

ACARI DOMUM MELIPONINARUM BRASILIENSIIUM HABITANTES. XI.
MELIPONOPUS PALPIFER G.N., SP.N. FROM THE BEE
MELIPONA SEMINIGRA (MELIPONIDAE)

A. Fain and C.H.W. Flechtmann

Institut de Medecine Tropicale, 155 Nationalestraat, Antwerp, Belgium and
Universidade de Sao Paulo, ESALQ, 13.400 Piracicaba, SP, Brasil.

ABSTRACT—A new phoretic deutonymph (hypopus), *Meliponopus palpifer* g.n., sp.n. is described from a bee, *Melipona seminigra*, from Brasil.

We describe herein a new phoretic deutonymph (hypopus) found attached on a bee *Melipona seminigra*, from Brasil. This mite belongs to Astigmata but it is not possible to include it into any known genus of this order because it presents several very unusual characters. Only the legs I and II are ending in a non-pedunculate claw, the legs III and IV are devoid of claws but bear a long apical seta. The most remarkable character of this hypopus is probably the shape of the palposoma which is clearly formed of two separated palps each of them comprising three well formed articles. The basal article of each palp is fused in the midline with the opposite one. Such a primitive condition of the palposoma is very rarely encountered in hypopi. In the hypopus of *Spinacarus brasiliensis* Fain and Camerik, 1978 found on a Vespidae the palposoma presents at each side two free articles arising from a common undivided base. A similar aspect has been described for the genus *Schizoglyphus* Mahunka, 1978. However, in these genera the base of the palposoma is not divided in the midline and the legs III and IV bear a normally formed claw. Our new hypopus presents, therefore, a mixture of a very primitive character (the palposoma) and another one very evolved (the loss of the claws on tarsi III and IV).

Previously we have described from Meliponid bees four new genera and two new families of mites belonging to Astigmata (Fain and Rosa, 1983a and b). It is possible, but not certain, that the new hypopus that we describe herein belongs to one of these families. Actually the host belongs to another genus of bees (*Melipona*) that has not been examined until now. Therefore we think that this mite belongs to a new species and genus. The question whether this new genus belongs or not to one of these families could be solved only when new material from these bees be-

comes available.

All measurements are given in microns.

Genus *Meliponopus*, g.n.

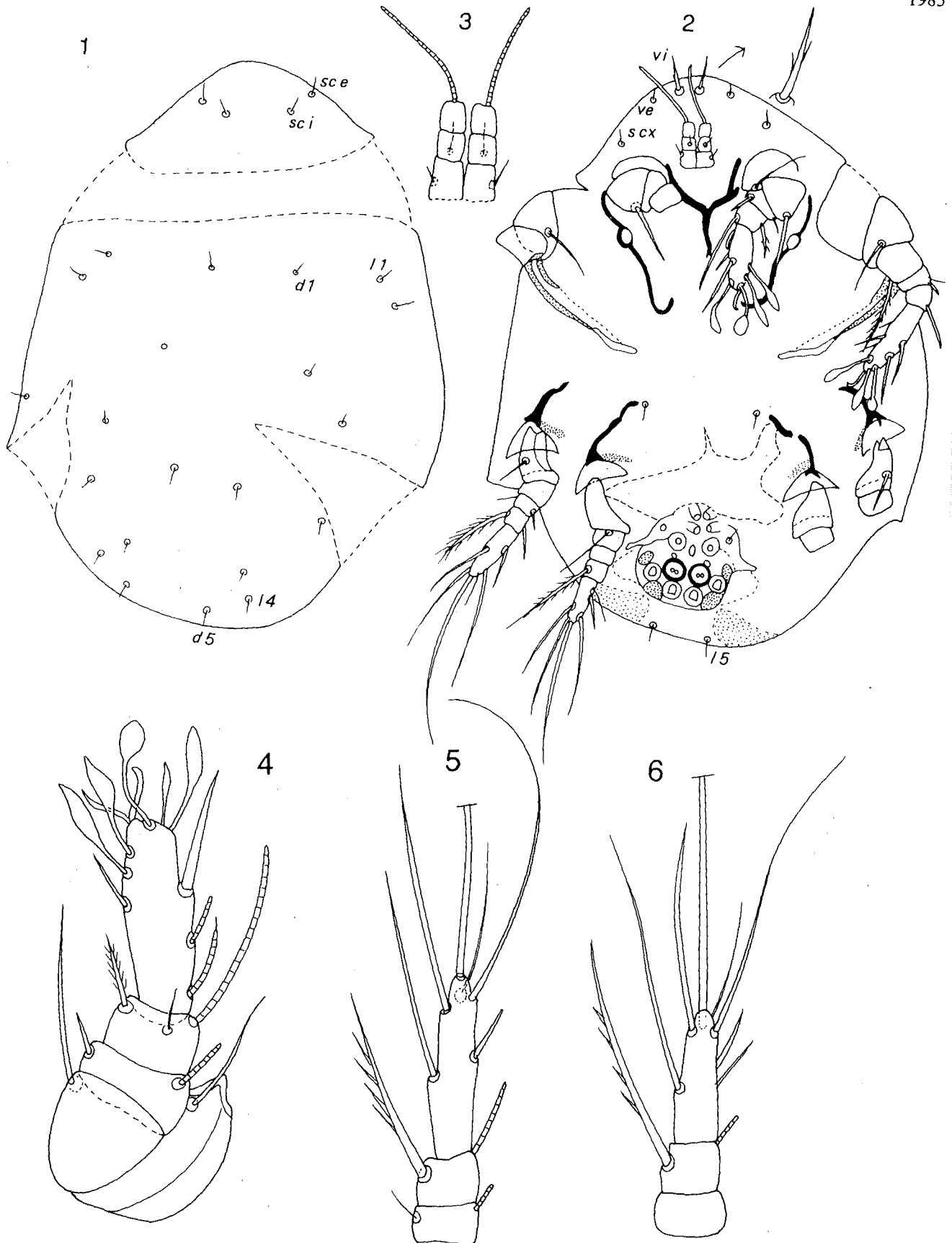
DEFINITION: Body very small, bearing very short setae. All usual setae present except sh, cx I, cx III and gp (the holotype is in a rather poor condition and it is possible that some of the setae have become unobservable). Sejugal furrow present, appearing abnormally large, probably by strong flattening of the mite. *Venter*: Epimeres I fused in a rather long sternum. Other epimeres free, epimeres II long, epimeres III and IV short. Suctorial plate normally developed, posterior suckers larger than the anterior ones. Lateral conoids at same level as posterior suckers. Palposoma comprising two narrow palps each formed of three articles, basal articles being fused at their base. *Legs*: Tarsi much longer than other articles. Tarsi I-II ending in a claw without a sucker; tarsi III-IV without a claw but ending in a long seta. *Chaetotaxy of the legs*: Tarsi I-IV with 8-8-6-7 setae. Tibiae 2-2-1-1. *Solenidiotaxy*: Tarsi 2-1-0-0. Tibiae 1-1-1-1. Genua 1-1-1-0.

TYPE SPECIES: *Meliponopus palpifer* sp.n.

Meliponopus palpifer spec.nov.

Only the hypopus is known.

HYPOPUS (Figs. 1-6): Holotype 148 long and 116 wide (idiosoma). Length and width of palposoma 12 x 7. Length of tarsi: 18-18-18-15. Suctorial plate: Diameter of anterior suckers 5, of posterior suckers 6. *Chaetotaxy of legs*: Tarsi I-II with 6 foliate setae and 2 unequal spines. Tibiae III and IV with a long and strong barbed seta.



HOST AND LOCALITY: Holotype hypopus (and only known specimen) from *Melipona seminigra*, from Santa Maria do Boiacu, Roraima, Brasil (Coll. J.M.F. Camargo, 1980). Holotype in the Institut Royal des Sciences Naturelles de Belgique.

REFERENCES

Fain, A. and A.M. Camerik, 1978. New hypophoretic on Brazilian Coleoptera and Hymenoptera. (Acari, Astigmata). Intl. J. Acarology 4: 169-178.

Fain, A. and A.E. Rosa, 1983 a. Acari domum meli-

poninarum brasiliensium habitantes. II. Two new genera and species of mites (Acari, Astigmata) from the nests of bees in Brasil. Bull. Inst. Ro. Sci. Nat. Belgique 55(2): 1-10.

Fain, A. and A.E. Rosa, 1983 b. Acari domum meliponinarum brasiliensium habitantes. IV. New Astigmatic mites from the nests of the bee *Partamona* sp. (Meliponinae). Bull. Inst. Ro. Sci. Nat. Belgique 55(3): 1-13.

Mahunka, S., 1978. Schizoglyphidae fam.n. and new taxa of Acaridae and Anoetidae (Acari). Acta Zool. Acad. Sci. Hung. 24: 107-131.

Figs. 1-6. *Meliponopus palpifer* sp.n. (Hypopus) — 1. Dorsum, 2. Venter, 3. Palposoma, 4. Leg I, 5. Leg III, 6. Leg IV.
