

MALAYOSCELIS GEN. N., THE THIRD GENUS
OF THE PYCNOCERINI (COLEOPTERA: TENEBRIONIDAE)
FROM THE ORIENTAL REGION*

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Malayoscelis gebieni gen. et sp. n. (Coleoptera: Tenebrionidae, Lagriinae) from Malaysia (Cameron Highlands) is described.

Key words: Coleoptera, Tenebrionidae, Lagriinae, Pycnocerini, *Malayoscelis* gen. n., new species, Malaysia, Cameron Highlands

INTRODUCTION

The Pycnocerini are a group of tenebrionids occurring specially in tropical Africa, the exception being *Pheugonius* FAIRMAIRE, 1899 (3 species, see FERRER & MORAGUES 2000) and *Aediotorix* BATES, 1868 (? 4 species) in the Oriental region (Philippines, Indonesia, Malaysia) (for distribution see Fig. 11). Adult Pycnocerini are usually of bigger body size (up to 50–60 mm) and possess, among other characters (see GEBIEN 1904), strikingly modified legs with armed femora. The Pycnocerini are placed within the subfamily Lagriinae and are divided into 2 subtribes (Chiroscelina with bifid, Pycnocerina with truncate mandibles) (WATT 1974).

For a few years a series of a bigger tenebrionid is known from the Cameron Highlands (Malaysia), which my colleagues (listed below in the Abbreviations) and me were unable to identify. After a detailed study it proved to be a new genus and new species of the Pycnocerini, which is described hereunder.

Abbreviations: CHBM – Collection BREMER, Melle/Germany (Prof. Dr. HANS J. BREMER); CSBC – Collection Bečvář, České Budějovice/Czech Republic (STANISLAV BEČVÁŘ); HNHM – Hungarian Natural History Museum, Budapest/Hungary (Dr. OTTÓ MERKL); SMNS – Staatliches Museum für Naturkunde, Stuttgart/Germany (author).

* Contributions to Tenebrionidae no. 42. For no. 41 see: *Ent. Blätter* **98**, 2002.

TAXONOMY

Malayoscelis gen. n.

Diagnosis: With all characters of the tribe Pycnocerini (see GEBIEN 1904) and subtribe Chiroscelina (WATT 1974). Head with clypeal suture distinctly impressed; temples considerably broadened. Antennae with prolonged antennomere 3. Both mandibles bifid. Maxillary palps with broadened last segment. Pronotum 1.3 times wider than long, with distinctly crenulate lateral margin. Elytra only with traces of 5–7 keels, without distinct rows of punctures; epipleura regularly narrowed towards apex without abrupt constriction, impunctate. Abdominal ventrites impunctate. Surface of all legs nearly impunctate and shining, femora in both sexes with distinct apical teeth, anterior tibiae bent in males, anterior and middle tibiae in males with distinctly hooked inner apex; apex of tibiae without spurs and with comb-like setae.

Type species: *Malayoscelis gebieni* sp. n. by monotypy and present designation.

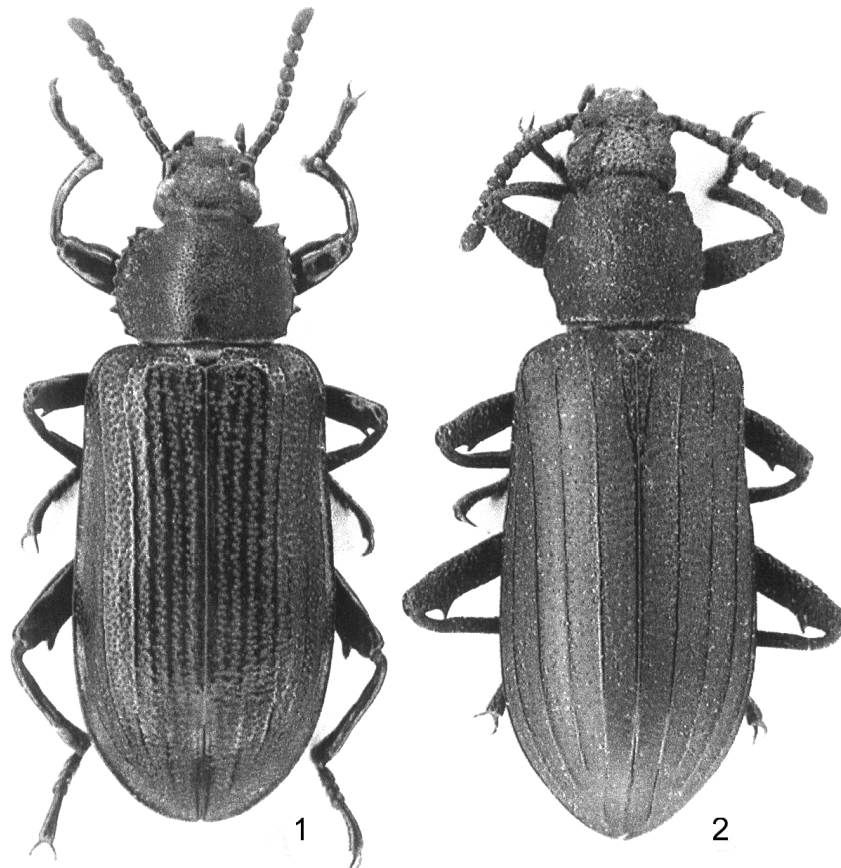
Discussion: *Malayoscelis* gen. n. (Fig. 1) shares with the other Oriental genus *Aediotorix* BATES, 1868 (syn. *Sipirocus* FAIRMAIRE, 1896) (Fig. 2) the following characters: head with impressed clypeal suture and with distinctly broadened temples, antennae with a prolonged antennomere 3, mandibles bifid, pronotum with crenulate lateral margin, apex of tibiae without spurs and with comb-like setae, and a similar body length of about 15–20 mm. The congeners of *Aediotorix* form a different monophyletic group (however, species characters are still unclear). *Aediotorix* is separated from *Malayoscelis* by a narrow pronotum (subquadrate or longer than wide), weak crenulation of the lateral margin, elytra with 4 distinct and complete keels besides distinct scutellar keel, scutellum with rough punctation, epipleura with a longitudinal row of distinct punctures, abdominal ventrites with partly coarse punctation, legs with coarse punctation and dull surface, and by different modifications of the legs.

The third genus from the Oriental region, *Pheugonius* FAIRMAIRE, 1899, obviously belongs to an other evolutionary group (together with the African genus *Prioscelis* HOPE, 1840) because of the following characters: antennae relatively short with antennomere 3 not prolonged, lateral margin of pronotum smooth, elytra with 9 distinct punctural rows and flat intervals without any keels, and different modifications of the legs besides the huge body size of 50–60 mm.

Malayoscelis gebieni sp. n.
(Figs 1, 3–10)

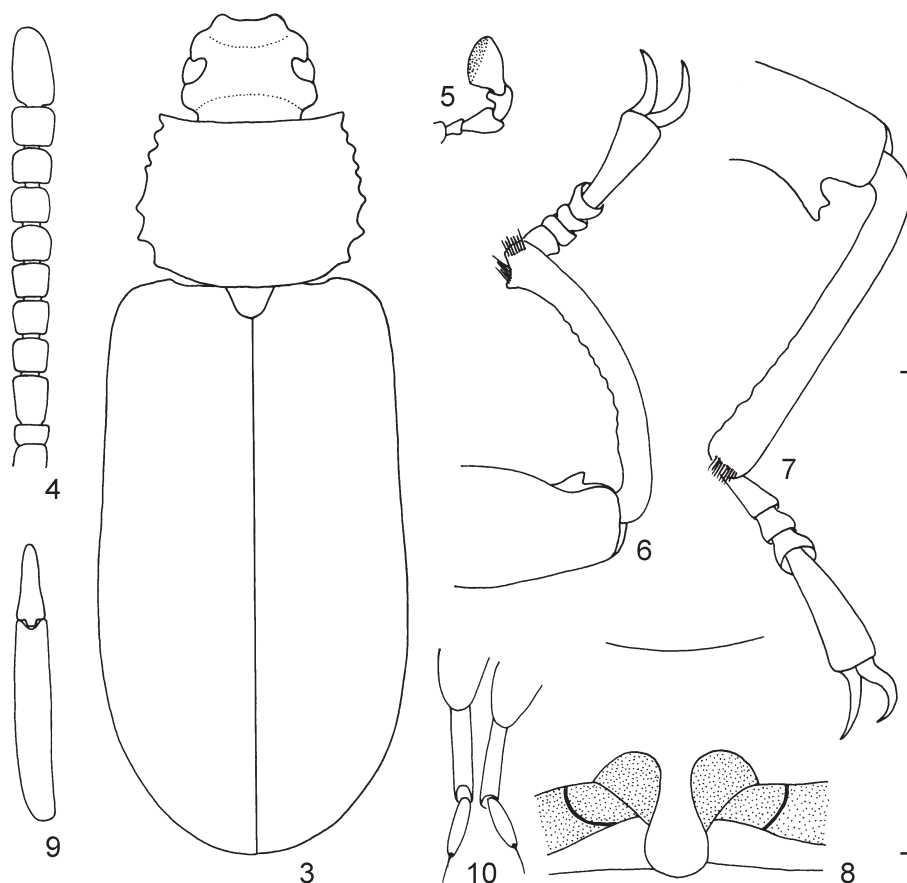
Holotype (male): Malaysia, Cameron Highlands, Tanah Rata, 13.–16.III.1997 leg. I. JENIŠ, CHBM.

Paratypes: Same data as holotype, 2 ex. CHBM, 2 ex. SMNS. – Malaysia, Cameron Highlands, Tanah Rata, 13.–17.II.1997 leg. U. DULÍK, 1 ex. CHBM. – Malaysia, Cameron Highlands, Brinchang, Gunung Beremban, 1600 m, 18.–19.I.1995 leg. S. & S. BEČVÁŘ, 2 ex. CSBC, 1 ex. SMNS. – Malaysia, Cameron Highlands, Gunung Jasar, 1400–1500 m, 20.–25.I.1995 leg. S. & S. BEČVÁŘ, 4 ex. CSBC. – Malaysia, Cameron Highlands, Tanah Rata, Gunung Jasar, 19.–25.VI.1995 leg. S. BEČVÁŘ, 1 ex. HNHM, 1 ex. CSBC. – Malaysia, Cameron Highlands, Tanah Rata, Gunung Jasar, 12.–15.II.1998 leg. S. BEČVÁŘ, 4 ex. CSBC, 1 ex. SMNS. – Malaysia, Cameron Highlands, Tanah Rata, 50 km SE Ipoh, 1500 m, 13.–16.III.1998 leg. M. JUST, 1 ex. CSBC.



Figs 1–2. Dorsal view. 1: *Malayoscelis* gen. n. *gebieni* sp. n. (Malaysia); 2: *Aeditiorix* cf. *petersi* GEBIEN, 1921 (Philippines)

Description (male): Body length 16.0–17.5 mm. Body and appendages unicoloured dark brown to black, elytra sometimes indistinctly paler; surface of head and pronotum dull, of elytra somewhat shining; without regular setation. Head (Fig. 3) with coarse, confluent punctation; genae above antennal insertion without punctation and shining; clypeal suture distinctly impressed; clypeus excavated; temples considerably broadened and separated from the narrow neck; proportions of antennomeres see Fig. 4, antennomere 2 short, antennomere 3 prolonged, antennomeres 4–10 subquadrate, antennomere 11 twice as long as antennomere 10; both mandibles bifid; maxillary palps (Fig. 5) with broadened last segment; mentum pentagonal with an impression on each side and with a weak longitudinal keel medially; underside of head with rounded gular impression. Pronotum (Figs 1, 3) 1.3 times wider than medially long, with coarse and confluent punctation as on head, surface somewhat uneven; all margins bordered and shining, lateral margin distinctly crenulate; propleures with punctation sparser than on disc. Prosternum (Fig. 8) with a rounded, flat prosternal process not



Figs 3–10. *Malayoscelis* gen. n. *gebieni* sp. n. 3: dorsal view; 4: antenna; 5: maxillary palp; 6: anterior leg of male; 7: posterior leg of male; 8: prosternal process; 9: aedeagus; 10: gonostyles and last coxite lobes of female. Scale line: 10.0 mm (3), 5.0 mm (4–10)

distinctly surpassing posterior margin. Mesoventrite with dull and confluent punctation. Meta-ventrite medially impunctate and shining, with a distinct longitudinal line medially. Scutellum only with fine and separate punctures. Elytra (Figs 1, 3) long and parallel-sided; with traces of 5–7 keels, these keels shining, between the keels with shallow and confluent punctation, surface with additional microgranules; epipleura regularly narrowed toward apex, without separated constriction, shining and without punctures but with microgranules in the humeral part. Wings fully developed. Abdominal ventrites unpunctured, but with leather-like microstructure, last visible ventrite unbordered and without distinct modifications. Legs (Figs 6–7) with the anterior and middle femora with a single, posterior femora with 2 distinct teeth shortly before apex; anterior tibia bent, posterior tibia straight; all tibiae with crenulate inner side; anterior and middle tibiae with distinctly hooked inner apex; apex of tibiae without spurs and with comb-like setae; tarsal segments not dilated in males; claw segment of all legs longer than basal segments combined; trochanter of all legs without spines or other peculiarities; surface of all legs nearly impunctate and shining. Aedeagus (Fig. 9) quite small in comparison with the body length, connate parameres finger-like.

Sexual dimorphism: Not striking. Females also with armed femora, but anterior tibia somewhat straighter, anterior and middle tibia without hooked inner apex.

Etymology: This taxon is named in honour of HANS GEBIEN (1874–1947), whose monograph of the Pycnocerini (1904) was the first of his numerous and substantial contributions towards tenebrionid taxonomy.

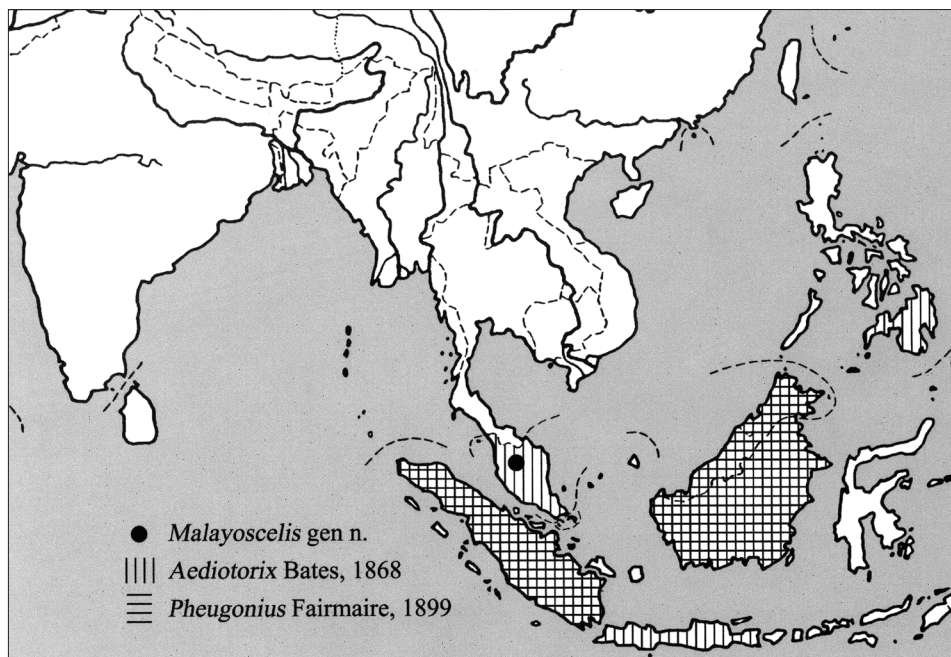


Fig. 11. Distribution of the known genera of the Oriental Pycnocerini

Biology: Adult beetles were collected in standing trunks of dead broadleaved trees, together with larvae and pupae. The rotten, white coloured substrate was said to be extremely dry. A species of *Aediotorix* was found syntopically (BEČVÁŘ, personal communication).

NEW AND COMPARED MATERIAL OF AEDIOTORIX BATES, 1868

The species identification within the genus is unclear, although only a few taxa have been described. However, most descriptions are based on single males or females without considering sexual dimorphism.

Aediotorix cf. *jansoni* BATES, 1868: Malaysia, Perak, 25 km NE Ipoh, Banjaran Titi Wangsa Mts., Mt. Korbu, 1200 m, 27.I.–2.II.1999 leg. P. CECHOVSKÝ, 1 ex. SMNS.

Aediotorix cf. *kolbei* GEBIEN, 1904: Borneo, Sabah, Kinabalu NP, Headquarters, 1500–1600 m, 11.–15.XI.1996 leg. W. SCHAWALLER, 1 ex. SMNS.

Aediotorix cf. *petersi* GEBIEN, 1921 (Fig. 2): Philippines, Mindanao, 25 km NW Zamboanga, camp Susana, 800 m, 28.–30.IV.1996 leg. L. BOLM, 1 ex. SMNS. – Philippines, Mindanao, Mt. Apo, Ilomavis, 1400 m, 18.–19.V.1996 leg. L. BOLM, 2 ex. SMNS.

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REFERENCES

- FERRER, J. and MORAGUES, G. (2000) Révision des espèces appartenant au genre *Pheugonius* Fairmaire (1899) et description d'une nouvelle espèce de Borneo (Coleoptera, Tenebrionidae). *Nouv. Rev. Ent. (N. S.)* **17**(3): 233–244.
- GEBIEN, H. (1904) Revision der Pycnocerini Lacord. (Coleoptera Heteromera). *Dtsch. ent. Z.* **1904**: 101–176, 305–356.
- WATT, J. C. (1974) A revised subfamily classification of Tenebrionidae (Coleoptera). *New Zealand J. Zool.* **1**: 381–452.

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