

# NEW SPECIES, RECORDS AND SYNONYM OF THE GENUS *BLEDIUS* LEACH, 1819 (COLEOPTERA: STAPHYLINIDAE: OXYTELINI) FROM INDIA

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## Abstract

*Bledius telnovi* sp. nov. from Arunachal Pradesh (northeastern India) is described. *Bledius niloticus* Erichson is removed from the list of Indian species. *Bledius soesilae* Makhan is synonymized with *Bl. palliatus* Fauvel. The discussed *Bledius* species are illustrated. New locality is provided for *Bl. beasoni* Cameron. First faunistic records of *Bledius* provided for the Indian states of Arunachal Pradesh and Sikkim.

Keywords: *Bledius*, taxonomy, morphology, faunistic, Arunachal Pradesh.

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## INTRODUCTION

The history of the study of *Bledius* Leach, 1819 in India began with the description of *Bl. tuberculatus* by Fabricius (1798) and three years later - *Bl. brunnipennis* (Fabricius 1801). Further contributions to this study were made by Motschulsky (1857), Fauvel (1903, 1904) and others, who each described one – two new Indian *Bledius* species. In his major monograph on the Indian rove beetles, Cameron (1930) listed 22 species of this genus, six of which were described as new. Biswas & Sengupta (1989) devoted another monograph to this genus, in which the numerical composition of the Indian *Bledius* species increased to 30 that includes eight new descriptions. To admit the work of Biswas & Sengupta (1989) is not without

serious shortcomings that require special consideration. Finally, one species, discussed below, was recently described by Makhan (2013). To date, 33 *Bledius* species are reported for India, 12 of which (40%) are considered endemic and three other species are in common only with Myanmar. The aim of the present work is to present one new description, introduce one new synonym and several corrections and new records for the Indian staphylinid fauna. Illustrations of the discussed material are also provided.

## MATERIAL AND METHODS

All species are listed alphabetically since a phylogenetic arrangement is not yet possible. Location information for the type material is quoted according to the original labels without corrections or additions.

The material was examined using a Bresser Optik Advance ICD stereomicroscope trinocular 160x and a LOMO MBS-9 stereomicroscope with a 40-120x magnification range. Images were taken using an above-mentioned stereomicroscope and a Samsung Galaxy A520F smartphone attached to a stereomicroscope except for the habitus which was photographed using a Canon EOS 5D SLR camera (Canon Co., Tokyo, Japan) and a Laowa 25 mm macro lens (Anhui Changing Optics Technology Co., Hefei, China). The final processing of the images was carried out using Adobe Photoshop software version 7.0.

The discussed material is housed in the following collections:

BMNH - The Natural History Museum (former British Museum, Natural History), London, United Kingdom;

NHMW - Naturhistorisches Museum, Vienna, Austria.

## RESULTS

### *Bledius (Hesperophylus) telnovi* sp. nov.

(Figs. 1–4)

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org/703ed00f-2fd1-45d3-8b88-a6600fb148bc

**Type material designated.** Holotype ♀ BMNH: NE India, Assam, 27°02' N 92°35' E, 150 m, L. Dembický leg., 26.v. - 3.vi.2006, 2006–48.

Paratype 1 ♀ BMNH, same label as holotype.

**Description.** Female, total body length 3.9 mm, anterior part 2.5 mm. Colour of head castaneous

brown, prothorax paler chestnut-brown, elytra, pronotum, maxillae, antennae, apices of supra-antennal 'horns' and legs testaceous, sutural area of elytra dully blackish, abdomen testaceous, its apex darkened. Dorsum of head (Fig. 2) moderately shining and slightly convex dorsally. Head transverse, head width including eyes 0.8 mm, between eyes 0.5 mm, head length 0.52 mm. Head dorsum microgranulate, microsculpture finer on clypeus. Head disc with sparse deep punctures, clypeus with scattered shallow punctures. Labrum broadly rounded at anterior margin with very weak median notch and distinct longitudinal slit. Clypeus with truncate anterior margin, bearing large tubercles near anterolateral angles, separated from forehead by a thin, slightly concave transverse suture. Head pubescence moderately long, directed towards middle, sticking out on labrum. Mandibles broadly rounded externally, strongly expanded in basal half, bidentate; median denticle located at midlength. Visible part of mandible equal in length to its basal width. Supra-antennal rings moderately projecting. First antennal segment (Fig. 3) elongated, as long as combined length of five following segments. Antennal segments two to five elongated, gradually shortened. Segment sixth as long as wide. Poorly defined club starts from transverse segment seven. Terminal antennal segment elongate ovoid apically. All segments of club with tactile setae. Pronotum transverse (length/width = 0.87/0.72), moderately strongly convex dorsally. Lateral margin with anterior two-thirds nearly straight to slightly curved, broadly rounded towards base in basal fifth. Pronotal surface shining, only on anterior margin with shallow isodiametric microgranular sculpture; deep and large punctures separated by one to two their diameters. Median longitudinal groove fully developed. Pronotal pubescence moderately long. Pterosternal suture parallel to protergosternal suture, procoxal fissure closed, prosternal pit small and with few setae. Elytra elongated (length/width = 1.05/0.9 mm), parallel-sided, longer than pronotum, dull shiny,

not shagreened, punctures similar as those on pronotum. Elytra with membranous lobes along posterior margin. Abdominal tergal and sternal pubescence moderately long, moderately dense, directed medio-posteriorly; background sculpture microgranulate, smoothed, scarce punctures present on apical half of tergites. Tergite seven with wide triangular lateral projections at apical margin (Fig. 4), truncate at middle, without membrane.

**Sexual dimorphism.** Male is unknown.

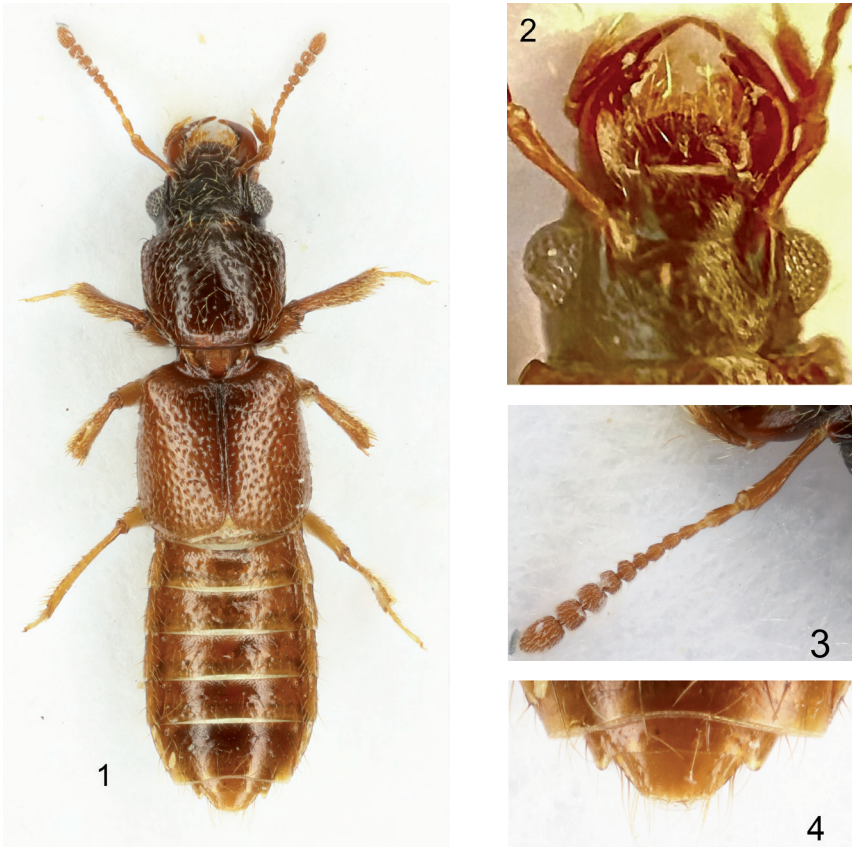
**Variability.** The mid-longitudinal groove of pronotum in the paratype is less prominent, barely noticeable. This type of morphological variability is known for many other species of

*Bledius* (L. Benick, 1943).

**Differential diagnosis.** From *Bl. sanguinithorax* Bernhauer, 1911 (Uzbekistan, Khiva): the shape of pronotum, the different dorsal punctures on pronotum and elytra, the colouration of abdomen, the setation on the apex of abdominal tergite six, etc. From *Bl. filipponii* Coiffait, 1982 (Saudi Arabia): the different proportion of elytra, the sparser punctate of pronotum.

**Etymology.** I am very pleased to name this new species in honour of Dr. Dmitry Telnov (BMNH), a famous entomologist, who's always ready to help his colleagues.

**Distribution.** NE India, Arunachal Pradesh.



**Figures 1–4.** *Bledius telnovi* sp. nov. holotype ♀. 1 – Habitus, dorsal view; 2 – Head, dorsal view; 3 – Right antenna; 4 – Apical tergites [not to scale]. Images 1, 3–4 courtesy D. Telnov (BMNH), image 2 courtesy S. Blinsein.

***Bledius (Pucerus) beesoni* Cameron, 1930**

New material examined: 27 specimens BMNH: NE INDIA, ASSAM / Bhalukpong, 26.v.-3.vi.2006, / 27°02' N, 92°35' E, 150m, / P. Pacholátko leg.

Note. Tise species was described from northern India (Dehra Dun, Uttarakhand) and is known from Pakistan, India (Herman, 2001), and Nepal (Blinsein, 2023). Within India it was known from Uttar Pradesh (Biswas & Sengupta (1989). First record from Arunachal Pradesh (the identification was verified by comparison with specimens from the type series).

***Bledius (Pucerus) niloticus* Erichson, 1840**

Note. Biswas and Sengupta (1989) were the first to list this species for India: "INDIA (Punjab, West Bengal, Bihar and Sikkim)". Unfortunately, I was not able to study any specimen from this series, but the descriptions and drawings provided by the authors made it possible to verify the fallacy of their statement. Comparison with the specimens from the species series (NHMW) and the original description (Erichson, 1840) demonstrated a number of significant differences and showed that the "Indian" series not only belongs to another species, but also to a different group in the subgenus *Pucerus* Mulsant & Rey, 1878. First, this concerns the structure of the head. In *Bl. niloticus*, the male clypeus is armed with two short, widely spaced spines (Fig. 5) while in the specimens cited by Biswas and Sengupta (1989) this armament consists of one median spine (Fig. 6), there is no parietal fossa present, and the parameters of the aedeagus are different (cf. figs 7, 8). As in the description of their other species (Biswas and Sengupta 1989), these authors did not indicate sex of the studied specimens, which prevents from correct understanding of their species-concepts.

However, *Bl. niloticus* is subsequently listed as an Indian species by some authors (Smetana, 2004; Abdel-Dayem, 2020) based on a

misidentified record in (Biswas and Sengupta 1989). Based on this confirmation of misidentification of *Bl. niloticus* by these authors, it is herewith removed from the list of the Indian Staphylinidae.

***Bledius (Pucerus) palliatus* Fauvel, 1895  
= *Bledius soesilae* Makhan, 2013 **syn. nov.****

Note. The insufficient, brief original description of *Bl. soesilae* is supplemented with a number of images that allow one to diagnose this taxon more accurately. According to Makhan (2013), this species is close to *Bl. bison* Cameron, 1930 and *Bl. marusthanicus* Biswas & Sengupta, 1989, i.e. is a member of the subgenus *Elbidus*. However, the images clearly show a set of features characteristic for another subgenus - *Pucerus*: the structure of the clypeus, the supraantennal 'horns', and aedeagus. Within *Pucerus* it appears completely similar - conspecific with *Bl. (P.) palliatus* Fauvel, 1895, and a new synonym is introduced herewith.

***Bledius (Pucerus) transversus* Cameron, 1930**

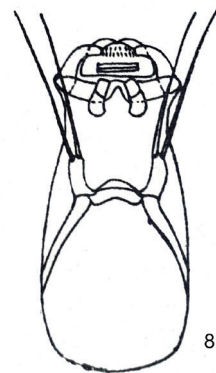
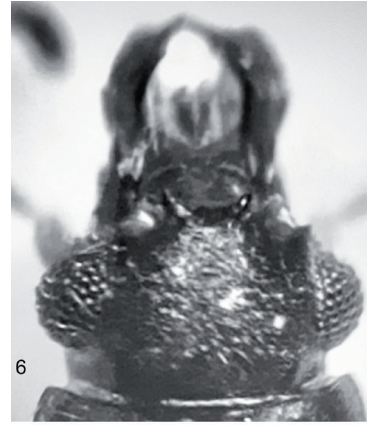
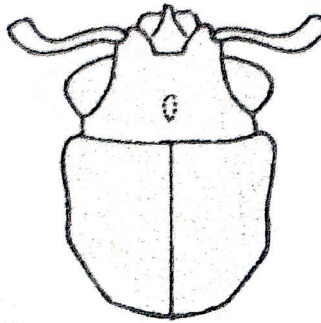
New material examined: 3♀ BMNH: NE INDIA, ASSAM Bhalukpong, 27°02' N, 92°35' E, 150m, L. Dembický leg., 26.v-3.vi.2006, BMNH 2006 – 48.

Note. The species was described from Dehra Dun, Uttarakhand (Cameron, 1930). Known from Pakistan, India, and Nepal (Herman, 2001). First record from Arunachal Pradesh.

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material from the NHMW's Coleoptera collection. Anonymous referees are thanked for improving



**Figures 5–8.** Indian *Bledius* species. 5 – *Bledius* sp. misinterpreted as *Bl. niloticus* by Biswas & Sengupta (1989), head, dorsal outline; 6 – *Bl. niloticus* Erichson, 1840, syntype, head, dorsal view; 7 – ditto, aedeagus (after Coiffait, 1968); 8 – *Bledius* sp. misinterpreted as *Bl. niloticus* by Biswas & Sengupta (1989), aedeagus [not to scale]. Images courtesy S. Blinstein. the overall quality of the manuscript.

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