

CORRESPONDENCE

Two new species of the genus *Aploderus* Stephens (Coleoptera: Staphylinidae) from China

Fake Zheng, Yujie Li, Xianghui Yan

College of Life Science, China West Normal University, Nanchong 637002, Sichuan, China; E-mail: fakez@263.net

Abstract Four species of the genus *Aploderus* Stephens are recorded from China, including two new species: *A. songi* sp. nov. and *A. zhouae* sp. nov. The photographs of the dorsal habitus and male sexual characters are all provided. A key to the Chinese species of *Aploderus* is provided.

Key words Oxyteninae, *Aploderus*, rove beetle, new species, Sichuan.

The genus *Aploderus* Stephens, belongs to the subfamily Oxyteninae in Staphylinidae, can be easily distinguished from other genera of the subfamily by the fourth segment of the maxillary palpus subulate, the open procoxal fissure with the protrochantin exposed, the mesocoxae nearly contiguous, the longitudinal, spinous row on the protibia and mesotibia, and the three tarsomeres.

The genus is small, with 20 known species (7 in USA, 2 in Europe and North Africa, 6 endemic in Turkey, 1 in Japan, 1 in India, 1 in Kazakhstan and 2 in China (Bernhauer, 1934; Kashcheev, 1999; Zheng & Pu, 1999; Zheng & Wang, 2000; Herman, 2001; Shimada, 2002; Assing, 2003, 2007a–b, 2009; Löbl & Smetna, 2004).

This paper deals with 4 species of the genus *Aploderus* from China, including two species described as new to science: *A. songi* sp. nov. and *A. zhouae* sp. nov.

The materials and specimens examined from Sichuan used in this study were provided by Life Science College, China West Normal University. Descriptions were made under an Olympus SZX9 stereomicroscope. The color photographs were taken using a Leica M205C stereomicroscopes.

All the type specimens are deposited in the Life Science College, China West Normal University, Sichuan.

Aploderus Stephens, 1833

Aploderus Stephens, 1833: 273. Type species: *Staphylinus brachypterus* Marsham, 1802 (= *Oxytelus caelatus* Gravenhorst, 1802).

Key to species of *Aploderus* Stephens of China.

1. Forebody with distinct microsculpture..... 2
Forebody without microsculpture *A. szechuanensis* Bernhauer, 1934
2. Abdomen black, male 8th sternite shallowly arcuately emarginate at apical margin 3
Abdomen blackish brown with yellow lateral and posterior margins, male 8th sternite with deeply triangularly emarginate in middle of apical margin *A. songi* sp. nov.
3. Elytra yellow with large subtriangular black marking extending from outer apical angle to apex of suture *A. zhouae* sp. nov.
Elytra yellow brown with small black marking at outer apical angle *A. disparatus* Zheng & Pu, 1999

Aploderus songi sp. nov. (Figs 1–8)

Diagnosis. The present new species is closely similar to *A. disparatus* Zheng & Pu, 1999 from Sichuan, China, but can

urn:lsid:zoobank.org:pub:B00096E2-B399-43BC-85F9-6918C62AE7AC

Received 10 July 2017, accepted 16 March 2018

Executive editor: Fuqiang Chen

be distinguished from the latter by dorsal surface of head posteriorly without distinct median furrow, male 8th sternite deeply triangularly emarginate in middle of apical margin, and different the shape of the aedeagus. This species also resembles *A. endogaeus* Assing, 2003 from Turkey, but aedeagus is obviously different in shape.

Description. Male. Head and pronotum black; elytra reddish brown to blackish brown; abdomen blackish brown with yellow lateral and posterior margins; antennae dark brown; maxillary and labial palpi and legs yellowish brown to reddish



Figures 1–8. *Aptoderus songi* sp. nov. 1. Habitus, male. 2–3. Forebody. 2. Male. 3. Female. 4–5. 8th sternite. 4. Male. 5. Female. 6–8. Aedeagus. 6. Ventral view. 7. Lateral view. 8. Dorsal view. Scale bars: 1=2 mm; 2=1 mm; 3=500 μm; 4–8=200 μm.

brown.

Length 5.5–6.3 mm.

Head slightly broader than pronotum (ratio 1.02–1.12); without posterior median sulcus; vertex and lateral areas with moderately coarse, but not dense punctation; intervals with clear microreticulation; frons with clear microreticulation and a few punctation; eyes slightly large and convex, temples longer than eyes seen from above; Antennae with 1st segment as long as 2nd and 3rd combined; 2nd and 3rd elongate; 4th oblong; 5th as long as wide; 6th to 10th transverse; 11th about 1.5 times as long as 10th.

Pronotum transverse, about 1.16 times as broad as long, widest at or near anterior angles, shorter than elytra (ratio 0.52–0.56) and narrower than elytra (ratio 0.85–0.86); anterior angles produced forwards, posterior ones rounded; on either side of midline with ill-defined shallow impressions with clear microreticulation and a few coarse punctation; in lateral areas with moderately coarse, slightly sparse punctation and clear microreticulation.

Elytra elongate, about 1.06–1.11 times as long as broad, slightly widened apicad; punctation coarse, dense and well-defined; intervals narrower than diameter of punctures; wings well developed, about triple as long as elytra.

Abdomen narrower than elytra (ratio 0.89–0.96), widest at 5th to 7th segments; tergites with fine and sparse punctation and distinct microsculpture. 8th sternite with deeply triangularly emarginate in middle of apical margin. Aedeagus as in Figs 6–8.

Female. Similar to male, but 8th sternite almost truncate at apical margin.

Material examined. Holotype ♂, China, Sichuan, Yele Nature Reserve, Mianning County (28°50'–29°00'N, 101°59'–102°16'E; elev. 2760–3300 m), 30 July 2005, coll. Dianyuan Song. Paratypes. 1♂, same data as holotype; 1♂, 11 August 2005, others same data as holotype; 1♂1♀, Wanba, Jiulong County (28°19'–28°20'N, 101°07'–102°10'E; elev. 3520 m), 5 August 2006, coll. Dianyuan Song.

Habitat and Distribution. The species was found in cow dung. It is present known from the type locality in western Sichuan.

Etymology. The specific epithet is patronymic in honor of the collector of the holotype, Mr. Dianyuan Song.

Aploderus zhouae sp. nov. (Figs 9–16)

Diagnosis. This new species is closely similar to *A. disparatus* Zheng & Pu, 1999 from Sichuan, China, but can be distinguished from the latter by dorsal surface of head posteriorly without distinct median furrow; elytra yellow with larger subtriangular black marking extending from outer apical angle to apex of suture, and obviously different the shape of the aedeagus. This species also resembles *A. endogaeus* Assing, 2003 from Turkey, but aedeagus is distinctly different in shape.

Description. Male. Head, pronotum and abdomen black; elytra yellow with vaguely triangular black areas near scutelum, and with large subtriangular black marking extending from outer apical angle to apex of suture; antennae dark brown; maxillary and labial palpi and legs yellowish brown to dark brown.

Length 4.5–4.9 mm.

Head slightly narrower than pronotum (ratio 0.91); without posterior median sulcus; vertex and lateral areas with moderately coarse, but not dense punctation; intervals with vague microreticulation; frons with vague microreticulation and coarse, ill-defined punctation; eyes slightly large and convex, temples longer than eyes seen from above; Antennae with 1st segment as long as 2nd and 3rd combined; 2nd and 3rd elongate; 4th oblong; 5th as long as wide; 6th to 10th transverse; 11th about 1.57 times as long as 10th.

Pronotum transverse, about 1.37 times as broad as long, widest near anterior angles, shorter than elytra (ratio 0.57) and narrower than elytra (ratio 0.55); anterior angles produced forwards, posterior ones rounded; on either side of midline with ill-defined shallow impressions with clear microreticulation and a few coarse punctation; in lateral areas with moderately coarse, slightly sparse punctation and clear microreticulation.

Elytra elongate, about 1.08 times as long as broad, slightly widened apicad; punctation coarse, dense and well-defined; intervals narrower than diameter of punctures; wings developed.

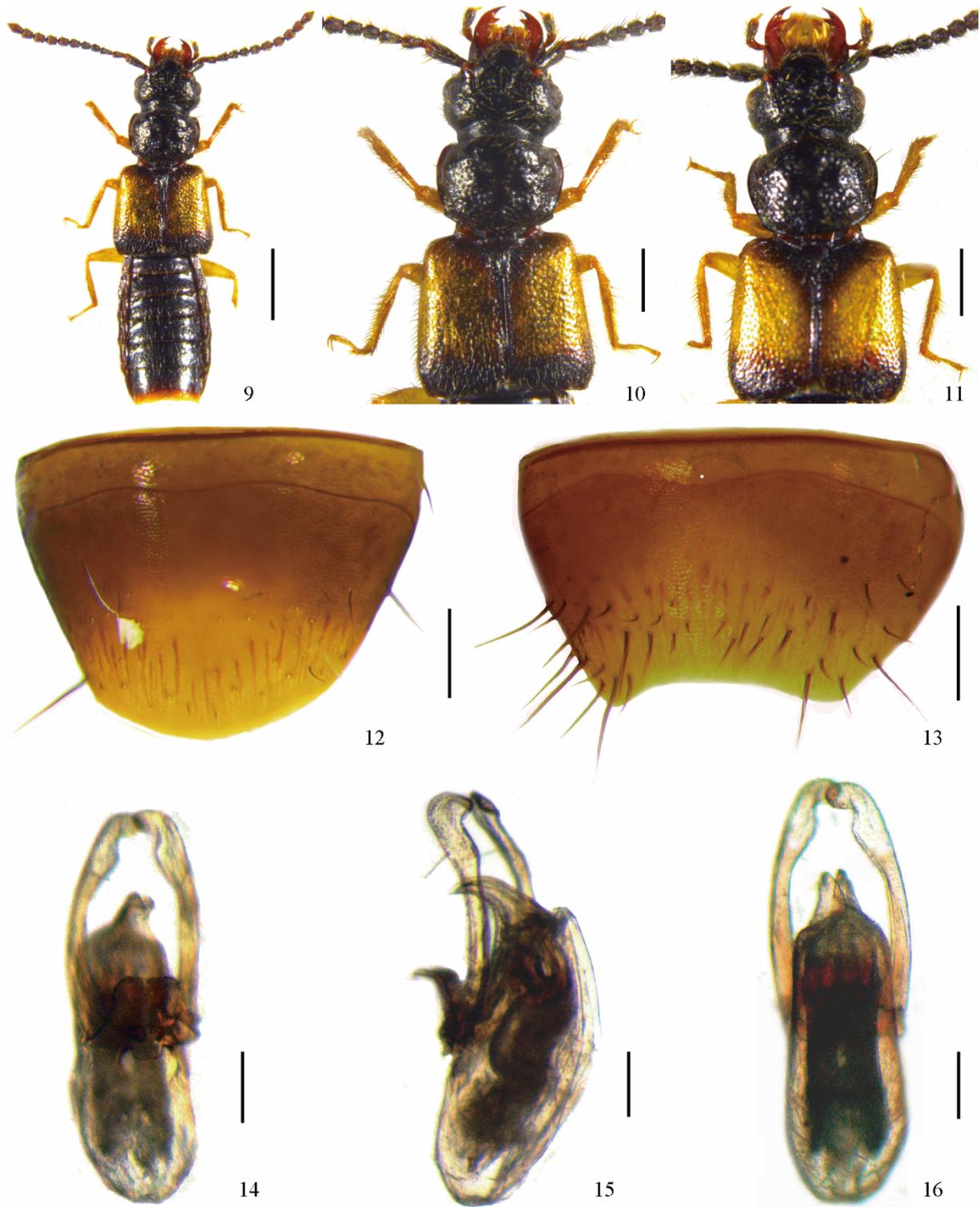
Abdomen narrower than elytra (ratio 0.96), widest at 5th to 7th segments; tergites with fine and sparse punctation and distinct microsculpture. 8th sternite with broadly and shallowly emarginate at apical margin. Aedeagus as in Figs 14–16.

Female. Similar to male, but 8th sternite slightly arcuately produced at apical margin.

Material examined. Holotype ♂, China, Sichuan, Yele Nature Reserve, Mianning County (28°50'–29°00'N, 101°59'–102°16'E; elev. 2700–3200 m), 11 October, 2005, coll. Ming Zhou. Paratype. 1♀, locality ditto, 7 October 2005, coll. Fan Xiao.

Habitat and Distribution. The species was found in cow dung. It is present known from the type locality in western Sichuan.

Etymology. The specific epithet is patronymic in honor of the collector of the holotype, Miss Ming Zhou.



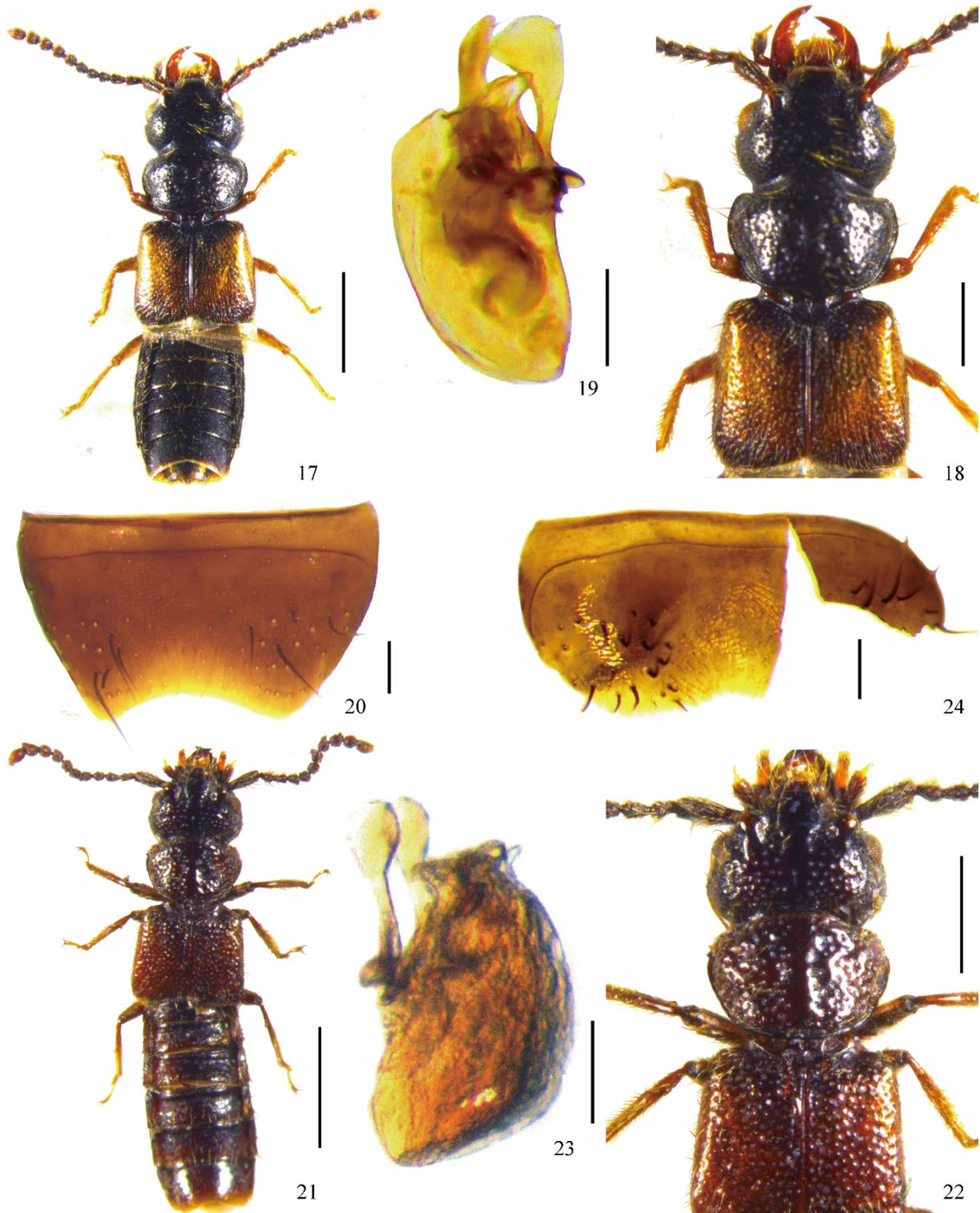
Figures 9–16. *Aploderus zhouae* sp. nov. 9. Habitus, male. 10–11. Forebody. 10. Male. 11. Female. 12–13. 8th sternite. 12. Male. 13. Female. 14–16. Aedeagus. 14. Ventral view. 15. Lateral view. 16. Dorsal view. Scale bars: 9 = 1 mm; 10–11 = 500 μ m; 12–13 = 200 μ m; 14–16 = 145 μ m.

Aploderus disparatus Zheng & Pu, 1999 (Figs 17–20)
Aploderus disparatus Zheng & Pu, 1999: 222.

Material examined. All type specimens from Zheng & Pu (1999).

***Aploderus szechuanensis* Bernhauer, 1934** (Figs 21–24)

Aploderus szechuanensis Bernhauer, 1934: 2; Zheng & Wang, 2000: 37.



Figures 17–24. *Aploderus* spp. 17–20. *A. disparatus* Zheng & Pu, 1999. 21–24. *A. szechuanensis* Bernhauer, 1934, male. 17, 21. Habitus. 18, 22. Forebody. 19, 23. Aedeagus. 20, 24. 8th sternite. Scale bars: 17, 21 = 1 mm; 18, 22 = 500 μ m; 19 = 200 μ m; 23 = 145 μ m; 20, 24 = 100 μ m.

Material examined. 1♂, Mt. Huaying, Sichuan, China. 5 June 1996, coll. Henqing Ji.

Acknowledgments We are heartily grateful to Dr. V. Assing, Gabelsbergerstr (2, D-30163, Hannover, Germany), for his kind help with literature.

References

- Assing, V. 2003. New species and records of Staphylinidae from Turkey (Coleoptera: Staphylinidae). *Entomologische Blätter*, 98 [2002], 153–177.
- Assing, V. 2007a. On the *Aploderus* species of Turkey (Coleoptera: Staphylinidae, Oxytelinae). *Zootaxa*, 1411: 33–41.
- Assing, V. 2007b. New species and additional records of Staphylinidae from Turkey V (Coleoptera). *Stuttgarter Beiträge zur Naturkunde Serie A*, 700: 1–64.
- Assing, V. 2009. On the Staphylinidae of Turkey VI. Thirteen new species and additional records (Coleoptera: Staphylinidae). *Koleopterologische Rundschau*, 79: 117–172.
- Bernhauer, M. 1934. Siebenter Beitrag zur Staphylinidenfauna Chinas. *Entomologisches Nachrichtenblatt*, 8(1): 1–20.
- Herman, L.H. 2001. Catalog of the Staphylinidae (Insecta: Coleoptera). 1758 to the end of the second millennium. Volumes I–VII. *Bulletin of the American Museum of Natural History*, 265: 1–4218.
- Kashcheev, V.A. 1999. Novye vidy Oxytelinae (Coleoptera: Staphylinidae) fauny Kazakhstana. *Selevinia*, 1996–1997: 12–16.
- Löbl, I., Smetna, A. 2004. Genus *Aploderus* Stephens. In: Löbl, I., Smetna, A. (eds.). 2004. *Catalogue of Palaearctic Coleoptera. Volume 2: Hydrophiloidea- Histeroidea-Staphylinoidea*. Apollo Books, Stenstrup. pp. 519–520.
- Shimada, T. 2002. A new *Aploderus* (Coleoptera, Staphylinidae, Oxytelinae) discovered in central Japan. *Special Bulletin of the Japanese Society of Coleopterology*, 5: 233–239.
- Zheng, F.K., Pu S.H. 1999. A new species of *Aploderus* Stephens from Sichuan, China (Coleoptera: Staphylinidae: Oxytelinae). *Journal of Sichuan Teachers College*, 20(3): 222–224.
- Zheng, F.K., Wang, X. 2000. A taxonomic study on Staphylinidae from China (Oxytelinae: *Aploderus*). *Journal of Sichuan Teachers College*, 21(1): 36–38.