

**Contributions to the Knowledge of the Myrmecophilous
Pselaphines (Coleoptera, Staphylinidae, Pselaphinae) from
China. IX. a Redefinition of the Genus *Anaclasiger*, with a
Description of a Second Species Associated with *Prenolepis
sphingthoraxa* (Hymenoptera, Formicidae)**

by

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ABSTRACT

The genus *Anaclasiger* Raffray is redefined and its taxonomic placement briefly discussed, based on the discovery of a second species of the genus, *A. zhudaiaae* sp. n., collected in association with the ant *Prenolepis sphingthoraxa* from South China. The new species is described and illustrated. An identification key to species of *Anaclasiger* is provided.

INTRODUCTION

The monotypic genus *Anaclasiger* Raffray was established (Raffray, 1890a) for a unique species, *A. sinuaticollis* Raffray, from Singapore. Subsequently, the species was recorded from Taiwan (Raffray, 1914) and Malaysia (Nomura & Idris, 2005). Recently, *A. sinuaticollis* was redescribed (Nomura *et al.*, 2006) in detail with SEM illustrations, and was reported from Thailand and Japan in the same paper.

In 2010, the junior author, Bao-Ping Huang, conducted several investigations on the local entomological fauna of Shenzhen city, during which a small series of clavigerine beetles were collected from several colonies of the ant *Prenolepis sphingthoraxa* Zhou et Zheng. Among the collected specimens, some proved to represent an undescribed genus and species, recently named (Yin *et al.* 2011) *Sinoclavigerodes yalianae*, and a single individual belonged to an unknown species of the genus *Anaclasiger*.

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The purpose of this paper is to redefine the genus *Anaclasiger* and briefly discuss its taxonomic placement, to describe the new species with illustrations of its major diagnostic features, and to provide an identification key to species of the genus *Anaclasiger*.

MATERIAL AND METHODS

A slash (/) is used to separate lines on the same label, a double slash (//) is used to separate different labels. The foveal terminology follows Chandler (2001), except for using 'ventrite' instead of 'sternite'.

The following acronyms are used in the text: **AL**—length of the abdomen; **AW**—maximum width of the abdomen, measured in dorsal view; **BL**—length of the body (= HL + PL + EL + AL); **EL**—length of the elytra, measured along the sutural line; **EW**—maximum width of the elytra; **HL**—length of the head, measured from the anterior clypeal margin to the occipital constriction; **HW**—width of the head across eyes; **PL**—length of the pronotum along midline; **PW**—maximum width of the pronotum.

The holotype is deposited in the Insect Collections of Shanghai Normal University.

TAXONOMY

Genus *Anaclasiger* Raffray

Anaclasiger Raffray, 1890a: 165

Type species

Anaclasiger sinuaticollis Raffray (subseq. mon. by Raffray, 1890b: 216).

Diagnosis

Head cylindrical, frontal rostrum strongly projecting; antennae formed by four antennomeres, antennomeres I–II short, and antennomeres III–IV long; antennomeres IV rounded apically, lacking setose truncate cavity. Pronotum lacking foveae; with distinct lateral antebasal constriction. Elytra lacking basal foveae; discal striae present; lacking setal trichome at postero-lateral margins.

Redescription

Length 1.5–2.1 mm. Head with prominent frontal rostrum, lacking antennal tubercles; nude vertexal foveae widely separated; antennae with four antennomeres, antennomeres I–II short and subequal in length, III–IV elongate; antennomeres III straight, IV much longer than III, curved laterally, with dense apical setae; gula broadly and shallowly swollen, with two gular foveae moderately separated.

Pronotum with thick discal setae in anterior half; mediobasal impression large and shallow; distinct lateral antebasal constriction covered with rows of long setae; lacking lateral antebasal foveae; lacking lateral procoxal foveae.

Elytra lacking basal fovea; discal striae extending from humeral angle and extending to at least elytral midpoint.

Meso- and metathorax lacking foveae; metathorax strongly convex medially; with broad posterior margin. Legs short to elongate; tarsomeres I–II very short, III elongate; tarsomeres I often difficult to see.

Abdomen with tergites IV–VI fused into composite plate, with deep transverse basal impression, deep basolateral foveae in impression; thick setal trichome at lateral ends of impression; paratergites IV–VI well demarcated, IV with linear tufts of setae at base; sternites IV–V subequal in length, VI–VII short; sternite IV with large mediobasal foveae. Aedeagus asymmetric, median lobe broad and elongate; with sclerotized endophallus; large dorsal diaphragm opening oval.

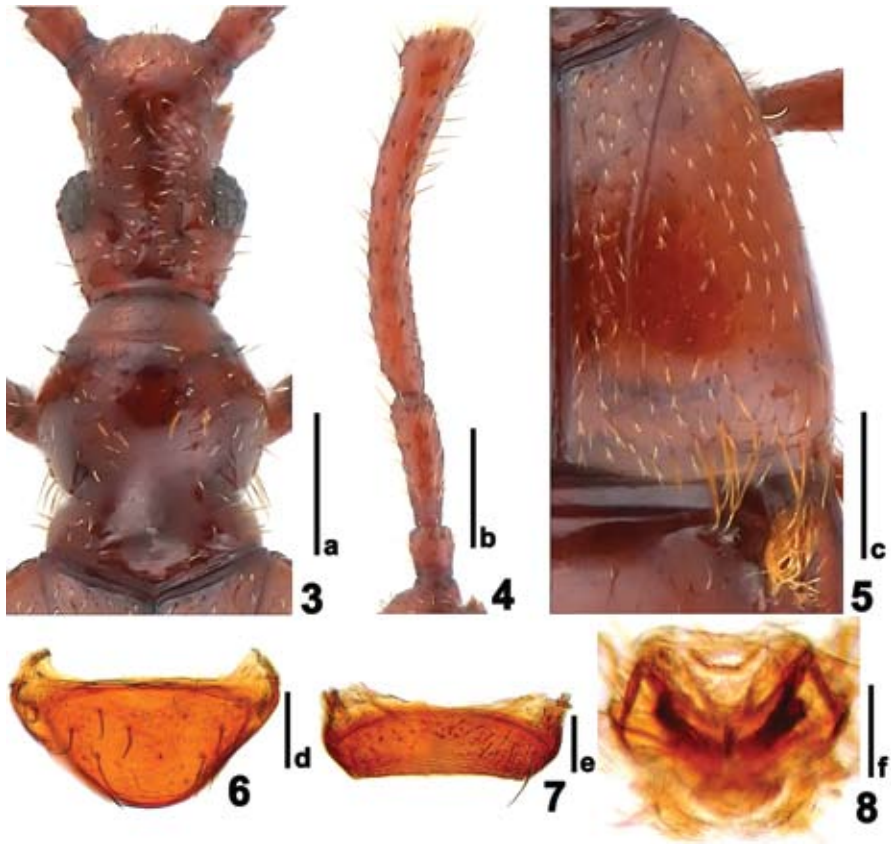
Comparative notes. This is placed as a unique genus in the subtribe Clavigerodina by the head being separated from the neck by an occipital carina, the elytra covered with short, thin and sparse setae arranged without order, and the composite tergite lacking a laterally well-defined furrow in the large transverse basal depression. *Anaclasiger* shares only with *Microdiartiger* Sawada the short antennomeres I–II and long antennomeres III–IV. This genus also shares with *Sinoclavigerodes* Yin *et al.* the lack of the setal trichome at the elytral posterolateral margins. *Anaclasiger* can be readily separated from all Asian clavigerodine genera by the terminal antennomere being rounded apically (not truncate) and lacking an apical setose cavity, and the pronotum with a distinct lateral antebasal constriction.



Fig. 1. Dorsal habitus of *Anaclasis sinuaticollis*. Scale: 0.3 mm.



Dorsal habitus of *Anaclasiger zhudaiiae*, holotype. Scale: 0.5 mm.



Figs. 3-8. Details of *Anaclasisger zhudaiiae*. 3. head and pronotum; 4. right antenna; 5. right elytron and tergal base; 6. tergite VIII; 7. sternite VIII; 8. female genitalia. Scales: a-c = 0.3 mm; d-f = 0.1 mm.

Anaclasisger zhudaiiae Yin and Huang, new species
(Figs. 2-9)

Type material. Holotype female, labeled 'CHINA: Guangdong Prov. / Shenzhen, Yantian Dist. / Yantian Station / 30.i.2010, B.P. Huang leg. // [red] HOLOTYPE / *Anaclasisger zhudaiiae* sp. n. / Yin et Huang det 2012, SNUC'.

Description. Female. Body (Fig. 2) length 2.06 mm; reddish brown, mouthparts and tarsi lighter. Head (Fig. 3) longer than wide, HL 0.37 mm, HW 0.27 mm; with sparse short setae dorsally; eyes each composed of about

25 facets; length of antennomeres III 0.22 mm, IV 0.61 mm, III / IV = 1: 2.8 (Fig. 4); antennomeres IV rounded apically, with dense long apical sensory setae. Pronotum (Fig. 3) slightly longer than wide, PL 0.42 mm, PW 0.32 mm; lacking punctation; lateral antebasal constriction formed by distinct marginal sulci; small mediobasal pit in large impression. Elytra (Fig. 5) wider than long, EL 0.55 mm, EW 0.76 mm; sparsely with short setae dorsally, with row of long thick setae at posterolateral margins; discal striae extending from humeral angle to 2/3 of elytral length. Composite plate strongly convex dorsally, with long discal setae and short setae around disc. Tergite VIII (Fig. 6) transverse, roundly narrowed posteriorly, with thick setae. Sternite VIII (Fig. 7) transverse, flat at posterior margin. Female genitalia complex (Fig. 8) well sclerotized.

Male. Unknown.

Host ant

Prenolepis sphingthoraxa Zhou and Zheng, 1998 (det. by the junior author). This is the first host record for *Anaclasiger*.

Biology. The single specimen was collected from the ant colony nesting under a rock near a stream (Fig. 9).

Distribution

Guangdong Province, South China.

Remarks

The new species can be readily separated from *A. sinuaticollis* by the much longer antennae and legs, antennomeres IV slightly curving laterally at the apical half, elytra with sparse long and thick setae at the anterolateral margins, and the elytral discal striae extending past the elytral midpoint. *Anaclasiger sinuaticollis* has relatively short antennae and legs, antennomeres IV are abruptly twisted laterally in the apical half, the elytra lack long thick setae at the anterolateral margins, and the discal striae end at the elytral midpoint. The habitat of the new species is shown in Fig 9.

Etymology

The specific name is dedicated to the junior author's grandmother, Zhu-Dai Zhang, to celebrate her coming 85th birthday.



Fig. 9. Habitat of *Anaclasiger zhudaiae*.

KEY TO SPECIES OF ANACLASIGER RAFFRAY

1. Antennomeres III–IV relatively shorter, IV abruptly curved laterally at middle (Nomura, 2006: 288, Fig. 2-F). Pronotum barely wider than long (Nomura *et al.*, 2006: 288, Fig. 2-G). Elytra lack row of long thick setae at anterolateral margins (Nomura, 2006: 289, Fig. 3-E). (Singapore, Thailand, Malaysia, China: Taiwan, Japan) *A. sinuaticollis* Raffray
- Antennomeres III–IV much longer, IV evenly curved laterally through entire length (Fig. 4). Pronotum slightly longer than wide (Fig. 3). Elytra with rows of long thick setae at posterolateral margins (Fig. 5). (China: Guangdong) *A. zhudaiae* Yin & Huang, **new species**

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ERRATUM

Zi-Wei Yin *et al.* (2011) Contributions to the Knowledge of the Myrmecophilous Pselaphines (Coleoptera, Staphylinidae, Pselaphinae) from China. V. *Sinoclavigerodes yalianae* gen. et sp. nov. (Clavigeritae) Associated with *Anoplolepis gracilipes* (Formicidae). *Sociobiology* 57(1): 1–9.

The host ant of *Sinoclavigerodes yalianae* was figured, but erroneously identified as *Anoplolepis gracilipes*. The correct specific name should be *Prenolepis spingthoraxa* Zhou & Zheng.



