

[研究文章 Research Article]

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## ***Macrotomoxia gardneri* (Blair, 1931) in Borneo (Coleoptera: Mordellidae): New Distribution Record**

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**Abstract.** *Macrotomoxia gardneri* (Blair, 1931), previously known from India (West Bengal), Indonesia (North Sumatra) and Malaysia (Borneo: Sarawak), is recorded in Sabah (Borneo) for the first time. The photographs of habitus, terminal maxillary palpomere and male genitalia are provided.

**Key words:** Tenebrionoidea, tumbling flower beetles, new faunistic record, distribution, Oriental region

### **Introduction**

The family Mordellidae Latreille, 1802, also known as tumbling flower beetles or pintail beetles, comprising approximately 1500 species worldwide, is characterized by the humpbacked, wedge-shaped body and conical terminal tergite. This feature, combined with the action of the posterior legs, allows some genera in performing tumbling movements for escaping from predators (Lawrence & Ślipiński, 2010).

*Macrotomoxia* Pic, 1922 (Mordellidae: Mordellini) includes only two species widely distributed through the Oriental region. Based on its singularly modified maxillary palpi, this genus is placed in the *Calycina* group of genera (*sensu* Franciscolo, 1965) although the monophyly of *Calycina* genus-group is questioned by Horák (1999). *Macrotomoxia* is distinguishable from its counterparts by the combination of the following characters: uniform brown coloration; considerably large eyes, extending on the ventral side of head; broad and cuneiform temples; simple metatibiae and metatarsomeres, without dorsal ridges; symmetrical parameres (Horák, 1999).

*Macrotomoxia gardneri* (Blair, 1931) was originally described under *Calycina* and transferred to *Higehananomia* by Horák (1995). Moreover Horák (1999) synonymizes *Higehananomia* with *Macrotomoxia* and placed this species within it as well. *Macrotomoxia gardneri* is previously recorded from India (West Bengal), Indonesia (North Sumatra), Malaysia (Borneo: Sarawak) and it is recorded in Sabah (Borneo) for the first time.

### **Material and methods**

The specimen was examined using a Leica M205 C stereomicroscope and the photographs were taken using a Nikon COOLPIX P310 digital camera. Species identification is based on Horák (1995; 1999). The morphological terminology follows Horák (1999). The specimen cited in this paper is deposited in the Y. Hsiao's private collection, Taichung, Taiwan (YHPC).

### **Results**

#### ***Macrotomoxia gardneri* (Blair, 1931)**

Chinese name: 加德納巨鬚花蚤  
(Figs. 1–7)

*Calycina gardneri* Blair, 1931.

*Higehananomia gardneri*: Horák, 1995.

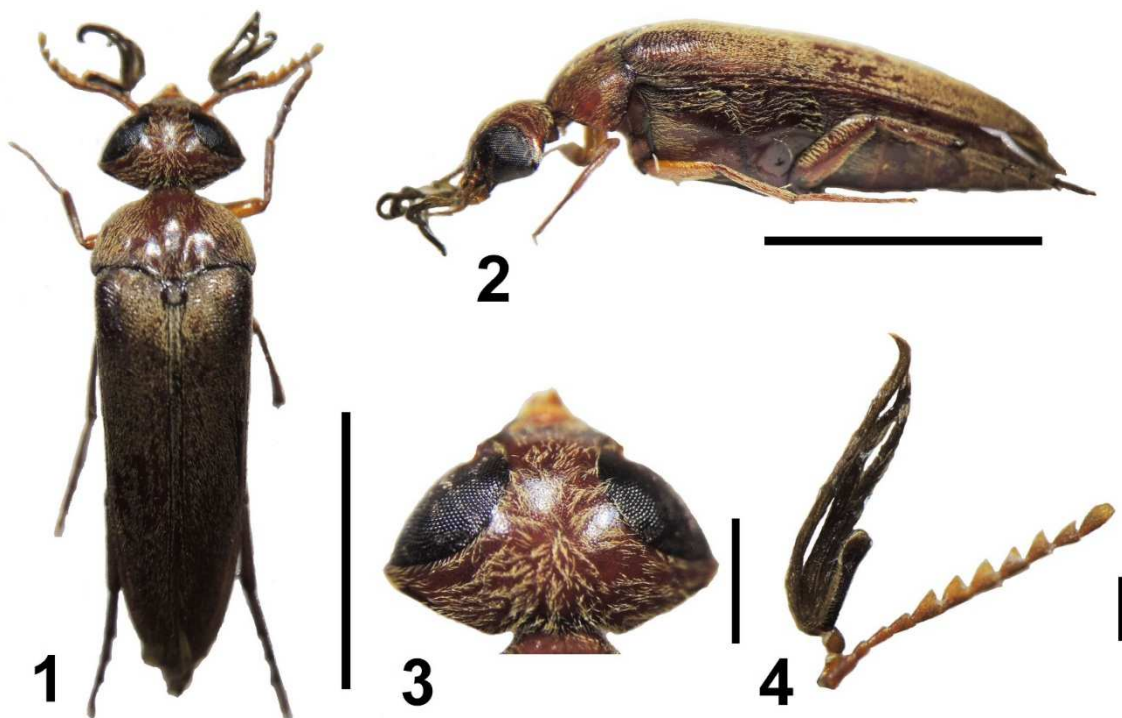
*Macrotomoxia gardneri*: Horák, 1999.

**Material examined.** 1 ♂, MALAYSIA: BORNEO: Trus Madi Mountain (叢林女孩營地), alt. 1121m, 05°26.529'N 116°27.309'E, Sabah, 20. IV. 2017, Y.-J. Lin leg. (YHPC).

**Diagnosis** (based on Horák (1999)). This species closely resembles *Macrotomoxia castanea* Pic, 1922 and it can be distinguished from its congener by the combination of following characters: reddish brown coloration (brown in *M. castanea*); aedeagus broadly parallel-sided in the apical part (gradually narrowed in *M. castanea*); parameres elongate, narrow, slightly curved, apically expanded (thick, straight, parallel-sided in *M. castanea*); basal part of the parameres bearing one tubercle, rounded apically (acute in *M. castanea*).

**Notes.** The parameres of the specimen considered in this note is thinner and slightly expanded in the apical part if compared to the holotype illustrated in Horák (1995).

**Distribution.** India (West Bengal); Indonesia (North Sumatra); Malaysia (Borneo: Sarawak; Sabah, new record).



Figures 1–4. *Macrotomoxia gardneri* (Blair, 1931) from Sabah, Borneo, Malaysia. 1–2. Habitus: 1. dorsal view; 2. lateral view. 3. Head. 4. Terminal maxillary palpomere and antenna. Scale bars: 1–2. 1.0 mm; 3. 1.0 mm; 4. 0.5 mm.



Figures 5–7. Male genitalia. 5. Paramere. 6–7. Median lobe (= penis): 6. ventral view; 7. lateral view. Scale bar: 0.5 mm.

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## 婆羅洲產加德納巨鬚花蚤之分布新紀錄 (鞘翅目：花蚤科)

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**摘要:** 加德納巨鬚花蚤 *Macrotomoxia gardneri* (Blair, 1931) 早前已知分布於印度 (西孟加拉邦)、印尼 (北蘇門答臘省) 和馬來西亞 (婆羅洲砂拉越州)，婆羅洲島的馬屬沙巴州為本種之首次紀錄，並同時隨附整體形態、末節小顎鬚和雄性生殖器照片。

**關鍵詞:** 擬步行蟲總科、花蚤、物種相新紀錄、分布、東方區