

New taxa of Chrysomelidae (Coleoptera) from Nepal

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Abstract

The new genus *Asutoshana* and 8 new species – *Nodina obliquostrata* (Eumolpinae), *Mimastra brancuccii*, *Trichomimastra nigroapicalis*, *Hoplosaenidea nepalica*, *Hoplosaenidea gorbunovi*, *Macrima roseofulva*, *Dercetina latissima* (Galerucinae), *Asutoshana ornata* (Alticinae) – are described. A key to Nepalese species of the genus *Macrima* Baly, 1878 is given.

Key words: Nepal, Chrysomelidae, new genus, new species

Introduction

Descriptions of a new unusual Galerucid-like genus of Alticinae and 8 new species from Nepal are proposed below. I am grateful to my friends and colleagues, Matthias Hartmann, Dr. Michel Brancucci and Dr. Oleg Gorbunov for the possibility to study this material.

Next abbreviations are used for depository places of new species:

NME – Naturkundemuseum Erfurt, Germany

NHMB – Naturhistorisches Museum, Basel

LM – author's collection.

Taxonomy

Nodina obliquocostata sp. nov.

Holotype (female): West Nepal. Buri Machha Kola, Gandatsi-Kholabenesi, 1650 m, 23.V.1990, leg. Probst (NME).

Description. Head and upperside metallic bronze, antennae black with fulvous 4 basal segments, labrum, all palpi and legs fulvous.

Body ovate. Head without microsculpture, with large and moderately dense punctures (about 6-7 in transverse row on clypeus), anterior margin of clypeus broadly concave. Antennae reach humeral tubercle, proportions of segments are as 8-6-5-4-4-4-5-5-9, segments 5-10 very distinctly widened, about as long as

wide. Prothorax twice as wide as long, broadest just before base, side margins strongly rounded, anterior and posterior angles obtuse, surface strongly convex, shining, with rather large and moderately dense punctures, without any depressions. Scutellum triangular with rounded apex, impunctate. Elytra 1.1 times as long as wide, surface shining, with regular rows of punctures distinct to apex, broad and flat interspaces, humeral tubercle high; there is high and sharp oblique ridge from humerus to anterior third of side margin, between ridge and side margin placed longitudinal convexity. Propleurae shining and impunctate. Last abdominal sternite, strongly punctate, flattened in middle, with truncate hind margin. Length of body 3.3 mm (3.1 mm without head).

Diagnosis. This is the largest species of the genus from Nepalese fauna and might be compared only with *N. robusta* Jacoby, 1892, which has almost same size and mostly bicolor legs, but females of this species have no lateral ridge on elytra. 7 species were registered and keyed in Nepal (MEDVEDEV & SPRECHER, 1999), among them 2 species have costate elytra in females, but their costae are low and not oblique and size not more than 2.1 mm.

Derivatio nominis. Name is connected with ridge on elytra.

Mimastra brancuccii sp. nov.

Holotype (female): East Nepal, Koshi, Chauki-gufa, 2700–2800 m, 3.VI.1985, leg. M.Brancucci (NHMB).

Description. Head fulvous with black longitudinal stripe, antennae black with two basal segments fulvous, prothorax fulvous with narrow and parallel-sided central stripe, scutellum black, elytra fulvous with black stripe from humeral tubercle to apical slope, going parallel and near suture (fig.1), pygidium and underside black, legs fulvous, pubescence of elytra white.

Body narrow, elongate, 2.5 times as long as wide (2.2 times without head). Head a little narrower than prothorax, impunctate, clypeus with straight anterior margin, interantennal space narrow, with thin ridge, frontal tu-

bercles subquadrate, shining, distinctly delimited from vertex with almost straight impression. Antennae reach middle of elytra, thin, proportions of segments are as 7-4-11-7-7-6-5-5-5-7, preapical segments about 2.5 times as long as wide. Prothorax 1.8 times as wide as long, broadest at base and slightly narrowed anteriorly, anterior margin straight and very narrowly bordered, side margin almost straight and rounded only at anterior angles, all angles obtuse, surface shining, with transverse impression in middle, but less deep in central part, practically impunctate. Scutellum triangular with rounded apex, with addressed pubescence. Elytra 1.8 times as long as wide, parallel-sided, finely and very densely punctuate, with addressed pubescence. Pygidium not exposed. Metasternum densely punctate on sides, glabrous in middle. Length of body 5.0 mm.

Diagnosis. This species has all characters of *Mimastra* Baly, 1865, except pubescent elytra. Earlier this genus included a few species with pubescent elytra, but now they are transferred to *Trichomimastra* Weise, 1922, which has unbordered anterior margin of prothorax (GRESSITT & KIMOTO, 1963). A new species differs from all known *Mimastra* except pubescent elytra also with rather specific pattern of upperside.

Derivatio nominis. Species is named after its collector, Dr. Michel Brancucci.

***Trichomimastra nigroapicalis* sp. nov.**

Holotype (male): Nepal, Gandaki, 2 km N Pokhara, 30.VII.1995, leg. O. Gorbunov (LM).

Description. Fulvous, antennal segments 3–9 piceous, apical third of elytra black (fig.2).

Body elongate, narrow. Head as wide as prothorax. Clypeus impunctate, with straight anterior margin, interantennal space narrow and flat, frontal tubercles subtriangular, sharply delimited posteriorly, vertex feebly convex, with microscopical scratches. Antennae reach apex of elytra, proportions of segments are as 13-5-11-17-16-16-16-16-13-10-16, preapical segments about 4 times as long as wide. Prothorax 1.1 times as wide as long, anterior margin straight and not bordered, side margins almost straight and practically parallel-sided, fore and hind angles distinct, surface shining, feebly convex with traces of impression on each side behind middle, finely and not densely punctuate. Scutellum triangular with rounded apex. Elytra twice as long as

wide, almost parallel-sided, with a few short hairs on apical slope, distinctly and densely punctuate, with almost indistinct basal convexity. Epipleurae narrow, distinct to apex. Prosternal process very narrow, anterior coxal cavities open. Segment 1 of anterior tarsus not enlarged. Hind tibiae without spurs. Aedeagus (fig.4) thin, with acute triangular apex, slightly curved in lateral view. Length of body 3.8 mm.

Diagnosis. This species has many characters of the *Trichomimastra* Weise, 1922, but upperside without hairs, except a few of them on apical slope of elytra, prothorax with indistinct impressions, and the third segment of maxillar palpi is only moderately thickened, not strongly swollen, as usually in *Trichomimastra*. In any case it differs immediately from all known species of this genus with colour of elytra.

Derivatio nominis. Name is connected with colour of elytra.

***Hoplosaenidea nepalica* sp. nov.**

Holotype (female): Nepal, Koshi, 3 km E Dharan, 24.VII.1995, leg. O. Gorbunov (LM). Paratype: East Nepal, Arun, Chichila-Pangma, 1900–1200m, 18.VI.1980, leg. C. Holzschuh, 1 female (NHMB).

Description. Fulvous, antennae except two basal segments and tarsi black.

Body elongate, subparallel-sided. Head practically impunctate, antennal interspace includes convex basal triangle of clypeus, frontal tubercles convex, narrow and transverse, sharply divided from vertex with straight impression. Antennae thin, reach middle of elytra, proportions of segments are as 10-3-6-7-7-7-7-7-10, preapical segments about 2–2.5 times as long as wide. Prothorax practically as long as wide, broadest in anterior third, side margins rounded, anterior angles distinct, hind angles obtuse, surface convex, impunctate, with two deep round grooves behind middle, divided with rather broad space. Scutellum triangular with broadly rounded apex, impunctate. Elytra 1.7 times as long as wide, very feebly broadened to apical third and then narrowed to rounded apices, surface with small tubercles, basal convexity, very feebly delimited posteriorly and extremely dense punctures with interspaces distinctly smaller than diameter of punctures. Pygidium exposed, as long as wide at base, densely punctuate. Spermatheca- fig. 13. Length of body 6.3–6.7 mm.

Diagnosis. Resembles *H. fulva* Kimoto, 1977, from Bhutan and Nepal, differs very densely punctate elytra, more short antennae, prothorax not transverse, underside fulvous.

Derivatio nominis. Species is named after the country, where it was collected.

Hoplosaenidea gorbunovi sp. nov.

Holotype (male): Nepal, Gandaki, 2 km N Pokhara, 30.VII.1995, leg. O. Gorbunov (LM).

Description. Light piceous, elytra dark metallic greenish blue, knees fulvous.

Body elongate, subparallel-sided. Head impunctate, antennal interspace narrow and convex, frontal tubercles convex, narrow and transverse, sharply delimited posteriorly with straight impression. Antennae thin, reach middle of elytra, proportions of segments are as 10-3-7-9-8-7-7-7-6-9, preapical segments about 2.5 times as long as wide. Prothorax 1.1 times as wide as long, broadest in anterior third and almost indistinctly narrowed to base, side margins behind anterior third straight and practically parallel-sided, anterior angles distinct, posterior angles obtuse, surface convex, shining, with very sparse microscopical punctures and two deep round grooves behind middle divided with broad space. Scutellum triangular with almost truncate apex, impunctate, shining. Elytra 1.7 times as long as wide, very feebly narrowed to behind, surface with small tubercle, traces of basal convexity and very dense punctures (but not so dense as in preceding species), smaller than diameter of punctures. Pygidium partly exposed, densely punctate. Aedeagus (fig.5) thin, spear-like, feebly curved in lateral view. Length of body 5.6 mm.

Diagnosis. Resembles *H. bicolor* (Gressitt & Kimoto, 1963) from China, differs with prothorax almost as long as wide, head of male not modified, colour of body different, including distinctly metallic elytra.

Derivatio nominis. Species is named after its collector

Macrima roseofulva sp. nov.

Holotype (male): Nepal, Koshi, 3 km E Dharan, 24.VII.1995, leg. O. Gorbunov (LM).

Description. Head and prothorax pink red, antennae fulvous with pink basal segment and slightly darkened apical segments, scutellum black, elytra fulvous with

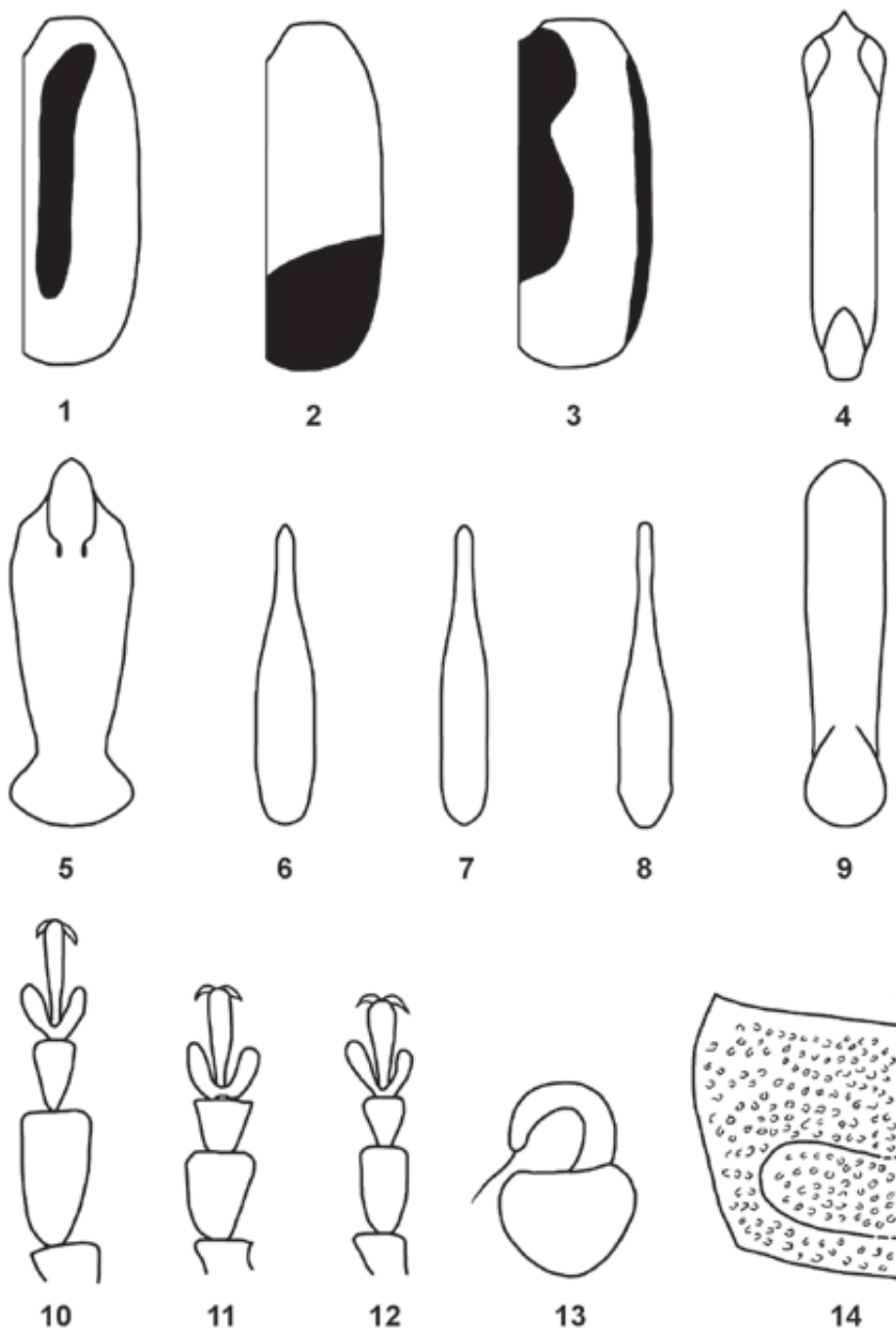
very narrow lateral margins and short stripe on extreme apex of suture black, epipleurae fulvous anteriorly and black behind middle, prosternum pink red with black spot on propleurae, meso- and metasternum black, abdomen pink red with black transverse spot on each side, legs fulvous.

Body elongate, widened to behind. Head impunctate, vertex and frontal tubercles microsculptured, upper edge of frons with 2 processes, median process rounded on apex and pubescent below, clypeal cavity deep and bordered on sides. Antennae reach apical slope of elytra, proportions of segments are as 13-5-6-16-15-14-11-11-12-12-15, segment 3 obliquely cutten on apex, preapical segments about 6 times as long as wide. Prothorax 1.7 times as wide as long, broadest in anterior quarter, sides rounded anteriorly and straight in posterior half, surface impunctate, microsculptured, with 2 round grooves in middle. Scutellum triangular, microsculptured. Elytra 1.4 times as long as wide, broadest in apical quarter, finely and densely punctate, without microsculpture, with very feeble basal convexity. Segment 1 of anterior tarsi strongly enlarged (fig. 10). Length of body 9.0 mm.

Diagnosis. Differs well from all known species with absence of black spot on pygidium and bicolor upper-side.

Derivatio nominis. Species is named after colour of its body.

To the moment 4 species were known from Nepal (MEDVEDEV & SPRECHER 1999, MEDVEDEV 2009), among them *M. aurantiaca* (Laboissiere, 1936), described from Yunnan, but recorded also for Nepal (KIMOTO 1982), which looks a little strange. A key for Nepalese species (males) is given below.



1-3 – elytral pattern: 1 – *Mimastra brancuccii*, 2 – *Trichomimastra nigroapicalis*, 3 – *Asutoshana ornata*; 4-9 – aedeagus ventral: 4 – *Trichomimastra nigroapicalis*, 5 – *Hoplosaenidea gorbunovi*, 6 – *Macrima aurantiaca* (specimen from Nepal), 7 – *M. armata*, 8 – *M. pallida*, 9 – *Asutoshana ornata*; 10-12 – anterior tarsus of male: 10 – *Macrima roseofulva*, 11 – *M. armata*, 12 – *M. pallida*; 13 – spermatheca of *Hoplosaenidea nepalica*; 14 – prothorax of *Asutoshana ornata*

Key to *Macrima*-species (males) of Nepal

- 1 (8) Pygidium fulvous with black spot in middle.
- 2 (3) Prothorax fulvous with 3 black stripes or black with triangular fulvous spots on each side of base (united stripes). Pygidium with large quadrangular spot. Fulvous, scutellum, narrow lateral and apical margins of elytra, epipleurae, transverse spot on preapical tergite, breast, all abdominal sternites except sides and hind margins black. Antennal segment 3 distinctly longer than 2. Length 8.0–8.6 mm. Nepal. *M. hartmanni* L. Medvedev, 2009
- 3 (2) Prothorax entirely fulvous. Pygidium with less large and round spot.
- 4 (7) Antennal segment 3 not longer than 2.
- 5 (6) Upper part of frons with 2 small and obtuse lobes in middle, median process under these lobes black, strongly prominent, with triangular apex and hairy. Elytra fulvous with black apical angle. Length 6.0–7.5 mm. North India, Pakistan, Nepal, China (Tibet). Feeding on *Alnus nepalensis*. *M. armata* Baly, 1878
- 6 (7) Upper part of frons with horizontal process on each side below antennal insertions, median process fulvous, feebly prominent, with bulbous apex, feebly haired. Length 5.6–7.2 mm. North India, Nepal, Bhutan, China (Tibet). *M. pallida* (Laboissiere, 1936)
- 7 (4) Antennal segment 3 longer than 2. Upper edge of frons with 2 processes, which are widely separated and situated near antennal insertions. Narrow side margin of fulvous elytra and apical sutural angle black. Length 6.4–7.4 mm. Nepal, India, Bhutan, China (Tibet, Sichuan) *M. aurantiaca* (Laboissiere, 1936)
- 8 (1) Pygidium pink red, without black spot. Head and prothorax pink red, elytra fulvous with black pattern, abdomen pink red with black spots. Length 9.0 mm. Nepal. *M. roseofulva* sp. nov.

Dercetina laetissima sp. nov.

Holotype (female): Nepal, Gandaki, 2 km N Pokhara, 30.VII.1995, leg. O. Gorbunov (LM).

Description. Head, prothorax and scutellum bright metallic green, antennae black with 3 basal segments metallic green, elytra in daylight metallic cupreus with feeble green emargination on sides, under binocular with oblique electric light, especially going from anteriorly metallic green with purple or red emargination, underside and legs metallic green, labrum black.

Body elongate, broadened to behind. Head impunctate, shining, clypeus very short with almost straight anterior margin, interantennal space very narrow, frontal tubercles large, almost quadrangular, divided from each other and especially from vertex with deeply impressed line. Antennae reach apical slope of elytra, proportions of segments are as 9-5-7-9-9-15-15-14-13-11-14, preapical segments about 5 times as long as wide. Prothorax 1.5 times as wide as long, broadest near anterior angles and feebly narrowed to base, side margins almost straight, all angles distinct and slightly produced, surface very shining, with 2 deep transverse depressions just behind middle and divided from each other with much more shallow space; all surface with microscopi-

cal and very sparse punctures and a few strong punctures in impressions. Scutellum triangular, very finely punctate. Elytra 1.6 times as long as wide, broadest in apical quarter, with feeble tubercle, without basal convexity, very densely, strongly and deeply punctate, interspaces very narrow and shining. Anterior tarsus of male- fig.10. Segment 1 of posterior tarsus almost as long as next segments combined. Length of body 7.7 mm.

Diagnosis. Differs from all continental species with bicolor metallic upperside and very strong and dense punctuation of elytra.

Derivatio nominis. Name is connected with colour of upperside.

Asutoshana gen. nov.

Description. Body oblong, upperside not pubescent. Head as wide as prothorax, interantennal space not broad, frontal tubercles quadrangular, eyes strongly convex. Antennae about three-quarters of body length, segments 3 and 4 short and subequal, segment 4 longer than two preceding united. Prothorax almost subquadrate, as long as at base, surface strongly punctate, with two round impressions just behind middle, divided with narrow more elevated space. Scutellum triangular.

Elytra parallel-sided, broader at base than prothorax, strongly and confusedly punctuate, with well developed humeral tubercle, but without basal convexity. Epipleurae broad basally, narrowed to behind, but continuing almost to apex. Wings developed. Anterior coxae and contiguous, prosternal process not seen between them, coxal cavities almost closed. Hind legs longer than fore and mid ones, hind femora only slighter thickened, tibiae perfectly cylindrical, without distinct spurs. Third tarsal segment bilobed. Claws appendiculate.

Diagnosis. Unusual sculpture of prothorax and a few other characters resemble genus *Asutoshia* Maulik, 1936, described from Burma, but differs well in having elytra confusedly and strongly punctuate, prothorax strongly punctuate and size almost twice smaller. Type of genus- *Asutoshana ornata* sp. nov.

Derivatio nominis. Genus is named after its similarity with the genus *Asutoshia* Maulik, 1936.

***Asutoshana ornata* sp. nov.**

Holotype (male): [Nepal], Himalaya, Mt. Everest (LM).

Description. Fulvous, antennae except two basal segments, broad sutural stripe on elytra widened basally and going from base to apical third (fig. 3), narrow lateral stripe starting behind humerus and going to apical slope and legs except coxae, bases of femora and knees black. Head microsculptured, finely and sparsely punctuate on frontal tubercles and vertex, the latter with longitudinal impressed line. Proportions of segments are as 10-5-5-14-13-11-11-11-11-10-12, preapical segments about 3 times as long as wide. Interantennal space with thin ridge. Prothorax 1.3 times as wide as long, broadest just behind anterior angles, narrowed to base, side margins in posterior two thirds straight, anterior and posterior angles distinct, with bristle. Surface strongly and densely punctuate, especially on impressed areas, interspaces of punctures with thin microsculpture. Scutellum finely punctuate. Elytra 1.6 times as long as wide, shining, with interspaces mostly narrow and convex. Segment 1 of anterior tarsus not widened. Aedeagus (fig. 9) thin and long, feebly narrowed to basal orifice, in lateral view slightly curved. Length of body 3.2 mm.

Remark. It is interesting to note, that elytral pattern of new species has same type, as a single species of *Asutoshia* - *A. divarna* Maulik, 1936.

Derivatio nominis. Name is connected with colour of elytra.

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