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A new genus and new species of Galerucinae from Chin State, Myanmar (Coleoptera: Chrysomelidae)

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ABSTRACT. The genus *Leptarthroides* n. gen. is described in the tribe Hylaspini. The single wingless species, *L. schuhi* n. sp. was discovered in Myanmar. Another new species, *Parexosoma langeri* n. sp. is also described from this country.

Key words: entomology, taxonomy, new genus, new species, Coleoptera, Chrysomelidae, Galerucinae, Myanmar.

INTRODUCTION

When identifying specimens of the leaf beetle subfamily Galerucinae that have been collected recently in Myanmar, I discovered some specimens belonging to yet undescribed taxa. One of these had to be attributed to a new genus. The new species and the new genus are described below. The second species described and illustrated herein is from the genus *Parexosoma* LABOISSIÈRE, 1932.

ABBREVIATIONS

MLCL Michael LANGER collection, Lichtenwalde, Germany.
RBCN Ron BEENEN collection, Nieuwegein, The Netherlands.
RSCW Rudolf SCHUH collection, Wiener Neustadt, Austria.

DESCRIPTIONS

***Leptarthroides* n. gen.**

TYPE SPECIES

Leptarthroides schuhi n. spec.; gender: masculine.

DESCRIPTION

Body elongate, elytra dilated apically. Antennae filiform. Pronotum with anterior and posterior borders not margined; lateral border with curved margin. Surface of pronotum convex. Wings absent. Posterior tibiae with apical spur. Anterior coxal cavities closed posteriorly. Mesosternum not covered by a process of the metasternum. Metasternum short.

DIAGNOSIS

Leptarthroides nov. gen. belongs to the tribe Hylaspini and is allied to *Leptarthra* BALY, 1861. *Leptarthroides* n. gen. differs from the latter in the morphology of the pronotum which is much more convex and in the absence of wings. *Meristoides* LABOISSIÈRE, 1929 has similar morphology of the pronotum, but it differs in having the lateral borders unmargined and the anterior coxal cavities open posteriorly.

Leptarthroides nov. gen. differs from *Nepalogaleruca* KIMOTO, 1970 in the morphology of the pronotum which is flat in *Nepalogaleruca* and convex in *Leptarthroides* n. gen.

ETYMOLOGY

This genus is similar to *Leptarthra* in many respects.

***Leptarthroides schuhi* n. sp.**

TYPE MATERIAL

Holotype ♂ (RBCN): NW-Myanmar, Chin State, Kennedy Peak, 5-27 v 1999.
Paratypes: 2 ♀♀ (RSCW): NW-Myanmar, Chin State, Kennedy Peak, 5-27 v 1999.

DESCRIPTION

Male length: 7.85 mm (from the anterior border of the eyes to the tip of the elytra). Greatest width across both elytra: 5.00 mm. Female length: 9.50 mm (from the anterior border of the eyes to the tip of the elytra). Greatest width across both elytra: 6.40 - 6.60 mm. Apterous. General colour black, except elytra metallic blue with yellow markings.

Head: maximal width of head across the eyes: 2.10-2.15 mm. Surface impunctate. Frontal tubercles flat, impunctate, quadrate, divided by a median straight line. Vertex with two small yellow spots. Antennal segments 1 to 3 shiny, sparsely pubescent; segments 4 and following dull, densely pubescent. Length ratio of antennomeres 1-11: 18-5-9-15-13-12-13-11-10-10-13.

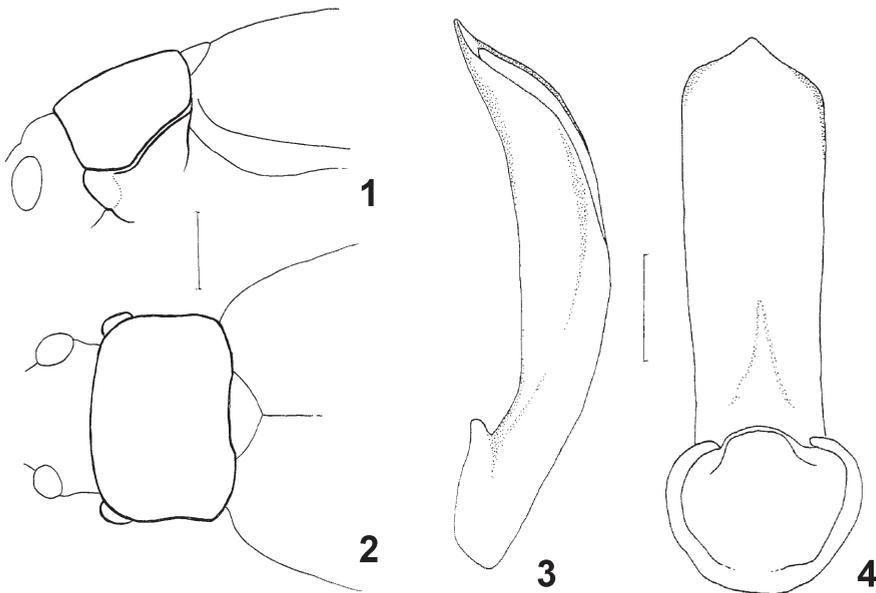
Pronotum (figs 1, 2): maximal width: 2.70-3.05 mm, broadest between front corners. Maximal length in the middle: 1.85-2.23 mm. Lateral borders almost straight with a curved margin as seen from aside (fig. 1). Anterior and posterior border unmarginated. Anterior border straight to slightly emarginate; posterior border straight except for a small emargination in the middle. Upper surface shiny, with vague reticulation. Front corners bulged, dark brown, with the rest of the pronotum black.

Scutellum impunctate, broad triangular with blunt apex.

Elytra: at the base about as wide as pronotum at base, strongly dilated towards middle then rounded from the middle to the apex. Shoulders absent. Upper surface glabrous, with very fine reticulation and with few large punctures arranged in vague lines. Punctures dense along margins, especially in a line parallel to the suture. Elytral epipleura broad at base and gradually narrowing toward the apex; completely visible in lateral view. Elytra metallic blue with all margins yellow. A yellow median band on one third of base of elytron touching or almost touching the yellow margins. Under-side: black, except for two yellow spots on the last abdominal sternite. Anterior coxal cavities closed posteriorly. Mesosternum not covered by a process of the metasternum. The metasternum between mid and posterior coxal cavities is shorter than mid coxal cavities. Posterior tibiae with a spine at apex. Claws appendiculate.

Aedaeagus: figs 3, 4.

Sexual dimorphism: first segment of tarsi in male slightly broader than in female. Last abdominal sternite in male with triangular incision; in female rounded.



1-4. *Leptarthroides schuhi* n. sp. 1, 2. Pronotum: 1 – lateral view; 2 – dorsal view, scale line 1.0 mm; 3, 4. Aedaeagus: 3 – lateral view; 4 – ventral view, scale line 0.5 mm

DIAGNOSIS

Leptarthroides schuhi n. sp. is the single species in this genus which is characterized above.

ETYMOLOGY

This species is dedicated to Rudolf SCHUH who made these interesting specimens available.

REMARKS

The three specimens were collected by locals (personal information R. SCHUH). Although the top of Kennedy Peak has an altitude of 2704 meters, we are unaware of the altitude of the collecting locality of these specimens. Kennedy Peak is localized in a mature mountain forest ecoregion (Chin Hills-Arakan Yoma montane forests). The collecting locality is most probably situated in montane cloud forests either consisting of a broad variety of evergreen broadleaf tree species (1000-2100 meters) or dominated by several Himalayan tree species (2100-2400 meters) or dominated by a single oak species, *Lithocarpus xylocarpus* (KURZ) MARKGRAF (above 2400 meters) (WIKRAMANAYAKE, 2001).

***Parexosoma langeri* n. sp.**

Type material

Holotype ♂ (RBCN): Myanmar, Chin State: Chin Hills, Avocado Plantage, 30 vi - 1 vii 2008, leg M. LANGER; 21° 23' 34,7" N 093° 52' 29,4" E; 1914 m. The specimen was collected at night with artificial light.

Paratypes: Myanmar, Chin State: Chin Hills, Avocado Plantage, 30 vi - 1 vii 2008, leg M. LANGER; 21° 23' 34,7" N 093° 52' 29,4" E; 1914 m (MLCL). Single ♂ specimen collected at night with artificial light.

Myanmar, Chin State: Chin Hills, Avocado Plantage, 30 vi - 1 vii 2008 leg M. LANGER; 21° 23' 34,7" N 093° 52' 29,4" E; 1914 m (MLCL). Single ♂ specimen collected by day.

Myanmar, Chin State: Chin Hills, umg. Kanpetlet, Natmatoung NP, 23 vi 2008, leg M. LANGER; 21 13 N 093 57 E ca 1500 m (MLCL). Single ♀ collected at night with artificial light.

DESCRIPTION

Male length: 7.6-8.2 mm (from the anterior border of the eyes to the tip of the elytra). Greatest width across both elytra: 4.2-4.3 mm. Female length: 8.2 mm (from the anterior border of the eyes to the tip of the elytra). Greatest width across both elytra: 4.4 mm. Macropterous. General colour metallic blue; abdomen yellow to yellow-brown.

Head: maximal width of head across the eyes: 1.7-1.9 mm. Surface impunctate. Frontal tubercles almost triangular, with a median straight line dividing them and separated from the front by a straight line. Antennal segments 1 to 3 shiny, sparsely

pubescent; antennal segments 4 and following dull, densely pubescent. Length ratio of antennomeres 1-11: 15-5-8-11-12-12-13-12-13-13-15.

Pronotum: maximal width: 2.45-2.55 mm. Maximal length in the middle: 1.5-1.8 mm. Greatest width in the middle. Lateral borders regularly rounded. Anterior border slightly emarginate; posterior border straight except for a small emargination in the middle. All borders margined. Lateral margins with outward projecting hairs. Pronotum with lateral beads which are shallow and wide at the base and become less wide toward the middle, from where they diminish. Upper surface with fine punctures, shining.

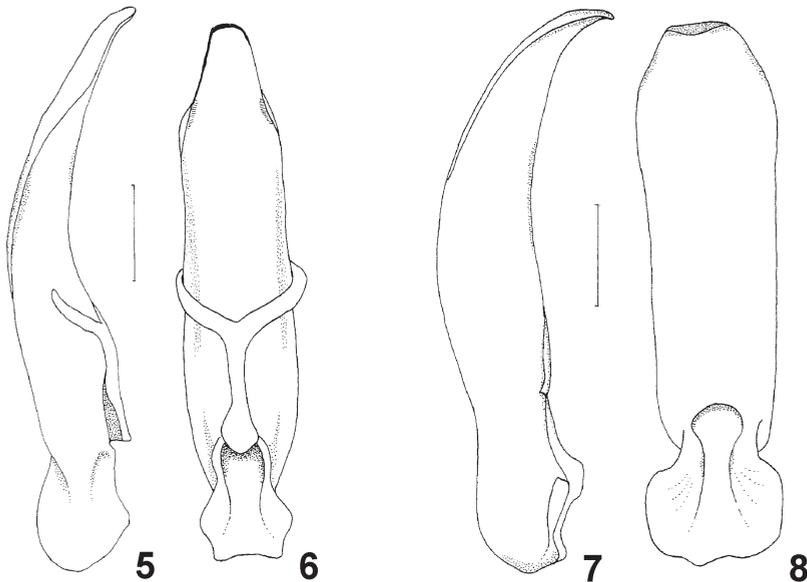
Scutellum: triangular with apex rounded. Impunctate, cupreous.

Elytra: much broader at the base than the pronotum, with definite shoulders. Upper surface punctate, with punctures fine and diffuse; punctuation much denser than in *P. flaviventre*. Each elytron with scarce erect hairs arranged in five double rows on each elytron (best seen from the base of the elytron towards the apex). Elytral epipleura broad from base to the end of the metathorax; then gradually narrowing toward the apex.

Underside: Black with metallic blue sheen; abdomen yellow to yellow-brown. Anterior coxal cavities open posteriorly. All tibiae with a spine at apex. Claws appendiculate.

Aedaeagus: figs 5, 6.

Sexual dimorphism: In the male the last abdominal sternite trilobed with the median lobe rectangular, concave in the middle. In female last abdominal sternite evenly rounded. First segment of tarsus of front and middle legs distinctly widened in male.



5-6. *Parexosoma langeri* n. sp. Aedaeagus with tegmen in place: 5 – lateral view; 6 – ventral view; 7-8. *Parexosoma flaviventre* n. sp. Aedaeagus: 7 – lateral view; 8 – ventral view, scale line 0.5 mm

DIAGNOSIS

The genus *Parexosoma* is characterized above all by the reflexed posterior part of the sutural margin. Within Galerucinae this character occurs in a bit different form in *Megalognatha* BALY, 1878, an African genus. Outside Galerucinae it occurs in *Platymaris* THOMSON, 1859, a Palaearctic and Nearctic genus of Donaciinae. Besides the new species, the genus *Parexosoma* is represented by eight species: *P. flaviventre* (BALY, 1878), *P. metallicum* (BRYANT, 1954), *P. cuprescens* CHÛJÔ, 1966, *P. beeneni* DÖBERL, 1995, *P. nigripenne* JIANG, 1990, *P. biru* MOHAMEDSAID, 2001, *P. mahsuri* MOHAMEDSAID, 2001 and *P. poringica* MOHAMEDSAID, 2001.

Parexosoma langeri n. sp. is one of the species with ventral parts of abdomen yellow. The other species are *P. flaviventre*, *P. beeneni*, *P. nigripenne* and *P. cuprescens*.

Parexosoma cuprescens is a small species (male specimen 5 mm) of cupreous colouration. The interocular area of the head including the frontal tubercles, the scutellum and the tarsi are metallic blue. The elytra are more strongly and closely punctured when compared to *P. flaviventre* (CHÛJÔ, 1966). *Parexosoma cuprescens* is described from Nepal and also recorded from Bhutan by KIMOTO (1977).

In *Parexosoma nigripenne* the pronotum shows a distinct depression on each side of the disc. Such depressions fail in *P. langeri* n. sp.

Parexosoma beeneni is a large species (6.9-8.5 mm) with dark blue upper parts. DÖBERL (1995) presents pictures of the aedeagus of both *P. beeneni* and *P. flaviventre* which clearly show the differences. Furthermore there are differences in the underside of the first protarsomere in male specimens. In *P. beeneni* the underside has an oval patch delimited by a large border. In *P. flaviventre* the oval patch almost completely covers the underside of the first protarsomere and it is delimited by a narrow border. Male specimens of *P. langeri* n. spec. show a similar underside of the first protarsomere as *P. flaviventre*. *Parexosoma langeri* n. spec. is more robust and has the antennal segments more robust. The aedeagus of *P. langeri* n. sp. (figs 5, 6) differs from the aedeagus of *P. flaviventre* (figs 7,d 8) both in lateral and in ventral view. Furthermore the elytral punctures are more dense in *P. langeri* n. sp. Finally, *P. langeri* n. sp. is bluish black and *P. flaviventre* is metallic green.

ETYMOLOGY

This species is named after its collector, Michael LANGER.

REMARKS

The locality called "Avocado Plantation" is a cultivated area where avocado trees are grown abundantly and where these trees are intermingled with other tree species, like banana's, and different herbaceous plants. LANGER collected a single specimen by day, but it proved to be impossible to recall the exact circumstances. Two specimens have been collected by night (attracted by light) and most possibly were capable of flight.

The locality in Natmatoung NP was not seen by daylight. The researchers left the locality after their nightly collecting and did not return to it by daylight. However it was not a cultivated area, but an open place within a rainforest.

Both localities are situated in mature mountain forests (Chin Hills-Arakan Yoma montane forests). According to the altitudes registered by Michael LANGER, the localities are situated in montane cloud forests consisting of a broad variety of evergreen broadleaf tree species (WIKRAMANAYAKE 2001).

Probably there are more species in this genus because it is not certain that the specimen of *P. cuprescens* recorded by KIMOTO (1977) from Bhutan really is conspecific with this species. KIMOTO mentions this specimen to be violaceous and pronotum with punctures finer than in *P. flaviventre*. Furthermore the male specimen has the first segment of the protarsus elongate instead of oval as in *P. flaviventre*. These characters suggest a separate species that is not conspecific with any of the species mentioned in this paper.

LABOISSIÈRE (1932) presented the race ‘*tonkinensis*’ for a female specimen of *Parexosoma flaviventre* from Chapa, Tonkin [Vietnam] that was more massive in appearance and was bicoloured: the pronotum “blue sombre” and the elytra “vert sombre légèrement bronzés”. In his monograph on the Galerucinae of Thailand, Cambodia, Laos and Vietnam KIMOTO (1989) indicated *P. flaviventre* to be entirely bluish black. *Parexosoma langeri* n. sp., with its blue coloration, superficially resembles *P. flaviventre* but the form of the aedaeagus is clearly different. Besides, it can not be excluded that the specimens from Vietnam may represent one or more undescribed species.

The Malaysian species *P. biru*, *P. mahsuri*, and *P. poringica* are all smaller than *Parexosoma langeri* n. sp. and will not be dealt with here.

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