

New and poorly known Clytrinae (Coleoptera, Chrysomelidae) from Borneo

Новые и малоизвестные Clytrinae (Coleoptera, Chrysomelidae) с Борнео

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Abstract. Six new leaf beetle species, *Aspidolopha metallescens* sp.n., *Pseudolopha splendens* sp.n., *Aetheomorpha takizawai* sp.n., *A. kinabaluensis* sp.n., *A. obscura* sp.n. and *Smaragdina borneensis* sp.n., and a new subspecies, *Clytrasoma celebensis borneoensis* ssp.n., are described from Borneo. A list of Clytrinae species recorded for Borneo is provided.

Резюме. Описывается 6 новых видов и один подвиж жуков-листоедов из Борнео: *Aspidolopha metallescens* sp.n., *Pseudolopha splendens* sp.n., *Aetheomorpha takizawai* sp.n., *A. kinabaluensis* sp.n., *A. obscura* sp.n., *Smaragdina borneensis* sp.n. и *Clytrasoma celebensis borneoensis* ssp.n. Дан список видов Clytrinae, известных с Борнео.

Introduction

Clytrinae of Borneo are very poorly studied, only 2 species were recorded in the middle of XIX century [Baly, 1867], all other species were described during the last 20 years [Medvedev, 1985, 1988, 1999; Medvedev, Regalin, 1998; Medvedev, Kantner, 2002]. In the last catalogue of the Malaysian Chrysomelidae 10 species were recorded for Borneo [Mohamedsaid, 2004].

Just now I have a good opportunity to study a small, but very interesting material from Dr. H. Takizawa. As a result of this study, including also new materials from my own collection, I am describing 6 species and a subspecies new to science. It means that fauna of Clytrinae from Borneo includes 20 species, and the only species, *Aspidolopha buqueti* Lacordaire, represented with 3 subspecies.

It is interesting to note, that most number of species known from Borneo were collected in Sabah (17 species) and partly in Sarawak (5 species), but fauna of southern Borneo remains practically unknown (2 species in Kalimantan).

Next abbreviations are used for depository places of types: ITBC — Institute for Tropical Biology and

Conservation, Sabah, Malaysia; NHMB — Naturhistorisches Museum, Basel, Switzerland; SMNS — Staatliches Museum für Naturkunde, Stuttgart, Germany; HT — H. Takizawa's private collection, Japan; LM — L. Medvedev's collection, Moscow, Russia.

Taxonomy

Clytrasoma celebensis borneoensis L. Medvedev, ssp.n.

Fig. 1.

Material. Borneo, Malaysia, Sabah: holotype, ♀, 10.5 m Keningau, Crocker Range, 21–29.III.1989, leg. H. Hayakawa (HT); paratype: 1♀ — Kimanis Road 16 M from Keningau, Papar, 18.III.1988, leg. T. Niisato (LM).

Description. ♀. Black, 3 basal segments of antennae, prothorax and elytra fulvous, each elytron with moderately large humeral spot and 2 spots behind middle black (Fig. 1); propleurae black with fulvous lateral margin.

Morphologically similar to *C. celebensis* L. Medvedev, with elytra widened posteriorly, with maximal width in apical third, 1.5 times as long as wide. Length of the body 11.3–11.5 mm.

Differential diagnosis. Differs from the nominative subspecies by the characters as follows: propleurae bicolor, elytra spots wider, body not parallel-sided, widened posteriorly, size larger (cf. 9mm in *C. celebensis* L. Medvedev, 1999). Might be proved as a good species after finding of male.

Aspidolopha metallescens L. Medvedev, sp.n.

Fig. 7.

Material. Borneo, Malaysia, Sabah: holotype, ♂, 10.5 m Keningau, Crocker Range, 21–29.III.1989, leg. H. Hayakawa (HT); paratype, 1♀ — Kimanis Road 16 m from Keningau, Papar, 20.III.1988, leg. T. Niisato (LM).

Description. ♂. Metallic greenish blue, 3 basal segments of antennae, elongate spot on each side of prothorax, its hind angles very narrowly, abdomen, including pygidium and bases of femora and tibiae fulvous.

Body parallel-sided. Head pubescent, finely and densely punctate, frons 1.4 times wider than transverse diameter of

eye. Antennae serrate from the 5th segment, 4–10th segments not elongate.

Width of the prothorax is 1.8 times its length, broadest near the base, narrowed anteriorly, with almost straight side margins, surface rather densely punctate, especially near anterior angles. Scutellum triangular, impunctate. Elytra 1.4 times as long as it is wide, slightly narrowed posteriorly, with almost completely straight lateral margin, basal lobe well developed, surface densely punctate. Pygidium evenly convex. Segment 1 of fore tarsus feebly widened. Propleurae pubescent. Aedeagus as in Fig. 7, with downward curved apex. Length of body 5.7 mm.

♀. Metallic greenish blue, 3 basal antennal segments, preapical spot on each elytron and tibiae fulvous. Length of body 6.7 mm.

Differential diagnosis. Near *A. imperialis* Baly, 1865, differs in other body colouration, more densely punctate upperside and other shape of aedeagus.

Pseudolopha splendens L. Medvedev, **sp.n.**

Material. Borneo, Malaysia, Sabah: holotype, ♀, 53 km road KK-Tambulan, E slope Gn. Emas, 700 m, 1–5.IV.2000, leg. Bolm (NHMB).

Description. ♀. Dark metallic purple, labrum black, antennae black with segment 2–4 fulvous, apices of elytra dark fulvous, legs fulvous with blue tarsi. Body elongate ovate. Clypeus shining, densely punctate, frons and vertex dull, finely and very densely punctate, frons flat, 2.5 times wider than transverse diameter of eye. Antennae serrate from the 5th segments, 4th segment almost cylindrical of the same length as two previous antennomeres together, 11th segment with narrow apical process.

Width of the prothorax is 1.85 times its length, broadest at base, anterior angles obtuse, hind angles broadly rounded, side margins slightly arcuate, surface dull, finely and extremely densely punctate and shortly pubescent, interspaces very narrow and convex. Scutellum trapeziform, very densely punctate and pubescent, with small impunctate and convex triangular area on apex. Elytra twice as long as it is wide, not narrowed posteriorly, broadly rounded on apices, with dull surface, without basal convexity, very densely punctate and finely pubescent. Pygidium convex, with short elevated ridge before apex. Propleurae densely pubescent. Length of body 8.3 mm.

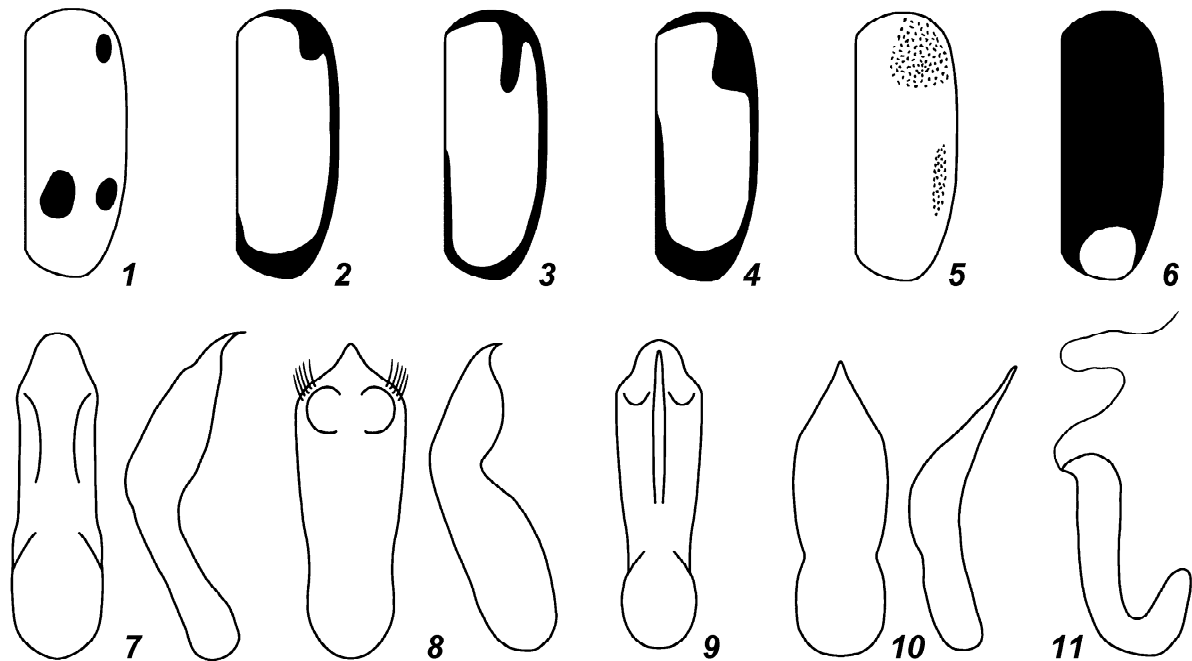
Differential diagnosis. Differs from *P. laeta* L. Medvedev et Regalin, 1998, the only species of the genus described from Thailand, by twice larger body size, metallic colouration of the surface, and not narrowed posteriorly elytra.

Aetheomorpha takizawai L. Medvedev, **sp.n.**

Figs 2–5, 8, 11.

Material. Borneo, Malaysia, Sabah: holotype, ♂, Gn. Alab, Crocker Range Park, Tambulan, 20.IX.2008, leg. H. Takizawa (ITBC); paratypes: 1♂ — same locality as holotype, Penampang, 14.X.2007, leg. H. Takizawa (HT); 1♂ — TM tower, Kimanis, Papar, 27.III.2008, leg. H. Takizawa (LM); 1♀ — Trus Madi, 4500 m, 24–30.X.2001, leg. Mahadimenakbar (ITBC); 1♀ — Gunung Emas, 1700 m, 21.III–20.IV.1996, leg. J. Kadlec (HT); 1♀ — Gunung Emas, Crocker Mts., 22.IV.1993, leg. Jenis, Strba (LM); 1♀ — Crocker Range N.P., Gunung Emas, 6–18.VI.1996, 1500–1700 m, leg. J. Kodada (SMNS).

Description. ♂. Head, prothorax and scutellum dark blue or greenish blue, labrum fulvous, antennae black with basal segments partly fulvous beneath, sometimes prothorax



Figs 1–11. Clytrinae spp., elytron pattern (1–6), aedeagi (7–10), spermatheca (11): 1 — *Clytrasoma celebensis borneoensis* ssp.n., 2–5, 8, 11 — *Aetheomorpha takizawai* sp.n., 6 — *Ae. kinabaluensis* sp.n., 7 — *Aspidolopha metallescens* sp.n., 9 — *Aetheomorpha obscura* sp.n., 10 — *Smaragdina borneensis* sp.n.

Рис. 1–11. Clytrinae spp., рисунок надкрылий (1–6), эдеагусы (7–10), сперматека (11): 1 — *Clytrasoma celebensis borneoensis* ssp.n., 2–5, 8, 11 — *Aetheomorpha takizawai* sp.n., 6 — *Ae. kinabaluensis* sp.n., 7 — *Aspidolopha metallescens* sp.n., 9 — *Aetheomorpha obscura* sp.n., 10 — *Smaragdina borneensis* sp.n.

very narrowly margined with fulvous; elytra fulvous, narrowly margined with dark metallic colour widened on apex, humeral spot or stripe or all humeral area dark metallic (Figs 2–4). Pygidium fulvous, underside dark fulvous to piceous, legs dark metallic with more or less fulvous tibiae.

Body parallel-sided. Head distinctly punctate on frons and clypeus, almost smooth on vertex, frons more or less impressed, about 1.5 times wider than transverse diameter of eye. Antennae serrate from the 5th segment, 4th segment almost completely cylindrical, remaining segments equilateral. Prothorax 1.7 times as wide as it is long, broadest behind middle, all angles rounded, side margins feebly rounded, surface shining, with round small impression on each side, finely and sparsely punctate, more distinctly near base. Scutellum large, triangular, smooth, pubescent basally. Elytra 1.5 times as long as it is wide. Pygidium exposed, evenly convex. Propleurae bare. Segment 1 of fore and mid tarsi feebly widened. Aedeagus (Fig. 8) with triangular apex, underside convex, with impression on each side before apex. Length of body 3.9–4.2 mm.

♀. Prothorax entirely reddish fulvous or with dark metallic spot, elytral pattern mostly as in male (Figs 2, 3, 5), underside often entirely fulvous. Frons 2.7 times wider than transverse diameter of eye. Prothorax twice as wide as it is long, broadest before base. Elytra 1.35 times as long as it is wide, less parallel-sided. Spermatheca U-like (Fig. 11). Length of body 4.5–5.9 mm.

Differential diagnosis. Differs from all species known from Malaysia and Indonesia by specific coloration of upperside, metallic colour of head and distinct sexual dimorphism.

Derivatio nominis. This species is dedicated to Dr. H. Takizawa, well-known specialist in Chrysomelidae.

Aetheomorpha kinabaluensis L. Medvedev, **sp.n.**

Fig. 6.

Material. Borneo, Malaysia, Sabah: holotype, 1♀, UMS hill, Kota Kinabalu, 6.V.2007, leg. H. Takizawa (ITBK); paratype (doubtable): 1♀ — Kinabalu (LM).

Description. ♀. Metallic bluish green, antennae black with 4 basal segments fulvous, prothorax fulvous with broad central metallic stripe, slightly widened anteriorly, elytra with fulvous apical spot (Fig. 6), underside fulvous with darkened middle of metasternum and apical abdominal sternite, pygidium metallic, legs metallic with fulvous bases of femora and tibia. In paratype basic coloration is metallic blue, and elytra lacking fulvous spot.

Body parallel-sided. Head shining, frons and area near eyes distinctly punctate, frons with 3 impressions, twice wider than transverse diameter of eye, clypeus and vertex finely and very sparsely punctate. Antennae serrate from the 5th segment, segment 4 slightly triangular and distinctly smaller than 5th; segments 5–10th feebly transverse. Prothorax twice as wide as it is long, broadest before base, with fore angles, hind angles broadly rounded, side margins slightly arcuate, surface shining, with sparse punctures of different sizes. Scutellum large triangular. Elytra 1.2 times as long as it is wide, surface shining, strongly and densely punctate, without basal convexity. Pygidium exposed, triangular with obtuse apex, with impunctate and slightly elevated central stripe. Propleurae not pubescent. Length of body 5.2–5.5 mm.

Differential diagnosis. Differs from all species from Malaysia and Indonesia by basic metallic colour of upperside and bicolor prothorax.

Aetheomorpha obscura

L. Medvedev, **sp.n.**

Fig. 9.

Material. Borneo, Malaysia, Sabah: holotype, ♂, 5000–6000 ft, leg. A. Dodge, G. Goss (LM).

Description. ♂. Body and head black, labrum, 4 basal segments of antennae, lateral margins of prothorax fulvous; elytra black with two poorly delimited dark fulvous spots: one transverse disposed before the middle, and another, round, before the apex. Pygidium and underside fulvous with partly darkened metasternum, legs piceous with fulvous bases of femora and tibiae.

Body elongate ovate. Head punctate and pubescent between eyes, clypeus and vertex almost impunctate, frons 1.75 times wider than transverse diameter of eye. Antennae serrate from the 5th segment, preceding segment widened to apex, segments 5–10th almost completely equilateral. Prothorax 2.2 times as wide as it is long, broadest before base, with all angles rounded and sides marginate and very feebly arcuate; surface shining, evenly convex, finely and sparsely punctate. Scutellum triangular, with basal part punctured and pubescent. Elytra 1.3 times as long as it is wide, surface shining, densely punctate, without basal convexity. Pygidium exposed, feebly convex. Propleurae not pubescent. Segment 1 of fore and mid tarsi feebly widened. Aedeagus (Fig. 9) with triangular apex, sharp and long central ridge on underside. Length of body 4.5 mm.

Differential diagnosis. Differs from all species of the region by coloration of upperside and sculpture of aedeagus.

Smaragdina borneensis

L. Medvedev, **sp.n.**

Fig. 10.

Material. Borneo, Malaysia, Sabah: holotype, ♂, Gn. Alab, Crocker Range Park, Tambunan, 20.IX.2008, leg. H. Takizawa (ITBK); paratypes: 3♀♀ — Kinabalu Park, HQ Ranaw, 14–15.IV.2008, leg. H. Takizawa, 3 females (ITBK, HT, LM).

Description. ♂. Fulvous, 4–11th antennal segments black, tarsi piceous. Breast more or less darkened on sides. Head convex, impunctate, without distinct grooves, frons in both sexes twice wider than transverse diameter of eye. Antennae distinctly serrate from the 4th segment, which is triangular, almost of the same size as the 5th; next segments more transverse, subquadrangular. Prothorax twice as wide as it is long, with all angles rounded and side margins slightly arcuate, surface shining, impunctate, without any impressions. Scutellum large, triangular, impunctate. Elytra 1.55–1.6 times as long as wide, slightly widened posteriorly in both sexes, surface shining, finely and sparsely punctate, with punctures diminished to behind, basal convexity more or less distinct. Aedeagus (Fig. 10) with triangular acute apex, lacking impression on ventral surface. Pygidium covered by elytra. Length of male 3.4 mm, female 3.7–4.0 mm.

Differential diagnosis. Similar to *S. bakeri* L. Medvedev, 1999 from Borneo, which, however has narrow frons, and aedeagus with 3 distinct ridges on underside. From *S. sabahensis* L. Medvedev, 1993, differs with entirely fulvous elytra, more broad frons and acute apex of aedeagus.

Clytrasoma mohamedsaidi L. Medvedev, 1999

Material. Borneo, Malaysia, Sabah: 1♂ — Mt. Trus Madi, IV.2002.

Remark. Only holotype, also male, was previously known.

Smaragdina brunneonotata L. Medvedev, 1999

Material. Borneo, Malaysia, Sabab: 1♀ — Mt. Trus Madi, 11.IV.1999, leg. H. Karube.

Remark. Only holotype (male) from Indonesia (Kalimantan) was known. Firstly found in Sabah.

Smaragdina linearis

L. Medvedev et Kantner, 2002

Material. Borneo, Malaysia, Sabab: 1♂ — Crocker Range, 10.5 m Keningau, 21–29.III.1989, leg. H. Hayakawa; 1♀ — Kimanis Road, 10.5 m from Keningau, Papar, 20.III.1988, leg. T. Niisato; 1♀ — same locality, 16.III.1988; 1♀ — Kg. Kebayau, Telipok Kola Kinabalu, 15.X.2007, leg. H. Takizawa.

Remark. Species was described from Sabah and firstly recorded for Indonesia (Sarawak).

Smaragdina tristis L. Medvedev, 1999

Material. Borneo, Malaysia, Sabab: 1♀ — Sarawak, Por-ing Kinabalu, 13.VII.1989, leg. K. Maruyama.

Remark. Was known from Sabah, firstly found in Indonesia (Sarawak).

A list of Clytrinae recorded for Borneo

Tituboea delectabilis Baly, 1865: Sarawak, Kalimantan [Medvedev, 1999];

Clytrasoma bistrispunctata L. Medvedev, 1999: Sabah;

Clytrasoma celebensis borneensis sp.n.: Sabah, Sarawak;

Clytrasoma mohamedsaidi L. Medvedev, 1999: Sabah;

Aspidolopha buqueti buqueti Lacordaire, 1848: Kalimantan [Medvedev, 1999];

Aspidolopha buqueti borneensis L. Medvedev, 1985; Sabah, Kalimantan [Medvedev, Regalin, 1998];

Aspidolopha buqueti egregia Boheman, 1858: Sabah [Medvedev, 1999];

Aspidolopha imperialis Baly, 1865: Sabah, Sarawak;

Aspidolopha metallescens sp.n.: Sabah, Sarawak;

Aspidolopha nobilis L. Medvedev, 1988: Sabah;

Pseudolopha splendens sp.n.: Sabah;

Aetheomorpha coerulea Jacoby, 1892: Sabah [Medvedev, 1999];

Aetheomorpha kinabaluensis sp.n.: Sabah;

Aetheomorpha obscura sp.n.: Sabah;

Aetheomorpha takizawai sp.n.: Sabah;

Smaragdina bakeri L. Medvedev, 1999: Sabah;

Smaragdina borneensis sp.n.: Sabah;

Smaragdina brunneonotata L. Medvedev, 1999: Sabah, Kalimantan;

Smaragdina kalimantani L. Medvedev et Regalin, 1998: Sarawak;

Smaragdina linearis L. Medvedev et Kantner, 2002: Sabah, Sarawak;

Smaragdina sabahensis L. Medvedev, 1999: Sabah;

Smaragdina tristis L. Medvedev, 1999: Sabah, Sarawak.

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