



A New Genus and Species of the Subfamily Prioninae (Coleoptera, Cerambycidae, Prioninae) from Northeastern India

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Abstract

A new prionine cerambycid genus *Pedoprionus* is proposed for the reception of a unique species, *P. uenoi* sp. nov. from northeastern India.

Keywords: Taxonomy; Coleoptera; Cerambycidae; Prioninae; *Pedoprionus P. uenoi* sp. nov. Apterous; brachypterous; India; Arunachal Pradesh

Mini Review

In 2013, an unusual female of prionine specimen was presented to the author by Takeshi Maeda after his expedition to Arunachal Pradesh of northeastern India. Only a glance was sufficient to realize that it belonged to a new species, but it was presumed to belong to a previously known genus. Based on absence of hindwings, it was considered to belong to a known genus that contains apterous females. Several such genera are known from China and Indo-china, as genera *Hystatoderes Emphiesmenus*, *Neosarmyds* and *Drumontiana*. Although apterous means entirely wingless, these genera are all actually not apterous but brachypterous since females of these genera have atrophied membranes under elytra. To date, no entirely wingless prionine specimen has been collected from this region. Among these genera, the structure of antennae meant that *Hystatoderes* appeared to be the most plausible candidate for receiving this new species [1].

However, when a male of the same species was collected from the same location in 2015, it looked quite similar to the female. Which was unexpected because every known species in the four aforementioned genera (a total of 13 species at 2019) exhibit conspicuous sexual dimorphism? Specifically the males of these genera have well developed hindwings that are longer than elytra which is in sharp contrast to

brachypterous hindwings of the conspecific females. As such an important difference appeared, it was clear that any of aforementioned genera could not receive this new species. Therefore a new genus is required for this species and it is described, in this paper, under the name *Pedoprionus uenoi* gen. et sp. nov.

Genus *Pedoprionus* Komiya nov

Diagnosis A rather small prionine cerambycid with elongate characteristics. Narrow elytra and well-developed legs give the appearance of a member of the Carabidae. Body 18 – 25 mm in length, shiny black and sub-glabrous throughout. Antenna short, string-formed, approximately half of body length in male and a third of body length in female. Of 11 antennomeres, antenna thickest at 1st antennomere with the remainders becoming thinner towards apex. Legs long and slender, shiny and smooth on the surface.

Close to the genus *Hystatoderes Lameere*, 1917 in body structure especially in characteristics of antennae, legs and male genitalia but it differs from the latter in having narrower and smaller elytra compared to head and pronotum in both sexes. Hindwings of male strongly atrophied. Male of this genus differs from any other genera of Prioninae except the genus *Prionacalus* of south America in having pronotum

much wider than elytra.

Etymology

The name of the genus is composed by two words “pedon” + “Prion” in Greek. Pedon means ground, and prion means a saw as well as being the name of the largest genus in the tribe Prioninae family Cerambycidae. Gender is masculine.

Type species *Pedoprionus uenoi* sp. nov., Figures 1-3 Holotype male and Figures 4 & 5 Allotype female.

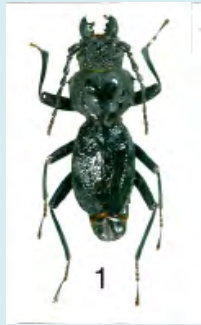


Figure 1: Dorsal habitus.

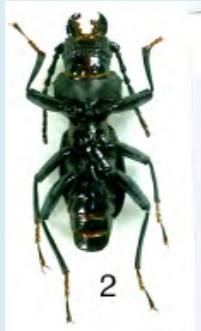


Figure 2: ventral habitus.

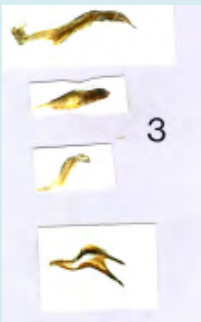


Figure 3: genitalia: upper three, median lobe; Upper, ditto lateral view; second, ditto, dorsal view; third. ditto. obliquely apical view; fourth, lateral lobes.

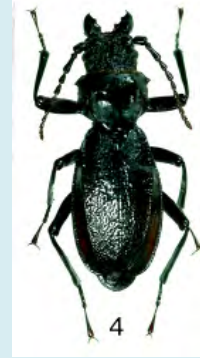


Figure 4: Dorsal habitus.

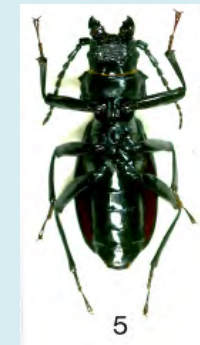


Figure 5: Ventral habitus.

Male

Body shiny black throughout, glabrous except a part of head and apical margin of prothorax which are partly sparsely furnished with reddish yellow setae. Body length 18 – 23 mm. Head 1.5 times as wide as long, widest at eyes and straightly convergent posteriorly, front and vertex roughly, irregularly and deeply punctured, median groove distinct between eyes. Eyes small, in dorsal view transversely oval, twice as wide as long and about a fifth of head width, interspace between eyes wider than twice eye width, and in lateral view, underside of eye-lobe attain approximately equivalent to middle of head thickness, in ventral view under-terminal parts of eyes visible on lateral margins and interspace between eyes slightly narrower than head width. Mandible about 2/3 of head length, roundly curved inward, shortly but acutely pointed apically and furnished with two obtuse inner teeth; ventral side flat, dorsal side convex and minutely granulate. Maxillary palpus slightly shorter than mandibles, labial palpus a little shorter than maxillary, terminal palpomeres elongate and sub-truncate apically.

Antennae approximately as long as a half of body, with 11 antennomeres; 3rd antennomere longest, scape slightly shorter than 3rd, 11th about as long as 3rd; widest at scape and gradually narrowed towards apex; sparsely, irregularly

and deeply punctured and provided with sparse setae.

Pronotum sub-rectangular and each corner obliquely shaped so as to form an irregular octagon, approximately one and a fifth as wide as long and much wider than head or elytra; anterior margin long and fringed with short setae; lateral margins parallel and furnished with three small teeth, one near anterior obliquely shaped corner, two near posterior obliquely shaped corner; posterior margin approximately 0.7 times width of anterior margin; lateral margins distinctly carinate throughout; disc strongly raised from margins and becoming flat at middle, covered with minute granules and shagreened near margins and provided with a ginkgo-leaf formed raised and shiny patch at middle which deeply but very sparsely punctured.

Scutellum transversely lunate and with width greater than half length of posterior pronotal margin, sparsely punctured.

Elytra oval, widest at middle and humeral width about a half of maximum width; each elytron with a distinct costa. Outside of costa roughly granulate and internal part more roughly granulate with longitudinal wrinkles. Apexes of elytra shortly separately rounded, without spines; suture raised, fused and strongly fixed to each other. Hindwings atrophied, narrow, triangle, approximately as long as 4th antennomere and strongly sclerotized. (This was not confirmed in male paratypes since elytra strongly fixed together in this species and the materials need to be dissected to observe hind wings).

Underside mostly sparsely punctured. Abdominal sternal segments 1 to 5 sub-equal in length, 1st narrowest, gradually widened towards 5th which is the widest.

Legs long and slender; tibia depressed and femora stout, surface smooth and without spines or setae; tarsi narrow, 5th tarsomere longer than total length of basal three tarsomeres.

Genitalia relatively large compared to body; median lobe as long as combined length of basal 3 antennomeres, depressed dorsoventrally, curved downward at about apical two fifths; lateral lobe slightly shorter than median lobe.

Female

Female similar to male. Body length 25mm. Antennae about a third of body length. Pronotum narrower than elytra which are widest at about apical two thirds. Hindwings brachypterous which is slightly wider than in male. 1st abdominal sternal segment longer and narrower than any other segments and 2nd to 5th segments sub-equal in length and width.

Type series Holotype, ♂, Upper Dibang Valley, Alt. 1650m. Arunachal Pradesh, State, NE. India, 11 – VI – 2015, T. Maeda leg. In the authors collection and will be deposited to National Museum of Nature and Sciences Tsukuba. Allotype, ♀, East Siang Dist. Alt. 2350m, Arunachal Pradesh, India, 20 – VI – 2013, T. Maeda leg. in author's collection. Paratypes, 1♂, Lower Dibang Valley, Alt. 2500m, Arunachal Pradesh, India, 1~9 – VIII – 2015, 1♂, same place, 1 – VIII – 2016, 1♂, Lohit District, Alt. 1700m. Arunachal Pradesh State, India, 5~8 – VI – 2018. Paratypes are in author's collection and K. Fukinuki's collection.

Etymology

This species is named after the late Dr. Shun-Ichi Uéno, an eminent entomologist having speciality to Carabidae, Trechinae. The author deeply indebted to Dr. Uéno for his assistance during author's studies on Prionine Cerambycids for more than 15 years. He passed away in October 2020 and the author dedicates the name of this species to him. In author's private view, this new species shows, quite exceptionally in Prioninae, somehow a similar feature to the Trechinae taxon.

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Reference

1. Lameere A (1910) Revision des prionines (Seizieme memoire-Prionines III). *Annls Soc Ent Belg* 54: 272-292.

