

# The Oriental species of *Platydemia* Laporte & Brullé, part 2, with descriptions of 11 new species (Coleoptera: Tenebrionidae: Diaperinae)<sup>1</sup>

WOLFGANG SCHAWALLER

## Abstract

The following 11 species of the genus *Platydemia* Laporte & Brullé, 1831 (Tenebrionidae, subfamily Diaperinae Latreille, 1802) from the Oriental Region are described as new: *Platydemia bicolicum* n. sp. (Luzon), *P. brancuccii* n. sp. (Laos), *P. brendelli* n. sp. (Borneo), *P. fouqueorum* n. sp. (Thailand), *P. pendolocum* n. sp. (Sulawesi), *P. quezonicum* n. sp. (Luzon), *P. sampunacum* n. sp. (Sulawesi), *P. saundersi* n. sp. (W Malaysia, Singapore, Sulawesi), *P. wallacei* n. sp. (Bali), *P. weberi* n. sp. (Sulawesi), and *P. zetteli* n. sp. (Luzon). A lectotype is designated for *Platydemia lynceum* Lewis, 1894 (*P. ussurianum* Kaszab, 1977 n. syn.). Additionally, new records of several known species are listed, which significantly extend the distributional patterns in the Oriental and adjacent Palaearctic Regions.

**Key words:** Coleoptera, Tenebrionidae, Diaperinae, *Platydemia*, Oriental Region, new species, new records.

## Zusammenfassung

Die folgenden 11 Arten der Gattung *Platydemia* Laporte & Brullé, 1831 (Tenebrionidae, Unterfamilie Diaperinae Latreille, 1802) aus der orientalischen Region werden beschrieben: *Platydemia bicolicum* n. sp. (Luzon), *P. brancuccii* n. sp. (Laos), *P. brendelli* n. sp. (Borneo), *P. fouqueorum* n. sp. (Thailand), *P. pendolocum* n. sp. (Sulawesi), *P. quezonicum* n. sp. (Luzon), *P. sampunacum* n. sp. (Sulawesi), *P. saundersi* n. sp. (W Malaysia, Singapur, Sulawesi), *P. wallacei* n. sp. (Bali), *P. weberi* n. sp. (Sulawesi) und *P. zetteli* n. sp. (Luzon). Für *Platydemia lynceum* Lewis, 1894 (*P. ussurianum* Kaszab, 1977 n. syn.) wird ein Lectotypus festgelegt. Zusätzlich werden neue Nachweise von mehreren bekannten Arten aufgelistet, die die bislang bekannten Verbreitungsmuster in der orientalischen und angrenzenden paläarktischen Region wesentlich erweitern.

## Contents

|   |                                   |     |
|---|-----------------------------------|-----|
| 1 | Introduction.....                 | 243 |
| 2 | New species.....                  | 244 |
| 3 | New records of known species..... | 252 |
| 4 | References.....                   | 254 |

## 1 Introduction

After the publication of several taxonomic and faunistic papers on the genus *Platydemia* Laporte & Brullé, 1831 (Tenebrionidae, subfamily Diaperinae Latreille, 1802) from the Oriental and Papuan Regions (GEBIEN 1925; GRIMM 2010; SCHAWALLER 2003, 2004, 2008) and from China (HUANG & REN 2009), newly collected or newly recognized specimens of *Platydemia* were found in different collections, and are reported in the present paper, continuing SCHAWALLER (2004) which is regarded as “part 1”. The first part of the present paper contains the descriptions of 11 species new to science from that area. In the second part, several new records of known species are listed, which significantly extend their distributional patterns in the Oriental Region.

## Acronyms of depositories

|      |  |
|------|--|
| BMNH | The Natural History Museum, London   |
| CAPE | Collection ANDREAS PÜTZ, Eisenhüttenstadt                                  |
| CASH | Collection ANDRÉ SKALE, Hof/Saale  |
| CLPB | Collection LUBOŠ PURCHAT, Brno   |
| CRFL | Collection RENÉ FOUQUÉ, Liberec  |
| CRGT | Collection ROLAND GRIMM, Tübingen  |
| HNHM | Hungarian Natural History Museum, Budapest                                 |
| MHNL | Muséum d’Histoire Naturelle, Lyon  |
| NHMB | Naturhistorisches Museum, Basel  |
| NMP  | National Museum (Natural History), Prague                                  |
| SMNS | Staatliches Museum für Naturkunde, Stuttgart                               |
| UPLB | Museum of Natural History, University of the Philippines Los Baños, Laguna |
| ZSM  | Zoologische Staatssammlung, München  |

<sup>1</sup> Contributions to Tenebrionidae, no. 95. – For no. 94 see: Annales zoologici 61 (2011).

## A c k n o w l e d g e m e n t s

For the trustful and long-term loan of specimens as well as for the opportunity to retain some voucher specimens for SMNS I thank my colleagues and friends Dr. KYOSHI ANDO (Osaka), Dr. MICHAEL BALKE (Munich), MAX BARCLAY and BEULAH GARNER (London), Dr. MICHEL BRANCUCCI (Basel), RENÉ FOUQUÉ (Liberec), Dr. ROLAND GRIMM (Tübingen), Dr. JIŘÍ HÁJEK (Prague), Dr. HAROLD LABRIQUE (Lyon), Dr. OTTÓ MERKL (Budapest), ANDREAS PÜTZ (Eisenhüttenstadt), LUBOŠ PURCHAT (Brno), ANDRÉ SKALE (Hof/Saale), and Dr. HERBERT ZETTEL (Vienna).

The photographs were taken by JOHANNES REIBNITZ (Stuttgart) with a Leica DFC320 digital camera on a Leica MZ16 APO microscope and subsequently processed by him with Auto-Montage (Syncroscopy) software. He also scanned my drawings and mounted them on plates. Last but not least I thank both referees for improvements.

## 2 New species

*Platydemia bicolicum* n. sp.

(Figs. 4, 13–15)

**Holotype** (♂): Philippines, Luzon, Camarines Norte, S Daet, Bicol NP, Nalisan, 26.II.2004, leg. H. ZETTEL & C. V. PANGANTHON, UPLB.

**Paratypes**: Same data as holotype, 2 ex. SMNS. – Philippines, Luzon, Camarines Norte, S Daet, Bicol NP, Nalisan, 21.II.2005, leg. H. ZETTEL, 7 ex. UPLB, 2 ex. SMNS.

**Etymology**: Named after the type locality in Bicol National Park.

**Description**: Body length 4.3–4.8 mm. Dorsal side glabrous, monochromatic dark ferrugineous, only elytra at base and suture slightly lighter, surface without metallic shine; tibiae, tarsi and antenna lighter (Fig. 4). Head with fine punctation, punctures on frons distinctly larger. Head in males (Fig. 14) without any sexual characters. Proportions of the antennal segments as in Fig. 13, antennomere 3 short. Pronotum convex and with feeble basal foveae, with finer punctation than on head. Basal margin completely unbordered, distal and lateral margins finely and completely bordered; anterior margin feebly emarginate and anterior corners not protruding. Propleura with larger punctation than on pronotum, with short setation. Elytra convex and long-oval, 1.4 times as long as wide, besides scutellar row and lateral margin with 8 rows of punctures without striae (third row with approximately 43 punctures). Intervals flat and with similar fine punctation as on pronotum, without setation. Abdominal ventrites with short setation, lateral punctures sometimes confluent and interspaces between them wrinkled. Legs normal, male tarsi not dilated, tibiae externally with indistinct crenulated keels. Aedeagus as in Fig. 15.

**Diagnosis**: *Platydemia bicolicum* n. sp. is distinguished by its moderate body length, the long-oval, nearly

parallel elytra, the monochromatic dark ferrugineous dorsal surface without metallic shine and without setation, the unarmed male head, and the shape of the aedeagus. *Platydemia orientalis* Gebien, 1911 from Indochina etc. (figured in SCHAWALLER 2004: figs. 25, 124–126) has similarly long elytra and dark ferrugineous surface without colour pattern, but the male head is armed with two horns and an anteromedial tubercle, and the shape of the aedeagus is different.

*Platydemia brancuccii* n. sp.

(Figs. 1, 16–18)

**Holotype** (♂): NE Laos, Hua Phan Prov., Phu Phan Mt., 1500–1900 m, 17.V.–3.VI.2007, leg. M. BRANCUCCI, NHMB.

**Etymology**: Named in honour of Dr. MICHEL BRANCUCCI, collector of the holotype and curator of Coleoptera in NHMB.

**Description**: Body length 6.5 mm. Dorsal side glabrous and with monochromatic greenish metallic shine; tibiae, tarsi and antenna lighter (Fig. 1). Head with distinct punctation. Head in males (Fig. 17): frons with two symmetrical distinct horns, without setation; clypeus with anteromedial tubercle. Proportions of the antennal segments as in Fig. 16, antennomere 3 short. Pronotum convex and with feeble basal foveae, with distinctly finer punctation than on head, punctation nearly invisible. Basal margin completely unbordered, distal and lateral margins finely and completely bordered; anterior margin feebly emarginate and anterior corners not protruding. Propleura with longitudinal wrinkles, and with short setation. Elytra convex and round-oval, 1.2 times as long as wide, besides scutellar row and lateral margin with 8 rows of punctures without striae (third row with approximately 46 punctures). Intervals flat and with an extremely fine, nearly invisible punctation similar to that on pronotum, without setation. Abdominal ventrites with short setation, lateral punctures sometimes confluent and interspaces between them wrinkled. Legs normal, male tarsi not dilated, tibiae externally with indistinct crenulated keels. Aedeagus as in Fig. 18.

**Diagnosis**: *Platydemia brancuccii* n. sp. shares its general body size, the elytral punctural rows without striae, the flat elytral intervals and shape as well as the monochromatic dorsal metallic shine with *P. chalceum* Gebien, 1925 (widespread), *P. ceroprioides* Gebien, 1927 (widespread) and *P. higonium* Lewis, 1894 (Japan). *P. chalceum* possesses a similar extremely fine, nearly invisible punctation on pronotum and elytral intervals, and even the aedeagus is similar, however the male head is without armature and without anteromedial tubercle. *P. ceroprioides* and *P. higonium* have the male head with a pair of similar horns without setation, but in these species the clypeus is also without

anteromedial tubercle, the punctation on pronotum and elytral intervals is denser and larger, and the aedeagi are different.

*Platydema brendelli* n. sp.

(Figs. 3, 19–21)

**Holotype** (♂): Indonesia, Borneo, Kalimantan Tengah, Busang/Rekut confluence, 0° 03' S/113° 59' E, VIII.2001, leg. M. BRENDELL & H. MENDEL, BMNH.

**Etymology**: Named in honour of MARTIN J. D. BRENDELL (London), collector of the holotype and former curator of Coleoptera in BMNH.

**Description**: Body length 3.0 mm. Dorsal side glabrous and with colour pattern: head, pronotum and elytra ferruginous without metallic shine; elytra at base and in the middle with a dark ferruginous transverse band connected at the suture; tibiae, tarsi and antenna lighter (Fig. 3). Head only in distal part with fine punctation. Head in males (Fig. 20): frons with two slightly asymmetrical distinct and broad horns, left horn slightly bent more outwards, apical parts of the horns without setation; clypeus with anteromedial tubercle. Proportions of the antennal segments as in Fig. 19, antennomere 3 short. Pronotum convex, with coarser and denser punctation than on head, punctures with microsetae, interspaces shagreened, dull; pronotum with feeble basal foveae. Basal margin completely unbordered, distal and lateral margins finely and completely bordered; anterior margin feebly emarginate and anterior corners not protruding. Propleura with sparser and finer punctation than on pronotal disc. Elytra convex and oval, 1.3 times as long as wide, besides scutellar row and lateral margin with 8 rows of punctures without striae (third row with approximately 45 punctures). Intervals flat and with distinctly finer punctation than on pronotum, with microsetae. Abdominal ventrites with microsetae, lateral punctures sometimes confluent and interspaces between them wrinkled. Legs normal, male tarsi not dilated, tibiae externally with indistinct crenulated keels. Aedeagus as in Fig. 21.

**Diagnosis**: This species is characterized by the pair of distinct broad horns on the male head (female unknown), which cannot be confused with other species.

**Remarks**: It is uncertain, if this species really belongs to *Platydema*, or if it was better assigned to the genus *Neomida* Latreille, 1829. At least the characteristic armature of the male head occurs also in that genus. However, *Neomida* may be a polyphyletic assemblage of species, which is mainly distributed in the Americas, although a few species were also recorded from the Oriental and Papuan regions (e. g. *Neomida tricornis* Gebien, 1925 or *Neo-*

*mida shiva* Schawaller, 2002 (SCHAWALLER 2002). As the differences between *Platydema* and *Neomida* are “weak” and were not revised in detail, the new taxon is provisionally placed in *Platydema*.

*Platydema fouqueorum* n. sp.

(Figs. 2, 22–24)

**Holotype** (♂): Thailand, Nakhon Ratchasima Prov., Khao Yai, 14° 26' N/101° 24' E, 26.–29.VI.2004, leg. R. & H. FOUQUÉ, CRFL.

**Paratypes**: Same data as holotype, 18 ex. CRFL, 6 ex. SMNS, 2 ex. BMNH, 2 ex. HHNM.

**Etymology**: Named in honour of RENÉ and HELENA FOUQUÉ (Liberec), who collected the type series.

**Description**: Body length 2.5–3.0 mm. Dorsal side glabrous, shining and with a distinct colour pattern: head, pronotum and elytra ferruginous without metallic shine; elytra at base with a dark ferruginous indistinctly separated spot and in the middle with a dark ferruginous transverse band interrupted at the suture; tibiae, tarsi and antenna lighter (Fig. 2). Head with distinct punctation. Head in males (Fig. 23): frons with two symmetrical or slightly asymmetrical short and broad horns, right horn in some specimens slightly longer, apical parts of the horns without setation; clypeus without anteromedial tubercle. Proportions of the antennal segments as in Fig. 22, antennomere 3 short. Pronotum convex and with feeble basal foveae, with finer and sparser punctation than on head. Basal margin completely unbordered, distal and lateral margins finely and completely bordered; anterior margin feebly emarginate and anterior corners not protruding. Propleura with feeble longitudinal wrinkles, and with short setation. Elytra convex and oval, 1.3 times as long as wide, besides scutellar row and lateral margin with 8 rows of punctures in feeble striae (third row with approximately 45 punctures). Intervals slightly convex and with distinctly finer punctation than on pronotum, with microsetae. Abdominal ventrites with short setation, lateral punctures sometimes confluent and interspaces between them wrinkled. Legs normal, male tarsi not dilated, tibiae externally with indistinct crenulated keels. Aedeagus as in Fig. 24.

**Diagnosis**: With the widespread *Platydema pallidicolle* Lewis, 1894 (figured in SCHAWALLER 2004: figs. 16, 136–138), *P. fouqueorum* n. sp. shares a relatively small body size, the dorsal colour pattern (ferruginous without metallic shine, elytra with darker basal part and transverse band in the middle) and the microsetae on the elytral intervals, but is distinguished by the armed head in males (without armature in *P. pallidicolle*), by shining surface of the elytra (dull in *P. pallidicolle*), and by a different shape of the aedeagus (apical triangular with sinuated sides and longer than half of basale in *P. fouqueorum* n. sp., apical

triangular with straight sides and shorter than half of basale in *P. pallidicolle*). See also under *Platydema zetteli* n. sp. from the Philippines (Figs. 9, 46–48).

*Platydema pendolocum* n. sp.

(Figs. 6, 28–30)

**Holotype** (♂): C Sulawesi, 17 km E Pendolo, 2° 06' S/120° 46' E, 800 m, 4.–9.VII.1999, leg. L. BOLM, SMNS.

**Paratypes**: Same data as holotype, 2 ex. SMNS. – C Sulawesi, 20 km NE Palu, 5 km W Tawaeli, 0° 44' S/119° 56' E, 250 m, 2.III.2009, leg. A. SKALE, 1 ex. CASH.

**Etymology**: Named after the type locality in the vicinity of Pendolo Village, Sulawesi.

**Description**: Body length 4.3–5.0 mm. Dorsal side ferruginous without distinct colour pattern, with dull pronotum and elytra, covered with microsetae; tibiae, tarsi and antenna lighter (Fig. 6). Head with fine punctation. Head in males (Fig. 29): frons with two slightly asymmetrical distinct horns, left horn slightly longer and broader, apical parts of both horns with a brush of setae; clypeus with anteromedial tubercle. Proportions of the antennal segments as in Fig. 28, antennomere 3 short. Pronotum convex and with feeble basal foveae, with similar punctation as on head, punctures with microsetae, surface dull shagreened. Basal margin completely unbordered, distal and lateral margins finely and completely bordered; anterior margin feebly emarginate and anterior corners not protruding. Propleura with similar punctation as on pronotum, but with distinctly longer setation. Elytra convex and oval, 1.2 times as long as wide, besides scutellar row and lateral margin with 8 rows of punctures without striae (third row with approximately 57 punctures). Intervals dull and slightly convex, with distinctly finer punctation than on pronotum, punctures with microsetae. Abdominal ventrites shining, with short setation, lateral punctures sometimes confluent and interspaces between them wrinkled. Legs normal, male tarsi not dilated, tibiae externally with indistinct crenulated keels. Aedeagus as in Fig. 30.

**Diagnosis**: *P. pendolocum* n. sp. is part of the species group comprising *P. sericeum* Gebien, 1914 (widespread), *P. latemarginatum* Gebien, 1927 (so far only Sumatra) and *P. omissum* Grimm, 2010 (widespread) by the bihorned male head and the ferruginous, dull pronotum and elytra, covered with microsetae. GRIMM (2010) discussed and figured this group in detail. *P. pendolocum* n. sp. from Sulawesi differs from these species by the male head with two asymmetrical horns (left horn longer), by both horns apically with long setae, and mainly by a completely different shape of the aedeagus (compare GRIMM 2010: figs. 20–23).

*Platydema quezonicum* n. sp.

(Figs. 7, 34–36)

**Holotype** (♂): Philippines, Luzon, Quezon Atimonan, Quezon NP, old Zigzag road, 24.–30.III.1998, leg. H. ZETTEL, UPLB.

**Paratypes**: Same data as holotype, 3 ex. UPLB, 2 ex. SMNS.

**Etymology**: Named after the type locality in the Quezon National Park.

**Description**: Body length 3.2–3.5 mm. Dorsal side glabrous, monochromatic dark ferruginous with distinct bluish metallic shine; tibiae, tarsi and antenna light ferruginous (Fig. 7). Head of males with extremely fine, nearly invisible punctation; of females with distinct punctation on frons. Head in males (Fig. 35): frons with two symmetrical long and narrow horns without setation; clypeus without anteromedial tubercle. Proportions of the antennal segments as in Fig. 34, antennomere 3 short. Pronotum convex and with feeble basal foveae, with finer punctation than on female head. Basal margin completely unbordered, distal and lateral margins finely and completely bordered; anterior margin feebly emarginate and anterior corners not protruding. Propleura with similar punctation as on pronotum, with sparse setation. Elytra convex and oval, 1.2 times as long as wide, besides scutellar row and lateral margin with 8 rows of punctures in feeble striae (third row with approximately 40 punctures). Intervals convex and with distinctly finer punctation than on pronotum, without setation. Abdominal ventrites with short setation, lateral punctures sometimes confluent and interspaces between them wrinkled. Legs normal, male tarsi not dilated, tibiae externally with indistinct crenulated keels. Aedeagus as in Fig. 36.

**Diagnosis**: Male *Platydema quezonicum* n. sp. have long symmetrical horns without setation, similar to the male *P. recticorne* Lewis, 1894 from Japan and Korea (compare SCHAWALLER 2004: figs. 24, 151–153), but is smaller in the average (3.5–4.5 mm in *P. recticorne*), has a distinctly bluish metallic glance (feebly bronze in *P. recticorne*), nearly unpunctured male head without anteromedial tubercle (punctured head with tubercle in *P. recticorne*), and a different shape of the aedeagus. *Platydema capreolum* (Chevrolat, 1877) from India and Indochina (compare SCHAWALLER 2003: figs. 10–12, pl. 4) and the widespread *P. marseuli* Lewis, 1894 (compare SCHAWALLER 2004: figs. 21, 106–108) are also somewhat larger, have shorter symmetrical horns on the male head, and the shapes of the aedeagi are different. *Platydema saundersi* n. sp. (Figs. 8, 31–33) shares also the small body size with metallic glance, but the male head bears asymmetrical horns partly with setation, and the shape of the aedeagus is also different.

*Platydema sampunacum* n. sp.

(Figs. 11, 37–39)

**Holotype** (♂): S Sulawesi, Palopo, Gunung Sampuna, 800–1050 m, 15.–16.IX.1997, leg. A. RIEDEL, ZSM.

**Paratypes**: Same data as holotype, 3 ex. ZSM, 2 ex. SMNS, 2 ex. CRGT.

**Etymology**: Named after Gunung (= Mt.) Sampuna, where the type series was collected.

**Description**: Body length 3.8–4.2 mm. Dorsal side glabrous and with colour pattern: head dark ferruginous, pronotum light ferruginous, elytra dark ferruginous, each elytron with a large longitudinal light ferruginous patch reaching tip but not base of elytron, sometimes longitudinal patch indistinctly interrupted in the middle, surface without metallic shine; tibiae, tarsi and antenna lighter (Fig. 11). Head with fine punctation, punctures on frons distinctly larger. Head in males (Fig. 38) without any sexual characters. Proportions of the antennal segments as in Fig. 37, antennomere 3 short. Pronotum convex and with feeble basal foveae, with finer punctation than on head. Basal margin completely unbordered, distal and lateral margins finely and completely bordered; anterior margin feebly emarginate and anterior corners not protruding. Propleura with similar punctation as on pronotum, with short setation. Elytra convex and oval, 1.3 times as long as wide, besides scutellar row and lateral margin with 8 rows of punctures without striae (third row with approximately 35 punctures). Intervals flat and with similar fine punctation as on pronotum, without setation. Abdominal ventrites with short setation, lateral punctures sometimes confluent and interspaces between them wrinkled. Legs normal, male tarsi not dilated, tibiae externally with indistinct crenulated keels. Aedeagus as in Fig. 39.

**Diagnosis**: *Platydema sampunacum* n. sp. shares with *P. perpolitum* Gebien, 1925 (widespread) and *P. suturatum* Gebien, 1927 (Borneo, Sumatra) the unarmed male head and a similar colour pattern of the elytra, besides similar body size and shape. In *P. suturatum* (figured in SCHAWALLER 2004: figs. 28, 184–186), however, the elytral patch on the elytra is combined along suture, and the aedeagus is different. In *P. perpolitum* (figured in SCHAWALLER 2004: figs. 19, 142–144) even the aedeagus is similar as in *P. sampunacum* n. sp., but the colour pattern is different with two spots on each elytron, the body in general is more flat, the pronotum is wider and the punctures in the elytral rows are larger.

*Platydema saundersi* n. sp.

(Figs. 8, 31–33)

**Holotype** (♂): W Malaysia, Perak, 30 km SW Ipoh, Teronoh Lakes, Batu Gajah, 100 m, 19.–21.III.2002, leg. P. ČECHOVSKÝ, SMNS.

**Paratypes**: Sulawesi, Prov. Tengah, Morowali, Ranu River area, 27.I.–20.IV.1980, leg. M. BRENDILL, 1 ex. BMNH. – Singapore, 1922, leg. C. J. SAUNDERS, 12 ex. BMNH.

**Etymology**: Named in honour of the British officer CHARLES JAMES SAUNDERS, who already collected in 1922 several specimens of this species in Singapore.

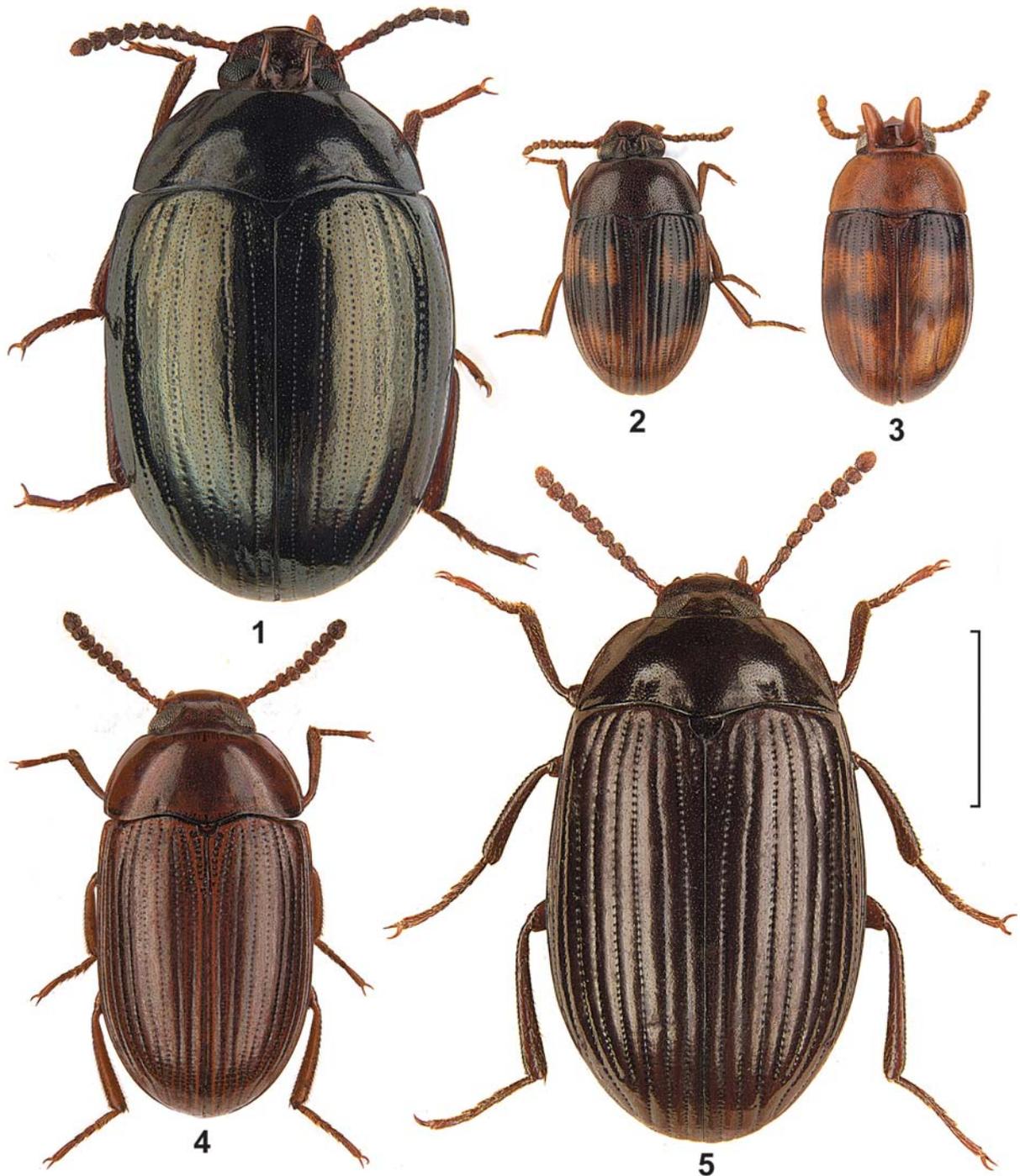
**Description**: Body length 2.2–3.2 mm. Dorsal side glabrous, monochromatic dark ferruginous with feeble greenish metallic shine; tibiae, tarsi and antenna light ferruginous (Fig. 8). Head with distinct punctation. Head in males (Fig. 32): frons with two asymmetrical distinct horns, right horn longer, only right horn apically with brush of setae; clypeus with anteromedial tubercle. Proportions of the antennal segments as in Fig. 31, antennomere 3 short. Pronotum convex and with feeble basal foveae, with similar punctation as on head. Basal margin completely unbordered, distal and lateral margins finely and completely bordered; anterior margin feebly emarginate and anterior corners not protruding. Propleura with finer punctation than on pronotum, without setation. Elytra convex and oval, 1.3 times as long as wide, besides scutellar row and lateral margin with 8 rows of punctures in feeble striae (third row with approximately 40 punctures), punctures of rows of similar large size as on pronotum. Intervals convex and with distinctly finer punctation than on pronotum, without setation. Abdominal ventrites with short setation, lateral punctures sometimes confluent and interspaces between them wrinkled. Legs normal, male tarsi not dilated, tibiae externally with indistinct crenulated keels. Aedeagus as in Fig. 33.

**Diagnosis**: *Platydema saundersi* n. sp. shares with the widespread *P. subfascium* Walker, 1858 (figured in SCHAWALLER 2003: figs. 4, 16–18) the morphology of the male head with two asymmetrical horns, with the right horn longer and with a brush of setae only apically on the right horn. This species group also includes *P. masumotoi* Schawaller, 2004 (Borneo) and *P. thijlberti* Grimm, 2010 (Borneo). *P. saundersi* n. sp. is characterized by a small body size of 2.2–3.2 mm, all other species are larger than 3.0 mm in the average. Additionally, in *P. saundersi* n. sp. the anteromedial tubercle on the male head is relatively prominent, the dorsal side is monochromatic dark ferruginous with a feeble metallic shine (without colour pattern as in *P. subfascium* etc.), the punctures on pronotum and in the elytral rows are relatively large, and the aedeagus is different. See also under *Platydema quezonicum* n. sp. from Luzon.

*Platydema wallacei* n. sp.

(Figs. 10, 40–42)

**Holotype** (♂): Bali, SSE Penolakan, above Danau Batur, 1100 m, 14.XII.2007, leg. R. GRIMM, CRGT.



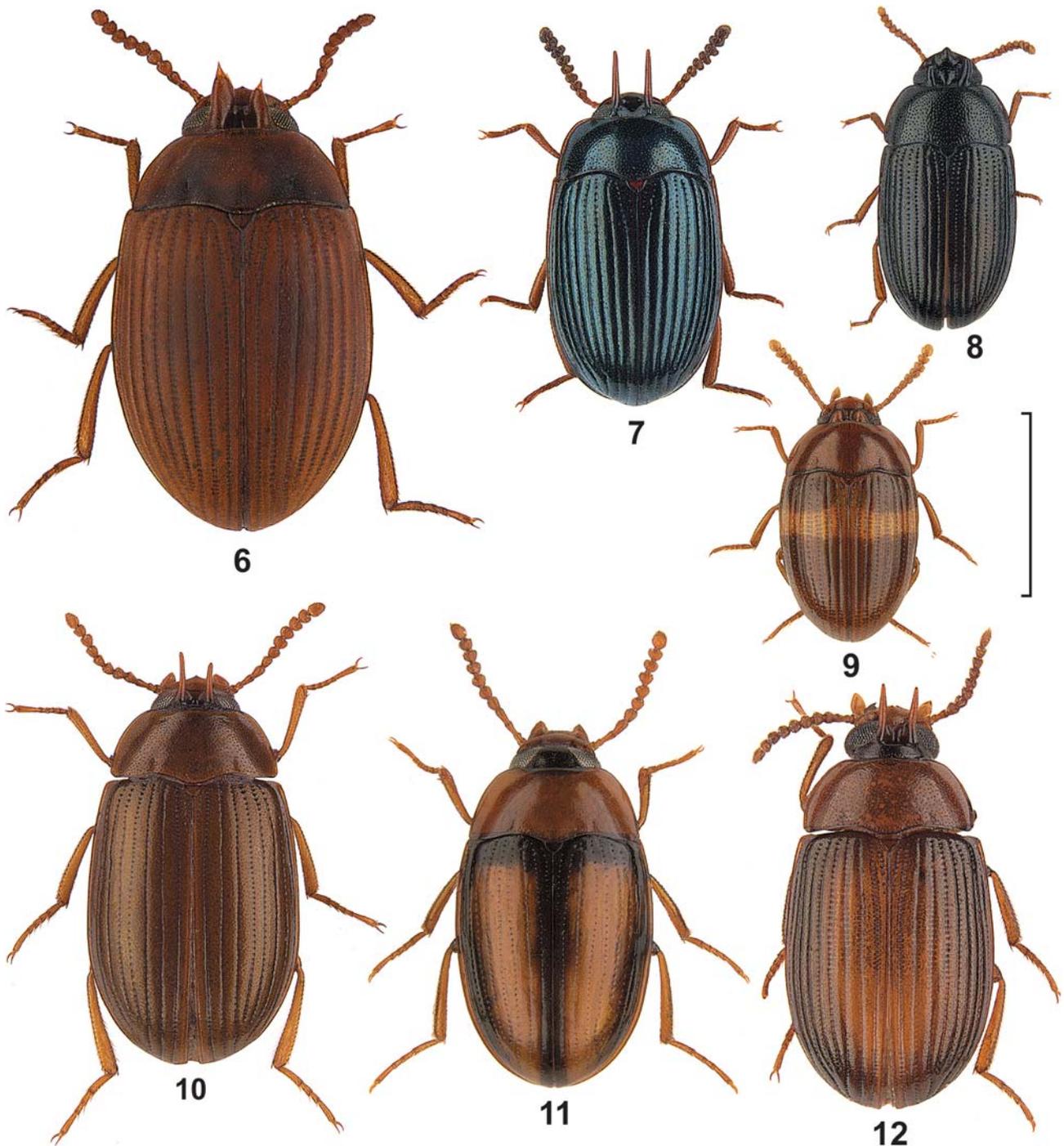
**Figs. 1–5.** Dorsal view of male *Platydema* spp. – 1. *P. brancuccii* n. sp., holotype NHMB. 2. *P. fouqueorum* n. sp., holotype CRFL. 3. *P. brendelli* n. sp., holotype BMNH. 4. *P. bicolicum* n. sp., paratype SMNS. 5. *P. lynceum* Lewis, 1894, paralectotype BMNH. – Scale: 2 mm.

Paratypes: Same data as holotype, 2 ex. CRGT, 1 ex. SMNS.

**Etymology:** Named in honour of ALFRED RUSSEL WALLACE (1823–1913), who investigated the Indo-Malayan Archipelago between the years 1854–1862. In zoogeography, the Wallace

Line (named 1868 by THOMAS HENRY HUXLEY) is situated between Bali and Lombok.

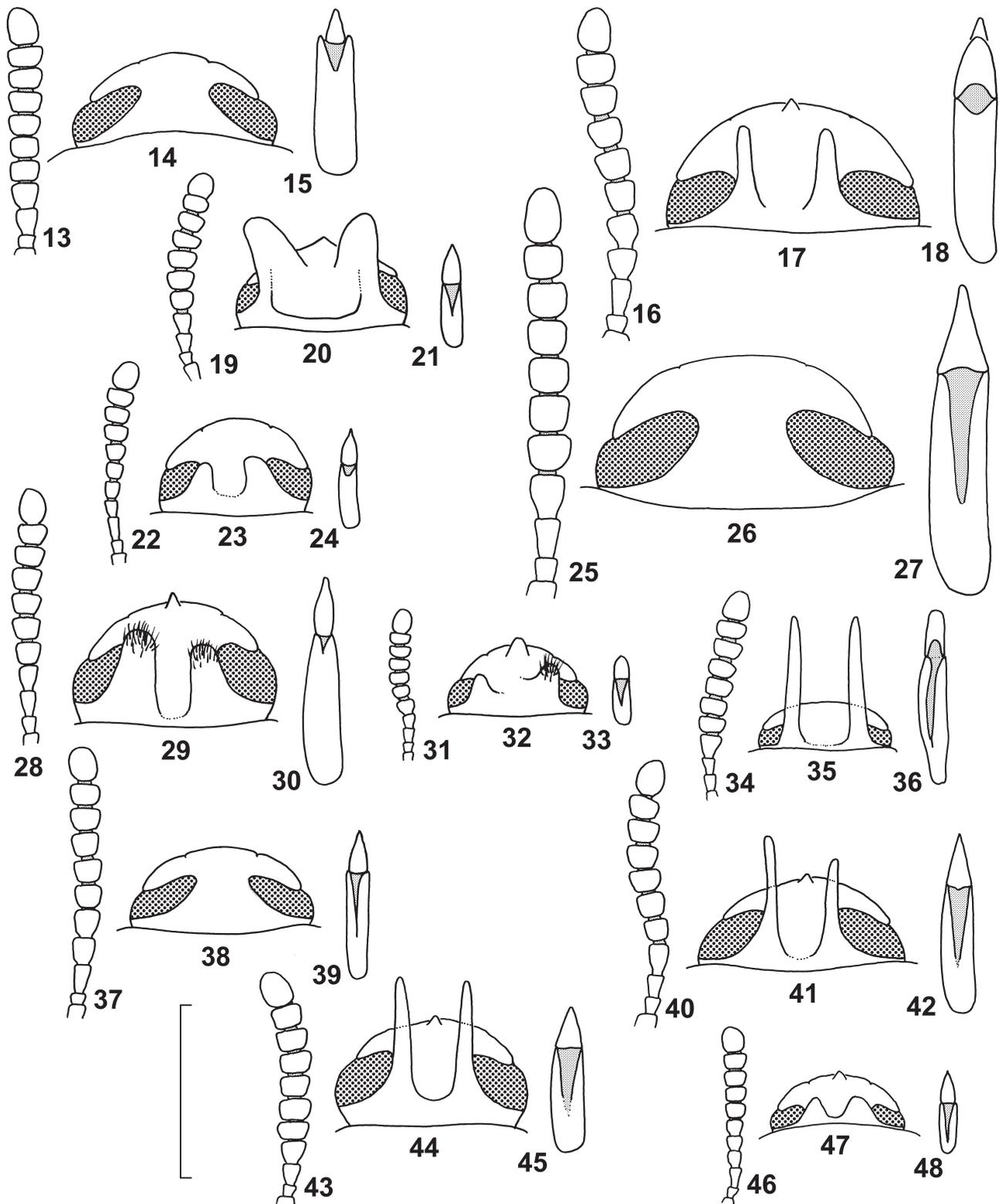
**Description:** Body length 4.0–4.2 mm. Dorsal side glabrous, monochromatic light ferruginous with a weak bronze shine, suture somewhat lighter; tibiae, tarsi



**Figs. 6–12.** Dorsal view of male *Platydema* spp. – 6. *P. pendolocum* n. sp., paratype CASH. 7. *P. quezonicum* n. sp., holotype UPLB. 8. *P. saundersi* n. sp., holotype SMNS. 9. *P. zetteli* n. sp., holotype UPLB. 10. *P. wallacei* n. sp., holotype CRGT. 11. *P. sampunacum* n. sp., holotype ZSM. 12. *P. weberi* n. sp., holotype BMNH. – Scale: 2 mm.

and antenna light ferruginous (Fig. 10). Head with fine punctation. Head in males (Fig. 41): frons with two long and narrow horns, either of same length, or right horn somewhat longer, or left horn somewhat longer (holotype), both horns without setation; clypeus with anteromedial tu-

bercle. Proportions of the antennal segments as in Fig. 40, antennomere 3 short. Pronotum convex and with feeble basal foveae, with similar punctation as on head. Basal margin completely unbordered, distal and lateral margins finely and completely bordered; anterior margin feebly



**Figs. 13–48.** Male head, antenna and aedeagus of *Platydema* spp. – 13–15. *P. bicolicum* n. sp., holotype UPLB. 16–18. *P. brancucii* n. sp., holotype NHMB. 19–21. *P. brendelli* n. sp., holotype BMNH. 22–24. *P. fouqueorum* n. sp., holotype CRFL. 25–27. *P. lynceum* Lewis, 1894, lectotype BMNH. 28–30. *P. pendolocum* n. sp., holotype SMNS. 31–33. *P. saundersi* n. sp., holotype SMNS. 34–36. *P. quezonicum* n. sp., holotype UPLB. 37–39. *P. sampunacum* n. sp., holotype ZSM. 40–42. *P. wallacei* n. sp., holotype CRGT. 43–45. *P. weberi* n. sp., holotype BMNH. 46–48. *P. zetteli* n. sp., holotype UPLB. – Scale: 1 mm.

emarginate and anterior corners not protruding. Propleura with similar punctation as on pronotum, with setation. Elytra convex and oval, 1.3 times as long as wide, besides scutellar row and lateral margin with 8 rows of punctures in feeble striae (third row with approximately 47 punctures). Intervals flat and with similar punctation as on pronotum, without setation. Abdominal ventrites with short setation, lateral punctures sometimes confluent and interspaces between them wrinkled. Legs normal, male tarsi not dilated, tibiae externally with indistinct crenulated keels. Aedeagus as in Fig. 42.

**Diagnosis:** Like *Platydema recticorne* Lewis, 1894 (Japan, Korea) (figured in SCHAWALLER 2004: figs. 24, 151–153) and *P. seramicum* Schawaller, 2008 (Seram), *P. wallacei* n.sp. possesses on the male head a pair of similar long horns without setation and a clypeus with anteromedial tubercle, besides similar body shape, size and colour. However, in those species the elytral intervals are distinctly convex, the punctation of pronotum and elytral rows are larger and denser, and the aedeagi are different. *P. weberi* n.sp. (Sulawesi) has also a male head with two long horns and anteromedial tubercle, but this species has a distinct colour pattern on the dorsal side, convex elytral intervals, and a different aedeagus.

*Platydema weberi* n. sp.  
(Figs. 12, 43–45)

**Holotype** (♂): Sulawesi, Prov. Tengah, Morowali, Ranu River area, 27.I.–20.IV.1980, leg. S.L. SUTTON & C.J. REES, BMNH.

**Paratypes:** Same data as holotype, 20 ex. BMNH, 5 ex. SMNS. – Sulawesi, Prov. Utara, Dumoga-Bone NP, 200 m, II.–IV.1985, leg. H. BARLOV (Project Wallacea), 2 ♀♀ BMNH.

**Etymology:** Named in honour of the German/Dutch zoologist MAX WILHELM CARL WEBER (1852–1937), leader of the Siboga-Expedition (1899–1900) to the Indo-Malayan Archipelago, who proposed the zoogeographic Weber Line, a somewhat modified Wallace Line.

**Description:** Body length 4.0–4.5 mm. Dorsal side glabrous, shining and with a distinct colour pattern: dorsal side dark ferruginous without metallic shine, pronotum and a combined large patch in the middle of elytra light ferruginous; tibiae, tarsi and antenna light ferruginous (Fig. 12). Head with fine punctation. Head in males (Fig. 44): frons with two long and narrow horns of same length, both horns without setation; clypeus with anteromedial tubercle. Proportions of the antennal segments as in Fig. 43, antennomere 3 short. Pronotum convex and with feeble basal foveae, with similar punctation as on head. Basal margin completely unborded, distal and lateral margins finely and completely bordered; anterior margin

feebly emarginate and anterior corners not protruding. Propleura with similar punctation as on pronotum, with setation. Elytra convex and oval, 1.3 times as long as wide, besides scutellar row and lateral margin with 8 rows of punctures in feeble striae (third row with approximately 52 punctures). Intervals slightly convex and with similar punctation as on pronotum, without setation. Abdominal ventrites with short setation, lateral punctures sometimes confluent and interspaces between them wrinkled. Legs normal, male tarsi not dilated, tibiae externally with indistinct crenulated keels. Aedeagus as in Fig. 45.

**Diagnosis:** *Platydema weberi* n.sp. belongs to a species group including *P. recticorne* Lewis, 1894 (Japan, Korea) and *P. wallacei* n.sp. (Bali), characterized by a male head with a pair of similar long horns without setation and the clypeus with anteromedial tubercle, besides similar body shape and size. *P. weberi* n.sp. can be separated by a characteristic dorsal colour pattern (Fig. 12), by convex elytral intervals with fine punctation as on pronotum, and by the characteristic shape of the aedeagus (Fig. 45).

*Platydema zetteli* n. sp.  
(Figs. 9, 46–48)

**Holotype** (♂): Philippines, Luzon, Laguna Mt. Maki-ling, 150–500 m, 13.–14.XI.1993, leg. H. ZETTEL, UPLB.

**Etymology:** Named in honour of Dr. HERBERT ZETTEL (Vienna), who collected the holotype.

**Description:** Body length 2.5 mm. Dorsal side glabrous and with colour pattern: head, pronotum and elytra ferruginous without metallic shine; elytra with a lighter transverse band connected at the suture before the middle; tibiae, tarsi and antenna lighter (Fig. 9). Head in distal part with distinct punctation. Head in males (Fig. 47): frons with two slightly asymmetrical broad angles, left angle slightly longer, apical parts of the angles without setation; clypeus with anteromedial tubercle. Proportions of the antennal segments as in Fig. 46, antennomere 3 short. Pronotum convex and with feeble basal foveae, with finer and sparser punctation than on head, punctures without microsetae, interspaces polished, shining. Basal margin completely unborded, distal and lateral margins finely and completely bordered; anterior margin feebly emarginate and anterior corners not protruding. Propleura with similar punctation as on pronotal disc. Elytra convex and oval, 1.3 times as long as wide, besides scutellar row and lateral margin with 8 rows of punctures without striae (third row with approximately 35 punctures). Intervals feeble convex and with similar fine punctation as on pronotum, without microsetae. Abdominal ventrites with microsetae, lateral punctures sometimes confluent and interspaces between them wrinkled. Legs normal, male tarsi not dilated, tibiae

externally with indistinct crenulated keels. Aedeagus as in Fig. 48.

**Diagnosis:** *Platydema zetteli* n. sp. shares with the widespread *P. pallidicolle* Lewis, 1894 the small body size and the dorsal colour pattern without metallic glance (compare SCHAWALLER 2004: figs. 16, 136–138), but can be separated by an armed male head, by shining dorsal surface without microsetae (dull with microsetae in *P. pallidicolle*), by more convex pronotum and elytra (flat in *P. pallidicolle*), and by different shape of the aedeagus. *Platydema fouqueorum* n. sp. from Malaysia (Figs. 2, 22–24) shares with *P. zetteli* n. sp. the small body size (2.5–3 mm), the dorsal colour pattern, and the armed male head, but differs in the lacking anteromedial tubercle of the male head, in lacking dorsal microsetae, and in a different aedeagus.

### 3 New records of known species

#### *Platydema alticornis* Gravely, 1915

**New material:** Borneo, Kalimantan, 1 ♀ BMNH.

**Distribution:** Nepal, Laos, Vietnam, Taiwan, Yunnan (HUANG & REN 2009), Luzon, Java, Borneo (new record).

#### *Platydema andoi* Schawaller, 2004

**New material:** W Malaysia, Johor, Endau River, Selendang, 29.IV.–6.V.1993, leg. I. JENIS & M. STRBA, 1 ♂ CRGT.

**Distribution:** Borneo (type locality), W Malaysia (new record).

#### *Platydema aurimaculatum* Gravely, 1915

**New material:** Vietnam, Tam Dao, 900 m, 16.–23.V.1991, leg. J. STRNAD, 1 ex. MHNL.

**Distribution:** India, Sri Lanka, Burma [Myanmar], Thailand, Laos, Vietnam (new record), Hainan and Yunnan (HUANG & REN 2009), Taiwan.

#### *Platydema bacanicum* Schawaller, 2008

**New material:** N Sulawesi, 1–2 km S Airmadidi, 260 m, 18.II.2009, leg. A. SKALE, 1 ♂ SMNS.

**Distribution:** Moluccan Islands (type locality Bacan), Sulawesi (new record).

#### *Platydema brahma* Schawaller, 2003

**New material:** N India, Uttaranchal, 30 km N Bageshwar, W Loharket, 1800–1900 m, 24.VI.2003, leg. Z. KEJVAL & M. TRÝZNA, 1 ex. SMNS.

**Distribution:** Nepal (type locality), N India (new record).

#### *Platydema ceroprioides* Gebien, 1927

**New material:** Borneo, Sabah, Poring Hot Springs, 450–600 m, 9.–11.III.2007, leg. W. SCHAWALLER, 1 ♂ SMNS.

**Remarks:** The Borneo specimen listed above is slightly smaller (body length 5 mm) than a few specimens known from other areas (body length 6–7 mm), but agrees in all other characters.

**Distribution:** Sumatra (type locality), Borneo (new record), Sulawesi, W Malaysia, Vietnam.

#### *Platydema chalceum* Gebien, 1925

**New material:** Burma [Myanmar], Chin State, Chin Hills, Orchid Station, 2500 m, 24.–27.VI.2008, leg. M. LANGER, 5 ex. SMNS. – NW Thailand, Doi Inthanon, 1800 m, 27.IV.2004, leg. W. SCHAWALLER, 1 ex. SMNS.

**Distribution:** Java, Borneo, NE India, Burma (new record), Thailand (new record).

#### *Platydema flavopictum* Gebien, 1913

**New material:** NE India, Meghalaya, 1 km E Tura, 500–600 m, 13.–18.V.2002, leg. M. TRÝZNA & P. BENDA, 2 ex. SMNS. – NE Laos, Hua Phan Prov., Phu Phan Mt., 1750 m, 17.V.–3.VI.2007, leg. V. KUBÁŇ, 1 ex. NHMB.

**Distribution:** Taiwan, Burma, Thailand, Laos (new record), NE India (new record).

#### *Platydema fumosum* Lewis, 1894

**New material:** China, Zhejiang, W Tianmu Shan, 550 m, 30.VI.2009, leg. J. COOTER, 1 ex. SMNS. – China, Zhejiang, N Tianmu Village, 500 m, 1.VII.2009, leg. J. COOTER, 1 ex. SMNS.

**Distribution:** Japan, Taiwan, Korea, China (Fujian, Henan, Hubei, Zhejiang).

#### *Platydema javanum* Kaszab, 1939

**Remarks:** New records were published by GRIMM (2010).

**Distribution:** W Malaysia, Thailand, Borneo, Sumatra, Java (type locality), Sulawesi.

*Platydema kovaci* Schawaller, 2004

**New material:** Borneo, W Sarawak, Mt. Matang, XII.1913, leg. G. E. BRYANT, 2 ex. BMNH.

**Remarks:** While all specimens of type series share the dark brown head and pronotum and the elytra distinctly lighter yellow-brown, both newly collected specimens from Borneo are monochromatic dark brown, but all other characters agree with the type series.

**Distribution:** W Malaysia (type locality), Borneo (new record).

*Platydema kurama* Nakane, 1963

**New material:** Japan, Kyoto, Kibune, 20.V.1984, leg. K. ANDO, 2 ex. SMNS (det. ANDO). – Japan, Hyogo Pref., Mt. Yuzuruha, Awaji-Shima Is., 5.VI.2004, leg. M. NISHIKAWA, 1 ex. SMNS (det. ANDO). – China, Shaanxi, Qinling Shan, 6 km E Xunyangba, 23.V.–13.VI.1998, leg. I. H. MARSHAL, 2 ex. NHMB, 1 ex. SMNS.

**Distribution:** Japan (type locality), Korea, China (Shaanxi, new record).

*Platydema latemarginatum* Gebien, 1927

**New material:** Sumatra, Brastagi, Gunung Sibayák, 1450–1900 m, 19.–23.II.1991, leg. L. BOCÁK & M. BOCÁKOVÁ, 1 ex. SMNS. – Sumatra, Jambi Prov., Gunung Kerinci, 1800–2100 m, 6.–7.III.1991, leg. L. BOCÁK & M. BOCÁKOVÁ, 1 ex. SMNS. – Sumatra, Jambi Prov., Kerinci Seblat NP, 7 km E Kayuaro, Mt. Tujuh, 1500–2000 m, 14.–17.II.2002, leg. L. DEMBICKÝ, 2 ex. NHMB.

**Remarks:** Previously considered as synonym of *P. sericeum* Gebien, 1914 (SCHAWALLER 2004), but revalidated by GRIMM (2010). See also diagnosis under *P. pondocum* n. sp.

**Distribution:** Sumatra (type locality).

*Platydema longivittis* Gebien, 1927

**New material:** W Malaysia, Pahang, 30 km E Ipoh, Cameron Highlands, Tanah Rata, 1500 m, 22.–26.I.1999, leg. P. ČECHOVSKÝ, 1 ♂ SMNS.

**Distribution:** Sumatra (type locality), W Malaysia (new record).

*Platydema lynceum* Lewis, 1894  
(Figs. 5, 25–27)

*Platydema ussurianum* Kaszab, 1977 n. syn.

**Examined type material:** Japan, Junsai Lake, leg. G. LEWIS, 1910–320, 1 ♂ syntype BMNH (labelled as *Platydema oculatum* Lewis not *oculatum* Champion, see below), designated here as the lectotype. – Japan, no further dates, leg. G. LEWIS, 1910–320, 1 paralectotype BMNH (sex not examined).

**New material:** Russia, Primorje Kraj, VIII.1971, leg. I. KUSNETZOV, 3 ex. SMNS (labelled in Russian).

**Lectotype designation:** LEWIS (1894) wrote his paper on the Japanese *Platydema* before the publication of CHAMPION (1886) on the American species of *Platydema*, but while LEWIS's paper was in preparation, CHAMPION's paper came out, using many of the same names. Consequently, LEWIS changed the names in his manuscript, to avoid using preoccupied names, but he did not relabel his specimens. LEWIS only labelled two specimens from each series, and these are labelled with the 'old' (manuscript) names instead of the final (published) names. Thus, both surviving syntypes of *Platydema lynceum* are labelled as *Platydema oculatum* Lewis (manuscript name, not *oculatum* Champion) (BARCLAY in litt.). In BMNH it is quite difficult to recognise the unlabelled syntypes with certainty, and because of different subsequent dispersal of type material it seems necessary to designate one of the above listed 'confident' specimens as lectotype.

**Synonymy:** The specimens examined from the Ussuri Region in eastern Siberia agree with the types of *Platydema lynceum* Lewis, 1894 from Japan, therefore *P. ussurianum* Kaszab, 1977 is a junior synonym of *P. lynceum* Lewis, 1894.

**Distribution:** Japan (type locality of *P. lynceum*), Korea, eastern Siberia (type locality of *P. ussurianum*).

*Platydema marseuli* Lewis, 1894

**New material:** China, Zhejiang, Hangzhou Pref., Pinghou Island, Zhapu, 100 km ENE Hangzhou, debris from gravel beach, 18.VI.2007, leg. A. PÜTZ, 3 ex. CAPE, 1 ex. SMNS. – NE India, Assam, Umrongso, 700 m, 3.–8.VI.2002, leg. M. TRÝZNA & P. BENDA, 1 ex. SMNS.

**Distribution:** Widespread in SE Asia, Japan, Taiwan, China (Yunnan, Zhejiang, Hainan), Indochina, Sunda, Philippines.

*Platydema nuciferae* Blair, 1928

**New material:** Borneo, Sarawak, Gunung Gading NP, 150–300 m, 9.–12.III.2008, leg. W. SCHAWALLER, 1 ex. SMNS.

**Distribution:** Widespread in W Malaysia, Sunda, Solomon Islands.

*Platydema orientalis* Gebien, 1911

New material: NE Laos, Hua Phan Prov., Phu Phan Mt., 1750–1850 m, 4.–10.VI.2009, leg. Z. KRAUS, 1 ex. NHMB.

Distribution: Thailand, W Malaysia, Burma, Laos (new record), Vietnam.

*Platydema pallidicolle* Lewis, 1894

New material: China, W Fujian, Ziyungdongshan, NW slope, 900–1100 m, 25.VII.2006, leg. J. TURNA, 1 ex. SMNS.

Distribution: Widespread in SE Asia, Japan, Taiwan, Philippines, China (Yunnan, Fujian new record).

*Platydema palungicum* Schawaller, 2004

New material: Borneo, Sabah, Poring Hot Springs, 380 m, 9.–11.III.2007, leg. R. GRIMM, 1 ex. CRGT. – W Malaysia, Pahang, Kampong Tahan, 20.–27.VII.2004, leg. R. & H. FOUQUÈ, 1 ♀ CRFL.

Remarks: Unfortunately, the single specimen from continental Malaysia is a female, thus its identification is somewhat uncertain.

Distribution: Borneo (type locality in Kalimantan), ? W Malaysia.

*Platydema parachalceum* Masumoto, 1982

New material: China, W Henan, Funiu Shan, Baotianman, 1500–1750 m, 6.–7.VII.2006, leg. J. TURNA, 2 ex. SMNS. – China, Yunnan, Haba Xue Shan, 2 km S Haba, 2830–3000 m, 17.–20.VI.2007, leg. J. HÁJEK & J. RŮŽIČKA, 4 ex. NMP, 1 ex. SMNS.

Distribution: Taiwan, China (Fujian, Shaanxi, Hubei, Guizhou, Henan, Yunnan).

*Platydema planum* Gebien, 1914

New material: S Thailand, Prov. Phang Nga, Khao Lak Lam Ru NP, 2.–15.IV.2008, leg. A. PÜTZ, 8 ex. SMNS.

Distribution: Banguay, Borneo, Sumatra, Mentawai, Palawan, Singapore, W Malaysia (SCHAWALLER 2004); Thailand (new record).

*Platydema reibnitzii* Schawaller, 2004

New material: W Malaysia, Pahang, Kampong Tahan, 20.–27.VII.2004, leg. R. & H. FOUQUÈ, 9 ex. CRFL, 4 ex. SMNS. – C Sulawesi, 20 km NE Palu, 5 km W Tawaeli, 250 m, 2.III.2009, leg. A. SKALE, 1 ex. CASH.

Remarks: The colour pattern of the elytra is somewhat variable; some of the newly collected specimens are

lacking the subbasal dark spot on each elytron (as figured by SCHAWALLER 2004: fig. 27), but possess a complete transverse band that is not interrupted at the suture.

Distribution: Sumatra (type locality), Borneo, W Malaysia, Sulawesi (new record).

*Platydema unicornis* Gebien, 1927

Remarks: Newly recorded from Borneo by GRIMM (2010).

Distribution: W Malaysia, Thailand, Sumatra (type locality), Borneo.

*Platydema velutinum* Walker, 1858

New material: W Malaysia, Pahang, Kuala Tahan, 5.–9.III.2007, leg. L. PURCHAT et al., 1 ex. CLPB. – W Malaysia, Pahang, Kampong Tahan, 20.–27.VII.2004, leg. R. & H. FOUQUÈ, 12 ex. CRFL, 3 ex. SMNS.

Remarks: The problems in separating the species *P. fumosum* and *P. velutinum* have already been recently discussed (SCHAWALLER 2004). The newly collected specimens from Malaysia agree with material from Sri Lanka (type locality), and the aedeagi of both series are also identical.

Distribution: Sri Lanka (type locality), W Malaysia (new record).

## 4 References

- CHAMPION, G. C. (1886): Coleoptera Heteromera. – *Biologia Centrali-Americana* 4 (part 1): 137–264, pls. VII–X.
- GEBIEN, H. (1925): Die Tenebrioniden (Coleoptera) des indomalayischen Gebietes, unter Berücksichtigung der benachbarten Faunen, VII. Die Gattung *Platydema* Castelnau und Brullé. – *Philippine Journal of Science* 27: 539–595.
- GRIMM, R. (2010): New and little known species of Tenebrionidae (Coleoptera) from Borneo. – *Stuttgarter Beiträge zur Naturkunde A, Neue Serie* 3: 257–267.
- HUANG, W.-J. & REN, G.-D. (2009): The Chinese species of the genus *Platydema* Laporte et Brullé (Coleoptera, Tenebrionidae) with description of a new species. – *Acta Zootaxonomica Sinica* 34: 428–434.
- LEWIS, G. (1894): On the Tenebrionidae of Japan. – *Annals and Magazine of natural History* (6) 13: 377–400, 465–485, pl. XIII.
- SCHAWALLER, W. (2002): Taxonomic notes on Palaearctic and Oriental species of *Neomida* Latreille, 1829 (Coleoptera, Tenebrionidae), with description of a new species from southern India. – *Entomologica Basiliensia* 24: 281–287.
- SCHAWALLER, W. (2003): The genus *Platydema* Laporte & Brullé in the Himalaya and adjacent regions, with descriptions of

- five new species (Insecta: Coleoptera: Tenebrionidae). – In: HARTMANN, M. & BAUMBACH, H. (eds.): Biodiversität und Naturlandschaft im Himalaya, pp.269–277, pls.IV–V; Erfurt (Verein der Freunde und Förderer des Naturkundemuseums).
- SCHAWALLER, W. (2004): The Oriental species of *Platydema* Laporte & Brullé, with descriptions of 16 new species (Coleoptera: Tenebrionidae). – Stuttgarter Beiträge zur Naturkunde, Serie A (Biologie) **671**: 49 pp.
- SCHAWALLER, W. (2008): The species of *Platydema* Laporte & Brullé (Coleoptera: Tenebrionidae) from New Guinea and the Moluccan Islands, with descriptions of 11 new species. – Stuttgarter Beiträge zur Naturkunde A, Neue Serie **1**: 413–429.

Author's address:

Dr. WOLFGANG SCHAWALLER, Staatliches Museum für Naturkunde, Rosenstein 1, 70191 Stuttgart, Germany;  
e-mail: wolfgang.schawaller@smns-bw.de

Manuscript received: 21.XII.2010, accepted: 22.II.2011.