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THE MALAYSIAN SPECIES OF THE GENUS *PLATYXANTHA* BALY (COLEOPTERA: CHRYSOMELIDAE: GALERUCINAE)

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ABSTRACT. - The leaf beetle genus *Platyxantha* is represented in Malaysia by seven species, including a new species, *Platyxantha kinabaluensis*. A key to the species is provided.

INTRODUCTION

The genus *Platyxantha* Baly was erected with *Platyxantha apicalis* Baly, described from Sumatra, as the type species. The genus is widely distributed in Africa and Southeast Asia (Wilcox, 1973; Kimoto, 1990). In Southeast Asia the genus is represented by 14 species, including three species in Malaysia. This paper reports the addition of four species of *Platyxantha* for Malaysia, including a new species: *Platyxantha kinabaluensis*.

The genus *Platyxantha* is distinguished from other genera in the subfamily Galerucinae by the following combination of characters: Pronotum transversely quadrate or oblong, depressed; elytra punctured or striated; anterior coxal cavities closed posteriorly; tarsal claws appendiculate. In male, metatibiae with a process, metasternum with a median process on the posterior border and the antennae with or without dilated terminal segments.

All the specimens are deposited in the Insect Collection, Centre for Insect Systematics, Universiti Kebangsaan Malaysia, Bangi (UKM). The acronym NHM is for the Natural History Museum (former British Museum (Natural History)), London.

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TAXONOMY

Key to the Malaysian species of *Platyxantha*

1. Elytra with punctures large and arranged in rows, distinctly striated, rugose 2

– Elytra with punctures moderately large or small and confused, weakly striated, not rugose 4

2. Yellowish, except the apical sternite and pygidium black. In male, antennae (Fig. 1f) entirely filiform, without dilated segments; metasternal process (Fig. 2f) oblong elongate, strongly narrowed towards apex; metatibiae 2.5 times as long as the first segment of the metatarsus, which is twice as long as the 2nd and 3rd combined, glabrous and shiny on the outer surface, pubescent on the inner surface; metatibial process (Fig. 3f) very large. Length 7.8-8.5 mm ..... *P. kinabaluensis*, new species

– Coloration not as above. In male, antennae dilated on the apical segments; metasternal process not oblong elongate; metatibiae more than 2.5 times as long as the first segment of metatarsus, which is 1.2 times as long as the 2nd and 3rd combined, pubescent on the outer and inner surfaces; metatibial process small 3

3. Head, pronotum, elytra reddish brown. Antennae, legs brownish. Ventral surface of thorax brownish, of abdomen black. In male, antennae (Fig. 1b) long extended to two-third of elytra, segment 9 greatly dilated, oval-shaped, broadly excavated, segment 10 broadened at base, narrowed towards apex; metasternal process (Fig. 2b) triangular, narrowed towards apex; metatibiae 3 times as long as first segment of metatarsus, which is 1.2 times as long as the 2nd and 3rd combined; metatibial process as in Fig. 3b. Length 8-8.5 mm ..... *P. insignis* (Baly)

– Head, pronotum black. Elytra metallic blue. Antennae whitish, only the three terminal segments black. Legs whitish, except tibiae and tarsi partly blackish. Ventral surfaces black. In male, antennae (Fig. 1d) very long, extending to the end of elytra, segment 9 not greatly dilated, cylindrical, segment 10 narrowed at base, broadened towards apex; metasternal process (Fig. 2d) broadly triangular, rounded at apex; metatibiae 3.5 times as long as the first segment of metatarsus, which is 1.2 times as long as the 2nd and 3rd combined; metatibial process as in Fig. 3d. Length 7.5 mm ..... *P. smaragdina* (Duvivier)

4. Yellowish, except the last two antennal segments, scutellum, tibiae and tarsi black. In male, antennae (Fig. 1a) with the three terminal segments dilated; metasternal process as in Fig. 2a; metatibiae 4 times as long as first segment of metatarsus, which is as long as the 2nd and 3rd combined; metatibial process as in Fig. 3a. Length 8-10 mm ..... *P. apicalis* (Baly)

– Reddish brown or brownish. Antennae not as above 5

5. In male, antennal segments 10 and 11 dilated, with inner surfaces deeply excavated; segment 11 twice as long as 10; segment 9 shorter than 8. Pronotum brownish, with an oblique fovea on each side behind the middle. Elytra brownish. Abdomen blackish. Length 7.4 mm ..... *P. ventralis* (Baly)

– In male, antennal segments 10 and 11 subequal in length, not dilated, and the inner surfaces not excavated; segments 8 and 9 dilated, subequal in length 6

6. Antennae (Fig. 1c) black, except the basal two segments brownish. Legs reddish, with tibiae and tarsi black. In male, metasternal process (Fig. 2c) triangular, narrowed towards apex; metatibiae 3 times as long as the first segment of metatarsus, which is 1.7 times as long as the 2nd and 3rd combined; metatibial process as in Fig. 3c. Length 7.8 mm .... *P. rubida* (Allard)

– Antennae (Fig. 1e) yellowish, except the last two terminal segments blackish. In male, metasternal process (Fig. 2e) oblong elongate, not narrowedly towards apex; metatibiae 2.5 times as long as the first segment of metatarsus, which is 1.3 times as long as the 2nd and 3rd combined; metatibial process as in Fig. 3e. Length 7.5-9.5 mm ..... *P. sumatrana* (Jacoby)

Platyxantha apicalis Baly
(Figs. 1a, 2a, 3a)

Platyxantha apicalis Baly, 1864, Trans. Ent. Soc. London, ser. 3, 2: 234 (Sumatra). (Holotype male, examined, NHM, London).

Material examined. - **JOHOR**: 1 female, Mersing, Hutan Lipur Gunung Arung, coll. Salleh & Ismail, 9 Apr.1988. **PAHANG**: 1 male, Kuala Lompat, coll. Fathul, 30 Jan-1 Feb.1993. — **PERAK**: 1 male, Banding, coll. Ismail, Yusuf & Zabidi. 29-30 Jun.1991. — 3 females, Temengor, Ekspedisi MNS-Belum, coll. Salleh, Ismail & Sham, 15-20 Nov.1993. — 1 male, 1 female, Temengor, Ekspedisi MNS-Belum, coll. Salleh & Ismail, 29-30 Jan.1994. — 1 male, Temengor, Ekspedisi MNS-Belum, coll. Ismail & Sham, 10-15 May.1994. — 1 male, Pengkalan Hulu, coll. Salleh, Ismail & Ruslan, 20 Jun.1994. **SARAWAK**: 1 male, 1 female, Lanjak Entimau, coll. Zaidi, 28-29 Feb.1992.

Remarks. - This is a new record for Peninsular Malaysia and Borneo.

Platyxantha insignis (Baly)
(Figs. 1b, 2b, 3b)

Doridea insignis Baly, 1864, Trans. Ent. Soc. London, 3, 2: 236 (Tringanee) (Holotype male, examined, NHM, London)
Platyxantha insignis: Weise, 1924, Coleopt. Cat. 78: 155.

Material examined. - **NEGERI SEMBILAN**: 1 female, Pusat Pertanian Chembong, coll. Ismail & Nor, 5 Oct.1989. **PAHANG**: 1 female, Maran, Hutan Lipur Teladas, coll. Ismail & Zabidi, 25 May.1994. **PERAK**: 2 females, Bukit Larut, coll. Ismail & Ruslan, 8-9 Mar.1990. — 1 female, Bukit Larut, coll. Ismail, Ruslan & Jainuddin, 5 Nov.1991. — 1 female, Temengor, Ekspedisi MNS-Belum, coll. Salleh, Ismail & Sham, 15-20 Nov.1993. **SELANGOR**: 1 female, Templer Park, coll. Ismail & Ruslan, 10 Feb.1990. **TERENGGANU**: 1 male, Kuala Berang, Sekayu, coll. Ismail & Zabidi, 24 Aug.1994. — 1 female, Setiu, H.L. Peladang, coll. Ismail & Zabidi, 25 Aug.1994. **SARAWAK**: 1 female, Lanjak Entimau, coll. Zaidi, 28-29 Feb.1992. — 1 female, Taman Negara Lambir, coll. Salleh & Ismail, 4-8 Feb.1990.

Remarks. - This is a new record for Borneo.

Platyxantha rubida Allard
(Figs. 1c, 2c, 3c)

Platyxantha rubida Allard, 1889, C.R. Soc. Ent. Belgique 33: 116 (Singapore) (Holotype female).

Material examined. - **SARAWAK**: 1 male, Matang, coll. Salleh, Zaidi & Ismail, 20 Nov.1991.

Remarks. - This is a new record for Borneo.

Platyxantha smaragdina (Duvivier)
(Figs. 1d, 2d, 3d)

Doridea ? smaragdina Duvivier, 1884, C.R. Soc. Ent. Belgique 28:320 (Sarawak). (Holotype female).
Platyxantha smaragdina: Weise, 1924, Coleopt. Cat. 78:157.

Material examined. - **SABAH**: 2 males, Taman Kinabalu, Poring, coll. Zaidi, Ismail & Ruslan, 21-24 May.1991. — 1 male, Taman Kinabalu, Poring, coll. Salleh, Zaidi & Ruslan, 3-4 Sep.1993.

Remarks. - This is a new record for Sabah.

Platyxantha sumatrana Jacoby
(Figs. 1e, 2e, 3e)

Platyxantha sumatrana Jacoby, 1899, Stettiner Ent. Ztg., 60: 299 (Sumatra) (Hotype male, examined, NHM, London).

Material examined. - **NEGERI SEMBILAN**: 1 female, Lenggeng, Kuala Kelawang, Jeram Toi, coll. Sham, Saiful & Yusuf, 17-22 May.1993. **PAHANG**: 1 male, Ekspedisi Rompin-Endau, coll. Ismail & Nor, 23-28 May.1989. — 1 male, Ekspedisi Rompin-Endau, coll. Salleh, Ismail & Nor, 25-27 Jul.1989. **PERAK**: 1 female, Bukit Larut, coll. Ismail, Ruslan & Jainuddin, 5 Nov.1991. — 1 female, Grik, Pengkalan Hulu, coll. Ismail, Ruslan & Yusuf, 14 Jun.1994. — 1 female, Temengor, Ekspedisi MNS-Belum, coll. Salleh, Ismail & Sham, 15-20 Nov.1993. — 1 female, Temengor, Ekspedisi MNS-Belum, coll. Ismail, Yusuf, Bidi & Saiful, 29 Nov -5 Dec.1993. — 1 male, Temengor, Ekspedisi MNS-Belum, coll. Salleh & Ismail, 29-30 Jan.1994. — 1 female, Temengor, Ekspedisi MNS-Belum, coll. Ismail & Sham, 10-15 May.1994. **SELANGOR**: 2 females, Hulu Yam Baru, Sg. Sendat, coll. Ismail, 7 Jul.1989. **SABAH**: 1 male, Lembah Danum, coll. Zaidi, Ismail & Ruslan, 4-7 Dec.1990. — 1 female, Lembah Danum, coll. Ismail Salleh, 6-12 Jun.1989. — 2 females, Taman Kinabalu, HQ, coll. Zaidi, Ismail & Ruslan, 13-15 Dec.1990. — 1 male, Tawau, Taman Bukit Tawau, coll. Ruslan, 4-12 May.1992.

Remarks. - This is a new record for Peninsular Malaysia and Borneo.

Platyxantha ventralis Baly

Platyxantha ventralis Baly, 1864, Trans. Ent. Soc. London, ser. 3, 2: 35 ("Singapore: Mt. Ophir") (Holotype, male, examined, NHM, London).

Remarks. - The type locality (Mt. Ophir), which is presently known as Gunung Ledang, is situated in Johor, Peninsular Malaysia, not Singapore as stated in the original description. There is no additional material.

Platyxantha kinabaluensis, new species
(Figs. 1f, 2f, 3f)

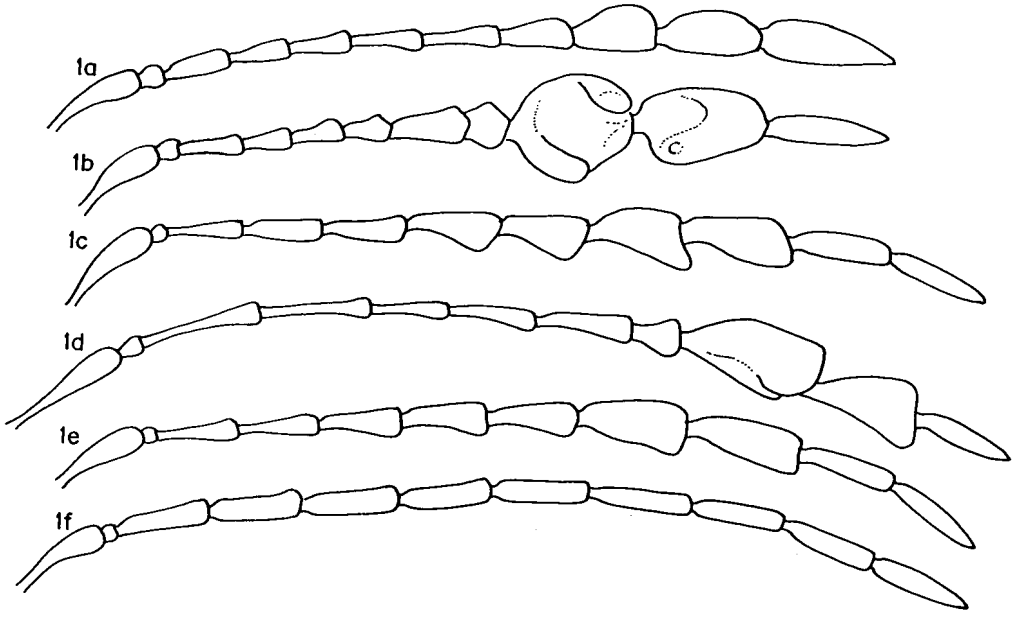
Material examined. - Holotype - male, Taman Kinabalu, Sabah, Malaysia, coll. Zaidi, Ismail & Ruslan, 13-15 Dec.1990.

Paratypes - 1 male, 2 females, same data as holotype.

Description. - Body oblong elongate, yellowish, except for the apical sternite and pygidium black. Head smooth, shiny; frontal tubercles elevated, transverse; labrum transverse, with apical margin sinuate; maxillary palpi long, with terminal segment short, conical. Antennae filiform, very long, extended to the end of elytra, without dilated segment; segments 1 long, club-shaped; segment 2 shortest, as broad as long; segment 3-11 subequal in length, gradually narrowed towards apex. Pronotum oblong, broadest at apical third, its surface smooth, broadly depressed; anterior border unmargined, the lateral and posterior borders margined. Scutellum longer than broad, with apex obtuse. Elytra parallel-sided, striated, finely rugose; punctures large, arranged in rows. Metasternal process oblong elongate, strongly narrowed towards apex at apical one-third. Metatibiae 2.5 times as long as the first segment of metatarsus; metatibial process very large, the apex pointed and densely covered with hairs. Metatarsus with the first segment twice as long as segments 2 and 3 combined, glabrous on the outer surface, the inner surface pubescent. Apical sternite with median lobe transverse. Length 7.8 mm.

Female. Metatibiae without a process, first segment of metatarsus entirely pubescent, the apical sternite entire, without median lobe. Length 8.2-8.5 mm.

Remarks. - The new species resembles *Platyxantha apicalis* Baly, but differs in having the head not flattened, and the male antennae without dilated segments.



Figs. 1a-f. Antennae of *Platyxantha* spp. males. a. *Platyxantha apicalis*, b. *Platyxantha insignis*, c. *Platyxantha rubida*, d. *Platyxantha smaragdina*, e. *Platyxantha sumatrana*, f. *Platyxantha kinabaluensis*, new species.

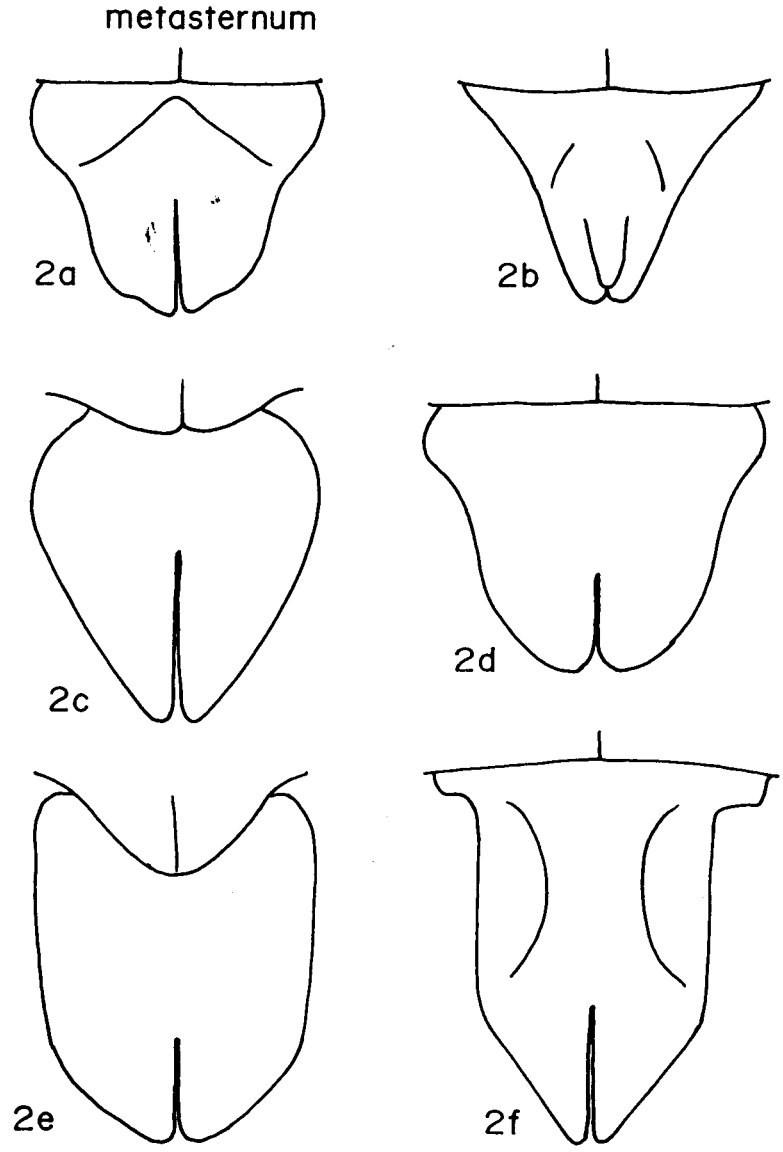


Fig. 2a-f. Metasternal process of *Platyxantha* spp. males. a. *Platyxantha apicalis*, b. *Platyxantha insignis*, c. *Platyxantha rubida*, d. *Platyxantha smaragdina*, e. *Platyxantha sumatrana*, f. *Platyxantha kinabaluensis*, new species.

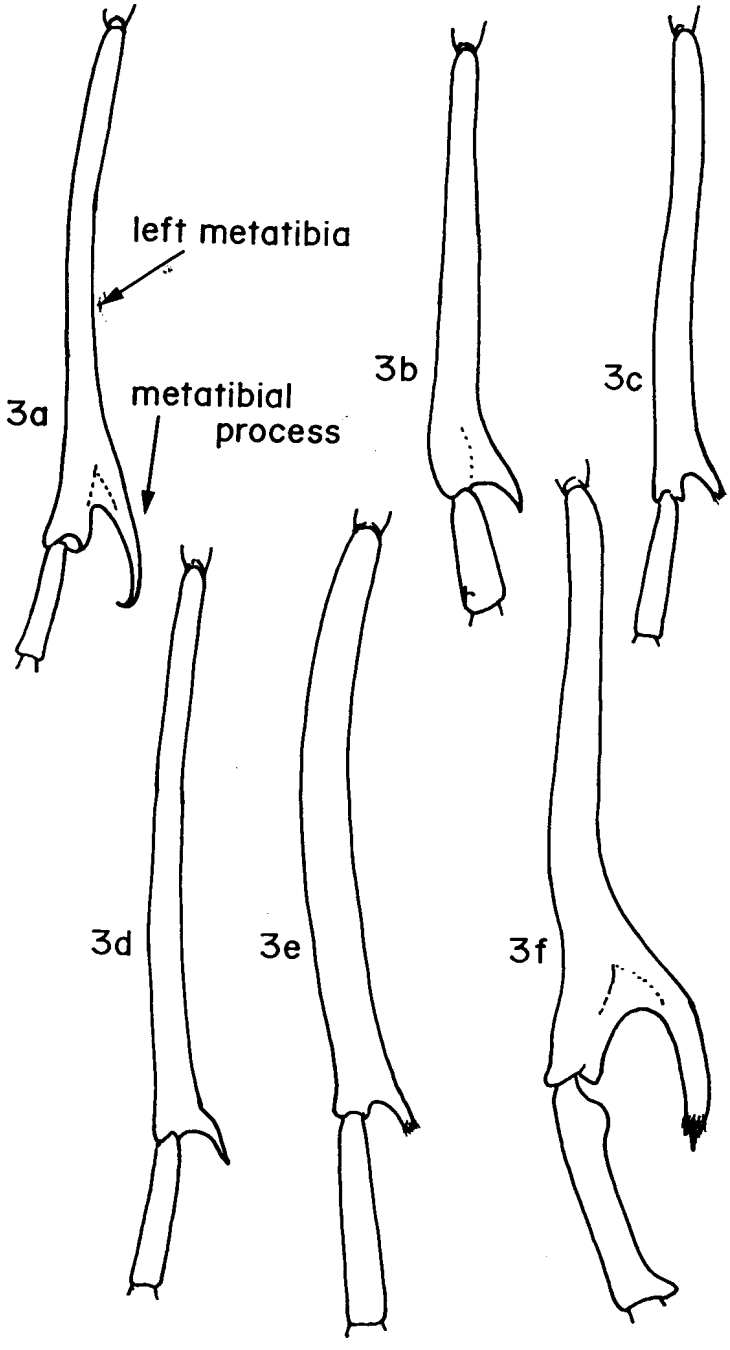


Fig. 3a-f. Metatibial process of *Platyxantha* spp. males. a. *Platyxantha apicalis*, b. *Platyxantha insignis*, c. *Platyxantha rubida*, d. *Platyxantha smaragdina*, e. *Platyxantha sumatrana*, f. *Platyxantha kinabaluensis*, new species.

Platyxantha sp.

Material examined. - **SABAH**: 2 females, Lembah Danum, coll. Salleh, Ismail & Nor, 6 Apr.1989. — 1 female, Lembah Danum, coll. Zaidi, Ismail & Ruslan, 4-7 Dec.1990. — 1 female, Lembah Danum, coll. Zaidi, Ismail & Ruslan, 16-19 May.1991. — 4 females, Lembah Danum, coll. Ismail, Yusuf & Razali, 17-20 Apr.1992. — 1 female, Lembah Danum, coll. Ismail, Yusuf & Sham, 22-25 Aug.1992. — 1 female, Lembah Danum, coll. Ismail, Yusuf & Razali. — 3 females, Taman Kinabalu, Poring, 9-12 Dec.1990, coll. Zaidi, Ismail & Ruslan, 5-8 Dec.1992. — 2 females, Taman Kinabalu, Poring, coll. Salleh, Zaidi & Ruslan, 3-4 Apr.1993.

Remarks. - The male is unknown. All the specimens collected are females. However, these specimens resemble *Platyxantha insignis* Baly, but differ in coloration, with the elytra dark green, the tibiae, tarsi and ventral surfaces entirely black.

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