

ONE NEW GENUS AND FOUR NEW SPECIES OF ERIOPHYIOD MITES (ACARI: ERIOPHYOIDEA) FROM YUGOSLAVIA

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NEW GENUS, NEW SPECIES,
ERIOPHYIOD MITES,
YUGOSLAVIA.

NOUVEAU GENRE,
NOUVELLES ESPÈCES
ERIOPHYIIDAE, YUGOSLAVIE.

SUMMARY : One new genus, *Boczekiana* gen. nov. and four new species : *B. celtidis* n.sp., *Tetra populi* n. sp. *Caliptrimerus buxi* n.sp. and *Tetraspinus apiaceaeus* n.sp. are described from Yugoslavia.

RÉSUMÉ : Le nouveau genre *Boczekiana* et quatre espèces nouvelles *B. celtidis* n.sp., *Tetra populi* n. sp., *Caliptrimerus buxi* n.sp. et *Tetraspinus apiaceaeus* sont décrits de Yougoslavie.

One new genus and four new vagrant species were found on the under surface of leaves of *Celtis australis* L., (= *Boczekiana celtidis* n. gen., n. sp.), *Populus nigra* L. (= *Tetra populi* n. sp.), *Buxus sempervirens* L. (= *Caliptrimerus buxi* n. sp.) and *Danaa cornubiensis* (Torn.) Burn. (= *Tetraspinus apiaceaeus* n. sp.). The type material is deposited in collections of Department of entomology, Faculty of Agriculture, University of Belgrade.

Measurement are expressed in micrometers and following abbreviations are used in figures : AD: antero-dorsal, AL antero-lateral; LM: lateral; CG coxal-genital region, em: empodium; GM: male genital region; IG: internal genitalia (female); LO: lateral opisthosoma; PM: postero-ventral, ω solenidion.

annuli; dorsal tubercles on the rear shield margin with longitudinal axes, and bearing scapular setae directed to the rear.

Opisthosoma with broader dorsal annuli smooth, but rows of longitudinal lines forming median longitudinal ridge and lateral lobes and narrow ventral annuli with minute microtubercles. All setae on legs and opisthosoma present except accessory setae.

Type species : *Boczekiana celtidis* n. sp.

The genus is close to *Tegenotus* Nalepa 1890 but it can be distinguished by the presence of narrow projection on the posterior margin of prodorsal shield, the position of dorsal tubercles and the direction of scapular setae.

I am pleased to name this genus after Prof. Dr. Jan BOCZEK, Warsaw Agricultural University, Poland.

Boczekiana gen. nov.

Phyllocoptinae mite (tribe Tegonotini Bagdassian, 1978) with fusiform body, posterior margin of prodorsal shield with narrow projection directed posteriorly over opisthosoma, reaching 2 to 3 dorsal

Boczekiana celtidis n. sp.

(Fig. 1)

FEMALE: 190 long, 52 wide, 45 thick; fusiform, yellowish in colour. Gnathosoma 35 long, dorsal pal-

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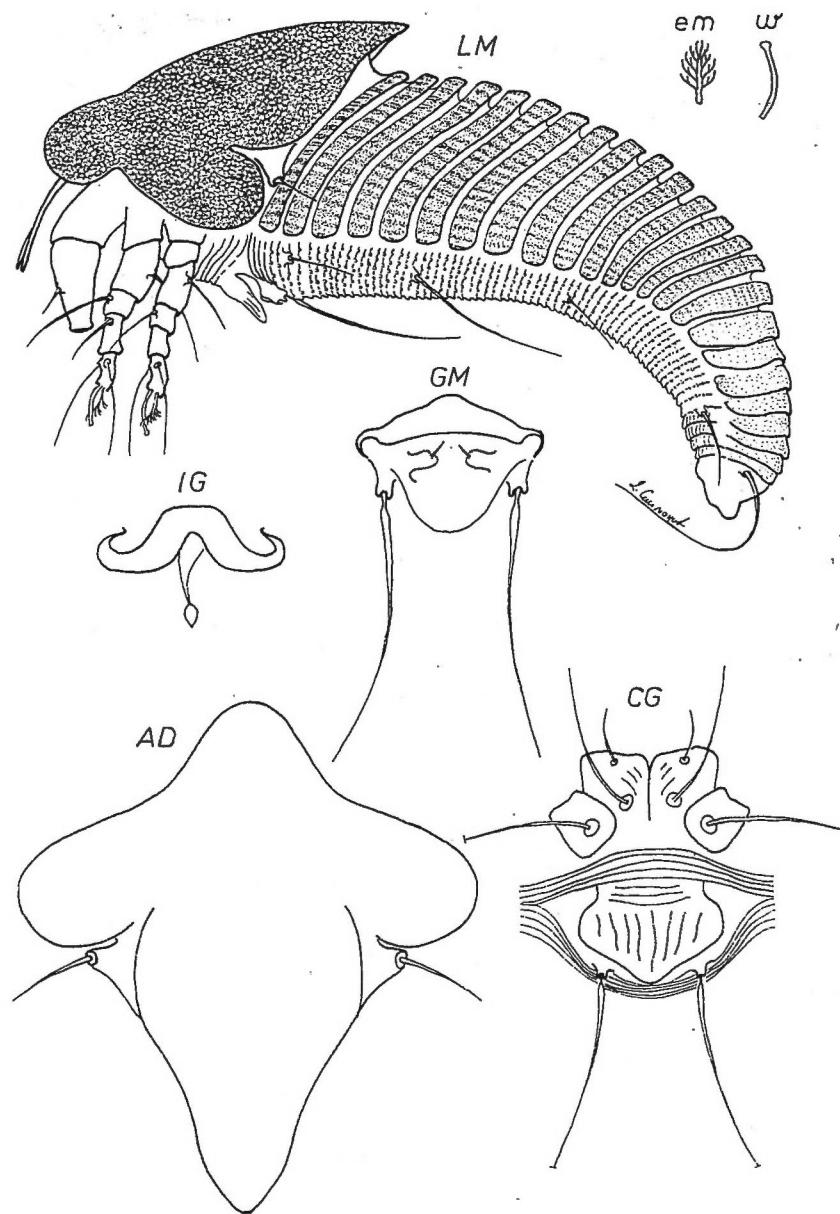


FIG. 1. — *Boczekiana celtidis* n.sp.

pal genual setae 5 long, chelicerae 25 long,, almost straight. Prodorsal shield 75 long, 50 wide, granulated, with a lobe over gnathosoma 13 long, one lateral lobe on each side, 16 wide. and a proximal projection above first 2-3 opishosomal annuli, dorsal tubercles on the rear shield margin 50 apart with scapular setae 7 lone, directed to the rear,

Foreleg 35 long, tibia 8, with paraxial tibial seta 5 long, tarsus 7 long, tarsal solenidion 8 long, slightly knobbed, tarsal empodium 6 long 5-rayed. Hindleg 30 long, tibia 6 long, tarsus 5 long, tarsal solenidion 8 slightly knobbed. tarsal empodium 6 long.

Coxae ornamentation by some short strips: antero-lateral tubercles on I coxisternum 9 apart. setae 7

long: proximal tubercles on I coxisternum 4 apart, setae 10 long, proximal tubercles on II coxisternum 15 apart, setae 35 long; sternum 7 long.

Opisthosoma with 24 smooth dorsal annuli with ridge and lobes with rows of longitudinal lines, and about 74 microtuberculate ventral annuli, microtubercles minute. Lateral lobes without tooth-like projections. Setae c2, 12 long, on ventral annulus 10, d setae 35 long on ventral annulus 29, e setae 11 long on ventral annulus 49, f setae 20 long on ventral — annulus 70: last 4 annuli with elongated tubercles; f setae on annulus 5 before anal lobes. h2 setae 50 long, h1 setae absent.

Genitalia 7 long, 20 wide; female genital coverflap with about 8-9 striae; proximal. setae on III coxisternum 12 apart, 40 long. genitalia between 5 and 10 ventral annuli.

MALE: 155 long, prodorsal shield 66 long, sc tubercles 38 apart. sc setae 5 long., opisthosoma with 25 dorsal annuli and about 62 ventral annuli; opisthosoma with 25 dorsal annuli and about 62 ventral annuli; genitalia 15 wide, setae 40 long.

TYPE LOCALITY: Zemun, North Serbia — collected September 30. 1997, by D. SMILJANIC. Also found in Lepenski vir, Eastern Serbia (10.06.1995), collected by R. PETANOVIC and at Nanjevzici, Grbalj, Montenegro (collected July 13.1997. by B. MAGUD.

HOST PLANT: *Celtis australis* L. (Ulmaceae).

RELATION to the host: vagrant on the under surface of leaves. ice of leaves.

TYPE MATERIAL: Holotype female on slide 834/1 -20 paratypes, females. 10 males.

Tetra populi n. sp. (Fig.2)

FEMALE : 160 long, 70 wide, 67 thick, fusiform, yellowish in colour. Gnathosoma 30 long, dorsal pedipalp genual seta 10 long; chelicerae 28 long almost straight. Prodorsal shield 42 long, 52 wide, with a lobe over the gnathosoma, 10 long. Dorsal tubercles on rear shield margin 36 apart with scapular

setae 20 long, directed to the rear. Foreleg 37 long. tibia 10 with paraxial tibial seta 5 long, tarsus 6 long, tarsal solenidion 7 long, knobbed, tarsal empodium 7 long, 4 rayed. Hindleg 33, tibia 8 long, tarsus 6 long, tarsal solenidion 8 long, knobbed tarsal empodium 7 long. Coxae with short broken lines; anterolateral tubercles on I coxisternum 10 apart; setae 20 long, proximal tubercles on I coxisternum 8 apart, setae 35 long; proximal tubercles on II coxisternum 20 apart; setae 30 long; sternum 8 long. Opisthosoma with 32 trough dorsal annuli and about 63 microtuberculate ventral annuli. Setae c2 45 long on ventral annulus 14; d setae 40 long on ventral annulus 56; e setae 21 long on ventral annulus 40; f setae 35 long on ventral annulus 56; last 8 annuli with elongated tubercles; f setae on annulus 7 before the anal lobes; h2 setae 60 long; h1 setae 3 long. Genitalia : 10 long; 22 wide; genital coverflap with about 12 striae; proximal setae on III coxisternum 17 apart, 20 long; genitalia between 10 and 16 ventral annuli.

MALE: 140 long, prodorsal shield 40 long; sc tubercles 27 apart; sc setae 15 long. Opisthosoma with 30 dorsal annuli and about 58 ventral annuli. Genitalia 20 wide, genital setae 17 long; tubercles 14 apart.

NYMPH: 105 long, prodorsal shield 32, sc tubercles 22 apart, sc setae 18 long, opisthosoma with about 54 annuli, genital setae 9 apart 7 long, on ventral annulus 13.

TYPE LOCALITY: Zemun, Lido. Northern Serbia, collected on June . (28. 1997) by D. SMILJANIC.

HOST PLANT: *Populus nigra* L. (Salicaceae).

RELATION TO THE HOST: vagrant on leaves.

TYPE MATERIAL: holotype female on slide 734/5 and 17 paratype females, 5 males, 1 nymph and 2 larvae.

This species is close to *Tetra quianensis* Kuang & Hong can be distinguished by the prodorsal shield and coxae ornamentation, the appearance of male genitalia and the host plant. The dorsal shield of *T. quianensis* is ornamented having incomplete median, complete admedian and submedian lines, four cells on the anterior shield margin, coxae are

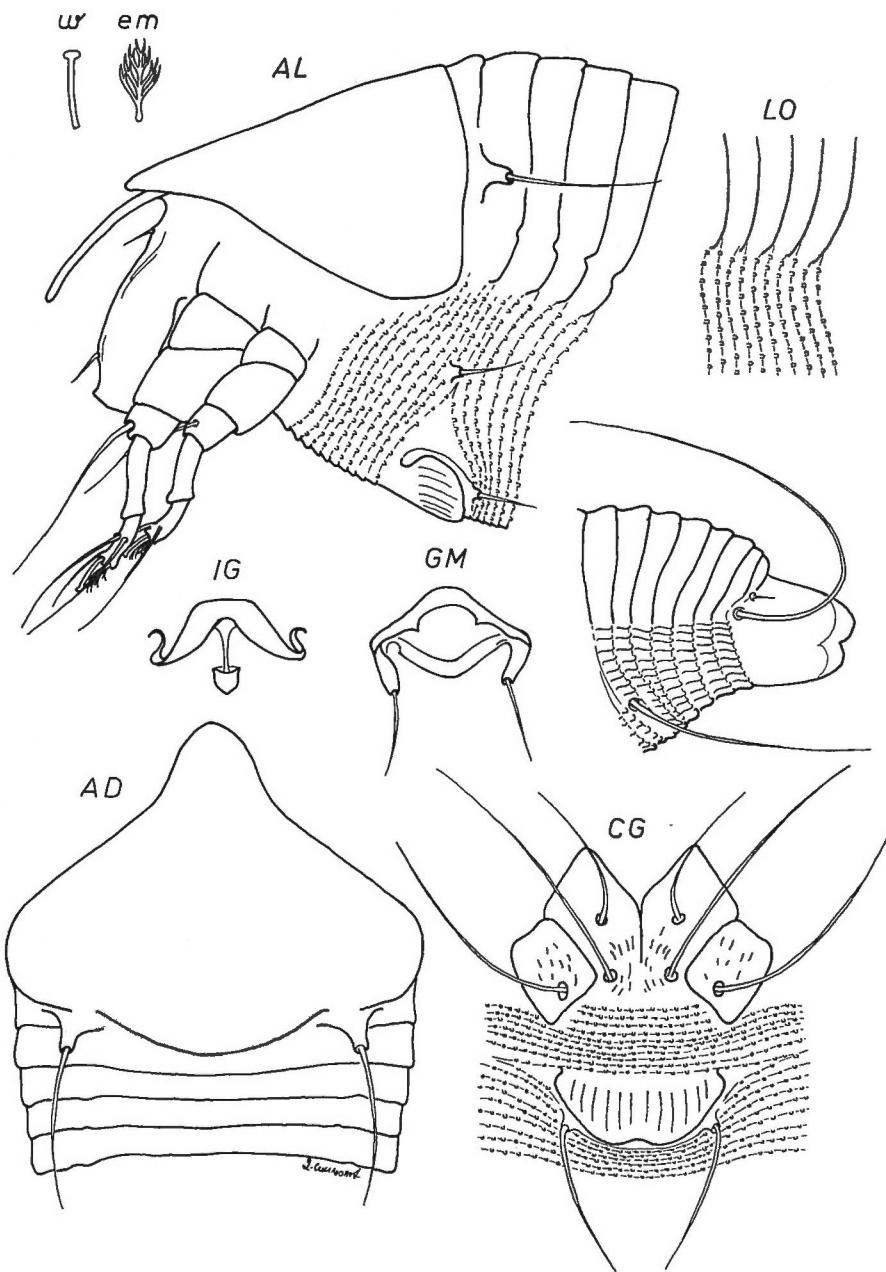


FIG 2.— *Tetra populi* n. sp.

smooth and the mite lives freely on the under surface of leaves of *Salix* spp. (KUANG & HONG, 1989). The new species presents a smooth prodorsal shield, coxae are ornamented with short broken lines, and the mites are vagrant on the under surface of the leaves of *P. nigra*.

***Calepitrimerus buxi* n. sp. (Fig.3)**

Female: 160 long, 54 wide, 57 thick, spindleform, yellowish in colour., gnathosoma 32 long, dorsal pedipalpal genual seta 5 long, chelicerae 16 long, slightly bent down. Prodorsal shield 40 long, 46 wide

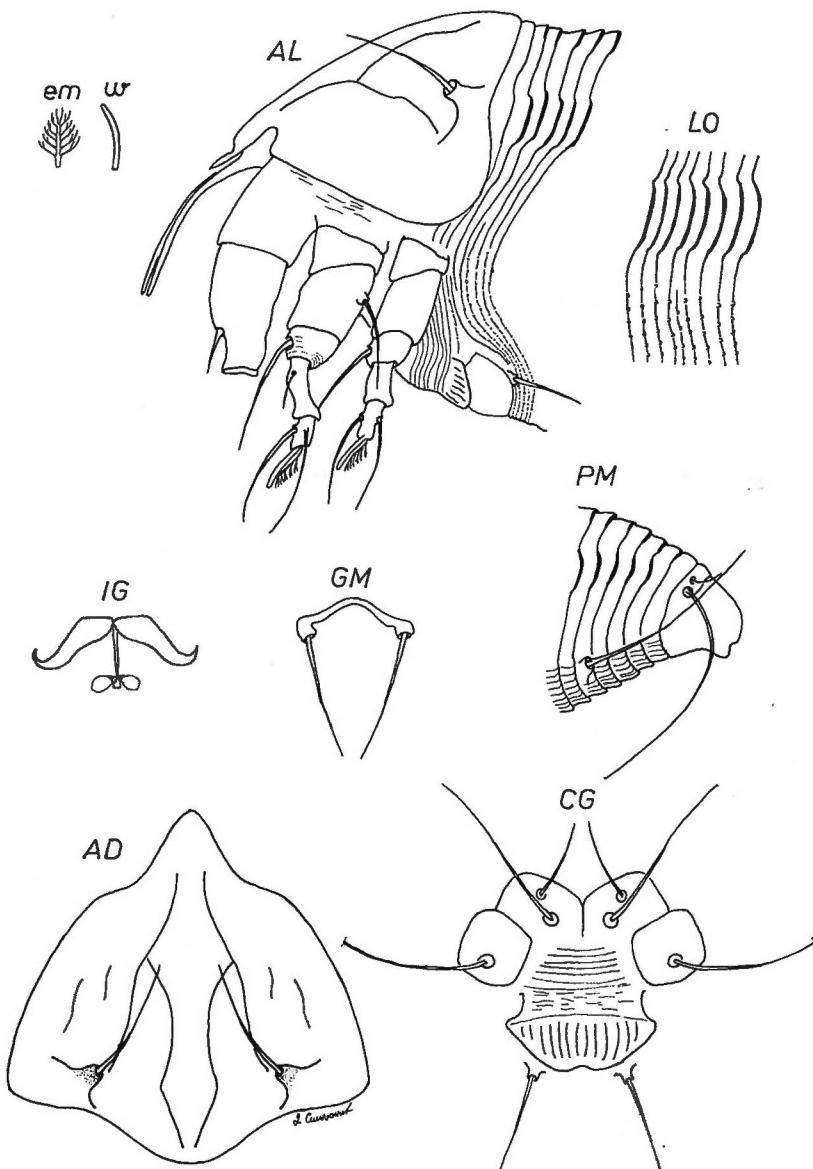


FIG. 3.—*Calepitrimerus buxi* n. sp.

with a lobe over gnathosoma 5 long, with one admedian and one submedian line on each side. Dorsal tubercles situated ahead of a shield margin 25 apart with scapular setae 15 long, directed forwards and converging. Foreleg 29 long; tibia 6 long with paraxial tibial seta 5 long; tarsus 5 long; tarsal solenidion 6 long; unknobbed, tarsal empodium 5 long 6 rayed. Hindleg 27 long, tibia 5 long; tarsus 5 long; tarsal solenidion 7 long unknobbed, tarsal empodium

6 long. Coxae without ornamentation anterolateral. tubercles on I coxisternum 9 apart, setae 10 long, proximal tubercles on I coxisternum 6 apart., setae 21 long., proximal tubercles on II coxisternum 25 apart; setae 35 long; coxae fused. Opisthosoma with 44 smooth dorsal annuli forming 3 ridges, dorsal medial ridge reaches dorsal annulus 24, ventral microtuberculate annuli about 28. Microtubercles minute. Setae c2 14 long on ventral annulus 10; d

setae 45 long on ventral annulus 21. e setae 10 long on ventral annulus 35: f setae 12 long on ventral annulus 51, last 6 annuli with elongated tubercles; f setae on 7 annulus before anal lobes., h2 setae 50 long, h1 setae minute. Genitalia 10 long, 19 wide. female genital coverlap with about 13 striae, proximal setae on III coxisternum 10 apart, 30 long; genitalia between 6 and 11 ventral annuli.

Male: 120 long, prodorsal shield 40 long sc tubercles 17 apart, sc setae 11 long. Opisthosoma with 39 dorsal annuli and about 57 ventral annuli; genitalia 15 wide; genital setae 5 apart, 16 long.

NYMPH: 90 long. prodorsal shield 32 long; sc tubercles 17 apart sc setae 11 long, opisthosoma with about 42 annuli, genital setae 5 apart, 5 long on ventral annulus 8.

TYPE LOCALITY: Radenkovic, north Western Serbia, collected in June 28,1998 by D Smiljanic. Also found at Zemun (5/07/1998) and Vrnjacka Banja 22.10.1998 collected by D. Smiljanic and R. Petanovic, respectively.

HOST PLANT: *Buxus sempervirens* L. (Buxaceae)

RELATION TO THE HOST. vagrant on leaves and shoots.

TYPE MATERIAL: holotype female on slide 777/1, 25 paratype females. 5 males and 5 nymphs.

This species is close to *Calepitrimerus alchemillae* (Liro), but it can be distinguished by the appearance of the prodorsal shield, the length of opisthosomal setae c2 and d, and the host plant. In *C. alchemillae* prodorsal shield is ornamented, having 1 median, 2 admedian and submedian lines, with also some transverse lines between them, setae c2 and d have not been measured but the same length and not short. The mite causes leaf deformation of *Alchemilla glomeratus* and 6 more *Alchemilla spp.* (Rosaceae) (LIRO, 1940). The shield of the new species presents design of 1 admedian and 1 submedian lines on each side; setae c2 are 14 long and setae d 45 long (3 x longer); the mite is vagrant on the leaves and shoots of *B. sempervirens*.

***Tetraspinus apiaceaus* n. sp. (Fig.4)**

FEMALE: 184 long, 70 wide, 71 thick, fusiform. yellowish in colour. gnathosoma 25 long, dorsal pedipalpal genual seta 5 long, chelicerae 19 long. almost straight. Prodorsal shield, smooth. 55 long, 70 wide with a lobe over gnathosoma 13 long, with two spines anteriorly. Dorsal tubercles on rear shield margin; 26 apart with scapular setae, 8 long, directed to the rear.

Foreleg 37 long, tibia 9 long with paraxial tibial seta 5 long, tarsus 6 long, tarsal solenidion 6 long slightly knobbed; tarsal empodium 6 long, 4 rayed. Hindleg 32 long, tibia 7 long, tarsus 6 long, tarsal solenidion 6 long, slightly knobbed; tarsal empodium 6 long.

Coxae with some lines; anterolateral tubercles on I coxisternum 10 apart, setae 10 long; proximal tubercles on I coxisternum 6 apart, setae 15 long., proximal tubercles on II coxisternum 18 apart, setae 22 long; sternum 13 long.

Opisthosoma with 29 furrow dorsal annuli and about 81 ventral microtuberculate annuli.; microtubercles minute. Setae c2 10 long on ventral annulus 17, d setae 35 long. on ventral annulus 32. e setae 11 long on ventral annulus 55: f setae 20 on ventral annulus 76. Last 4 annuli with elongated tubercles; f setae on 5 annuli before the anal lobes; h2 setae 70 long, h1 setae 3 long.

Genitalia 13 long, 20 wide; female genital coverlap with about 8 striae. Proximal setae on III coxisternum 15 apart, 11 long, genitalia between 11 and 17 ventral annuli.

MALE: 161 long, prodorsal shield 152 long, sc tubercles 27 apart. sc setae 6 long. Opisthosoma with 27 dorsal annuli and about 63 ventral annuli, genitalia 19 wide, setae 15 apart, 10 long.

NYMPH. 125 long, prodorsal shield 40 long. sc tubercles 24 apart: sc setae 3 long. opisthosoma with about 55 annuli; proximal setae on III coxisternum. 11 apart, 6 long, on ventral annulus 11.

TYPE LOCALITY: Mt. Deli Jovan, Eastern Serbia, collected on June 16, 1998. by N. MIHAJLOVIC. Other locality: Mt. Bukulja, Central Serbia, collected on July 1,1998, by D. SMILJANIC.

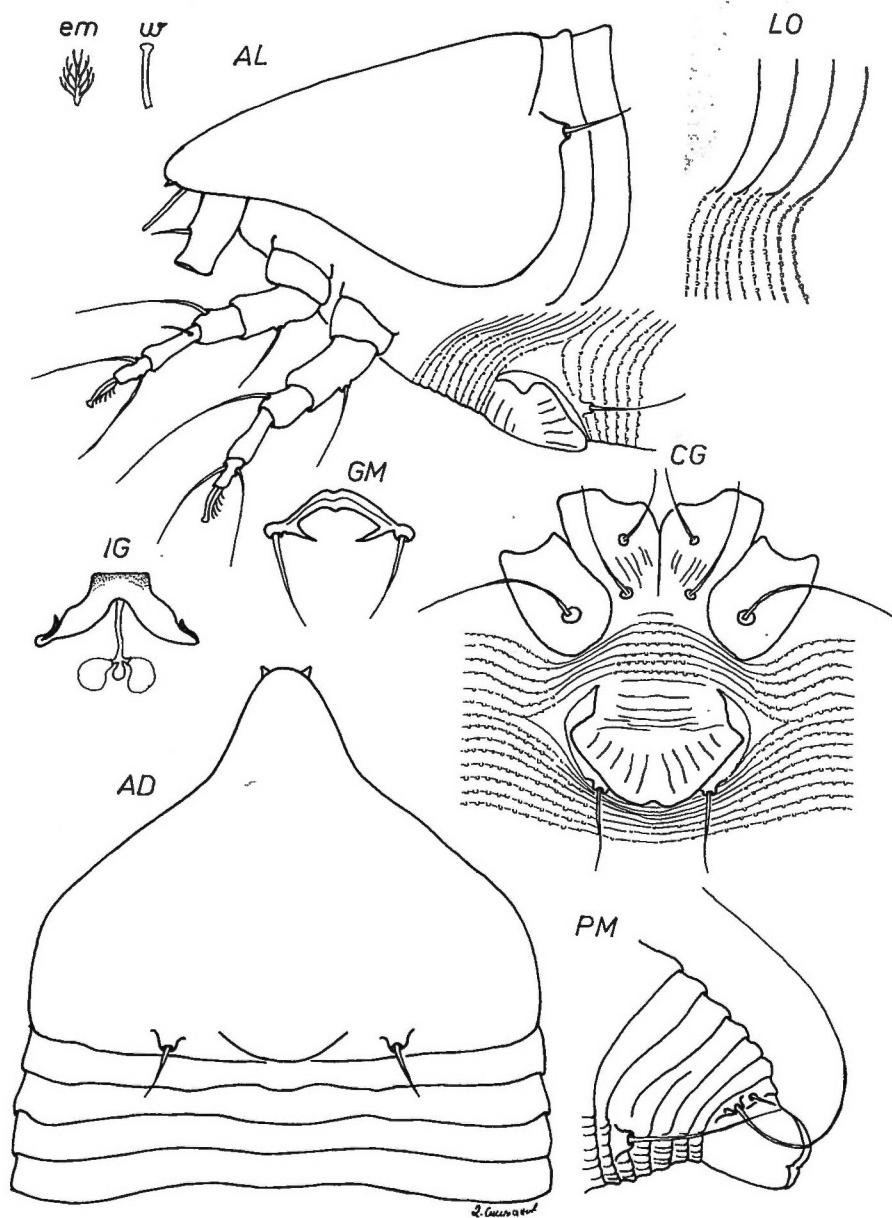


FIG. 4. — *Tetraspinus apiceaus* n. sp.

HOST PLANT : *Danaa cornubiensis* (Torn.) Burn.
(Apiaceae). Alternate host: *Torilis anthriscus* (L.)
Gmel. (Apiaceae).

RELATION TO THE HOST: vagrant on leaves.

TYPE : holotype female on slide 772/3, 11 paratype
females, 3 males, 2 nymphs.

This species is close to *T. latus* Boczek. It can be distinguished by the length of e setae, appearance of spermathecae and the host -plant. In *T. latus*, opisthosomal setae e is 23 long, spermathecae almost globular and the host plant is *Syringa vulgaris* (Oleaceae) (BOCZEK, 1961). In the new species length of e setae is 35, spermathecae suck like, and the host plants are *D. cornubiensis* and *T. anthriscus* both Apiaceae.

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