

So far, the femur chaetotactic formula (3-3-2-2) was only known in Tydeolinae (*Aesthetydeus*, *Metatydaeolus*) and numerous Pronematinae (*Homeopronematus*). In particular, the presence of two setae on femur IV had not been observed in Tydeinae and Pretydeinae while it is the rule in all Tydeolinae (except in *Paratriophtydeus* which exhibits 3 setae on femur IV). This co-occurrence has been observed also in Australotydeinae, in most Pronematinae and in Meyerellinae (*Pseudotriophtydeus*). The co-occurrence of two setae on femur IV in *Melissotydeus* allows thus systematists to fill a part of the gap between the Tydeinae and the other tydeid subfamilies.

Acknowledgments

I am indebted to Prof. C.H.W. Flechtmann for giving me the opportunity to study the mites collected in Brazil. I have also to express my gratitude to Prof. A. Fain for his hospitality in the Institut royal des Sciences naturelles in Brussels where much of this work was done together with Prof. C.H.W. Flechtmann.

Nouvelles observations sur l'organe ereynetal et les solénidions chez les Ereynetidae (Acari, Prostigmata)*

par A. FAIN**

Résumé

Les solénidions et l'organe ereynetal sont étudiés dans les trois sous-familles d'Ereynetidae (Acari, Prostigmata). De nouvelles définitions sont données pour les sous-genres d'*Ereynetes*. Les caractères morphologiques séparant les deux espèces d'*Ereynetes* vivant en association avec des Pagures sont discutés.

Summary

The solenidia and the ereynetal organ are studied in the three subfamilies of Ereynetidae (Acari, Prostigmata). New definitions are given for the subgenera of *Ereynetes*. The morphological characters of the two species of *Ereynetes* associated with Hermit Crabs are discussed.

Dans des travaux antérieurs nous avons étudié les solénidions chez les Ereynetidae et décrit un organe particulier propre à cette famille d'acariens et que pour cette raison nous avons appelé « organe ereynetal » (Fain, 1962a et b, et 1963a).

De nouvelles recherches effectuées au cours de ces dernières années nous permettent maintenant de compléter ces observations et de donner de nouvelles définitions des divers sous-genres décrits dans le genre *Ereynetes* Berlese, 1883.

Nous discuterons aussi, dans le présent travail, les caractères morphologiques qui séparent les deux espèces d'*Ereynetes* (*Anereynetes*) vivant en association avec des Pagures (Bernard l'ermite),

* Déposé le 6 février 1985.

** Institut royal des Sciences naturelles de Belgique, Rue Vautier 29, B-1040 Bruxelles, Belgique.