

## NOTES ET INFORMATIONS

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### A NEW SPECIES OF *MICROSELIA* (DIPT. PHORIDAE) FROM FRANCE

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#### Une espèce nouvelle de *Microselia* (Dipt. Phoridae) de France.

RÉSUMÉ. *Microselia southwoodi* sp. n. est décrit. C'est le premier mâle décrit dans le genre.

Mots-clés : Diptera. Phoridae. *Microselia*. Espèce nouvelle.

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Two specimens collected in France by Professor Sir Richard Southwood prove to be the male and female of an undescribed species of *Microselia* Schmitz. This interesting genus is poorly known. *M. rivierae* Schmitz is the only species previously recorded from France (Schmitz, 1934 ; Delage and Lauraire, 1971). *M. forsiusi* (Schmitz) is only known from Finland (Schmitz, 1927). Three species are known from Africa (Beyer, 1965 ; Disney, 1983), one from Brazil (Borgmeier, 1969 ; Disney, 1982) and one from Texas (Disney, 1982). All seven species are only known in the female sex.

The females of *M. rivierae*, *M. texana* Disney and *M. deemingi* Disney are known to oviposit in living ants (Schmitz, 1934 ; Disney, 1982, 1983). The larvae are presumed to develop as parasitoids within their ant hosts, as is the case in species of the closely related genera *Pseudacteon* Coquillett and *Apocephalus* Coquillett.

#### *Microselia southwoodi* sp. n.

##### FEMALE

*Head*: Frons dark brown with a pair of supra-antennal bristles, which are as far apart as the length of a bristle. The antial bristles are a little closer to the antero-laterals than to the supra-antennals but well below the AL's. Pre-ocellar bristles more widely spaced than SA's and further from each other than from medio-laterals. 76-86 hairs on frons. Antenna and arista brown and as *figure 5*. The exposed part of segment two is reduced to a narrow ring. Palps brownish with 4 short bristles (at most as long as maximum width of palp).

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*Thorax*: Almost uniformly dark brown. Notopleuron with two bristles. Scutellum with a posterior pair of bristles and an anterior pair of hairs. Mesopleuron bare.

*Abdomen*: With dark brown tergites and dark venter. Hairs of tergites very short and restricted to posterior halves. Venter bare on segments 1-5. Segment 6 with a transverse palisade of 6 strong hairs each side. Ovipositor as *figure 1*.

*Legs*: All femora brown. The tibiae of hind legs mainly brown, those of the middle pair distally somewhat paler and those of the front legs largely pale yellowish. All tarsi pale yellowish. The last tarsal segments elongated and most tapered

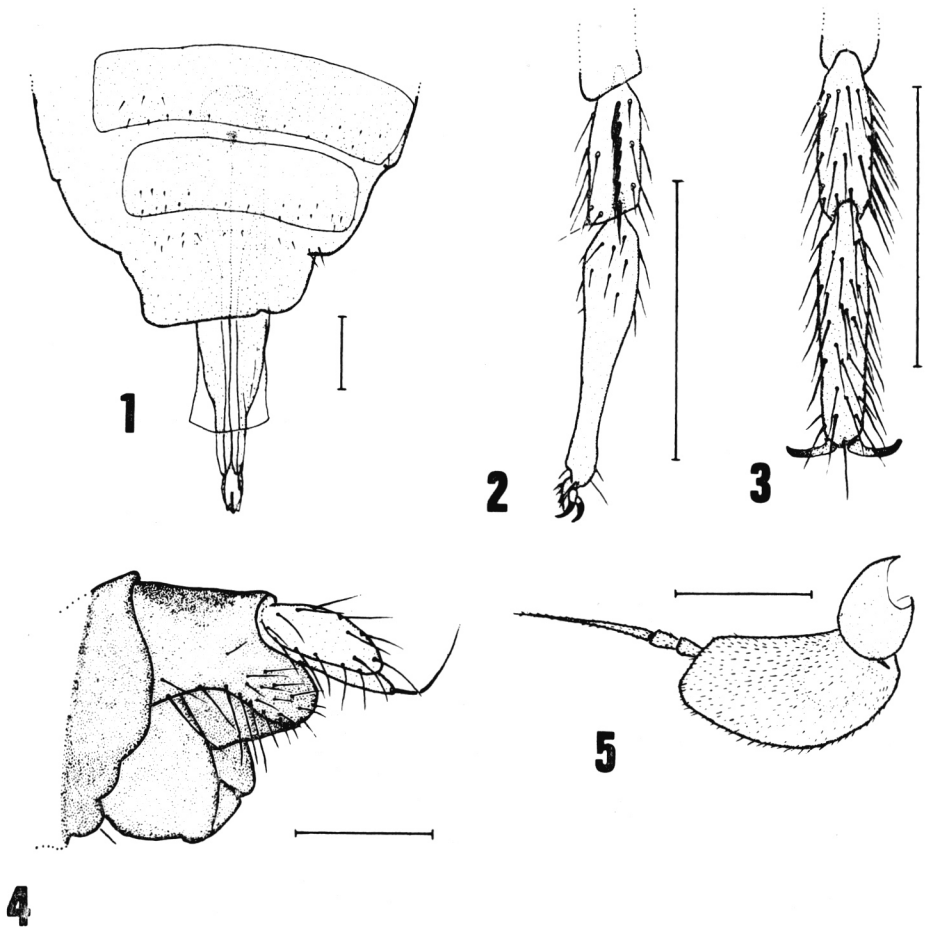


FIG. 1 à 5. — *Microselia southwoodi* n. sp. 1. — Ovipositor of female from above. 2. — Posterior face of last two tarsal segments of front tarsus of female. 3. — Dorsal face of last two segments of front tarsus of male. 4. — Hypopygium of male viewed from left side. 5. — Inner face of right antenna of female (scale bars = 0.1 mm).

on front legs (*fig. 2*) and least tapered on hind legs (resembling those of front tarsi of male (*fig. 3*)). The hair palisade of mid-tibia extends about three quarters of its length. On the hind tibia the palisade does not quite reach the tip and there are about 14 postero-dorsal hairs, of which the lower 8-10 are a little spine-like.

*Wings*: Length 0.95-1.05 mm. Vein 3 unforked. Costal index 0.34-0.35. Costal ratios 1.6-1.7 : 1. Costal cilia 0.04-0.05 mm long. All veins brownish, but last thin vein somewhat obscure. No hair at base of vein 3. A single bristle (longer than costal cilia) on axillary ridge. Tip of subcosta fades away before reaching R1. Wing membrane only slightly tinged. Halteres with brown stem. Knob with basal quarter and distal two thirds above brown; the rest being pale.

#### MALE

Very similar to female. Abdomen with dark tergites and venter. Hypopygium as *figure 4* being dark with a yellowish anal tube. Legs similar to female except the elongated last fore tarsal segment is not tapered as in female (compare *figs. 2 and 3*).

*Wings*: Length 1.07-1.08 mm. Costal index 0.36. Costal ratios 1.6 : 1. Costal cilia 0.05-0.06 mm long.

#### *Material examined*:

Holotype ♀. L'Eiziere near Le Vigan at southern end of the Cevennes, France, 13 July 1982, in canopy of *Quercus pubescens*, T. R. E. Southwood. Deposited in University Museum of Zoology, Cambridge, England.

Paratype ♂. Same data as holotype but collected 26 July 1984.

#### AFFINITIES

*M. southwoodi* is immediately distinguished from *M. forsiusi* and *M. rivierae* by the unforked vein 3. However the inner branch is only weakly developed in both these species (see *fig. 78 in Schmitz, 1941* for *M. forsiusi* and *fig. D in Schmitz, 1934*, and *fig. 2 in Delage and Lauraire, 1971* for *M. rivierae*). This vein is unforked in the New World species *M. aduncus* and *M. texana*.

The female can be further distinguished from the two European species by the form of the ovipositor. In *M. forsiusi* the penultimate segment is expanded posteriorly (see *fig. p. 110 in Schmitz, 1927*). In *M. rivierae* the tip is more abruptly tapered (see *fig. 3 in Delage and Lauraire, 1971* and *fig. B in Schmitz, 1934*).

The male when taken through Schmitz's (1941) key to Palearctic genera runs to couplet 8 without difficulty. At this point the elongated last segment of the fore tarsus would suggest proceeding to couplet 9 and *Microselia*, but for the lack of taper of this segment (*fig. 3*) so characteristic of the females (*fig. 2*). If one proceeds to couplet 10 instead the male will run to couplet 12, close to *Pseudacteon* but differing in its frontal chaetotaxy. Clearly, however, these two genera are closely related. Indeed the females of the Nearctic *M. texana* has a frontal chaetotaxy (*fig. 6 in Disney, 1982*) that would place it in *Pseudacteon* if it were a male.

Furthermore the antennae of it and the *M. aduncus* female are more like a *Pseudacteon* than the Old World *Microselia*, whose antennae are all as in *M. southwoodi* (fig. 5). It is possible that the tapered last tarsal segments of *M. texana* and *M. aduncus* represent convergent evolution in some New World *Pseudacteon* species that parallels the situation in the Old World *Microselia*. It is increasingly becoming apparent that currently recognised Phorid genera owe more to typological sorting than to phylogenetic reconstruction. Future revision may re-assign the New World *Microselia* species to *Pseudacteon*. The functional significance of elongated, tapered, last tarsal segments merits investigation.

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