

Enrico RUZZIER

A new species of *Calycina* (Coleoptera Mordellidae) from Papua New Guinea

Riassunto: *Una nuova specie di Calycina (Coleoptera Mordellidae) di Papua Nuova Guinea.*

Nel presente lavoro viene descritta *Calycina poggii* n. sp. (♀, loc. typ.: Papua Nuova Guinea, Fly River) ed è fornita una chiave delle specie mondiali.

Abstract: *Calycina poggii* n. sp. is described (♀, loc. typ.: Papua New Guinea, Fly River) and a key to the world species of the genus *Calycina* Blair, 1922 is given.

Key words: *Calycina*, new species, Mordellidae, New Guinea.

INTRODUCTION

The genus *Calycina* Blair, 1922 currently consists of seven species (Horák, 1999) with a circum-tropical distribution. These beetles are large to middle-sized species with a body shape that varies among species from stumpy to slender. The terminal maxillary palpomere in the male has three tentacular processes; in the female it is elliptical with a deep concavity on the inner side. The eyes are small, finely faceted, sometimes with small hypocarnical extension. The temples are extremely broad, 4th tarsomere of fore and medial legs dilated, not bilobed, with deeply inserted onichium. Metatibiae and metatarsi without dorsal ridges.

The systematics of this genus is still unresolved and only partially addressed (Horák, 1999) due to the scarcity of collected samples and because most species are known only from female specimens.

In southeast Asia there are four species: *C. nigriceps* (Blair, 1922a) from Malaysia, *C. nigroapicalis* (Nomura, 1967) from Taiwan, *C. major* (Nomura, 1967) from Taiwan and West Sumatra, *C. sericeobrunnea* (Blair, 1915) from New Guinea. No other Mordellidae described from Papua New Guinea, first by Lea (1931) and after by Franciscolo (1952) and Batten (1990), can be referred to *Calycina*.

Recently I had the opportunity to study and rearrange the Mordellidae collections in Museo Civico di Storia Naturale "G. Doria". During my work I found an unusual specimen of *Calycina* which belongs to a new species. This species will be described in this paper.

Calycina poggii n. sp.

TYPE MATERIAL. Holotype female labeled: Nuova Guinea, Fly River, L. M. D'Albertis, 1876-1877. The type is preserved in Museo Civico di Storia Naturale "G. Doria" in Genoa, Italy (MCSNG).

DESCRIPTION. Measurement (mm): head 2.2×3.6; pronotum 2.9×4.3; elytra 9.1×4.2; pygidium 1.9×1.8; total length 16.

Ground color of the body uniformly bright orange, elytra blue colored (Fig. 1). Labrum, labial and maxillary palpi orange-brown; antennae basally orange, darkened from 5th antennomere (Fig. 2). Ground pubescence thin and thick, yellow colored, without any kind of draw or spotted pattern on elytra. Head broader than long (ratio 1.6), narrower than pronotum (ratio 0.8), markedly convex and massive. Occipital margin, from above, not in a regular curve. Temples broad with temporal edge very angulate and laterally strongly protruding (Fig. 3).

Eyes quite small, minutely faceted, moderately hairy, not reaching the occiput and with small hypocarnical expansion. Last segment of maxillary palpi club-like with deep concavity in ventral surface.

Antennae markedly toothed, with antennal segment dilatation starting from 3rd. Third antennomere much longer than broad (ratio 1.5) and much longer than the following segments (ratio 1.4 with 4th and 1.8 with 7th). Segments from 4th to 11th little broader than long (ratio 0.9) (Fig. 2).

Pronotum broader than long (ratio 1.5), seen from above subtrapezoidal. Anterior lobe narrow,

distinctly protruding and strongly sinuate at sides. Basal lobe broad, only slight protruding, moderately sinuate at sides and flat rounded at apex (Fig. 3).

Scutellum triangular, shortly rounded at vertex, blue colored, sparsely covered by the same type of golden pubescence of pronotum.

Elytra convex, 2.1 times as long as their combined width at shoulders. Lateral margins of elytra parallel sided seen from above, markedly rounded near apex (Fig. 4), lacking of the marked humeral rib present in other species of the genus. There is only a slight relief extending from humeral region to no more than a quarter of elytral length, becoming evanescent towards the middle (Fig. 3,4).

Fore and medial legs orange with distal part of tibia and tarsomere darkened (Fig. 1). Hind legs completely orange, of the same color as body, with tibial spines orange-brown; the inner 2.1 times longer than the outer.

Pygidium 1.5 times as long as hypopygidium, short, stout (ratio 1.0), not carinate, conical, truncate at the tip, of the same color of the rest of the body, not covered by elytra. (Fig. 1).

ETYMOLOGY. I am pleased to name the new species after my dear friend Dr. Roberto Poggi, Honorary Cu-

rator of Museo Civico di Storia Naturale “G. Doria” in honor of his retirement.

NOTES. The holotype was originally pinned, but is now glued on a card.

Due to the fragility of the specimen, because it is internally filled by copper oxide resulting from the old pin, and because that specimens of this genus are extremely rare, the author has avoided genital dissection. However, the combination of external characters is sufficient to identify the species.

DISCUSSION. A careful examination of *Calycina poggii* n. sp., of additional Mordellidae specimens referred to *Calycina* present in the author’s collection (one *Calycina* sp. related to *C. sericeobrunnea* from Myanmar and two *Calycina* n. sp related to *C. palpalis* from French Guiana, all females), from comparison of high quality Type pictures (*C. nigriceps*, *C. sericeobrunnea*) and detailed illustrations given by Horák (1999), has revealed two distinct morphogroups united under the same genus *Calycina*. The general shape of the body and in particular the shape of the head groups *C. nigriceps* and *C. poggii* together (*C. nigriceps*-group), separated from other species (*C. palpalis*-group). The former have a squat body shape, subrectangular in



Fig. 1. *Calycina poggii* n. sp., lateral view. (Scale bar 5 mm).

dorsal view; the head has markedly developed temples bulging at the sides. The remaining species (*C. palpalis*-group) have much more slender body, cuneiform. The head lacks prominent temples and is more regularly rounded.

However, the character of greater importance which ensures a clear division between the groups is the shape and size of antennal segments. *Calycina nigriceps*-group have an extremely long first antennal segment (2-2.5 times longer than the second), a second very short, third segment approximately long as first. Antennomeres from third onward markedly dilated and toothed. *Calycina palpalis*-group have the first antennal segment small, very similar in size and shape to the second and third. Only the segments from fourth onwards are clearly dilated and not so markedly toothed.

That character, as already shown by Ermisch (1950) and Franciscolo (1965) would be sufficient to separate the two groups in two different genera or subgenera.

However, I will not be able to solve the issue until additional specimens become available, especially males.

Key to species of *Calycina* (Horák, 1999, modified).

- 1 Body bicolored..... 2
- Body unicolored..... 4
- 2 Body entirely light orange with blue elytra. Third

antennomere longer than broad (ratio 1.53) and longer than fourth (ratio 1.4). Temples with stronger prominent acute temporal angle. Disc on each elytron behind humerus only in basal half with slightly marked longitudinal impression. Pygidium not covered by elytra. Length 16 mm. New Guinea

.....*C. poggii* n. sp.

- Body rusty colored with black elytral apices and black head 3

3 First and third antennomeres equal in size, each three times as long as the second and twice as long as the fourth. Antennae beginning from the fourth antennomere strongly serrate, fourth antennomere as long as wide, tenth one by one third wider than long. Temples with stronger prominent acute temporal angle. Fourth tarsomeres of both fore and mid legs emarginate in two distal third of their length.

Length 12 mm. Malaysia

.....*C. nigriceps* (Blair, 1922)

- Third antennomere as long as the second and a little shorter than the fourth, first antennomere distinctly larger than the third and only a little longer than the second one. Antennae beginning from the fourth antennomere only fleebly serrate, with fourth and tenth antennomere slightly longer than wide. Temporal angles not projecting into acute points. Fourth tarsomeres of both fore and mid legs only shallowly emarginate. Length 6 mm (excluding head and pygidium) Taiwan*C. nigroapicalis* (Nomura, 1967).



Fig. 2. *Calycina poggii* n. sp., lateral view of head. (Scale bar 5 mm).



Fig. 3. *Calycina poggii* n. sp., dorsal view of head and pronotum. (Scale bar 5 mm).

- 4 Elytra twice (female) or 2.3 (male) times longer than their combined width. Pygidium completely covered by elytra (female) or distinctly projecting behind them (male), only slight longer than hypopygidium. Basic pubescence of elytra dark brown, with golden-silvery pattern consisting of large and vaguely delimited humeral spots and broad transverse spot behind the midlength of elytra. Length 9.0-10.4 mm. West Africa (Gulf of Guinea).....
*C. guineensis* (Blair, 1922)
- Elytra in both sexes 2.4-2.7 times longer than their combined width. Pygidium distinctly exceeding ely-

- tra, sometimes completely exposed, nearly twice as long as hypopygidium. Pubescence of elytra red-brown to brown, concolorous, in some specimens with strips of golden-brown hairs along suture..... 5
- 5 Lateral margins of pronotum in lateral view straight, posterior angles subrectangular. Pronotum with slightly projecting posterior lobe. Elytra without pale hairs along suture. Protarsi not dilated in male. Processes on paramere very long, comparatively narrow. Length 14.7 mm. Brasil (Bahia)
*C. palpalis* (Blair, 1922)
- Lateral margins of pronotum in lateral view convex, posterior angles broadly obtuse. Pronotum with low mediolongitudinal carina reaching for posterior lobe to anterior margin. Elytra with more or less distinct golden-brown pubescence along suture 6
- 6 Elytra long and slender, 2.6-2.7 times long than their combined width at humeri. Disc of each elytron behind humerus with distinct longitudinal impression reaching to the apex of elytra. Head and pronotum black. Length 15-16 mm. Taiwan, West Sumatra
*C. major* (Nomura, 1967)
- Elytra 2.4 times longer than their combined width at humeri. Disc on each elytron behind humerus only in basal half with slightly marked longitudinal impression. Head and pronotum dark brown, only slightly darker than elytra. 16.2 mm. New Guinea
*C. sericeobrunnea* (Blair, 1915)



Fig. 4. *Calycina poggii* n. sp., dorsal view. (Scale bar 5 mm).

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Author's address:

Enrico Ruzzier, via Barbato 10/1, 30035 Mirano (VE). E-mail: symphylla@gmail.com