# New genera of Alleculinae (Coleoptera: Tenebrionidae) from Palaearctic and Oriental Regions VI - *Loricula* gen. nov.

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Taxonomy, new genus, new species, description, Coleoptera, Tenebrionidae, Alleculinae, *Loricula*, Palaearctic and Oriental Regions, China, Laos, Thailand

**Abstract.** A new genus of Alleculinae *Loricula* gen. nov. is described to include the following new species: *Loricula flosmanni* sp. nov. and *Loricula yunnanica* sp. nov. from China (Yunnan) and *Loricula gladiotibialis* sp. nov. from Laos. The species *Loricula subaeneipennis* (Pic, 1922) comb. nov. is transferred from the genus *Allecula* Fabricius, 1801. *L. subaeneipennis* is known from Laos, new distibutional data for Thailand are added.

#### INTRODUCTION

Genus Allecula Fabricius, 1801 with the type species Cistela morio Fabricius, 1787 was established by Fabricius (1801). Borchmann (1910) knew only 151 species from the whole world and Mader (1928) listed only 29 species from the Palaearctic region. This genus comprises today more than 500 species in all zoogeographical regions (Novák 2014a); now we recognize 65 species in the Palaearctic Region (Novák & Pettersson 2008).

Similar genera as Anthracula Fairmaire, 1896, Apalmia Fairmaire, 1896, Asticostena Fairmaire, 1897, Bearnicistela Pic, 1909, Bobina Novák, 2015, Bolbostetha Fairmaire, 1896, Borbonalia Novák, 2014, Borboresthes Fairmaire, 1897, Chitwania Novák, 2015, Cisteloida Fairmaire, 1882, Dioxycula Fairmaire, 1896, Evaostetha Novák, 2008, Gerdacula Novák, 2015, Indricula Novák, 2016, Kombacula Novák, 2012, Makicula Novák, 2012, Mycetocula Novák, 2015, Netopha Fairmaire, 1893, Palpichara Borchmann, 1932, Petrostetha Novák, 2008 and Potocula Novák, 2012 with species occurring in the Oriental and Palaearctic Regions.

A new genus of Alleculinae *Loricula* gen. nov. is described here to include the following four new species: *Loricula flosmanni* sp. nov. and *Loricula yunnanica* sp. nov. from China (Yunnan) and *Loricula gladiotibialis* sp. nov. from Laos. The species *Loricula subaeneipennis* (Pic, 1922) comb. nov. is transferred from the genus *Allecula* Fabricius, 1801. *L. subaeneipennis* is known from Laos, new distributional data for Thailand are added.

Species of new genus *Loricula* gen. nov. have narrow, parallel, *leptura*-shaped body, nearly bell-shaped pronotum, protibia flat as sword, widest near middle, with thorn near middle of inner side of lateral margin (males). Similar genera have not protibia flat, if yes protibia has no thorn, only tubercle or horn on dorsal surface.

New species are described, illustrated and keyed.

#### 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 ( $100 \times 100 \times 10$ 

In the list of type or examined material, a slash (/) separates data in separate rows, a double slash (//) separates different labels.

The following collection codens are used:

DHBC private collection of David Hauck, Brno, Czech Republic;

KMTJ private collection of Kimio Masumoto, Tokio, Japan;

MNHN Muséum National d'Histoire naturelle, Paris, France;

NHMB Naturhistorisches Museum, Basel, Switzerland;

NMEG Naturkundemuseum, Erfurt, Germany;

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

Measurements of body parts and corresponding abbreviations used in text are as follows: AL-total antennae 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).

Other abbreviations used in text are as follows: hb - handwritten black, pb - printed black, pl - pink label, rl - red label, wl - white label.

Measurements were made with Olympus SZ 40 stereoscopic microscope with continuous magnification and with Soft Imaging System AnalySIS.

#### **TAXONOMY**

#### DESCRIPTION OF THE GENUS LORICULA GEN. NOV.

Type species: Loricula subaeneipennis (Pic, 1922)

**Description.** Habitus as in Figs. 1, 6, 11 and 16. Body narrow, elongate, parallel, lepturashaped, dorsal surface setose, with punctuation and fine microgranulation, shiny. BL from 11 to 17 mm. Widest near elytra base; from base to apex of elytra slightly narrowing, BL/EW from 3.2 to 4.1. Head (Figs. 2, 7, 12, 17) relatively small and narrow, approximately as wide as anterior margin of pronotum, dorsal surface with pale setation and punctuation or microgranulation. Clypeus distinctly excised in middle of anterior margin. HW/PW 0.65-0.71. Eyes large, transverse, strongly excised, space between eyes narrow; narrower than diameter of one eye, wider than length of antennomere 2; OI in males from 20 to 29. Antennae (Figs. 2, 7, 12, 17) long, very narrow, filiform, with short pale setation, fine microgranulation and punctures, AL/BL 0.75-0.88. Antennomere 2 shortest, antennomeres 4-10 distinctly longer than antennomere 3. Maxillary palpus with dense, pale setation and fine microgranulation. Palpomeres 2, 3 distinctly narrowest at base and widest at apex. Ultimate palpomere triangular. Pronotum (Figs. 2, 7, 12, 17) convex, widest near middle of lateral margins or in basal angles, slightly longer than wide at base, with sparser and longer, pale setation, dense punctuation and microgranulation. PI 85-93. Border lines narrow, lateral margins slightly arcuate or straight in basal half, anterior margin arcuate, base finely bisinuate. Posterior and anterior angles more or less distinct. Elytron elongate, very slightly narrowing, widest near base, dorsal surface shiny with long pale setation. Elytral striae with distinct rows of punctures, elytral intervals with sparse, very small punctures and fine microgranulation. Elytral epipleura well developed, widest at base, with pale setae and punctuation, regularly narrowing to metasternum or ventrite 1, then leading parallel. Legs relatively narrow, femora stronger, with pale setation, microgranulation and punctuation, punctures very small. Protibia flat as sword (Figs. 3, 8, 13, 18), in widest place with thorn near middle of inner side. Pro- and mesotarsomeres 3, 4 and metatarsomeres 3 distinctly widened and lobed. Anterior tarsal claws relatively long, pectinate, with visible teeth. Aedeagus (Figs. 4, 5, 9, 10, 14, 15, 19, 20).

**Female.** Body more robust, elytra widest near half elytra length, space between eyes slightly wider than those in males. Protibia without thorn, narrow, widest in apex. Anterior tarsal claws with less teeth than in male.

**Differential diagnosis.** Species of new genus Loricula gen. nov. are similar to the species of the genera Allecula Fabricius, 1801, Anthracula Fairmaire, 1896, Apalmia Fairmaire, 1896, Asticostena Fairmaire, 1897, Bearnicistela Pic, 1909, Bobina Novák, 2015, Bolbostetha Fairmaire, 1896, Borbonalia Novák, 2014, Borboresthes Fairmaire, 1897, Chitwania Novák, 2015, Cisteloida Fairmaire, 1882, Dioxycula Fairmaire, 1896, Evaostetha Novák, 2008, Gerdacula Novák, 2015, Indricula Novák, 2016, Kombacula Novák, 2012, Makicula Novák, 2012, Mycetocula Novák, 2015, Netopha Fairmaire, 1893, Palpichara Borchmann, 1932, Petrostetha Novák, 2008 and Potocula Novák, 2012 from Oriental and Palaearctic Regions. They differ from the species of genera above mainly by protibia of male flat as sword, widest near middle, with small but distinct thorn near middle of inner side of lateral margin.

**Etymology.** The compound name consisting of the Czech name (Lori) of a species of low monkey family Lorisidae and ending - cula indicating affinity to the genus *Allecula* Fabricius, 1801. Gender feminine.

**Distribution.** China, Laos, Thailand.

#### KEY TO THE MALES OF LORICULA GEN. NOV.

A (B) Male protibibia not flat or partly flat with tubercles, horns or angles. B (A) Male protibia flat as sword, with short but distinct one thorn near middle of inner lateral margin. ........ Loricula Novák 1 1 (2) Body large, antennae and legs dark blackish brown, apex of elytra roundly excised. China (Yunnan). Habitus as in Fig. 1, head, pronotum and antennomeres 1-4 (Fig. 2), male protibia (Fig. 3), aedeagus (Figs. 4 and 5). Loricula flosmanni sp. nov. 2 (1) Body smaller, antennae and legs partly ochre yellow or pale reddish brown, apex of elytra rounded. Pronotum shorter and wider, lateral margins of pronotum regularly arcuate. Mesotibia straight, without angle in the middle of inner side. Laos. Habitus as in Fig. 6, head, pronotum and antennomeres 1-4 5 (6) Mesotibia with very fine angle in the middle of inner side, punctuation of pronotum coarser and denser. Laos, Thailand. Habitus as in Fig. 11, head, pronotum and antennomeres 1-4 (Fig. 12), male protibia 6 (5) Mesotibia without distinct angle, punctuation of pronotum shallower and sparser. China (Yunnan). Habitus as in Fig. 16, head, pronotum and antennomeres 1-4 (Fig. 17), male protibia (Fig. 18), 

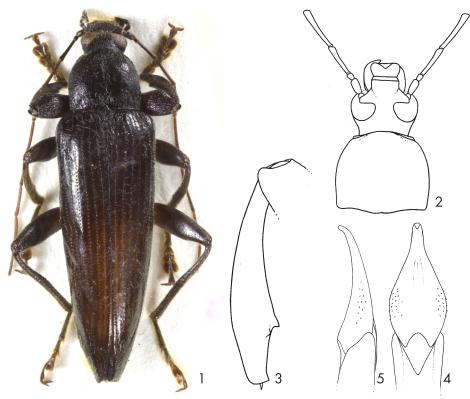
#### **DESCRIPTION OF SPECIES**

## Loricula flosmanni sp. nov.

(Figs. 1-5)

Type locality. S-China, S-Yunann, Bameng, 31 km NW of Jinghong, 1700 m.

**Type material.** Holotype (♂): S-China, S-Yunnan, 31kmNW / Jinghong: Bameng, 1700m / 30 V 2008, St. Floßmann lg., (NMEG). The type is provided with a printed red label: 'Loricula flosmanni sp. nov. HOLOTYPUS V. Novák det. 2016'.



Figs. 1-5: Loricula flosmanni sp. nov. (holotype): 1- habitus; 2- head, pronotum and antennomeres 1-4, 3- protibia of male; 4- aedeagus, dorsal view; 5- aedeagus, lateral view.

**Description of holotype.** Habitus as in Fig. 1, body large, elongate, *leptura*-shaped, from dark brown to black, dorsal surface setose, with punctuation, microgranulation, shiny. BL 17.79 mm. Widest in base of elytra; elytra narrowing apically, BL/EW 3.95.

Head (Fig. 2) relatively small and narrow, elongate, approximately as wide as anterior margin of pronotum, dorsal surface with long, pale setation, punctuation and fine microgranulation. Posterior part black, anterior part slightly paler - blackish brown, clypeus brown. HL (visible part) 2.49 mm; HW 2.06 mm; HW/PW 0.65. Eyes large, transverse, excised, space between eyes narrow; narrower than diameter of one eye, slightly narrower than length of antennomere 1, distinctly wider than length of antennomere 2; OI equal to 20.33.

Antennae (Fig. 2). Long, narrow, filiform, with short pale setation, fine microgranulation and punctures, AL(1-10) 12.16 mm; AL(1-10)/BL 0.68. Antennomeres 1-3 blackish brown, slightly shiny, antennomeres 4-10 reddish brown, rather matte. Antennomere 2 shortest, antennomeres 4-10 each distinctly longer than antennomere 3.

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RLA (1-10): 0.39: 0.19: 1.00: 1.28: 1.33: 1.31: 1.28: 1.25: 1.23: 1.14.
RL/WA (1-10): 1.96: 1.50: 6.09: 8.52: 9.30: 9.63: 9.42: 9.21: 9.56: 9.94.
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Maxillary palpus blackish brown, with pale setae and fine microgranulation. Palpomeres 2, 3 distinctly narrowest at base and widest at apex. Ultimate palpomere slightly darker, triangular.

Pronotum (Fig. 2). Black, convex, shiny, widest near middle of side margins, at base slightly wider than long in middle, pale setation relatively sparse with dense punctuation, punctures small-sized, interspaces between punctures with fine microgranulation. PL 2.21 mm; PW 2.30 mm; Pl equal to 85.27. Border lines very narrow, lateral and anterior margins distinctly arcuate, base finely bisinuate. Posterior angles roundly rectangular, anterior angles almost indistinct. Disc in middle with fine, shallow and narrow, longitudinal furrow, base with shallow, oblique furrows on both sides near posterior angles.

Ventral side of body black, with short and sparse, pale setae and very small, sparse punctures, slightly shiny. Abdomen blackish brown, shiny, with denser, short, pale setation, fine microgranulation and dense punctuation, punctures small. Ultimate ventrite with large shallow impression.

Elytron. Blackish brown, narrow, elongate, narrowing apically, dorsal surface shiny, with relatively sparse and long, pale setation. Elytral striae with distinct rows of small-sized punctures, elytral intervals with fine microgranulation and very sparse and very small punctures. Apex of elytra angled, not arcuate apically, roundly excised. EL 12.58 mm; EW 4.51 mm. EL/EW 2.79.

Scutellum black, pentagonal, shiny.

Elytral epipleura. Well developed, blackish brown, widest at base, with pale setae and punctuation, regularly narrowing to ventrite 1, then narrow leading parallel.

Legs blackish brown, strong, with long, ochre yellow setation, microgranulation or microrugosities and punctuation, punctures very small and shallow. Protibia (Fig. 3) flat as sword with one short thorn near middle of inner side (here widest), with distinct ridge on outer side and with many furrows on dorsal surface. Mesotibia with one short and small thorn near middle of inner side. Femora strong. Protarsomeres and mesotarsomes 3 and 4 and metatarsomeres 3 distinctly widened and lobed. RLT: 1.00:0.96:1.27:1.61:1.96 (protarsus); 1.00:0.53:0.65:1.02:1.12 (mesotarsus); 1.00:0.50:0.77:0.74 (metatarsus).

Anterior tarsal claws long with 33 visible teeth.

Aedeagus (Figs. 4, 5). Ochre yellow, slightly shiny. Basal piece rounded laterally and narrowing dorsally. Apical piece beak-shaped dorsally and laterally. Ratio of length of apical piece to length of basal piece 1:4.62.

#### Female. Unknown.

**Differential diagnosis.** (For details see the key above). *Loricula flosmanni* sp. nov. distinctly differs from all similar species *Loricula gladiotibialis* sp. nov., *Loricula subaeneipennis* (Pic, 1922) comb. nov. and *Loricula yunnanica* sp. nov. mainly by body large, antennae and legs dark blackish brown, apex of elytra roundly excised; while *L. gladiotibialis*, *L. subaeneipennis* and *L. yunnanica* have body smaller, antennae and legs paler or partly paler and apex of elytra rounded.

**Etymology.** Named after the collector of the type species.

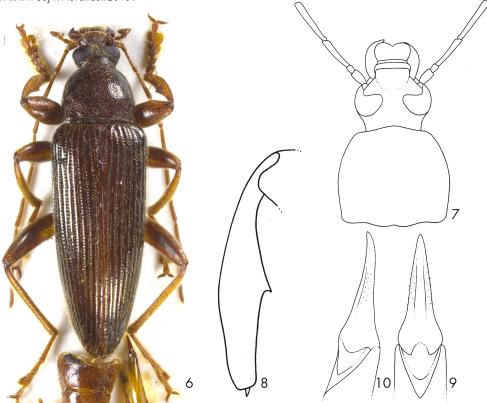
**Distribution.** China (Yunnan).

# Loricula gladiotibialis sp. nov.

(Figs. 6-10)

Type locality. Laos, Phongsaly prov., env. of Phongsaly, 21°41-2′N 102°06-8′E, 1500 m.

Type material. Holotype [ $\circlearrowleft$ ]: LAO-N, Phongsaly prov., / 21°41-2′N 102°06-8′E, / PHONGSAlY env., / 6.-17.v.2004, ~1500m, / Vít Kubáň leg., (VNPC). Paratypes: (3  $\circlearrowleft$  2  $\circlearrowleft$ 2): LAO-N, Phongsaly prov., / 21°41-2′N 102°06-8′E, / PHONGSAlY env., / 6.-17.v.2004, ~1500m, / Vít Kubáň leg., (DHBC, VNPC); (9  $\circlearrowleft$  5  $\circlearrowleft$  9]: LAO, Phongsaly prov., / 21°41-2′N 102°06-8′E, / 28.v.-20.vi.2003, / PHONGSAlY env., / ~1500m, Brancucci leg., (NHMB, VNPC); (3  $\circlearrowleft$  1  $\circlearrowleft$ ): same data as penultimate, but 6.-17.v.2004, (NHMB. VNPC); (2  $\circlearrowleft$ 6): same data as penultimate, but 19-26.v.2004, (NHMB, VNPC). The types are provided with a printed red label: 'Loricula gladiotibialis sp. nov. HOLOTYPUS [or PARATYPUS] V. Novák det. 2016′.



Figs. 6-10: Loricula gladiotibialis sp. nov.: 6- habitus of holotype; 7- head, pronotum and antennomeres 1-4 of holotype, 8-protibia of male holotype; 9- aedeagus, dorsal view; 10- aedeagus, lateral view.

**Description of holotype.** Habitus as in Fig. 6, body relatively large, elongate, *leptura*-shaped, from pale brown to blackish brown, dorsal surface setose, with punctuation, shiny. BL 13.01 mm. Widest at base of elytra; elytra narrowing apically, BL/EW 3.74.

Head (Fig. 7) relatively small and narrow, elongate, approximately as wide as anterior margin of pronotum, dorsal surface with long, pale setation, dense punctuation. Posterior part blackish brown, anterior part slightly paler - dark brown, clypeus reddish brown. Anterior part and clypeus with distinct microgranulation. HL (visible part) 2.08 mm; HW 1.77 mm; HW/PW 0.66. Eyes large, transverse, excised, space between eyes narrow; narrower than diameter of one eye, distinctly wider than length of antennomere 1; OI equal to 27.06.

Antennae (Fig. 7). Long, narrow, filiform, with short pale setation, fine microgranulation and punctures, AL 10.40 mm; AL/BL 0.80. Antennomeres 1-4 slightly shiny, antennomeres 5-11 rather matte. Antennomere 2 shortest, antennomeres 4-11 each distinctly longer than antennomere 3.

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RLA (1-11): 0.46 : 0.22 : 1.00 : 1.32 : 1.32 : 1.31 : 1.45 : 1.31 : 1.27 : 1.19 : 1.12.
RL/WA (1-11): 1.83 : 0.97 : 5.13 : 6.79 : 6.33 : 6.96 : 8.00 : 7.23 : 6.74 : 6.33 : 7.27.
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Maxillary palpus pale brown, with long, pale setae and fine microgranulation. Palpomeres 2, 3 distinctly narrowest at base and widest at apex. Ultimate palpomere slightly darker, triangular, with fine microrugosities.

Pronotum (Fig. 7). Dark brown, convex, shiny, widest near middle of side margins, in base slightly wider than long in middle, pale setation sparse, with dense punctuation, punctures small-sized, interspaces between punctures narrow, microgranulation almost indistinct. PL 2.16 mm; PW 2.48 mm; PI equal to 87.10. Border lines very narrow, lateral margins distinctly arcuate, base finely bisinuate. Posterior angles roundly obtuse, anterior angles indistinct, obtuse. Base with shallow, oblique furrows from both sides near posterior angles.

Ventral side of body blackish brown with pale setation and small punctures, slightly shiny. Abdomen reddish brown, slightly shiny, with pale setation, fine microgranulation and double punctuation (small coarser punctures with larger shallower punctures).

Elytron. Blackish brown near lateral margins and reddish brown near suture, narrow, elongate, narrowing apically, dorsal surface shiny, with long, pale setation. Elytral striae with distinct rows of medium-sized punctures, elytral intervals with very sparse and very small punctures, microgranulation not clearly conspicuous. Apex of elytron with short but distinct thorn. EL 8.77 mm; EW 3.48 mm. EL/EW 2.52.

Scutellum pentagonal, pale reddish brown with sides darker, shiny, with dense, small punctures, pale setae and microrugosities.

Elytral epipleura. Well developed, blackish brown, widest in base, with pale setae and small punctures, regularly narrowing to ventrite 1, then narrow, leading parallel.

Legs with ochre yellow setation, microrugosities and punctuation, punctures small and shallow. Protibia (Fig. 8) flat as sword with one short thorn near middle of inner side (here widest), with distinct ridge on outer side and with many furrows on dorsal surface. Femora strong. Protarsomeres and mesotarsomes 3 and 4 and metatarsomeres 3 distinctly widened and lobed. RLT: 1.00:0.74:0.96:1.35:1.80 (protarsus); 1.00:0.58:0.72:0.84:1.01 (mesotarsus); 1.00:0.45:0.50:0.78 (metatarsus).

Anterior tarsal claws long with 33 visible teeth.

Aedeagus (Figs. 9, 10). Ochre yellow, slightly shiny, apical piece darker. Basal piece rounded laterally and narrowing dorsally. Apical piece beak-shaped dorsally and laterally. Ratio of length of apical piece to length of basal piece 1: 3.74.

**Female.** More robust, elytra widest near middle, space between eyes distinctly wider, protibia without thorns and widest in apex, anterior tarsal claws with 15 teeth.

**Variability.** The type specimens somewhat vary in size; each character is given as its mean value, with full range in parentheses. Males (n=18). BL 11.89 mm (10.53-13.07 mm); HL 1.41 mm (1.30-1.60 mm); HW 1.69 mm (1.50-1.91 mm); OI 25.42 (23.73-27.06); PL 2.17 mm (1.93-2.48 mm); PW 2.47 mm (2.10-3.01 mm); PI 89.47 (85.60-93.22); EL 8.38 mm (7.23-9.59 mm); EW 3.39 mm (2.91-3.92 mm). Females (n=8). BL 12.23 mm (10.32-13.11 mm); HL 1.49 mm (1.36-1.63 mm); HW 1.70 mm (1.49-1.88 mm); OI 38.60 (36.49-42.86); PL 2.00 mm (1.71-2.17 mm); PW 2.57 mm (2.15-2.83 mm); PI 78.25 (75.91-80.33); EL 8.74 mm (7.24-9.46 mm); EW 3.60 mm (3.16-3.85 mm).

**Differential diagnosis.** (For details see the key above). *Loricula gladiotibialis* sp. nov. distinctly differs from similar species *Loricula flosmanni* sp. nov. mainly by smaller body, apex of elytra rounded, antennae and legs partly pale; while *L. flosmanni* has larger body, apex of elytra excised, antennae and legs blackish brown. *L. gladiotibialis* is clearly different from similar species *Loricula subaeneipennis* (Pic, 1922) comb. nov. and *Loricula yunnanica* sp. nov. mainly by pronotum shorter and wider and lateral margins of pronotum regularly arcuate; while *L. subaeneipennis* and *L. yunnanica* have pronotum longer and narrower and lateral margins of pronotum parallel in basal half.

**Etymology.** Compound name from Latin gladio (sword) and ending tibialis - it means that male protibia are flat as sward.

**Distribution.** Laos.

# Loricula subaeneipennis (Pic, 1922) comb. nov.

(Figs. 11-15)

Allecula subaeneipennis Pic, 1922: 15.

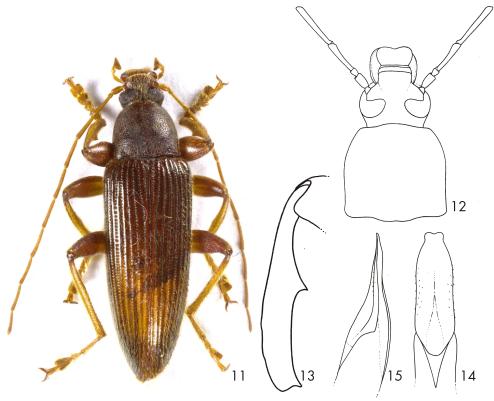
Type locality. Laos, Nam Long.

**Type material.** HT (3) by monotypy: wl: 1771 [hb] // wl: Laos [hb] / TONKIN [pb] / Nam Long [hb] / le [pb] 17.III. [hb] 191 [pb] 8 [hb] / R.Vitalis de Salvaza [pb] // wl: n sp pres / aenea / ?? / ?? [hb] // pl: type [hb] // rl: TYPE [pb] // wl: Allecula / subaeneipennis / n sp [hb], (MNHN).

**Material examined:** (1  $\,$ 3): N THAILAND / Chiang Rai prov. / Wiang Pa Pao env. / 7. - 22. V. 2010 / P. Viktora Igt., (VNPC); (2  $\,$ 3 $\,$ 5): N THAILAND - Chiang / Rai prov.; Wiang Pa / Pao env. 21.5. - 10. 6. / 2011; P. Viktora Igt., (VNPC); (1  $\,$ 3 $\,$ 5): Thailand N, Chiang Rai / prov., WIANG PA PAO / 5.-10.vi.2016 / K. Takahashi Ieg., (KMTJ); (8  $\,$ 3 $\,$ 6 $\,$ 2 $\,$ 9 $\,$ 9: LAOS-N, 24. iv.-16.v. 1999 / Louang Phrabang prov. / 20°33-4′N 102°14′E, / Ban Song Cha (5km W), /  $\,$ 1200m, Vif Kubáň Ieg., (DHBC, VNPC); (1  $\,$ 3): LAOS - N Louang Phrabang / prov., Ban Song Cha (5km W) / 20°33-4′N 102°14′E, 1200 m / C. Holzschul Ieg., (VNPC); (3  $\,$ 3 $\,$ 6): LAOS north, 13-24.V.1997, / 15 km NW Louang Namtha, / N 21°07.5, E 101°21.0, / alt. 750 $\,$ 100 m, / E. Jendek & O. Šauša Ieg., (DHBC, VNPC); (1  $\,$ 3): Thailand, Fang, / Doi Ang Khang, / 2-4.VI.2014, / K. Takahashi Ieg., (KMTJ).

**Redescription.** Habitus as in Fig. 11, body large, narrow, elongate, parallel, *leptura*-shaped, from pale brown to blackish brown, dorsal surface setose, with punctuation and microgranulation, shiny. BL 12.17 mm. Widest at base of elytra; from base to elytral half parallel, BL/EW 3.77. Head (Fig. 12) relatively small, slightly narrower than anterior margin of pronotum, dorsal surface with long, ochre yellow setation and dense punctuation. Posterior part blackish brown, anterior part distinctly paler - reddish brown, clypeus pale brown with fine microgranulation, distinctly excised in middle of anterior margin. HL (visible part) 1.81 mm; HW

1.66 mm; HW/PW 0.71. Eyes large, transverse, strongly excised, space between eyes narrow; narrower than diameter of one eye, approximately as wide as length of antennomere 1; OI equal to 27.08. Antennae (Fig. 12) long, narrow, filiform, with short, dense, pale setation, fine microgranulation and punctures, AL 10.63 mm; AL/BL 0.87. Antennomeres 5-11 matter than slightly shiny antennomeres 1-4. Antennomere 2 shortest, each of antennomeres 4-11 distinctly longer than antennomere 3. RLA (1-11): 0.53: 0.22: 1.00: 1.32: 1.49: 1.49: 1.49: 1.52: 1.44: 1.34: 1.21. RL/WA (1-11): 2.34: 1.43: 5.04: 7.83: 8.83: 7.52: 8.46: 7.67: 8.17: 7.91: 7.46. Maxillary palpus pale brown, with ochre yellow setation and fine microgranulation.



Figs. 11-15: Loricula subaeneipennis (Pic, 1922) comb. nov.: 11- habitus; 12- head, pronotum and antennomeres 1-4, 13- protibia of male; 14- aedeagus, dorsal view; 15- aedeagus, lateral view.

Palpomeres 2, 3 distinctly narrowest at base and widest at apex. Ultimate palpomere triangular. Pronotum (Fig. 12) dark blackish brown, shiny, convex, widest near middle of side margins, approximately as long as wide at base, with sparse, pale setation near sides and dense punctuation, punctures small-sized. Dorsal surface with two shallow, oblique impressions near base on both sides of posterior angles. PL 2.06 mm; PW 2.35 mm; PI equal to 87.76. Border lines narrow, lateral margins parallel in posterior half, then arcuate, anterior margins slightly arcuate, base very finely bisinuate. Posterior angles roundly obtuse, anterior angles obtuse. Ventral side of body dark blackish brown, with short, pale setation and larger punctures. Abdomen brown, with pale setation, sparse, small and shallow punctures and fine microrugosities, shiny. Elytron

blackish brown, shiny, with metallic lustre, narrow, elongate, parallel, widest in base, dorsal surface with relatively long, ochre yellow setation. Elytral striae with distinct rows of medium-sized punctures, elytral intervals with very sparse, small punctures and very fine microgranulation, shiny. EL 8.30 mm; EW 3.23 mm. EL/EW 2.57. Scutellum wide, roundly pentagonal, pale brown, shiny, with shallow punctures, pale setae and fine microgranulation and microrugosities. Elytral epipleura well developed, dark blackish brown, shiny, widest at base, with pale setae and punctuation, regularly narrowing to metasternum, then narrow, leading parallel. Leas pale brown, with ochre yellow setation, microrugosities and shallow punctuation, punctures very small. Protibia (Fig. 13) flat as sword with one short thorn near middle of inner side (here widest), with distinct ridge on outer side and with many furrows on dorsal surface. Femora strong. Protarsomeres and mesotarsomes 3 and 4 and metatarsomeres 3 distinctly widened and lobed. RLT: 1.00 : 0.81 : 0.82 : 1.13 : 1.18 (protarsus); 1.00 : 0.53 : 0.61 : 0.77 : 0.89 (mesotarsus); 1.00: 0.45: 0.49: 0.77 (metatarsus). Anterior tarsal claws long with 31 visible teeth. Aedeagus (Figs. 14, 15) ochre yellow, apical piece distinctly darker, slightly shiny. Basal piece rounded laterally and slightly narrowing dorsally. Apical piece narrow laterally, beak-shaped dorsally and laterally. Ratio of length of apical piece to length of basal piece 1: 4.78.

**Female.** More robust, elytra widest near middle, space between eyes distinctly wider, protibia without thorns and widest near apex, anterior tarsal claws with 12 or 13 teeth.

**Distribution.** Laos, new for territory of Thailand.

# Loricula yunnanica sp. nov.

(Figs. 16-20)

Type locality. China, Yunnan, Gaoligong mts., 25°22 N; 98°49 E, 1500-2500 m.

**Type material.** Holotype (3): YUNNAN 1500-2500m / 25.22N 98.49E 17-24. 5 / GAOLIGONG mts. /Vít Kubáň leg. 1995, (VNPC). Paratype: (3): CHINA: S-YUNNAN / (Xishuangbanna) / 27 km NW Jinghong / Beng Gang Ha Ni (NNNR) // N22 08.745,E100 35.498 / 1800m 05.V.2008 / leg. A. Weigel LF village, (NMEG). The types are provided with a printed red label: 'Loricula yunnanica sp. nov. HOLOTYPUS [or PARATYPUS] V. Novák det. 2016'.

**Description of holotype.** Habitus as in Fig. 16, body relatively large, elongate, *leptura*-shaped, from pale brown to brown, dorsal surface setose, with punctuation and microgranulation, shiny. BL 11.20 mm. Widest at base of elytra; elytra very slightly narrowing apically, BL/EW 3.68.

Head (Fig. 17) brown, relatively small and narrow, elongate, approximately as wide as anterior margin of pronotum, dorsal surface with pale setation, punctuation and microgranulation. Clypeus reddish brown with longer setation. HL (visible part) 1.66 mm; HW 1.56 mm; HW/PW 0.70. Eyes large, transverse, excised, space between eyes narrow; slightly narrower than diameter of one eye, distinctly wider than length of antennomere 1; OI equal to 28.80.

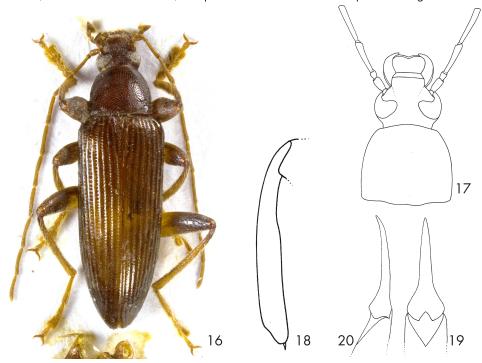
Antennae (Fig. 17). Long, narrow, filiform, pale brown with short pale setation, fine microgranulation and punctures, AL 9.85 mm; AL/BL 0.88. Antennomere 2 shortest, antennomeres 4-11 each distinctly longer than antennomere 3.

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RLA (1-11): 0.52: 0.19: 1.00: 1.27: 1.38: 1.41: 1.48: 1.37: 1.44: 1.25: 1.21.
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RL/WA (1-11): 1.86 : 0.96 : 4.67 : 6.40 : 7.25 : 6.81 : 7.15 : 6.62 : 7.91 : 7.48 : 6.65.

Maxillary palpus brown, with long, pale setae and fine microrugosities and microgranulation. Palpomeres 2, 3 distinctly narrowest in base and widest in apex. Ultimate palpomere triangular.

Pronotum (Fig. 17). Dark brown, convex, shiny, widest near middle of side margins, at base slightly wider than long in middle, pale setation sparse, with dense and coarse punctuation, punctures medium-sized, interspaces between punctures narrow with fine microgranulation. PL 1.96 mm; PW 2.24 mm; PI equal to 87.71. Border lines very narrow, lateral margins slightly arcuate, base finely bisinuate. Posterior angles roundly obtuse, anterior angles not clearly distinct, obtuse. Base with shallow, oblique furrows on both sides near posterior angles.



Figs. 16-20: Loricula yunnanica sp. nov. (holotype): 16- habitus; 17- head, pronotum and antennomeres 1-4, 18- protibia of male; 19- aedeagus, dorsal view; 20- aedeagus, lateral view.

Ventral side of body reddish brown with pale setation and small punctures. Abdomen brown, slightly shiny, with sparse, pale setation, fine microgranulation and punctuation.

Elytron. Brown, narrow, elongate, slightly narrowing apically, dorsal surface shiny, with sparser, long, pale setation. Elytral striae with distinct rows of medium-sized punctures, elytral intervals distinctly convex, with very sparse and very small punctures and very fine microgranulation. Apex of elytron not arcuate. EL 7.58 mm; EW 3.04 mm. EL/EW 2.49.

Scutellum pentagonal, pale brown with sides darker, with pale setae and microgranulation.

Elytral epipleura. Well developed, brown, very wide and widest at base, with pale setae and medium-sized punctures, regularly narrowing to ventrite 1, then narrow, leading parallel.

Legs pale brown, with pale setation, microgranulation and punctuation, punctures small and shallow. Protibia (Fig. 18) distinctly flat with one indistinct thorn near middle of inner side (here widest), with distinct ridge in outer side and with many furrows on dorsal surface. Femora strong, reddish brown. Protarsomeres and mesotarsomes 3 and 4 and metatarsomeres 3 distinctly widened and lobed. RLT: 1.00:0.74:1.06:1.26:1.85 (protarsus); 1.00:0.61:0.75:1.02:

1.40 (mesotarsus); 1.00:0.39:0.48:0.77 (metatarsus).

Anterior tarsal claws long with 28 visible teeth.

Aedeagus (Figs. 19, 20). Basal piece yellow, slightly shiny, apical piece darker. Basal piece rounded laterally and narrowing dorsally. Apical piece narrow, beak-shaped dorsally and laterally. Ratio of length of apical piece to length of basal piece 1: 3.35.

Female. Unknown.

**Variability.** The type specimens somewhat vary in size; each character is given as its mean value, with full range in parentheses. Males (n=2). BL 11.86 mm (11.20-12.51 mm); HL 1.56 mm (1.45-1.66 mm); HW 1.68 mm (1.56-1.79 mm); OI 28.86 (28.80-28.92); PL 2.12 mm (1.96-2.28 mm); PW 2.44 mm (2.24-2.64 mm); PI 86.99 (86.26-87.71); EL 8.18 mm (7.58-8.78 mm); EW 3.31 mm (3.04-3.58 mm).

**Differential diagnosis.** (For details see the key above). *Loricula yunnanica* sp. nov. distinctly differs from similar species *Loricula flosmanni* sp. nov. mainly by apex of elytra arcuate; while *L. flosmanni* has apex of elytra roundly excised. *L. yunnanica* is distinctly different from similar species *Loricula gladiotibialis* sp. nov. mainly by pronotum longer and narrower, sides of pronotum parallel in basal half; while *L. gladiotibialis* has pronotum shorter, wider and regularly arcuate. *L. yunnanica* distinctly differs from similar species *Loricula subaeneipennis* (Pic, 1922) comb. nov. mainly by mesotibia of male without distinct angle on inner side; while males of *L. subaeneipennis* has distinct angle on inner side of mesotibia.

**Etymology.** Toponymic, after the type locality - China province Yunnan.

**Distribution.** China (Yunnan).

ACKNOWLEDGEMENTS. Sincere thanks are due to Michel Branccuci (†) and Michael Geiser (NHMB), Matthias Hartmann (NMEG), Kimio Masumoto (KMTJ) and David Hauck (DHBC) for the loan of new material. Special thanks are extended to Zuzana Čadová (Liberec, Czech Republic) for excellent drawings.

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Published: 29.12.2016