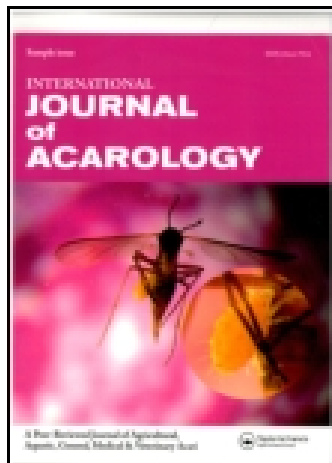


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### Microtritia species from China (Acari: Oribatida: Euphthiracaridae), with description of a new species and a world key to species of the genus

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## ***Microtritia* species from China (Acari: Oribatida: Euphthiracaridae), with description of a new species and a world key to species of the genus**

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The genus *Microtritia* (Acari: Oribatida: Euphthiracaridae) was represented by two species in China prior to this work. In this article, three species of *Microtritia* are identified, including a new species, *Microtritia bicarinata* sp. nov., and two known species found in new localities in China. An updated diagnosis of the genus and some remarks on known species from China are presented. A key to all known species in the world is also provided.

<http://zoobank.org/urn:lsid:zoobank.org:pub:41DA0E6A-1280-4DB6-A239-1C370727BDDE>

**Keywords:** Oribatida; Euphthiracaridae; *Microtritia*; new species; new localities; key; China

### **Introduction**

Märkel (1964) proposed the genus *Microtritia* with *Phthiracarus minimus* Berlese, 1904 as type species. Niedbała (1994) considered this group as the youngest phylogenetic genus in Euphthiracaroidea. Up till now, 19 valid species have been reported (Liu and Zhang 2014; Subías 2014). *Microtritia* comprises free-living ptyctimous mites mainly occurring in the upper layers of highly organic forest soils. It is the third largest genus of the family Euphthiracaridae and has a nearly cosmopolitan distribution except in Antarctica, sub-Antarctic islands and Arctic tundra (Niedbała and Starý 2010). China is one of the hot spots of new mites discovery in the world (Liu et al. 2013), but this group of oribatid mites remained poorly known there. Prior to this work, only two species were recorded in China (Chen et al. 2010): *Microtritia minima* (Berlese 1904) and *Microtritia tropica* Märkel, 1964.

The present article is a part of systematic studies of the oribatid mite family Euphthiracaridae from China (see Liu et al. 2011, 2012) and includes an updated diagnosis of *Microtritia*, the description of a new species, new data and remarks on known species from China and a key to all known species of the genus.

### **Material and methods**

Specimens were mounted in temporary cavity slides and were studied using a light microscope equipped with a drawing attachment. Terminology generally follows Niedbała (2000). The unit of measurement is micrometre (µm).

### **Taxonomy**

#### ***Microtritia* Märkel, 1964**

#### *Diagnosis*

Integument mostly finely porose. Prodorsum with or without median crista; one to three pairs of prodorsal lateral carinae present; bothridial scales situated above bothridia; posterior median apodeme present; lamellar and rostral setae in median (paraxial) position; interlamellar setae situated near bothridia. Notogaster with 14 pairs of setae; setae of row *ps* situated almost in one line; terminal sinus or terminal fissure at posterior end present; one pair of openings of lateral opisthosomal glands and five pairs of lyrifissures: *ia*, *im*, *ip*, *ips*, *ih*. Ventral region: palps three segmented with formula: (1-2)-1-(7-8)(1); genito-aggenital and ano-adanal plates completely fused; anogenital cleft present; one median interlocking triangle present; four to seven pairs of genital and zero to three pairs of aggenital setae present; three pairs of anal and three pairs of adanal setae present. Legs: each trochanter with one seta; genua IV without solenidia; setae *d* on tibiae IV coupled with solenidia; solenidia  $\omega_1$  and  $\omega_2$  without coupled setae; famuli located far from solenidia; all tarsi monodactylous.

#### *Remarks*

The diagnosis of the genus was updated according to the species *Microtritia striatissima* Mahunka, 1999 (two pairs of prodorsal lateral carinae present), *Microtritia cristata* Niedbała, 2012 (median crista and three pairs of lateral

carinae present) (Mahunka 1999; Niedbala 2012) and the new species (two pairs of lateral carinae) reported in this article.

### Description of a new species

#### *Microtritia bicarinata* sp. nov. (Figures 1–8)

#### Diagnosis

Prodorsum with two pairs of lateral carinae; sensilli evenly thick and pointed apically; other prodorsal and notogastral setae short and fine; rostral setae inserted close to each other and far away from anterior border of prodorsum; mutual distance:  $le-le > ro-ro$ ; setae  $c_3$  situated further from anterior margin than setae  $c_1$  and  $c_2$ ; vestigial setae  $f_1$  positioned anterior to setae  $h_1$ ; four pairs of lyrifissures present; terminal fissure absent; setae  $h$  of subcapitulum shorter than distance between them; five pairs of genital and one pair of aggenital setae present; three pairs of anal and three pairs of adanal setae present; lyrifissures  $iad$  situated anterior to setae  $ad_3$ .

#### Description

**Measurements.** Holotype: Prodorsum: length 370, width 282, height 160; setae:  $ss$  95,  $in$  2,  $le$  30,  $ro$  40,  $ex$  6; notogaster: length 690, width 500, height 512; setae:  $c_1$  60,  $d_1$  50,  $e_1$  50,  $h_1$  35,  $ps_1$  35; distance between setae:  $c_1-d_1$  195; genito-aggenital plate  $170 \times 120$ , ano-adanal plate  $327 \times 80$ . Paratypes: Prodorsum: length 385–400, width 290–295, height 160–165; notogaster: length 685–705, width 500–505, height 510–520.

**Integument.** Colour yellowish. Surface of body finely porose.

**Prodorsum** (Figures 1–3). Two pairs of lateral carinae present, upper longer and slightly thicker, not reaching the end of rostrum; sensilli ( $ss$ ) long, smooth and rigid, evenly thick and pointed apically; interlamellar ( $in$ ) and exobothridial setae ( $ex$ ) short and fine; other prodorsal setae ( $le$ ,  $ro$ ) longer; comparative length:  $ss > ro > le > ex > in$ ; lamellar setae situated close to insertion level of interlamellar setae; rostral setae inserted close to each other and far away from anterior border of prodorsum; mutual distance:  $in-in > le-le > ro-ro$ .

**Notogaster** (Figure 1). Setae of notogaster short ( $c_1/c_1-d_1 \approx 0.31$ ), fine, similar in shape with lamellar setae; setae  $c_{1-3}$  far away from anterior margin; setae  $c_3$  more so than setae  $c_1$  and  $c_2$ ; vestigial setae  $f_1$  positioned anterior to setae  $h_1$ ; four pairs of lyrifissures ( $ia$ ,  $im$ ,  $ih$ ,  $ips$ ) present; terminal fissure absent.

**Gnathosoma** (Figures 5–7). Subcapitulum normal (Figure 5); setae  $h$ ,  $m$ ,  $a$  and adoral setae  $or_{1-3}$  typical of family; setae  $h$  shorter than distance between them; palpal (Figure 6) three segmented, with setation: 2-1-7(1); supra-coxal setae simple and smooth; chelicera (Figure 7) typical of family.

**Ano-genital region** (Figures 1, 4). Genito-aggenital plates with five pairs of minute setae ( $g$ ), and no one situated on progenital position; one pair of aggenital setae ( $ag$ ) present; three pairs of anal and three pairs of adanal setae ( $an$ ,  $ad$ ) present, all short and fine; setae  $an_1$  and  $an_2$  positioned close to each other and situated more close to setae  $ad_2$  than  $ad_1$ ; lyrifissures  $iad$  situated anterior to setae  $ad_3$ .

**Legs** (Figure 8). Setae  $d$  of femora I situated near the middle of article. Setal counts for leg segments (without tarsi): I: 1-2-3(2)-5(1); II: 1-2-3(1)-2(1), III: 1-2-2(1)-2(1), IV: 1-1-1-2(1).

#### Material examined

**Holotype:** adult (Northeast Institute of Geography and Agroecology, Chinese Academy of Sciences, Changchun, China [NIGA], in alcohol, CB-12-011), China: Jilin Province, Changbai Mt. ( $42.270789^\circ\text{N}$ ,  $128.146863^\circ\text{E}$ ), 960M, from litter under mixed forest, 28 May 2012, leg. Dong Liu, Xin Sun and Dong-Hui Wu. **Paratypes:** two adults (NIGA, in alcohol, CB-12-011), same data as holotype; one adult (NIGA, in alcohol, CB-12-007), China: Jilin Province, Changbai Mt., Xiaotianchi ( $42.073549^\circ\text{N}$ ,  $128.063107^\circ\text{E}$ ), 710M, from litter, other data same as holotype.

#### Type deposition

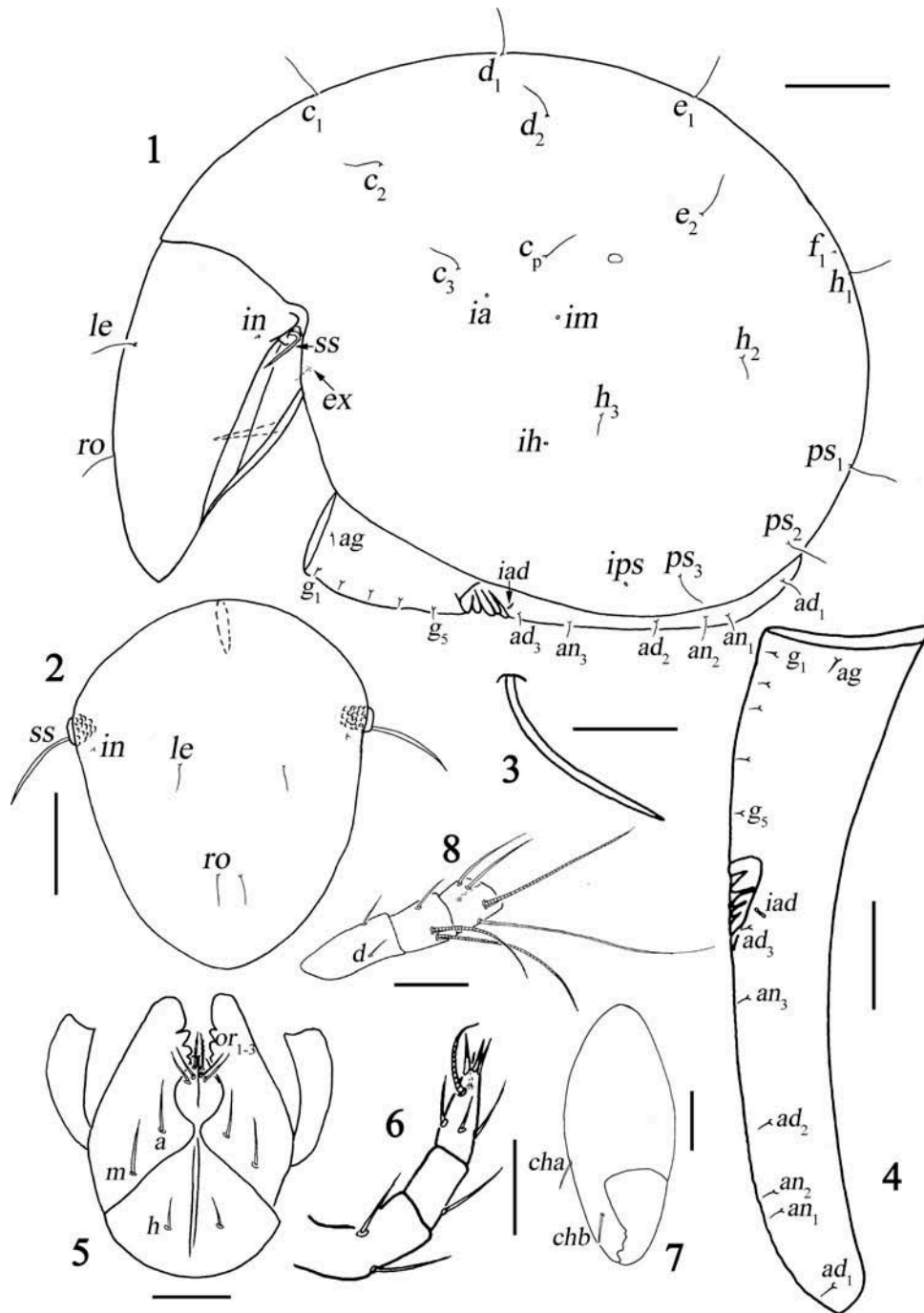
Holotype and paratypes are deposited in NIGA.

#### Etymology

The specific name ‘*bicarinata*’ is from Latin and refers to the two pairs of lateral carinae on prodorsum.

#### Remarks

Except for the new species, only one other species in the genus (*M. striatissima* Mahunka, 1999) has two pairs of lateral carinae on the prodorsum, but it can be easily differed by having the surface of the notogaster and ventral plates punctate (versus striated in *M. striatissima*), sensilli nearly evenly thick (versus narrowly fusiform in *M. striatissima*),  $le-le > ro-ro$  (versus  $le-le < ro-ro$  in *M. striatissima*), setae  $c_3$  situated further from anterior border than setae  $c_1$  and  $c_2$  (versus setae  $c_1$  furthest in *M. striatissima*), five pairs of genital setae and one pair of aggenital setae (versus four pairs of genital setae, and aggenital setae absent in *M. striatissima*) and no genital setae



Figures 1–8. *Microtrititia bicarinata* sp. nov.: 1, lateral view of body (legs removed); 2, prodorsum, dorsal view; 3, sensillus; 4, left side of ano-genital region; 5, subcapitulum, palpi removed; 6, palp, antiaxial view; 7, chelicera, antiaxial view; 8, femur, genu and tibia I. Scale bars: 1–2, 4 = 100  $\mu$ m; 3, 5–8 = 50  $\mu$ m.

situated in a progenital position (versus one pair of setae in a progenital position in *M. striatissima*).

This new species is similar to *Microtrititia novazealandiensis* Niedbala, 2006 in sharing the following features: similar shape of sensilli, prodorsal and notogastral setae, mutual distance between rostral setae shorter than that between interlamellar setae, four pairs of lyrifissures present, similar arrangements of anal and adanal setae, five pairs of genital setae and lyrifissures *iad* situated anterior

to setae *ad*<sub>3</sub>, but the new species can be distinguished from the latter species by the following characters: two pairs of lateral carinae on prodorsum (versus one pair in *M. novazealandiensis*); exobothridial setae present (versus vestigial in *M. novazealandiensis*); distance between lamellar setae longer ( $le-le/ro-ro \approx 4.89$  versus  $le-le/ro-ro \approx 2.15$  in *M. novazealandiensis*); setae *c*<sub>3</sub> situated further from anterior border than setae *c*<sub>1</sub> and *c*<sub>2</sub> (versus closest in *M. novazealandiensis*); terminal fissure absent (versus present

in *M. novazealandiensis*); one pair of aggenital setae present (versus absent in *M. novazealandiensis*).

#### New data and remarks on known species from China

##### *Microtritia minima* (Berlese, 1904)

(Figures 9–15)

##### Diagnosis

Prodorsum with one pair of lateral carinae; sensillus (*ss*) clavate, bearing apically a barbed and cap-like appendage in rectangular shape; other prodorsal setae short and fine; lamellar setae (*le*) situated more close to insertion level of rostral setae; rostral setae (*ro*) inserted close to each other and far away from anterior border of prodorsum; comparative length:  $ss > le > ro > ex > in$ ; mutual distance:  $in-in > le-le > ro-ro$ ; notogastral setae similar in shape and longer than lamellar setae; vestigial setae  $f_1$  positioned anterior to setae  $h_1$ ; setae  $h$  of subcapitulum longer than distance between them; palpal with setation: 2-1-7(1); four pairs of genital and two pairs of aggenital setae situated in longitudinally; two pairs of minute anal and three pairs of longer adanal setae present; anal setae situated more close to setae  $ad_2$  than  $ad_3$ ; lyrifissures *iad* positioned anterior to setae  $ad_3$ ; setae  $d$  on femora I situated in the middle, genua IV without setae; setal counts for leg segments (without tarsi): I: 1-2-3(2)-5(1), II: 1-2-3(1)-2(1), III: 1-2-2(1)-2(1), IV: 1-1-0-2(1).

##### Measurements

Specimens from Fujian Province: Prodorsum: length 200–204, width 145–155, height 79–85; setae: *ss* 60, *ro* 20, *le* 22, *in* 5, *ex* 10; mutual distance:  $in-in$  105,  $le-le$  27.5,  $ro-ro$  12.5; notogaster: length 340–360, width 215–250, height 235–260; setae:  $c_1$  35,  $c_p$  25,  $d_1$  35,  $e_1$  35,  $h_1$  30,  $ps_1$  25,  $ps_3$  30,  $c_1/c_1-d_1 \approx 0.4$ ; genito-aggenital plate  $90 \times 60$ , ano-adanal plate  $160 \times 40$ .

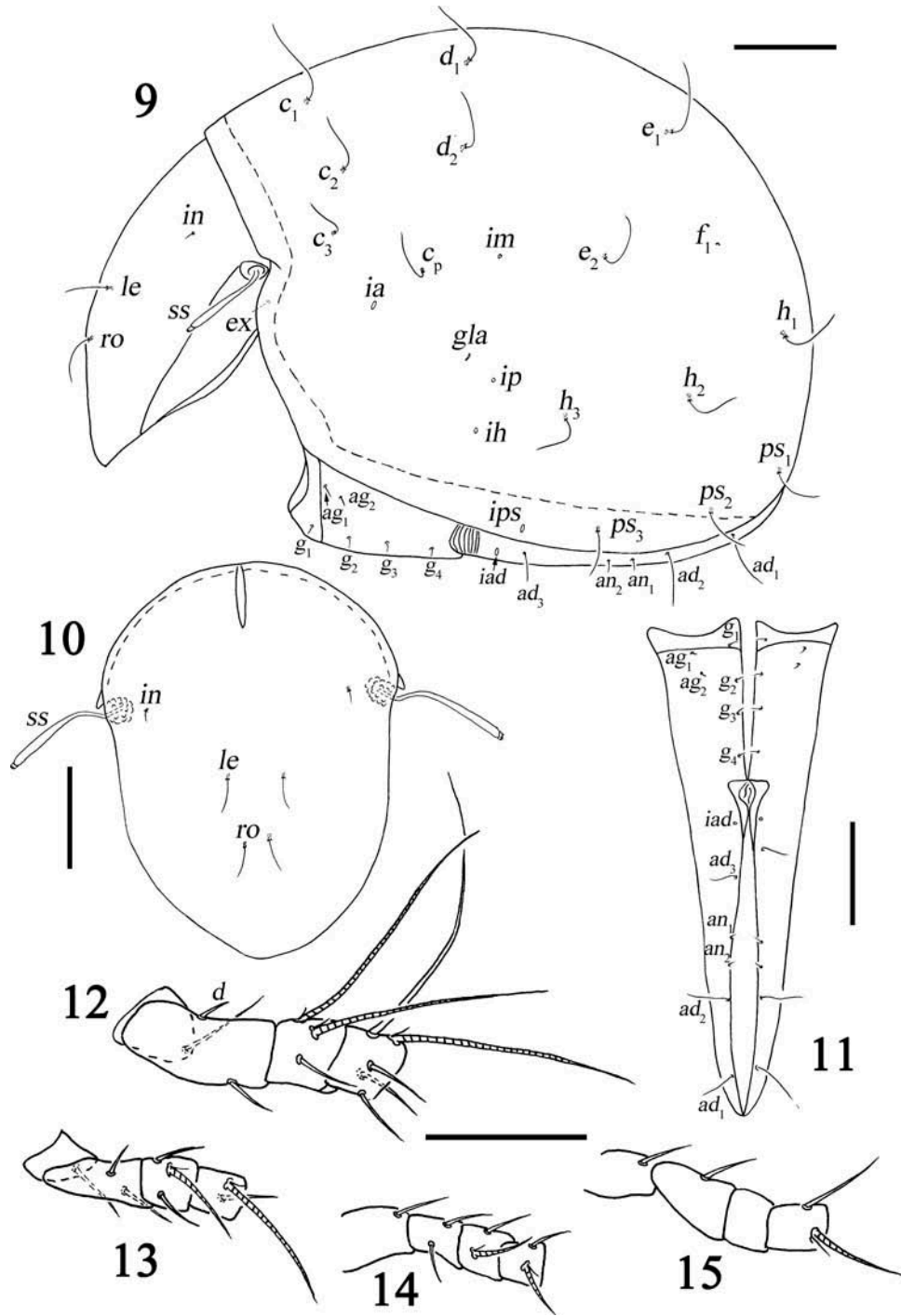
##### New localities in China

Twelve adults (National Zoological Museum of China, Institute of Zoology, Chinese Academy of Sciences, Beijing, China [NZMC], in alcohol, CJ-02-17), China, Hebei Province, Yangyuan, Hutouliang, from rotten wood, 12 May 2002, leg. Jun Chen; one adult (NZMC, in alcohol, W-90-87), China, Fujian Province, Jiangle County, Longqishan Mt., Shaxizi, from litter under mixed forest, 19 September 1990, leg. Hui-Fu Wang; 10 adults (NZMC, in alcohol, W-91-6), China, Fujian Province, Jiangle County, Longqishan Mt., from litter, 26 June 1991, leg. Xiao-Mei Zhang; one adult (NZMC, in alcohol, W-89-68), China, Fujian Province, Liancheng County, Quxi, Luosheng Village, Meihuashan Natural Reserve, from litter, 22 May 1989, leg. Yun-Qi Cui; one adult (NZMC, in alcohol, W-89-69), same data as W-89-

68; one adult (NZMC, in alcohol, W-89-70), same data as W-89-68; one adult (NZMC, in alcohol, W-89-73), 25 May 1989, other data same as W-89-68; one adult (NZMC, in alcohol, W-89-74), same data as W-89-73; 13 adults (NZMC, in alcohol, W-89-78), 24 May 1989, other data same as W-89-68; one adult (NZMC, in alcohol, W-89-30), China, Fujian Province, Wuyishan Mt., Guadun, from leaves (bamboo, arbour and grass) near cliff, 30 April 1989, leg. Hui-Fu Wang; four adults (NZMC, in alcohol, W-89-31), from leaves under bamboo, other data same other W-89-30; three adults (NZMC, in alcohol, W-89-31'), same data as W-89-31; three adults (NZMC, in alcohol, W-89-34), from litter under rotten wood, other data same as W-89-31; eight adults (NZMC, in alcohol, W-89-35), from leaves under cliff, other data same as W-89-31; one adult (NZMC, in alcohol, W-89-126), China, Hubei Province, Badong County, wood farm of Tiechang, 1500M, from litter under fir trees and shrub, 12 August 1989, leg. Yun-Qi Cui; one adult (NZMC, in alcohol, T0029), China, Hubei Province, Shennongjia, Muyu Town, from soil litter under oak, 25 August 1995, leg. Qing-Tian Li; one adult (NZMC, in alcohol, CG039), China, Guangxi Province, Shangsi County, Nanping, Changlong, 910M, from fungi under broad-leaved tree, 10 June 2000, leg. Jun Chen; two adults (NZMC, in alcohol, W-96-14), China, Guizhou Province, Leigongshan Mt., 950M, from litter under mixed forest, 25 September 1996, leg. unknown; three adults (NZMC, in alcohol, GZ-06-9), China, Guizhou Province, Guiyang, Forest Park, from rotten wood, 16 August 2006, leg. Jun Chen; one adult (NZMC, in alcohol, CJ-01-55), China, Tibet, Bowo, Zhamo, 2950M, from moss on rotten wood, 23 August 2001, leg. Jun Chen.

##### Remarks

This species has a semicosmopolitan distribution (Niedbała 2011), and some of the features show variation in different populations. From the arrangements of prodorsal setae, the specimens from China (Fujian Province) are similar to specimens from Germany and Kuril Islands, but the sensilli thinner and lamellar setae situated nearly in the middle between insertion levels of interlamellar and rostral setae in specimens from Kuril Islands, and the notogastral setae shorter and anal setae situated closer to setae  $ad_3$  than  $ad_2$  in Germany specimens (Märkel 1964; Niedbała 2011). Compared with other populations, the Chinese specimens (Fujian Province) also differ by the following features: distance between lamellar setae shorter (versus much longer in Italian specimens) (Mahunka and Paoletti 1984); notogastral setae longer (versus shorter in Polish specimens) (Niedbała 2008); two pairs of aggenital setae (versus one pair in Japanese specimens) (Aoki 1980); anal setae situated more close to setae  $ad_2$  than  $ad_3$  (versus closer to  $ad_3$  in other populations except Japanese specimens) (Niedbała 2000). In addition, palpal setation 2-1-7(1), genua I of legs with only three setae and genua IV without setae in Chinese specimens (Fujian Province).



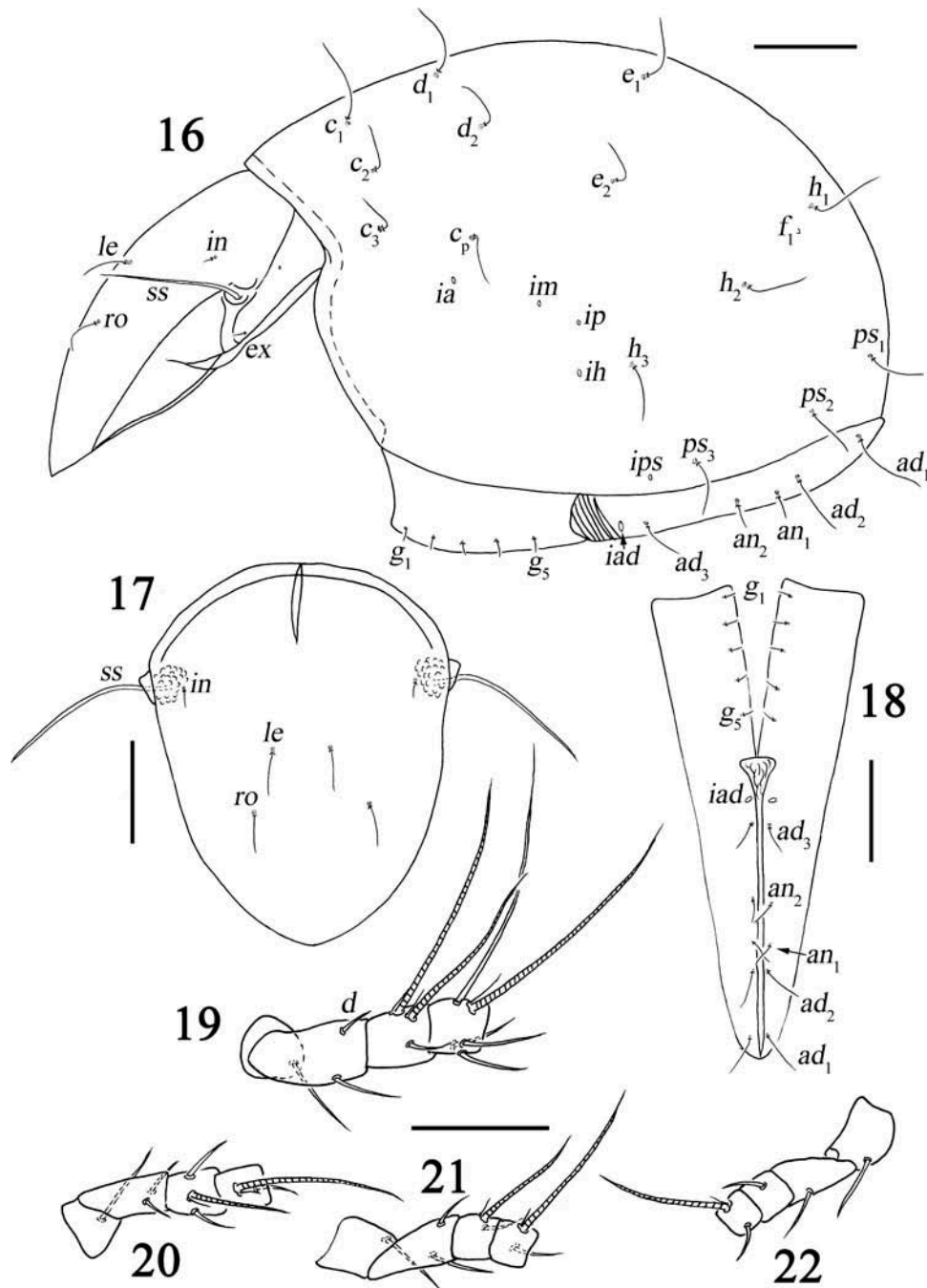
Figures 9–15. *Microtrititia minima* (Berlese, 1904): 9, lateral view of body (legs removed); 10, prodorsum, dorsal view; 11, ano-genital region; 12–15, trochanter, femur, genu and tibia: 12, leg I; 13, leg II; 14, leg III; 15, leg IV. Scale bars: 50  $\mu$ m.

***Microtrititia tropica* Märkel, 1964**  
(Figures 16–22)

*Diagnosis*

Prodorsum with one pair of lateral carinae; sensillus (*ss*) rough, long, narrow and pointed apically; interlamellar (*in*) and exobothridial setae (*ex*) minute; other prodorsal setae (*le*, *ro*) longer; comparative length:  $ss > le > ro > ex > in$ ; lamellar setae inserted close to each other and situated

more close to insertion level of rostral setae; distance between rostral setae longer than that between lamellar setae; mutual distance:  $in-in > ro-ro > le-le$ ; notogastral setae similar in shape and longer than rostral setae; vestigial setae  $f_1$  positioned slightly posterior to the level of setae  $h_1$ ; setae  $h$  of subcapitulum longer than distance between them; palpal with setation: 2-1-7(1); five pairs of genital setae, aggenital setae absent; three pairs of short anal (setae  $an_1$  vestigial, hardly discernible) and



Figures 16–22. *Microtritia tropica* Märkel, 1964: 16, lateral view of body (legs removed); 17, prodorsum, dorsal view; 18, ano-genital region; 19–22, trochanter, femur, genu and tibia: 19, leg I; 20, leg II; 21, leg III; 22, leg IV. Scale bars: 50  $\mu$ m.

three pairs of longer adanal setae; anal setae situated more close to setae  $ad_2$  than  $ad_3$ ; lyrifissures  $iad$  positioned anterior to setae  $ad_3$ ; setae  $d$  on femora I situated near distal ends of segments; setal counts for leg segments (without tarsi): I: 1-2-3(2)-5(1), II: 1-2-3(1)-2(1), III: 1-2-2(1)-2(1), IV: 1-1-1-2(1).

#### Measurements

Prodorsum: length 170–202, width 132–155, height 58–90; setae:  $ss$  79,  $ro$  22,  $le$  25,  $in$  3,  $ex$  5; mutual distance:

$in-in$  115,  $le-le$  30.4,  $ro-ro$  60; notogaster: length 295–355, width 197–242, height 185–256; setae:  $c_1$  30,  $c_p$  30,  $d_1$  30,  $e_1$  30,  $h_1$  30,  $ps_1$  25,  $ps_3$  25,  $c_1/c_1-d_1 \approx 0.55$ ; genito-aggential plate  $95 \times 50$ , ano-adanal plate  $135 \times 37$ .

#### New localities in China

Ten adults (NZMC, in alcohol, W-89-54), China, Fujian Province, Wuyishan County, from litter, 25 April 1989, leg. Hui-Fu Wang; one adult (NZMC, in alcohol, W-89-55), same data as W-89-54; one adult (NZMC,

in alcohol, W-89-54), China, Fujian Province, Longyan, from palm bark, 22 April 1996, leg. Yan-Xuan Zhang; one adult (NZMC, in alcohol, W-91-7), China, Fujian Province, Jiangle County, from litter, 26 June 1991, leg. Xiao-Mei Zhang; five adults (NZMC, in alcohol, W-94-1), China, Guangdong Province, Dinghushan Mt., from litter, May 1994, leg. Jian-Quan Lu; one adult (NZMC, in alcohol, W-96-4), from litter under mixed forest, March 1996, other data same as W-94-1; four adults (NZMC, in alcohol, W-96-6), from litter, other data same as W-96-4; one adult (NZMC, in alcohol, W-96-8), same data as W-96-6; one adult (NZMC, in alcohol, LD-07-51), China, Hainan Province, Changjiang County, Bawangling Natural Reserve, Fengshuiling, 22 km of east route, 1040M, from litter under pine tree, 3 August 2007, leg. Dong Liu.

#### Remarks

This species has a pantropical distribution (Niedbała 2011). Compared with type specimens from Peru, the Chinese specimens have the rostral setae more widely spaced (versus more closely inserted on the type specimens) (Märkel 1964). Compared with specimens from Borneo, the interlamellar setae are much shorter than lamellar and rostral setae, and the sensilli thinner, not clavate (versus interlamellar setae similar in length with lamellar and rostral setae and sensilli thicker and clavate in specimens from Borneo) (Ramsay and Sheals 1969).

#### Key to the known species of *Microtritia*

1. Median crista of prodorsum present; three pairs of prodorsal lateral carinae present ..... *Microtritia cristata* Niedbała 2012
- Median crista of prodorsum absent; less than three pairs of prodorsal lateral carinae present ..... 2
2. Two pairs of lateral carinae of prodorsum present 3
- One pair of lateral carinae of prodorsum present ... 4
3.  $ro-ro > le-le$ ; surface of notogaster and ventral plates striated ..... *Microtritia striatissima* Mahunka, 1999
- $le-le > ro-ro$ ; surface of notogaster and ventral plates not striated ..... *Microtritia bicarinata* **sp. nov.**
4.  $ro-ro \geq le-le$  ..... 5
- $ro-ro < le-le$  ..... 10
5. Seven pairs of genital and one pair of aggenital setae present ..... *Microtritia tumida* Niedbała, 1998
- Four or five pairs of genital setae present, and aggenital setae absent ..... 6
6. Sensilli narrow; five pairs of genital setae present .. 7
- Sensilli fusiform or swollen in the middle; four pairs of genital setae present ..... 8

7. Rostral setae very long, longer than sensilli;  $ro-ro/le-le < 2$  ..... *Microtritia paratropica* Niedbała, 2006
- Rostral setae short, much shorter than sensilli;  $ro-ro/le-le > 3$  ..... *Microtritia tropica* Märkel, 1964
8. Setae of body hardly discernible,  $c_1$  considerably shorter than one-fourth distance between  $c_1$  and  $d_1$  ..... *Microtritia glabrata* Starý, 1993
- Setae of body easily discernible,  $c_1$  longer than one-fourth distance between  $c_1$  and  $d_1$  ..... 9
9. Two pairs of genital setae situated on progenital position; notogastral setae short, shorter than one-half distance between  $c_1$  and  $d_1$  ..... *Microtritia hauseri* Mahunka, 1993
- No genital setae situated on progenital position; notogastral setae long, longer than one-half distance between  $c_1$  and  $d_1$  ..... *Microtritia fusa* Niedbała, 2000
10. Aggenital setae present ..... 11
- Aggenital setae absent ..... 14
11. Three pairs of aggenital setae present ..... *Microtritia fissurata* Märkel, 1968
- One or two pairs of aggenital setae present .... 12
12. One pair of aggenital setae present ..... *Microtritia simplex* (Jacot, 1930)
- Two pairs of aggenital setae present ..... 13
13. Exobothridial setae longer than lamellar and rostral setae ..... *Microtritia hawaiiensis* Niedbała, 1994
- Exobothridial setae shorter than lamellar and rostral setae ..... *Microtritia minima* (Berlese, 1904)
14. One pair of genital setae situated on progenital position; sensilli swollen in the middle ..... *Microtritia schusteri* Märkel, 1964
- No genital setae situated on progenital position; sensilli narrow or swollen at distal end ..... 15
15. Sensilli with distinct fusiform head ..... 16
- Sensilli narrow without head ..... 18
16. Exobothridial setae not vestigial; anterior margin of prodorsum irregular ..... *Microtritia pinarensis* Niedbała & Starý, 2010
- Exobothridial setae vestigial; anterior margin of prodorsum regular ..... 17
17. Anal setae vestigial; rostral setae situated more close to anterior margin of prodorsum than lamellar setae ..... *Microtritia incisa* Märkel, 1964
- Anal setae not vestigial; rostral setae situated more close to lamellar setae than anterior margin of prodorsum .. *Microtritia contraria* Niedbała, 1993
18. Setae  $an_2$  situated anterior to  $ad_2$ ; anterior margin of prodorsum not serrate ..... *Microtritia mirifica* Niedbała, 2004
- Setae  $an_2$  situated posterior to  $ad_2$ ; anterior margin of prodorsum serrate ..... 19



19. Lyrifissures *iad* situated posterior to setae *ad*<sub>3</sub>; notogaster without terminal fissure ..... *Microtrititia stria* Liu & Zhang, 2014  
 – Lyrifissures *iad* situated anterior to setae *ad*<sub>3</sub>; notogaster with terminal fissure ..... *Microtrititia novaezealandiensis* Niedbala, 2006

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