

**New species of Alleculini (Coleoptera: Tenebrionidae: Alleculinae)
from the Palaearctic Region VII - genus *Borbonalia* Novák, 2014
(*Chinalia* subgen. nov.)**

Vladimír NOVÁK

Nepasické náměstí 796, CZ-190 14 Prague 9 - Klánovice, Czech Republic
e-mail: alleculinae.vn@centrum.cz

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Abstract. A new subgenus of *Borbonalia* Novák, 2014 - *Chinalia* subgen. nov. with type species *Borbonalia (Chinalia) xiaoica* sp. nov. from China (Sichuan Province) is described as well as the following new species *Borbonalia (Chinalia) mulinziica* sp. nov. from China (Hubei Province) and *Borbonalia (Chinalia) yaoguica* sp. nov. from China (Guizhou Province). The new species are illustrated (including male genitalia) and compared with one another.

INTRODUCTION

The genus *Borbonalia* was introduced by Novák (2014) for *Borbonalia brancuccii* Novák, 2014 as the type species. Species of this genus differ from species of *Borboressthes* Fairmaire, 1896 mainly by elytra being widest at two thirds the elytra length (species of *Borboressthes* have egg-shaped body widest near middle). Novák (2014, 2019 and 2023) described thirteen species from China and Nepal, and a further thirteen species were described by Masumoto et al. (2017, 2019a, b, 2024) and Novák (2023) from Taiwan, for a total of twenty six species known in the Palaearctic Region. Two species living in the Oriental Region were described by Novák (2020) from Myanmar.

A new subgenus of the genus *Borbonalia* Novák, 2014 - *Chinalia* subgen. nov. with the type species *Borbonalia (Chinalia) xiaoica* sp. nov. from China (Sichuan Province) and further species *Borbonalia (Chinalia) mulinziica* sp. nov. from China (Hubei Province) and *Borbonalia (Chinalia) yaoguica* sp. nov. from China (Guizhou Province) are described. Male species of new subgenus *Chinalia* subgen. nov. have small, pale, elongate oval body widest near two thirds elytra length and differ mainly by protarsal and mesotarsal claws longer with more teeth than metatarsal claws.

The new species are illustrated (including male genitalia) and compared with one another.

MATERIAL AND METHODS

Two important morphometric characteristics used for the descriptions of species of the subfamily Alleculinae, the 'ocular index' dorsally (Campbell & Marshall 1964) and 'pronotal index' (Campbell 1965), are used in this paper as well. The ocular index equals

($100 \times$ minimum dorsal distance between eyes) / (maximum width of head across eyes). The pronotal index is calculated as ($100 \times$ length of pronotum along midline) / (width across basal angles of pronotum).

In the list of type material, a slash (/) separates data in separate rows.

The following collection codes are used:

OKZC private collection of Ondřej Konvička, Zlín, Czech Republic;

VNPC private collection of Vladimír Novák, Praha, Czech Republic.

Measurements of body parts and corresponding abbreviations used in text are as follows:

AL - total antennal length, BL - maximum body length, EL - maximum elytral length, EW - maximum elytral width, HL - maximum length of head (visible part), HW - maximum width of head, OI - ocular index dorsally, PI - pronotal index dorsally, PL - maximum pronotal length, PW - pronotal width at base, RLA - ratios of relative lengths of antennomeres 1-11 from base to apex ($3=1.00$), RL/WA - ratios of length / maximum width of antennomeres 1-11 from base to apex, RLT - ratios of relative lengths of tarsomeres 1-5 respectively 1-4 from base to apex ($1=1.00$).

Measurements were made with an Olympus SZ 40 stereoscopic microscope with continuous magnification and with the Soft Imaging System AnalySIS. Snapshots were taken by using Canon EOS 550 D camera and a Canon Macro Photo Lens MP-E, images were modified with Helicon Focus 7.7.5. software.

TAXONOMY

Genus *Borbonalia* Novák, 2014

Type species: *Borbonalia brancuccii* Novák, 2014.

Chinalia subgen. nov.

(Figs. 1-12)

Type species: *Borbonalia (Chinalia) xiaoica* sp. nov.

Description (male). Habitus as in Figs. 1, 5 and 9, body small, elongate oval, slightly convex, shiny, dorsal surface with pale setae, punctures and very fine microgranulation. Widest near two thirds elytra length. Head (Figs. 2, 6 and 10) through the eyes distinctly narrower than anterior margin or base of pronotum. Dorsal surface shiny with pale setae, punctures and microgranulation. Clypeus wide, mandibles glabrous, shiny, with apex darker. Eyes large, transverse, excised, space between eyes wider than diameter of one eye. Antennae long and narrow, distinctly exceeding half body length, antennomeres matte. Surface with long, pale setae, microgranulation and punctures. Antennomere 2 shortest. Ultimate maxillary palpomere widely triangular. Pronotum (Figs. 2, 6 and 10) shiny, slightly convex, wide, transverse, widest at base. Dorsal surface with pale setae and punctures. Posterior angles obtuse. Elytra shiny, slightly convex, widest near two thirds elytra length. Dorsal surface with pale setae, elytral striae with rows of punctures. Elytral epipleura well-developed. Legs long and narrow, pro- and mesotarsomeres 3 and 4 and metatarsomere 3 widened and lobed.

Pro- and mesotarsal claws longer with more teeth than metatarsal claws. Aedeagus (Figs. 3, 4, 7, 8, 11, 12) with basal piece long, apical piece short and beak-shaped.

Female without distinct differences, only pro- and mesotarsal claws with same length as metatarsal claws, protarsal claws with fewer teeth.

Differential diagnosis. The closest and habitually similar subgenus is *Borbonalia* Novák, 2014.

Male specimens of the new subgenus *Chinalia* subgen. nov. have small, pale, elongate oval body widest near two thirds elytra length and differ mainly by protarsal and mesotarsal claws longer with more teeth than metatarsal claws.

Etymology. The compound name formed by *China*- (after the name of its origin) and ending *-lia* - marking similarity to the genus *Borbonalia* Novák, 2014. Gender: feminine.

Distribution. China (Guizhou, Hubei and Sichuan Provinces).

***Borbonalia (Chinalia) mulinziica* sp. nov.**
(Figs. 1-4)

Type locality. China, Southwest of Hubei Province, 30 km Northeastern of Hefeng, Mulinzi, 30.1N 110.2E.

Type material. Holotype (♂): China, SW Hubei, 23.-24.V. / 30 km NE Hefeng / MULINZI, 30.1N 110.2E / Jaroslav Turna leg., 2004, (VNPC). Paratypes: (3 ♂♂, 1 ♀): same data as holotype, (VNPC). The types are provided with a printed red label: 'Borbonalia (*Chinalia*) / mulinziica sp. nov. / HOLOTYPUS or PARATYPUS / V. Novák det. 2024'.

Description of holotype. Habitus as in Fig. 1, body small, elongate oval, slightly convex, shiny, from ochre yellow to pale brown, dorsal surface with pale setae, punctures and very fine microgranulation, BL 6.69 mm. Widest near two thirds elytra length; BL/EW 2.73.

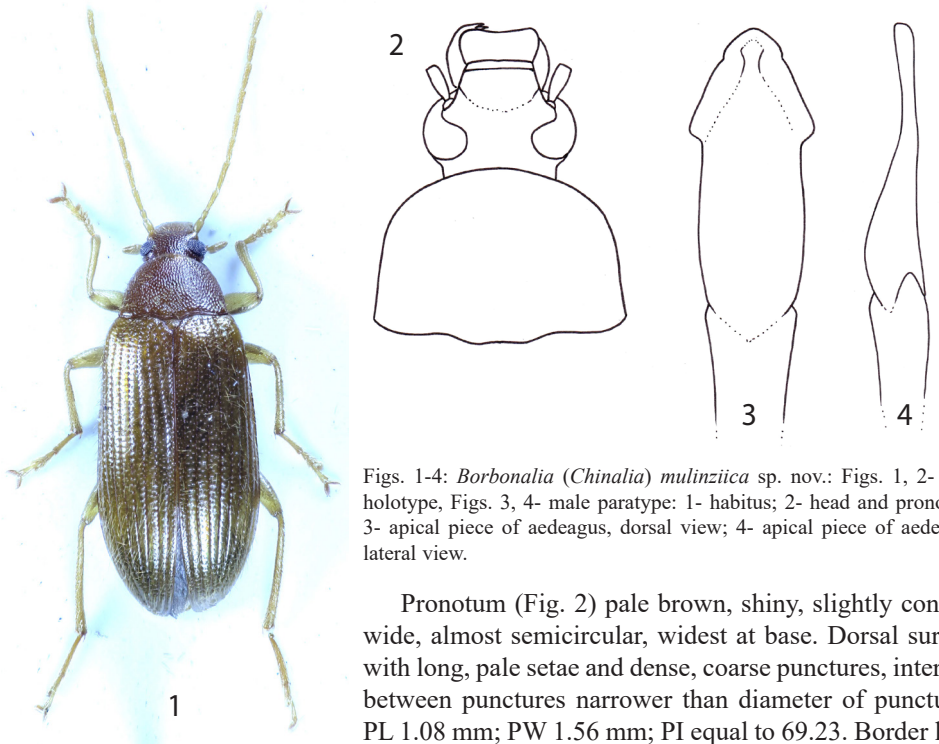
Head (Fig. 2) pale brown, apical part ochre yellow, slightly wider than long (HL 0.91 mm; HW 0.99 mm), through the eyes distinctly narrower than anterior margin or base of pronotum. Dorsal surface shiny with long, pale setae, dense and coarse punctures and microgranulation. Clypeus wide, transverse with sides arcuate, ochre yellow, surface with long, pale setae, microgranulation and microrugosities. Mandibles ochre yellow, glabrous, shiny, apex darker. Eyes large, transverse, excised, space between eyes wider than diameter of one eye, OI equal to 50.22.

Antenna. Long and narrow, ochre yellow, (AL(1-10) 3.39 mm; distinctly exceeding half body length AL(1-10)/BL 0.53), matte. Surface with long, pale setae, microgranulation and punctures. Antennomere 2 shortest, antennomeres 4-10 longer than antennomere 3.

RLA(1-10): 0.77 : 0.41 : 1.00 : 1.36 : 1.08 : 1.11 : 1.19 : 1.19 : 1.15 : 1.21.

RL/WA(1-10): 2.55 : 1.58 : 4.06 : 4.71 : 3.95 : 3.86 : 4.14 : 3.78 : 4.00 : 4.40.

Maxillary palpus ochre yellow, slightly shiny, with pale setae, small punctures and fine microgranulation. Palpomeres 2 and 3 distinctly narrowest at base and widest in apex, ultimate palpomere widely triangular.



Figs. 1-4: *Borbonalia (Chinalia) mulinziica* sp. nov.: Figs. 1, 2- male holotype, Figs. 3, 4- male paratype: 1- habitus; 2- head and pronotum; 3- apical piece of aedeagus, dorsal view; 4- apical piece of aedeagus, lateral view.

Pronotum (Fig. 2) pale brown, shiny, slightly convex, wide, almost semicircular, widest at base. Dorsal surface with long, pale setae and dense, coarse punctures, intervals between punctures narrower than diameter of punctures. PL 1.08 mm; PW 1.56 mm; PI equal to 69.23. Border lines very narrow, margins distinct from dorsal view. Lateral margins straight in basal part, arcuate on apical half. Base bisinuate, anterior margin arcuate, anterior angles indistinct, posterior angles obtuse.

Elytra. Ochre yellow, shiny, slightly convex, widest near two thirds elytra length. Dorsal surface with long, pale setae. EL 4.40 mm; EW 2.34 mm; EL/EW 1.88. Elytral striae with rows of coarse punctures, slightly smaller than those in pronotum, interspaces between punctures in rows narrower or as wide as diameter of punctures. Elytral intervals slightly convex, with very fine microgranulation and sparse, small punctures.

Scutellum. Pale brown, pentagon, shiny, with a few pale setae and fine microgranulation.

Elytral epipleura well-developed, ochre yellow with punctures and pale setae, widest in base, distinctly narrowing to ventrite 1 in basal part, then relatively narrow and parallel in apical part.

Legs. Long and narrow, ochre yellow. Dorsal surface with pale setation, fine microgranulation and small punctures. Pro- and mesotarsomeres 3 and 4 and metatarsomere 3 widened and lobed. RLT: 1.00 : 0.36 : 0.27 : 0.39 : 0.81 (protarsus); 1.00 : 0.39 : 0.47 : 0.76 : 1.57 (mesotarsus).

Protarsal claws with 18 and 20 teeth, pro- and mesotarsal claws longer with more teeth than metatarsal claws.

Ventral side of body ochre yellow, shiny with punctures and pale setae. Abdomen pale brown, shiny with very fine microgranulation and small, shallow punctures.

Aedeagus (Figs. 3, 4) ochre yellow, slightly shiny. Basal piece slightly narrowing in dorsal view. Apical piece wide from dorsal view, strongly narrowing apically from lateral view, beak-shaped from dorsal and lateral views. Ratio of length of apical piece to length of basal piece from dorsal view 1: 4.84.

Female without distinct differences, only pro- and mesotarsal claws with same length as metatarsal claws, protarsal claws with 7 teeth.

Measurements of female body. BL 6.51 mm; HL 0.92 mm; HW 1.00 mm; OI 51.33; PL 1.14 mm; PW 1.65 mm; PI 69.09; EL 4.45 mm; EW 2.43 mm; HW/PW 0.61; BL/EW 2.68; EL/EW 1.83. AL(1-11) 3.81 mm; AL(1-11)/BL 0.59.

RLA(1-11): 0.74 : 0.42 : 1.00 : 1.43 : 1.19 : 1.16 : 1.16 : 1.19 : 1.15 : 1.04 : 1.15.

RL/WA(1-11): 27.12 : 1.72 : 4.11 : 5.05 : 4.40 : 4.30 : 3.58 : 3.67 : 3.70 : 3.35 : 4.25.

Variability. The type specimens somewhat vary in size; each character is given as its mean value, with full range in parentheses. Specimens (n= 5). BL 6.56 mm (6.18-6.90 mm); HL 0.93 mm (0.90-0.98 mm); HW 1.01 mm (0.96-1.04 mm); OI 50.47 (49.58-52.10); PL 1.10 mm (1.03-1.14 mm); PW 1.59 mm (1.52-1.63 mm); PI 68.76 (67.76-69.23); EL 4.52 mm (4.25-4.80 mm); EW 2.37 mm (2.31-2.43 mm).

Differential diagnosis. Similar species from China are *Borbonalia (Chinalia) xiaoica* sp. nov. from Sichuan Province and *Borbonalia (Chinalia) yaoguica* sp. nov. from Guizhou Province.

Borbonalia (Chinalia) mulinziica sp. nov. clearly differs from the similar species *B. (Ch.) yaoguica* mainly by the pronotum paler (pale reddish brown), by the elytral suture not darker, by the antennomeres 6-10 1.15-1.20 times longer than antennomere 3 and the protarsal claws with 18 and 20 teeth; while *B. (Ch.) yaoguica* has the pronotum reddish brown, elytral suture is narrowly darker, antennomeres 6-10 are approximately as long as antennomere 3 and the protarsal claws have 11 and 12 teeth.

Borbonalia (Chinalia) mulinziica sp. nov. is distinctly different from the similar species *B. (Ch.) xiaoica* mainly by the pronotum paler (pale reddish brown) with lateral margins not excised before posterior angles, by the antennomeres 6-10 1.15-1.20 times longer than antennomere 3 and by the protarsal claws with 18 and 20 teeth; while *B. (Ch.) xiaoica* has the pronotum reddish brown with lateral margins excised before posterior angles, antennomeres 6-10 are 1.35-1.50 times longer than antennomere 3 and the protarsal claws have 22 teeth.

Etymology. Toponymic, named after the type locality Mulinzi in Hubei Province (China).

Distribution. China (Hubei Province).

***Borbonalia (Chinalia) xiaoica* sp. nov.**

(Figs. 5-8)

Type locality. China, North of Sichuan Province, Xiao-Zhaizi Nature Reserve, 7 km West of Qingpianxiang, Xiaozhaizi, 32°1'25''N 103°56'21''E, 1560-1700m.

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.-1.VII.2017, 1560-1700m / lgt. Ondřej Konvička (VNPC). Paratypes: (3 ♂♂, 11 ♀♀): same data as holotype (OKZC, VNPC); (2 ♀♀): CHINA: N Sichuan, Xiao-Zhaizi Nat. / Nature Reserve, 4 km NNE of / Qingpianxiang, Zhenghecun / 32°3'27''N 103°59'37''E / 23.-26.VI.2017, 1350-1850m / lgt. Ondřej Konvička, (OKZC, VNPC); (2 ♂♂): CHINA: N Sichuan / Xiao-Zhaizi National Nature Reserve / 4km NNE of Qingpianxiang / Zhenghecun / 32°3'27''N 103°59'37''E / 23.-26.VI.2017, 1350-1850m / P. Viktora lgt., (VNPC). The types are provided with a printed red label: 'Borbonalia (Chinalia) / xiaoica sp. nov. / HOLOTYPUS or PARATYPUS / V. Novák det. 2024'.

Description of holotype. Habitus as in Fig. 5 body small, elongate oval, slightly convex, shiny, from ochre yellow to reddish brown, dorsal surface with pale setae, punctures and very fine microgranulation, BL 6.65 mm. Widest near two thirds elytra length; BL/EW 2.78.

Head (Fig. 6) reddish brown, apical part ochre yellow, approximately as wide as long (HL 1.00 mm; HW 1.01 mm), through the eyes distinctly narrower than anterior margin or base of pronotum. Dorsal surface shiny with long, pale setae, dense and coarse punctures and microgranulation. Clypeus wide, transverse with sides arcuate, pale brown, dorsal surface with long pale setae and microgranulation. Mandibles glabrous, shiny, apex darker. Eyes large, transverse, excised, space between eyes wider than diameter of one eye, OI equal to 49.12.

Antenna. Long and narrow, ochre yellow, (AL(1-11) 3.39 mm; distinctly exceeding half body length AL(1-11)/BL 0.53), matte. Surface with long, pale setae, microgranulation and punctures. Antennomere 2 shortest, antennomeres 4-11 longer than antennomere 3, antennomeres 3-10 slightly widened apically, ultimate antennomere widest before apex. RLA(1-11): 0.82 : 0.42 : 1.00 : 1.40 : 1.37 : 1.34 : 1.43 : 1.51 : 1.43 : 1.37 : 1.49. RL/WA(1-11): 2.20 : 1.40 : 3.35 : 4.48 : 4.40 : 4.09 : 5.33 : 4.39 : 3.69 : 4.18 : 4.17.

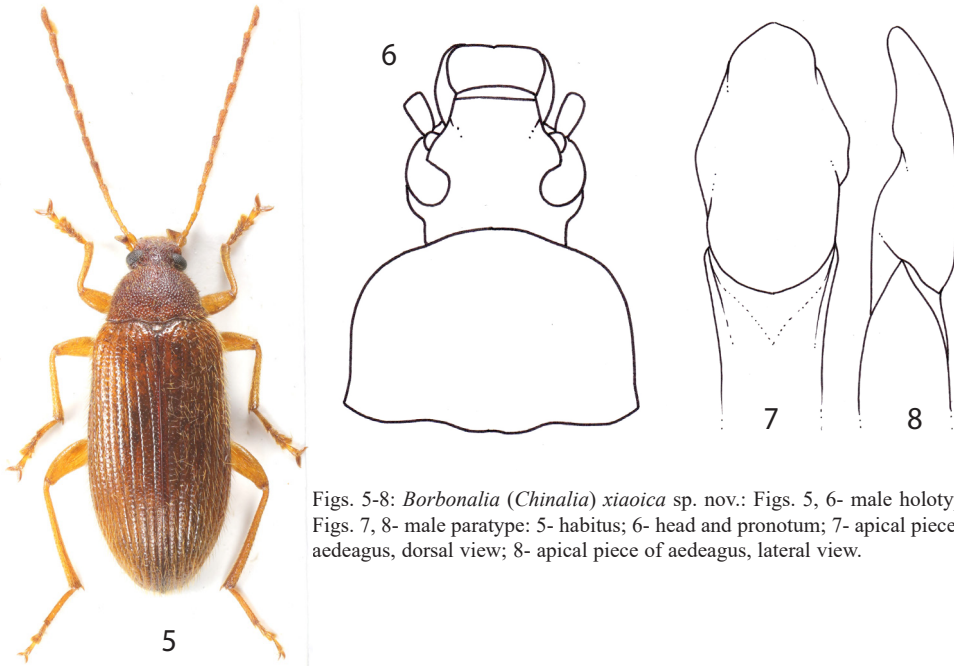
Maxillary palpus ochre yellow, slightly shiny, with pale setae, small punctures and fine microgranulation. Palpomeres 2 and 3 distinctly narrowest at base and widest in apex, ultimate palpomere widely triangular, darker than penultimate.

Pronotum (Fig. 6) reddish brown, shiny, slightly convex, wide, transverse, widest in base. Dorsal surface with dense and long, pale setae and dense, coarse punctures, intervals between punctures narrower than diameter of punctures. PL 1.19 mm; PW 1.65 mm; PI equal to 71.43. Border lines very narrow, margins distinct from dorsal view, only in the middle of anterior margin not clearly conspicuous. Lateral margins excised before posterior angles, arcuate in apical part. Base bisinuate, anterior margin arcuate, anterior angles indistinct, posterior angles obtuse.

Elytra. Pale reddish brown, shiny, slightly convex, widest near two thirds elytra length. Dorsal surface with dense and long, pale setae. EL 4.46 mm; EW 2.39 mm; EL/EW 1.87. Elytral striae with rows of coarse punctures, slightly smaller than those in pronotum, interspaces between punctures in rows narrower than diameter of punctures. Elytral intervals slightly convex, with very fine microgranulation and sparse, small punctures.

Scutellum. Reddish brown with sides darker, pentagon, shiny, with a few shallow punctures, fine microgranulation and a few long, pale setae.

Elytral epipleura well-developed, reddish brown, with pale setae, basal half with punctures, widest in base, narrowing to metaventricle then relatively narrow and parallel on apical part.



Figs. 5-8: *Borbonalia (Chinalia) xiaoica* sp. nov.: Figs. 5, 6- male holotype, Figs. 7, 8- male paratype: 5- habitus; 6- head and pronotum; 7- apical piece of aedeagus, dorsal view; 8- apical piece of aedeagus, lateral view.

Legs. Long and narrow, ochre yellow. Dorsal surface with pale setae, fine microgranulation and small punctures. Tarsi slightly darker than tibiae, pro- and mesotarsomeres 3 and 4 and metatarsomere 3 widened and lobed. RLT: 1.00 : 0.44 : 0.35 : 0.65 : 1.58 (protarsus); 1.00 : 0.45 : 0.24 : 0.44 : 0.87 (mesotarsus).

Protarsal claws with 22 teeth, pro- and mesotarsal claws longer with many teeth than metatarsal claws.

Ventral side of body reddish brown with punctures and pale setae. Abdomen pale brown, almost glabrous, shiny, with fine microgranulation and small, shallow punctures.

Aedeagus (Figs. 7, 8) ochre yellow, matte. Basal piece narrowing in dorsal view. Apical piece short, wide and robust, beak-shaped from dorsal and lateral views. Ratio of length of apical piece to length of basal piece from dorsal view 1: 5.67.

Female without distinct differences, pro- and mesotarsal claws with same length as metatarsal claws, protarsal claws with 8 teeth.

Measurement of female body. BL 6.82 mm; HL 1.04 mm; HW 1.05 mm; OI 49.09; PL 1.17 mm; PW 1.69 mm; PI 69.23; EL 4.61 mm; EW 2.40 mm; HW/PW 0.62; BL/EW 2.84; EL/EW 1.92. AL(1-11) 3.77 mm; AL(1-11)/BL 0.55.

RLA(1-11): 0.76 : 0.34 : 1.00 : 1.34 : 1.17 : 1.31 : 1.28 : 1.33 : 1.23 : 1.27 : 1.34.

RL/WA(1-11): 2.18 : 1.22 : 3.05 : 4.30 : 3.75 : 4.42 : 3.91 : 3.86 : 3.04 : 3.68 : 4.30.

RLT: 1.00 : 0.50 : 0.80 : 0.82 : 1.63 (protarsus); 1.00 : 0.32 : 0.38 : 0.44 : 0.67 (mesotarsus); 1.00 : 0.28 : 0.27 : 0.48 (metatarsus).

Variability. The type specimens somewhat vary in size; each character is given as its mean value, with full range in parentheses. Specimens (n= 19). BL 6.59 mm (5.96-7.04 mm); HL 0.99 mm (0.90-1.06 mm); HW 1.01 mm (0.93-1.08 mm); OI 47.49 (45.30-49.56); PL 1.16 mm (1.01-1.34 mm); PW 1.64 mm (1.43-1.86 mm); PI 70.77 (69.23-72.12); EL 4.12 mm (4.05-4.64 mm); EW 2.33 mm (2.00-2.63 mm).

Differential diagnosis. Similar species from China are *Borbonalia (Chinalia) mulinziica* sp. nov. from Hubei Province and *Borbonalia (Chinalia) yaoguica* sp. nov. from Guizhou Province.

Borbonalia (Chinalia) xiaoica sp. nov. clearly differs from the similar species *B. (Ch.) mulinziica* mainly by pronotum reddish brown with lateral margins excised before posterior angles (as in Fig. 6), by antennomeres 6-10 1.35-1.50 times longer than antennomere 3 and by the protarsal claws with 22 teeth; while *B. (Ch.) mulinziica* has the pronotum paler (pale reddish brown) with lateral margins not excised before posterior angles (as in Fig. 2), antennomeres 6-10 are 1.15-1.20 times longer than antennomere 3 and the protarsal claws with 18 and 20 teeth.

Borbonalia (Chinalia) xiaoica sp. nov. is distinctly different from similar species *B. (Ch.) yaoguica* mainly by the pronotum excised before posterior angles (as in Fig. 6), by the elytron darker than pale reddish brown, by the suture not distinctly darker, by antennomeres 6-10 1.3-1.5 times longer than antennomere 3, by the protarsal claws with 22 teeth; while *B. (Ch.) yaoguica* has pronotum almost semicircular (Fig. 10), elytra are pale reddish brown with suture narrowly darker, antennomeres 6-10 are approximately as long as antennomere 3 and the protarsal claws have 11 and 12 teeth.

Etymology. Toponymic, named after the first word of the name of the type locality Xiao-Zhaizi in Sichuan Province (China).

Distribution. China (Sichuan Province).

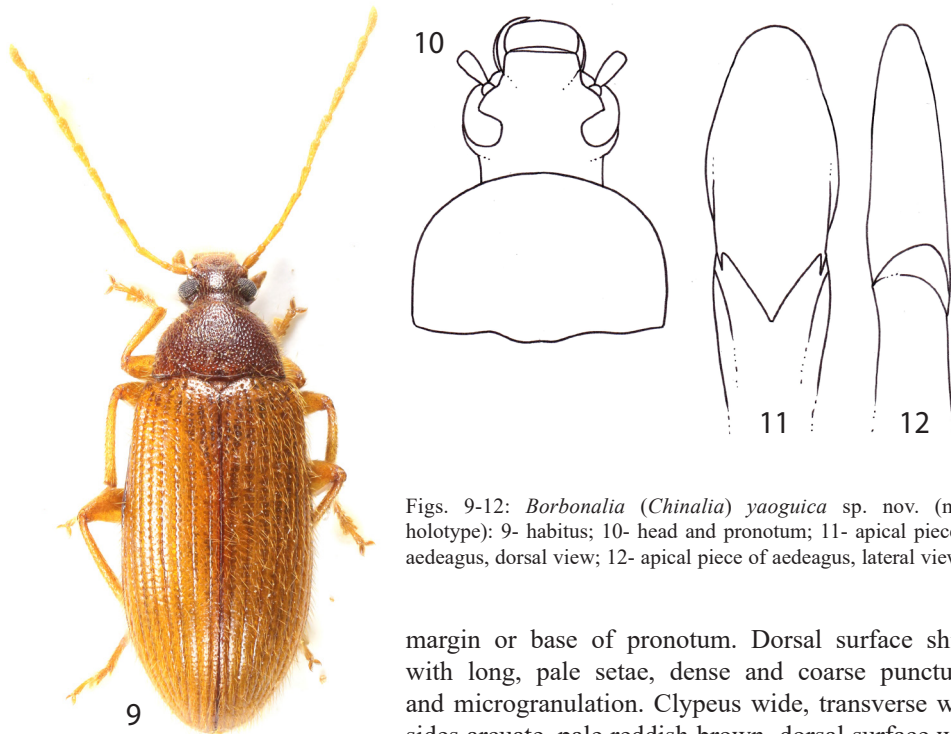
***Borbonalia (Chinalia) yaoguica* sp. nov.**
(Figs. 9-12)

Type locality. China, South of Guizhou Province, environ of Yaogu, 25°20'N 107°56'E, 800-900 m.

Type material. Holotype (♂): China, S Guizhou, 13.VI. / YAOGU env. 800-900m / 25°20'N 107°56'E / Jaroslav Turna leg., 2011, (VNPC). Paratypes: (2 ♂, 2 ♀): same data as holotype, (VNPC). The types are provided with a printed red label: '*Borbonalia (Chinalia) / yaoguica* sp. nov. / HOLOTYPUS or PARATYPUS / V. Novák det. 2024'.

Description of holotype. Habitus as in Fig. 9 body small, elongate oval, slightly convex, semimatte, from ochre yellow to reddish brown, dorsal surface with pale setae, punctures and very fine microgranulation, BL 6.79 mm. Widest near two thirds elytra length; BL/EW 2.77.

Head (Fig. 10) reddish brown, apical part pale reddish brown, approximately as wide as long (HL 1.00 mm; HW 1.03 mm), through the eyes distinctly narrower than anterior



Figs. 9-12: *Borbonalia (Chinalia) yaoguica* sp. nov. (male holotype): 9- habitus; 10- head and pronotum; 11- apical piece of aedeagus, dorsal view; 12- apical piece of aedeagus, lateral view.

margin or base of pronotum. Dorsal surface shiny with long, pale setae, dense and coarse punctures and microgranulation. Clypeus wide, transverse with sides arcuate, pale reddish brown, dorsal surface with pale setae and microgranulation. Mandibles glabrous, shiny. Eyes large, transverse, excised, space between eyes wider than diameter of one eye, OI equal to 42.02.

Antenna. Long and narrow, ochre yellow, (AL(1-11) 3.97 mm; distinctly exceeding half body length AL(1-11)/BL 0.59), antennomeres matte. Surface with long, pale setae, microgranulation and punctures. Antennomere 2 shortest, antennomere 4 longest, antennomeres 6-10 slightly shorter or as long as antennomere 3, ultimate antennomere widest near middle.

RLA(1-11): 0.60 : 0.32 : 1.00 : 1.17 : 1.06 : 0.98 : 0.96 : 1.02 : 0.98 : 0.95 : 1.07.

RL/WA(1-11): 2.11 : 1.82 : 5.16 : 6.05 : 4.16 : 3.69 : 3.92 : 3.70 : 3.69 : 3.58 : 4.04.

Maxillary palpus pale reddish brown, matte, with pale setae and fine microgranulation. Palpomeres 2 and 3 distinctly narrowest at base and widest in apex, ultimate palpomere widely triangular.

Pronotum (Fig. 10) reddish brown, slightly shiny, slightly convex, wide, transverse, almost semicircular, widest in basal half. Dorsal surface with dense and long, pale setae and dense, large, coarse punctures, intervals between punctures very narrow, narrower than diameter of punctures. PL 1.19 mm; PW 1.77 mm; PI equal to 67.23. Border lines very narrow, margins distinct from dorsal view. Lateral margins almost parallel in basal half arcuate in apical part. Base bisinuate, anterior margin arcuate, anterior angles indistinct, posterior angles slightly obtuse.

Elytra. Ochre yellow or pale reddish brown with suture narrowly darker, matte, slightly convex, widest near two thirds elytra length. Dorsal surface with dense and long, pale setae. EL 4.60 mm; EW 2.45 mm; EL/EW 1.88. Elytral striae with rows of coarse punctures, smaller than those in pronotum, interspaces between punctures in rows narrower than diameter of punctures. Elytral intervals slightly convex, with microgranulation and sparse, small punctures.

Scutellum. Pale reddish brown, pentagon, matte, with a few shallow punctures, fine microrugosities and a few long, pale setae.

Elytral epipleura well-developed, pale reddish brown, with sparse, pale setae, basal half with punctures, widest in base, slightly narrowing to metaventrite then relatively wide and parallel in apical part.

Legs. Long and narrow, ochre yellow or pale reddish brown. Dorsal surface with pale setae, fine microgranulation and small punctures. Pro- and mesotarsomeres 3 and 4 and metatarsomere 3 widened and lobed. RLT: 1.00 : 0.41 : 0.71 : 0.93 : 1.87 (protarsus).

Protarsal claws with 11 and 12 teeth, pro- and mesotarsal claws longer with many teeth than metatarsal claws.

Ventral side of body reddish brown with punctures and pale setae. Abdomen almost glabrous, semi-matte, with fine microgranulation and small, shallow punctures. Ventrites 1 and 2 reddish brown, further pale reddish brown.

Aedeagus (Figs. 11, 12) ochre yellow, matte. Basal piece narrowing in dorsal view. Apical piece short, and wide, beak shaped from dorsal and lateral views. Ratio of length of apical piece to length of basal piece from dorsal view 1: 7.51.

Female without distinct differences, only pro- and mesotarsal claws with same length as metatarsal claws, protarsal claws with 8 teeth.

Measurements of female body. BL 6.47 mm; HL 0.99 mm; HW 1.02 mm; OI 44.88; PL 1.08 mm; PW 1.60 mm; PI 67.50; EL 4.40 mm; EW 2.58 mm; HW/PW 0.64; BL/EW 2.77; EL/EW 1.71. AL(1-11) 3.61 mm; AL(1-11)/BL 0.56.

RLA(1-11): 0.71 : 0.37 : 1.00 : 1.23 : 0.99 : 0.92 : 0.98 : 0.99 : 0.96 : 0.91 : 1.05.

RL/WA(1-11): 1.97 : 1.44 : 3.87 : 4.54 : 4.00 : 3.73 : 3.35 : 3.26 : 3.15 : 3.86 : 4.04.

Variability. The type specimens somewhat vary in size; each character is given as its mean value, with full range in parentheses. Specimens (n= 5). BL 6.65 mm (6.47-6.79 mm); HL 0.99 mm (0.98-1.00 mm); HW 1.02 mm (1.01-1.03 mm); OI 43.52 (42.02-44.88); PL 1.14 mm (1.08-1.19 mm); PW 1.69 mm (1.60-1.77 mm); PI 67.46 (67.23-67.65); EL 4.52 mm (4.40-4.60 mm); EW 2.53 mm (2.45-2.58 mm).

Differential diagnosis. Similar species from China are *Borbonalia (Chinalia) mulinziica* sp. nov. from Hubei Province and *Borbonalia (Chinalia) xiaoica* sp. nov. from Sichuan Province.

Borbonalia (Chinalia) yaoguica sp. nov. clearly differs from the similar species *B. (Ch.) mulinziica* mainly by the reddish brown pronotum, by the elytra with suture narrowly darker, by antennomeres 6-10 approximately as long as 3, by the protarsal claws with 11 and 12

teeth; while *B. (Ch.) mulinziica* has the pronotum paler (pale reddish brown), the elytral suture is not darker, antennomeres 6-10 1.15-1.20 times longer than antennomere 3 and the protarsal claws have 18 and 20 teeth.

Borbonalia (Chinalia) yaoguica sp. nov. is distinctly different from the similar species *B. (Ch.) xiaoica* mainly by the pronotum almost semicircular (Fig. 10), by the elytra pale reddish brown with suture narrowly darker, by antennomeres 6-10 approximately as long as antennomere 3, by the protarsal claws with 11 and 12 teeth; while *B. (Ch.) xiaoica* has the pronotum excised before posterior angles (as in Fig. 6), the elytron is darker than pale reddish brown, the suture is not distinctly darker, antennomeres 6-10 are 1.3-1.5 times longer than antennomere 3, and the protarsal claws have 22 teeth.

Etymology. Toponymic, named after the type locality Yaogu in Guizhou Province (China).

Distribution. China (Guizhou Province).

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