Leaf-beetles of the subfamily Chrysomelinae of Laos (Coleoptera: Chrysomelidae)

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Leaf-beetles of the subfamily Chrysomelinae of Laos (Coleoptera: Chrysomelidae)

by Eva Sprecher-Uebersax & Mauro Daccordi

Abstract. The Laotian fauna of the leaf-beetles of the subfamily Chrysomelinae is reviewed, and seven species are described as new to science: *Plagiosterna acuticollis*, *P. confusa*, *Chrysolina laotiana*, *Gonioctena brancuccii*, *G. fraudulenta, G. geiseri*, *G. laotiana* spp.nov. *Plagiodera yunnanica* (Chen, 1934) and *Chrysolina tonkinea* (Fairmaire, 1888) are redescribed. Taxonomic notes on *Gonioctena semiglobosa* (Achard, 1924) are given.

Key words. Chrysomelidae – Chrysomelinae – taxonomy – new species –Laos

Introduction

Thanks to numerous collecting expeditions made by the late Dr. Michel Brancucci from the Natural History Museum in Basel (Switzerland) in the years 2004–2012, knowledge on Laotian insects has improved considerably. The studies were organised and made by M. Brancucci and collaborators together with entomologists from the Czech Republic. Many years of war and violence made scientific research in the region difficult, not to forget the millions of deaths caused by the war in Vietnam and the bloody regime of the Khmer Rouge in Cambodia. To find the earliest records from this region, it is therefore necessary to go back to the time of French Indochina (1887–1954) when Tonkin (a region in northern Vietnam), Annam (a region in Vietnam between Tonkin and Cochinchina), Cochinchina (a region of southern Vietnam at the borders of Cambodia near the delta of the Mekong river), Laos and Cambodia were subject not only to colonialism but also to scientific studies. At the end of the 19th and in the 20th century, the researchers were mainly French, and collected interesting entomological material. Only at the end of the 20th century did collecting activities increase, and entomologists of several countries, including the NHMB Basel, visited Laos for surveys of the beetle fauna (Geiser & Nagel 2013).

Material and methods

The specimens were examined using a Leica stereomicroscope M125. Measurements were made using an ocular micrometer. Internal sclerotized structures were dissected in hot water or soaked in a dilute solution of potassium hydroxide, then put in acetic acid and finally in ethanol. Species were characterized using patterns of colour and form of the clypeus, eyes, mouth parts, antennae, pronotum, scutellum, elytra, legs and punctuation of the head and venter. The colour pattern are taken from Smithe (1974, 1975). Photographs were made with a Keyence VHX 2000 digital microscope.

Material from several collections was studied. Most specimens are from the Natural History Museum of Basel. The term holotype is abbreviated as “HT”, paratype as “PT”.

Abbreviations of collections

NHMB ..... Natural History Museum of Basel, Switzerland
BMNH ..... Natural History Museum, London, UK
NHMW ..... Natural History Museum of Vienna, Austria
MSNG ..... Natural History Museum of Genoa, Italy
NMPC ..... National Museum of Prague, Czech Republic
CAS ..... Chinese Academy of Sciences, Beijing, China
MDC ..... Private collection Mauro Daccordi, Verona, Italy
KPC ..... Private collection František Kantner, Prague, Czech Republic

Checklist of species from Laos (in alphabetical order)

Agasta formosa Hope, 1840
Asiparopsis convexa (Weise, 1902)
Asiparopsis pardalis Jacoby, 1892
Chalcolampra (*Phola*) *sedecimpustulata* (Stål, 1857)
Chrysolina (*Pierryvettia*) *jeanneli* Chen, 1934
Chrysolina (*Pierryvettia*) *laotiana* **sp.nov.**
Chrysolina (*Pierryvettia*) *shapaensis* Medvedev, 1987
Chrysolina (*Pierryvettia*) *tonkinea* (Fairmaire, 1888)
Chrysolina (*Anopachys*) *aurichalcea* (Gebler, 1825)
Gonioctena (*Asiphytodecta*) *cambodiana* (Chen, 1934)
Gonioctena (*Asiphytodecta*) *flavoplagiata* (Jacoby, 1890)
Gonioctena (*Asiphytodecta*) *fraudulenta* **sp.nov.**
Gonioctena (*Asiphytodecta*) *trilochana* Maulik, 1926
Gonioctena (*Brachyphytodecta*) *brancuccii* **sp.nov.**
Gonioctena (*Brachyphytodecta*) *unicolor* Medvedev, 1987
Gonioctena (*Brachyphytodecta*) *laotiana* **sp.nov.**
Gonioctena (*Brachyphytodecta*) *lesnei* (Chen, 1931)
Gonioctena (*Brachyphytodecta*) *semiglobosa* (Achard, 1924)
Gonioctena (*Gonioctena* s.str.) *geiseri* **sp.nov.**
Humba cyanicollis (Hope, 1831)
Lycaria westermanni Stål, 1857
Odontoedon fulvescens (Weise, 1922)
Parambrostoma laosensis (Kimoto et Gressitt, 1981)
Paropsides chennelli Baly, 1877
Paropsides nigropunctata Jacoby, 1892
Plagiodera yunnanica (Chen, 1934) **stat.nov.**
Plagiosterna acuticollis **sp.nov.**
Plagiosterna prope *aeneipennis* (Baly, 1859)
Plagiosterna confusa **sp.nov.**
Plagiosterna prope *P. miniaticollis* (Hope, 1831)
Plagiosterna seximpressa (Chen, 1931)

Taxonomy

[Order of genera follows DACCORDI (1994).]

Plagiodera Chevrolat, 1836

In South-East Asia and South China, the cosmopolitan genus *Plagiodera* forms a distinctive species complex characterized by rounded body shape; small eyes; the first abdominal sternite with two symmetrical femoral lines produced and with emarginate epipleura. The various species are known from China (Sichuan), north India, Nepal, Bhutan, Vietnam, Philippines, New Guinea and Australia.

Plagiodera yunnanica (Chen, 1934)

Material examined. 1♂ S Laos, Prov. Sekong, Bolavens PL., N-Slope ca. 10 km N MG, Tha Theng, 29/30.5.1996, 500–700 m, leg. Schillhammer (NHMW).

Redescription. Length 4.4 mm, width 3.7 mm, length elytra 3.8 mm, length thorax 1.0 mm, width thorax 2.4 mm.

Body hemispherical, winged, bicolored. Head, thorax, first five antennomeres, legs and ventral parts chrome orange. Elytra, epipleurae, scutellum indigo, appearing blue when wet (Fig. 1).

Clypeus slightly impressed at the sides, with fine and scarce punctures and a slightly drawn surface. Frons with scarce punctures in the same size as the ones on the clypeus, where they are even more scarce. Palpi with the last segment cuspidate, antennae short (Fig. 2).

Prothorax wide with the sides largely curved mainly in the anterior third. At the sides of the pronotum the punctures are mixed with other bigger ones; on the disk the punctures are within a dense interspace which makes the surface somewhat dull. Scutellum triangular, smooth and without punctures.

Elytra with dense irregular punctures; humeral callus upraised with some sparse punctures.

Prosternal appendix short, slightly carinate. Epimera of the prothorax smooth. Mesoventrite large with a groove in the anterior half. Metaventrite bordered with a plication at the sides, which separates a smooth part from a slightly coarser and more punctured part. Mesoepisternes and mesoepimeres with an opaque surface without punctures. Metepisterna with a coarse furrow and a few punctures. Epipleura large, folded towards the interior. First abdominal sternite with a prominent carina near each coxa (Fig. 3). Legs short; femora enlarged, tibiae short, third tarsal segment incised in the middle; claws simple. Aedeagus as in Fig. 4.

Remarks. CHEN (1934) described this taxon as "var." of *P. rufescens* (Gyllenhal, 1808), based on four specimens from Yunnan (China). We examined other specimens from Tonkin (Hoa Binh), which could be attributed to this species. Therefore we think that the specimen from Laos may also belong to this species.

Plagiosterna Motschulsky, 1860

A genus of Chrysomelinae with five species common in the Palaearctic region. Twenty six species are known in the Afrotropical, eight in the Oriental region. In the Oriental region the genus crosses the Wallace line with only a single species, *P. marginata* (Baly, 1867). It appears to be absent from the whole Nearctic and Neotropical regions. An important character to separate this genus from the close *Plagiodera* and *Chrysomela* Linnaeus, 1758 is the third tarsal segment, which is not furcate (BIONDI & DACCORDI 1998). In the tropical Asia and in New Guinea we can separate a species complex (subgenus *Xenolina* Jacoby, 1904) which shows a spermatheca with a frayed apex in a more or less convoluted bowl and a furcate base of the median lobe of the aedeagus. Unfortunately in Laos only very few specimens of this subgenus were collected, often only a single one, thus we describe as new species only those which allowed us a study of the median lobe of the aedeagus and which also show considerable differences in the external morphology from other near species.

Plagiosterna acuticollis sp.nov.

Material examined. Holotype ♂, 2 ♀ PT Laos NE, Houa Phan prov. 20°13′09″–19″N, 103°59′54″–104°00′03″E, 1480–1550 m, Phou Pane Mt. 1.–16.VI.2009, Zdeněk Kraus leg. NHMB Basel and NMPC Prague, Laos 2009 Expedition, M. Brancucci, M. Geiser, Z. Kraus, D. Hauck, V. Kubáň (NHMB); 1 ♀ PT NE Laos, Hua Phan Prov. Ban Saluei, 20°13′N, 103°59′E, Phu Phan Mt. env. 1300–2000 m, 6.–18.V.2004, F. & L. Kantner leg. (NHMB); 1 ♂, 1 ♀ PT Laos NE, Houa Phan prov. 20°12–13.5′N, 103°59.5′–104°01′E, Ban Saluei, Phou Pane Mt. 1340–1870 m, 15.IV.–15.V.2008, Lao collectors leg. (MDC).

Description. Measurements: length 6.1 mm, width 4.0 mm, length of elytra 4.8 mm, length of thorax 1.2 mm, width of thorax 2.7 mm.

Body moderately elongate, distinctly enlarged at the anterior part of the elytra. Head, thorax, legs, ventral part, epipleurae and first five antennomeres colour orange rufus. Elytra and scutellum flesh ochre, last six antennomeres black (Fig. 5).

Clypeus arcuate, with fine punctures, smaller anteriorly than those on the frons that bears dense punctation which is more compact in the middle where the metopic suture is particularly deep; antennae not longer than the base of the thorax (Fig. 6); palpi with long and fine palpomeres, the last one barely truncated at the apex.

Thorax anteriorly with sharp angles and arcuate sides, bordered, without calli and sulci, densely and irregularly punctuated with smaller punctures than those of the elytra. Scutellum ogival, satined, smooth.

Elytra with irregular, dense, uniform punctures; humeral callus elevated and with a deep impression anteriorly between the humeral callus and the elytral margin and with strong dense punctures at the base; a simple impression is present between the groove and the scutellum; the elytral margins near the scutellum are particularly dilated to outside and form prominent “shoulders”; an impression is present under the humeral callus; the lateral callus is raised; epipleurae particularly dilated near the shoulders, becoming progressively finer against the apex, which lacks setigerous pores.

Epimeres of the prothorax smooth; prosternal appendix wide, smooth, anteriorly raised into a short bar, enlarged at the free apex. Mesoventrite wide, trapezoidal with a wide median groove. Metaventrite bordered and with a fine median incision along the

whole length. Abdominal segments with distinct impressions at the sides, particularly distinct in the last sternite.

Legs strong, short, regular; femora uniformly slightly enlarged; onychium elongate with a very short tooth at the apex; third tarsomere shortly incised in the middle; claws simple.

Aedeagus in Fig. 7. Spermatheca in Fig. 8.

Etymology. The name of the species is from one of the characters typical of this species: the acute anterior angles of the pronotum.

Differential diagnosis. Because of the shape of the prothorax with very acute anterior angles and the widened sides of the elytra along the humeral callus, the species cannot be confused with any other known species of the genus.

Plagiosterna sp. prope *P. aeneipennis* (Baly, 1859)

Material examined. A single ♀ specimen was studied from Laos NE, Hua Phan prov. 20°12′N; 104°01′E, Phu Phan Mt. 1500–1900 m, 17.V–3.VI.2007, M. Brancucci leg., NHMB Basel expedition to Laos, 2007 (NHMB).

Redescription. Measurements: length 8.8 mm Width 7.5 mm, length of elytra 7.5 mm, length of thorax1.6 mm, width of thorax 3.6 mm.

Body bicolored. Head, first five antennomeres, thorax, scutellum, ventral parts and tarsi chrome orange; elytra and epipleurae cyan; the last six antennomeres blackish. In colour and size very similar to *P. aeneipennis* known from China (Zhejiang, Fujian, Jiangxi, Guangdong, Guizhou, Sichuan) and from northern Vietnam and Tonkin (Mt. Mauson). The species is distinguished by the thorax with straight trapezoidal sides (Fig. 9). The margins of the thorax of *P. aeneipennis* are slightly arcuate. Fig. 10 shows the antenna. Fig. 11 shows a drawing of the spermatheca.

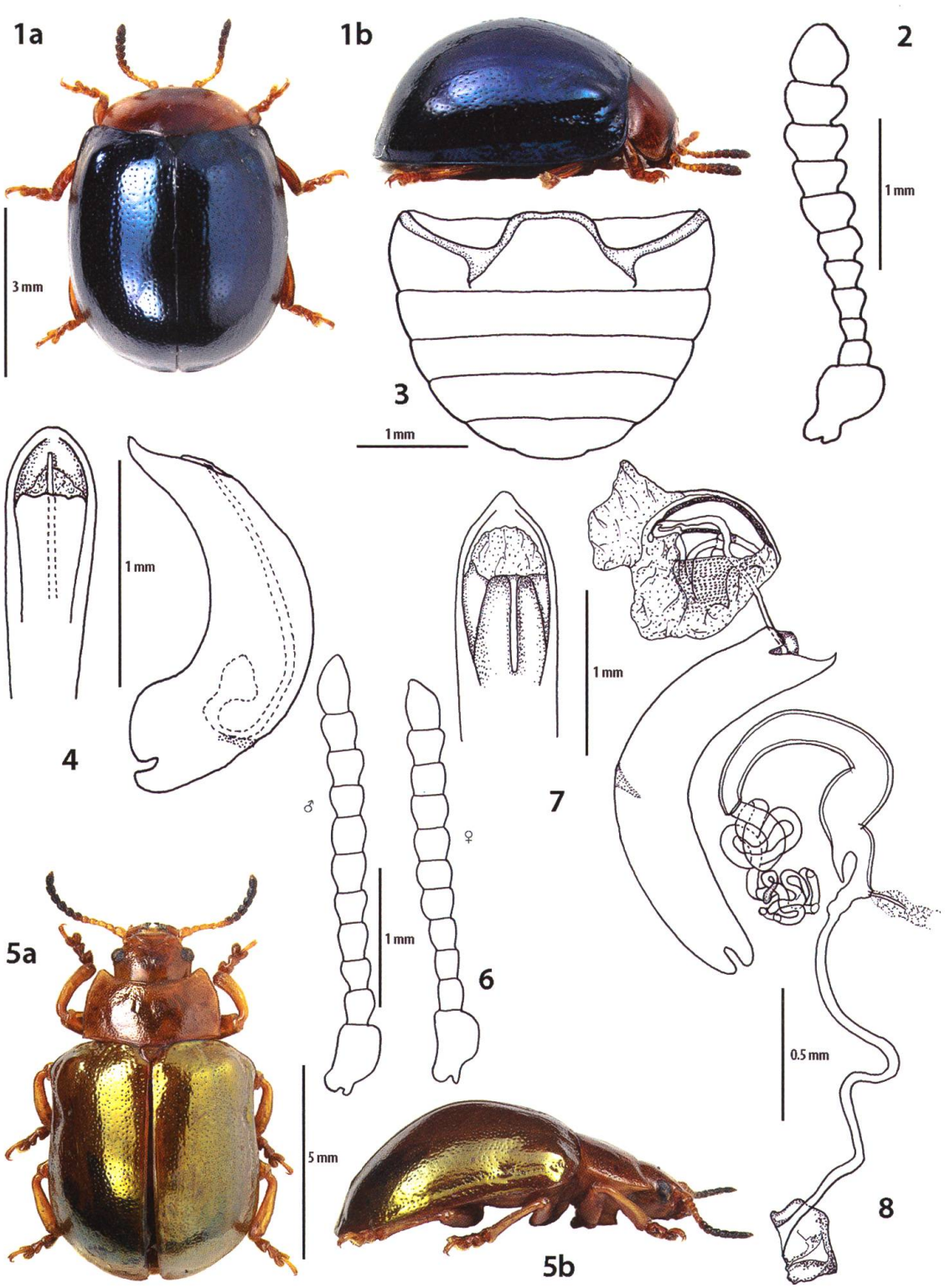
Remarks. According to our assumption *P. aeneipennis* belongs to a complex of taxa which is characterized by head, thorax, tarsi and ventral parts coloured chrome orange, spectrum orange, yellow orange with elytra emerald green (rarely royal purple or sepia) or cyan. We detected a probably new species among material from Pulau Pinang (Malaysia) and Borneo; a second one from Mindanao, Samar, Sibuyan (Philippines) and a third one from Luzon (Philippines). However, the scarcity of material studied doesn't allow us to recognize the separations between the various species, and also for Laos the single specimen studied makes it difficult to make a firm decision.

Plagiosterna confusa sp.nov.

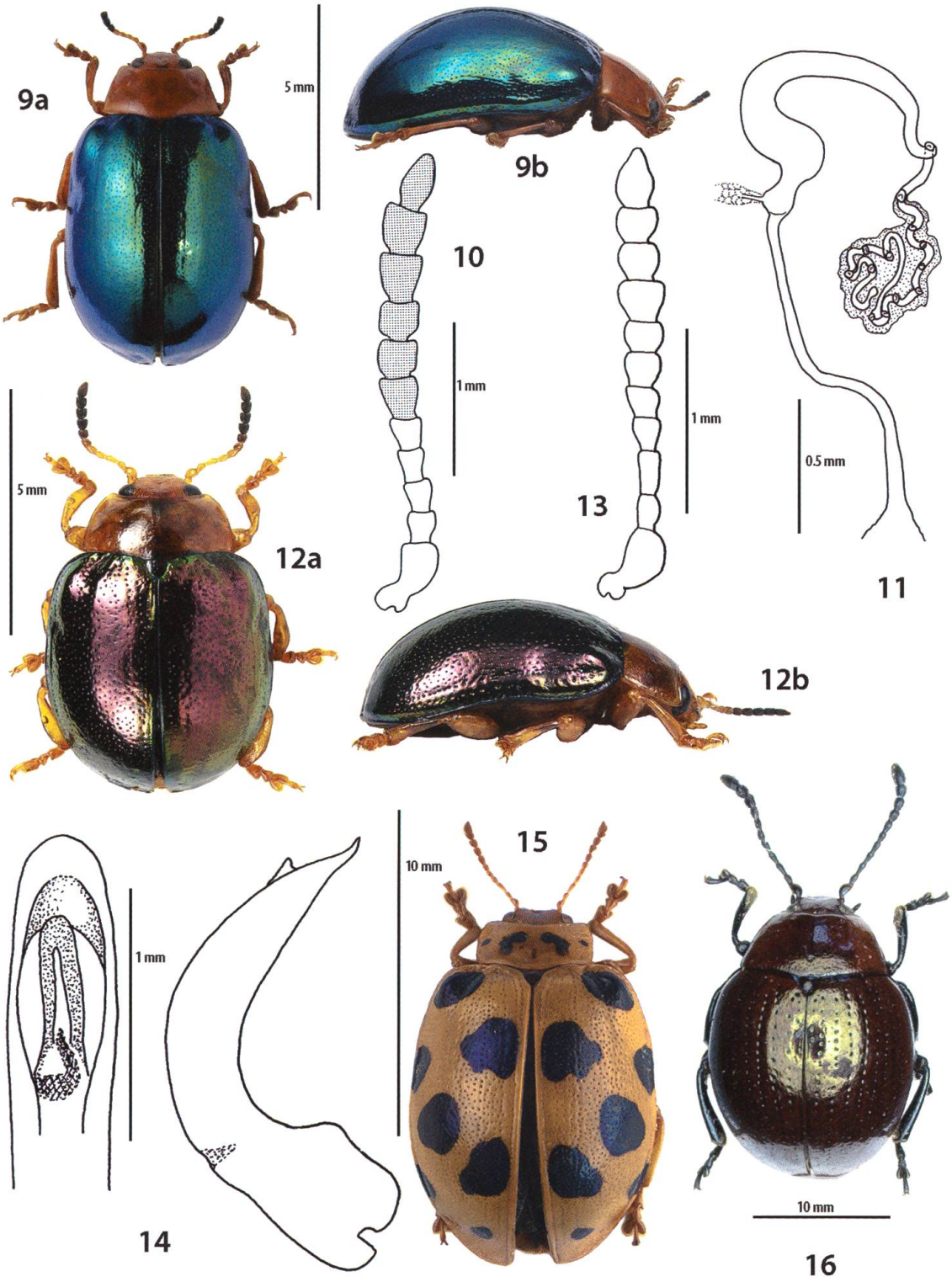
Material examined. Holotype ♂ Laos, Attapeu prov. Thong Kai Ohk, Ban Kachung (Mai) env. 15°01′–02′N, 107°26′–27′E, 1200–1450 m, 10.–24.VI.2011, NHMB Basel Laos 2011 Expedition M. Brancucci, M. Geiser, D. Hauck, Z. Kraus, A. Phantala & E. Vongphachan (NHMB).

Description. Measurements: length 6.1 mm, width 4.0 mm, length of elytra 4.8 mm, length of thorax 1.2 mm, width of thorax 2.7 mm.

Body moderately elongate. Head, thorax, mouth and ventral parts, first five antennomeres and tarsi colour orange rufous with shadings of flesh ochre. Elytra ferruginous with shadings of peacock green especially along the margins, epipleurae spectrum greeen, scutellum Hooker's green (Fig. 12).



Figs 1–8. 1–4, *Plagiodera yunnanica*: 1 – habitus, 2 – antenna, 3 – abdominal segments, 4 – aedeagus. 5–8, *Plagiosterna acuticollis*: 5– habitus, 6 – antenna, 7 – aedeagus, 8 – spermatheca.



Figs 9–16. 9–11, *Plagiosterna* sp. prope *aeneipennis*: 9 – habitus, 10 – antenna, 11 – spermatheca. 12–14, *Plagiosterna confusa*: 12 – habitus, 13 – antenna, 14 – aedeagus. 15, *Agasta formosa*: habitus. 16, *Odontoedon fulvescens*: habitus.

Clypeus arcuate anteriorly with punctures finer than those of the frons; frons with dense punctures, which are more compact in the middle where there is a deep metopical suture; the antennae hardly overlap the base of the thorax (Fig. 13); palpomeres long and fine, the last one barely truncated.

Thorax with arcuate sides, border without calli and lateral sulci, densely and irregularly punctured with punctures finer than those of the elytra. Scutellum ogival, smooth.

Elytral punctures irregular, dense and uniform; humeral callus raised; a deep impression with more dense and large punctures at the base, situated anteriorly between the internal margin of the humeral callus and the anterior margin of the elytra; another and finer impression between the latter one and the scutellum.

Epimeres of the prothorax flat with a few fine punctures and, in the anterior middle, a slight longitudinally prolonged impression. Prosternal appendix narrow between the anterior hips, with a distinct carena in the middle and at the free apex enlarged. Mesoventrite large, trapezoidal, with a wide groove in the middle. Metaventrite bordered with a median incision along the whole length. Abdominal segments with distinct impressions at the sides; the last segment with impressions shortly elongate and deeper. Onychium without tooth; claws simple, separate.

The aedeagus is shown in Fig.14.

Etymology. From the latin "*confus-us/-a*" because of the difficulty to separate this species from the near *P. seximpressa* (Chen, 1931).

Differential diagnosis. *P. confusa* is near to *P. seximpressa.* One of the authors (M.D.) examined the types of *P. seximpressa* in the collections of the museum of Paris. Under this name there is a series of three specimens, two of them labelled with "Laos et Cambodge, Bonnotte 1911", the other one with "Lak Hon, Harmand 1878". The first two specimens (one is immature with the elytra half destroyed in the central part) belong to *P. marginipennis* (Jacoby, 1889). This was confirmed by examining the type of this species from Tenasserim, Plapoo, Fea, Apr. 1887. The one from Lak Hon is another species and might be a syntype of *P. seximpressa*. It is to mention that in the Chen's collection at CAS in Beijing there is a specimen (of unknown sex) of *P. seximpressa* from the same locality as the syntype conserved in the museum of Paris. Moreover, in the collection of the museum in Paris there is a female specimen labelled with "Muséum Paris, Coll. H. Clavareau 1932, *Melasoma semperi* type Jac. déterminat. Jacoby". In his study of oriental Chrysomelinae (especially China), Chen attributed also some specimens from Celebes (Sulawesi) to *P. semperi* Jacoby. However, in the literature, no species with this name described by Jacoby exists. Various species belong to this group including the so-called "*P. semperi*" from Borneo, Celebes and Philippines (Luzon). Among material from the Smithsonian museum in Washington we later discovered a small series from Butuan, Mindanao, which could be a different species. Finally, there is new material from Laos (1 male specimen) which is described above.

Plagiosterna sp. prope *P. miniaticollis* (Hope, 1831)

Material examined. A single ♀ specimen was studied from Laos, Phongsaly prov. Phongsaly env. 21°41′–2′N, 102°6′–8′E, 1500 m, 28.V.–20.VI.2003, Pacholátko leg. (NHMB).

Remarks. In colour and size it is very similar to *P. miniaticollis* from Nepal and Bhutan. The head, thorax, antennae, ventral parts and tarsi are chrome orange in various shadings, elytra and scutellum carmine, a greenish shining in the anterior third of the elytra. Specimens of the typical *P. miniaticollis* have the pronotal disc with a much denser punctuation and the elytra coloured Vandyke brown.

Measurements: length 8.2 mm, width 5.6 mm, length of elytra 6.8 mm, length of thorax 1.6 mm, width of thorax 3.5 mm.

Agasta Hope, 1840

The genus *Agasta* was erected by Hope, 1840 with *A. formosa* Hope as the type of the genus and Singapore as the type locality. This oriental genus of Chrysomelinae includes two species: *A. formosa* Hope, 1840 (Fig. 15) and *A. annamica* Kimoto et Gressitt, 1981 from Vietnam.

Agasta formosa Hope, 1840

Material examined. 1 ex. Laos NE, Hua Phan prov. 20°12′N; 104°01′E, Phu Phan Mt. 1500–1900 m, 17.V–3.VI.2007, M. Brancucci leg., NHMB Basel expedition to Laos, 2007; 3 ex. N Laos, Oudom Xai prov. Oudom Xai (17 km Nee), 20°45′N, 102°09′E, ~1100 m, 1.–9.V.2002, V. Kubáň leg.; 1 ex. Laos, Phongsaly prov. Phongsaly env. 1500 m, 21°41′N, 102°6.8′E, 6.–17.V.2004, V. Kubáň leg.; 5 ex. Laos Phongsaly prov. 21°41′N, 102°06–8′E, Phongsaly env. ~1500 m, 6.–17.V.2004, Pacholátko leg.; 3 ex. Laos Louang Phrabang prov. 20° 33.4′N, 102°14′E, Ban Song Cha (5 km W) 1200 m, 1.–16.V.1999, V. Kubáň leg.; 1 ex. Laos Champasak prov. 15°10–12′N, 106°07–08′E, Dong Hua Xao NBCA, Tad Fane env. (10–14 km W Paksong) 900–1000 m, 2.–4.VI.2010, M. Geiser & D. Hauck leg.; 1 ex. Laos Hua Phan prov. Ban Saluei→Phou Pane Mt., 20°12–13.5′N, 103°59.5′–104°01′E, 1340–1870 m, 10.V.–16.IV.2009, M. Brancucci & local coll. leg.; 2 ex. Laos NE, Houa Phan prov. 20°13′09″–19″N, 103°59′54″–104°00′03″E, 1480–1550 m, Phou Pane Mt. 1.–16.VI.2009, Zdeněk Kraus leg. NHMB Basel and NMPC Prague, Laos 2009 Expedition, M. Brancucci, M. Geiser, Z. Kraus, D. Hauck, V. Kubáň (NHMB).

Remarks. The genus *Agasta* was revised by Ge *et al.* (2008). *Agasta formosa* was redescribed and illustrated, *Agasta fleutiauxi* Laboissière, 1932 confirmed as a synonym of *A. formosa.*

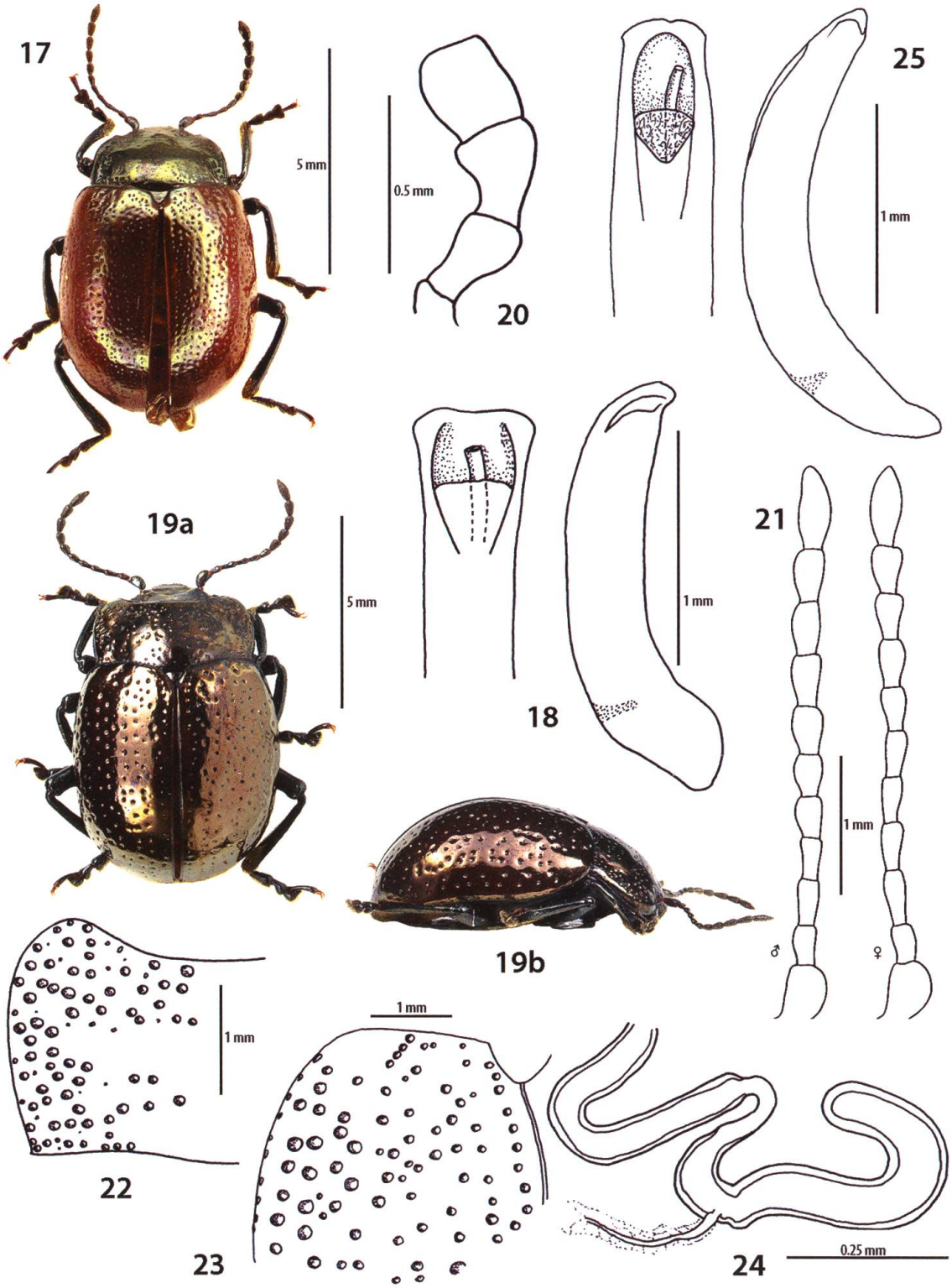
Odontoedon Ge, Daccordi, Ren, Cui, Li et Yang, 2013

This recently described genus (Ge *et al.* 2013) unites 11 new species from China, one from Taiwan and one distributed in various regions of Asia. It is easily recognizable from other near genera by the apically enlarged onychium with two short teeth.

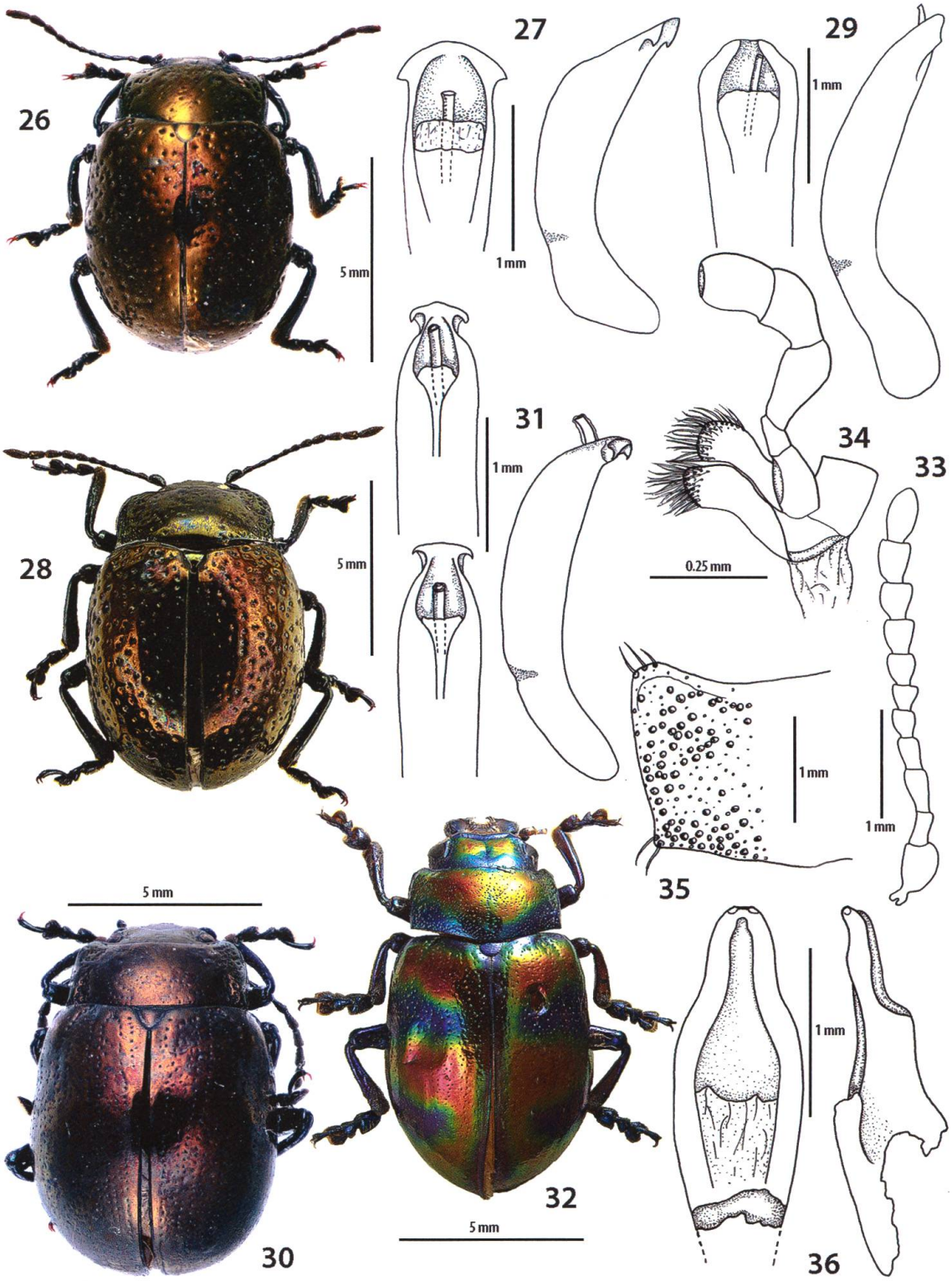
Odontoedon fulvescens (Weise, 1922)

Material examined. 2 ex. Laos CE, Boli Kham Xai prov. Ban Nape (8 km NE), 18°21′N, 105°08′E, circa 600 m, 1.–18.V.2001, Pacholátko leg. (NHMB); 4 ♀ Laos centr. Bolkhamsai prov. Kaew Nua Pass, N 18°22′, E 10509′, 600 ±100 m, 17.–19.XI.2000, E. Jendek & P. Pacholátko leg. (MSNG).

Remarks. This species (Fig. 16) is widespread in China, Vietnam and Laos. *Rubus* sp. is its known host plant.



Figs 17–25. 17–18, *Chrysolina jeanneli*: 17 – habitus, 18 – aedeagus. 19–25, *Chrysolina laotiana*: 19 – habitus, 20 – palpi, 21 – antenna, 22 – pronotum, 23 – elytra, 24 – spermatheca, 25 – aedeagus.



Figs 26–36. 26–27, *Chrysolina shapaensis*: 26 – habitus, 27 – aedeagus. 28–29, *Chrysolina tonkinea*: 28 – habitus, 29 – aedeagus. 30–31, *Chrysolina aurichalcea*: 30 – habitus, 31 – aedeagus. 32–36, *Parambrostoma laosensis*: 32 – habitus, 33 – antenna, 34 – palpi, 35 – pronotum, 36 – aedeagus.

Chrysolina Motschulsky, 1860

This is the largest genus of the subtribe Chrysolinina and the whole Chrysomelinae. More than 450 species are described for the Holarctic and Oriental regions and 70 species for the Afrotropical region. If we exclude the few species introduced to Australia and South America for biological control of some pest plants, *Chrysolina* is absent in the Australian and Neotropical regions. The few species treated here [except *C. aurichalcea* (Gebler, 1825)] were found at altitudes of 1000–2000 m, as it is typical for species of *Chrysolina* from the Paleotropics and also more specifically for Laos. Five species are known for Laos.

Chrysolina (*Pierryvettia*) *jeanneli* Chen, 1934

Material examined. 1 ♂ Laos N Houa Phan prov. 20°12–13.5′N; 103°59.5′–104.01′E. Ban Saluei to Phou Pane Mt., 1340–1870 m, 10.V.–16.VI.2009, M. Brancucci & local coll. leg. NHMB Basel-NMPC Prague, Laos 2009 Expedition, M. Brancucci, M. Geiser, Z. Kraus, D. Hauck, V. Kubáň; 1 ex. Laos NE Houa Phan prov. 20°13′N 104°00′E, Phou Pane Mt., 1350–1500 m, 1.–16.VI.2009, M. Brancucci leg., Expedition M. Brancucci, M. Geiser, Z. Kraus, D. Hauck, V. Kubáň.

Remarks. New for Laos. Habitus as in Fig. 17, aedeagus as in Fig. 18.

Chrysolina (*Pierryvettia*) *laotiana* sp.nov.

Material examined. Holotype ♂ HT, 1 ♀ PT Laos NE Houa Phan prov. 20°12–13.5′N; 103°59.5′–104.01′E. Ban Saluei to Phou Pane Mt., 1340–1870 m, 10.V.–16.VI.2009, M. Brancucci & local coll. leg. NHMB Basel-NMPC Prague, Laos 2009 Expedition, M. Brancucci, M. Geiser, Z. Kraus, D. Hauck, V. Kubáň (NHMB); 1 ♀ PT Laos, Phongsaly prov., 21°41–2′N, 102°6–8′E, Phongsaly env. ca. 1500 m, 28.V.–20.VI.2003, leg. Pacholátko (MDC).

Description. Winged. Colour mahogany red to brick red. Head and thorax dull. Ventral parts, legs and antennae dark green (Fig. 19).

Labrum wide with deeply arcuate margins; anteclypeus raised; clypeus with low lying sides and an arcuate fronto-clypeal suture; frons with scarce small punctures, especially in the anterior part; periocular furrow short and deep with dense aggregated punctures; antennal toruli raised; palpi as in Fig. 20, antennae as in Fig. 21. Thorax with very arcuate sides (Fig. 22), lateral margins not simultaneously visible from above; a wide depression separates the lateral raised callus from the disc of the pronotum; punctures of the disc of the pronotum scarce and accumulated in small groups, bigger and more condensed at the sides. Scutellum ogival, without punctures. Elytra glossy, brilliant; elytral punctures strong, wide and in regular rows at the lateral margins and near the elytral suture, more confused at the elytral disc (Fig. 23).

Hypomera satined with a few shallow punctures; epipleura of the pronotum anteriorly enlarged and separated from the proepisternum by a narrow strip with scarce punctation. Prosternal appendix concave, slightly curved in the middle and with strong punctures, enlarged at the margin. Mesoventrite trapezoidal and deeply concave. Apex of the metaventrite bordered. Abdominal sternites with scarce punctures. Pygidium with a wide median furrow. Legs elongate; femora slim; claws simple; last tarsomere without teeth.

Spermatheca as in Fig. 24, aedeagus as in Fig. 25.

Measurement	**male**	**female**
Length body	8.45 mm	8.9 mm
Width body	5.1 mm	5.6 mm
Length elytra	6.4 mm	6.9 mm
Width pronotum	4.0 mm	4.1 mm
Length pronotum	1.9 mm	2.0 mm

Etymology. Named after its country of origin.

Differential diagnosis. The species is similar to *C. baronii* Daccordi, 1979 from Bhutan, but *C. baronii* differs by the larger and more flattened prothorax and the denser punctures at the sides of the prothorax as well by the shape of the median lobe of the aedeagus. The new species differs from *Chrysolina madrasae* (Jacoby, 1900) by the less arcuate sides of the prothorax and the punctuation of the elytra, which is sparser in *C. madrasae*.

Chrysolina (*Pierryvettia*) *shapaensis* Medvedev, 1987

Material examined. 1 ♂ Laos, Phongsaly prov., 21°41.2′N 102°6.8′E, Phongsaly env. circa 1500 m, 28.V.–20.VI.2003, Pacholátko leg. (NHMB).

Remarks. Described from Vietnam and new for Laos. Habitus as in Fig. 26, aedeagus as in Fig. 27.

Chrysolina (*Pierryvettia*) *tonkinea* (Fairmaire, 1888)

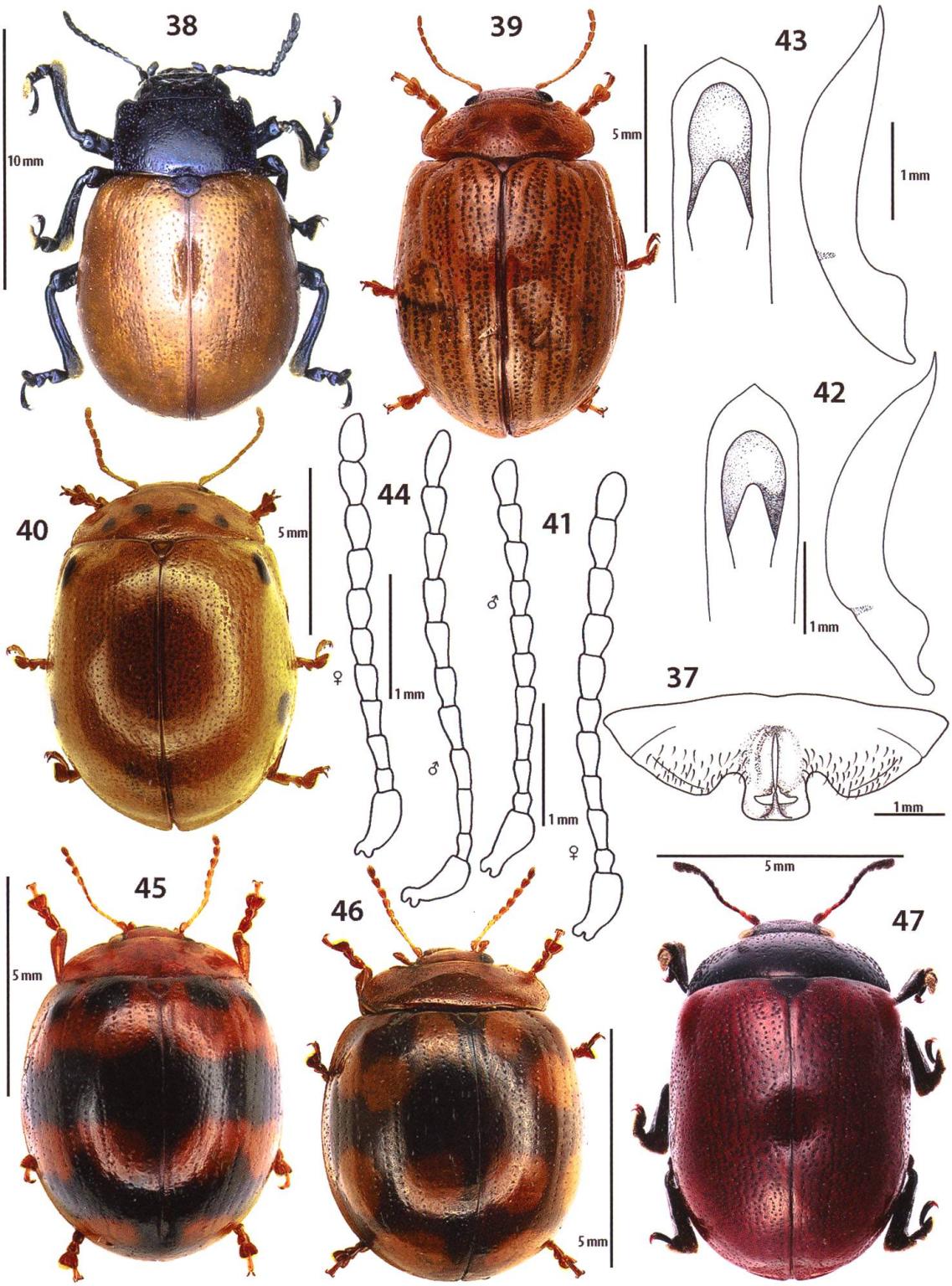
Material examined. Laos N, Louang Phrabang prov. 20°33–4′N 102°14′E, Bang Song Cha (5 km W circa) 1200 m, 24.IV.–16.V.1999, Vít Kubáň leg. (NHMB).

Remarks. A valid species. The closely related *Chrysolina separata* (Baly, 1860) currently includes several subspecies. These were diagnosed, keyed-out and distinguished from *C. tonkinea* by Bechyně (1950). *C. tonkinea* differs by the less rounded shape of the prothorax and the less robust tarsi. Habitus as in Fig. 28, aedeagus as in Fig. 29.

Chrysolina (*Anopachys*) *aurichalcea* (Gebler, 1825)

Material examined. 1 ♂ Laos Louang Phrabang prov. 20° 33.4′N, 102°14′E, Ban Song Cha (5 km W) 1200 m, 1.–16.V.1999, V. Kubáň leg. (NHMB, coll. Bourdonné); 7 ex. Laos N Louang Phrabang prov. 20°33.4′N, 102°14′E, Ban Song Cha (5 km W), ±1200 m, 24.IV–16.V.1999, C. Holzschuh leg. (NHMB); 1 ♂ Laos NE, Houa Phan prov. 20°12–13.5′N, 103°59.5′–104°01′E, Ban Saluei, Phou Pane Mt., 1340–1870 m, 15.IV.–15.V.2008, Lao collectors leg. (NHMB); 6 ex. N Laos, Oudom Xai prov. Nam Miang riv. 30 km SE Muang Xai, 1200 m, May 1999, Lao coll. leg. (NHMB); 12 ex. Laos Louang Phrabang prov. 20°33.4′N, 102°14′E, Ban Song Cha (5 km W) 1200 m, 1–16.V.1999, V. Kubáň leg. (NHMB); 1 ex. Laos Louang Namtha prov. Namtha to Muang Sing 900–1200 m, 21°09′N, 101°19′E, 5.–31.V.1997, V. Kubáň leg. (NHMB); 1 ex. Laos, Phongsaly prov. Phongsaly env. 1500 m, 21°41′N, 102°6.8′E, 6.–17.V.2004, V. Kubáň leg. (NHMB).

Remarks. For this species (Fig. 30) at least 15 variations have been named, some of them may be subspecies. It is widely distributed in the oriental region (China, Japan,



Figs 37–47. 37, *Parambrostoma laosensis*: male abdominal sternum. 38, *Humba cyanicollis*: habitus. 39, *Paropsides chennelli*: habitus. 40–42, *Paropsides nigropunctata*: 40 – habitus, 41 – antenna, 42 – aedeagus. 43–44, *Paropsides* sp.nov. from Nepal: 43 – aedeagus, 44 – antenna. 45, *Asiparopsis convexa*: habitus. 46, *Asiparopsis pardalis*: habitus. 47, *Gonioctena cambodiana*: habitus.

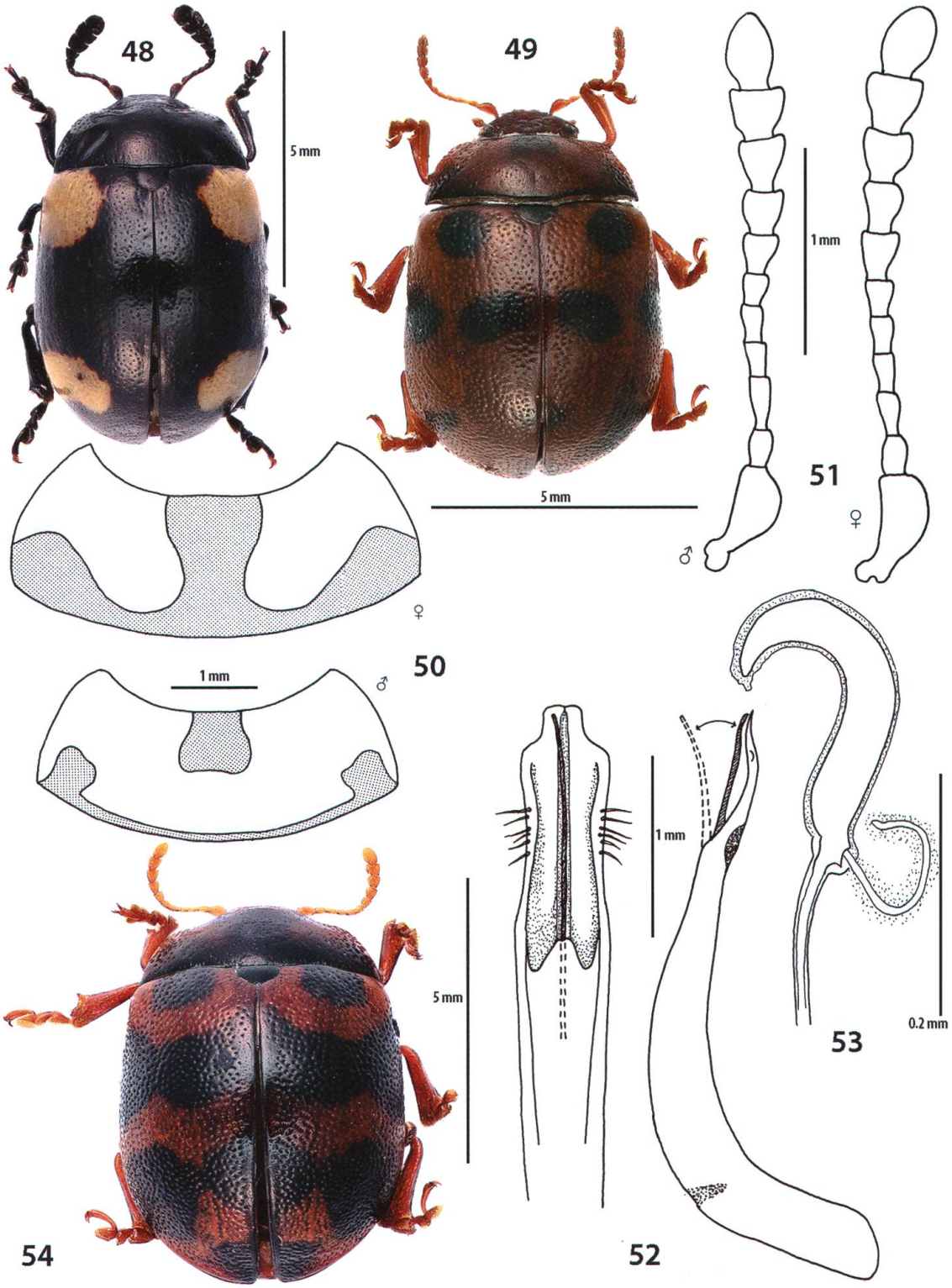


Fig 48–54. 48, *Gonioctena flavoplagiata*: habitus. 49–53, *Gonioctena fraudulenta*: 49 – habitus, 50 – pronotum, 51 – antenna, 52 – aedeagus, 53 – spermatheca. 54, *Gonioctena trilochana*: habitus.

Korea) and reaches the European Russia. Among the material from Laos we found some variability in the punctures of the elytra and the thorax, but because of the uniformity of the aedeagus (Fig. 31) in the different specimens it is regarded as a single species, but very variable.

Parambrostoma Chen, 1934.

This genus from the subtribe Chrysolinina includes seven species mostly from Nepal (GE *et al.* 2012). Only one is known from Laos. The genus is very similar to *Ambrostoma* Motschulsky, 1860, but differs by the setation pattern on the elytral epipleura, which in *Ambrostoma* is ciliated for the entire length.

Parambrostoma laosensis (Kimoto et Gressitt, 1981)

Material examined. The ♂ type is deposited in the Bishop Museum of Honolulu (USA). It is immature and partly damaged: 1 ♂, Laos Vientiane prov., Ban Van Eue (Heua), 20 km E of Phou Kau Khoay, 1000 m, 16.III.1966, native coll. for Rondon & Gressitt (Fig. 32).

Redescription. Measurements: length 10.9 mm, width 5.2 mm, length elytra 7.4 mm, length thorax 2.1 mm, width thorax 3.8 mm.

Elongate-oblong, with brilliant metallic bands and stripes.

Antennae with a thick ovate scape, pedicellus nearly as broad as long, antennomeres 3–6 fairly slender, 7–11 stouter (Fig. 33); mandibles strong, subquadrate, protruding; clypeus straight with a few fine punctures; palpi as in Fig. 34; frontoclypeal suture shaped like a curly bracket; frons with a depression in the middle incised by the metopical suture; inner ocular margin upraised and shaped as a prolonged S.

Pronotum subparallel-sided, slightly concave anteriorly, convex posteriorly; disc convex with distinct and irregular punctures, stronger punctured on parts of the sides (Fig. 35). Elytral punctures irregular in the middle of the elytra, in the posterior third scarcer and finer; the distance between the punctures about 2–3 times their diameter; at the sides the punctures are in nearly regular rows; elytral epipleura ciliated for the posterior third.

Aedeagus as in Fig. 36, male abdominal sternite as in Fig. 37.

Humba Chen, 1934

This genus forms a separate group of taxa within the subtribe Chrysolinina Chen, 1936, along with the related taxa *Agrosteomela* Gistel, 1857; *Agrosteella* Medevedev 1987 and *Sphaerolina* Baly, 1871 (all distributed in the Oriental region) and the genus *Sphaeratrix* Gistel, 1848 (from the Afrotropical region).

Humba cyanicollis (Hope, 1831)

Material examined. 1 ex. Laos Hua Phan prov. Ban Saluei→Phou Pane Mt., 20°12–13.5′N, 103°59.5′–104°01′E, 1340–1870 m, 15.IV.–15.V.2008, Lao collectors leg. (NHMB); 5 ex. Laos NE Hua Phan prov. ~20°12′N, 104°00′E, Phou Pane Mt. 1350–1500 m,1.–16.VI.2009, M. Brancucci leg.; 1 ex. Laos NE Hua

Phan prov. ~20°13′N; 104°01′E, Phou Pane Mt. 1500–1900 m,17.V.–3.VI.2007, M. Brancucci leg.; 16 ex. Laos Phongsaly prov. 21°41′N, 102°06–8′E, Phongsaly env. ~1500 m, 6.–17.V.2004, Pacholátko leg.; 19 ex. Laos, Phongsaly prov. Phongsaly env. 21°41′–2′N, 102°6′–8′E, 1500 m, 28.V.–20.VI.2003, Pacholátko leg.; 2 ex. N Laos, Oudom Xai prov. Oudom Xai (17 km Nee), 20°45′N, 102°09′E, ~1100 m, 1.–9.V.2002, V. Kubáň leg. (NHMB).

Remarks. With a length of 16 mm and a width of 10 mm measured in some female specimens, this is the largest species of Chrysomelinae known in Asia. The single species *H. cyanicollis* (Fig. 38) is widely distributed from N India to Vietnam and, according to some authors, divided into several subspecies, e.g. *H. c. davidis* Fairmaire, 1878, *H. c. assamensis* (Weise, 1902) and *H. c. tonkinensis* (Weise, 1902);we attribute the material from Laos to the last of these.

Paropsina Weise, 1915

In the large subtribe Paropsina there are at least 14 genera and more than 450 described species, nearly exclusive to the Australasian region. Only two genera, *Paropsides* Motschulsky, 1860 and *Asiparopsis* Chen, 1934, are known from the Oriental region. The few Oriental species originate from a wide stock of taxa, which is present mainly in Australia and New Guinea. A single species, *Paropsides soriculata* (Swartz, 1808), is known from East Siberia, the Russian Far East and Korea (Kippenberg, 2010). Specifically from Laos, the following two species are known.

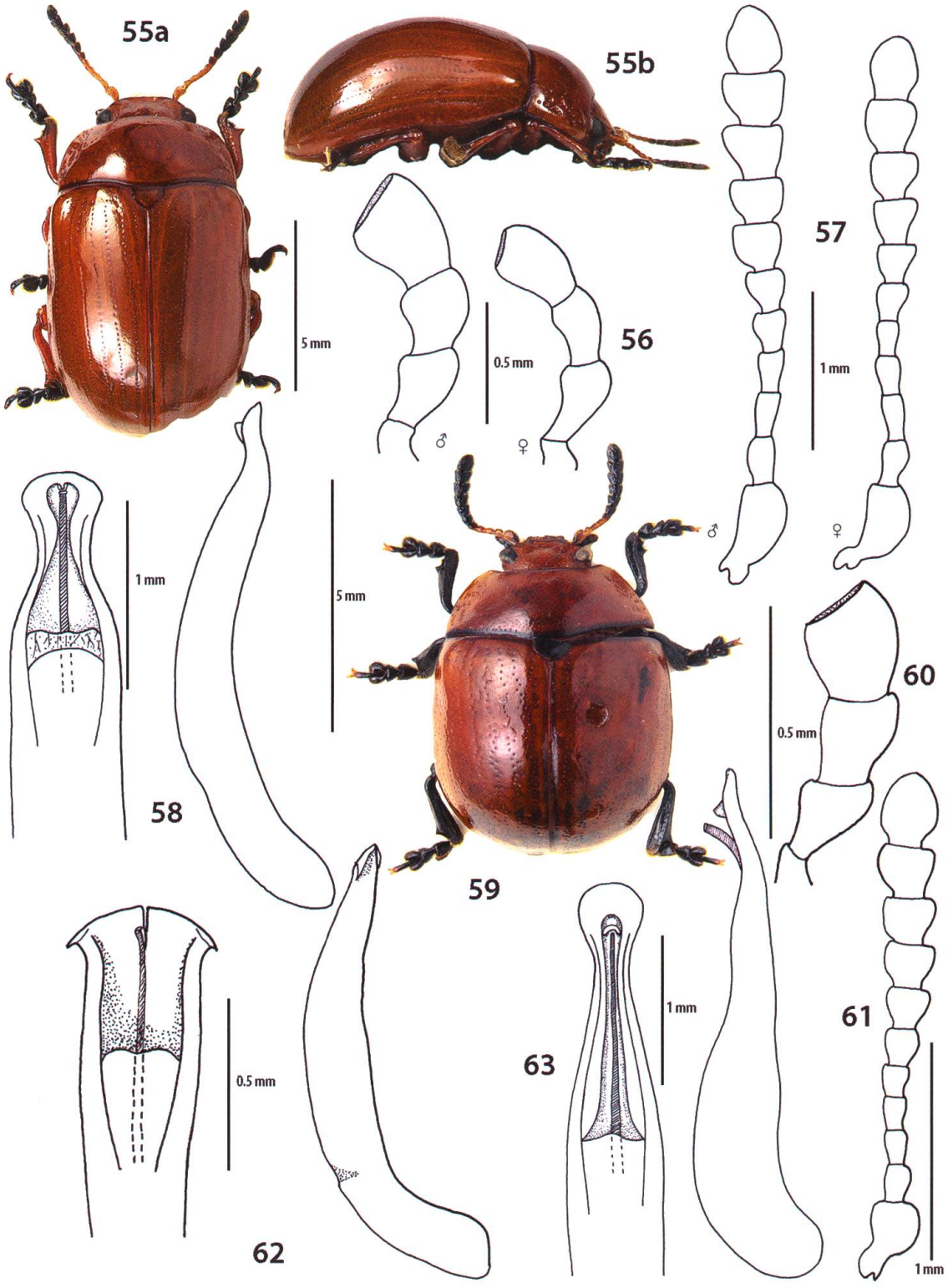
Paropsides chennelli Baly, 1877

Material examined. 2 ex. Laos NE, Xieng Khouang prov., 19°37.8′N, 103°20.1′E, 30 km NE Phonsavan, Ban Na Lam to Phou Sane Mt., 1300–1700 m, 10.–30.V.2009, M. Geiser leg. (NHMB).

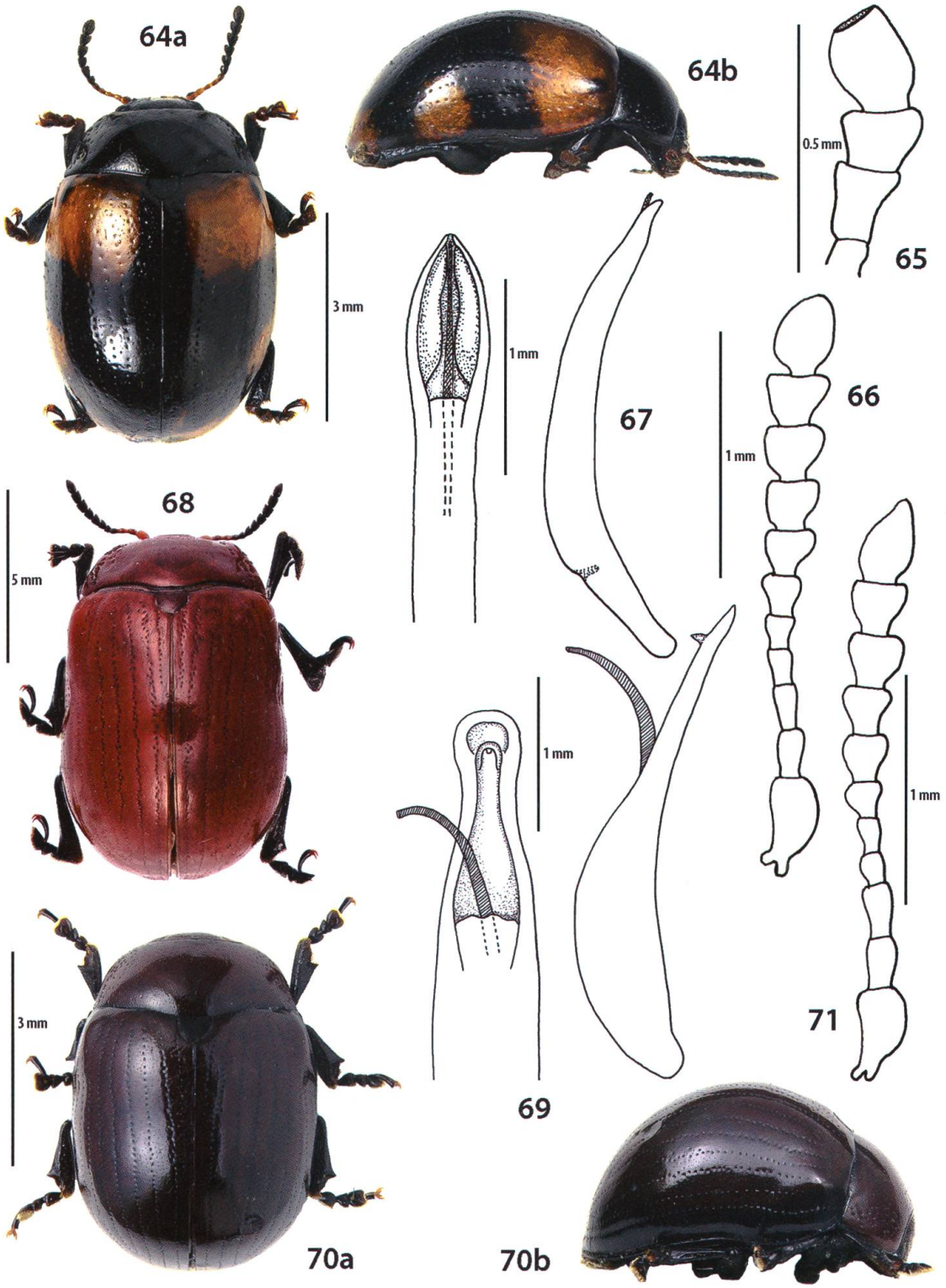
Remarks. The species was described from Assam, but is also known from Sikkim and new to Laos. The examined specimens are all females (Fig 39). They do not differ from material studied from Sikkim.

Paropsides nigropunctata Jacoby, 1892

Material examined. 9 ex. Laos NE Hua Phan prov. 20°12–13.5′N, 103° 59.5′–104°01′E, Ban Saluei Phou Pane Mt. 1340–1870 m, 10.V.–16.VI.2009, M. Brancucci & local coll. leg. (NHMB); 10 ex. Laos NE Hua Phan prov. ~20°13′N, 104°00′E, Phou Pane Mt. 1350–1500 m, 1.–16.VI.2009, M. Brancucci leg. (NHMB); 1 ex. Laos NE Hua Phan prov. ~20°12′N; 104°01′E, Phou Pane Mt. 1500–1900 m,17.V.–3.VI.2007, M. Brancucci leg. (NHMB); 1 ex. Laos NE Hua Phan prov., 20°11′N, 103°12′E, Ban Sako (N env.) 750–900 m, 16.V.2007, M. Brancucci leg. (NHMB); 1 ex. N Laos Luang Namtha env. 800–1200 m, May 1997(MSNG); 1 ex. Laos bor. 900 m, Louang Namtha, N 21°09′, 101°18.7′E, 5.–30.V.1997 (MSNG); 1 ex. Laos N Luang Namtha env., 800–1200 m, May 1997 (NHMB); 15 ex. Laos N, 24.IV.–16.V.1999, Louang Phrabang prov. 20°33.4′N. 102°14′E, Ban Song Cha (5 km W) ~1200 m C. Holzschuh leg. (MSNG); 1 ex. Laos N Louang Phrabang prov. 20° 33.4′N, 102°14′E. Ban Song Cha (5 km W) ±1200 m, 24.IV.–16.V.1999, C. Holzschuh leg. (NHMB); 1 ex. N Laos, May 1999, Oudom Xai prov. Nam Miang riv. 30 km SE Muang Xai, 1200 m, Lao coll. leg. (MSNG); 2 ex. Laos N Phong Saly prov., 21°41–2′N, 102°06.8′E, Phongsaly env., circa 1500 m, 28.V–20.VI.2003, C. Holzschuh leg. (MSNG); 1 ex. Laos Phongsaly prov. 21°41.2′N, 102°6–8′E, Phongsaly env. ca. 1500 m, 28.V.–20.VI.2003, Pacholátko leg. (NHMB); 18 ex. Laos Phongsaly prov. 21°41′N, 102°06–8′E, Phongsaly env. ~1500 m, 6.–17.V.2004, Pacholátko leg. (NHMB); 4 ex. Laos Phongsaly prov.,



Figs 55–63. 55–58, *Gonioctena brancuccii*: 55 – habitus, 56 – palpi, 57 – antenna, 58 – aedeagus. 59–62, *Gonioctena unicolor*: 59 – habitus, 60 – palpi, 61 – antenna, 62 – aedeagus. 63, *Gonioctena incondita*: aedeagus.



Figs 64–71. 64–67, *Gonioctena laotiana*: 64 – habitus, 65 – palpi, 66 – antenna, 67 – aedeagus. 68–69, *Gobioctena lesnei*: 68 – habitus, 69 – aedeagus. 70–71, *Gonioctena semiglobosa*: 70 – habitus, 71 – antenna.

21°21′N, 102°03′E, Ban Sano Mai ~1150 m, 19.–26.V.2004, Pacholátko leg. (NHMB); 1 ex. Laos Phongsaly prov., 21°41′N, 102°06′E, Phongsaly env. ~1500 m, 6.–17.V.2004, M. Brancucci leg. (NHMB); 1 ex. Laos Phongsaly prov., 21°41.2′N, 102°06–8′E, Phongsaly env. ~1500 m, 28.V.–20.VI.2003, C. Holzschuh leg. (NHMB); 1 ex. Laos Phongsaly prov., 21°41.2′N, 102°06–8′E, Phongsaly env. ~1500 m, 28.V.–20.VI.2003, Vít Kubáň leg. (NHMB); 3 ex. Laos Phongsaly prov., 21°41.2′N, 102°06–8′E, Phongsaly env. ~1500 m, 28.V.–20.VI.2003, M. Brancucci leg. (NHMB). 11 ex. Laos NE Xieng Khouang prov. 19° 37.8′N, 103°20′E, Phonsavan (30 km NE) Phou Sane Mt. 1400–1500 m, 10.–30.V.2009, Z. Kraus leg. (NHMB); 1 ex. Laos NE Xieng Khouang prov. 19°37.8′N, 103°20′E, Phonsavan (30 km NE) Phou Sane Mt. 1400–1700 m, 10.–30.V.2009, D. Hauck leg. (NHMB); 11 ex. Laos NE Xieng Khouang prov. 19°37.8′N, 103°20–21′E, 30 km NE Phonsavan Ban Na Lam to Phou Sane Mt., 1300–1700 m, 10.–30.V.2009, M. Geiser leg. (NHMB); 1 ex. Laos NE Xieng Khouang prov. 19°37.8′N, 103°20–21′E, 30 km NE Phonsavan Ban Na Lam→Phou Sane Mt., 1300–1500 m, 10.–30.V.2009, M. Brancucci leg. (NHMB); 2 ex. Laos NE Xieng Khouang prov. 19°37.8′N, 103°20–21′E, 30 km NE Phonsavan Phou Sane Mt., 1400–1700 m, 10.–30.V.2009, D. Hauck leg. (NHMB); 1 ex. Laos Xieng Khouang prov., 19° 26′N, 103°13′E, Phonsavan town to Phu Padaeng, 1100–1200 m, 30./31.V.2009, M. Geiser leg. (NHMB).

Remarks. According to MAULIK (1926), *P. nigropunctata* (Fig. 40) is a species distributed in Burma, Assam and Sikkim. It is cited also for India and Nepal (SPRECHER-UEBERSAX, 2011). However, now we recognized a significant difference in the median lobe of the aedeagus between the specimens from Laos (Fig. 42) and those from Nepal (Fig. 43). Also the antennae are different (Fig. 41 and 44). After having studied two female syntypes from Jacoby (Charin Chebŕ 900–1100 m, L. Fea, V.XII.88) conserved at the Museum of Genoa we state that the species is also present in Laos. One of the specimens has the characteristic blue label of Jacoby's types and its coloration is orange yellow at the head, thorax, elytra, antennae, legs and ventral parts. Thorax has four blackish arcuate spots, one at the humeral callus, two (the internal one of bigger dimensions) at the first anterior third of the elytra, another spot at the posterior third of the elytra, more external than the preceding ones. The second specimen is coloured flame scarlet and with the same distribution of spots. The spermatheca is not present and we found two larvae in the internal abdominal cavity. Consequently the species from India and Nepal must be new and will be described in a future work.

The examined specimens belong to the forma typica with the colour reddish brown and four black spots (sometimes reduced to three or two) on the elytra. There were also three specimens with a blackish colour except for the scutellum, a fine red brown stripe which surrounds the elytra (larger at the lateral margins), the thorax with a large black spot, incised in the middle of the anterior margin and occupying a big part of the pronotum. The rest is reddish coloured with two symmetrical black spots at the front. Dimensions for the female syntype: Length 11.0 mm, width 8.4 mm, length elytra 9.7 mm, length thorax 2.5 mm, width thorax 6.1 mm.

Asiaropsis convexa (Weise, 1902)

Material examined. 2 ex. Laos CE, Boli Kham Xai prov. Ban Nape (8 km NE) circa 600 m, 18°21′N, 105°08′E, 1.–18.V.2001, Pacholátko leg.; 5 ex. Laos CE Boli Kham Xai prov. Ban Nape (8 km NE) circa 600 m, 18°21′N, 105°08′E, 1.–18.V.2001, Pacholátko leg.; 1 ex. Laos Xieng Khouang prov. 18°59′–19°03′N, 103°22–25′E, Ban Thaviang env. 400–600 m, 17.–21.V.2010, M. Geiser & D. Hauck leg. (NHMB).

Redescription. Reddish brown, elytra with basal median and subapical bands black. In some specimens the elytra are without any blackish marking. Ventral surface with the

middle of the metathorax infuscate, antennae and legs entirely brownish. Interstices of the elytral rows of punctures closely and distinctly punctate (Fig. 45).

Remarks. The species was described from Tonkin (Mt. Mauson) and is known from Vietnam and South China. Its presence in Laos is confirmed.

Asiparopsis pardalis Jacoby, 1892

Material examined. Syntype (MSNG) "Charin Chebŕ 900–1100 m, L. Fea V.XII.88"; 131 ex. NE Laos, Hua Phan Prov. Ban Saleui, Phou Pan (Mt.). N 20°12′, E 104°01′, 1300–1900 m, 11.IV.–15.V.2012, C. Holzschuh leg. (BMNH); 17 ex. Laos CE Boli Kham Xai prov. Ban Nape (8 km NE) circa 600 m, 18°21′N, 105.08′E, 1.–18.V.2001, Pacholátko leg. (NHMB); 3 ex. Laos, Phongsaly prov. Phongsaly env., 21°41.2′N, 102°6–8′E, 1500 m, 28.V.–20.VI.2003, Pacholátko leg. (NHMB); 1 ex. Laos Louang Namtha prov. Muang Sing town, 700 m, 21°11′N, 101°09′E, 14.–20.V.2011, NHMB Basel Laos 2011 Expedition M. Geiser & D. Hauck; 5 ex. Laos Hua Phan prov. Phou Pan Mt., 20°12′N 104°01′E, 1500–1900 m, 17.V.–3.VI.2007, M. Brancucci leg. (NHMB); 2 ex. Laos Hua Phan prov. Phou Pane Mt., ~20°13′N 104°00′E, 1350–1500 m, 1.–16.VI.2009, M. Brancucci leg. (NHMB); 8 ex. Laos Louang Phrabang prov. Ban Song Cha (5 km W) 1200 m, 20°33.4′N, 102°14′E, 1.–16.V.1999, Vít Kubáň leg. (NHMB); 1 ex. Laos, Phongsaly prov. Phongsaly env. 21°41.2′N, 102°6–8′E, 1500 m, 28.V.–20.VI.2003, M. Brancucci leg.(NHMB); 1 ex. Laos, Xieng Khouang prov. 19°37.8′N, 103°20′E, 30 km NE Phonsavan Ban Na Lam→Phou Sane Mt. 1300–1500 m, 10.–30.V.2009, M. Brancucci leg.(NHMB); 1 ex. Laos Hua Phan prov. Ban Saluei→Phou Pane Mt., 20°12–13.5′N, 103°59.5′–104°01′E, 1340–1870 m, 15.IV.–15.V.2008, Lao collectors leg. (NHMB); 2 ex. Laos Hua Phan prov. Ban Saluei to Phou Pane Mt., 20°12–13.5′N, 103°59.5′–104°01′E, 1340–1870 m, 10.V.–16.IV.2009, M. Brancucci & local coll. leg. (NHMB); 1 ex. Laos Attapeu prov. Nong Fa crater lake, 15°05–07′N, 107°25′E, 1150–1300 m, 21.–25.VI.2011, M. Geiser & D. Hauck leg. (NHMB); 1 ex. Laos, Phongsaly prov., Phongsaly env., 21°41′N, 102°06–8′E, 1500 m, 6.–17.V.2004, V. Kubáň leg.(NHMB); 1 ex. Laos, Phongsaly prov., Phongsaly env. 21°41.2′N, 102°6–8′E, 1500 m, 28.V.–20.VI.2003, Vít Kubáň leg. (NHMB).

Remarks. The syntype studied is slightly immature, thus pale, with spectrum orange colour on the head, antennae, thorax, ventral parts, lateral margins of the elytra and legs. Elytra colour flame scarlet with rounded orange yellow spots situated one near to the scutellum, one under the humeral callus, one between the mentioned spots, two in the posterior third and one at the apex. Among the rich material studied, a certain constancy in the shape and disposition of the spots was recognized. The ground coloration can vary and be darker than in the syntype (this however could also be a question of the maturity of the specimens) and can even be uniformly chrome orange without spots (Fig. 46).

Measurements: length 6.7 mm, width 4.8 mm, length elytra 5.3 mm, width thorax 3.6 mm, length thorax 1.2 mm.

Gonioctena Chevrolat, 1836

According to KIPPENBERG (2010) this genus should be attributed to the tribe Gonioctenini Motschulsky, 1860. The numerous known species are distributed in the Oriental and Holarctic regions. One new species known to one of the authors (M.D.) but not yet published, occurs in Mexico (Hidalgo). A vicarious genus *Centroscelis* Chevrolat, 1837 is present in the Afrotropical region. An interesting transitional species between these genera was recently described from South Yemen (BEZDĚK *et al.*, 2012). No species of the subtribe Gonioctenina is known from the Australian region, although some species of *Faex* Weise, 1901 and particularly of *Rhaebosterna* Weise, 1917 are

very near to *Gonioctena*. Nine species are known from Laos, four of them are new to science and described here.

Gonioctena (*Asiphytodecta*) *cambodiana* (Chen, 1934)

Material examined. 1 ♂, Laos NE, Xieng Khouang prov., 19°37–8′N, 103° 20–1′ E, 30 km NE Phonsavan, Ban Na Lam→Phou Sane Mt., 1300–1700 m, 10.–30.V.2009, M. Geiser leg. NHMB Basel, NMPC Prague, Laos Expedition M. Brancucci, M. Geiser, Z. Kraus, D. Hauck, V. Kubáň (NHMB) ; 1 ♀, N Laos, May 1999, Oudom Xai prov. Nam Miang riv. 30 km SE Muang Xai, 1200 m, Lao coll. leg. (MSNG); 1 ♂, 2 ♀♀, Laos N Louang Phrabang prov., 20°33.4′N, 102°14′E, Ban Song Cha (5 km W) about 1200 m, 24.IV.–16.V.1999, C. Holzschuh leg. (MSNG).

Remarks. This species (Fig. 47) was described from Cambodia without a precise locality and is new for Laos.

Gonioctena (*Asiphytodecta*) *flavoplagiata* (Jacoby, 1890)

Material examined. 1 ex. Laos NE, Xieng Khouang prov., 19°37–8′N, 103°20–1′E; 30 km NE Phonsavan, Ban Na Lam to Phou Sane Mt., 1300–1700 m, 10.–30.V.2009, M. Geiser leg., NHMB Basel, NMPC Prague, Laos 2009 Expedition M. Brancucci, M. Geiser, Z. Kraus, D. Hauck, V. Kubáň (NHMB).

Remarks. Described from China without a precise locality, known also from North Vietnam and new for Laos (Fig. 48).

Gonioctena (*Asiphytodecta*) *fraudulenta* sp.nov.

Material examined. Holotype ♂, 3 ♀ PT Laos NE, Hua Phan prov., 20°12′N, 104°01′E, Ban Saleui Phu Pan Mt., 1300–1900 m, 11.IV.–15.V.2012, C. Holzschuh leg. (BMNH), 1 ♀ PT, same data, in NHMB, 1 ♀, same data, PT in MDC.

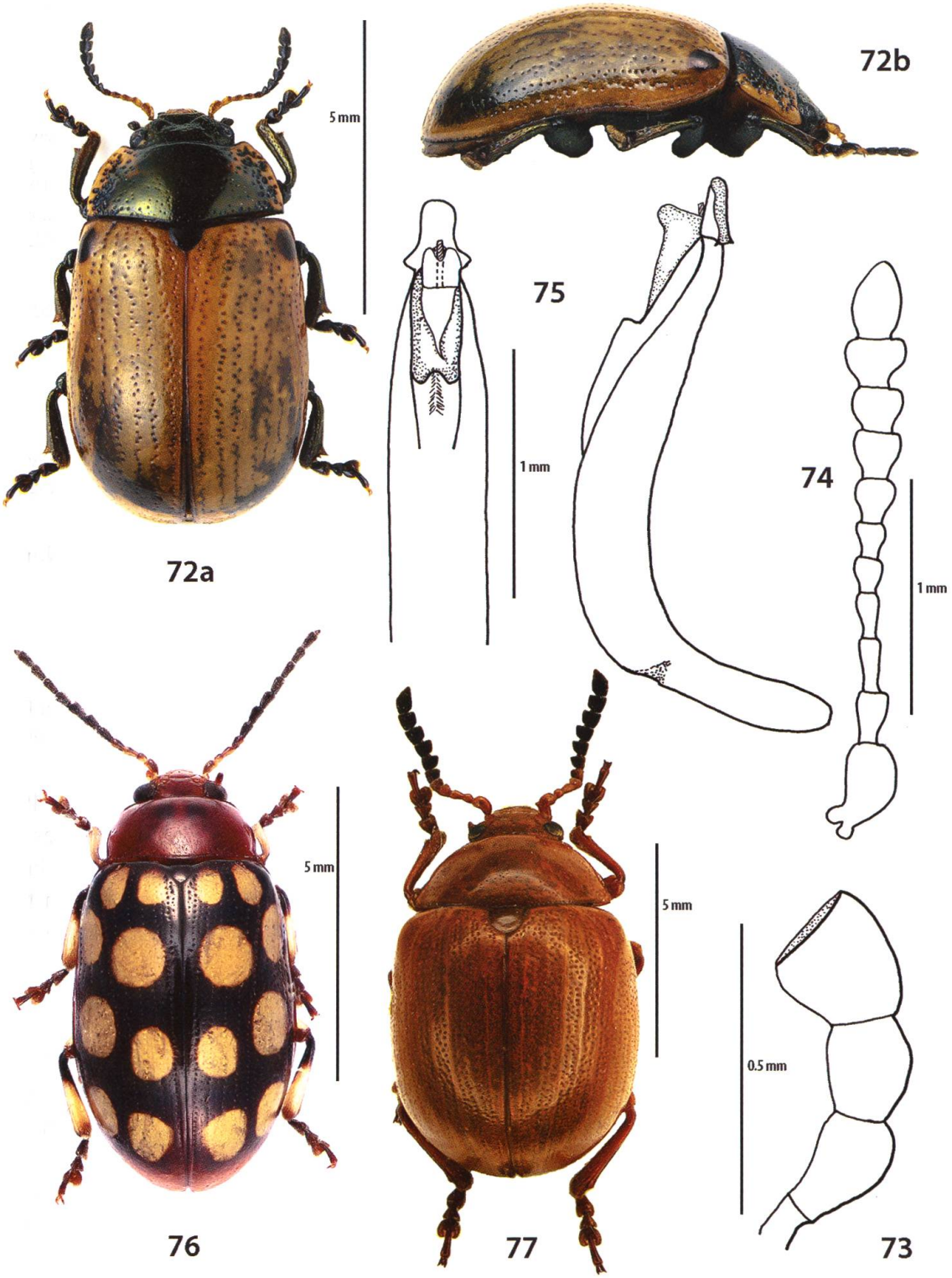
Description. Winged. Body ovate, arcuate from side view, little upraised (Fig. 49). Ground colour red-brown with black markings: a black spot at both posterior edges of the pronotum extending along the posterior margin and connecting each other, one black spot in the middle of the anterior margin (Fig. 50). Scutellum black. Six spots on the elytra, three large ones in the anterior half, one situated near the shoulder, one in the middle near the suture, one in the middle near the exterior margin. Three small spots in the posterior part, two are situated on both sides of the suture and are divided by the suture, the third one is near the apex. The antenna, legs and tarsi are red-brown.

Head strongly and closely punctate, broad, with a surface uneven and a slight Y-shaped depression; middle of the labium with a tooth; the last six antennomeres enlarged (Fig. 51); mandibles with an excavation where the palpi are placed; last palpomere enlarged and truncate.

Prothorax wide, with strong punctures at the sides, at times condensed, disc with some finer punctures, which are stronger along the anterior margin, without setigerous punctures; anterior angles rounded; the posterior ones rectangular. Scutellum broad, triangular, smooth, without punctures.

Elytra confusely and strongly punctate and with fine rugose interspaces, punctures subregularly arranged; humeral callus raised and wide; epipleurae smooth, little enlarged up to the middle, then becoming thinner.

Ventral part of the thorax black and with short transverse wrinkles.



Figs 72–77. 72–75, *Gonioctena geiseri*: 72 – habitus, 73 – palpi, 74 – antenna, 75 – aedeagus. 76, *Chalcolampra sedecimpustulata*: habitus. 77, *Lycaria westermanni*: habitus

Legs strong with a tooth at the apex of the tibiae; femora thickened and almost as long as the tibiae; tarsomeres little dilated with the last tarsomere complete; claws appendiculate.

Aedeagus as in Fig. 52, spermatheca as in Fig. 53.

Measurement	**male**	**female**
Length body	7.0 mm	7.6 mm
Width body	4.7 mm	5.6 mm
Length elytra	5.7 mm	6.4 mm
Length thorax	1.6 mm	1.9 mm
Width thorax	3.9 mm	4.3 mm

Etymology. From the unexpected discovery of this species among the material of *G. trilochana,* with which it can, at first glance, be confused.

Differential diagnosis. The females are absolutely not distinguishable from those of the similar *G. trilochana* Maulik whose description and notes from the revision of BEZDĚK (2002) are presented above. Among all known species of the genus the single known male is easily recognizable by the median lobe of the aedeagus. Furthermore, the male differs from *G. trilochana* in the punctures on the pronotum and on the elytra. In this new species the punctures are smaller and more separate.

Gonioctena (*Asiphytodecta*) *trilochana* (Maulik, 1926)

Material examined. 1 ♂, Laos Phongsaly prov., 21°41.2′N, 102°6–8′E, Phongsaly env., 1500 m, 6.–17.V.2004 leg. Pacholátko; 1 ♀ Laos, Phongsaly prov. Ban Sano Mai, 21°21′N, 103°03′E, 1150 m, 19.–26.V.2004, P. Pacholátko leg.; 1 ♂, Laos N 20 km NW Louang Namtha, N 21°09.2′, E 101°18.5, 900 ±100 m, 24.–30.V.1997, E. Jendek & O. Sausa leg. (MSNG); 2 ex. N Laos Luang Namtha env., 800–1200 m, May 1997 (MSNG); 1 ♂, Laos bor. 900 m, Louang Nam Tha, 21°09′N, 101°18.7′E, 1000 m, 5.–30.V.1997 (det. Bezděk, MSNG); 1 ♀, Laos bor. Louang Nam Tha prov., 15 km NW Luang Nam Tha, 800 m, 14.–22.VI.1996, leg. C. Holzschuh (MSNG); 1 ♀ NE Laos, Hua Phan prov., Phou Pane Mt., 20°13′N, 104°00′E, 1350–1500 m, 1.–16.VI.2009, expedition NHMB Basel and NMPC Prague (NHMB); 12 ex. Laos Namtha to Muang Sing, 21°09′N, 101°19′E, 900–1200 m, 5.–31.V.1997, V. Kubáň leg. (NHMB); 2 ♀♀, 1 ♂ Laos, Phongsaly prov. Phongsaly env., 21°41.2′N, 102°06′E, 1500 m, 28.V.–30.V.2003, Pacholátko leg. (NHMB); 2 ex. Laos bor. Louang Namtha, 21°09.2′N, 101°18.7′E, 900–1000 m, 5.–30.-V.1997 (MSNG); 1 ♀ N Laos, Oudom Xai prov. Oudom Xai (17 km NEE), 20°45′N, 102°09′E, ~1100 m, 1.–9.V.2002, V. Kubáň leg. (NHMB).

Remarks. According to the description of BEZDĚK (2002), the species can be distinguished by the structure of the male genitalia and by the pattern of black spots on the pronotum. Lateral spots widely touch the base of the pronotum in *G. trilochana* (Fig. 54) contrary to the other species of the *G. tredecimmaculata*-group where the lateral spots are absent or situated in front of the base of the pronotum.

Gonioctena (*Brachyphytodecta*) *brancuccii* sp.nov.

Material examined. Holotype ♂ Laos NE, Hua Phan prov., 20°12′N, 104°01′ E, Phu Phan Mt., 1500–1900 m, 17.V.–3.VI.2007. M. Brancucci leg., NHMB Basel, expedition to Laos 2007 (NHMB); 1 ♀ PT (KPC), 1 ♂ PT (MDC), NE Laos, Hua Phan prov. Ban Saluei, 20°13′N, 103°59′E, Phu Phan Mt. env., 1300–2000 m, 6.–18.V.2004, F. & L. Kantner leg.; 1 PT NE Laos, Hua Phan prov., Ban Saluei→Phou Pane Mt., N 20°12′, E 104°01′, 1380–1870 m, 15.IV.–15.V.2008, Lao collectors leg. (NHMB).

Description. Winged. Body broad, arcuate from side view, little upraised. Colour from chrome orange to spectrum orange. The last four antennomeres, tarsi and a fine line along the posterior margin of the thorax are black (Fig. 55).

Frons with a few fine punctures, on the clypeus slightly more dense punctures; frontoclypeal suture hardly incised; base of the clypeus raised in a constant transverse carina; middle of the labium incised; mandibles with an excavation where the palpi are placed, a groove at the external margin; last palpomere enlarged and truncate (Fig. 56). Antennae as in Fig. 57.

Prothorax wide, without setiger punctures at the angles; a few large punctures at the sides, at times condensed; disc with some punctures mixed with a few micropunctures; anterior angles rounded, the posterior ones rectangular. Scutellum broad, ogival, smooth, without punctures.

Elytra with regular rows of punctures and a fine interpunctuation; humeral callus raised and wide, lateral callus not raised; a broad depression at the anterior third of the elytra hardly under the humeral callus; epipleurae flat, smooth, little enlarged up to the middle, then getting thinner, without setigerous pores at the apex.

Ventral part of the thorax with short transverse wrinkles. Prosternal appendix bordered, hardly upraised anteriorly and enlarged at the apex. Mesoventrite trapezoidal with a deep median furrow. Metaventrite little enlarged at the apex, bordered. Abdominal segments with a few punctures, along the anterior margin denser in regular rows.

Strong legs with a wide tooth at the apex of the tibiae; femora thickened and almost as long as the tibiae; onychium hardly elongate; tarsomeres slightly dilated with the last tarsomere complete; claws appendiculate.

Aedeagus as in Fig. 58.

Measurement	**male**	**female**
Length body	9.1 mm	11.4 mm
Width body	6.7 mm	7.5 mm
Length elytra	7.8 mm	9.0 mm
Length thorax	2.4 mm	2.6 mm
Width thorax	5.6 mm	6.2 mm

Etymology. The species is dedicated to Michel Brancucci remembering his passion for entomology and our friendship.

Differential diagnosis. Very similar to *G. lesnei* (Chen, 1931), but easy to recognize by the reddish femora and tibiae except for the distal part darkened at the concave side. The anterior margin of the clypeus is upraised and the plication on the epimeres of the thorax is not as strong as in *G. lesnei*. The distal apex of the femora, tibiae and tarsi are black in *G. lesnei*. The punctures at the sides of the thorax are deeper and more scattered in *G. brancuccii*. Compared to the near *G. lesnei*, *G. brancuccii* has an aedeagus with a shorter and larger apex.

Gonioctena (*Brachyphytodecta*) *unicolor* Medvedev, 1987

Material examined. 1 ex. Laos NE Hua Phan prov. Ban Saluei, Phu Phan Mt., 20°15′N, 104°02′E, 1500–2000 m, 26.IV.–11.V.2001, J. Bezděk leg. (NMPC).

Redescription. Measurements: length 6.1 mm, width 4.3 mm, length elytra 4.8 mm, length prothorax 1.2 mm, width prothorax 3.5 mm.

Winged. Body roundish, raised (Fig. 59). Colour nearly entirely spectrum orange, including the abdomen. Black coloured are the last six antennomeres, a fine line along the posterior margin of the prothorax, the scutellum, the legs, mesoepimeres, metepisterna and the sides of the metaventrite. Apex of the elytra slightly darker.

Head and clypeus with dense punctures, the ones of the clypeus larger and denser than those of the frons; anterior margins of the clypeus not raised; middle of the labium incised; mandibles with an excavation where the palpi are placed; last palpomere hardly larger than the precedent one (Fig. 60); antennae with the last six segments slightly enlarged (Fig. 61).

Prothorax slightly convex, very enlarged at the base, lateral margins widely convergent to forward, opaque, with rare and fine punctures on the disc, at the sides with a few large punctures and lacking setigerus punctures. Scutellum protruding, almost a semicercle.

Elytra shining, with rows of punctures not quite aligned, particularly at the apex; some small punctures between the rows; humeral callus protruding, little raised; lateral callus wide, not raised, with small punctures.

Ventral parts of the prothorax with dense stripes, which enlarge radiating from the centre of the hypomera. Proepisterna striated. Prosternal appendix narrow between the anterior hips, bordered at the margins, enlarged at the apex, which hardly overlaps the anterior hips. Mesoventrite with a deep groove. Lateral margins of the metaventrite with strong punctures, which are also present in the mesocoxal area. Metepisterna with large punctures condensed in a double row. Mesoepisternum with some fine punctures.

Legs short with a tooth at the apex of the tibiae; claws appendiculate.

Aedeagus as in Fig. 62.

Remarks. We compared the specimen with two males of *G. unicolor* det. Cho conserved in the collections of the Natural History Museum of Basel. According to the author of *G. unicolor* the species is near to *G. cambodiana* (Chen, 1934) (belonging to the subgenus *Asiphytodecta*) and *G. incondita* (Weise, 1898) (Fig. 63) (which is a *Brachyphytodecta* near to *G. lesnei*). However, the species should rather be placed near *G. flavipennis* (Jacoby, 1888) and perhaps *G. semiglobosa* (Achard, 1924) and forms together with a new species from Tonkin (Montes Mauson) a complex of taxa which can be distinguished with certainty only by the examination of the median lobe of the aedeagus. From *G. flavipennis* it is distinguished mainly by the shape of the median lobe of the aedeagus.

Gonioctena (*Brachyphytodecta*) *laotiana* sp.nov.

Material examined. Holotype ♂ (BMNH), 1 immature ♂ (MDC), 2 ex. (BMNH), NE Laos, Hua Phan prov. Ban Saleui, Phou Pan Mt., N 20°12′, E 104°01′, 1300–1900 m, 11.IV.–15.V.2012, BMNH (E), 2012–14 C. Holzschuh; 11 ex. NE Laos, Hua Phan prov. Ban Saleui, Phou Pan Mt., N 20°12′–13.5′, E 103°59.5′, 1340–1870 m, 10.V.–16.VI.2009, expedition NHMB Basel and NMPC Prague (NHMB) ; 8 ex. NE Laos, Hua Phan prov. Phou Pane Mt., N 20°12′–13.5′, E 103°59.5′, 1350–1500 m, 1.–16.VI.2009, expedition NHMB Basel and NMPC Prague (NHMB).

Description. Measurements: length 4.8 mm, width 3.4 mm, length elytra 4.2 mm, length thorax 1.0 mm, width thorax 2.9 mm.

Winged, roundish. Coloured black at the head, thorax, scutellum, vertex of the humeral callus and large stripes on the elytra. Elytra orange yellow in a wide anterior spot, a small one at the sides and hardly behind the middle of the elytra, one near the apex, with a nearly triangular shape (Fig. 64). Epipleurae almost fully ochraceous, darkened corresponding the black elytral stripe.

Clypeus flat with dense punctures; frons with more scarce and less impressed punctures than the clypeal ones; mandibles with an excavation where the palpi are placed; last segment of the palpi little enlarged (Fig. 65); antennae hardly extending beyond the pronotal base, enlarged from the 6th segment (Fig. 66).

Prothorax ample, convex with strong punctures at the sides, the punctures on the disc are scarce and only half as big as those at the sides; sides of the pronotum straight, convergent only in the anterior third. Scutellum ample, without punctures, almost semi-circular, raised.

Elytra at the base as large as the base of the thorax, with regular rows of punctures; scarce micropunctures between the rows, slight impressions at the apex; epipleura flat with a few scarce punctures regularly narrowing against the apex.

Ventral sides of the prothorax raised in the middle, densely and shortly rugose at the sides. Prosternal appendix flat, elongate at the sides, carinate, a few micropunctures in the middle. Mesoventrite narrow with a wide anterior groove. Metaventrite with strong punctures at the sides and a wide impression; metaventrite appendix bordered with strong and dense punctures especially at the sides. Metepisterna with a row of large punctures. Tibiae with an apical tooth; claws appendiculate.

Aedeagus as in Fig. 67.

Etymology. From the region of origin.

Differential diagnosis. This new species is similar to *G. coccinella* (Chen, 1931) but *G. laotiana* differs in the much sparser punctuation at the sides of the thorax. The apex of the aedeagus is truncated in *G. coccinella*, cuspid in *G. laotiana*. *G. laotiana* has more rounded elytra and a black thorax. The thorax of *G. coccinella* is mainly chrome orange.

Gonioctena (*Brachyphytodecta*) *lesnei* (Chen, 1931)

Material examined. 5 ex. NE Laos, Hua Phan prov., Phou Phan Mt., N 20°12′, E 104°01′, 1500–1900 m, 17.V.–3.VI.2007, expedition NHMB Basel (NHMB); 1 ex. NE Laos, Hua Phan prov. Ban Saleui, Phou Pan Mt., N 20°12′–13.5′, E 103°59.5′, 1340–1870 m, 15.IV.–15.V.2008, Lao collectors leg. (NHMB) ; 1 ex. NE Laos, Hua Phan prov. Phou Pane Mt., N 20°13′, E 104°00′, 1350–1500 m, 1.–16.VI.2009, expedition NHMB Basel and NMPC Prague (NHMB); 1 ex. NE Laos, Hua Phan prov. Phou Phan Mt., N 20°12′, E 104°01′, 1500–1900 m, 17.V.–3.VI.2007, expedition NHMB Basel (NHMB).

Remarks. We studied several specimens of this species of both sexes (Fig. 68). It is one of the largest known species of *Gonioctena* together with *G. brancuccii.* With *G. ornata* Medvedev, 2009 and *G. incondita* they form a complex of species within the subgenus *Brachyphytodecta,* which is characterized by the large dimensions. Fig. 69 shows the aedeagus of *G. lesnei*, Fig. 63 that of *G. incondita*.

Gonioctena (*Brachyphytodecta*) *semiglobosa* (Achard, 1924)

Material examined. Holotype ♀: "China, Kouy-Tcheou, Kouy-Yong-Fou" (NMPC).

Redescription. Body short, broad, very convex and semiglobular, colour mahogany red on the head, thorax and elytra (partly), colour sepia are the scutellum, legs and the margins of the elytra, black on the underside, antennae yellow with a black club (Fig. 70). Head with some small punctures, epistome a little rugose and depressed, antennae short with a large club (Fig. 71), prothorax strongly convex, regularly arcuate, with fine punctures on the disc and bigger ones mixed with some small ones to the lateral margins. Scutellum rather large, elytra very convex, short, with fine punctures and ten very regular rows of punctures. Sides of the metasternum and abdomen punctured, legs rather short and robust, femora toothed (after ACHARD 1924).

Compared with the similar *G. unicolor*, *G. semiglobosa* has a prothorax definitely more barrel-shaped, the punctures on the sides of the pronotum are denser and the rows on the elytra show punctures situated exactly one after the other with a millimetrical precision.

Remarks. The species is known from China (Kouy-Tchéou), but might also be found in Laos in future.

Gonioctena (*Gonioctena* s.str.) *geiseri* sp.nov.

Material examined. Holotype ♂ Laos NE, Hua Phan prov. Ban Saluei, 20°13′N, 103°59′E, Phu Phan Mt. env., 1300–2000 m, 6.–18.V.2004, F.& L. Kantner leg. (NHMB).

Description. Measurements: length 7.0 mm, width 4.1 mm, length elytra 5.7 mm, length thorax 1.5 mm, width thorax 3.4 mm.

Winged. Body elongate, widely convex, a little upraised. Gula, elytra, epipleurae, first four antennomeres and ventral parts of the prothorax with colour orange yellow, sides of the pronotum yellow extending to the anterior margin with a toothed spot; head, thorax, antennae from the 7th antennomere, pronotal disc, scutellum, an elliptical spot on the humeral callus, spots in the middle and at the sides of the first three abdominal segments, mesoepimeres and metepisterna are black (Fig. 72). Legs with a brownish shading.

Frons, clypeus and pronotal disc uniformly punctured; furrow at the clypeal front hardly visible, with a wide depression, which makes the clypeal margin raised; middle of the labium incised; mandibles with an excavation where the palpi are placed; palpomeres with about the same length, the last one enlarged and truncated (Fig. 73); antennomeres from the 6th enlarged (Fig. 74). Scutellum wide, ogival with four points near the apex.

Prothorax with setigerous punctures on the posterior angle of the sides; pronotum with large rare punctures and slightly anastomized in the posterior third of the sides; disc with a few punctures, which are slightly more condensed in the middle of the anterior margin.

Elytra with regular rows of punctures, some small punctures between the rows.

Lateral margins of the hypomeres with a dense striation. Prosternal appendix bordered, enlarged at the margin, which hardly bulge the anterior hips. External margins of the metaventrite, base of the mesoepimeres and metepisterna with two nearly parallel series of punctures.

Legs plump with a tooth at the apex of the tibiae; claws appendiculate.

Aedeagus as in Fig. 75.

Etymology. To our colleague Michael Geiser for his passion for entomology and his extraordinary dynamic for collecting and studying.

Differential diagnosis. Because of the characteristic coloration and the shape of the aedeagus the species is easy to be recognized and cannot be confused with other species of the subgenus.

Chalcolampra Blanchard, 1853

The species of this genus have the anterior cotyloid cavity closed. The genus belongs to the subtribe Entomoscelina. For a while it was isolated as Phyllocharina (*sensu auctorum*) because of the appendiculate claws, while Entomoscelina have simple claws. In this study we consider *Chalcolampra* as belonging to the Entomoscelina and *Phola* Weise, 1890 as a subgenus of *Chalcolampra*.

Chalcolampra (*Phola*) *sedecimpustulata* (Stål, 1857)

Material examined. 1 ex. Laos C. Kham Mouan prov., Ban Khoun Ngeun, 18°07′N, 104°29′E, 200 m, 24.–29.IV.2001, Pacholátko leg.; 1 ex. Laos C. Kham Mouan prov., Ban Khoun Ngeun, 18°07′N, 104°29′E, 200 m, 24.–29.IV.2001, V. Kubáň leg.; 1 ex. Laos S Udomxai prov. Pak Beng, 19°53′37″N, 101°07′51″E, 450 m, 24.–29.IV.2001, J. Kolibáč leg.; 2 ex. Laos, Savannakhet prov., Phou Xang He NBCA, ca. 5 km SW Ban Pa Phaknau, 20°12′N, 104°01′E, 250–400 m, 31.V.–6.VI.2011, expedition NHMB Basel; 1 ex. Laos NE. Xieng Khouang prov. 30 km NE Phonsavan, Ban Nalam to Phou Sane Mt., 19° 37.8′N, 103°20.1′E, 1300–1700 m, 10.–30.V.2009, M. Geiser leg. (NHMB).

Remarks. The subgenus *Phola* is very similar to *Chalcolampra* s.str., which is exclusive to the Australian region. The only usable characters to separate them are the twisted epipleurae in *Phola* while those of *Chalcolampra* are flat or slightly rounded. The few species of *Chalcolampra,* subgenus *Phola,* are characterized by a series of round yellow spots on a black or brownish underground of the elytra. The monochromatic forms known in *P. octodecimguttata* Fabricius from China (Yunnan) are rare according to the material we have studied. *P. sedecimpustulata* is a species with a completely red pronotum and known from Laos, Thailand and Vietnam (Fig 76).

Lycaria Stål 1857

Lycaria is a monospecific genus from Asia and very similar to the Afrotropical genus *Oidosoma* Quedenfeldt, 1891. Probably the latter taxon is a synonym of *Lycaria*.

Lycaria westermanni Stål, 1857

Material examined. 16 ex. Laos S Udomxai prov. Pak Beng, 19°53′37″N, 101°07′51″E, 450 m, 18.–27.V.2001, J. Kolibáč leg.; 29 ex. Laos Xayaboury prov. 19°36′N, 101°06–08′E, Muang Ngeun to Ban Nangeun env. 500–600 m, 4.–5.VII.2010, D. Hauck leg.; 1 ex. Laos, Savannakhet prov., Phou Xang He NBCA, ca. 5 km SW Ban Pa Phaknau, 20°12′N, 104°01′E, 250–400 m, 31.V.–6.VI.2011, expedition NHMB Basel; 9 ex. Laos, Bokeo prov., 5 km SW Ban Toup, Bokeo nature Reserve, 20°27–28′N, 100°45′E, 500–700 m, 4.–18.V.2011, expedition NHMB Basel; 3 ex. Laos Louang Prabang prov. 19°33–34′N, 101°57′E, Thong Khan env. 670–1160 m, 30.VI.–1.VII.2010, M. Brancucci & M. Geiser leg.; 2 ex. Laos Louang Prabang prov. 19°33′N, 101°58′E, Thong Khan 750 m, 11. –21.V.2002, V. Kubáň leg.; 1 ex. Laos Viangchan prov. 18°34–46′N, 102°22.4′E, 70–90 km NNW Vientiane 260–450 m, 3.V.1997, V. Kubáň leg.; 1 ex. Laos centr., 70 km N Vientiane Ban Phabat env., 18°16.1′N, 103°10.9′E, 150 m, 1.V.1997, V. Kubáň leg. (NHMB).

Remarks. The species (Fig. 77) is widely distributed in N India, Assam, Thailand, Myanmar and Laos. As host plants are reported species of the family Lauraceae.

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