RICCARDOELLA (PRORICCARDOELLA) TRIODOPSIS NOV. SPEC. (ACARI : EREYNETIDAE) FROM THE U.S.A.

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EREYNETIDAE
GASTROPODA
NORTH AMERICA

SUMMARY : *Riccardoella (Proriccardoella) triodopsis* n. sp. (Acari : Ereynetidae) is described from the lung of *Triodopsis obstricta* (Gastropoda Polygyridae) from Lawrence Co, Alabama, U.S.A. *Riccardoella (Riccardoella) limacum* (Schrank, 1776) is recorded from *Helix aspersa* from San Diego Co, California, U.S.A.

EREYNETIDAE
GASTROPODA
AMÉRIQUE
DU NORD

RESUMÉ : Une nouvelle espèce du sous-genre *Riccardoella (Proriccardoella)* est décrite du poumon de *Triodopsis obstricta* (Gastropoda Polygyridae), de Lawrence Co, Alabama, U.S.A. *Riccardoella (Riccardoella) limacum* (Schrank, 1776) est signalée de *Helix aspersa* de San Diego Co, Californie, U.S.A.

INTRODUCTION

The subgenus *Riccardoella (Proriccardoella)* Fain and Van Goethem, 1986 included, until now, 3 species, parasitic on gastropod molluscs, mainly slugs.

We describe herein a fourth species collected in the lung of *Triodopsis obstricta*, from Alabama, U.S.A.

All the measurements are in microns (μm).

Riccardoella (Proriccardoella) triodopsis nov. spec.

Female (Holotype) (figs. 1-5) : Length of idiosoma 350, maximum width 270. Length and width in 4 paratypes : 360 × 315 ; 380 × 320 ; 390 × 290 ; 400 × 318. *Dorsum* : anterior sensillae (= setae *sc i*) 95 long, posterior sensillae (= *l4*) 80. Lengths of setae : *vi* 24 ; *ve* 7 ; *sc e* 30 ; *l1* 28 ; *l5* 15 ; *d1* to *d5* 20 to 24. All these dorsal setae are relatively thin and shortly barbed. *Venter* : coxae with few dark lines. Genital and anal setae as in *Riccardoella (Proriccardoella) oudemansi* (Thor, 1932). Coxal setae (I-IV) : 2-1-2-1. Setae *ic- 1* situated on the internal margins of coxae I or on these coxae. *Gnathosoma* : base with a dark band in an inverted U and bearing 2 pairs of inequal barbed setae, the anterior shorter than the posterior. Palptarsus with 4 barbed apical setae and a ventrointernal well-developed solenidion. *Legs* : Tarsi I-IV 60-48-53-54 long respectively. Chaetotaxy (number of setae) : Trochanters 1-1-1-0 ; Femora 6-4-3-2 ; Genua 4-4-3-3 ; Tibiae 5-3-3-3 ; Tarsi 12-9-8-8. The setae of legs and palptarsi are not prolonged by a thin filament. All leg tarsi bear one pair of apical flattened spoonlike setae. *Solenidia* : solenidion of tarsus I thin, 15 long ; that of tarsus II shorter (8 to 9). *Ereynetal organ* (on tibia I) : famulus almost as

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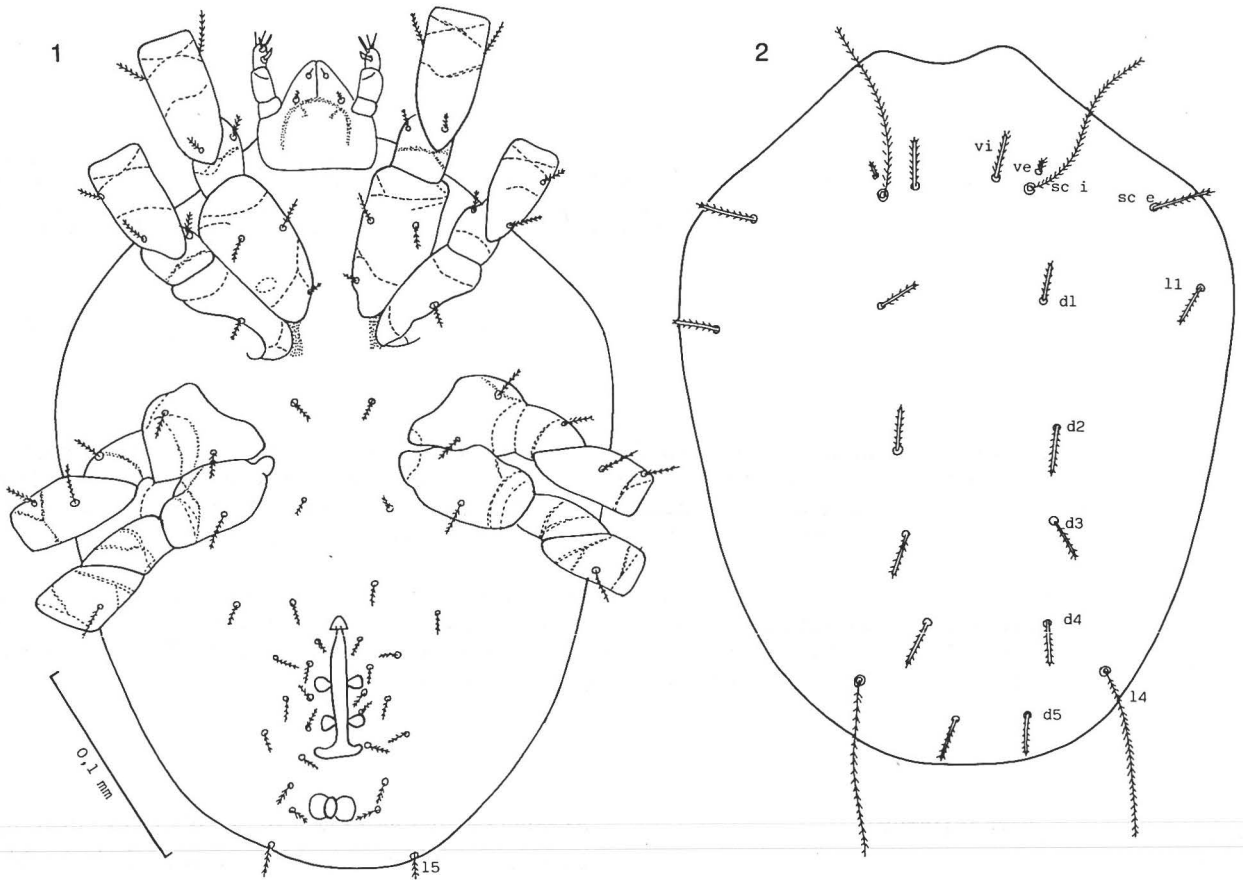

FIG. 1 : *Riccardoella (Proriccardoella) triodopsis* n. sp. female (holotype and paratypes) in ventral view.
FIG. 2 : *Riccardoella (Proriccardoella) triodopsis* n. sp. female (holotype and paratypes) in dorsal view.

long as its satellital ordinary seta, it is not forked as in the other species, but flattened and lanceolate in its apical part.

Male : Very close to the female. It differs from the female by the following characters : genital slit shorter and containing 3 pairs of short barbed setae and more deeply a poorly sclerotized penis. Some specimens contain a voluminous granular oval or rounded testis. Length and width of 4 paratypes : 315 × 230 ; 320 × 270 ; 330 × 225 ; 370 × 315.

Nymph : The only nymph of the collection is 225 long and 183 wide (idiosoma). Chaetotaxy of idiosoma as in adults but there are only 3 pairs of genital setae. Chaetotaxy of legs as in female except for the femora (5-4-3-2 setae), the tibiae (4-2-2-2) and the tarsi (10-8-7-7). Ereynetal organ and solenidia as in female.

Larva : Length and width of 2 larvae (idiosoma) 165 × 120 and 155 × 105. Chaetotaxy of dorsum and venter as in female except that posterior sensillae are replaced by short barbed setae and on the venter there are no genital setae. Chaetotaxy of legs I-III : Coxae 2-1-1 ; Trochanters 0-0-0 ; Femora 5-4-3 : Genua 4-4-3 ; Tibiae 4-2-2 : Tarsi 10-6-5. Ereynetal organ and solenidia as in female.

Host and locality

Holotype and 12 paratype females, 9 males, 2 nymphs and 6 larvae, all paratypes, from *Trio-*

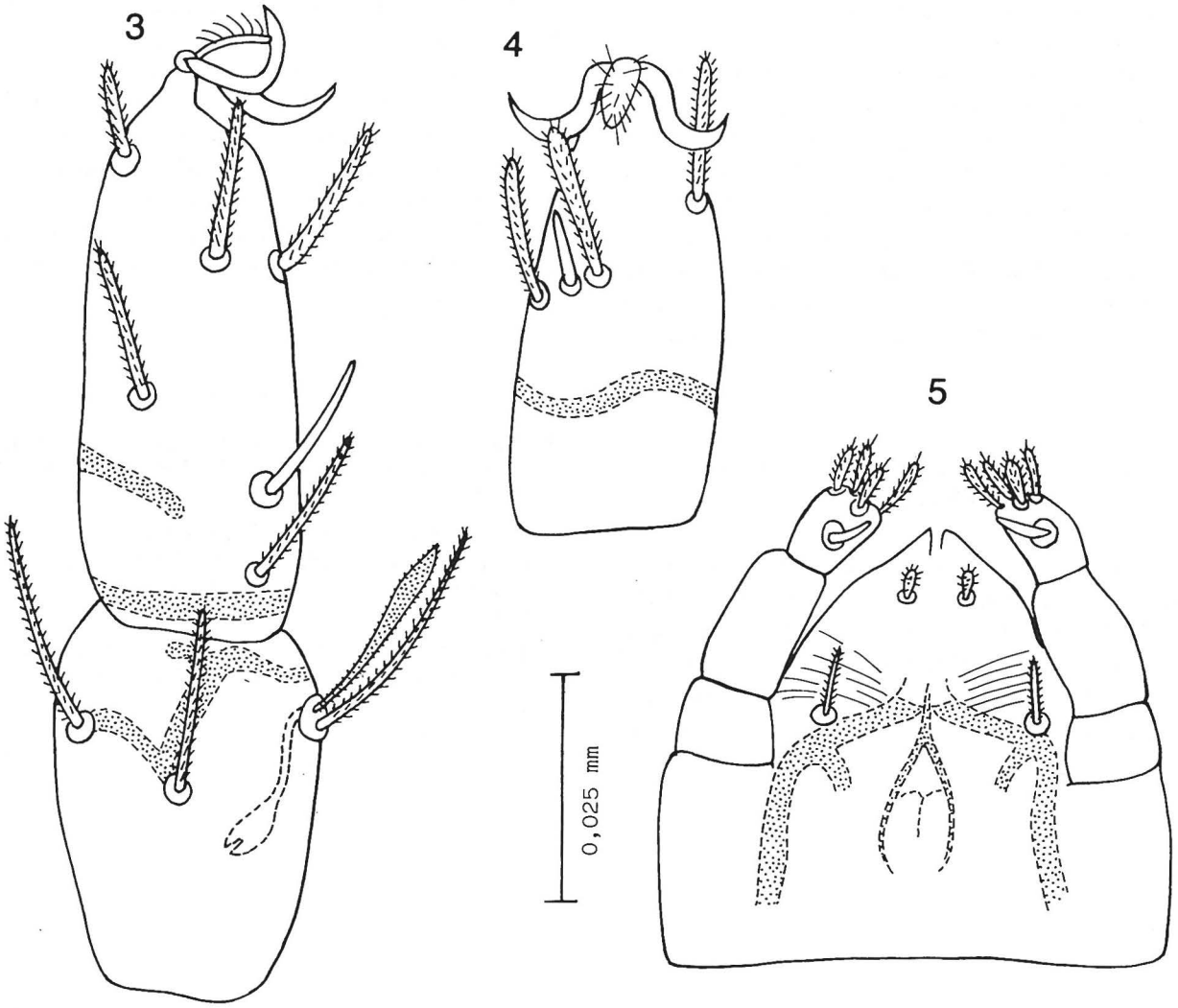

FIG. 3-5 : *Riccardoella (Proriccardoella) triodopsis* n. sp.
Female (holotype and paratypes) : Tarsus and tibia I in dorso-lateral view (3) ; tarsus II in dorsal view (4) ; Gnathosoma in ventral view (5).

dopsis obstricta, Gastropoda, Polygyridae, from Bankhead National Forest, Lawrence Co, Alabama, U.S.A. (Coll. J. PETRANKA, 27.XII.1984). Mites collected by J. S. H. KLOMPEN, collection number HK 85-02051. Holotype, 6 females, 5 males, 1 nymph and 3 larvae (paratypes) in the University of Michigan, Museum of Zoology, Ann Arbor, Michigan ; 2 females, 2 males, 1 nymph and 1 larva, (all paratypes) in the collection of the Institut royal des Sciences naturelles de Belgique. Other paratypes in the collections of the authors.

Remarks

This species differs from the 3 other species in the subgenus *Proriccardoella* (i.e. *P. oudemansi* (Thor. 1932) ; *P. reaumuri* Fain & Van Goethem, 1986 and *P. canadensis* Fain & Van Goethem, 1986) by the following characters :

1. Presence of 4 barbed setae on palptarsus, in all the stades (3 pairs in other species)

2. Famulus of ereynetal organ lanceolate and not forked apically (not lanceolate and furcate in the 3 other species)
3. Different pattern of lines on the cuticle of the legs and gnathosoma. Moreover, it is distinguished from *P. oudemansi* by the more narrow shape of the dorsal setae and the presence of only 2 setae on coxa III ; from *P. reaumuri* it differs by the greater length of solenidia on tarsi I and II ; from *P. canadensis* it is distinguished mostly by the different aspect of the famulus of tibia I and of the solenidia of tarsi I and II.

2. *Riccardoella (Riccardoella) limacum* (Schrank, 1776)

This species is very common in several genera of snails of the family Helicidae, including *Helix, Helicella* and *Arianta*. We record herein the presence of 7 females of this species from the lung of *Helix aspersa*, from Escondito, San Diego Co, California, U.S.A. (Coll. DAN CHUNG, September 1984). Mites collected by B. M. OCONNOR (coll. n^r BMOC B4-0910-1). Specimens from *Helix aspersa* have already been recorded from Belgium and France (FAIN and VAN GOETHEM, 1986). More recently, POLACO and MENDL recorded this species from *Bulimulus unicolor* (Sowerby) (Bulimulidae) from Tomas Garrido, State of Quintana Roo, Mexico. These authors surmized that the species *Riccardoella oudemansi* (Thor, 1932) recorded by BAKER, 1945 from *Helix aspersa* in Mexico, was in fact *R. limacum*.

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