**Zeitschrift:** Entomologica Basiliensia et Collectionis Frey

Herausgeber: Naturhistorisches Museum Basel, Entomologische Sammlungen

**Band:** 31 (2009)

Artikel: New and poorly-known species of Chrysomelidae (Coleoptera) from

Sulawesi, Bali and Singapore

Autor: Medvedev, Lev N.

**DOI:** https://doi.org/10.5169/seals-981042

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Entomologica Basiliensia et Collectionis Frey	31	245–254	2009	ISSN 1661-8041
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# New and poorly-known species of Chrysomelidae (Coleoptera) from Sulawesi, Bali and Singapore

by Lev N. Medvedev

**Abstract.** Eight new species are described from Sulawesi: *Basilepta sulawesianum*, *Rhyparida bosi*, *R. buechei*, *R. gorbunovi*, *R. sulawesianum*, *R. basileptana*, *Aulexis gorbunovi* (Eumolpinae), and *Hespera sulawesiana* (Alticinae) spp.nov. Additionally described are one new species in Eumolpinae: *Trichochrysea singaporensis* sp.nov. (Singapore), and one new species in Alticinae: *Hespera baliana* sp.nov. (Bali). Keys for the genera *Basilepta* Baly, 1860 (from Sulawesi) and *Hespera* Weise, 1889 (islands of SE Asia) are given.

Key words. Coleoptera – Chrysomelidae – Indonesia – Singapore – Sulawesi – new species – keys

#### Introduction

This is the second part of the descriptions of new species of Chrysomelidae from Sulawesi; the first part was published in last year's edition of this publication (MEDVEDEV 2008).

The bulk of the material used below, received from Mr. Boris Büche (Berlin), was collected by fogging the lower canopy within a 3-km radius centred on the village of Toro in the Donggala district of Central Sulawesi Province, 120 km. S of Palu, in cacao plantations and their immediate surroundings. Two approaches to locality labelling were employed in this Sulawesian material: "Indonesia, Central Sulawesi, Kab. Donggala, Toro (1°30′S, 120°2′E), leg. M. Bos" and "Indonesia, Central Sulawesi, W. Lore Lindu NP, 120 km. S of Palu, leg. M.M. Bos", but they both refer to the same locality. Digital images of the specimens should be available on http://www.beetle-diversity.com.

Certain additional material was collected in Sulawesi Utara in the course of last year by my colleague Dr. Oleg Gorbunov.

### Material

Type material is deposited in the following collections:

NHMB	Naturhistorisches Museum, Basel, Switzerland
MZB	. Zoological Museum Bogor/Cibinong, Indonesia
LM	. The Lev Medvedev collection, Moscow, Russia

# Taxonomy

#### Basilepta sulawesianum sp.nov.

**Material examined.** Holotype (male): Central Sulawesi, Kab. Donggala, village Toro, 815 m, 12.II.2004, canopy fogging on cacao plantation, leg. M.M. Bos (LM). Paratype: Central Sulawesi, W. Lore Lindu NP, 120 km S of Palu, 800–1000m, 12.II.2004, canopy fogging on cacao plantation, leg. M. M. Bos, 1 female (NHMB).

**Description.** Body metallic green, darker on underside and tarsi, labrum black, antennae black with two basal segments partly fulvous.

Body robust. Clypeus strongly punctate with triangularly incised anterior margin, frons and vertex more sparsely punctate, with central groove. Antennae reach anterior quarter of elytra, proportions of segments: 5–3–7–8–8–8–7–7–6–6–5, preapical segments feebly widened, about 3 times as wide as long. Prothorax 1.6 times as wide as long, side margins without distinct angulation, but with very feeble trace of obtuse angle in basal third, anterior margin with distinct, uninterrupted collar, the latter much broader in middle than width of the third antennal segment; surface with sparse punctures, interspaces flat, with microscopic punctures. Scutellum trapeziform with rounded apex, very finely punctate and with more or less distinct microsculpture. Elytra 1.3–1.35 times as long as wide, with basal convexity and high humeral tubercle, elytral rows deep, more feeble on apical slope, interspaces flat, sides moderately rugose, with short transverse ridge just behind humerus and another tubercle behind the first, prolonged in ridge along side margin. Propleurae virtually impunctate. Aedeagus – Fig. 1.

Body length: male 5.7 mm, female 7.0 mm.

Differential diagnosis. See key.

# A key to the Basilepta species of Sulawesi

- 1(4) Body without metallic colour.
- 2(3) Body castaneous, antennae black with five basal segments fulvous and two apical whitish. Prothorax with rounded side margins, not angulate at sides, narrowing towards the front, very finely and sparsely punctate. Femora not toothed. Body length 4.2 mm. ...... B. castaneum Baly, 1867
- 4(1) Body with metallic colour or sheen.
- 5(12) Anterior margin of prothorax with collar uninterrupted in middle. Prothorax without distinct angle on sides.
- 7(6) Body smaller, 4.0–4.2 mm. Prothorax strongly, evenly and coarsely punctate, with more or less distinct longitudinal strigosity. Elytra with distinct basal convexity.
- 8(9) Body dull, black with feeble violaceous tint. Prothorax coarsely punctate, with raised strigosity, mostly in middle. Elytral rows very

- 9(8) Body lustrous, distinctly metallic. Interspaces of rows on basal convexity of elytra slightly convex or almost flat.
- 10(11) Prothorax with strong, dense, partly longitudinal punctures, interspaces convex, majority more narrow than punctures. Elytral rows more convex, mostly more feeble beyond centre, but quite distinct to apex. Upperside green. Body length 4.0–4.2 mm.

  B. viridiaeneum Baly, 1864
- 11(10) Prothorax with deep and moderately dense punctures, interspaces flat, majority more wide than punctures. Elytral rows very feeble beyond centre, very indistinct on apical slope. Upperside dark aeneous. Aedeagus with triangular apex (Fig. 2). Body length 3.7–4.2 mm. Possibly identical with preceding species. ... B. nigroaeneum Baly, 1867

## Rhyparida sulawesianum sp.nov.

**Material examined.** Holotype (female): Central Sulawesi, W. Lore Lindu NP, 120 km S of Palu, 28.IV.2005, canopy fogging on cacao plantation, leg. M. M. Bos (LM).

**Description.** Reddish-fulvous, antennal segments 4–10 piceous, elytra black with fulvous apex, apices of fore-tibiae blackish.

Body ovate. Clypeus trapeziform, with arcuate anterior margin, punctate and microsculptured, distinctly but not sharply separated from impunctate microsculptured frons, vertex punctate and microsculptured, with impression in middle and narrowly grooved along eyes. Antennae reach base of prothorax, proportions of segments: 12–6–12–15–15–15–15–15–15–15–15–17, preapical segments about four times as long as wide. Prothorax 1.8 times as wide as long, side margins strongly rounded, broadest beyond centre, with all angles acute and produced, with long bristles, surface finely and not densely punctate with microsculptured interspaces. Scutellum triangular with rounded apex, microsculptured. Elytra 1.4 times as long as wide, with thin regular rows of punctures disappearing on apical slope and with very feeble basal convexity, interspaces broad, flat, practically impunctate. Propleurae microsculptured. Fore- and hind femora with microscopic tooth.

Body length: 5.2 mm.

**Differential diagnosis.** Near R. lorquini Baly, 1867, but smaller, prothorax distinctly punctate, elytra black with fulvous apex.

## Rhyparida bosi sp.nov.

**Material examined.** Holotype (female): Central Sulawesi, Kab. Donggala, Toro village, 810 m, 21.XII.2003, canopy fogging on cacao plantation, leg. M. M. Bos (LM). Paratype: same locality, 28.XII.2003, 1 female (NHMB).

**Description.** Red-fulvous, antennal segments and abdomen black, elytra metallic blue.

Body robust. Clypeus rectangular, feebly and arcuately incised on anterior margin, indistinctly divided from frons, finely punctate, frons impunctate, vertex microscopically punctate, with impressed central line and grooves near eyes. Antennae reach mid-elytra, proportions of segments: 13–5–12–14–14–14–14–14–14–14–16, preapical segments about 4 times as long as wide. Prothorax 1.7 times as wide as long, broadest near mid-section, side margins strongly rounded, all angles acute and produced, surface almost impunctate, lustrous. Scutellum trapeziform with rounded apex, finely microsculptured. Elytra 1.2 times as long as wide, with regular rows, more feeble on low basal convexity and on apical slope. Propleurae impunctate, lustrous.

Body length: 4.4-5.1 mm.

**Etymology.** The species is named after its collector.

**Differential diagnosis.** Might be compared only with *R. rupa* Maulik, 1935, but differs immediately in broad and robust body and bright metallic blue elytra.

## Rhyparida buechei sp.nov.

**Material examined.** Holotype (male): Central Sulawesi, Kab. Donggala, Toro village, 810 m, 14.IV.2005, canopy fogging on cacao plantation, leg. M. M. Bos (LM). Paratypes: same locality, 10.II.2004, 1 male (NHMB); 17.XII.2003, 1 male (MZB).

**Description.** Body entirely fulvous.

Body elongate ovate. Clypeus almost square, with slightly concave anterior margin and a few very fine punctures, almost undivided from vertex, which is impunctate with a feeble impressed line at centre, occiput with distinct punctures and microsculpture. Antennae reach mid-elytra, proportions of segments: 12–7–14–12–12–12–13–13–13–13–16, preapical segments about 3–3.5 times as long as wide. Prothorax 1.6 times as wide as long, broadest in mid-section, side margins rounded, all angles acute and produced, with long bristle, surface very sparsely and very faintly punctate, lustrous. Scutellum triangular with rounded apex, microsculptured. Elytra 1.25 times as long as wide, without basal convexity, with deep rows of punctures throughout and more or less convex interspaces, especially on sides. Propleurae impunctate, lustrous. Aedeagus with tridentate apex and flat underside (Fig. 4).

Body length: 5.0 mm.

**Etymology.** The species is dedicated to Dr. B. Büche.

**Differential diagnosis.** Near *R. pascoei* Baly, 1864, but much smaller, elongate ovate, with different form of aedeagus.

## Rhyparida gorbunovi sp.nov.

**Material examined.** Holotype (male): Indonesia, Sulawesi Utara, Tomohon, Kakaskesen Dua, 1°22′N, 124°51′E, 17–23.IV.2008, leg. O. Gorbunov (LM).

# **Description.** Body entirely fulvous.

Elongate ovate. Clypeus trapeziform, strongly narrowed posteriorly, weakly divided from vertex, its anterior margin feebly arcuate, about 3 times as wide as posterior margin, surface rather densely punctate; vertex distinctly punctate, with impressed midline and deep, narrow grooves near eyes. Antennae reach apical slope of elytra, proportions of segments: 15–7–18–18–20–19–17–17–16–18, preapical segments about 4 times as long as wide. Prothorax 1.7 times as wide as long, broadest in basal third, side margins strongly rounded, surface finely punctate, with thin microsculpture. Scutellum pentagonal, microsculptured. Elytra 1.3 times as long as wide, without basal convexity, with deep rows of punctures throughout and flat or slightly convex interspaces lacking sculpture. Propleurae smooth and lustrous. Fore- and hind femora with very small tooth. Aedeagus with tridentate apex and flat underside (Fig. 5), almost the same as in *Rhyparida buechei* sp.nov. (preceding).

Body length: 5.0 mm.

**Etymology.** The species is named after its collector.

**Differential diagnosis.** Near *Rhyparida buechei* sp.nov. (preceding), differs in form and structure of clypeus, punctate vertex, long antennae and toothed fore- and hind femora.

#### Rhyparida basileptana sp.nov.

**Material examined.** Holotype (male): Central Sulawesi, W. Lore Lindu NP, 120 km S of Palu, 15.IV.2005, canopy fogging on cacao plantation, leg. M. M. Bos (LM). Paratype: same locality, 19.IV.2005, 1 female (NHMB).

**Description.** Body fulvous, apical antennal segments more or less darkened.

Robust, narrowing posteriorly. Head impunctate, clypeus broad, very feebly notched on anterior margin, not delimited posteriorly, vertex narrowly grooved near eyes. Antennae reach apical slope of elytra, proportions of segments: 9–4–7–9–9–9–9–9–9–11, preapical segments about 3 times as long as wide. Prothorax 1.4 times as wide as long, broadest in midsection, with sides feebly rounded, surface lustrous, indistinctly punctate. Scutellum triangular with narrowly rounded apex, impunctate. Elytra 1.45 times as wide as long, with feeble basal convexity, elytral rows regular, but not sulcate as is usual in *Rhyparida*, and not connected under humerus, distinct throughout. Propleurae impunctate. Femora not toothed. Aedeagus short and broad, with subtruncate apex with short acute tip and feebly concave underside (Fig. 6).

Body length: male 2.2 mm, female 3.2 mm.

**Differential diagnosis.** Near *Rhyparida buechei* sp.nov., but elytral rows not sulcate, body smaller and aedeagus different. The species in question closely resembles the genus *Basilepta* Baly, 1860, but has distinctly split claws.

## Trichochrysea evanescens (Baly, 1864)

Material examined. Sulawesi, W. Lore Linda NP, 120 km S of Palu, 800–1000m, Natural forest, 29.IV.2005, leg. M. Bos, 1 male. Also specimens from Mindanao (Mt. Tasaday) and Malacca (Benom Mts, Cameron Highlands). Originally described from Penang (Malaysia).

**Remark.** *T. evanescens* Baly has a long aedeagus, with an acute, elongate apex (Fig. 7). Antennal segment 3 subequal with segments 2 and 4 (proportions of segments 2–4 in 5 specimens: 10–11–12; 10–9–11; 9–9–10; 11–13–12; 9–7–9.

## Trichochrysea singaporensis sp.nov.

Material examined. Holotype (male): Singapore, 1898, leg. Biro (LM).

**Description.** Dark greenish-bronze, antennae and palpi fulvous, labrum reddish, abdomen and legs fulvous to dark fulvous, pubescence of upperside golden fulvous, arranged on elytra with irregular spots and bands.

Head finely punctate, clypeus more densely so with anterior margin feebly bilobed. Proportions of antennal segments: 15–13–8–12–13–14–15–14–13–12–16; five apical segments thickened, about 1.5 times as long as wide. Upperside with dense adpressed pubescence and long, sparse, erect hairs. Prothorax 1.55 times as wide as long, side margins slightly arcuate, surface with fine, dense punctures covered by pubescence. Scutellum rectangular with rounded apex. Elytra 1.25 times as long as wide, surface with stronger punctures than on prothorax, punctures distinct only between pubescent spots. Aedeagus (Fig. 8) broad, with triangular apex ending in acute tip.

Body length: 5.8 mm.

**Differential diagnosis.** Very similar to *T. evanescens*, differs only in form of aedeagus and short third antennal segment (about 0.6–0.65 times the length of adjoining segments.

## Aulexis gorbunovi sp.nov.

**Material examined.** Holotype (female): Indonesia, Sulawesi Utara, Tomohon, Kakaskesen Dua, 1°22′N, 124°51′E, 15–16.IV.2008, leg. O. Gorbunov (LM).

**Description.** Head red, antennae black with 4 basal segments fulvous, prothorax, scutellum and underside black, elytra and legs fulvous, pubescence of upperside gold.

Body elongate, widening towards the rear. Clypeus with strong punctures and microsculpture, frons and vertex more finely, but very densely punctate. Antennae reach anterior third of elytra, proportions of segments: 10–7–11–13–11–10–14–9–10–10–12, preapical segments about 2.5 times as long as wide. Prothorax 1.3 times as wide as long, broadest in midsection and more strongly narrowed anteriorly, side margins with rounded protuberance at halfway, but lacking teeth; all angles obtuse with long bristle, surface with oblique impression on each side, finely and very densely punctate, with adpressed hairs. Scutellum triangular, densely pubescent. Elytra 1.7 times as long as wide, without lateral ridge or elevation, surface dull, lacking distinct punctures, but with dense cover of adpressed pubescence. Fore-femora not thickened.

Body length: 5.1 mm.

Etymology. The species is named after its collector.

**Differential diagnosis.** This species resembles *A. wallacei* Baly, 1867, widely distributed from Malacca to Borneo, in colour, and *A. nigricollis* Baly, 1864 from Borneo, but both these species have lateral margin of prothorax tridentate as well as grey pubescence. The form of the prothorax, without teeth on the side margins, is the same as in *A. bosi* L. Medvedev, 2008 from Sulawesi, but the latter species has a smooth clypeus with rectangular excavation of anterior margin and an entirely fulvous body.

## Colaspoides micans Baly, 1867

**Material examined.** Indonesia, Central Sulawesi, W. Lore Lindu NP, 120 km. S of Palu, 800–1000 m, 25.XII.2003, canopy fogging, leg. M. M.Bos, 1 female.

**Remark.** This species has not been mentioned since its description from Celebes. Spermatheca – Fig. 10.

## Hespera sulawesiana sp.nov.

**Material examined.** Holotype (male): Indonesia, Central Sulawesi, Kab. Donggola Toro (1°30′S, 120°2′E), 21.IV.2005, leg. M. M. Bos (LM). Paratypes: same locality and date, 1 male, 1 female (NHMB); – same locality, 28.IV.2005, 1 female (NHMB), 8.XI.2004, 1 male, 1 female (MZB, LM).

**Description.** Black, 3 or 4 basal antennal segments and at least bases of tibiae fulvous, 1 paratype has all tibiae and fore-femora more or less fulvous; pubescence of upperside gold or white.

Body elongate, widening towards the rear. Head densely and finely punctate and pubescent, frontal tubercles absent. Antennae reach apical slope of elytra, proportions of segments: 9–4–7–10–10–10–10–10–9–11, preapical segments about 4 times as long as wide. Prothorax 1.25 times as wide as long, side margins straight, all angles obtusely angulate, surface with fine and dense punctures and moderately dense pubescence. Elytra 1.5 times as long as wide, punctures same as on prothorax, pubescence moderately dense, directed mostly backwards. Aedeagus cuneiform with transparent area in apical part, having central ridge on its basal half (Fig. 9).

Body length: 2.4–2.7 mm.

**Differential diagnosis.** Near *H. philippinica* L. Medvedev, 1993, differs in proportions of basal antennal segments and colour of upperside, antennae and legs.

# Hespera baliana sp.nov.

**Material examined.** Holotype (female): Indonesia, Bali, Danau Buyan, 1300m, 19–21.II. 1994, leg. Bolm (LM).

**Description.** Black, basal antennal segments and legs except fulvous apices of hind femora black. Pubescence gold.

Body elongate, widened posteriorly. Head finely and densely punctate and pubescent, frontal tubercles poorly delimited. Antennae reach apical third of elytra,

proportions of antennal segments: 10–5–8–10–12–10–10–10– 9–12, preapical segments about 4 times as long as wide. Prothorax 1.25 times as wide as long, side margins almost straight, all angles slightly produced with long bristle, surface with fine and dense punctures and rather dense pubescence directed backwards and partly outwards. Elytra 1.55 times as long as wide, punctures fine and very dense, pubescence dense, directed backwards and mostly outwards, especially on sides; there is a blunt lateral fold from humerus to apical slope.

Body length: 3.4 mm.

**Differential diagnosis.** Differs from all species known from island in having lateral fold on elytra.

## A key to Hespera species from the islands of SE Asia

- 1(2) Elytra with deep longitudinal groove near side margins. Upperside black, elytra sometimes dark fulvous, legs fulvous with dark apices of hind femora, pubescence gold. Aedeagus with very long apical process. Body length 2.5–2.8 mm. Lombok. ......... *H. foveipennis* L. Medvedev, 2008
- 2(1) Elytra without longitudinal groove on sides.
- 4(3) Antennae and legs at least partly fulvous.
- 5(6) Elytra with lateral fold from humerus almost to apex. Antennae black with 3 basal segments fulvous, legs fulvous with black apices of hind femora. Pubescence gold. Male unknown. Body length 3.4 mm. Bali. ....

  H. baliana sp.nov.
- 6(5) Elytra without lateral fold.
- 8(7) Head and prothorax distinctly punctate. Upperside with white, fulvous or gold pubescence. Antennal segment 3 longer than 2, but slightly shorter than 4.

- 10(9) Antennal segment 4 less than 3 times as long as 2.
- 11(12) Antennal segment 4 about twice as long as 2, proportions of segments 2–4 are 1–1.7–2.1. Body dark brown, antennae and legs fulvous, hind femora usually dark, elytra often dirty fulvous, pubescence yellowish-white. Aedeagus tapering toward apex, with apical process narrow, acute and asymmetrical. Body length 2.3–3.0 mm. Philippines (Luzon, Mindanao, Basilan, Palawan). ....... *H. philippinica* L. Medvedev, 1993

## Acknowledgements

I am grateful to Dr. Boris Büche (Berlin) and Dr. O. Gorbunov (Moscow) for the opportunity to study this material.

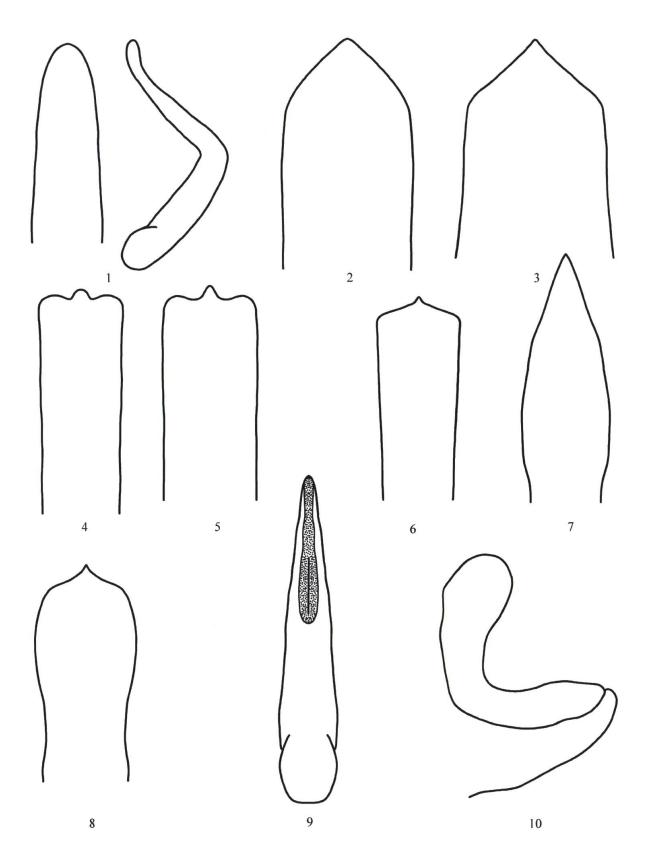
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#### Author's address:

Prof. Lev N. Medvedev
Institute for Problems of Ecology and Evolution
Russian Academy of Sciences
Leninsky prospect 33
Moscow 119071
RUSSIA

E-mail: lev.n.medvedev@mail.ru



**Figs 1–10.** 1–9, Aedeagi ventral (1 ventral and lateral): 1 – *Basilepta sulawesianum* sp.nov.; 2 – *B. nigroaeneum* Baly; 3 – *B. antarala* Maulik; 4 – *Rhyparida buechei* sp.nov.; 5 – *R. gorbunovi* sp.nov.; 6 – *R. basileptana* sp.nov.; 7 – *Trichochrysea evanescens* Baly; 8 – *T. singaporensis* sp.nov.; 9 – *Hespera sulawesiana* sp.nov. 10 – *Colaspoides micans* Baly: spermatheca.