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STUDIES ON MITES (ACARINA) 
LIVING ON PLANTS IN POLAND. II. 

BY 
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First part of the paper was published in Fragmenta Faunistica (BocZER and KROPCZYŃSKA, 1964). This installment presents descriptions of four species of mites: one of Phytoseiidae and three of Tarsonemidae, new to science.

The pattern of descriptions of Phytoseiidae follows those used by CHANT (1959), but characters applied by STAMMER (1963) are also regarded. The descriptions of Tarsonemidae follow those of BEER (1954), EWING (1939), and STAMMER (1959).

Type material has been deposited at the Department of Applied Entomology, Warsaw Agricultural University, Warsaw, Rakowiecka 8.

PHYTOSEIIDAE.

**Typhlodromus (Amblyseius) mazurensis** n. sp. (Fig. 1).

Female. — Length of dorsal shield 319 μ, width 167 μ; slightly reticulated with 17 pairs of setae, nine in the lateral, two in the median and six in the dorsal rows. Length of dorsal setae: L₁-L₂ 26; L₃ 37; L₄ 23; L₅ 34; L₆ 30; L₇ 28; L₈ 60; M₁ 19; M₂ 33; D₁ 19; D₂ 18; D₃ 18; D₄ 21; D₅ 21; D₆ 7 μ long. Setae L₉ and M₂ slightly serrated. Four pairs of pores near L₁, L₃, L₈ and M₂. Setae S₁ and S₂ on interscutal membrane. Sternal shield with three pairs of setae; metasternal plates with fourth pair of setae; genital shield with one pair of setae. Ventrianal shield 88 μ long, 81 μ wide, broader anteriorly, with three pairs of pre-anal setae and one pair of pores, with slight netlike design. Four pairs of setae on surrounding membrane; the most posterior setae 32 μ long, smooth, remainder setae short and smooth. Two pairs of metapodal plates, second pair twice as great as first pair. Digitus mobilis of chelicerae with one tooth; digitus fixus with four teeth. One longer seta on leg four (37 μ).

Typhlodromus (Amblyseius) mazurski n. sp.

Magnifications: E-× 950; FA-× 250; FCH-× 950; FD-× 250.

Male. — Unknown.

Type locality: Duzy Gil, Olsztyn, Northern Poland.

Collected: September II, 1963, on Potentilla sp., by the author.

Material: holotype female, six female paratypes.

Discussion: above species resembles Typhlodromus (A.) umbraticus Chant but differs from this species in length of setae L₉ and M₂ and in having only one tooth on digitus mobilis of chelicerae.

Tarsonemidae.

Tarsonemus boczeki n. sp. (Fig. 2).

Female. — Body 210 μ long (210-220 μ), 100 μ wide (100-120 μ), elongated. Apodemus clearly defined. Apodemus I short, extending obliquely from coxae I and joining anterior median apodeme. Apodemus II not dissecting anterior median apodeme but ending in its proximity. Anterior median apodeme extending as unbroken line, broadens distally near apodemus II and ends close to the line between propodosoma and hysterosoma. Apodemus III quite wide, bending to the middle of the body. Apodemus IV in form of curved lines approaching the posterior median apodeme and joining it. Transverse apodeme divided into two separate, undulate parts. Pseudostigmatic organs eggshaped, set on a pedicel. Capitulum 35 μ long, 30 μ wide, broader in its distal part. Legs I with strongly elongated
Fig. 2. — *Tarsonemus boczei* n. sp.
Magnifications: FT$_r$ $\times$ 2500; FV $\times$ 550; MD $\times$ 550; MV $\times$ 550.
tibiotarsus with 11 tactile setae and 1 fingerlike sensory seta. Tarsus of legs IV ending with two setae, inner of them three times longer than outer one.

Male. — Body 191 μ long (180-200 μ), 170 μ wide (160-225 μ). Body elongated, oval in shape. Propodosoma tapering anteriorly. Edges of the body between legs II and III parallel. Apodemes I and II parallel. Apodemes I joining anterior median apodeme, apodemes II not joining it. Apodemes III and IV distinctly defined; in their distal part joining posterior median apodeme, forming "a bridge". On propodosoma four pairs of setae: I pair 22; II 15; III 60; IV pair 22 μ long. On hysterosoma four pairs of setae; the longest are of the first pair. Length of capitulum 32 μ, width 25 μ; subcordate in shape. Two pairs of setae on capitulum; dorsal pair half of length of capitulum; ventral pair twice shorter. Tarsus I elongated, tapering to the end with 5 tactile setae and 1 sensory, peglike seta. Tarsus II with 3 tactile setae and 2 sensory setae. Femur IV strongly developed with broad flange occupying 3/4 of the internal margin of the femur. On femur proximal ventral seta 6 μ; distal ventral seta 27 μ; dorsal seta 21 μ long. Tibia IV with 35 μ long tactile setae and 8 μ long fingerlike sensory seta. Tarsus IV short, rectangular, with curved, pointed claw.

Type locality: Dobra, Kraków, Southern Poland.

Collected: July 24, 1962, on Prunus padus L., in galls of Eriophyes padi (Nal.), by the author.

Material: holotype female, allotype male and three female and two male paratypes. This species is named in honour of Dr. J. Boczek, Professor at Warsaw Agricultural University, Warsaw, Poland.

**Steneotarsonemus melandri** n. sp. (Fig. 3).

Female. — Body 165 μ long (160-185 μ), 100 μ wide (95-110 μ), eggshaped. Anterior median apodeme does not form a uniform line, but it broadens in three points forming three knotlike swells. Posterior median apodeme short, extending slightly wavy, also with two knots. Apodemes I short, distinctly defined, joining anterior median apodeme. Apodemes II extending from coxae II obliquely to the end of anterior median apodeme but not reaching it. Apodemes III relatively short, extending undulately from the medium of the body and terminate in the point of junction with the base of coxae III. Apodemes IV begin in the middle of posterior median apodeme and extending obliquely to it in the dissection of coxae III. They are also slightly wavy. Pseudostigmatic organs oval, set up on thin pedicel. Capitulum 35 μ long, 28 μ wide, wider in its distal part. Its dorsal setae one third longer than ventral ones. Tibiotarsus I strongly elongated with 10 tactile setae and 2 sensory setae. Tarsus II with distinct club-shaped sensory seta and 5 tactile setae. Legs III with elongated limbs, the strongest
is femur which is divided into two parts. Legs IV shorter than legs III terminating with two setae, inner of which three times longer than outer.

Male. — Body 140 μ long, 90 μ wide, oval, the highest width between legs II and III. All apodemes strongly defined. Apodemes I joining anterior median apodeme. Apodemes II extending obliquely from coxae II to the anterior median apodeme, but not reaching it. Anterior median apodeme in form of continuous line, terminates in some distance from the line dividing propodosoma from hysterosoma. Apodemes III and IV extending unparallelly and in their distal part

Fig. 3. — Steneotarsonomus melandri n. sp.
Magnifications : FT₁ × 1300; FV × 550; MD × 550; MV × 550; ML_{IV} × 11300.
converging and forming “bridge”. Posterior median apodeme with two transversal ribs, forming terminal fork at the end of the body. Four pairs of setae on propodosoma; the longest are of second pair, 55 μ, and further consecutively: I 15 μ, III 6 μ, and the shortest are of fourth pair, 5 μ long. Capitulum 21 μ long, 15 μ wide, cordiate in shape. Ventral setae on capitulum distinctly shorter than dorsal. Tarsus I long; with 7 tactile and 1 sensory setae. On tarsus II 4 tactile and 1 sensory setae. Legs IV quite short; coxae triangular with single seta on outer side. Femur large and broad with slightly defined flange on inner margin. On femur three setae of different length: proximal ventral seta 3 μ; distal ventral seta 19 μ; dorsal seta 8 μ. Tibia elongated with one 22 μ long tactile and second, 5 μ long fingerlike seta. Tarsus short, rectangular, with three setae; terminating with hooked, stout claw.

Type locality: Babsk, Lódź, Central Poland.

Collected: August 12, 1962, on Melandrium sp. by the author.

Material: holotype female, allotype male and three female paratypes.

_Tarsonemoides rakowiensis_ n. sp. (Fig. 4).

Female. — Body 145 μ long (145-158 μ), 84 μ wide (69-90 μ), eggshaped. Propodosomatal shield covering whole gnatosoma and protruding beyond it anteriorly. Propodosoma approximately triangular. Body short, oval. Anterior median apodeme divided into two parts; proximal part 2 μ long, combined with apodemes I; distal part 12 μ long with small swell. Apodemes II in their distal part not joining anterior median apodeme. Posterior median apodeme bifurcate proximally, extending as a somewhat wavy, short line. Transverse apodeme absent. Apodemes III arcuate; apodemes IV slightly defined, swollen distally. Capitulum length, including palpi, 25 μ; greatest width 16 μ; of median size, tapering distally. Dorsal setae of capitulum twice as long as ventral setae. Leg I with tibiotarsus elongated, with 9 tactile setae and 3 club-shaped setae. Pseudostigmatic organs with expanded apices subcircular in outline.

Male. — Body 120 μ long (115-125 μ), 77 μ wide (69-75 μ). Hysterosoma distinctly broader than propodosoma. Anterior median apodeme extending as straight line from the conjunction with apodemes I to the main body suture. Posterior median apodeme conspicuous, extending to the end of body. Apodemes II not dissecting anterior median apodeme. Apodemes III and IV subparallel in their length; bent proximally, forming “bridge”. Capitulum 30 μ long, greatest width 28 μ; subcordate. Propodosoma with four pairs of setae: I pair 14 μ; II pair 9 μ; III pair 30 μ; IV pair 15 μ long. Hysterosoma with two pairs of setae. Distally on tibia I and II on their outer side single large club seta. Coxae IV subtriangular, remaining segments elongated. Femur IV on inner side without flange; with proximal ventral seta 6 μ, distal ventral seta 13 μ and dorsal seta 17 μ long.
Tibia IV with 46 μ long tactile seta and 4 μ long, fingerlike sensory seta. Tarsus IV with short, bent, pointed claw.

Type locality: Limanowa, Kraków, Southern Poland.

Collected: July 24, 1962, on Populus tremula L., by the author.

Material: holotype female, allotype male and four female and two male paratypes.

Fig. 4. — Tarsonemoides rakhoviensis n. sp.
Magnifications: FT₁ × 2900; FV × 550; MD × 550; MV × 550.

LITERATURE


Designations on plates: E — epistom; FA — ventrianal shield of female; FCh — female chelicerae; FD — dorsum of female; FTI — tarsus I of female; FV — ventrum of female; MCh — chelicerae of male; MD — dorsum of male; ML IV — leg IV of male; MV — ventrum of male.