

**FIRST PHILIPPINE RECORD OF THE COCKROACH GENUS  
*Anaplecta* BURMEISTER 1838 (BLATTODEA:  
ECTOBIIDAE: ANAPLECTINAE) WITH THE DESCRIPTION  
OF A NEW SPECIES FROM MT. MAKILING, LAGUNA`**

**Cristian C. Lucañas**

University Research Associate I, Museum of Natural History, University of the Philippines Los Baños, Los Baños, Laguna; e-mail: cclucanas@up.edu.ph

**ABSTRACT**

The cockroach subfamily Anaplectinae and the genus *Anaplecta* Burmeister are recorded for the first time from the Philippines. *Anaplecta anncajanoae*, n. sp., is here described as a species new to science. *A. anncajanoae* is distinct from other *Anaplecta* species by the serration of its tarsal claws and the structure of the male genitalia. Two other probably undescribed *Anaplecta* species are noted from Davao and Leyte.

**Key words:** *Anaplecta anncajanoae*; Blattodea; museum specimens; new species; range extension.

**INTRODUCTION**

The genus *Anaplecta* Burmeister 1838 contains 93 species distributed throughout the tropics (Beccaloni, 2014). This genus, together with *Maraca* Hebard, falls under the subfamily Anaplectinae, which is characterized by the large appendicular field in the hind wing, valvular female subgenital plate, and corydiid-like male genitalia (Rehn, 1951).

While curating the cockroach collections of the University of the Philippines Los Baños - Museum of Natural History (UPLB-MNH), the author encountered several specimens of unidentified minute cockroaches. Upon examination, the specimens were identified to be species of *Anaplecta*, a genus previously not known from the country. Several of the specimens represented a new species, while the others have an insufficient number of specimens to be further identified. This paper aims mainly to describe the new species and document the occurrence of both the genus and the subfamily in the Philippines. Terminology used follows that of McKittrick (1964) and Roth (2003). All specimens, including the types of the new species herein described, are deposited in the Entomology Section of the UPLB-MNH.

## TAXONOMY

## Family Ectobiidae

## Subfamily Anaplectinae

Genus *Anaplecta* Burmeister

*Anaplecta* Burmeister, 1838: 494 [Type: *Anaplecta lateralis* Burmeister, by subsequent designation (Kirby, 1904: 66) (Colombia, South America)]; Bruinjing, 1948: 43; Hanitsch, 1928: 6; Hebard, 1929: 27; Princis, 1965: 367; Roth, 1990: 645; Roth, 1996: 304.

**Diagnosis:** Differs from *Maraca* Hebard, presently the only other genus in the subfamily, by the presence of arolia and sometimes pulvilli on the fourth tarsomere (Hebard 1926). Relatively larger than *Maraca*, except for *A. poecila* Hebard.

**Distribution:** Pan-tropical (Beccaloni, 2014). The discovery of *Anaplecta* in the Philippines extends its range of distribution further into South East Asia.

**Remarks:** Roth (1990) emphasized the need to revise the genus and to redescribe most of the species since the previous generic diagnosis was based on color and wing venation. In addition, the males of many *Anaplecta* are still unknown.

*Anaplecta anncajanoae* Lucañas, n. sp.

## Figure 1 A-H

**Material examined:** *Holotype*: 1 male; "at light", Philippines: Luzon Island: Laguna Province: Mt. Makiling, Los Baños, 31.v.1947 (LB Uichanco, UPLBMNH BLA-00535 ♂, mounted on slide) *Paratypes*: 1 male, 9 females: locality same as holotype 6.xvii.1945 (LB Uichanco, UPLBMNH BLA-00536 ♂; 00537 ♀), 18.v.1947 (LB Uichanco, UPLBMNH BLA-00537 to -00539 ♀), 31.xvii.1947 (LBUichanco, UPLBMNH BLA-00541 to -00543 ♀), 9.vii.1951 (M Bawagan, UPLBMNH BLA-00544 ♀) 14.v.1960 (SG Fajardo, UPLBMNH BLA-00545 ♀). *Non-type*: 1 male, Quezon Province: Barod, Mt. Banahaw de Lucban, Lucban, 15.viii.1998 (IL Lit, Jr. & OL Eusebio, UPLBMNH BLA-00547 ♂, mounted on slide).

**Diagnosis:** Macropterous. Forefemur Type B<sub>2</sub>. Pulvilli absent. Arolia present. Tarsal claws symmetrical, serrated. Genitalia corydiid-like.

**Description:** *Measurements* (mm): ♂, Total length: 4.75 ± 0.35; Pronotum: 1.25 ± 0.35 x 1.75 ± 0.35; Tegmina: 4.0; ♀ Total length: 4.83 ± 0.35; Pronotum: 1.28 ± 0.26 x 1.94 ± 0.17; Tegmina: 3.94 ± 0.17.

*Male.* Shiny brown throughout, except for hyaline tegminal and pronotal margin. Vertex concealed. Pronotum wider than long. Macropterous, tegmina slightly extending beyond abdomen. Hind wings as illustrated. Forefemur Type B<sub>2</sub> i.e. several proximal spines followed by piliform spinules terminating in two spines. Pulvilli absent. Arolia present. Tarsal claws symmetrical, with minute serrations on outer aspect. Supra-anal plate entire symmetrical, specialized with triangular to ovoid setal patch. Genitalia corydiid-like. L3 triangular basally with hook curved outward.

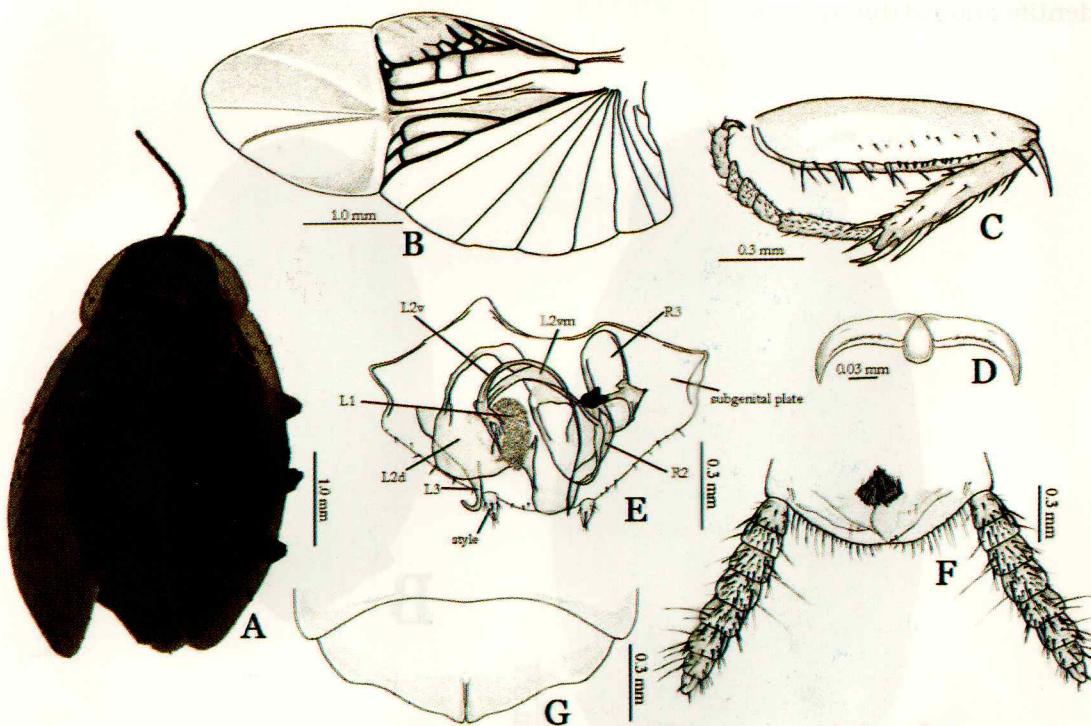


*Female.* Similar to male. Subgenital plate valvular.

**Etymology:** The species is hereby named after the late Ms. Mary Ann O. Cajano, formerly Museum Technician I, in the Botanical Herbarium of the UPLB MNH, in recognition of her contributions to the field of plant taxonomy, particularly on parasitic and epiphytic plants of the Philippines, especially *Rafflesia* and *Hoya*.

**Remarks:** This species is slightly similar to *A. arisanica* Shiraki and *A. malayensis* Shelford in coloration but differs in the serrated tarsal claws and structure of male genitalia. It is similar to *A. maculata* Shelford of India and Sri Lanka in terms of the serrated tarsal claws but differs in the coloration of the pronotum.

Very little is known regarding the ecology of the members of the genus, except for some that are known to live in the canopy. Most specimens are collected "at light" which suggests that this species also lives in the canopy, although additional observations are needed to confirm it.



**Figure 1.** *Anaplecta anncajanoae* Lucañas, n. sp.: (A) habitus; (B) hind wing; (C) proleg; (D) tarsal claw; (E) male genitalia and subgenital plate; (F) male supra-anal plate; (G) female subgenital plate. (Acronyms: L1, L2, L3: Left phallomere sclerites; L2d: L2 dorsal; L2v: L2 ventral; L2vm: L2 ventromedial; R2, R3: Right phallomere sclerites).

*Anaplecta* sp. A

## Figure 2 A

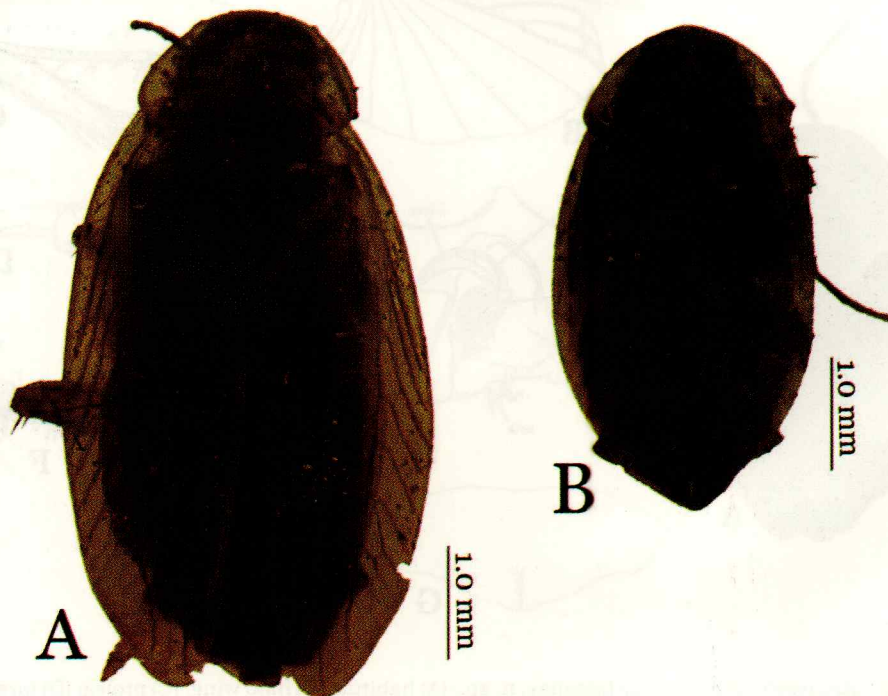
**Material examined:** 1 female, Philippines: Mindanao Island: Davao del Sur Province: Mt. Apo, Davao City, 15-iii-1956 (GB Viado, UPLBMNH BLA-00534 ♀).

**Description:** *Measurements* (mm): ♀ Total length: 6.5; Pronotum: 1.5 x 2.0; Tegmina: 5.5.

*Male.* Unknown.

*Female.* Yellow to light orange throughout. Vertex concealed. Pronotum wider than long. Tegmina well-developed, extending slightly beyond abdomen. Fore femur type B<sub>2</sub>. Arolia present, pulvillus absent. Tarsal claws simple, symmetrical. Supra-anal plate entire. Subgenital plate valvular.

**Remarks:** This species is similar to *A. humeralis* Hanitsch, *A. fulva* Brunner and *A. cornea minor* Hanitsch in terms of coloration. It differs from *A. cornea minor* by its entire subgenital plate. The absence of additional specimen prevents further identification of this species.



**Figure 2.** Other *Anaplecta* species from the Philippines: (A) *Anaplecta* sp. A, from Mt. Apo, Davao; (B) *Anaplecta* sp. B, from Balinsasayao, Leyte.



**Anaplecta sp. B****Figure 2 B**

**Material examined:** 1 female, Philippines: Leyte Island: Leyte Province: Balinsasayao, 50m asl, 30-iv-1952 (CR Baltazar, UPLBMNH BLA-00546 ♀).

**Description:** *Measurements* (mm): ♀ Total length: 4.83; Pronotum: 1.28 x 1.94; Tegmina: 3.94.

*Male.* Unknown.

*Female.* Coarse brown throughout, except for hyaline tegminal and lateral pronotal margins. Vertex slightly exposed. Pronotum wider than long. Macropterous, tegmina slightly extending beyond abdomen. Forelegs missing in presently available material but forefemur possibly of Type B<sub>2</sub>. Pulvilli, absent. Arolia present. Tarsal claws symmetrical. Subgenital plate valvular.

**Remarks:** This species is similar to *A. anncajanoae* in terms of coloration, but differs in its simple tarsal claws. The absence of additional specimen prevents further identification of this species.

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