New species of Alleculini (Coleoptera: Tenebrionidae: Alleculinae) from the Palaearctic Region VI - genus *Bolbostetha* Fairmaire, 1896

Vladimír NOVÁK

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

Taxonomy, new species, descriptions, Coleoptera, Tenebrionidae, Alleculinae, Alleculini, *Bolbostetha*, China, Fujian, Hainan Island, Palaearctic Region

Abstract. These are the first records on the genus *Bolbostetha* Fairmaire, 1896 from the territory of China, new species are described as follows: *Bolbostetha hainanica* sp. nov. and *Bolbostetha minfongica* sp. nov., both from Hainan Island and *Bolbostetha leoni* sp. nov. and *Bolbostetha yanganica* sp. nov., both from Fujian Province. The new species are illustrated (including male genitalia) and compared with one another.

INTRODUCTION

The genus *Bolbostetha* Fairmaire 1896 with the type species *Bolbostetha soleata* Fairmaire 1896 was established by Fairmaire (1896). Borchmann (1910) knew only 2 species worldwide, Novák & Pettersson (2008) listed 5 species and Novák (2020a) 6 species from the Palaearctic Region. The genus comprises 50 species today (Novák 2008, 2020b, 2022) living mainly in the Oriental Region. The genus was not known from the territory of China until now (Novák 2020a). Two new species from China - Fujian Province (*B. leoni* and *B. yanganica*) and two new species from China - Hainan Island (*B. hainanica* and *B. minfongica*) are described and illustrated in this work.

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 × minimum dorsal distance between eyes) / (maximum width of head across eyes). The pronotal index is calculated as (100 × 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:

NMPC National Museum, Praha, 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 Bolbostetha Fairmaire, 1896

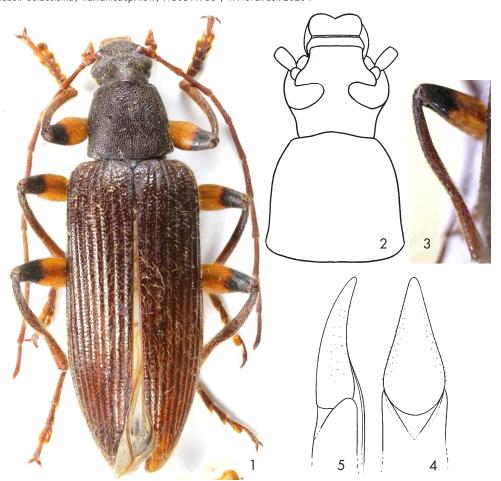
Type species: Bolbostetha soleata Fairmaire, 1896.

Bolbostetha hainanica sp. nov.

(Figs. 1-5)

Type locality. China, Hainan Island, Jianfengling Mountains, environ of Tiachi Lake, Bishu Villa, 950 m, 18°44′40′′N, 108°50′41′′E.

Type material. Holotype (3): CHINA, Hainan Isl., 9-11.v.2011 / Jianfengling Mts., Tiachi Lake env. / Bishu Villa (at light) / 18°44′40′′N, 108°50′41′′E; 950 m / M. Fikáček, V. Kubeček & L. Li leg., (NMPC). The type is provided with a printed red label: 'Bolbostetha / hainanica sp. nov. / HOLOTYPUS / V. Novák det. 2023′.



Figs. 1-5. Bolbostetha hainanica sp. nov. (male holotype): 1-habitus; 2-head and pronotum; 3- metatibia; 4- apical piece of aedeagus, dorsal view; 5- apical piece of aedeagus, lateral view.

Description of holotype. Habitus as in Fig. 1, body large, elongate, narrow, parallel, *Leptura*-shaped, shiny, from pale reddish brown to blackish brown, dorsal surface with pale setae, very fine microgranulation and punctures, BL 16.04 mm. Widest near middle elytral length; BL/EW 3.59.

Head (Fig. 2) blackish brown, distinctly longer than wide, across the eyes slightly wider than anterior margin and distinctly narrower than base of pronotum. Dorsal surface shiny with dense, pale setae, dense and coarse punctures, interspaces between punctures narrower than diameter of punctures. Clypeus reddish brown, wide, transverse with sides arcuate, apex slightly excised at middle. Dorsal surface with coarse punctures, long, pale setae and distinct microgranulation. Mandibles reddish brown with darker sides and apex, glabrous, shiny. HW 2.15 mm; HW/PW 0.72; HL (visible part) 2.32 mm. Eyes large, transverse, excised, space between eyes distinctly narrower than diameter of one eye; distinctly wider than length of antennomere 1; OI equal to 26.15.

Antenna. Long and narrow, reddish brown, rather matt (AL 12.26 mm; AL/BL 0.76 - exceeding three quarters body length). Surface with short, recumbent, pale setae, microgranulation and small punctures. Antennomere 2 shortest. Antennomeres 3-10 slightly widened apically, antennomeres 4-11 distinctly longer than antennomere 3, ultimate antennomere widest before apex.

```
RLA(1-11): 0.51 : 0.24 : 1.00 : 1.30 : 1.33 : 1.45 : 1.50 : 1.52 : 1.36 : 1.42 : 1.37.
RL/WA(1-11): 1.79 : 1.33 : 4.19 : 5.12 : 5.93 : 5.71 : 7.69 : 7.85 : 5.69 : 8.64 : 11.50.
```

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

Pronotum (Fig. 2) blackish brown, long and narrow, shiny, slightly convex, widest in base, slightly narrower than elytra at humeri. Dorsal surface with long, recumbent, pale setae, fine microgranulation (not clearly distinct everywhere) and dense, coarse punctures, intervals between punctures narrower than diameter of punctures. PL 2.84 mm; PW 2.99 mm; Pl equal to 94.98. Border lines very narrow, margins conspicuous from dorsal view. Lateral margins almost straight, slightly excised before posterior angles, slightly arcuate in apical third. Base slightly rounded, anterior margin arcuate in middle, anterior and posterior angles obtuse.

Elytra. Dark brown, narrow, parallel, shiny, slightly convex, widest near half elytral length. Dorsal surface with long, pale setae. EL 10.88 mm; EW 4.47 mm; EL/EW 2.43. Elytral striae with rows of coarse punctures, approximately as large as those in pronotum. Elytral intervals slightly convex, with very fine microgranulation and small punctures.

Scutellum. Blackish brown, pentagon, matt, with microgranulation and a few pale setae.

Elytral epipleura well-developed, brown, with large punctures, widest in base, distinctly narrowing to metaventrite in basal part, then relatively narrow and parallel in apical part.

Legs. Long and narrow, tibiae and tarsi reddish brown, femora pale reddish brown with blackish brown apex. Dorsal surface with pale setation, fine microgranulation and very small punctures. Metatibiae excised in inner part of basal half as in Fig. 3, femora strong. Protarsomeres 1-4, mesotarsomeres 3 and 4, metatarsomere 3 widened and lobed. RLT: 1.00: 0.75:0.92:0.92:1.61 (protarsus), 1.00:0.59:0.64:0.78:1.24 (mesotarsus), 1.00:0.56: 0.58:0.84 (metatarsus).

Both protarsal claws with 17 visible teeth.

Ventral side of body dark brown with punctures, prothorax with dense setation, meso- and metaventrite with sparse and short, pale setae. Abdomen reddish brown with pale setae, fine microgranulation and small punctures.

Aedeagus (Figs. 4, 5) ochre yellow, slightly shiny. Basal piece large, rounded laterally and slightly narrowing in dorsal view. Apical piece short, triangular dorsally, beak shaped from dorsal and lateral views. Ratio of length of apical piece to length of basal piece from dorsal view 1: 3.55.

Female unknown.

Differential diagnosis. Similar species from China are *Bolbostetha minfongica* sp. nov. from Hainan Island, *Bolbostetha leoni* sp. nov. and *Bolbostetha yanganica* sp. nov. from Fujian Province.

Bolbostetha hainanica sp. nov. clearly differs from the similar species B. minfongica mainly by large body (BL 16.0 mm), by the dorsal surface dark brown or blackish brown and by metatibiae curved and excised in basal half of inner side; while B. minfongica has smaller body (BL 11.2 mm), the dorsal surface is pale (elytra ochre yellow, head and pronotum reddish brown) and metatibiae are not curved and not excised in basal half of inner side.

- B. hainanica is distinctly different from the similar species B. leoni mainly by the pronotum widest at base, by protibiae not excised in middle part and without tubercles on inner side near apex; while B. leoni has the pronotum widest near middle (as in Fig. 7) and protibiae are excised in middle part with tubercles on inner side near apex (as in Fig. 8).
- B. hainanica clearly differs from the similar species B. yanganica mainly by the space between eyes wide (Ol 26.2 in male), distinctly wider than length of antennomere 1, by the pronotum narrowing from base to apex and by apical piece of aedeagus as in Figs. 4 and 5; while B. yanganica has narrow space between eyes (Ol of male 16.5), distinctly narrower than length of antennomere 1, lateral margins of pronotum are distinctly narrowing from middle to apex and the shape of apical piece of aedeagus is as in Figs. 21 and 22.

Etymology. Toponymic, named after the type locality Island Hainan (China).

Distribution. China (Hainan Island).

Bolbostetha leoni sp. nov.

(Figs. 6-11)

Type locality. China, Northcentral part of Fujian Province, environ of Yang An, 600 m.

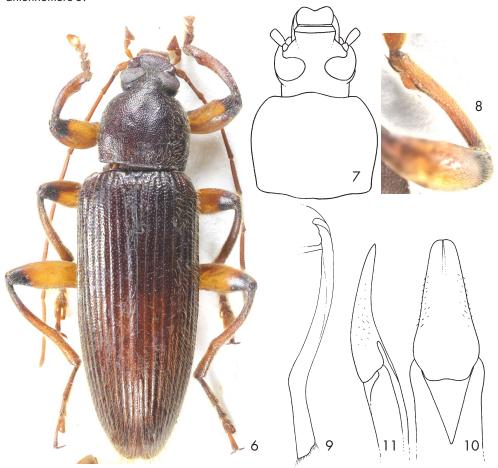
Type material. Holotype (♂): CHINA, NC Fujian Prov. / YANG AN env., 600 m / 2021, local collector lgt., (VNPC). The type is provided with a printed red label: 'Bolbostetha / leoni sp. nov. / HOLOTYPUS / V. Novák det. 2023'.

Description of holotype. Habitus as in Fig. 6, body large, elongate, narrow, parallel, *Leptura*-shaped, slightly convex, shiny, from ochre yellow to blackish brown, dorsal surface with pale setae, punctures and very fine microgranulation, BL 17.33 mm. Widest near elytral humeri; BL/EW 3.49.

Head (Fig. 7) approximately as long as wide, across the eyes distinctly narrower than anterior margin or base of pronotum. Dorsal surface shiny with dense, pale setae, dense and coarse, relatively small punctures, microgranulation not clearly distinct. Posterior part blackish brown, anterior half dark reddish brown. Clypeus wide, transverse with sides arcuate, reddish brown with apex excised at middle. Dorsal surface with punctures, long, pale setae and microgranulation, shiny. Mandibles dark reddish brown with blackish brown sides and apex,

glabrous, shiny. HW 2.42 mm; HW/PW 0.71; HL (visible part) 2.40 mm. Eyes large, transverse, excised, space between eyes distinctly narrower than diameter of one eye; OI equal to 22.55.

Antenna. Long and narrow, pale reddish brown, rather matt (AL 13.61 mm; AL/BL 0.79 exceeding three quarters body length). Surface with recumbent, pale setae, microgranulation and small punctures. Antennomere 2 shortest. Antennomeres 4-11 distinctly longer than antennomere 3.



Figs. 6-11. Bolbostetha leoni sp. nov. (male holotype): 6-habitus; 7-head and pronotum; 8-protibia; 9-metatibia; 10-apical piece of aedeagus, dorsal view; 11-apical piece of aedeagus, lateral view.

RLA(1-11): 0.51 : 0.27 : 1.00 : 1.42 : 1.61 : 1.55 : 1.51 : 1.54 : 1.64 : 1.50 : 1.52 . RL/WA(1-11): 2.14 : 1.39 : 4.50 : 8.74 : 8.17 : 7.87 : 7.70 : 7.83 : 8.00 : 6.29 : 7.42 .

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

Pronotum (Fig. 7) dark brown, shiny, slightly convex, widest near middle, slightly narrower than elytra at humeri. Dorsal surface with long, recumbent, pale setae, very fine microgranulation and

dense, coarse punctures. PL 3.23 mm; PW 3.42 mm in base (3.69 mm near middle); PI equal to 94.44. Border lines very narrow, margins conspicuous from dorsal view only in the middle of anterior margin not clearly distinct. Lateral margins almost straight in basal half, arcuate in apical part. Base bisinuate, anterior margin slightly arcuate in middle, anterior and posterior angles obtuse.

Elytra. Dark brown, shiny, slightly convex, elongate, narrow, parallel, widest near humeri. Dorsal surface with dense and long, pale setation. EL 11.70 mm; EW 4.97 mm; EL/EW 2.35. Elytral striae with rows of coarse punctures, interspaces between punctures in rows narrower than diameter of punctures. Elytral intervals finely convex, with very fine microgranulation and small punctures slightly smaller than those in rows.

Scutellum. Blackish brown, roundly triangular, shiny, with a few pale setae, few shallow punctures and fine microgranulation.

Elytral epipleura well-developed, reddish brown, widest at base, with punctures, distinctly narrowing to ventrite 1 in basal part, then relatively wide and parallel in apical part.

Legs (Figs. 8 and 9). Long and strong. Dorsal surface with pale setae, fine microgranulation and small punctures. Tibiae and tarsi reddish brown, protibiae (Fig. 8) slightly curved and excised in middle part with tubercles on inner side near apex, metatibia as in Fig. 9 curved and excised in basal half of inner part, femora ochre yellow with dark apex, profemora with row of small tubercles in inner part. Protarsomere 1-4, mesotarsomeres 3 and 4 and metatarsomere 3 widened and lobed. RLT: 1.00: 0.58: 0.67: 0.93: — (protarsus), 1.00: 0.56: 0.65: 0.83: 0.98 (mesotarsus), 1.00: 0.46: 0.52: 0.85 (metatarsus).

Ventral side of body dark reddish brown with punctures and recumbent, pale setae. Abdomen dark reddish brown with dense, pale setae, very fine microgranulation and shallow punctures. Ultimate ventrite with large shallow impression.

Aedeagus (Figs. 10, 11) ochre yellow or pale brown, slightly shiny. Basal piece rounded laterally and narrowing in dorsal view. Apical piece short, roundly triangular, beak-shaped from dorsal and lateral views. Ratio of length of apical piece to length of basal piece from dorsal view 1:5.82.

Female unknown.

Differential diagnosis. Similar species from China are *Bolbostetha hainanica* sp. nov. and *Bolbostetha minfongica* sp. nov. from Hainan Island, and *Bolbostetha yanganica* sp. nov. from Fujian Province.

Bolbostetha leoni sp. nov. clearly differs from the similar species B. minfongica mainly by the large body (BL 17.3 in male), by the dorsal surface dark brown or blackish brown and by metatibiae curved and excised in basal half of inner side; while B. minfongica has small body (BL 11.2 mm), the dorsal surface is pale (elytra ochre yellow, head and pronotum reddish brown) and metatibiae are not curved and excised in basal half of inner side.

B. leoni is distinctly different from the similar species B. hainanica and B. yanganica mainly by the pronotum widest near middle (as in Fig. 7), by protibiae excised in middle part with tubercles on inner side near apex (as in Fig. 8); while B. hainanica and B. yanganica have the pronotum widest at base, protibiae are not excised in middle part and have no tubercles on inner side near apex.

Etymology. Patronymic, named after the author of the description of the genus *Bolbostetha* - French entomologist Leon Fairmaire (1820-1906) - after his first name.

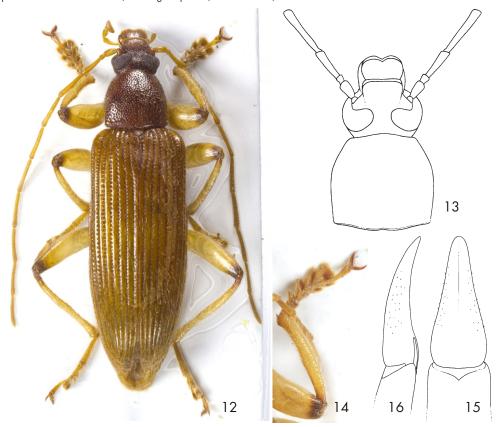
Distribution. China (Fujian Province).

Bolbostetha minfongica sp. nov.

(Figs. 12-16)

Type locality. China, Hainan Island, Minfong Valley, Jianfeng Township, Ledong Li Autonomous County, 18°44′38.98′N, 108°50′39.29′E, 950 m.

Type material. Holotype (3): CHINA, Hainan Island / Minfong Valley / Jianfeng Township / Ledong Li Autonomous County / 12.VI.2018, 950m / 18°44′38.98′′N, 108°50′39.29′′E / P. Viktora Igt., (VNPC). The type is provided with a printed red label: 'Bolbostetha / minfongica sp. nov. / HOLOTYPUS / V. Novák det. 2023'.



Figs. 12-16. Bolbostetha minfongica sp. nov. (male holotype): 12- habitus; 13- head and pronotum; 14- protibia; 15- apical piece of aedeagus, dorsal view; 16- apical piece of aedeagus, lateral view.

Description of holotype. Habitus as in Fig. 12, body medium sized, narrow, elongate, parallel, slightly convex, shiny, from ochre yellow to reddish brown, dorsal surface with pale setae, very fine microgranulation and punctures, BL 11.23 mm. Widest near middle elytral length; BL/EW 3.68.

Head (Fig. 13) distinctly wider than long, across the eyes distinctly wider than anterior margin of pronotum and narrower than base of pronotum. Dorsal surface shiny with long, pale setae, dense

and coarse punctures and microgranulation. Anterior part pale reddish brown, distintcly paler than reddish brown posterior part. Clypeus wide, transverse, half-heart shaped with sides arcuate, pale reddish brown with apex excised at middle. Dorsal surface with shallow punctures, long, pale setae and fine microgranulation. Mandibles pale reddish brown with darker sides and apex, glabrous, shiny. HW 1.51 mm; HW/PW 0.78; HL (visible part) 1.39 mm. Eyes large, transverse, excised, space between eyes distinctly narrower than diameter of one eye; OI equal to 21.43.

Antenna. Long and narrow, ochre yellow, rather matte (AL 9.73 mm; AL/BL 0.87 - exceeding three quarters body length). Surface with dense, pale setae, microgranulation and small punctures. Antennomere 2 shortest, antennomeres 4-11 distinctly longer than antennomere 3.

```
RLA(1-11): 0.65: 0.29: 1.00: 1.72: 1.65: 1.72: 1.69: 1.78: 1.73: 1.62: 1.62.
```

RL/WA(1-11): 2.00:1.18:3.56:6.38:6.13:7.29:6.52:6.58:6.70:7.20:9.00. Maxillary palpus ochre yellow, shiny, with long, pale setae, very small punctures and very fine

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

Pronotum (Fig. 13) reddish brown, shiny, slightly convex, narrow, widest near middle, distinctly narrower than elytra at humeri. Dorsal surface with long, recumbent, pale setae, sparse, very fine microgranulation and dense, coarse punctures. PL 1.89 mm; PW 1.93 mm; PI equal to 97.93. Border lines very narrow, margins conspicuous from dorsal view. Base very slightly bisinuate, anterior margin slightly arcuate in middle, anterior and posterior angles obtuse.

Elytra. Ochre yellow, narrow, parallel, shiny, slightly convex, widest near half elytral length. Dorsal surface with long, pale setae. EL 7.95 mm; EW 3.05 mm; EL/EW 2.61. Elytral striae with rows of coarse punctures, approximately as large as those in pronotum, interspaces between punctures in rows narrower than diameter of punctures. Elytral intervals finely convex, with very fine, almost indistinct microgranulation and very sparse and very small, shallow punctures.

Scutellum. Pale reddish brown, pentagon, shiny, with a fine microgranulation.

Elytral epipleura well-developed, ochre yellow, with punctures as large as those in elytral striae in basal half, widest at base, distinctly narrowing to metaventrite, then relatively narrow and parallel in apical part.

Legs. Long and narrow, ochre yellow, slightly shiny. Dorsal surface with pale setation, fine microgranulation and very sparse, small punctures. Protibia (Fig. 14) with small angle near middle and slightly excised in apical part of inner side, femora stronger with dark apex. Protarsomeres 1-4, mesotarsomeres 3 and 4 and metatarsomere 3 widened and lobed. RLT: 1.00:0.90:1.31:1.46:2.44 (protarsus), 1.00:0.53:0.60:0.59:1.06 (mesotarsus), 1.00:0.44:0.47:0.78 (metatarsus).

Both protarsal claws with 24 visible teeth.

Ventral side of body reddish brown with punctures and pale setae. Abdomen reddish brown with pale setae.

Aedeagus (Figs. 15, 16) ochre yellow, slightly shiny. Basal piece rounded laterally and slightly narrowing in dorsal view. Apical piece roundly triangular dorsally, beak-shaped from dorsal and lateral views. Ratio of length of apical piece to length of basal piece from dorsal view 1: 4.12.

Female unknown.

Differential diagnosis. Similar species from China are *Bolbostetha hainanica* sp. nov. from Hainan Island, *Bolbostetha leoni* sp. nov. and *Bolbostetha yanganica* sp. nov. from Fujian Province.

Bolbostetha minfongica sp. nov. clearly differs from the similar species B. hainanica, B. leoni and B. yanganica mainly by metatibiae not curved and not excised in basal half of inner side, by smaller body (BL 11.2 mm) and paler dorsal surface (elytra ochre yellow, head and pronotum reddish brown) than those in B. hainanica, B. leoni and B. yanganica with large body (BL 15.4-18.8 mm), the dorsal surface is dark brown or blackish brown and metatibiae are curved and excised in basal half of inner side.

Etymology. Toponymic, named after the type locality Minfong Valley (China: Hainan Island).

Distribution. China (Hainan Island).

Bolbostetha yanganica sp. nov.

(Figs. 17-22)

Type locality. China, Northcentral part of Fujian Province, environ of Yang An, 600 m.

Type material. Holotype (3): CHINA, NC Fujian Prov. / YANG AN env., 600 m / 2021, local collector lgt., (VNPC). Paratype: (1 $\,$ \(\varphi\): same data as holotype, (VNPC). The types are provided with a printed red label: 'Bolbostetha / yanganica sp. nov. / HOLOTYPUS [or PARATYPUS] / V. Novák det. 2023'.

Description of holotype. Habitus as in Fig. 17, body large, narrow, elongate, parallel, *Leptura*-shaped, slightly convex, slightly shiny, from ochre yellow to blackish brown, dorsal surface with pale setae, punctures and very fine microgranulation, BL 15.42 mm. Widest near middle elytral length; BL/EW 3.43.

Head (Fig. 18) blackish brown (apex of anterior part ochre yellow), approximately as wide as long, across the eyes distinctly wider than anterior margin of pronotum and narrower than base of pronotum. Dorsal surface with dense, pale setae and dense, coarse punctures. Posterior part rather matt, anterior half shiny. Clypeus wide, transverse with sides arcuate, reddish brown with apex distinctly excised at middle. Dorsal surface with long, pale setae. Mandibles reddish brown with darker sides and apex, glabrous, shiny, with long, pale setae on sides. HW 2.26 mm; HW/PW 0.73; HL (visible part) 2.24 mm. Eyes larger, transverse, excised, space between eyes distinctly narrower than diameter of one eye; distinctly narrower than length of antennomere 1; OI equal to 16.50.

Antenna. Long and narrow, pale reddish brown, rather matt (AL 12.80 mm; AL/BL 0.83 - exceeding three quarters body length). Surface with short, recumbent, pale setae, microgranulation and small punctures. Antennomere 2 shortest, antennomeres 4-11 distinctly longer than antennomere 3.

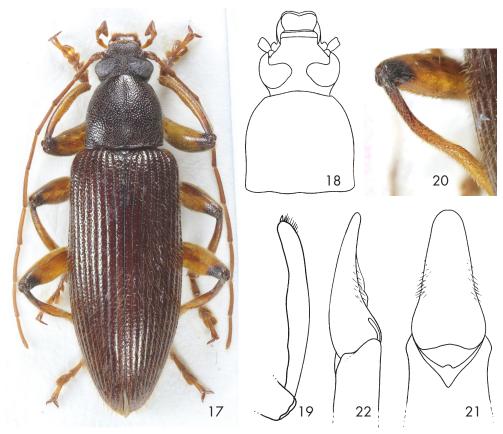
```
RLA(1-11): 0.59 : 0.19 : 1.00 : 1.33 : 1.40 : 1.55 : 1.63 : 1.64 : 1.58 : 1.49 : 1.43 .
RL/WA(1-11): 1.68 : 0.89 : 4.70 : 7.29 : 7.67 : 8.50 : 10.70 : 9.00 : 9.04 : 7.54 : 10.44 .
```

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

Pronotum (Fig. 18) blackish brown, semi-matt, slightly convex, narrow, widest at base, slightly narrower than elytra at humeri. Dorsal surface with pale setae, microgranulation and dense, coarse punctures, intervals between punctures narrower than diameter of punctures. PL 2.88 mm; PW 3.09 mm; Pl equal to 93.20. Border lines very narrow, margins conspicuous from dorsal view only in the middle of anterior part not clearly distinct. Lateral margins slightly excised before

posterior angles, arcuate in apical part. Base very finely bisinuate, anterior margin slightly arcuate, anterior and posterior angles obtuse.

Elytra. Reddish brown, shiny, slightly convex, widest near half elytra length. Dorsal surface with dense and long, pale setae. EL 10.30 mm; EW 4.49 mm; EL/EW 2.29. Elytral striae with rows of coarse punctures. Elytral intervals slightly convex, with punctures distinctly smaller than those in rows, microgranulation not clearly distinct.



Figs. 17-22. Bolbostetha yanganica sp. nov. (male holotype): 17- habitus; 18- head and pronotum; 19- protibia; 20- metatibia; 21- apical piece of aedeagus, dorsal view; 22- apical piece of aedeagus, lateral view.

Scutellum. Blackish brown, roundly triangular, semi-matt, with fine microgranulation.

Elytral epipleura well-developed, reddish brown, with punctures, widest at base, distinctly narrowing to metaventrite in basal part, then relatively narrow and parallel with dense and long, pale setae in apical part.

Legs. Long and narrow, ochre yellow or pale reddish brown. Dorsal surface with pale setae, fine microgranulation and very small punctures. Protibiae (Fig. 19) slightly widened in middle, metatibiae as in Fig. 20 curved and excised in basal half of inner side. Femora strong with apex dark. Protarsomeres 1-4, mesotarsomeres 3 and 4 and metatarsomere 3 widened and lobed. RLT: 1.00:0.45:0.88:0.98:1.93 (protarsus), 1.00:0.70:0.66:0.89:1.48 (mesotarsus), 1.00:0.56:0.68:1.14 (metatarsus).

Both protarsal claws with 27 visible teeth.

Ventral side of body dark brown with punctures and short, pale setae denser in metaventrite than in prothorax or mesoventrite. Abdomen reddish brown with dense, recumbent, pale setae, fine microgranulation and small, shallow punctures.

Aedeagus (Figs. 21, 22) pale reddish brown, apical piece darker than basal piece. Basal piece rounded laterally and slightly narrowing in dorsal view. Apical piece short, triangular dorsally, beak-shaped from dorsal and lateral views. Ratio of length of apical piece to length of basal piece from dorsal view 1: 4.39.

Female. Body wider and more stronger, space between eyes wider, pronotum distinctly wider than in male.

Measurements of female body. BL 18.78 mm; HL 2.28 mm; HW 2.51 mm; OI 23.57; PL 3.36 mm; PW 3.87 mm; PI 86.82; EL 13.14 mm; EW 5.62 mm; HW/PW 0.65; BL/EW 3.34; EL/EW 2.34.

RLA(1-8): 0.46: 0.22: 1.00: 1.50: 1.51: 1.63: 1.81: 1.83. RL/WA(1-8): 1.44: 0.96: 3.68: 5.70: 4.88: 5.47: 6.06: 8.67.

Differential diagnosis. Similar species from China are *Bolbostetha hainanica* sp. nov. and *Bolbostetha minfongica* sp. nov. from Hainan Island and *Bolbostetha leoni* sp. nov. from Fujian Province.

B. yanganica clearly differs from the similar species B. hainanica mainly by narrow space between eyes (OI of male 16.5), distinctly narrower than the length of antennomere 1, by lateral margins of the pronotum distinctly narrowing from middle to apex and by the shape of apical piece of aedeagus (as in Figs. 21 and 22); while B. hainanica has the space between eyes wide (OI 26.2 in male), distinctly wider than length of antennomere 1, the pronotum is narrowing from base to apex and apical piece of aedeagus is as in Figs. 4 and 5.

Bolbostetha yanganica sp. nov. is clearly different from the similar species *B. leoni* mainly by the pronotum widest at base, by protibiae not excised in middle part and without the tubercles on inner side near apex; while *B. leoni* has the pronotum widest near middle (as in Fig. 7), protibiae are excised in middle part and have the tubercles on inner side near apex (as in Fig. 8).

B. yanganica clearly differs from the similar species B. minfongica mainly by large body (BL 15.4-18.8 mm), by the dorsal surface dark brown or blackish brown and by metatibiae curved and excised in basal half of inner side; while B. minfongica has smaller body (BL 11.2 mm), the dorsal surface is pale (ochre yellow elytra, and reddish brown head and pronotum) and metatibiae are not curved and excised in basal half of inner side.

Etymology. Toponymic, named after the type locality Yang An in Fujian Province (China).

Distribution. China (Fujian Province).

ACKNOWLEDGEMENTS. Sincere thanks are due to Lukáš Sekerka and Jiří Hájek (NMPC) for loaning me material under their care and to Zuzana Čadová (Liberec, Czech Republic) for excellent drawings.

REFERENCES

BORCHMANN F. 1910: Coleopterorum Catalogus. Pars 3: Alleculidae. In: JUNK W. & SCHENKLING S. (eds.): Coleopterorum Catalogus. Berlin: W. Junk, 80 pp.

CAMPBELL J. M. 1965: A revision of the genus Charisius (Coleoptera: Alleculidae). The Coleopterist's Bulletin 19: 43-56.

CAMPBELL J. M. & MARSHALL J. D. 1964: The ocular index and its applications to the taxonomy of the Alleculidae (Coleoptera). The Coleopterist's Bulletin 18: 42.

FAIRMAIRE L. 1896: Note XII. Coléoptères de l'Inde boréale, Chine et Malaise. Notes from the Leyden Museum 18: 81-129.

NOVÁK V. 2008: Preliminary revision of the genus Bolbostetha Fairmaire, 1896 (Coleoptera: Tenebrionidae: Alleculinae). Studies and Reports of District Museum Prague-East, Taxonomical Series 4(1-2): 155-206.

NOVÁK V. 2020a: Subfamily Alleculinae Laporte, 1840, pp. 417-453. In: IWAN D. & LÖBL I. (eds). Catalogue of Palaearctic Coleoptera. Volume 5. Revised and Updated Second Edition. Tenebrionoidea. - Brill, Leiden/Boston, 945 pp.

NOVÁK V. 2020b: A contribution to knowledge of the genus *Bolbostetha* Fairmaire, 1896 (Coleoptera: Tenebrionidae: Alleculinae: Alleculini) with description of three new species. *Folia Heyrovskyana, Series A* 28(1): 42-51.

NOVÁK V. 2022: New Bolbostetha Fairmaire species from Malaysia and Vietnam (Coleoptera: Tenebrionidae: Alleculinae: Alleculini). Studies and Reports, Taxonomical Series 18(2): 397-416.

NOVÁK V. & PETTERSSON R. 2008: Subfamily Alleculinae. Pp.: 319-339. In: LÖBL I. & SMETANA A. (eds.): Catalogue of Palaearctic Coleoptera. Vol. 5. Tenebrionoidea. Stenstrup: Apollo Books, 670 pp.

Published: 15. 7. 2024