

A NEW GENUS OF MITES OCCURRING IN FLORIDA
AND MEXICO (ACARINA: CALIGONELLIDAE)

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The mite described here is an unusual raphignathoid in that it has exceptionally long body setae and its eggs are fastened to the ends of stalks.

Xenocaligonellidus, n. gen.

Caligonellids nearly circular in dorsal view; idiosoma without striae; many of the dorsal body setae nearly as long as or longer than width of body and with some of the dorsal body setae short and coarse; two pairs of eyes; anus ventral in female; tibial claw of palpus represented as a slender seta.

Type species: *Xenocaligonellidus ovaerialis*, n. sp.

Xenocaligonellidus ovaerialis, n. sp.
(Figures 1-6)

FEMALE: Body and legs red, dorsal body setae black; idiosoma somewhat depressed, nearly circular in dorsal view. Stylophore broad at base, fixed digit slender, sharply pointed. Peritremata extending from near bases of movable digits, Ω -shaped, short celled. Palpus 5-segmented, the tarsus longer than the tibia, with a basal sensillum and with setae as shown in figure 4. Idiosoma smooth above, striate below in parts, with ten pairs of whiplike setae most of them nearly as long as to much longer than width of body and five pairs of short (36-72 microns), coarse, distally spinose setae on dorsum; three pairs of genital setae and three pairs of anal setae, the caudalmost pair of anal setae very much longer (about 65 microns long) than the others; anus ventral. Legs relatively short and heavy, legs I-IV (from base of femur to end of claw) 123, 116, 109, and 126 microns long respectively, sensilla and setae as shown in figures 1-3. Length of idiosoma 217 microns, width 225 microns.

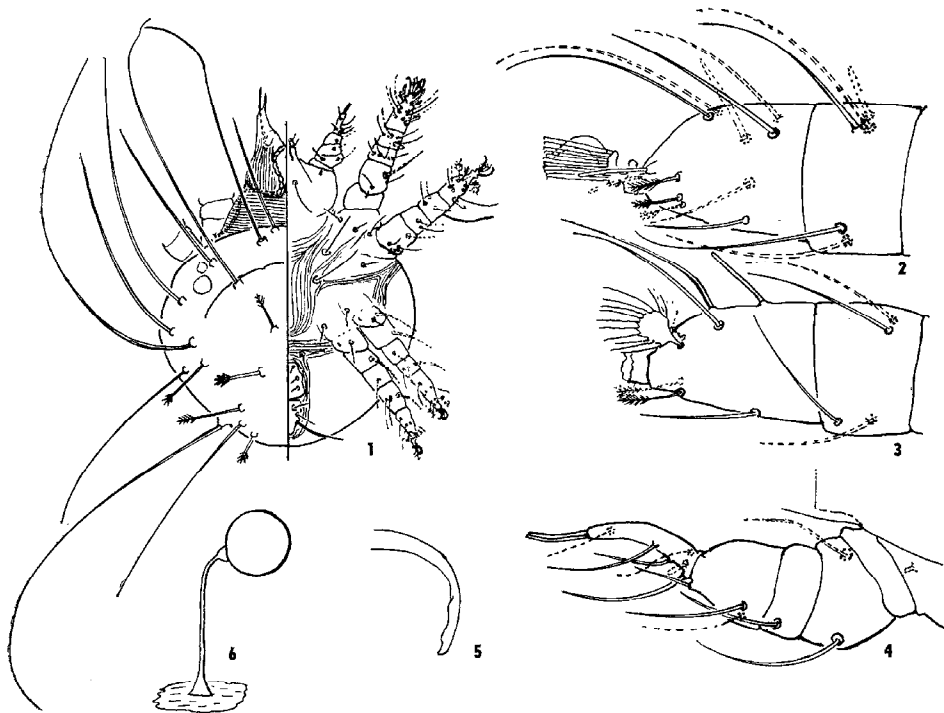
MALE: Resembles female, but dorsum with nine pairs of long whip-like setae, three pairs of rather short (45-55 microns), coarse, distally spinose setae and two pairs of short, weakly bracteate rather coarse setae, the anterior pair about twice as long as the posterior pair; three pairs of anal setae the caudalmost pair the longest; anal pore terminal; aedeagus of shape shown in figure 5. Tarsi I-IV each with a sensillum, the sensilla 18, 20, 9, and 10 microns long respectively, tapering slightly to tips. Length of idiosoma 157 microns, width 168 microns.

NYMPH: Resembles female, but dorsum with seven to eight pairs of long whiplike setae; caudalmost pair of anal setae about twice as long as female's.

LARVA: Resembles nymph, but dorsum with six pairs of long whiplike setae and four pairs of short, distally spinose setae; caudalmost pair of anal setae about as long as long dorsal setae.

Egg: Red, nearly round, about 25 microns in diameter; attached to the distal end of an erect stalk about 75 microns long.

Holotype: Female, Coral Gables, Florida, April 11, 1956, (D. De Leon) from *Quercus virginiana*. *Paratypes*: Two males, two females, two nymphs, 20 larvae, same data as for holotype and on same slide; two females, two larvae, December 27, 1955, other data as for holotype; one female, April 1, 1956, other data as for holotype; one male, one larva, Coral Gables, February 21, 1956, from *Persea borbonia*. Additional specimens were collected at Coral Gables, May 8, 1956, from *Celtis laevigata* and at San Blas, Nay., Mexico from avocado, *Inga laurina*, and several unidentified plants during April and May, 1957. Although the Mexican specimens are somewhat larger and the first two medial pairs of distally spinose setae are somewhat longer (61 and 65 microns against 45 and 55 microns respectively) than the Florida specimens, the differences do not appear to be specific.



Explanation of Figures

Xenocaligonellidus ovaerialis, n. sp.: Fig. 1, view of female (left half dorsal, right half ventral); Fig. 2, tibia and tarsus of leg I of female; Fig. 3, tibia and tarsus of leg II of female; Fig. 4, palp of female; Fig. 5, aedeagus; Fig. 6, egg.

These are slow moving mites which are generally found on twigs and often lay their eggs in clusters—21 eggs having been observed in one group. A colony was kept for a period of five weeks without any indication of predatory habits; at times the mites seemed to be probing the bark surface, but if they were feeding what they were feeding on could not be

determined. The distally spinose dorsal setae frequently bear what appear to be droplets of liquid on the distal ends.

Paratypes of the new species will be deposited in the University of Florida Collections, Gainesville; the type and remaining paratypes are in the author's collection.

The mite is placed in the Caligonellidae primarily because the peritremata enter the stylophore, extending caudad from the bases of the movable digits to the base of the stylophore; it lacks, however, the "thumb-claw" complex, an important character of the family. Thus it seems advisable to modify the diagnosis of the family (Summers and Schlinger, 1955) to read "with or without a claw on palptibia" and to erect two subfamilies distinguished as follows:

Palptibia with short stout claw; palptarsus with stubby specialized distal setae; anal pore terminal or sub-dorsal; body elongate: Caligonellinae, genera:—*Caligonella* Berlese, *Neostigmus* Willmann, *Molothrog-nathus* Summers and Schlinger, and *Coptocheles* Summers and Schlinger.

Palptibia lacking claw, claw replaced by seta; palptarsus with elongate specialized distal setae; anal pore ventral in female; body very broadly oval to nearly circular in dorsal view; many of the dorsal body setae long and whiplike: Xenocaligonellidinae, genus:—*Xenocaligonellidus*, n. gen.

The genus *Neophyllobius* Berlese previously considered to belong in the Caligonellidae has recently been placed by Southcott in a new family, Neophyllobiidae Southcott, 1957.

LITERATURE CITED

- Southcott, R. V. 1957. Description of a new Australian raphignathoid mite, with remarks on the classification of the Trombidiformes (Acarina). Proc. Linn. Soc. N. S. Wales. 81, part 3, 306-312. 1956: (Issued Feb. 21, 1957).
- Summers, F. M., and E. I. Schlinger. 1955. Mites of the family Caligonellidae (Acarina). Hilgardia 23(12): 539-561.