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LARVAE OF NEOTROPICAL COLEOPTERA. VII: BUPRESTIDAE, BUPRESTINAE, CHALCOPHORINI

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ABSTRACT

Larva, pupa and adults of Euchroma gigantea Linnaeus, 1758 were collected from decayed logs in Peruibe, São Paulo, Brazil. Descriptions of the larva and pupa are provided with illustrations.

INTRODUCTION

The Chalcophorini comprises 16 genera and 148 species in the Neotropical region (Blackwelder, 1944).

The larva of *Euchroma columbica* Mannerheim 1837, a synonym of *E. gigantea* L. was described and figured by Castelnau & Gory (1839) and Schiödte (1869). But, due to the incompleteness of those descriptions and illustrations we felt the larva of *Euchroma gigantea* L. should be described in more detail and illustrated. The drawings of general view of the larvae and pupa were based on the photographs, the others were made with help of a "camara lucida".

Larvae of this tribe are poorly known; from the other genera, only a few species of *Chalcophora* Solier, 1833, have been described until now.

Böving and Craighead, 1931: 49 characterize the Buprestinae as follow: "dorsal plate of prothorax with or without asperities, medianly marked with an inverted Y- or V-Shaped groove". However there are no sufficient data to characterize the Chalcophorini.

DESCRIPTION OF LARVA

(Figs. 1-22)

Length 10,5 cm; width 1,4 cm (first thoracic segment) to 6,0 mm (first abdominal segment).

Larva (figs. 1-4) clublike and somewhat flattened. Prothorax broader than the first abdominal segment. General color cream; head deeply pigmented;

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dorsal and ventral thoracic plates yellowish, and with asperities. Dorsal thoracic plates medianly with an inverted V-shaped mark. Chordotonal organs (fig. 7) slightly distinct laterally on first thoracic segment.

Head (figs. 5-6) prognathous, greatly reduced in size, deeply pigmented, somewhat retracted into prothorax. Epicranial suture present, epicranial stem long, frontal arms V-shaped. Ocelli absent.

Labrum (fig. 19) free, symmetrical, transverse, weakly pigmented, emarginated anteriorly; anterior angles with a tuft of small setae; dorsal surface with few long setae. Epipharynx (fig. 20), with microtrichia densely distributed anteriorly, and in two lateral longitudinal stripes; anterior angles with a tuft of small setae. Antennae (fig. 8) 3-segmented; segment I enlarged, with a tuft of small setae; segment II, inconspicuous, placed inside apex of segment II. Mouth parts retracted. Mandible (figs. 11-14) moveable, symmetrical, tetragonal. quadridentate, the two apical teeth greater than the others, two small basal-dorso setae and subapical ventral part grooved. Protheca absent. Mola slightly concave. Maxillae (fig. 17-18) short, hardly moveable. Mala palpiform, articulated, without uncus, with a tuft of apical setae. Palpifer absent. Maxillary palp bi-segmented; first segment 3 times longer than second, with two apical setae, second segment conical. Stipes and cardo fused, weakly sclerotized, ventral surface with anterior part densely covered by minute setae and one long lateral seta; dorsal surface with two long setae and less minute setae on anterior part. Maxillary articulating area well developed.

Labium (fig. 15) weakly sclerotized, quadrate, sclerites fused, with a pair of inconspicuous one-segmented lobed palpi. Hypopharynx (fig. 16) covered, except on the middle, by minute setae.

Thorax: each segment distinctly with two pseudo-segments. Prothorax distinctly broader than meso and metathorax. Dorsal plate of prothorax with asperities and medianly with an inverted V-shaped mark; ventral surface with asperities and medianly with a longitudinal mark. Cervical area with eversible membrane. Chordotonal organ (fig. 7) slightly distinct laterally on prothorax. Legs absent.

Spiracles (fig. 9-10), prominent, cribriform, distinctly reniform on the mesothorax and smaller ones the cephalodorsolateral areas of segments 1 to 8.

Abdomen cylindrical, each segment distinctly with three pseudo-segments and laterally flanged, weakly sclerotized, finely hairy, without asperities. Tenth abdominal segment rounded; anal opening dorsoventral between fleshy lobes.

Pre-pupa (figs. 2-4): the last larval instar become immobile and undergo a pronounced widening and shortening, before moult to pupa (length: 8,0 cm; width of first thoracic segment: 1,5 cm and of first abdominal segment: 1,0 cm).

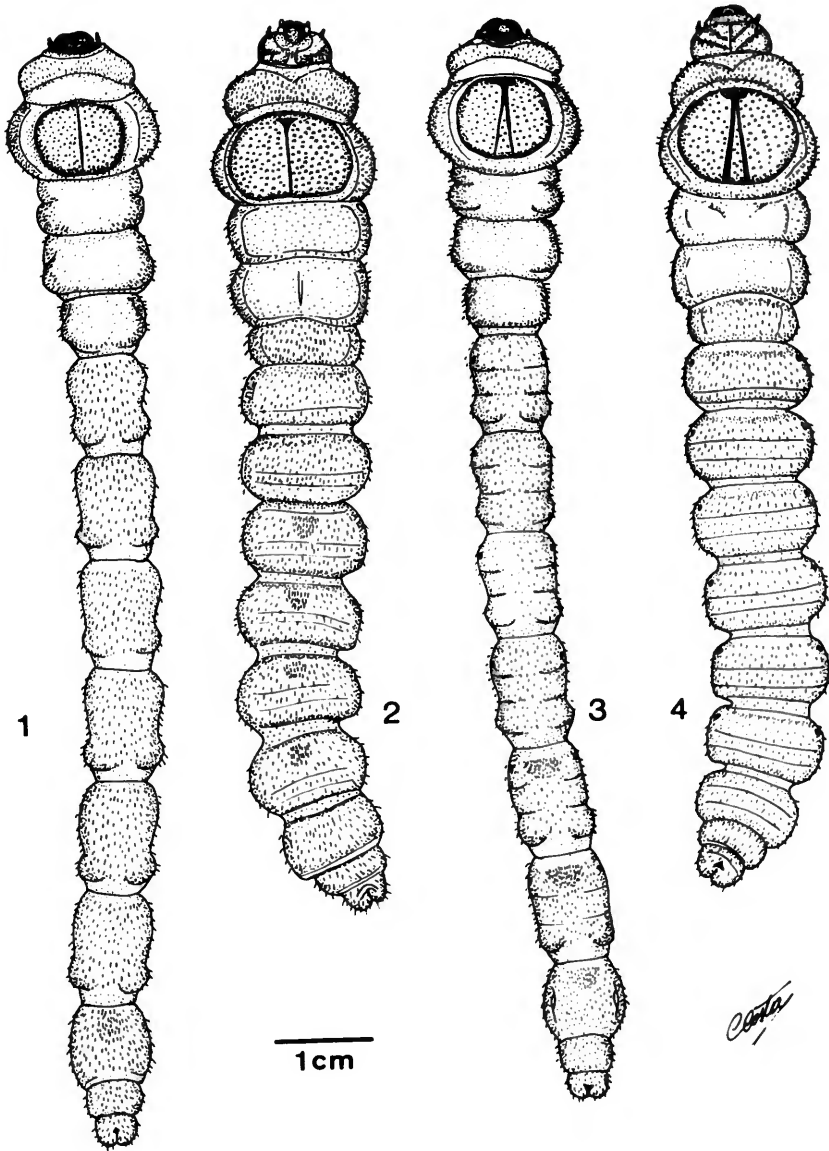
Pupa (figs. 21-22): adectious, exarata, without gin traps.

Material Examined

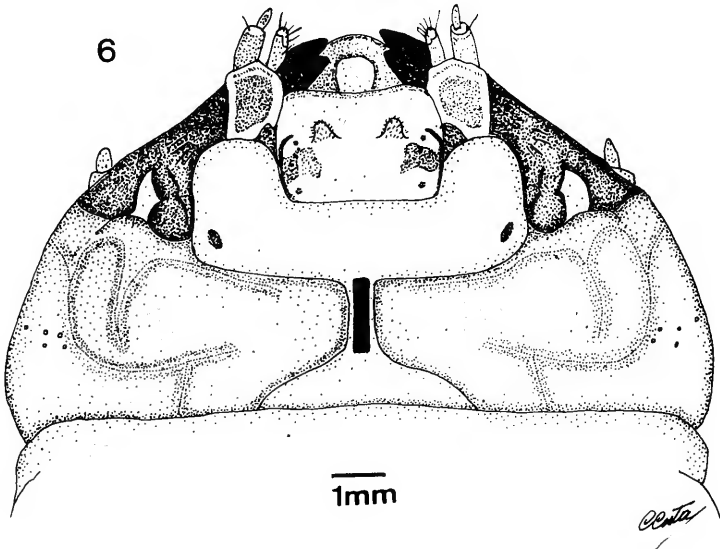
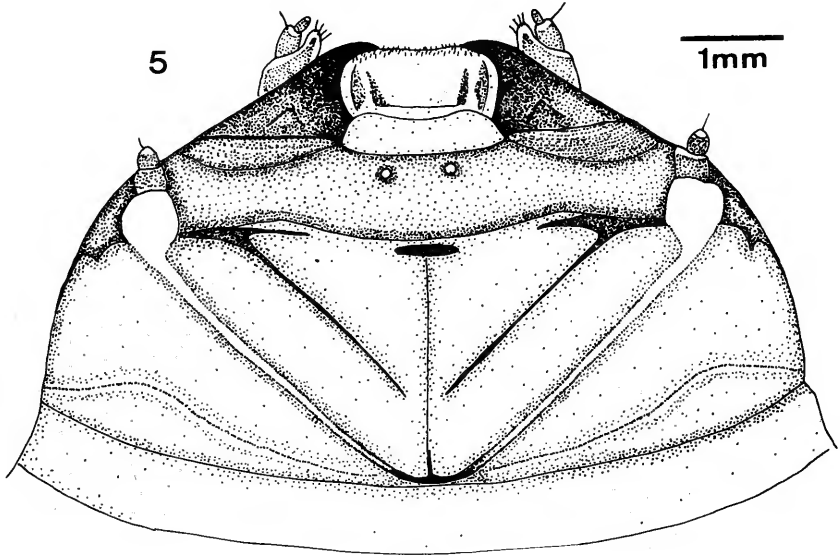
Brazil. São Paulo. Peruibe, 15-17.12.1980. Exp. MZSP col., 2 last instar larvae (1 fixed, 1 reared to adult), 1 pre-pupa (fixed) and 1 teneral adult.

Biological Notes

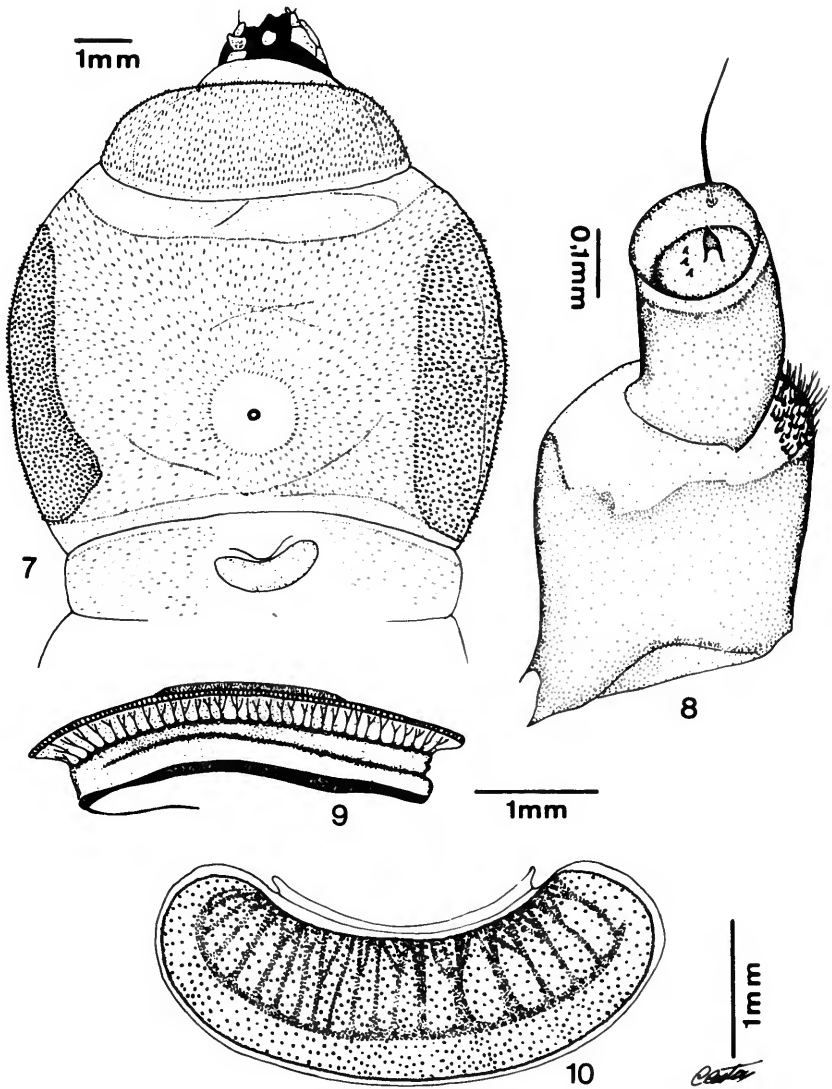
Larvae, pre-pupa and adult were collected in the same log. The diameter of the log were 35-40 cm; the galleries did not present regular directions, the larvae were found deeply inside the soft wood; the pre-pupa was found into a pupal chamber. On this log were collected also larvae and adults of Passalidae.



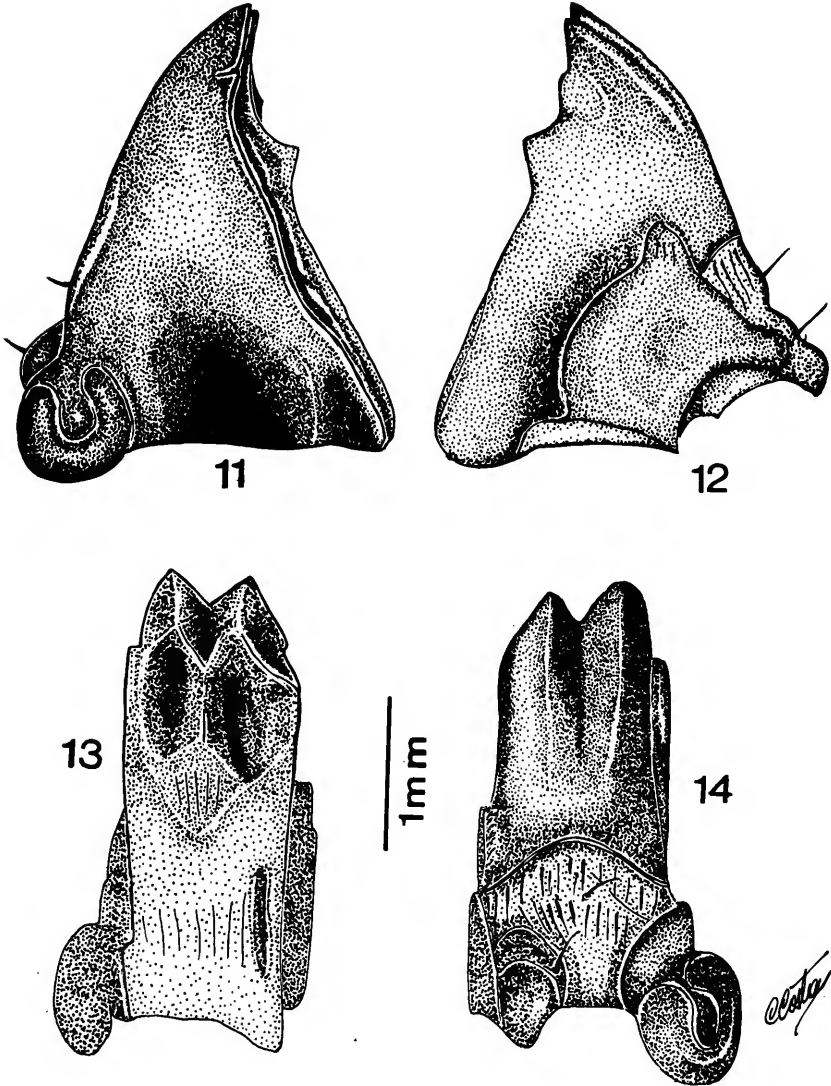
Mature larva: fig. 1, ventral view; fig. 3, dorsal view; Pre-pupa: fig. 2, ventral view; fig. 4, dorsal view.



Head: fig. 5, dorsal view; fig 6, ventral view.



Mature larva: fig. 7, Chordotonal organ; fig. 8, Antenna; fig. 9, spiracles (lateral view); fig. 10, dorsal view.



Right Mandible: fig. 11, ventral view; fig. 12, dorsal view; fig. 13, internal view; fig. 14, external view.

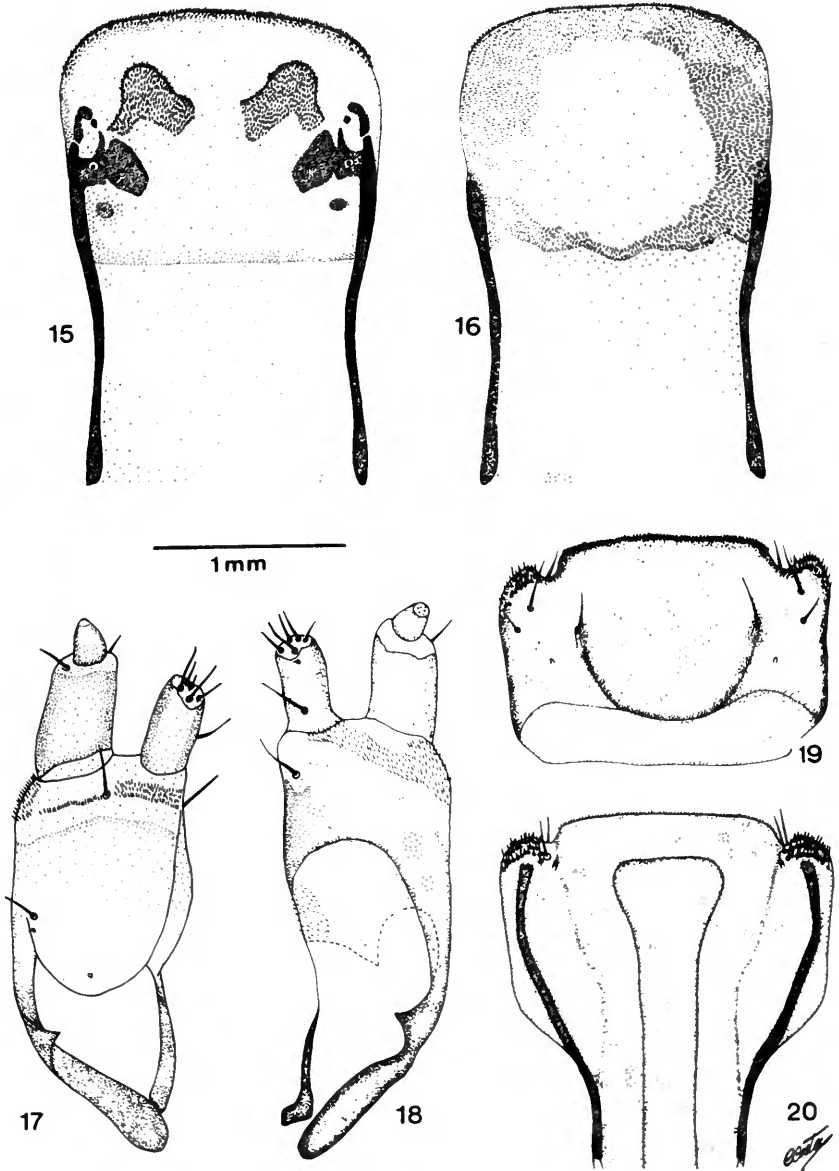
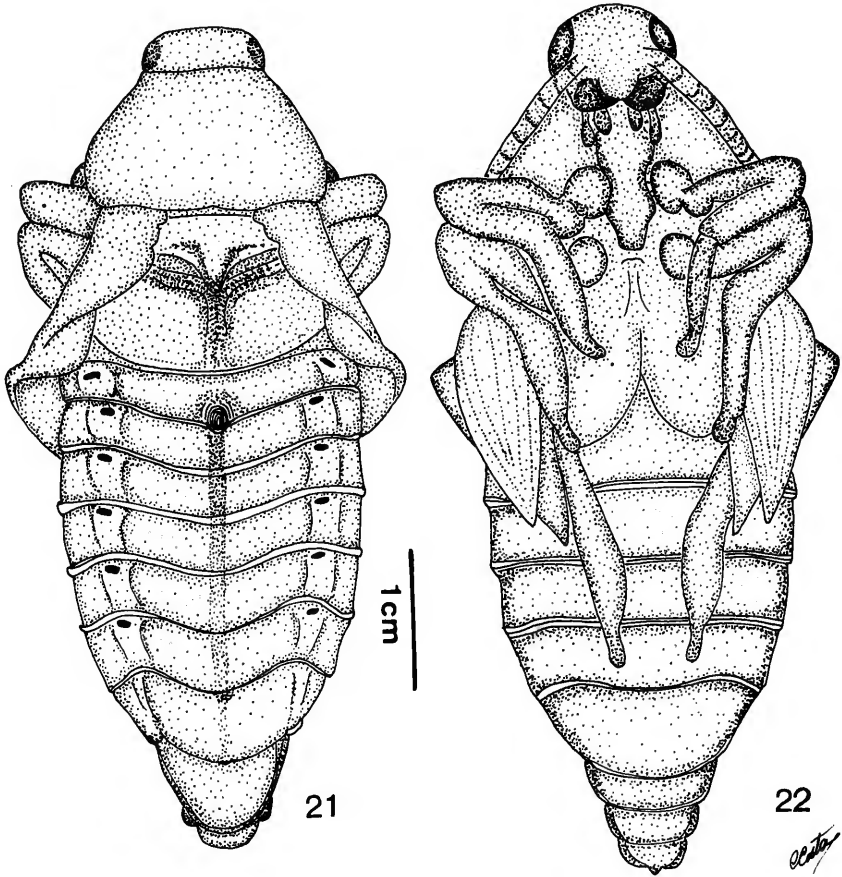


Fig. 15, Labium; fig. 16, hypopharynx; fig. 17, maxillae (dorsal view); fig. 18, Maxillae (ventral view); fig. 19, labrum; fig. 20, epipharynx.



Figs. 21/22, pupa (dorsal and ventral view).

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