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# Four New *Laena* Species (Coleoptera, Tenebrionidae) from Yunnan, Southwest China[1)]

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**Abstract** Four new species of the tenebrionid genus *Laena* are described from the mountains in the vicinities of Dali City, Yunnan Province, Southwest China, under the names *L.* (s. str.) *yuzhuensis*, *L.* (s. str.) *yunnanensis*, *L.* (s. str.) *daliensis* and *L.* (s. str.) *xiaoi* (Adeliini, Tenebrionidae).

The genus *Laena* is a group of small apterous tenebrionid beetles usually found under humus in temperate broadleaved forests. In the course of the zoological survey of a Sino-Japanese joint party of entomologists on soil animals in Yunnan, Dr. Shun-Ichi UÉNO and Dr. Yasuaki WATANABE made a small collection of *Laena* specimens from the mountains in the vicinities of Dali City. They were submitted to the authors for taxonomic study, and were found to contain four new species. They will be described in the present paper under the names *Laena* (s. str.) *yuzhuensis*, *L.* (s. str.) *yunnanensis*, *L.* (s. str.) *daliensis* and *L.* (s. str.) *xiaoi*.

The holotypes of the new species to be described are deposited in the collection of the Shanghai Institute of Entomology, Academia Sinica.

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## *Laena* (s. str.) *yuzhuensis* sp. nov.

(Fig. 1)

*Male.* Dark reddish brown, with basal portions of antennae, maxillary palpi,

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tarsi, etc., lighter in colour, margins of genae, apex of pronotum, femora and middle portion of abdomen much darker, eyes black; fore body slightly micro-shagreened above and sericeously shining, elytra more strongly shining than fore body above; each surface gently clothed with fine short hairs. Body rather elongate, moderately thickened and distinctly constricted between prothorax and elytra.

Head subquadrate, irregularly and coarsely punctate; clypeus transversely hexagonal and gently convex above, truncate in front, distinctly clothed with long hairs on each side; genae rather strongly raised anteriad, roundly produced obliquely forwards, with postero-ocular portions weakly produced laterad; frons with an oblong impunctate portion in middle, fronto-clypeal suture fine and sublinear; eyes medium-sized, weakly convex laterad, diatone about 6 times the width of transverse diameter of an eye. Antennae reaching basal portion of pronotum, ratio of the length of each segment from basal to apical: 0.42, 0.2, 0.35, 0.21, 0.23, 0.23, 0.23, 0.23, 0.24, 0.25, 0.47.

Pronotum subcordate, 1.2 times as wide as long, widest at apical 1/3; apex nearly straight in middle widely, neither margined nor rimmed; base moderately rounded and finely rimmed; lateral margins arcuate laterad and finely rimmed; front angles rather distinctly angulate; disc gently convex, rather closely, irregularly and coarsely punctate, each puncture with a short decumbent hair.

Elytra oblong ovate, about 1.6 times as long as wide, 2.4 times the length and a little more than 1.2 times the width of pronotum, widest at basal 3/7; dorsum rather strongly convex though slightly flattened in middle, thickest at the middle; disc rather strongly punctato-striate; intervals gently convex, each with a row of minute and haired punctures; apices produced posteriad; 9th interval with three setiferous umbilicate pores, one at basal 1/5, which is gently projected laterad and visible from above, another at apical 2/7, and the other at apical 1/7.

Propleura somewhat vitreous, strongly, rather sparsely punctate and finely haired; each femur without spine, ratios of the lengths of pro-, meso- and metatarsomeres: 0.51, 0.32, 0.31, 0.28, 1.2; 0.62, 0.39, 0.31, 0.29, 1.24; 1.31, 0.67, 0.37, 1.53.

Male genitalia fusiform and about 1.25 mm in length; fused lateral lobes 1/5 times the length of basal piece, with apex narrowly rounded.

Body length: 5.5–5.7 mm.

Holotype: ♂, Diancang Shan Mts., Yuzhu Feng (3,500 m alt.), Dali Shi, Yunnan, China, 5–IX–1993, Y. WATANABE leg. Paratype: 1 ex., same locality and date as for the holotype but 3,550 m in altitude, S.-I. UÉNO leg.

*Notes.* This new species somewhat resembles *Laena* (s. str.) *rhododendri* KASZAB, 1977, originally described from East Nepal, but can be distinguished from the latter by the medium-sized eyes, closely punctate genae, and subcordate pronotum with an impression on each side. The number and position of setiferous umbilicate pores on the 9th elytral interval seem to serve as an important feature for identifying the species.

***Laena*** (s. str.) ***yunnanensis*** sp. nov.

(Fig. 2)

*Male.* Dark yellowish brown, with margins of pronotum, sutural intervals and femora darker in colour, mouth parts, tibiae and tarsi paler; dorsal surface strongly, vitreously shining, ventral surface moderately shining, each clothed with rather long hairs, which are distinct in postero-lateral portions of elytra. Body rather elongate, thickened posteriorly, distinctly constricted between prothorax and elytra.

Head widely pentagonal, gently raised in middle, with an impression in anterior portion on each side, irregularly and strongly punctate; clypeus somewhat transversely elliptical, distinctly clothed with rather long hairs, truncate in front; genae raised and almost impunctate in apical portions, sublinearly divergent forwards in dorsal view; eyes medium-sized, convex laterad, diatone about 5 times the width of transverse diameter of an eye. Antennae reaching basal portion of elytra, ratio of the length of each segment from basal to apical: 0.41, 0.2, 0.38, 0.23, 0.26, 0.28, 0.29, 0.31, 0.31, 0.33, 0.46.

Pronotum short subcordate, 1.2 times as wide as long, widest at apical 1/3; apex nearly straight, slightly margined in lateral portions; base hardly produced, finely margined; lateral margins moderately arcuate laterad, finely margined; front angles rounded; disc gently convex, rather closely punctate.

Elytra about 1.6 times as long as wide, 2.6 times the length and 1.3 times the width of pronotum, widest at basal 3/7, thickest at the middle, and rather strongly convex on dorsum; disc with rows of strong punctures, which are often weakly striated and are largest in the 3rd row; intervals slightly convex, each with a row of sparse punctures; 3rd interval with a setiferous umbilicate pores at apical 1/7, 7th with one at basal 1/11, and 9th with three: one at basal 1/7, which is distinctly projected laterad and visible from above, another at apical 2/7, and the other at apical 1/7, the latter two pores being more or less projected postero-laterad.

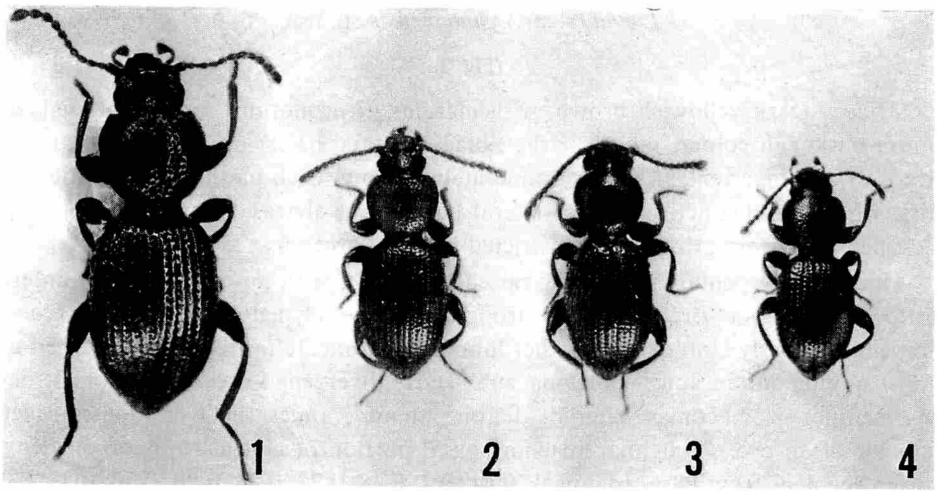
Propleura somewhat vitreous, rather closely punctate; each femur without spine, ratios of the lengths of pro-, meso- and metatarsomeres: 0.47, 0.32, 0.30, 0.23, 0.89; 0.63, 0.31, 0.26, 0.23, 1.18; 1.1, 0.68, 0.32, 1.27.

Male genitalia rather long (ca. 1.3 mm), with a basal piece toothed at the apex on each side and rather distinctly curved in basal portion.

Body length: 4.2–4.6 mm.

Holotype: ♂, Diancang Shan Mts., Zhonghe Feng (2,500 m alt.), Dali Shi, 4–IX–1993, S.-I. UÉNO leg. Paratypes: 10 exs., same data as for the holotype; 5 exs., Zhonghe Feng (2,500 m alt.), 4–IX–1993, Y. WATANABE leg.; 4 exs., Zhonghe Feng (2,620 m alt.), 3–IX–1993. S.-I. UÉNO leg.; 2 exs., Zhonghe Feng (2,620 m alt.), 4–IX–1993, Y. WATANABE leg.

*Notes.* This new species somewhat resembles *L.* (s. str.) *prehimalayica* KASZAB, 1977, originally described from Central Nepal, but can be distinguished from the latter by the body larger and distinctly haired, the pronotum gently convex and rather




Figs. 1–4. Habitus of *Laena* spp. —— 1, *L.* (s. str.) *yuzhuensis* sp. nov., ♂, holotype; 2, *L.* (s. str.) *yunnanensis* sp. nov., ♂, holotype; 3, *L.* (s. str.) *daliensis* sp. nov., ♂, holotype; 4, *L.* (s. str.) *xiaoi* sp. nov., ♂, holotype.

closely punctate, elytral punctures in rows not coarser than pronotal ones, and intervals with 5 setiferous umbilicate pores.

### ***Laena*** (s. str.) ***daliensis*** sp. nov.

(Fig. 3)

This new species closely resembles the preceding one, *Laena* (s. str.) *yunnanensis* sp. nov., in having 5 pores on the elytra, but can be discriminated from the latter by the following points:

*Male*. Piceous, with antennae and legs lighter in colour, each surface more closely punctate and clothed with finer and a little decumbent hairs. Body more strongly constricted between prothorax and elytra; fore body above more thickened, while the elytra are less so.

Eyes a little larger and more strongly convex laterad, diatone about 5.2 times the width of transverse diameter of an eye; fronto-clypeal and fronto-genal borders impressed. Antennae with ratio of the length of each segment from basal to apical: 0.39, 0.2, 0.35, 0.24, 0.23, 0.23, 0.23, 0.24, 0.28, 0.26, 0.48. Pronotum a little less than 1.3 times as wide as long; base not margined.

Elytra slightly more than 1.5 times as long as wide, 2.2 times the length and 1.2 times the width of pronotum; rows of punctures more distinctly striated; intervals more convex, each with a row of denser punctures; 3rd interval with one setiferous umbilicate pore at apical 1/9, 7th with one at basal 1/9, and 9th with three: one at basal 1/6, which is distinctly projected laterad and visible from above, another at apical 1/5, and the

other at apical 1/10, the latter two gently projected postero-laterad; apices more strongly produced posteriad.

Propleura more finely punctate; legs more thickened: each femur without spine; tibiae gently incurved; ratios of the lengths of pro-, meso- and metatarsomeres: 0.37, 0.28, 0.26, 0.24, 1.18; 0.57, 0.32, 0.28, 0.26, 1.2; 1.27, 0.52, 0.24, 1.36.

Male genitalia shorter (ca. 1.1 mm in length) and thinner, with a basal piece not toothed at the apex on each side and less strongly curved in basal portion.

Body length: 4.4–4.6 mm.

Holotype: ♂, Laohu Shan (2,200 m alt.), Dali Shi, 3–IX–1993, Y. WATANABE leg. Paratypes: 2 exs., same data as for the holotype.

### ***Laena*** (s. str.) ***xiaoi*** sp. nov.

(Fig. 4)

This new species also closely resembles *L.* (s. str.) *yunnanensis* sp. nov. in having 5 pores on each elytron, but can be distinguished from the latter by the following points:

*Male.* Reddish brown, with mouth parts and tarsi lighter in colour; each surface clothed with shorter, decumbent pale hairs. Body shorter and more strongly constricted between prothorax and elytra, slightly more convex above.

Head narrower, more sparsely and finely punctate, with an impunctate portion in middle; genae less distinctly divergent forwards; eyes smaller and less strongly convex laterad, diatone about 6 times the width of transverse diameter of an eye. Antennae a little shorter, reaching base of pronotum, ratio of the length of each segment from basal to apical: 0.41, 0.2, 0.36, 0.22, 0.24, 0.26, 0.27, 0.25, 0.27, 0.29, 0.39.

Pronotum 1.3 times as wide as long, widest at apical 1/3; disc weakly micro-shagreened; lateral margins and base finely margined; hind angles slightly, obliquely truncate and feebly sinuate before the truncation.

Elytra a little less than 1.6 times as long as wide, slightly less than 2.4 times the length and about 1.3 times the width of pronotum, widest at basal 2/5; rows of punctures sparser and not striated; intervals less convex, each with a row of finer punctures; 3rd interval with one setiferous umbilicate pore at apical 1/8, 7th with one at basal 1/18, and 9th with three: one at basal 1/7, which is distinctly projected laterad, another at apical 1/4, and the other at apical 1/8, the latter two pores being more or less projected postero-laterad; apices more strongly produced posteriad.

Propleura mico-shagreened, more finely punctate and haired; ratios of the lengths of pro-, meso- and metatarsomeres: 0.33, 0.26, 0.25, 0.24, 0.83; 0.43, 0.28, 0.25, 0.23, 0.81; 0.77, 0.28, 0.26, 1.24.

Male genitalia smaller (ca. 1.1 mm in length), with a less strongly curved basal piece.

Body length: 4.0–4.5 mm.

Holotype: ♂, Diancang Shan Mts., Yuzhu Feng (3,290 m alt.), Dali Shi, 5–IX–

1993, S.-I. UÉNO leg. Paratypes: 1 ex., same data as for the holotype; 3 exs., Yuzhu Feng (3,500 m alt.), 5-IX-1993, Y. WATANABE leg.

## 要　約

益本仁雄・尹　文英：中国云南省産チビヒサゴゴミムシダマシ属 (*Laena*) の4新種（ゴミムシダマシ科，チビヒサゴゴミムシダマシ族）．—— 1993年8～9月，中国云南省大理付近で，国立科学博物館上野俊一博士および東京農業大学渡辺泰明教授によって採集されたチビゴミムシダマシを検討した結果，4種を新種とみとめ，それぞれ *Laena* (s. str.) *yuzhuensis*, *L.* (s. str.) *yunnanensis*, *L.* (s. str.) *daliensis*, *L.* (s. str.) *xiaoi* と命名した．

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