New species of Desmiphorini (Coleoptera: Cerambycidae: Lamiinae) from the Reserva Biológica Alberto Manuel Brenes, Alajuela, San Ramón, Costa Rica

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Abstract


Additional key words: description; neotropical; taxonomy.

Introduction

From 2003 at the Reserva Biológica Alberto Manuel Brenes, Costa Rica, an Entomological Biodiversity Project between the Instituto Nacional de Investigación y Tecnología Agraria y Alimentaria (INIA, Spain) and the University of Costa Rica (UCR, Grecia, Costa Rica) has involved entomological explorations. Material of an unknown species belonging to the genus Esaguasu Galileo & Martins, 2007, has been collected.

The Reserva Biológica Alberto Manuel Brenes is a wild protected area created on 1 June 1975, in San Ramón and it is administrated by the University of Costa Rica. The reserve covers 7,800 ha, and 90% of it corresponds to the San Lorenzito River Basin. The area is limited to the North by Arenal-Monteverde and the Cloud Forest Reserve; to the East and South by a primary and secondary forest, and to the West by a forest of Cidral in the locality of Miramar (Salazar-Rodríguez, 2006). Few groups of insects have been studied in the Reserve. Salazar-Rodríguez (2007) mentioned the papers published on Hemiptera: Homoptera, Hymenoptera (Apidae), Lepidoptera, Odonata, Trichoptera, and Coleoptera (Scarabaeidae). Barranco (2010) approached the Orthoptera (Anostostomatidae and Tettigoniidae). The fauna from Costa Rica is still poorly known and this work is an important contribution to the knowledge of the biodiversity of Central America.

The only one species of the genus Esaguasu, E. ocularis Galileo & Martins, 2007, come from Colombia (Parque Natural Nacional Amacayucu, Mata Mata, 3° 23’S, 70° 6’ W, 150 m). It is characterized by antennomeres III-VIII with dense hairs fringe on the inferior edge; V and VI with sparse hairs fringe on the inferior edge; prothorax wider than long, with a postmedial lateral spine at each side; a mesosternal process with tubercle; an elytra with erect and long hairs and...
uneven areas of dense pubescence; and some elytral apices with an external long spine (Galileo and Martins, 2007).

The objective of this work was to describe and illustrate a new species of *Esaguasu* and to compare it with type-species, *E. ocularis*, also illustrated.

**Material and methods**

The specimen was obtained from the Reserva Biológica Alberto Manuel Brenes, and was collected in a crack in the bottom of the terrace roof of the building of the Station, where it was probably attracted to incandescent lights of the room. The insect collected has been deposited at Museo de Insectos of the University of Costa Rica (UCR), San José, Costa Rica.

**Results**

**Systematics**

*Esaguasu brenensis* Galileo & Esteban, new species

**Diagnosis**

The following combination of morphological features can distinguish this species from *Esaguasu ocularis* Galileo & Martins, 2007 which is very similar: body integument dark brown almost black with reddish areas; antennae almost black, antennomeres VI up to XI grayish annulate at basal one-sixth; prothorax with yellowish dense pubescence on each side, except in the spines; pronotum with transverse subparallel ridges, and with a narrow but conspicuous central longitudinal

![Figure 1. *Esaguasu brenensis* sp. nov., holotype male, length 15.5 mm. a) Dorsal view. b) Ventral view. c) Mesosternal process. d) Lateral view. e) Frontal view.](image-url)
band of yellowish dense pubescence which also reaches the scutellum; each elytron has three yellowish pubescence uneven areas: the first one on the lateral basal half, underlines the humeral region (the confined region with grayish yellow hairs), other at the lateral distal third near the margin, with transversal anterior edge, and the last one almost sutural, before the elytral apices, inverted L-shape.

**Description**

*Esaguasu brenensis* Galileo & Esteban, new species

**Male** (Fig. 1a, b, c, d, e). Total length, measured between the apex of antennal tubercles and elytral apex: 15.5 mm; humeral width, between the apex of the lateral spines: 4.3 mm; protoracic length: 3.0 mm; elytral length: 11.0 mm.

Stretched appearance, relatively oval, slightly concave. Integument dark brown, almost black, with long sparse setae throughout the body, especially on the elytra.

Head slightly narrower than pronotum with divergent sides of the forehead. Large eyes; lower eye lobes occupying almost the entire side of the head. A narrow strip of yellowish-brown hairs around almost the entire eye area. Powerful mandibles, sickle-sharp.

Antennae ultrapassing the apex of the elytra at end of antennomere IX; with dense fringe of the setae on lower side of scape, pedicel and antennomeres III to IX. Besides, the fringe is not long after antennomere VI; sparse in the X and almost negligible at the end of XI. Antennae integument almost black, grayish annulate at basal one-sixth from VI up to XI. Scape very robust.

Prothorax 1.2 times wider than long, each side with dense yellowish pubescence vittae except on the spine.

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**Figure 2.** *Esaguasu ocularis* Martins and Galileo, 2007, holotype male, length 13.5 mm. a) Dorsal view. b) Frontal head. c) Lateral view.
Pronotum with dorsal transverse subparallel ridges and with narrow but conspicuous central longitudinal vittae of yellowish pubescence. Scutellum semicircular covered with yellowish pubescence.

Elytra with blackish pubescence, each one with three irregular areas of yellowish pubescence: sides of the basal half underlining the humeri; other one in the lateral distal third, with transversal anterior margin; one before the elytral apices, almost sutural, inverted L-shape. Humeral area confined by yellow pubescence with grayish pubescence in the basal half.

Relatively robust legs, dark-brownish, almost black, with femora subfusiform.

**Type material**

Holotype male labelled: **Costa Rica**, Alajuela, Estación Reserva Biológica Alberto Manuel Brenes, Alt. 840 m, 10 de marzo de 2007, colector Geovanny Mora, in collection of the Museo de Insectos (UCR), San José Costa Rica.

**Discussion**

*Esaguasu brenensis*, sp. nov., is very close to *E. ocularis*, type-species of the genus (Fig. 2). The features of whitish-yellow pubescence of the elytra is very different in the two species. Galileo and Martins (2007) described the area of whitish-yellow pubescence of the elytra: one lateral from humeral region until the half, the other lateral on the third apical without transversal anterior edge and one sutural until apical margin, except the spine.

**Etymology**

The specific name is an adjective referred to the type locality.

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**References**


