

Linzer biol. Beitr.	51/1	285-302	26.07.2019
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Five new species of *Chinecallicerus* from China (Coleoptera, Staphylinidae, Aleocharinae, Geostibini)

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Abstract: Five species of *Chinecallicerus* ASSING, 2004 from China are described and illustrated: *Chinecallicerus formidabilis* nov.sp. (North Sichuan), *C. glabriventris* nov.sp. (West Yunnan), *C. reuteri* nov.sp. (North Sichuan), *C. feldmanni* nov.sp. (North Sichuan), and *C. discrepans* nov.sp. (North Sichuan). An updated key to the *Chinecallicerus* species is provided. The distributions of the new species and their respective closest relatives are mapped. Including the new species, the genus now includes 18 species, nine of which have been recorded from the Chinese province Yunnan, eight from Sichuan, and one from Qinghai. All the species are known only from their respective type localities, fourteen of them are represented exclusively by their respective holotypes.

Key words: Coleoptera, Staphylinidae, Aleocharinae, Geostibini, *Chinecallicerus*, China, Yunnan, Sichuan, taxonomy, new species, key to species, distribution map.

Introduction

The known distribution of *Chinecallicerus* ASSING, 2004 is confined to China. The genus was previously represented by thirteen species, eight of them recorded from Yunnan, four from Sichuan, and one from Qinghai (ASSING 2004, 2006, 2009, 2015, 2017, 2018). Records of *Chinecallicerus* are accidental and extremely rare. All the species are known only from their respective type localities and nine species are represented exclusively by their respective holotypes.

Among recently collected material of Staphylinidae from the National Museum Prague and the Moravian Museum Brno, two specimens of *Chinecallicerus* from Sichuan and Yunnan were discovered. Three additional specimens recently collected by Christoph Reuter (Hamburg) were made available to me by Benedikt Feldmann (Münster). A comparison with the previously described species revealed that all of them represented undescribed species. The currently known species of *Chinecallicerus* can all be reliably identified based on external characters alone, so that descriptions based on one sex only are justifiable.

Material and methods

The material treated in this study is deposited in the following collections:
NMP..... National Museum Prague, Czech Republic (J. Hájek)

SCS.....Sichuan University Chengdu, China (loan arranged by Petr Baňář, Moravian Museum Brno)

cAss.....author's private collection

The morphological studies were conducted using a Stemi SV 11 microscope (Zeiss), a Discovery V12 microscope (Zeiss), and a Jenalab compound microscope (Carl Zeiss Jena). The images were created using a digital camera (Nikon Coolpix 995) and Axiocam ERc 5s. The map was created using MapCreator 2.0 (primap) software.

Body length was measured from the anterior margin of the labrum to the abdominal apex, the length of the forebody from the anterior margin of the labrum to the posterior margin of the elytra, head length from the anterior margin of the clypeus (without anteclypeus) to the posterior constriction of the head, elytral length at the suture from the apex of the scutellum to the posterior margin of the elytra, and the length of the aedeagus from the apex of the ventral process to the base of the aedeagal capsule. The "parameral" side (i.e., the side where the sperm duct enters) is referred to as the ventral, the opposite side as the dorsal aspect.

Updated key to the species of *Chinecallicerus*

- 1 Conspicuously large species from Qinghai and North Sichuan; length of forebody at least approximately 3.2 mm. Head (except for a glossy median band) and pronotum with conspicuously dense punctation (Fig. 4). Anterior tergites of abdomen with very dense and rather coarse punctation (Fig. 6).....2
- Length of forebody 3.0 mm at most. Head and pronotum not with conspicuously dense granulose punctation. Anterior abdominal tergites with less dense and/or distinctly finer punctation.3
- 2 Coloration paler: elytra pitchy-reddish, somewhat contrasting with the black head and pronotum; femora and tibiae reddish; antennomere I brown; maxillary palpomeres II and III reddish. Length of forebody approximately 3.2 mm. Punctation of pronotum granulose (ASSING 2018: figure 25), that of elytra ill-defined and confluent. Abdomen: anterior impressions of tergites III-V punctate; discs of tergites III-V with extremely dense punctation (ASSING 2018: figures 13-14, 9). Spermatheca smaller, maximal extension little more than 0.3 mm, and shaped as in ASSING (2018: figure 15). Qinghai (Map 1). *granulosissimus* ASSING
- Coloration darker: elytra black, of similar coloration as head and pronotum; femora and tibiae dark-brown; antennae completely black; maxillary palpomeres II and III blackish. Length of forebody 3.6 mm. Punctation of pronotum not granulose (Fig. 4), that of elytra defined and not confluent. Abdomen: anterior impressions of tergites III-V practically impunctate; discs of tergites III-V with less dense punctation (Fig. 6). Spermatheca larger, maximal extension 0.44 mm, and shaped as in Fig. 7. North Sichuan (Map 1). *formidabilis* nov.sp.
- 3 Abdomen very glossy, without microsculpture and with fine and conspicuously sparse punctation (Fig. 12); interstices on tergites VI and VII on average at least five times as broad as diameter of punctures (Fig. 14); anterior impressions of tergites III-V impunctate (Fig. 13). Northwest and West Yunnan.4
- Abdomen with denser punctation; interstices on tergites VI and VII on average much less than five times as broad as diameter of punctures; microsculpture mostly present.5
- 4 Body larger; length of forebody approximately 2.9 mm. Antennae longer and more massive; antennomeres IV-X approximately as long as broad or weakly transverse (ASSING 2006: figure 15). Pronotum and elytra with less fine punctation. Male tergites III with pronounced median tubercle, IV with small transverse median tubercle, and VII with horseshoe-shaped elevation in postero-median portion (ASSING 2006: figures 18-20). Median lobe of aedeagus 0.68 mm long. Spermatheca as in ASSING (2006: figure 27). Northwest Yunnan (Map 1).. *wrasei* ASSING

- Body smaller; length of forebody 2.5 mm. Antennae shorter and much more slender; antennomeres IV-X all distinctly oblong (Fig. 10). Pronotum and elytra with finer punctation (Fig. 11). Only male tergite III with median tubercle (Figs 12-13); tergites IV and VII unmodified. Median lobe of aedeagus much smaller, 0.54 mm long (Figs 15-16). West Yunnan (Map 1).....*glabriventris* nov.sp. 6
- 5 Pronotum large in relation to head and weakly convex in cross-section (Fig. 24 and ASSING 2018: figures 21, 27), at least approximately 1.15 times as broad as long and at least approximately 1.3 times as broad as head. Head distinctly transverse.6
- Pronotum smaller in relation to head and mostly more strongly convex, significantly less than 1.3 times as broad as head.9
- 6 Abdominal tergite VI with pronounced anterior impression (ASSING 2018: figure 23). Head (ASSING 2018: figure 21) approximately 1.2 times as broad as long. Pronotum (ASSING 2018: figure 21) approximately 1.15 times as broad as long and 1.3 times as broad as head, with fine, but distinct punctation. Elytral punctation extremely dense and somewhat asperate. Larger species; length of forebody 2.7-3.0 mm. Antennae (ASSING 2018: figure 22) long and slender; antennomeres IV-X distinctly oblong. Spermatheca as in ASSING (2018: figure 16). North Sichuan. *transversus* ASSING
- Abdominal tergite VI without anterior impression (ASSING 2018: figures 29, 37). Head (ASSING 2018: figures 27, 34) less transverse, 1.12-1.13 times as broad as long. Pronotum (ASSING 2018: figures 27, 34) relatively larger, at least nearly 1.4 times as broad as head. Elytral punctation not asperate. Smaller species; length of forebody 2.1-2.2 mm. Antennae (ASSING 2018: figures 28, 35) much shorter and much more massive, antennomeres VI-VIII transverse. Northwest Yunnan.....7
- 7 Pronotum (ASSING 2018: figure 34) 1.6 times as broad as head; middle of posterior margin distinctly produced; punctation fine, but distinct. Antennomere IV weakly oblong; antennomere X weakly transverse (ASSING 2018: figure 35). Dilatation of elytra granulose (ASSING 2018: figure 34). Maxillary palpomere III plicated. Male tergites III, IV, and VII each with a pronounced median tubercle posteriorly (ASSING 2018: figures 36-37). Median lobe of aedeagus as in ASSING (2018: figures 50-51). Gaoligong Shan. *trituberculatus* ASSING
- Pronotum approximately 1.3-1.4 times as broad as head (Fig. 24 and ASSING 2018: figure 27); middle of posterior margin not produced.....8
- 8 Body larger, length of forebody 2.6 mm. Antenna (Fig. 23) slender, with distinctly oblong antennomeres IV-VII; antennomere IV of similar shape as antennomere V. Median dorsal portion of head flat and matt (Fig. 24). Pronotum flat with extensively impressed disc and distinct punctation (Fig. 24). Abdomen (Fig. 25) with rather coarse punctation. Male tergites VII and VIII with conspicuous modifications (Figs 26-27). Median lobe of aedeagus as in Figs 28-29. North Sichuan. *feldmanni* nov.sp.
- Body smaller; length of forebody 2.0 mm. Antenna massive, with transverse antennomeres IV-VII; antennomere IV much smaller than antennomere V (ASSING 2018: figure 28). Median dorsal portion of head convex in cross-section and moderately glossy. Pronotum convex in cross-section and with extremely fine, barely visible punctation (ASSING 2018: figure 27). Abdomen with extremely fine punctation. Spermatheca as in ASSING (2018: figure 32). Gaoligong Shan..... *grandicollis* ASSING
- 9 Head (ASSING 2018: figure 8) of orbicular shape, slightly longer than broad; lateral margins behind eyes smoothly convex, posterior angles obsolete. Eyes (ASSING 2018: figure 9) flat, not protruding from lateral contours of head, and very small, less than 0.3 times as long as postocular region in dorsal view. Elytra (ASSING 2018: figure 8) short, approximately 0.75 times as long as pronotum. Posterior margin of abdominal tergite VII only with narrow rudiment of a palisade fringe. Antennae (ASSING 2018: figure 10) slender; antennomeres IV-X all longer than broad. Spermatheca as in ASSING (2018: figure 12). Sichuan. *orbiculatus* ASSING
- Head of different shape; posterior angles at least weakly indicated. Eyes distinctly convex and much larger, more than half as long as postocular region in dorsal view. Elytra longer. Posterior margin of tergite VII with distinct palisade fringe.10
- 10 Whole forebody with pronounced microsculpture, practically matt (Fig. 31 and ASSING 2015: figures 1-2, 4, 10-11, 13). Head and pronotum with barely noticeable punctation.. 11

- Forebody with some shine; at least head or elytra with superficial microculpture. Head and/or pronotum mostly with more distinct punctation. 12
- 11 Body larger; length of forebody 2.6 mm. Pronotum weakly convex in cross-section and distinctly transverse (Fig. 31). Legs brown. Abdominal tergite VI with pronounced anterior impression (Fig. 34). Anterior impressions of tergites III-VI distinctly punctate in median portion and impunctate in lateral portions (Fig. 34). Male tergite VII with pronounced, spine-shaped and erect tubercle in postero-median portion (Figs 37-38). Posterior margin of male tergite VIII with three pronounced teeth on either side. Median lobe of aedeagus as in Figs 35-36. North Sichuan.....*discrepans* nov.sp.
- Body smaller; length of forebody 2.4 mm long at most. Pronotum distinctly convex in cross-section and indistinctly transverse at most. Legs yellowish. Abdominal tergite VI without anterior impression. Anterior impressions of tergites III-V practically impunctate. 14
- 12 Body larger; length of forebody 2.4 mm. Antenna longer, 2.4-2.5 mm long; all antennomeres distinctly oblong (ASSING 2015: figure 12). Eyes more strongly convex and larger, longer than distance between posterior margin of eye to posterior constriction of head (ASSING 2015: figure 10). Spermatheca as in ASSING (2015: figure 15). Southeast Yunnan.*reticulatus* ASSING
- Body smaller; length of forebody 2.1 mm long at most. Antennae shorter, 1.8 mm long at most; at least antennomeres IV-VIII weakly transverse or as long as broad. Eyes less convex and smaller, approximately as long as distance between posterior margin of eye to posterior constriction of head at most..... 13
- 13 Maxillary palpi blackish-brown, except for the needle-shaped palpomere IV. Antennae blackish and longer, approximately 1.8 mm long; antennomeres VI-X not transverse, X even somewhat oblong (ASSING 2015: figure 3). Male tergite VII with small median tubercle (ASSING 2015: figure 5). Posterior margin of male tergite VIII truncate in the middle (ASSING 2015: figure 6). Median lobe of aedeagus as in ASSING (2015: figures 8-9). Northeast Yunnan.*subater* ASSING
- Maxillary palpi yellowish. Antennae reddish to reddish-brown and approximately 1.5 mm long; antennomeres IV-X at least weakly transverse (ASSING 2018: figure 1). Male tergite VII with long median carina posteriorly (ASSING 2018: figures 2-3). Male tergite VIII with smoothly convex posterior margin (ASSING 2018: figure 2). Median lobe of aedeagus as in ASSING (2018: figure 4-5). Spermatheca as in ASSING (2018: figure 6). North Sichuan.....*carinatus* ASSING
- 14 Larger species; length of forebody 2.7 mm. Head weakly oblong. Pronotum slender, as long as broad, with sinuate lateral margins posteriorly, and with very dense granulose punctation (Fig. 18). Abdomen (Fig. 19) with rather coarse punctation on tergites III-VI. Male tergites III, IV, and VII with distinctive modifications (Figs 19-20). Median lobe of aedeagus as in Figs 21-22. North Sichuan..... *reuteri* nov.sp.
- Smaller species; length of forebody < 2.5 mm. Head transverse. Pronotum noticeably transverse; lateral margins not sinuate and punctation not granulose. Abdomen with very fine punctation..... 15
- 15 Coloration paler: anterior abdominal segments, abdominal apex, and antennae yellowish-brown to reddish-brown. Eyes weakly bulging and smaller, distinctly shorter than postocular region in dorsal view. Elytra with granulose punctation and weak longitudinal elevation on either side of suture (ASSING 2004: figure 8). Spermatheca as in ASSING (2004: figure 13). Northwest Yunnan.....*schuelkei* ASSING
- Coloration darker: abdomen and antennae blackish-brown to blackish. Eyes bulging and larger, approximately as long as postocular region in dorsal view. Elytra with fine, not distinctly granulose punctation..... 16
- 16 Antennomere IV approximately as long as wide, V-X oblong (ASSING 2006: figure 3). Elytra at suture distinctly longer than pronotum. Legs yellowish. Posterior margin of male tergite VIII produced in the middle and somewhat truncate, but not distinctly serrate (ASSING 2006: figure 8). Median lobe of aedeagus 0.53 mm long, shaped as in ASSING (2006: figures 10-11). West Yunnan.*laevigatus* ASSING

- Antennomere IV wider than long (ASSING 2017: figure 2). Elytra approximately as long as, or shorter than pronotum (ASSING 2017: figure 1). Coloration of mid- and hindlegs predominantly brown. Posterior margin of tergite VIII serrate or bicuspidate.17
- 17 Larger species; length of forebody 2.4 mm. Antennae longer, length 2.0 mm; antennomeres V-X weakly oblong (ASSING 2017: figure 2). Head and pronotum glossy (ASSING 2017: figure 1). Elytra shorter than pronotum (ASSING 2017: figure 1). Anterior half of tergite VII with sparse, but distinct punctation (ASSING 2017: figure 4). Male tergite VII (ASSING 2017: figures 3-4) with pronounced fin-shaped median tubercle. Male tergite VIII bicuspidate posteriorly (ASSING 2017: figure 4). Median lobe of aedeagus larger, 0.6 mm long, and shaped as in ASSING (2017: figures 5-6). Sichuan.*pinnatus* ASSING
- Smaller species; length of forebody 2.2 mm. Antennae shorter, antennomeres V-X approximately as long as wide or weakly transverse (ASSING 2009: figure 3). Head and pronotum with subdued shine. Elytra approximately as long as pronotum (ASSING 2009: figure 2). Abdominal tergite VII virtually impunctate in anterior half (ASSING 2009: figure 4). Male tergite VII with small smooth median tubercle. Posterior margin of tergite VIII serrate (ASSING 2009: figure 5). Median lobe of aedeagus smaller, 0.44 mm long, shaped as in ASSING (2009: figure 7). West Yunnan.....*serratus* ASSING

Descriptions

Chinecallicerus formidabilis nov.sp. (Figs 1-7, Map 1)

Type material: Holotype ♀: "China, N Sichuan, Xiao-Zhaizi Nat. Nature Reserve, 7 km W of Qingpianxiang, Xiaozhaizi, 32°1'25"N 103°56'21"E, 27.VI.-I.VII.2017, 1560-1700 m, lgt. Ondřej Konvička / Holotypus ♀ *Chinecallicerus formidabilis* sp. n., det. V. Assing 2018" (SCS).

E t y m o l o g y : The specific epithet (Latin, adjective) alludes to the formidable size and appearance of this species.

D e s c r i p t i o n : Largest species of the genus; body length 8.2 mm; length of forebody 3.5 mm. Habitus as in Fig. 1. Coloration: body blackish; legs brown with dark-yellowish tarsi; antennae black; maxillary palpi blackish with the apical palpomere yellow.

Head (Fig. 4) slender, weakly oblong, and of subtrapezoid shape, broadest across eyes; lateral margins behind eyes converging posteriad and nearly straight; punctation very dense, partly slightly granulose, along middle of dorsal surface with a glossy, nearly impunctate band with shallow microreticulation (Fig. 2). Eyes strongly convex, approximately 0.7 times as long as distance from posterior margin of eye to posterior constriction of head in dorsal view. Antenna (Fig. 3) very long (length 3.2 mm) and moderately massive; antennomeres IV weakly oblong, V longer than IV and approximately 1.5 times as long as broad, VI-X each longer than V and of similar shape, and XI elongate, approximately as long as the combined length of IX and X. Maxillary palpomere III rather slender, not distinctly modified.

Pronotum (Fig. 4) 1.04 times as broad as long and 1.35 times as broad as head; punctation extremely dense and non-granulose; surface only with subdued shine.

Elytra (Fig. 4) 0.94 times as long as pronotum; punctation extremely dense, shallow, but defined; surface nearly matt. Hind wings fully developed. Legs very long and slender; length of metatibia 1.5 mm.

Abdomen (Fig. 5) narrower than elytra; tergites III-V with moderately deep and nearly impunctate anterior impressions, punctation of remainder of tergal surfaces rather coarse, dense on anterior tergites (Fig. 6), decreasing in density towards apex of abdomen, very

sparse on tergite VII; interstices with very shallow and fine transverse microstriae visible only at high magnification (100 x); posterior margin of tergite VII with palisade fringe.

♂: unknown.

♀: posterior margin of tergite VIII convex; sternite VIII weakly concave in the middle; spermatheca large (maximal extension 0.44 mm) and strongly sclerotized, shaped as in Fig. 7.

Comparative notes: Based on external characters (conspicuously large size; habitus; head shape; extremely dense punctation of the forebody; very dense punctation of the anterior tergites of the abdomen), this species is undoubtedly most closely allied to *C. granulosissimus* ASSING, 2018 from Qinghai. It is distinguished from this species by slightly larger size, darker coloration of the elytra, legs, and antennae (*C. granulosissimus*: elytra pitchy-reddish; legs reddish-brown; at least antennomere I brown), non-granulose punctation of the pronotum, defined punctation of the elytra (*C. granulosissimus*: elytra punctation ill-defined and confluent), distinctly less dense punctation of the abdomen, practically impunctate anterior impressions of tergites III-V (punctate in *C. granulosissimus*), even longer legs (*C. granulosissimus*: length of metatibia 1.35 mm), and by a larger spermatheca of different shape (*C. granulosissimus*: maximal extension 0.32 mm). For illustrations of *C. granulosissimus* see ASSING (2018).

Distribution and natural history: The type locality is situated in North Sichuan (Map 1) at an altitude of 1560-1700 m. Additional data are not available.

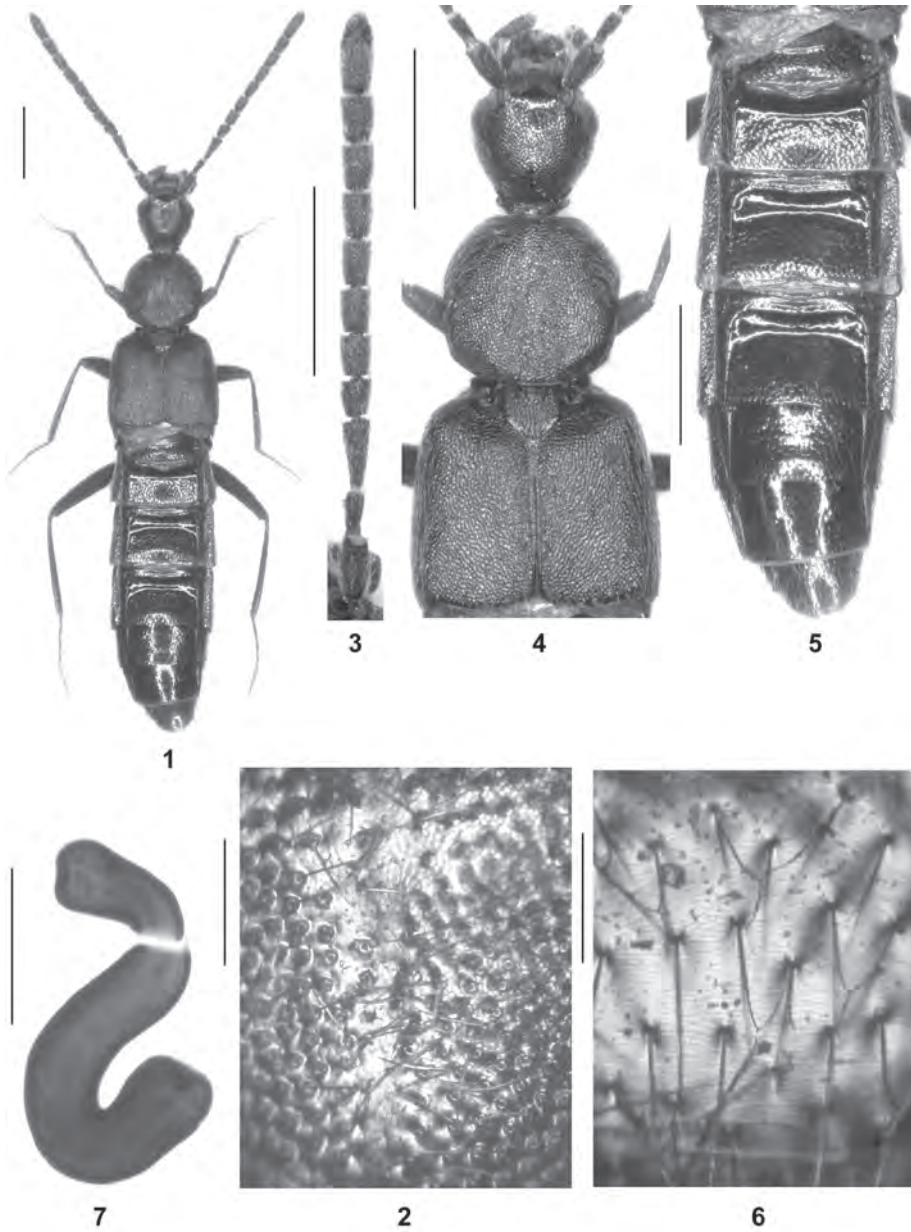
***Chinecallicerus glabriventris* nov.sp. (Figs 8-16, Map 1)**

Type material: Holotype ♂: "China: Yunnan Prov., Gaoligong Mts NNR, 1.0-1.1 km SE of Konshu vill., 25°43.10-16'N, 98°38.31-35'E, J. Hájek & J. Růžicka leg. / Ch21, 23) 30.vi.2016; 2180-2240 m, sift #16, broad-leaved forest, wet debris under bamboo in narrow valley near brook / Holotypus ♂ *Chinecallicerus glabriventris* sp. n., det. V. Assing 2018" (NMP).

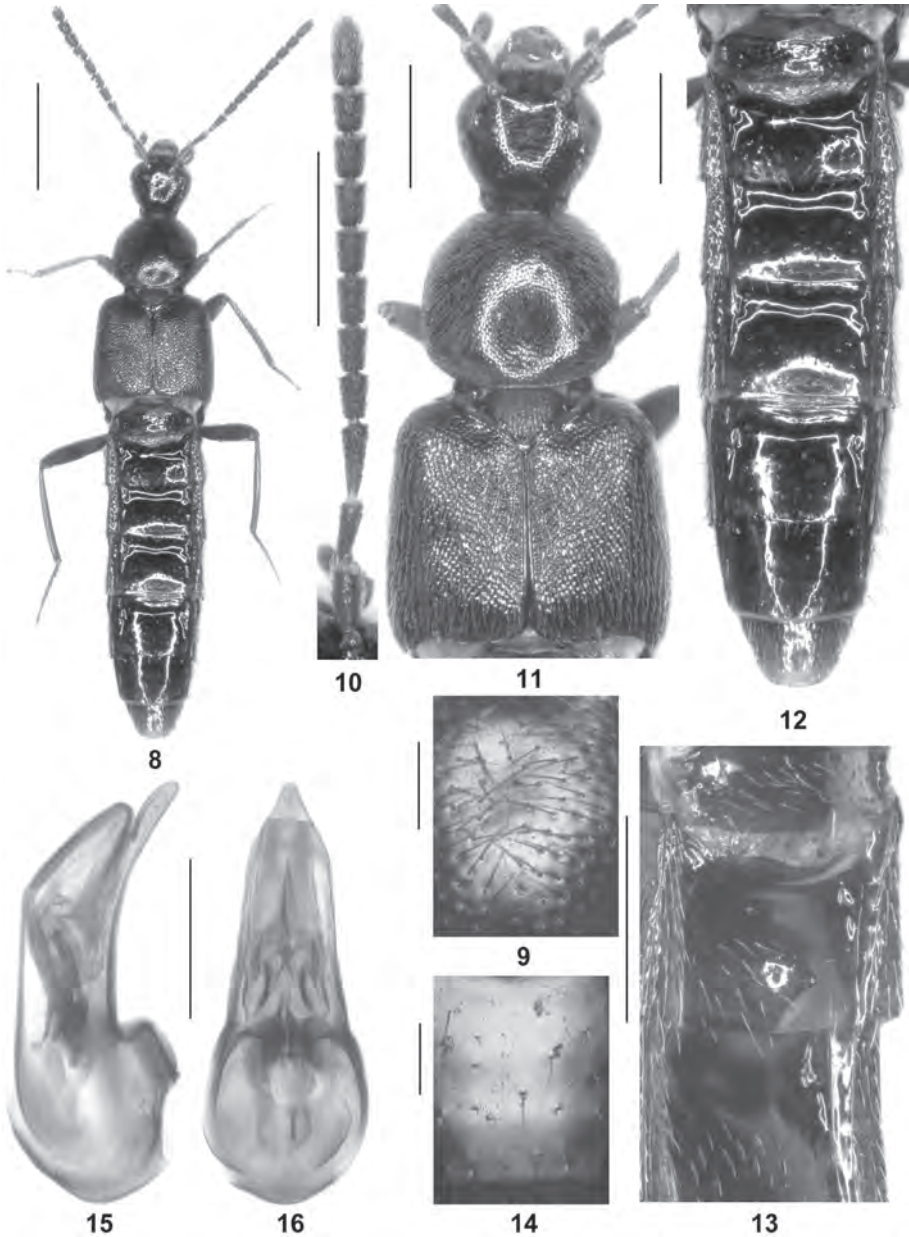
Etymology: The specific epithet (Latin, adjective) alludes to conspicuously sparsely punctate and very glossy abdomen.

Description: Body length 5.7 mm; length of forebody 2.5 mm. Habitus as in Fig. 8. Coloration: head black; pronotum and elytra dark-brown; abdomen black with the posterior margins of tergites III-VII and the posterior portion of tergite VIII reddish; legs reddish with paler tarsi; antennae blackish with antennomeres I reddish-brown and II-III dark-brown; maxillary palpi brown with the apical palpomere pale-yellowish.

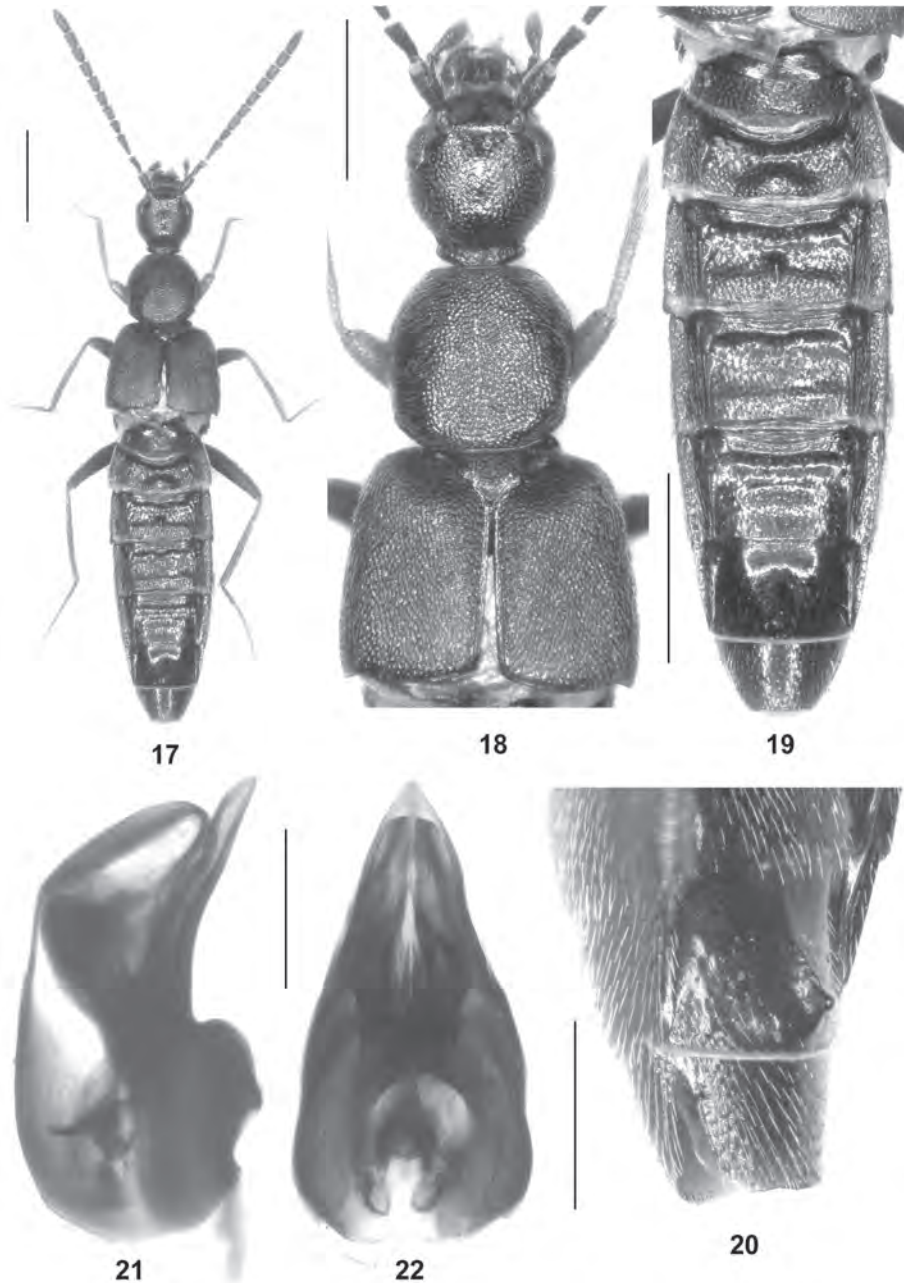
Head (Fig. 11) moderately transverse, approximately 1.1 times as broad as long; posterior angles obsolete, i.e., head gradually tapering behind eyes in dorsal view; punctation dense and fine, but distinct (Fig. 9); interstices without microsculpture and glossy. Eyes distinctly convex and large, approximately as long as distance from posterior margin of eye to posterior constriction of head in dorsal view. Antenna (Fig. 10) 1.9 mm long and slender; antennomeres IV nearly twice as long as broad, V-X of gradually decreasing length and decreasingly oblong, X weakly oblong, and XI barely as long as the combined length of IX and X. Maxillary palpomere III weakly dilated.



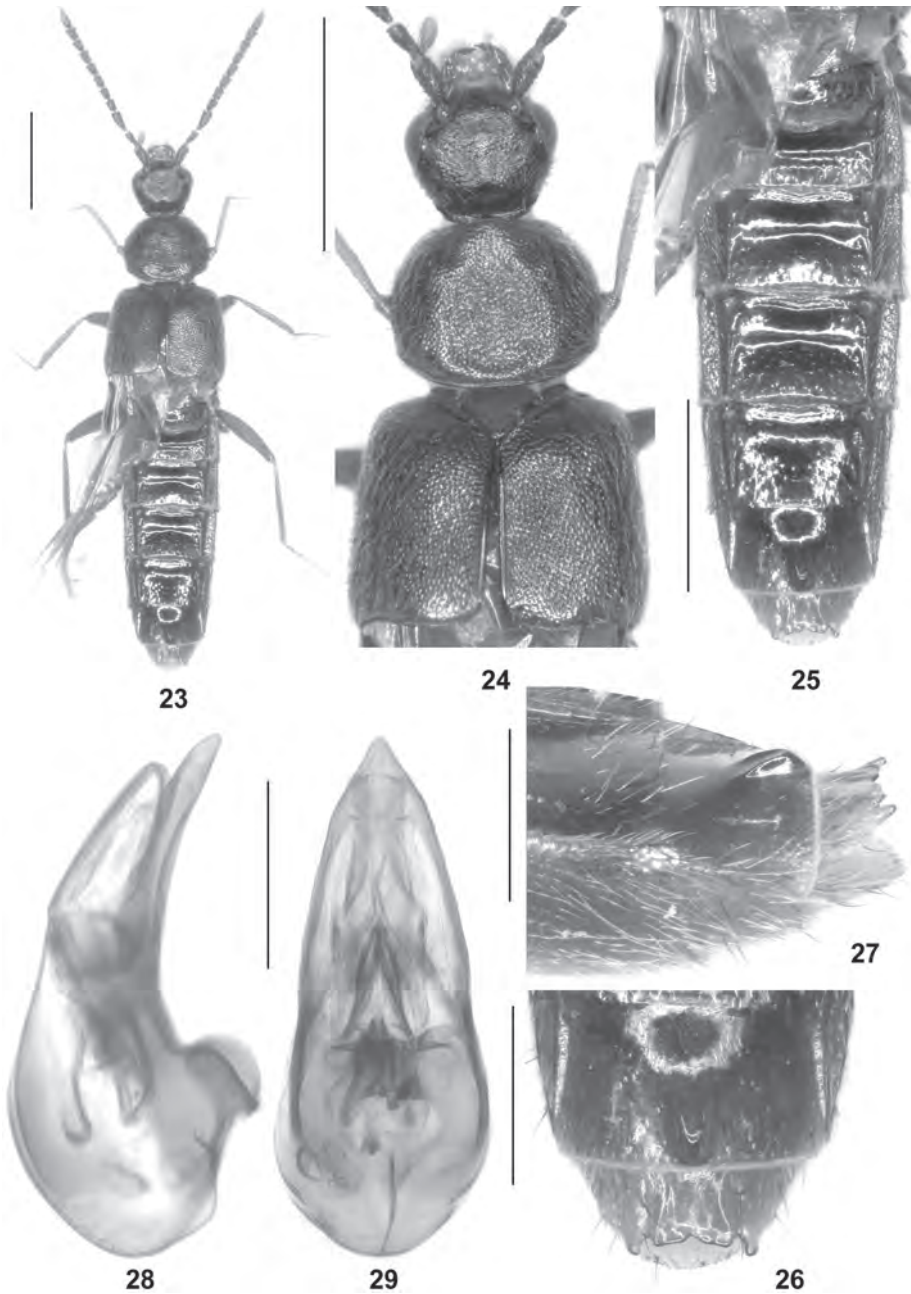
Figs 1-7: *Chinecallicerus formidabilis*: habitus (1); antero-median dorsal portion of head (2); antenna (3); forebody (4); abdomen (5); median portion of tergite III (6); spermatheca (7). Scale bars: 1, 3-5: 1.0 mm; 7: 0.2 mm; 2, 6: 0.1 mm.



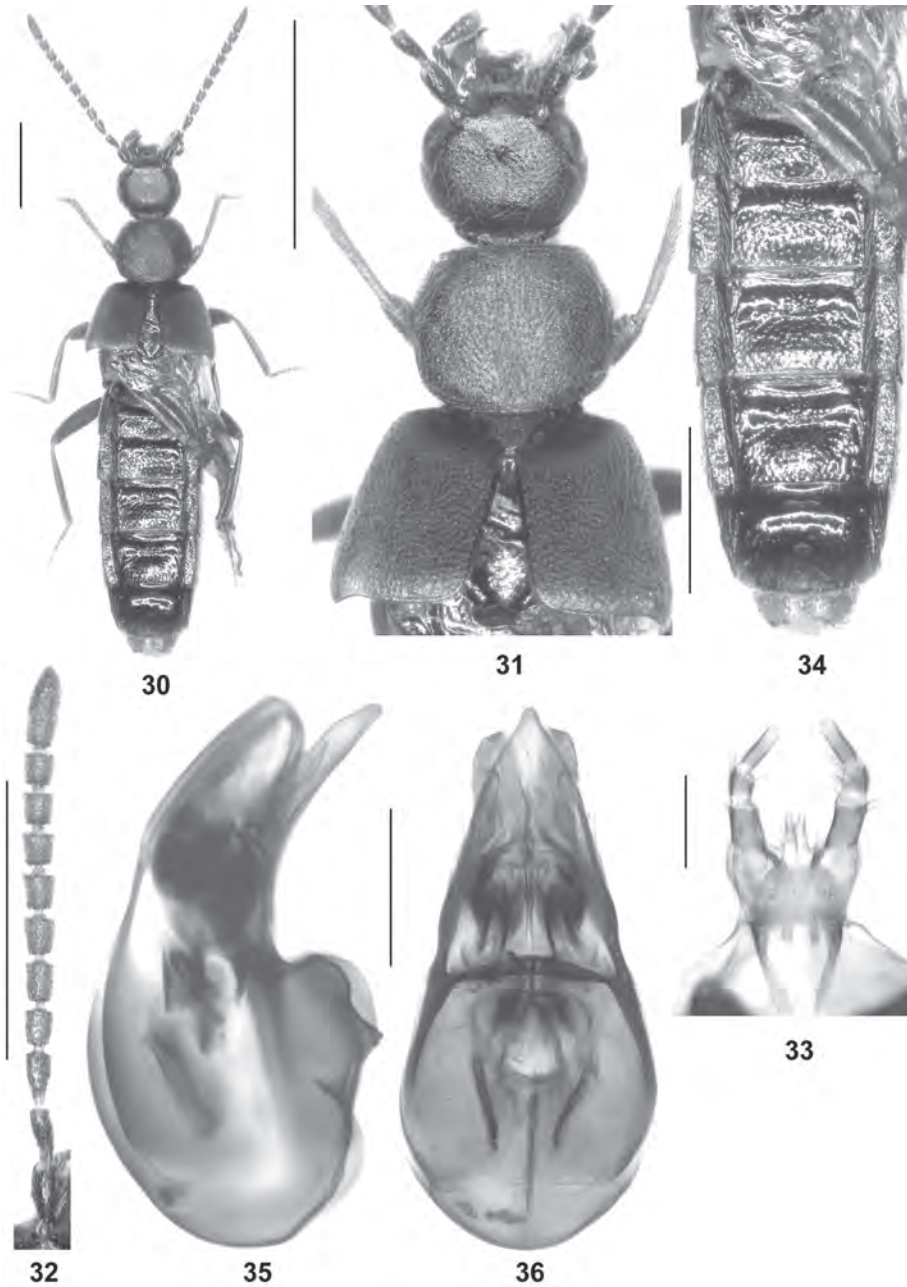
Figs 8-16: *Chinecallicerus glabriventris*: habitus (8); median dorsal portion of head (9); antenna (10); forebody (11); male abdomen (12); anterior portion of male abdomen in dorso-lateral view (13); median portion of tergite VI (14); median lobe of aedeagus in lateral and in ventral view (15-16). Scale bars: 8: 1.0 mm; 10-13: 0.5 mm; 15-16: 0.2 mm; 9, 14: 0.1 mm.



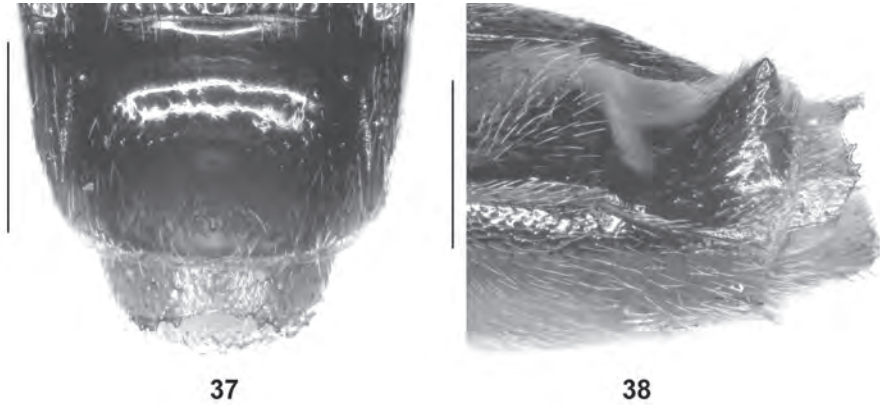
Figs 17-22: *Chinecallicerus reuteri*: habitus (17); forebody (18); male abdomen (19); segments VII and VIII of male abdomen in dorso-lateral view (20); median lobe of aedeagus in lateral and in ventral view (21-22). Scale bars: 17-19: 1.0 mm; 20: 0.5 mm; 21-22: 0.2 mm.



Figs 23-29: *Chinecallicerus feldmanni*: habitus (23); forebody (24); male abdomen (25); tergites VII and VIII of male abdomen (26); segments VII and VIII of male abdomen in dorso-lateral view (27); median lobe of aedeagus in lateral and in ventral view (28-29). Scale bars: 23-25: 1.0 mm; 26-27: 0.5 mm; 28-29: 0.2 mm.



Figs 30-36: *Chinecallicerus discrepans*: habitus (30); forebody (31); antenna (32); labium (33); male abdomen (34); median lobe of aedeagus in lateral and in ventral view (35-36). Scale bars: 30-32, 34: 1.0 mm; 35-36: 0.2 mm; 33: 0.1 mm.



Figs 37-38: *Chinocallicerus discrepans*: tergites VII and VIII of male abdomen (37); segments VII and VIII of male abdomen in dorso-lateral view (38). Scale bars: 0.5 mm.

Pronotum (Fig. 11) 1.08 times as broad as long and 1.3 times as broad as head, broadest in posterior half; disc moderately convex in cross-section; posterior margin smoothly convex; punctation dense, fine, and defined; interstices without microsculpture.

Elytra (Fig. 11) slightly longer than pronotum; punctation very dense, coarser than that of pronotum, and somewhat asperate; interstices without microsculpture. Hind wings fully developed.

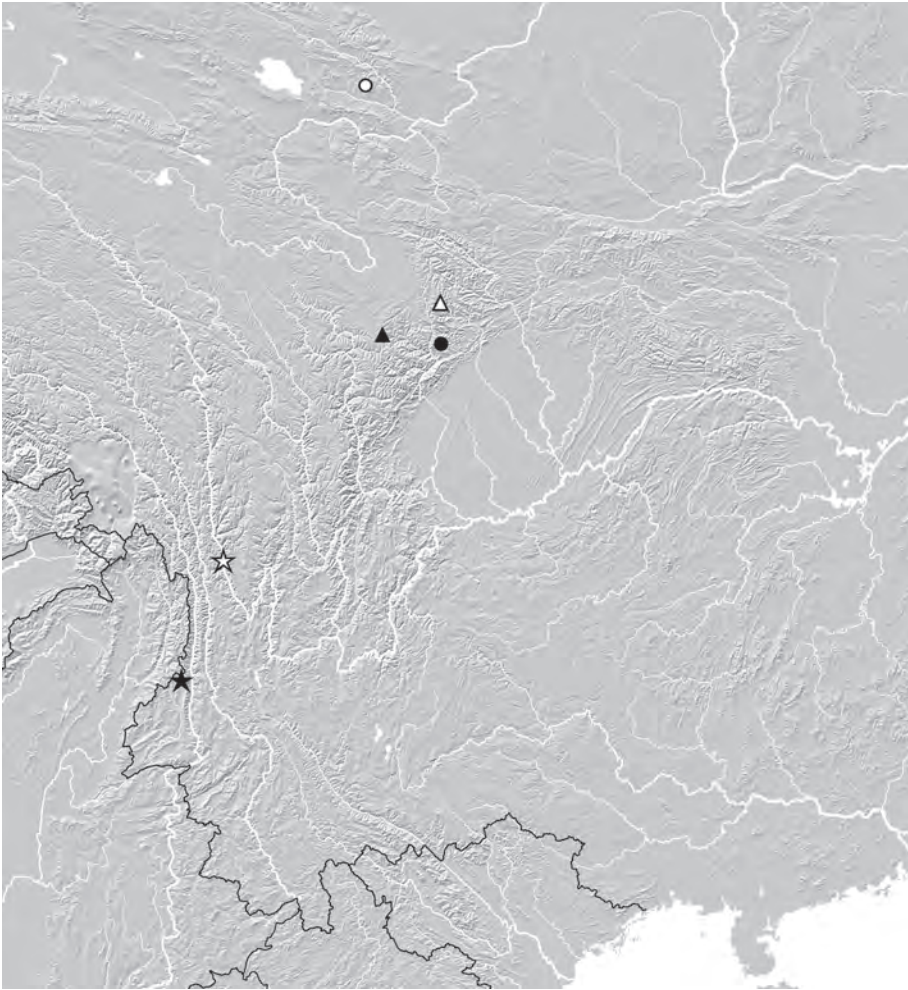
Abdomen (Fig. 12) narrower than elytra and very glossy; tergites III-VI with impunctate anterior impressions (Fig. 13), those of tergites III-V moderately deep and that of tergite VI shallow; remainder of tergal surfaces with conspicuously sparse punctation (Fig. 14); microsculpture completely absent; posterior margin of tergite VII with palisade fringe.

♂: tergite III with pronounced and apically acute median tubercle (Figs 12-13), other tergites unmodified; posterior margin of tergite VIII indistinctly pointed in the middle; posterior margin of sternite VIII convex; median lobe of aedeagus 0.54 mm long and shaped as in Figs 15-16.

♀: unknown.

Comparative notes: The only other described species with a similarly sparsely punctate abdomen is *C. wrasei* ASSING, 2006 from Northwest Yunnan (Map 1), with which *C. glabriventris* additionally shares a similar habitus and similar punctation of the forebody. The new species is distinguished from *C. wrasei* by smaller body size (*C. wrasei*: length of forebody 2.9 mm), much more slender antennae with distinctly oblong antennomeres IV-X (*C. wrasei*: antennomeres VI-X approximately as long as broad or weakly transverse), denser and finer punctation of the pronotum and the elytra, unmodified male tergites IV and VII (distinctly modified in *C. wrasei*), and a much smaller aedeagus (*C. wrasei*: median lobe of aedeagus 0.68 mm long). For illustrations of *C. wrasei* see ASSING (2006).

Distribution and natural history: The type locality is situated in the Gaoligong Shan, West Yunnan, China (Map 1). The holotype was sifted from wet debris near a stream in a broadleaved forest at an altitude of 2180-2240 m.



Map 1: Distributions of *Chinecallicerus* species in China: *C. granulosisissimus* (white circle); *C. formidabilis* (black circle); *C. wrasei* (white star); *C. glabriventris* (black star); *C. reuteri* (white triangle); *C. feldmanni* (white triangle); *C. discrepans* (black triangle).

***Chinecallicerus reuteri* nov.sp. (Figs 17-22, Map 1)**

Type material: Holotype ♂: "China, N-Sichuan, Huanglong Shan, 2611 m, Sanluogou vill., 32°46'50"N, 103°55'25"E, 15-17.VI.2018, leg. Reuter / Holotypus ♂ *Chinecallicerus reuteri* sp. n., det. V. Assing 2018" (cAss).

Etymology: This species is dedicated to Christoph Reuter (Hamburg), who collected the type material of three new species described in the present study.

Description: Body length 6.4 mm; length of forebody 2.7 mm. Habitus as in Fig. 17. Coloration: body blackish with the humeral portions and the postero-sutural portions of the elytra extensively and diffusely pitchy-red; legs reddish with the femora

slightly darker; antennae reddish-brown with antennomeres I-III blackish-brown to black; maxillary palpi blackish with the apex of palpomere III paler and palpomere IV yellow.

Head (Fig. 18) weakly oblong and of subquadrate shape, broadest across eyes; lateral margins behind eyes convex with the posterior angles indistinctly indicated; punctation very dense, along middle of dorsal surface with a moderately glossy band with sparse punctation; frons with shallow microreticulation. Eyes strongly convex, approximately 0.6-0.7 times as long as distance from posterior margin of eye to posterior constriction of head in dorsal view. Antenna (Fig. 17) very long (length 2.4 mm) and moderately massive; antennomeres IV-V distinctly oblong, approximately 1.5 times as long as broad, VI-X slightly less oblong and basally broader than IV and V, and XI elongate, but shorter than the combined length of IX and X. Maxillary palpomere III rather slender, nearly four times as long as broad.

Pronotum (Fig. 18) as broad as long and 1.21 times as broad as head; lateral margins weakly sinuate posteriorly in dorsal view; punctation extremely dense and granulate; interstices very narrow, but glossy.

Elytra (Fig. 18) 0.92 times as long as pronotum; punctation extremely dense, somewhat asperate, partly slightly granulate and shallow, rather weakly defined; surface matt. Hind wings fully developed. Legs very long and slender; length of metatibia 1.15 mm.

Abdomen (Fig. 19) narrower than elytra; tergites III-V with shallow and rather coarsely punctate anterior impressions, punctation of remainder of tergal surfaces dense and distinct, slightly less dense on tergite VI than on tergite IV; tergite VII practically impunctate in anterior half and rather sparsely punctate in posterior half; interstices with very shallow and fine transverse microstriae visible only at high magnification (100 x); posterior margin of tergite VII with palisade fringe.

♂: posterior margin of tergite III broadly and smoothly elevated in the middle; tergite IV with oblong median tubercle; tergite VII (Fig. 20) with pronounced tooth-shaped tubercle in postero-median portion; posterior margin of tergite VIII smooth and nearly truncate in the middle; median lobe of aedeagus robust, shaped as in Figs 21-22.

♀: unknown.

Comparative notes: Based on external characters (habitus, punctation, etc.), *C. reuteri* is closely allied to *C. formidabilis* and *C. granulosissimus* (males of both species unknown). It is distinguished from both of them by distinctly smaller body size and additionally as follows:

from *C. formidabilis* by the coloration of the elytra and the antennae, shorter and less massive antennae with a much smaller, more oblong, and basally more slender antennomere IV, different head shape, less convex eyes, a distinctly more slender and more convex (cross-section) pronotum with sinuate lateral margins and granulate punctation, more asperate and less defined punctation of the elytra, and by coarsely punctate anterior impressions of the abdominal tergites III-V;

from *C. granulosissimus* (antenna unknown) by darker elytra and abdomen (*C. granulosissimus*: posterior margins of tergites III-VII and posterior portion of tergite VIII reddish), a differently shaped head with non-granulate punctation (*C. granulosissimus*: lateral margins behind eyes straightly converging; punctation distinctly granulate), a relatively smaller and less convex pronotum with sinuate lateral margins posteriorly, and by less dense and finer punctation of the abdomen.

Distribution and natural history: The type locality is situated in North Sichuan (Map 1). The holotype was collected with pitfall traps in a shady moist forest at the foot of a rock wall (REUTER pers. comm.) at an altitude of approximately 2610 m, together with the following species.

***Chinecallicerus feldmanni* nov.sp. (Figs 23-29, Map 1)**

Type material: Holotype ♂: "China, N-Sichuan, Huanglong Shan, 2611 m, Sanluogou vill., 32°46'50"N, 103°55'25"E, 15-17.VI.2018, leg. Reuter / Holotypus ♂ *Chinecallicerus feldmanni* sp. n., det. V. Assing 2018" (cAss).

Etymology: This species is dedicated to Benedikt Feldmann (Münster), who made the holotypes of three species available for this study and who granted permission to retain all of them.

Description: Body length 5.8 mm; length of forebody 2.6 mm. Habitus as in Fig. 23. Coloration: head blackish; pronotum brown; elytra reddish-brown; abdomen blackish-brown with the paratergites, the posterior margins of tergites III-VI, the posterior portion of tergite VII, and all of tergite VIII reddish; legs yellowish-red; antennae reddish with antennomere I slightly darker; maxillary palpi yellowish-red with palpomere IV yellow.

Head (Fig. 24) distinctly transverse, nearly 1.2 times as broad as long, broadest across eyes; lateral margins behind eyes converging and practically straight in dorsal view, posterior angles completely obsolete; dorsal surface flat, broadly and shallowly impressed in the middle; punctuation dense and very fine, indistinct in the pronounced microreticulation; dorsal surface practically matt. Eyes large and strongly convex, much longer than distance from posterior margin of eye to posterior constriction of head in dorsal view. Antenna (Fig. 23) moderately long (length 2.0 mm) and slender; antennomeres III asymmetric and somewhat curved basally, IV-VIII distinctly oblong and of subequal breadth, IX-X very weakly oblong, and XI slightly shorter than the combined length of IX and X. Maxillary palpomere III rather slender, nearly four times as long as broad.

Pronotum (Fig. 24) large, 1.23 times as broad as long and 1.34 times as broad as head, very weakly convex in cross-section with median portion of disc extensively and shallowly impressed; lateral margins convex; posterior angles moderately marked; punctuation dense, moderately fine, and defined; interstices without microsculpture.

Elytra (Fig. 24) 1.08 times as long as pronotum; suture glossy and slightly elevated; punctuation similar to that of pronotum, but slightly less fine; interstices without microsculpture. Hind wings fully developed. Legs moderately slender; length of metatibia 0.95 mm.

Abdomen (Fig. 25) narrower than elytra; tergites III-V with shallow and practically impunctate anterior impressions; anterior portions of tergites VI and VII extensively impunctate; punctuation of remainder of tergal surfaces distinct and moderately sparse, that of tergite VII very sparse; microsculpture absent except for shallow traces in posterior portion of tergite VII and on tergite VIII; posterior margin of tergite VII with palisade fringe.

♂: tergite VII with pronounced, distinctly elevated, and smooth tubercle in postero-median portion; posterior margin of tergite VIII of very distinctive shape, with a pronounced lateral tooth on either side; median lobe of aedeagus 0.55 mm long, slender, shaped as in Figs 28-29.

♀: unknown.

Comparative notes: This species is readily distinguished from all other *Chinecallicerus* species by the shapes and punctation of the head and the pronotum in combination with slender antennae. It is additionally characterized by the punctation of the abdomen and by the male sexual characters.

Distribution and natural history: The type locality (Map 1) and the circumstances of collection are identical to those of *C. reuteri*.

***Chinecallicerus discrepans* nov.sp. (Figs 30-38, Map 1)**

Type material: Holotype ♂: "China, Sichuan, NW Heishui, 3428 m, 32°11'29"N, 102°39'30"E, 14-20.VI.2018, leg. Reuter / Holotypus ♂ *Chinecallicerus discrepans* sp. n., det. V. Assing 2018" (cAss).

Etymology: The specific epithet is the present participle of the Latin verb *discrepare* (to differ) and alludes to the number and nature of the characters distinguishing this species from its congeners.

Description: Body length 6.1 mm; length of forebody 2.6 mm. Habitus as in Fig. 30, together with the matt head and pronotum somewhat reminding of (the much smaller) *Dinaraea angustula* (GYLLENHAL, 1810). Coloration: head and pronotum blackish; elytra blackish-brown with the postero-lateral portions extensively, diffusely paler; abdomen blackish with the posterior margin of tergite VII and tergite VIII reddish; legs reddish-brown with slightly darker meso- and metafemora; antennae reddish-brown with blackish antennomeres I and II; maxillary palpi blackish-brown with the apex of palpomere III paler and with palpomere IV yellow.

Head (Fig. 31) distinctly transverse, 1.15 times as broad as long, broadest behind eyes; lateral margins behind eyes convex in dorsal view; dorsal surface flat and matt; punctation dense and fine, indistinct in the pronounced microreticulation. Eyes relatively small and moderately convex, shorter than distance from posterior margin of eye to posterior constriction of head in dorsal view. Antenna (Fig. 32) moderately long (length 2.15 mm) and slender; antennomeres IV weakly oblong, V slightly longer and more oblong than IV and VI (approximately 1.5 times as long as broad), V-X of subequal width and of gradually decreasing length, V-VI weakly oblong, VII-X as long as broad or weakly transverse, and XI slender and elongate, longer than the combined length of IX and X. Maxillary palpomere III rather slender, approximately four times as long as broad. Labium as in Fig. 33.

Pronotum (Fig. 31) 1.18 times as broad as long and 1.21 times as broad as head, weakly convex in cross-section, with median portion of disc shallowly impressed in postero-median portion; lateral margins convex; posterior angles moderately marked; punctation and microsculpture similar to those of head.

Elytra (Fig. 31) approximately as long as pronotum; punctation and microsculpture similar to those of pronotum. Hind wings fully developed. Legs moderately slender; length of metatibia 1.0 mm.

Abdomen (Fig. 34) narrower than elytra; tergites III-VI with rather deep and broad anterior impressions, these impressions with a punctate patch in the middle and impunctate in lateral portions; tergite VII anteriorly with a shallow impunctate transverse impression; punctuation of remainder of tergal surfaces III-VI rather coarse and dense, that of tergite VII fine and rather sparse; microsculpture extremely shallow, visible only at high magnification (100 x), and composed of transverse meshes; posterior margin of tergite VII with palisade fringe.

♂: tergite VII with pronounced, distinctly elevated, erect, and apically acute spine-shaped tubercle (Figs 37-38); posterior margin of tergite VIII of very distinctive shape, concave and laterally with three teeth on either side (Figs 37-38); median lobe of aedeagus nearly 0.7 mm long and shaped as in Figs 35-36.

♀: unknown.

Comparative notes: This conspicuous species is characterized particularly by the practically completely matt forebody, relatively small eyes, a flat pronotum, the presence of anterior impressions on tergite VI and even on tergite VII, the punctuation pattern of the anterior impressions of tergites III-VI, the distinctive modifications of the male tergites VII and VIII, and by the shape of the aedeagus.

Distribution and natural history: The type locality is situated in North Sichuan (Map 1). The holotype was collected with pitfall traps in a young moist secondary forest at an altitude of approximately 3430 m.

Acknowledgements

The colleagues listed in the material section arranged a loan of material. Benedikt Feldmann (Münster) generously granted permission to retain three holotypes and proof-read the manuscript.

Zusammenfassung

Fünf Arten der Gattung *Chinecallicerus* ASSING, 2004 aus China werden beschrieben und abgebildet: *Chinecallicerus formidabilis* nov.sp. (Nord-Sichuan), *C. glabriventris* nov.sp. (West-Yunnan), *C. reuteri* nov.sp. (Nord-Sichuan), *C. feldmanni* nov.sp. (Nord-Sichuan) und *C. discrepans* nov.sp. (Nord-Sichuan). Eine aktualisierte Bestimmungstabelle der bisher bekannten *Chinecallicerus*-Arten wird erstellt. Die Verbreitung der neuen sowie ihrer nächstverwandten Arten wird anhand einer Karte illustriert. Die ausschließlich aus China nachgewiesene Gattung enthält nunmehr 18 Arten, von denen neun in Yunnan, acht in Sichuan und eine in Qinghai verbreitet sind. Alle Arten sind derzeit nur von ihrer Typuslokalität bekannt, vierzehn Arten sind ausschließlich durch ihre jeweiligen Holotypen vertreten.

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Jahr/Year: 2019

Band/Volume: [0051_1](#)

Autor(en)/Author(s): Assing Volker

Artikel/Article: [Five new species of *Chinecallicerus* from China \(Coleoptera, Staphylinidae, Aleocharinae, Geostibini\) 285-302](#)