

***Cteniopinus (Lechinius) holzschuhi* sp. n. from Bhutan
(Coleoptera: Tenebrionidae: Alleculinae: Cteniopodini)**

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Taxonomy, new species, description, key, Coleoptera, Tenebrionidae, Alleculinae, Cteniopodini, Palaearctic region, Bhutan

Abstract. *Cteniopinus (Lechinius) holzschuhi* sp. n. from Bhutan is described, illustrated, keyed and compared with the other species of the subgenus *Lechinius* Borchmann, 1930 - *Cteniopinus (Lechinius) fossulatus* (Pic, 1913) and *Cteniopinus (Lechinius) semicoccineus* Blair, 1922.

INTRODUCTION

Seidlitz (1896) described the genus *Cteniopinus* Seidlitz, 1896 of the tribe *Cteniopodini* Solier, 1835, and Borchmann (1930) established its subgenus *Lechinius* Borchmann, 1930, with the species *C. (L.) fossulatus* (Pic, 1913), described as *Cistelomorpha* known from Nepal, Thibet, Sikkim and Darjeeling and *C. (L.) semicoccineus* Blair, 1822 known from Nepal and Thibet. Species of this subgenus differ from those of *Cteniopinus* s. str. mainly by the elytra with shallow cavities and impressions and by pronotum flat. Novák & Pettersson (2008) listed only these two species of this subgenus. An additional species, *C. (L.) holzschuhi* sp. n. from Bhutan is described and illustrated here and key to all species of the subgenus *Lechinius* is added.

MATERIAL AND METHODS

Material from Bhutan was collected in 1990 by C. Holzschuch.

The types are provided with a printed red label: '*Cteniopinus (Lechinius) holzschuhi* sp. nov. HOLOTYPUS [resp. PARATYPUS] V. Novák det. 2008'.

Two important morphometric characteristics used for the descriptions of species of the subfamily Alleculinae are employed: the 'ocular index' dorsally (Campbell & Marshall, 1964), calculated by measuring the minimum distance between the eyes and dividing this value by the maximum dorsal width across eyes, the quotient resulting from this division being converted into the index by multiplying by 100 and the 'pronotal index' (Campbell, 1965), the ratio of the length of the pronotum along the midline to the width at the posterior angles; this ratio is multiplied by 100 for convenience.

The following codens are used in the paper:

NMEG Naturkundesmuseum Erfurt, Germany;

VNPC Vladimír Novák, private collection, Praha, Czech Republic.
Slash (/) separates data in different rows on locality labels.

TAXONOMY

Key to the species *Lechinius* Borchmann, 1930

- 1 (2) Pronotum vaulted, elytra without cavities and impressions subgenus *Cteniopinus* Seidlitz, 1896
2 (1) Pronotum flat with cavities and impressions across elytral striae and elytral interspaces
..... subgenus *Lechinius* Borchmann, 1930
3 (4) Bicolorous, pronotum black, elytra red, posterior tibia of male distinctly rounded as in Fig. 19. (Habitus as in
Fig. 15; aedeagus as in Figs 21-22. Nepal, Thibet. *C. (L.) semicoccineus* Blair, 1922
4 (3) Unicolorous pale brown or dark, posterior tibia of male straight 5
5 (6) Body unicolorous pale yellowish brown, pronotum (Fig. 9) broader compared to the next species, more
transverse, posterior angles distinctly sharp-angled, lateral margins distinctly excised in posterior half.
Anterior tarsomere 3 as long as anterior tarsomere 4 (Fig. 11). Habitus as in Fig. 8; aedeagus as in Figs 13-14.
Bhutan. *C. (L.) holzschuhi* sp. n.
6 (5) Body dark blackish-brown, pronotum (Fig. 2) distinctly narrower than that of the species before, posterior
angles rectangular, lateral margins straight in posterior half. Anterior tarsomere 3 distinctly longer than anterior
tarsomere 4 (Fig. 4). Habitus as in Fig. 1; aedeagus as in Figs 6-7. Nepal, Tibet, Sikkim and Darjeeling
..... *C. (L.) fossulatus* (Pic, 1913)

Cteniopinus (Lechinius) fossulatus (Pic, 1913)

(Figs 1-7)

Cistelomorpha fossulata Pic, 1913: 142.

Cteniopinus catemulatus Blair, 1922: 561.

Material examined. NEPAL, Tanje, Dordi Khola valley, 19.ix.1980, J. Seifert, (3 ♂♂, 2 ♀♀), (VNPC).

Remarks. Habitus of male as in Fig. 1, length of examined male 12.13 mm. Head and pronotum (Fig. 2) black, ocular index equal to 53.26; pronotal index equal to 83.90. Maxillary palpus as in Fig. 3, anterior tarsi as in Fig. 4. Ultimate and penultimate abdominal sternites as in Fig. 5. Aedeagus as in Figs 6-7, ratio of lengths of apical piece / basal piece 1 : 6.31.

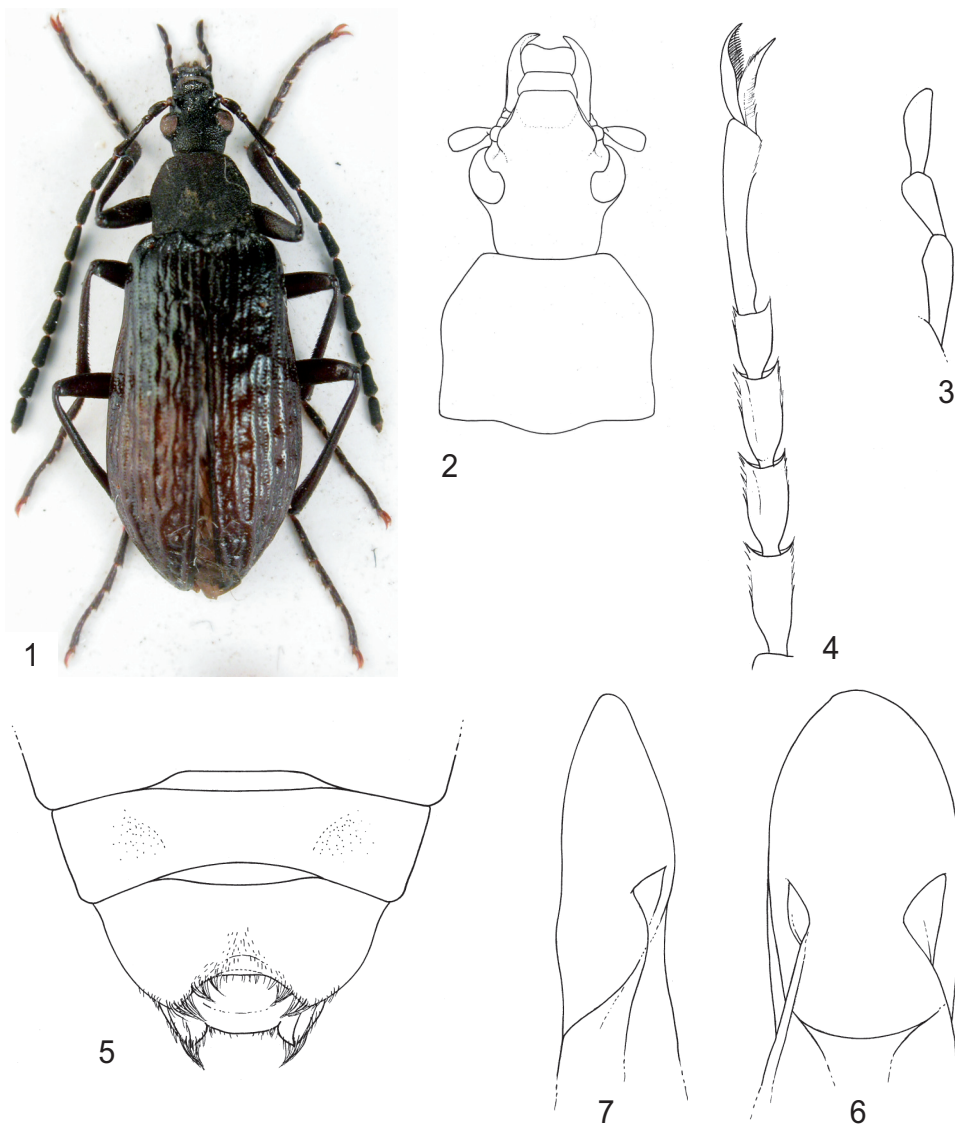
Distribution. Nepal, Tibet, Sikkim and Darjeeling.

Cteniopinus (Lechinius) holzschuhi sp. n.

(Figs 8-14)

Type locality. Bhutan, Gaylegphug.

Type material. Holotype (♂): 'Central - BHUTAN' / 'Gaylegphug Prov., white label 250 m' / 'Gaylegphug, 7.-10.VIII.' / 'leg. C.Holzschuch 1990', (NMEG); Paratypes: (10 specimens): same data as holotype, (NMEG, VNPC).



Figs 1-7: *Cteniopinus (Lechinus) fossulatus* (Pic, 1913) (♂): 1- Habitus; 2- Head and pronotum; 3- Maxillary palpus; 4- Anterior tarsi; 5- Ultimate and penultimate abdominal sternites; 6- Aedeagus, dorsal view; 7- Aedeagus, lateral view.

Description of holotype. Habitus of male holotype as in Fig. 8. Body pale yellowish-brown, length 13.94 mm, widest near two thirds of elytral length, maximum width 4.21 mm, 3.31 times longer than wide.

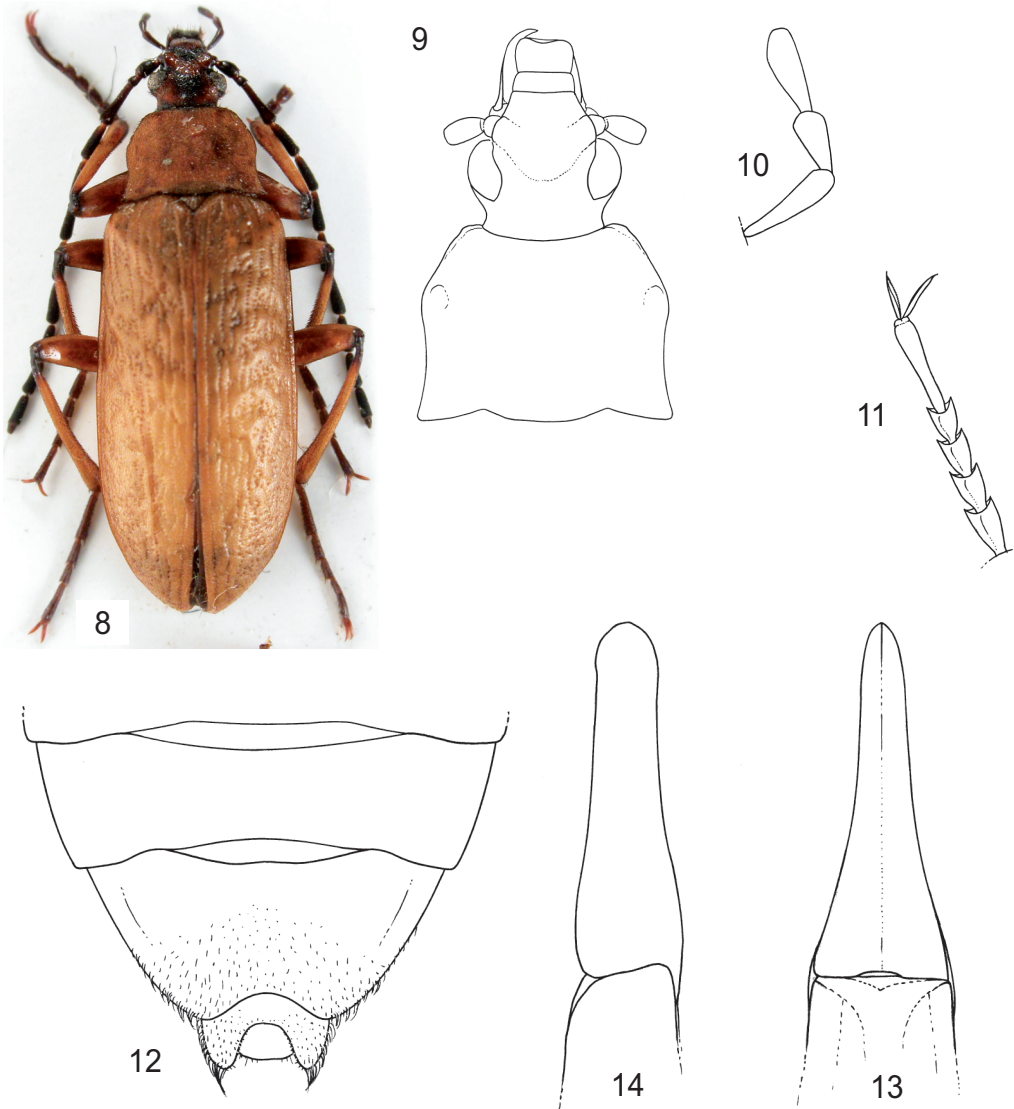
Head (Fig. 9) long, relatively narrow, pale brown, with dark brown narrow strip near base and one dark brown spot in the middle of posterior half. Anterior part with dark brown clypeus and dark brown spot between antennae. Head widest across eyes, 1.71 mm, approximately 0.56 times as wide as pronotal base. Length of head (visible part) 2.51 mm. Punctuation dense, punctures large and relatively deep, interspaces between punctures narrow. Clypeus and space between eyes with shallow and sparse punctuation, shiny. Setation sparse, relatively short, anterior part and clypeus with long dark setae. Setation pale brown, near sides dark.

Antenna. Relatively long (9.01 mm, i.e. reaching 0.65 body length), bicolorous, dark blackish-brown with narrowly pale brown base of antennomeres 4-8. Antennomeres 1-3 with long dark setation and microgranulation, slightly shiny; antennomeres 4-11 dull with dense and short dark setation, microgranulation and dense punctuation with small punctures. Antennomeres 3-10 conspicuously widened at apex, antennomere 3 longest, antennomere 2 shortest, antennomere 1 broadest. Ratios of relative lengths of antennomeres 1-11 equal to 0.55:0.21:1.00:0.84:0.81:0.89:0.87:0.93:0.80:0.76:0.92. Length/maximum width ratios of antennomeres 1-11 equal to 1.90:1.08:5.42:3.03:3.63:3.96:3.54:3.79:3.45:3.64:4.39.

Maxillary palpus (Fig. 10) unicolorous brown, concolorous with clypeus, with short dark setation, microgranulation, and sparse punctuation, slightly shiny. Palpomeres narrow, slightly widened at apex, penultimate palpomere distinctly shorter than ultimate palpomere. Apex of ultimate palpomere distinctly rounded. Ratios of relative lengths of palpomeres 2-4 equal to 1.68:1.00:1.50. Length/maximum width ratios of palpomeres 2-4 equal to 3.76:2.27:3.06.

Pronotum (Fig. 9) six-angled, pale brown with dark setation, distinctly narrower than elytra; 1.80 times as wide as head across eyes, longest in the middle, 1.96 mm, and widest at base, 3.08 mm. Pronotal index equal to 63.77. Border conspicuous along base only, sides and anterior borders indistinct. Posterior margin bisinuate, against scutellum rounded, posterior angles distinctly sharp-angled, lateral margins distinctly excised in posterior half, then narrowed anteriorly. Anterior angles rounded obtuse-angled, anterior margin distinctly excised. Surface with microgranulation, densely and shallowly punctate, punctures large, interspaces very narrow. Posterior part near lateral margins with shallow impressions from both sides.

Elytra unicolorous yellowish-pale brown with short dark, dense setation, 9.97 mm long and 4.21 mm wide, distinctly broader than pronotum, widest approximately at two thirds from base. Length/maximum width ratio equal to 2.37. Surface punctate, with many impressions and cavities, punctures in elytral striae conspicuous in posterior half and in elytral striae 1-5 in anterior half. Punctures in elytral striae are separated by less one diameter. Elytral intervals with dense punctuation and microgranulation, punctures small, slightly shiny. Elytral epipleura well developed, with short dark setation, concolorous with elytron, evenly narrowing in basal half, in apical half before abdominal sternite 5 parallel, then narrowing to rounded apex.



Figs 8-14: *Cteniopinus (Lechinus) holzschuhi* sp. n. (holotype ♂): 8- Habitus; 9- Head and pronotum; 10- Maxillary palpus; 11- Anterior tarsi; 12- Ultimate and penultimate abdominal sternites; 13- Aedeagus, dorsal view; 14- Aedeagus, lateral view.

Scutellum triangular, pale brown, concolorous with elytra.

Legs bicolorous with dense, short, dark setation, femora and tibia yellowish-pale brown, anterior part of femora, base of tibia narrowly dark brown, tarsi dark brown, with claws lighter than tarsi. Femora thicker than tibia. Tibia very narrow in posterior half, then widening anteriorly in anterior half. Anterior tarsomeres 1-4 broader than middle

and posterior tarsomeres 1-4, middle tarsomeres 1-4 distinctly broader than posterior tarsomeres 1-4. Penultimate tarsomere of each tarsus without membranous lobes. Ratios of relative lengths of tarsomeres 1-5 and 1-4 equal to 1.00:0.67:0.60:0.62:1.94 (protarsus), 1.00:0.59:0.45:0.38:1.12 (mesotarsus), and 1.00:0.47:0.36:0.86 (metatarsus). Both anterior tarsal claws with 15 visible teeth.

Ventral side of body pale brown, concolorous with dorsal side, setation dark. Abdomen with sparse, short, dark setation, with microgranulation, more matt. Ultimate and penultimate abdominal sternites as in Fig.12.

Aedeagus (Figs 13-14). Pale yellowish brown, slightly shiny, with microgranulation. Basal piece slightly rounded, 4.99 times as long as apical piece. Basal half of basal piece straight, then in apical half narrowing; more than twice as wide as its apex in dorsal view. Apical piece longitudinally triangular, narrowing to narrow, sharp apex in dorsal view.

Variability. The type specimens vary somewhat in size; each character is given as its mean value, with full range in parentheses. Specimens (n = 11). Length 14.16 mm (12.61-15.20 mm); head length 2.42 mm (2.23-2.74 mm); head width 1.72 mm (1.55-1.89 mm). Ocular index 56.58 (52.55-61.46). Pronotal length (along midline) 2.00 mm (1.83-2.22 mm); pronotal width at base 2.93 mm (2.59-3.17 mm). Pronotal index 68.52 (63.77-70.51). Elytral length 9.74 mm (9.26-10.40 mm); elytral width 3.94 mm (3.78-4.63 mm).

Differential diagnosis. *Cteniopinus (Lechinius) holzschuhi* sp. n. differs from the similar species *C. (L.) fossulatus* (Pic, 1913) mainly by the broader and more transverse pronotum, posterior angles of pronotum distinctly sharp, lateral margins of pronotum in posterior half finely excised and anterior tarsomere 3 of the same length as anterior tarsomere 4, while *C. (L.) fossulatus* has its pronotum narrow, posterior angles of pronotum rectangular, lateral margins of pronotum in posterior half straight and anterior tarsomere 3 distinctly longer than anterior tarsomere 4. *C. (L.) holzschuhi* sp. n. differs from the species *C. (L.) semicoccineus* Blair, 1922 mainly by colour of pronotum and elytra, which is unicolorous pale brown and by posterior tibia of males straight, while *C. (L.) semicoccineus* has black pronotum and red elytra and males have posterior tibia distinctly rounded. For further details see the key above.

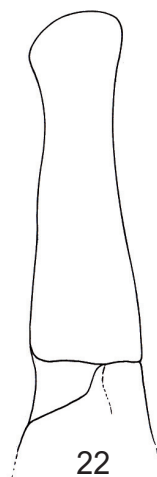
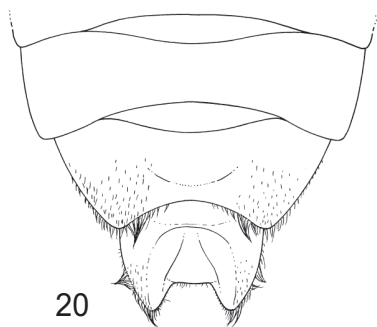
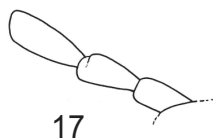
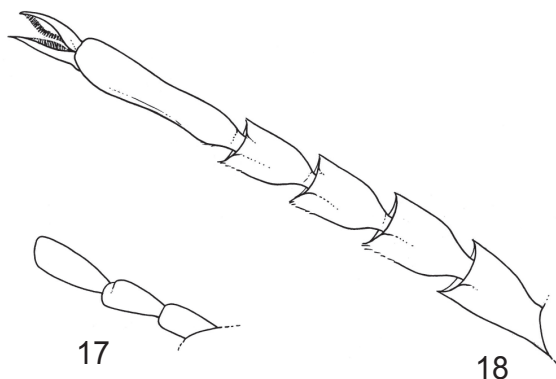
Etymology. Dedicated to the collector Carolus Holzschuh (Villach, Austria).

Distribution. Bhutan, prov. Gaylegphug.

***Cteniopinus (Lechinius) semicoccineus* Blair, 1922**
(Figs 15-21)

Cteniopinus semicoccineus Blair, 1922: 560.

Material examined. NEPAL, from DANA to MUKTINATH road, 14.-19.viii.1997, A. Křížová lgt., (1 ♂, 4 ♀♀), (VNPC); CHINA - W - TIBET, Kailash, 4600 m, 50 km of Kangsa, 28.vi.1996, leg. Helia, (5 ♀♀), (VNPC).



Figs 15-21: *Cteniopinus (Lechinius) semicoccineus* Blair, 1922 (♂): 15- Habitus; 16- Head and pronotum; 17- Maxillary palpus; 18- Anterior tarsi; 19- Posterior tibia; 20- Ultimate and penultimate abdominal sternites; 21- Aedeagus, dorsal view; 22- Aedeagus, lateral view.

Remarks. Habitus of male as in Fig. 15, length 14.19 mm. Head and pronotum (Fig. 16) black, ocular index equal to 61.11; pronotal index equal to 70.35. Elytra unicolorous red. Maxillary palpus as in Fig. 17, anterior tarsi as in Fig. 18. Ultimate and penultimate abdominal sternites as in Fig. 18. Aedeagus as in Figs 21-22, ratio of lengths of apical piece/basal piece 1:4.12.

Distribution. Nepal, Tibet.

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