

**A contribution to knowledge of *Bombodes* Westwood, 1848 with the
description of a new species
(Coleoptera: Scarabaeidae: Cetoniinae: Taenioderini)**

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Taxonomy, new species, Coleoptera, Scarabaeidae, Cetoniinae, Taenioderini, *Bombodes*, Myanmar, China, India

Abstract. *Bombodes westwoodi* Thomson, 1857 distributed in SE Xizang and NE India is compared with similarly looking, but unknown species, flying in the Kachin State of Myanmar. The new Myanmarese species described here is named *Bombodes alinae* sp. nov. The differential diagnosis concerning the two congeners is provided and morphological characters of the mentioned species and other representatives of *Bombodes* Westwood, 1848 are given.

INTRODUCTION

The genus *Bombodes* was established by Westwood in 1848. Arrow (1910) synonymised *Bombodes* Westwood with *Macronota* Hoffmannsegg, 1817. Paulian (1960) accommodated all that time known representatives into *Coilodera* Hope, 1831. Other authors contributing to knowledge of the genus adhered to the original concept by Westwood. Particularly Schenkling (1921), Bourgoin (1914, 1916, 1917), Schein (1953), Mikšič (1976), Krikken (1984), Ma (1992, 1993), Sakai & Nagai (1998), Krajčák (1998), Huang & Chen (2015), and Bezděk in Löbl & Löbl (2016) improved our knowledge about the genus.

The genus can be split into two main species groups: first group with a single species *Bombodes westwoodi* Thomson, 1857 and second species group comprising all other species. *Bombodes westwoodi* Thomson differs from the rest of species by its elongate and parallel body, reddish setation of elytral apex and pygidium, abundant and long brushes of reddish or black setation on both sides of meso- and metatibia and sharply developed elytral lateral ridge. Species is known from north-east India and south-east Xizang.

An interesting species imitating *Bombodes westwoodi* Thomson was found in northern area of Myanmar and is described in the taxonomical part of this article.

MATERIAL AND METHODS

The following codens of institutional or private collections are used in the text:

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

SJCP Stanislav Jákl, private collection, Praha, Czech Republic.

Specimen of newly described species is provided with red printed label for HOLOTYPUS. Holotype label is provided with sex symbol and words St. Jákl det. Label data are cited for the material examined, individual labels are indicated by a double slash (/), individual lines by a single slash (/).

TAXONOMY

Genus *Bombodes* Westwood, 1848

Bombodes Westwood, 1848: 36 (original description); Schenkling, 1921: 147 (catalogue); Mikšič, 1976: 31 (in key), 176 (in monograph); Krikken, 1984: 63 (generic checklist); Sakai & Nagai, 1998: 351 (iconography); Krajčik, 1998: 88 (catalogue); Huang & Chen, 2015: 1 (synopsis); Bezděk in Löbl & Löbl, 2016: 401 (catalogue).
Macronota Hoffmannsegg, 1817: Arrow, 1910: 41 (Fauna of British India, Ceylon and Burma).
Coilodera Hope, 1831: Paulian, 1960: 30 (166) [Scarabaeidae of Indochina].

Type species. *Bombodes ursus* Westwood, 1848.

Bombodes westwoodi Thomson, 1857

(Figs. 1-5)

Bombodes westwoodi Thomson, 1857: 284, pl. 14, fig.2 (original description); Schenkling, 1921: 147 (catalogue); Mikšič, 1976: 178, fig. 22d (parameres) [monograph], 177 (key); Sakai & Nagai, 1998: 351, fig. 1570 - male, Darjeeling (iconography); Krajčik, 1998: 88 (catalogue); Huang & Chen, 2015: 5, fig. 12- male, SE Tibet, fig. 20 - parameres (synopsis); Bezděk in Löbl & Löbl, 2016: 401 (catalogue).
Macronota westwoodi Thomson: Arrow, 1910: 49 (monograph), 42 (key).

Type locality. "Inde-Boréale" (= North India).

Type material. Holotype (♂), MNHN.

Redescription. Black with reddish elytral apex. Body elongate, parallel. Dorsal setation black on head and pronotum, black and reddish on elytra. Elytra with yellowish tomented maculae.

Head black, excepting apical margin of clypeus, with cover of black setation. Frons shorter than clypeus. Clypeus approximately circular, in apex mildly excised. Punctuation rather dense, frons with glabrous midline. Antenna black, lengths of club and pedicel approximately same.

Pronotum black, circularly shaped, widest point at pronotal midlength. Pronotal setation dense and long, its coloration black to dark brown. Two posterior thirds with depression. Pronotal sides bordered. Punctuation dense and rather deep.

Scutellum. Black, triangularly shaped, apex elongated. Setation black, anterior half punctured, posterior half striolate.

Elytra. Black with reddish apex. Elytral setation black, at midlength yellowish, on elytral apex reddish. Each elytron with few yellowish maculae in elytral midlength of disc and larger macula approximately at midlength of lateral ridge. Disc of each elytron with three longitudinally running striolate lines and dense striolation. Lateral ridge with dense more or less horizontally running striolation. Sutural ridge brownish to black, in apical half elevated. Subhumeral emargination rather shallow, humeral calli distinctly produced, calli on elytral apex more obtuse.

Pygidium. Black with circular striolation. Completely covered with yellowish setation.

Ventrum. Coloration black to dark brown. Abdomen constricted in males, arched in females. Abdominal impression absent in both sexes. Disc of abdomen glabrous and reflected, abdominal sides with horizontal striolation and cover of long and dense yellowish setation. Metasternal plate rugosely punctured, metasternal sides with dense striolation and cover of long setae. Mesometasternal process tiny, in apex rather sharply pointed. Prosternum and mentum black, its setation dark brown to black.

Legs. Coloration of femora, tibiae and tarsi reddish, brownish or black. Meso- and metatibia and tarsi usually lighter than protibia and foretarsi. Protibia tridentate in both sexes, in females shorter and more robust. Metatibia with brushes of long setation on both sides. Setation of pro- and mesotibia shorter and thinner.

Genitalia. Apical half of inner parameres wide, nearly parallel, with dent in front of apex (Figs. 4-5).

Diagnosis. *Bombodes westwoodi* Thomson, 1857 can be separated from other representatives of the genus by its parallel, elongate body. In other *Bombodes* species the shape of the body is more or less oval. Elytral lateral ridge is very steep in *B. westwoodi*, but more or less gradually merging in other species. Elytral ribs sharply developed in *B. westwoodi*, but much more obtuse in rest of species.

Distribution. NE India: Sikkim, Bhutan, China: SE Xizang.

***Bombodes alinae* sp. nov.**

(Figs. 6-10)

Type locality. Myanmar, NE Kachin state, Chudu Razi Mts.

Type material. Holotype (♂) labelled: [Myanmar], Chudu Razi/ NE Kachin/ VII.2003, (SJCP).

Description of holotype. Black, setose, elytra with yellowish maculae. Body elongate and nearly parallel. Size 16.2 mm (without pygidium), humeral width 7.5 mm.

Head. Black with moderately developed punctuation. Setose throughout total length, except of anterior third of clypeus. Setation long and dense, its coloration black. Clypeus more than twice longer than frons, from eye canthus sharply widening to anterior third of clypeal length. Apex of clypeus with moderately developed border, apical margin nearly straight. Antennal club longer than stalk.



Figs. 1-5. *Bombodes westwoodi* Thomson, 1857: 1- habitus, dorsal aspect; 2- habitus, ventral aspect; 3- habitus, lateral aspect; 4- aedeagus, dorsal aspect; 5- aedeagus, lateral aspect.

Pronotum. Completely black with cover of long and dense black setation. Sides with fragmentally developed vague border. Posterolateral margins with emargination. Pronotal punctation rugose, much more dense and deep than in head. Two posterior thirds of disc with impression.

Scutellum. Black, triangularly shaped, apex not elongated. Setation black, punctation and striolation deep and dense.



6



7



8



9



10

Figs. 6-10. *Bombodes alinae* sp. nov.: 6- habitus, dorsal aspect; 7- habitus, ventral aspect; 8- habitus, lateral aspect; 9- aedeagus, dorsal aspect; 10- aedeagus, lateral aspect.

Elytra. Excepting brownish apical calli, elytral coloration black. Setation long and dense, in elytral anterior third completely black, at elytral midlength black on disc and yellowish in sides, on posterior third black with orange elytral apex. Elytral disc, between sutural and lateral ridges, with three striolate lines in each elytron. Lateral ridge sharply developed, its punctation deep and dense. Lateral rib and sutural ridge glabrous, reflected. Sutural ridge with mild elevation in posterior elytral half. Humeral and apical calli rather obtuse.

Pygidium. Black, with deep and dense, circularly developed striolation and cover of long and dense, orange setation.

Ventrum. Black with cover of reddish to orange setation. Abdominal side with moderately developed striolation and cover of setation, abdominal disc impunctate. Abdominal impression not developed. Metasternal plate with deep furrow in disc. Metasternal sides with deep punctation and striolation. Setation of metasternum denser compared to abdomen. Mesometasternal process short, pointed apically. Prosternum and mentum with black setae and moderately developed striolation.

Legs. Femora blackish to dark brown. Foretibia black, meso- and metatibia brownish. Tarsi brownish. Protibia tridentate, two posterior teeth staying closer than anterior and central teeth. Meso- and metatibia with long brushes of orange to reddish setation on both tibial sides.

Genitalia. Widest point of parameres at midlength, narrowing to apex from there (Figs. 9-10).

Sexual dimorphism. Female unknown.

Variability. Only the holotype specimen is available.

Differential diagnosis. The newly described species can be confused with *Bombodes westwoodi* Thomson only. It differs in several characters. I. Clypeal sides widely expanding, but with nearly circularly shaped clypeus in *B. westwoodi* Thomson. II. Apical margin of clypeus in new species is nearly straight, with uninterrupted rather high border, but with emargination and low, interrupted border in its congener. III. Antennal club longer than stalk in new species, but with approximately same lengths in its congener. IV. Scutellum wider at base and without elongate apex in new species, but narrower base and with elongate apex in its congener. V. Elytral, lateral ribs rather obtuse in new species, but more sharply developed in its congener. VI. Furrow in disc of metasternum deep and wide in new species, but simply developed in its congener. VII. Structure of male parameres in newly described species completely different than in its congener (Figs. 4-5, 9-10).

Etymology. Patronymic, dedicated in memory of tragically deceased girlfriend of the second author Alina P. (*1990-†2019).

Distribution. Northern Myanmar, Kachin State, Chudu Razi Mountains.

ACKNOWLEDGEMENT. We are deeply obliged to Arnošt Kudrna (České Budějovice, Czech Republic) for his never ending help with digital photography.

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Received: 29.11.2019

Accepted: 20.12.2019

Printed: 31.3.2020

