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NOTES ON LEPTURINAE (XI).

FOUR NEW SPECIES OF LEPTURINAE FROM SOUTH EAST ASIA
(Col. Cerambycidae).

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Abstract

This paper describes two new species of Lepturinae from Philippines, *Heffernia filipina* n.sp.; *Trypogeus cabigasi* n.sp.; and two new species from Malaysia, *Caraphia borneana* n.sp., *Asilaris bicolor* n.sp. (Coleoptera, Cerambycidae, Lepturinae).

Résumé

Cet article décrit deux nouvelles espèces de Lepturinae de Philippines, *Heffernia filipina* n.sp. ; et *Trypogeus cabigasi* n.sp. et deux nouvelles espèces de Malaisie, *Caraphia borneana* n.sp., ainsi que *Asilaris bicolor* n.sp. (Coleoptera, Cerambycidae, Lepturinae).

Key words

Cerambycidae, Lepturinae from Philippines and Malaysia, *Heffernia filipina* n.sp., *Trypogeus cabigasi* n.sp., *Caraphia borneana* n.sp. and *Asilaris bicolori* n.sp.

While engaged in the preparation of the revision for the Lepturinae cerambycids from South East Asia, we had the chance to study abundant private collection material from Borneo as well as the type material held at the Natural History Museum, London, the Muséum National d'Histoire Naturelle in Paris and the US National Museum of Natural History in Washington. We could also study many specimens from the Philippines loaned for study by our colleagues I. LUMAWIG and S. CABIGAS and personally collected in summer 2003 when visiting the Islands of Luzon and Mindanao.

Among the many species studied, we have found four Lepturinae species new for science which will be formally described below.

***Heffernia filipina* n. sp.** (Fig. 1)

Holotype: 1 female from Impasug-ong, Bukidnon, Mindanao-N, Philippines, 26-IV-2002, S. Cabigas leg. (E. Vives coll.). Length: 13.0 mm; width: 4.0 mm.

Head black except underneath and around the neck, which are orange in colour. Pronotum and elytra orange. Legs and antennae black except onyquium, which is reddish, and coxae and trochanters, which are orange. Prosternum and mesosternum orange, metasternum and abdomen blackish and shiny. Hindwings blackish and alutaceous.

Head squared, with rounded temples; eyes small and globose, separated by a broad area with large pit-like impressions. Antennal tubercles close together, almost contiguous, detached by a deep sulcus reaching the posterior part of the head. Head anteriorly very short, with short and acute mandibles. Head posteriorly with a deep transverse impression running through the entire occiput. Antennae not very long,

granulated, reaching to the elytral posterior third, with segments 2 to 4 very short, almost globular; segments 5 to 11 are slightly flattened and serrulate externally.

Pronotum slightly longer than broad, with distinct anterior and posterior transverse furrows. Discal zone with two large convex protuberances. Pronotum with big lateral rounded tubercles on each side; anterior and posterior borders margined. Intercostal process long and narrow, enlarged on its extremity. Anterior coxal cavities closed posteriorly. Elytra wider than pronotum, three times longer than wide at their base. Humeri prominent and rounded. Elytra almost parallel but slightly narrowed behind the middle. Elytral apex broadly round. Elytral surface with fine and scattered puncturation on their anterior half. Scutellum orange and rounded. Elytral margin very conspicuous on their anterior half. Legs very long with dark scattered pubescence. Tarsal segments short except for the first one, which is at least as long or even longer than the second and third segments together.

Heffernia filipina n. sp. is very similar to the congeneric *H. borneana* Vives 2001, although it can be easily distinguished by its larger size, the orange elytral colouration and the elytra presenting with less punctures. The posterior part of the head, particularly depressed, and the shape of the pronotum, much longer than wide, also allow separating both species. The presence of the genus *Heffernia* Vives 2001 in the Island of Mindanao represents another example of faunistic connection between northern Borneo and Philippines through the Sulu archipelago, as has been observed for other Cerambycidae species that are present in the island of Mindanao and northern Borneo (see VANE-WRIGHT, 1994, VIVES & NIISATO, 2004).

***Trypogeus cabigasi* n. sp.** (Fig. 2)

Holotype: 1 male from Impasug-oug, Bukidnon, Mindanao-N, Philippines, 10-V-2002, S. Cabigas leg. (E. Vives coll.). Length: 15.0 mm.; width: 4.5 mm.

Etymology: The name of the species is after his discoverer, Mr. Stanley L. Cabigas, friend entomologists and great researcher of the beetle fauna of Mindanao. Here we want to thank his constant collaboration.

Beetle entirely testaceous except for the internal margin of mandibles, the apex of labial palpi, the anterior margin of pronotum, half of the elytral margin and the elytral apex, which are dark brown in colour. Antennae reddish except for the last three segments, yellowish white. Underneath of body testaceous, without the yellow markings on the abdomen present in the other species of the genus.

Head broad and short with large, broad and long mandibles, presenting a longitudinal furrow on their external margin and almost completely covered on golden pubescence. Eyes small and slightly convex, small-faceted. Dorsal surface of head furrowed by a longitudinal impression between the antennae bases. Neck broad not narrowing behind the eyes. Antennae slightly longer than elytra; third segment clearly longer than fourth. All segments elongated and cylindrical, except for segments 9 to 11, fairly flattened and yellowish. Eleventh segment appendiculate.

Pronotum rather square, almost as long as wide, with a small protuberance on each side, slightly in front of the middle. Pronotal disc with four inconspicuous swellings, the two anterior closer together than the two behind. Entire surface of pronotum and head strongly punctured, almost rugged, both covered by a short golden tomentum that becomes longer at the sides. Scutellum triangular and covered by a dark pubescence.

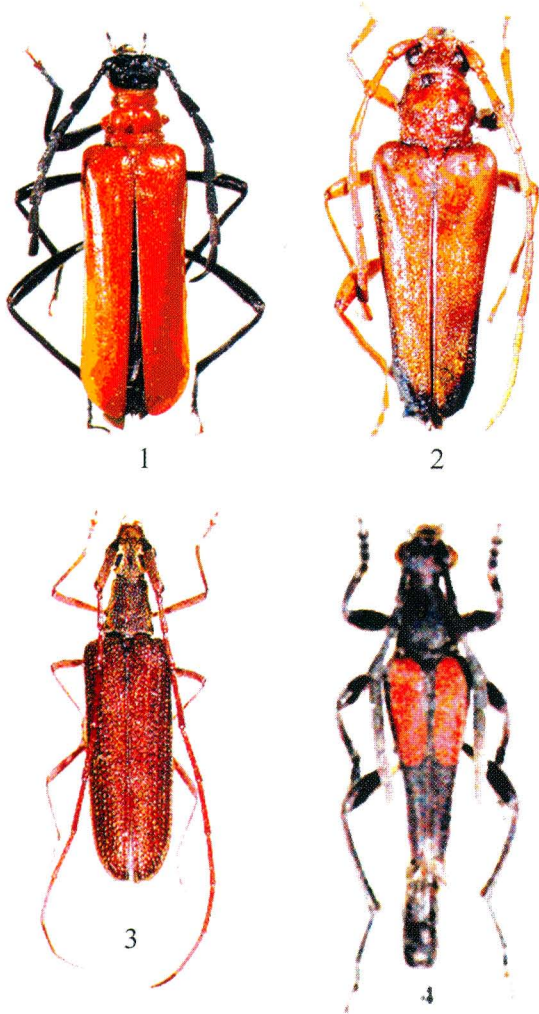


Fig. 1. *Heffernia filipina* n.sp. ♀ Holotype; Fig. 2 *Trypogeus cabigasi* n.sp., ♂ Holotype; Fig. 3. *Caraphia borneana* n.sp., ♂ Holotype; Fig. 4 *Asilaris bicolor* n.sp., ♂ Holotype.

Elytra relatively short, wider anteriorly and tapering apically, not narrowing behind the apical quarter. Humeri round and bulging; suture narrowly margined and raised. Basal third of the elytra with an oblique depression running from the humerus to the suture, delimiting a convex area. Elytral puncturation coarse and scattered, formed by black disseminated punctures not reaching the posterior half of the elytra. Elytral apex round and dehiscent. Elytra covered by a short golden and silky tomentum, turning reddish or black in the apex and margin of the apical third.

Legs short and robust, covered by a long and silky golden pubescence. Tibiae slightly dilated apically. Tarsi not enlarged; the first metatarsal segment longer than the second and third together. Onyquium long and narrow. Underneath of the body yellowish-testaceous and covered on a long golden and silky tomentum.

This species is close to *Trypogeus apicalis* Fisher 1936, but can be easily distinguished by the elytral colouration, the lack of yellow markings in the abdomen and the differences in the shape of pronotum. *T. apicalis* is also darker, has shorter antennae and the third antennal segment is as long as the fourth. Interestingly, the genus *Trypogeus* Lacordaire 1869 had never been reported before from Philippines, so that the data provided here reinforces the influence of Malesian fauna on the Philippines archipelago (MATSUDA, 1997).

***Caraphia borneana* n. sp.** (Fig. 3)

Holotype: 1 male from Mt. Trus Madi, Sabah, Malaysia, 28-IV-2003 (E. Vives coll.). Length: 13.0 mm; width: 4.0 mm. **Paratype:** 1 female, same collection data. Length: 11.0 mm.; width: 2.9 mm.

Ground colouration brown with head and pronotum almost black. Head and antennae reddish, scutellum blackish and underneath of body dark brown, with the abdomen slightly paler. Body entirely covered by a yellowish pubescence in the shape of elongated scales, regularly distributed on the head and pronotum, and forming six longitudinal rows on the elytra, more scattered to the base and denser over the epipleurae. Underneath of the body, legs and four basal tarsal segments also covered on scales.

Head small and as broad as pronotum in its posterior margin, with very large and prominent eyes, occupying most of the cephalic capsule. Posterior part narrow forming a conspicuous neck. Anterior part very short with a large prominent epistome, the epistome and the labrum covering the mandibles, which are short and thick. Palpi with the last segment oval in shape. Antennae long, reaching beyond the elytral apex from their eighth segment. First segment large and thick, reaching almost to half of the pronotum; third segment slightly shorter than fourth. All segments cylindrical, but ridged on the external margin from the fifth segment onwards.

Pronotum longer than wide (5/4) and subconical, with straight sides and disc fairly flat with a wide transverse furrow before the hind margin. Pronotum entirely covered by small round hollows each with a pubescent scale. Posterior margin sinuated with a long and thin golden pubescence. Scutellum short and rounded.

Elytra long and slender, flattened and with a sinuated base, presenting a protuberance to each side of the scutellum. Apex obliquely truncated. Suture margined and raised. Discal area very flattened almost throughout to the apical quarter, with longitudinal rows of large rounded hollows with a small round black and shiny swelling at each side and sometimes also posteriorly. These small granulations give a microreticulated appearance to the elytral surface. The long yellowish scale stems from the anterior margin of each hollow. Underneath of the body smooth and covered by a yellowish

squamose pubescence, thinner on the abdomen. Legs long and slender with scales smaller and thinner than on the rest of the body. Femora almost straight, tibiae straight, tarsal segments short and barely dilated, subequal.

The differences observed between male and female of this species are negligible, except maybe for the antennae, which are shorter and thicker in the female. This new species is close to *Caraphia laosica* Gressitt & Rondon 1970, but both can be distinguished because of the larger body size and the longer first antennal segment in *C. borneana* n. sp. The special shape of the first antennal segment, particularly elongated and thickened, further separates it easily from other species in the genus. The puncturation of the elytra made up by granulated hollows reminisces that of *C. granulifera* Holzschuh 1984 and *C. cribata* Gahan 1906, but these species are distinguishable by the shape of the pronotum.

***Asilaris bicolor* n. sp.** (Fig. 4)

Holotype: 1 male from Croker range, Sabah, Malaysia, 20-VI-2004, local collectors (E. Vives coll.). Length: 17.0 mm; width: 3.5 mm.

Body entirely black, except for the three last antennal segments, which are orangish, and the anterior half of the elytral disc, crimson in colour. The entire body, legs and antennae are covered on a short and shiny black pubescence, which turns golden or reddish in the differently coloured elytral disc.

Head long with globose and very prominent eyes; head anteriorly prolonged as a short rostrum, with a smooth and shiny epistome. Mandibles short and broad. Maxillary palpi with the last segment truncated at apex and presenting a large hollow on the external margin. Labrum sinuated anteriorly with setae in the middle. Head posteriorly very narrow, forming a conspicuous neck. Vertex grooved longitudinally with a strong and rough granulation. Antennae short and thick, reaching to the elytral apical third; first segment not reaching beyond the eye margin; third segment twice as long as first segment; fourth segment shorter than third; fifth segment longer than fourth, distally enlarged and toothed; segments from 6 to 1/1 short, broad and flattened, forming a rather compact antennal club.

Pronotum bell-shaped, much longer than wide on the hind margin. Sides slightly arched without forming an acute posterior angle. Disc convex and slightly depressed posteriorly, presenting a strongly sinuated posterior margin. Pronotal surface covered with strong rough puncturation and a short black pubescence, becoming a long golden pubescence underneath on the sides. Scutellum broad and triangular, also with black pubescence.

Elytra triangular, shortened, not covering the last abdominal segments; more than twice longer than broad at the base (58/25), with apex obliquely truncated and presenting a spur on the external angle. Suture finely margined. Disc slightly convex; humeri rounded. Epipleurae margined and punctured. Elytral surface strongly punctured as on pronotum, with shiny black pubescence, except on the large discal markings presenting reddish pubescence.

Ventral part of the body with smaller puncturation than the dorsum and covered on a silky golden pubescence. Abdomen with strongly chitinous segments; sterna strongly margined at both sides, each segment with a narrow and convex tergite. Three last abdominal segments not covered by elytra, very narrow and almost cylindrical; sternum of last visible segment with two lateral fin-shaped expansions and a rounded and convex tergite. Legs long and robust; femora enlarged medially and tibiae slightly broadened distally; pro- and mesotarsi short and dilated; metatarsi long and slender,

specially the first segment which is laterally compressed and as long as the following three joined together.

We provisionally describe this species within the genus *Asilaris* Pascoe 1869, although some characters do not match those currently ascribed to this genus, e.g., the lack of a keel on the hind femora or the moniliform shape of the antennae. On the contrary, the habitus of *A. bicolor* n.sp. is reminiscent of a small species similar to *Nona mirabilis* (Aurivillius, 1902) or even closer to the genus *Metalloleptura* Gressitt & Rondon 1970.

References

- GAHAN, C.J., 1906. The fauna of British India – Coleoptera vol.1 (Cerambycidae) : 197.
- GRESSITT, J.L. & RONDON, J.A., 1970. Cerambycidae of Laos. Pacific Insects Monograph, 24, 314pp.
- HAYASHI, M. & VILLIERS, A., 1987. Revision of the Asian Lepturinae (Col.:Cerambycidae) with special reference to the type specimen's inspection. Part I. *Bull. Osaka Jonan Women's Jr. College*, 22:1-20.
- MATSUDA, K., 1997. An introduction to the Cerambycid fauna of the Philippines. *Nat. & Ins., Tokyo*, 32(4):11-19. (In Japanese).
- VANE-WRIGHT, R.I., 1994. The Philippines-Key to the biogeography of Wallacea?. In Knigth, W.J. & J.D. Holloway, *Insects and the rain forest of south east Asia (Wallacea)*, 19-24. Roy. Ent. Soc. London.
- VIVES, E., 2001. Notes on Lepturinae (I). Two new species of Asian Lepturinae (Col.:Cerambycidae). *Lambillionea* 101(1):121-124.
- VIVES, E. & NIISATO, T., 2004. Description of a new *Schmidtiana* species (Col.Cerambycidae) from the Philippines, with biogeographical note on the genus in the Philippine archipelago. *Elytra, Tokyo*, 32(2):443-450.