Acarologia is proudly non-profit, with no page charges and free open access

Please help us maintain this system by encouraging your institutes to subscribe to the print version of the journal and by sending us your high quality research on the Acari.

Subscriptions: Year 2020 (Volume 60): 450 €
http://www1.montpellier.inra.fr/CBGP/acarologia/subscribe.php
Previous volumes (2010-2018): 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)

Acarologia is under free license and distributed under the terms of the Creative Commons-BY-NC-ND which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original author and source are credited.
SUPPLEMENTARY DESCRIPTION OF THE TYPE SPECIES OF THE GENUS MAINOTHRUS CHOI, 1996, BELONGING TO THE FAMILY TRHYPOCHTHONIIDAE (ACARI: ORIBATIDA)

BY G. KURIKI *, S.-S. CHOI **, & T. FUJIKAWA ***

ORIBATIDA
TRHYPOCHTHONIIDAE
MAINOTHRUS
ALTRHYPOCHTHONIUS

SUMMARY: The type species of the genus Mainothrus Choi, 1996 is redescribed. The genus Altrhypochthonius Weigmann, 1997 is considered a junior synonym of Mainothrus.

ORIBATES
TRHYPOCHTHONIIDAE
MAINOTHRUS
ALTRHYPOCHTHONIUS


ORIBATIDA
TRHYPOCHTHONIIDAE
MAINOTHRUS
ALTRHYPOCHTHONIUS


In 1996, Choi described a new species from Korea, Mainothrus aquaticus, as the type of his new genus Mainothrus, belonging to the family Trhypochthoniidae Willmann, 1931. Seniczak et al. (1998) referred Trhypochthonius badius Berlese, 1905 and T. breviclava Hammer, 1958 to the genus Mainothrus, although Weigmann (1997a & b) erected the genus Altrhypochthonius, designating T. badius as the type. The present authors have reexamined the characters of the type species of the genus Mainothrus and found that the genus Altrhypochthonius should be treated as a junior synonym of Mainothrus.

Mainothrus Choi, 1996

Altrhypochthonius Weigmann, 1997a: 206; 1997b: 3, 6 (syn. nov.).

Type-species: Mainothrus aquaticus Choi, 1996.

Diagnosis: Prodorsum with sensilli and exobothridial setae including vestigial case. Hysterosoma with 15 pairs of dorsal setae including ps3, 2 pairs of anal, 3 pairs of adanal and 6 pairs of genital setae, without aggenital setae. The infracapitulum stenarthric bearing 1 pair of anterior (a), 2 pairs of median (m1, m2),...
excluding solenidia: I(1-6-4-5-16); II(l-6-4-4-13); and having coupled with a culmination setae, nidion kwang Univ. mula of epimerata: (3-1-3-2). Acetabular tectum with microsculpture. Chaetotaxy of types in Lab. of Plant Protection, (h).

solenidion setae as long as genital setae but (Fig. D). Three claws of legs 9[1]); tarsal setae glabrous; solenidion bacilliform, anal setae (Fig. B). The infracapitulum stenarthric frustum, short, about one-fourth length and thickness, furnishing a very sharp point on tibia I and genu I minute and sparsely ciliate, as and from M. badius (Berlese, 1905) in having barbed prodorsal setae, long dorsal setae (e), 2 pairs of m-setae of which one pair is vestigial, shorter distance between interlamellar setae, and the different number of setae on tarsus I, femur II and genu III.

Mainothrus aquaticus Choi, 1996
(Figs. A–F)

Measurements: Length, 504 (538) 568 μm; width, 288 (300) 312 μm.

Supplementary description: As is found in the original description, setae (ex) short (Fig. A), and anal setae as long as genital setae but about half as long as anal setae (Fig. B). The infracapitulum stenarthric bearing one pair of anterior infracapitular setae (a), two pairs of medians (m1, m2) and one pair of posterior setae (h) (Fig. C): all setae glabrous; m1, vestigial and m only one-third as long as h; the vicinity of the insertions of setae m1 and m2 densely with granular microsculpture. Chaetotaxy of pedipalp: (0-1-1-2-9[1]); tarsal setae glabrous; solenidion bacilliform, coupled with a culimal seta, about half as long as the seta; ultimal and superior setae pointed at the tip (Fig. D). Three claws of legs denticate and equal in length and thickness, furnishing a very sharp point (Fig. E). Leg chaetotaxy including famulus, but excluding solenidion: I(1-6-4-5-10); II(1-6-4-4-13); III(2-3-3-2-12); IV(1-2-2-2-13). Solenidiotaxy: I(1-2-3); II(1-1-2); III(1-1-0); IV(0-1-0). All solenidion on tarsus, tibia and genu coupled with dorsal seta; solenidion ω1, bacilliform as long as ω2 and about two-third as long as ω2; ω2 and ω3 setiform; famulus e like frustum, short, about one-forth as long as ω2. Seta d on tibia I and genu I minute and sparsely ciliate, as long as, or slightly longer than half of length of solenidion ϕ3 and p, respectively (Figs. E & F).

Material examined: The holotype and all the paratypes in Lab. of Plant Protection, Coll. of Agr., Wonkwang Univ.

Remarks: The present species differs from M. breviclava (Hammer, 1958) in being smaller body size, and having barbed rostral setae and fusiform sensilli, and from M. badius (Berlese, 1905) in having barbed prodorsal setae, long dorsal setae (e), 2 pairs of m-setae of which one pair is vestigial, shorter distance between interlamellar setae, and the different number of setae on tarsus I, femur II and genu III.

Mainothrus badius (Berlese, 1905)


Ailhypochthonius badius: WEIGMANN, 1997a: 206, figs. 6–8; 1997b: 6, fig. 2a.

Mainothrus badius: SENICZAK et al., 1998: 85, figs. 1–3, 8 & 10A.

Distribution: Palearctic and Nearctic regions (after Seniczak et al., 1998).

Remarks: The authors tried to, and could not reexamine all Japanese specimens recorded as the present species. Specimens collected from Hokkaido (Nishikawa et al., 1983) have been lost (private communication). According to the figures illustrated by Nishikawa et al. (1983), specimens recorded as T. badius from Hokkaido might be considered as a separate species because of large body length (about 980 μm), sensilli with head rounded at the tip, short interlamellar setae shorter than sensilli and lamellar setae, and about two-third as long as their mutual distance, and long dorsal setae (e). It is impossible to say with certainty whether or not Mainothrus badius is distributed in Japan.

Mainothrus breviclava (Hammer, 1958)


Distribution: Argentine.

Remarks: The present species is distinguished from other two Mainothrus species by larger body length
Figs. A–F. *Mainothyrs aquaticus* Choi, 1996 (paratypes). — A, Right bothridial region; B, Adanal (*ad*), anal (*an*) and genital (*g*) setae; C, Infracapitulum; D, Left pedipalp; E, Tarsus and a part of tibia of leg I; F, Solenidion and a coupled dorsal seta on left genu I.
(680 µm), smooth rostral setae, serrated lamellar and interlamellar setae, and sensilli with head rounded at the tip.

Key to the species of the genus *Mainothrus* Choi, 1996

1. Body about 680 µm in length; setae *(ro)* smooth; setae *(le)* and *(in)* serrated; sensillus rounded at the tip. ................. 
   
   *M. breviclavus* (Hammer, 1958).

1. Body shorter than 570 µm; prodorsal setae similar in form; sensillus fusiform. .................. 
   
2. Prodorsal setae glabrous and setiform; setae *(ex)* sometimes vestigial; two pairs of *m*-setae .............. *M. badius* (Berlese, 1905).

2. Prodorsal setae barbed and blunt at the tip; setae *(ex)* present; two pairs of *m*-setae including one vestigial pair. ................. 
   
   *M. aquaticus* Choi, 1996.

ACKNOWLEDGEMENTS

The authors express their sincere thanks to Prof. J. Aoki of Yokohama National University for his critical advice, and to Mr. T. Nishikawa of Kosei Primary School of Hokkaido, for his kindness to reexamination his collection.

REFERENCES


**Mahunka (S.) & Mahunka Papp (L.),** 1995. — The oribatid species described by Berlese (Acari). — Hungarian Natural History Museum, Budapest, pp 1-325.


