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A quarterly journal of acarology, since 1959
Publishing on all aspects of the Acari

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Subscriptions: Year 2021 (Volume 61): 450 €
http://www1.montpellier.inra.fr/CBGP/acarologia/subscribe.php

Previous volumes (2010-2020): 250 € / year (4 issues)
Acarologia, CBGP, CS 30016, 34988 MONTFERRIER-sur-LEZ Cedex, France
ISSN 0044-586X (print), ISSN 2107-7207 (electronic)

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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STUDIES ON ERIOPHYOID MITES (ACARI: ERIOPHYOIDEA). XXII.

by Jan BOCZEK* and Angsumarn CHANDRAPATYA**

ERIOPHYOID MITES
BAMBUSA
THAILAND

SUMMARY: Two new genera and five new species of eriophyoid mites, vagrants on Bambusa sp. in Thailand, are described and illustrated. Kolacarus bambusae Boczek, n. gen., n. sp. is vagrant on leaves of Bambusa vulgaris; Thiracarus bambusae Chandrapatya, n. gen., n. sp. is vagrant on Bambusa blumcana; Phytoptochetus bambusae Boczek, n. sp. is vagrant on Bambusa sp.; Aculodes ventricosae Chandrapatya, n. sp. and Rhyncaphytoptus bambusae Boczek, n. sp. are vagrants on Bambusa ventricosa.

ERIOPHYOIDES
BAMBUSA
THAILANDE

RéSUMé: Cet article décrit et illustre deux nouveaux genres et cinq nouvelles espèces d'ériophyoides ambulant sur Bambusa spp. en Thaïlande. Kolacarus bambusae Boczek, n. gen., n. sp. est ambulant sur les feuilles des Bambusa vulgaris; Thiracarus bambusae Chandrapatya, n. gen., n. sp., est ambulant sur Bambusa blumcana; Phytoptochetus bambusae Boczek, n. sp. est ambulant sur Bambusa sp.; Aculodes ventricosae Chandrapatya et Rhyncaphytoptus bambusae Boczek, n. sp. sont des ambulants sur Bambusa ventricosa.

Two new genera and five new species of eriophyoid mites, vagrants on Bambusa spp. in Thailand are described. Type material has been deposited at the Department of Applied Entomology, Warsaw Agricultural University, Warsaw and at the Department of Entomology, Kasetsart University, Bangkok. All measurements are in micrometers.

Kolacarus Boczek, n. gen.

Cecidophyine mites with fusiform body, prodorsal shield missing dorsal tubercles, setae and lobe over rostrum, legs six-segmented, with coxae forming sternum; opisthosoma differentiated into broader dorsal and narrower ventral annuli; with empodium undivided; genitalia not appressed to coxae.

This genus is close to Cecidophyes Nalepa, 1889, but can be distinguished by the absence of a lobe over gnathosoma, the genitalia not appressed to coxae and coxae forming sternum.

Kolacarus bambusae Boczek, n. sp. (Fig. 1)

Female: 150 (range of 10 specimens 152–168) long; 68 wide; 63 thick; fusiform; transparent. Gnathosoma 37 long, with seta 5 long; chelicerae 35 long, almost straight. Shield 43 (41–45) long, suboval, smooth, without lobe over gnathosoma. Dorsal tubercles and setae missing. Leg I 36 long; tibia 7 long, with seta 6 long; tarsus 7 long; tarsal solenidion 7 long, unknobbed; empodium 8-rayed. Leg II 34 long; tibia 6 long; tarsus 6 long; tarsal solenidion 8 long. Sternum 7 long. First forecoxal tubercles 16 apart, setae 12 long; second tubercles 6 apart, setae 18 long; hindcoxal tubercles 24 apart, setae 45 long. Opisthosoma of 45 evenly arched, with faint microtubercles anteriorly and spine-like microtubercles on last 20 dorsal annuli. Lateral setae 38 long on ventral annulus 8; first ventral setae 50 long on ven-

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Central annulus 20; second ventral setae 32 long, on ventral annulus 40; third ventral setae 27 long, on 8th ventral annulus from the rear. Accessory setae absent.

Female genitalia 20 long, 20 wide, cover flap with two rows of broken, longitudinal striae; genital setae 20 long, 14 apart.

Male 154 long; gnathosoma of 44 annuli; prodorsal shield 41 long; genitalia 19 wide.


Host plant: *Bambusa vulgaris* (Gramineae).

Relation to host plant: vagrant on lower leaf surface.

Type material: holotype female, 15 female paratypes and one male.

**Thiracarus** Chandrapatya, n. gen.

Phyllocoptine, fusiform mites with longitudinally divided prodorsal shield with small lobe over gnathosoma, with small pit-like structures slightly ahead of rear shield margin, with smooth dorsal annuli for-
ming central longitudinal ridge and lateral ridges; with divided empodium; coxae with three pairs of setae; genitalia not appressed to coxae.

This genus is close to *Knorella* Keifer, 1975, but it can be distinguished by divided prodorsal shield, presence of prodorsal shield tubercles and setae.

**Thiracarus bambusae** Chandrapatya, n. sp.  
(Fig. 2)

Female: 131 (range of 10 specimens 128–142) long; 52 wide; 46 thick; fusiform; straw-like in colour; gnathosoma 17 long, with seta 3 long; chelicerae 20 long, almost straight. Prodorsal shield 46 long, semicircular, divided longitudinally into two parts, with 4 long lobe over gnathosoma, with minute pit-like structures slightly ahead of rear shield margin. Leg I 28 long, tibia I 4 long, with 8 long seta, tarsus 4 long with unknobbed, 7 long solenidion, empodium divided. Leg II 20 long, tibia 3 long, tarsus 4 long, solenidion 10 long. Sternum 8 long. First forecoxal tubercles 10 apart, seta 10 long; second tubercles 5 apart, seta 17 long; hindcoxal tubercles 14 apart, seta 30 long.

Opisthosoma of 21 smooth dorsal and 55 microtuberculate, ventral annuli. Dorsal annuli forming central longitudinal ridge and lateral ridges with troughs inbetween. Lateral setae 32 long on sternite 5; first...
FIG. 3: Phytoptocetus bambusae n. sp.


and second ventral setae absent; third ventral setae 28 long, on 6th annulus from the rear. Accessory setae missing.

Female genitalia 15 long, 20 wide; coverflap with longitudinal striae; genital seta 15 long, 13 apart.

Male 126 long; opisthosoma of 23 dorsal annuli; prodorsal shield 42 long, not divided; genitalia 14 wide.

Collected on Kasetsart University campus, Bangkok, 9 July 1996, by the second author.

Host plant: Bambusa blumcana (Gramineae).

Relation to host plant: vagrant on lower leaf surface.

Type material: holotype female, 14 female paratypes and one male paratype.

Phytoptocetus bambusae Boczek, n. sp.

(Fig. 3)

Female: 151 (range of 10 specimens 142–173) long; 49 wide, 53 thick; spindleform, light red. Gnathosoma 27 long with seta 8 long; chelicerae 25 long, almost straight. Prodorsal shield 42 long, subrhomboidal, with median and admedian longitudinal lines and 5 broken, oblique lines on each side; lobe rounded anteriorly; dorsal tubercles 24 apart, on rear shield margin; setae 20 long directed to the rear and diverging. Leg I 33 long; tibia 7 long with seta 10 long; tarsus 6 long; solenidion 10 long, unknobbed; empodium 7-rayed, simple. Leg II 29 long; tibia 6 long; tarsus 6 long; solenidion 10 long. Sternum 5 long.
First forecoxal tubercles 13 apart, seta 8 long; second tubercles 10 apart, seta 20 long; hindcoxal tubercles 20 apart, seta 42 long.

Opisthosoma of 50 smooth, subequal dorsoventrally annuli; 39 dorsal annuli forming central longitudinal ridge and subdorsal troughs; ventral annuli microtuberculate. Lateral setae 32 long, on ventral annulus 11; first ventral setae 65 long, on annulus 24; second ventral setae 28 long, on annulus 40; third ventral setae 20 long, on 5th annulus from the rear. Accessory setae 2 long

Genitalia 13 long; 22 wide; coverflap with 12 longitudinal striae; genital setae 11 apart, 18 long.

Male: 130 long; opisthosoma of 45 annuli, 32 dorsal annuli forming longitudinal ridge; prodorsal shield 33 long; genitalia 17 wide.

Collected in Ban Pae, Rayong, 6 Aug. 1996, on Bambusa sp. (Gramineae), by the second author.

Relation to host plant: vagrant on lower leaf surface.

Type material: holotype female, 15 female paratypes and one male.

This new species is close to Phytoptochetus orthiaspis Nalepa, 1918, but it can be distinguished by the appearance of prodorsal shield, the dorsal annuli and the host plant. In P. orthiaspis the shield is subtriangular, the annuli are completely microtuberculate and galls are formed on Glochidion rubrum (Euphorbiaceae). The new species has the prodorsal shield subrhomboidal, only the ventral annuli are microtuberculate, and is a vagrant on Bambusa sp.
**Aculodes ventricosae** Chandrapaty, n. sp.  
(Fig. 4)

Female: 206 (range of 10 females 190–231) long; 52 wide; 51 thick; slightly fusiform; translucent white. Gnathosoma 24 long with seta 7 long; chelicerae 23 long, almost straight. Prodorsal shield 49 long, 35 wide, subtriangular, with median, submedian and four oblique lateral lines on each side; with triangular lobe over gnathosoma; dorsal tubercles 20 apart, situated on rear shield margin; setae 22 long, directed to the rear and diverging. Leg I 27 long; tibia 7 long with seta 9 long; tarsus 8 long with solenidion 8 long, unknobbed; empodium 6-rayed, simple. Leg II 26 long; tibia 5 long; tarsus 5 long; solenidion 8 long. Sternum 10 long. First forecoxal tubercles 7 apart, seta 10 long; second tubercles 6 apart, seta 25 long; hindcoxal tubercles 20 apart, seta 42 long.

Opisthosoma of 49 micrutuberculate, evenly arched annuli. Microtubercles rounded. Lateral setae 25 long, on ventral annulus 12; first ventral setae 80 long, on annulus 23; second ventral setae 38 long on annulus 36; third ventral setae 20 long, on 5th annulus from the rear. Accessory setae 2 long.

Female genitalia 14 long; 18 wide; coverflap with 12 longitudinal striae; genital setae 13 apart, 23 long. Male not seen.

Collected in Nakhon Pathom, Thailand, on *Bambusa ventricosa* (Gramineae), 23 Aug. 1996, by the second author.

Relation to host plant: vagrant on both leaf surfaces.

Type material: holotype female and 12 female paratypes.

This new species is close to *Aculodes dubius* (Nalepa) 1891, but it can be distinguished by the shield lobe and pattern, and by the appearance of the em podium and dorsal annuli. In *A. dubius* the em podium is 7-rayed; prodorsal shield only with admedian lines and pointed lobe; dorsal annuli smooth. In the new species em podium 6-rayed; shield with median, admedian and two lateral lines on each side; dorsal annuli micrutuberculate.

**Rhyncaphytoptus bambusae** Boczek, n. sp.  
(Fig. 5)

Female: 174 (range of 7 females 159–190) long; 62 wide, 68 thick; fusiform; translucent white. Gnathosoma 32 long with seta 8 long with small hook; chelicerae 43 long, abruptly bent down. Prodorsal shield 50 (48–51) long, subtriangular with indistinct pattern of granulation anteriorly, with rounded anteriorly, 13 long lobe; dorsal tubercles 21 apart, 10 ahead of rear shield margin; dorsal setae 2 long, directed centrally. Leg I 131 long; tibia 7 long, with seta 13 long; tarsus 6 long; tarsal solenidion 8 long, slightly knobbed; empodium 7-rayed. Leg II 28 long; tibia 5 long; tarsus 6 long with, solenidion 7 long, slightly knobbed. Sternum 20 long. First forecoxal tubercles set 5 apart, setae 12 long; second tubercles 3 apart, seta 27 long; hindcoxal tubercles 18 apart, seta 37 long. Coxae smooth.

Opisthosoma of 21 smooth dorsal annuli, forming central longitudinal trough and about 61 ventral annuli with minute microtubercules. Lateral setae 13 long on 10th ventral annulus; first ventral setae 65 long on 24th annulus; second ventral setae 12 long on 45th annulus; third ventral setae 23 long on 6th annulus from the rear. Accessory setae missing.

Female genitalia 18 long, 30 wide; coverflap with longitudinal striae proximally and granulation distally; genital setae 9 apart, 10 long. Male: 158 long; opisthosoma with 21 dorsal annuli; shield 46 long; genitalia 19 wide.

Collected in Nakhon Pathom, Thailand, on *Bambusa ventricosa* (Gramineae), 23 Aug. 1996, by the second author.

Relation to host: vagrant on both leaf surfaces.

Type material: holotype female, 7 female paratypes and one male collected on the same date.

This new species is close to *Rhyncaphytoptus ficifoliae* Keifer, but it can be distinguished by the appearance of tarsal empodium, the pattern of the genital coverflap, the prodorsal shield and the host plant family. *R. ficifoliae* has the tarsal empodium 6-rayed; the genital coverflap smooth; the prodorsal shield without granulation, with 18 long dorsal setae directed ahead; and the host plant family is the Moraceae.
Fig. 5: Rhyncaphytoptus bambusae n. sp.
In the new species tarsal empodium 7-rayed; genital cover flap with longitudinal striae and granulation; prodorsal shield with granulation and dorsal setae 2 long directed centrally; and the host plant family is the Gramineae.

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