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Previous volumes (2010-2017): 250 € / year (4 issues)
Acarologia, CBGP, CS 30016, 34988 MONTFERRIER-sur-LEZ Cedex, France

The digitalization of Acarologia papers prior to 2000 was supported by Agropolis Fondation under the reference ID 1500-024 through the « Investissements d’avenir » programme (Labex Agro: ANR-10-LABX-0001-01)

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by P. Elsen *, H. Hudson ** and J. O. Whitaker, Jr. **

MORPHOLOGIE MESOSTIGMATA AMEROSEIIDAE

Abstract: Male and nymphs of Sertitympanum separationis Elsen and Whitaker, 1985 are here described from nest of Spermophilus tridecemlineatus, the Thirteen-lined Ground Squirrel, from Terre Haute, Vigo County, Indiana. Only females had been previously described of mites of this genus.

MORPHOLOGY MESOSTIGMATA AMEROSEIIDAE

Résumé: Le mâle et les nymphes de Sertitympanum separationis Elsen et Whitaker, 1985, récoltés dans les nids de Spermophilus tridecemlineatus, l'écureuil de sol aux treize lignes, à terre Haute, Comté de Vigo, Indiana, sont ici décrits. Auparavant, seules les femelles de ce genre avaient été décrites.

The genus Sertitympanum (Ameroseiidae) and three new species, S. separationis, S. exarmatum and S. contiguum were described by Elsen and Whitaker (1985). Sertitympanum separationis was found on the Thirteen-lined Ground Squirrel, Spermophilus tridecemlineatus from Terre Haute, Vigo County, Indiana. All three species are known only from females.

Three nests of Spermophilus tridecemlineatus from precisely the same locality where S. separationis was described were excavated during the present study to determine the inhabitants of the nest community in general and to attempt to find males and immature stages of S. separationis. The nests were excavated on June 5, 1988 and immediately put into a Berlese funnel. The resulting invertebrates were collected about one week later.

A total of 110 females, 16 males and 39 nymphs of S. separationis were found, including individuals from all three nests. At least 18 of the females contained eggs. It thus appears that breeding of this species takes place in summer in nests of this host. The purpose of this paper is to describe males and nymphs of S. separationis.

Sertitympanum separationis

Male

Dorsal: much smaller than female, ranging from 262 to 290 μ (7 specimens). Chaetotaxy and ornamentation as in female.

Ventral: (fig. 1). Stero-genital shield with five pairs of setae and pointed extensions between the coxae. Two cog-wheel-like structures at the level of coxae III, the anterior one being entirely scalloped and smaller than the posterior one which is scallo-

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1. — Ventral side. 2. — Chelicera. 3. — Femur I.
Fig. 4-6: *Seritympanum separationis* Elsen & Whitaker, 1985.
4. — Ventral side of nymph. 5. — Solenidions of male tarsus I. 6. — Solenidions of female tarsus I.
ped in its anterior part only. Ornamentation of the sternitigenital shield is absent anterior to the cog-wheel-like structures, weak at their level and strong behind them; with a strong inverted V-shaped posteromedian structure ending at the posterior angles of the shield. Tristosternum with very short base and long laciniae. Ventrianal shield wide and contiguous with the sternitigenital shield, completely ornamented with small irregular light depressions of different shapes. Shield with 5 pairs of opisthogastric setae of which 4 are simple and anterior to the anal opening, and one is short, barbed and inserted on the posterolateral border of the shield. Lateral and peritremal shields as in female. Peritremes with two narrow acuminate extensions mediolaterally.

*Chelicerae*: movable digit with a split spermatodactyl and a strong preapical tooth (fig. 2).

*Legs*: excrescences as in female except in femora I (fig. 3) which are completely sculptured on their posterior border and have two small excrescences in addition to the characteristic anterior three-lobed excrescence of the female. Tarsus I with 5 distidorsal solenidia, one of which is strongly enlarged (fig. 5) compared with that of the female (fig. 6).


**Nymph**

*Dorsal*: ranging from 190 to 252 μ (17 specimens). Setae *i* *l* are not modified in wide thick denticulate membranes as in the adults (*Elsen and Whitaker 1985*), but are spatulate-dentate as are the other dorsal setae. Chaetotaxy and ornamentation as in the adults.

*Ventral*: (fig. 4). Tritosternum with short laciniae, the base making up half the total length. Ventral plate truncate posteriorly and with five pairs of simple setae, the three anterior pairs being a little bit thicker than the two posterior ones. No ornamentation nor cog-wheel-like structures. Five pairs of opisthogastric setae, the posterolateral pair being short, thick and spine-like. Stigmata each with a distinct finger-like structure posteriorly (fig. 4).

*Legs*: without excrescences as in the adults. Dorsal surface of genua and femora with short spine-like setae. Solenidia of tarsus I as in female (fig. 6).

*Host and locality*: same as for the male

**Deposit**: Four males and four nymphs are deposited in the U.S. National Museum, Washington, D.C., U.S.A.

**LITERATURE CITED**
