

Description of the larva and redescription of the adult of *Eustrophopsis quindecimmaculata* (LAPORTE, 1840)\*  
(Coleoptera: Melandryidae: Eustrophinae)

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ABSTRACT. The mature larva of *Eustrophopsis quindecimmaculata* (LAPORTE) (Coleoptera, Melandryidae) is described and the adult is redescribed. This species is recorded from Ecuador for the first time.

Key words: entomology, taxonomy, redescription, larva, Ecuador, *Coleoptera*, *Melandryidae*, *Eustrophopsis*.

INTRODUCTION

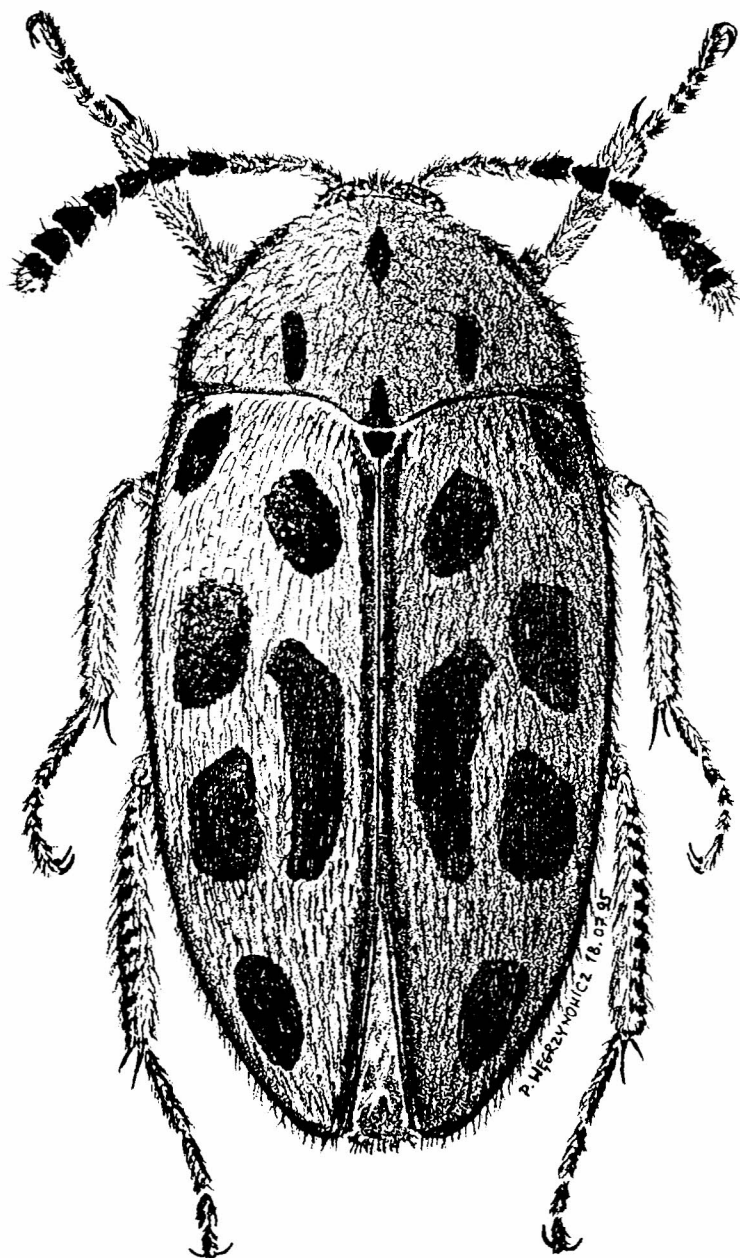
The South American fauna of *Melandryidae* is only partially known, and nearly nothing is known about their biology and immature stages. The only description of the melandryid larva is that of *Phloeotrya* sp. (COSTA, VANIN and CASARI-CHEN 1988).

*Eustrophopsis quindecimmaculata* (LAPORTE) was described as *Orchesia 15-maculata* in 1840 from Brazil. CHAMPION (1894), describing genus *Eustrophopsis* designated *E. quindecimmaculata* as its type species. Currently there are nine described species in this genus (BLACKWELDER 1945). During my trip to Ecuador I was able to collect from fungus adults and associated larvae of this species.

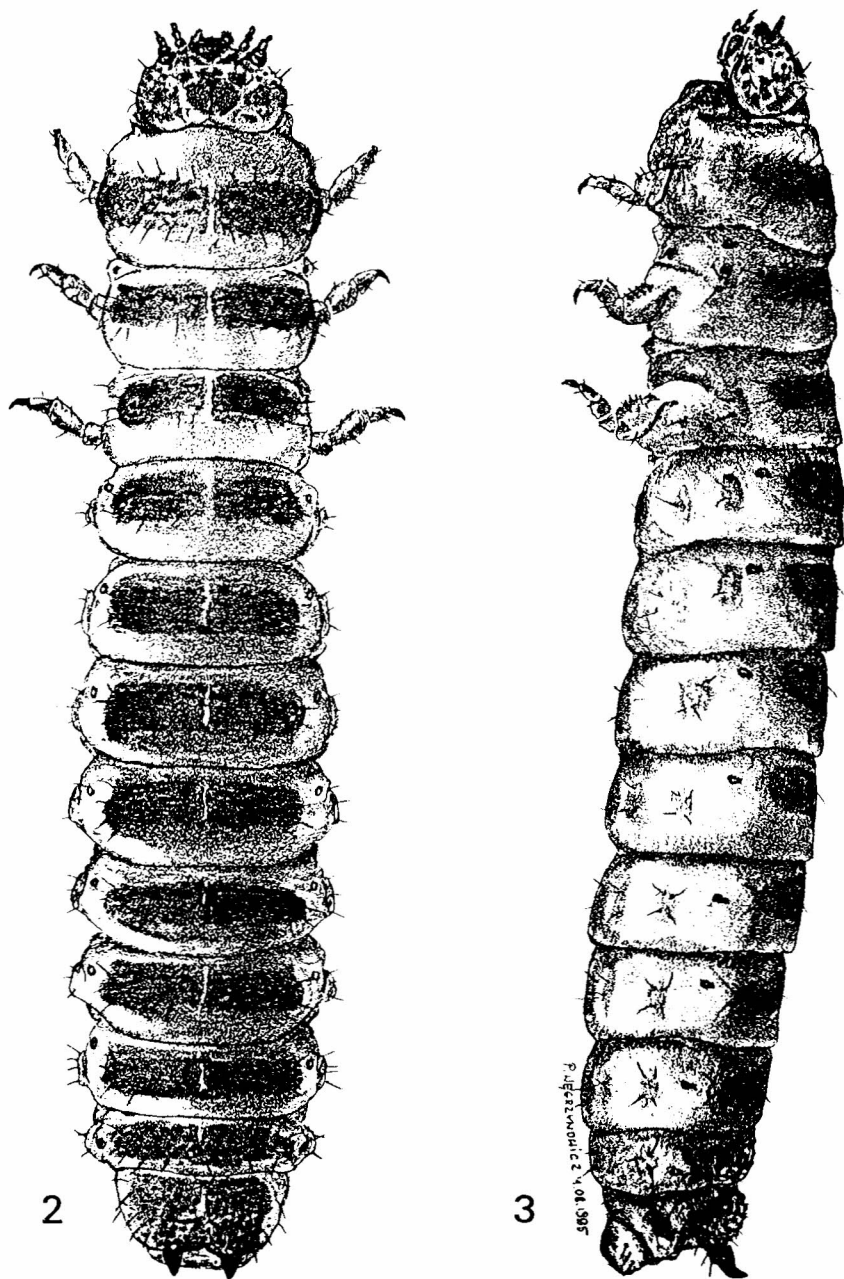
MATERIAL AND ACKNOWLEDGMENTS

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\*Papers Celebrating the 90th Birthday of Dr. Bolesław Burakowski



1. *Eustrophopsis quindecimmaculata*, adult male, dorsal view



2-3. *Eustrophopsis quindecimmaculata*, larva. 2 - dorsal view; 3 - lateral view

## REDESCRIPTION OF THE ADULT

Length 6.2-8.3 mm. Body elongate, moderately convex. Entire body yellow to light orange, but antennal segments 5-11 (11 in part), scutellum and spots on the pronotum and elytra black (fig. 1). Body with vestiture of appressed seta, black on the pronotum and the anterior part of elytra, yellow - on the remaining parts of the body.

Head small, deflexed. Eyes very large, with short interfacetal setae, almost meeting at the vertex (fig. 7). Antenna 11-segmented, moniliform (fig. 8). Mandible curved, tridentate apically, with well-developed mola and hairy prosthema (figs. 10, 11); mola with solid tooth. Maxilla (fig. 6) with 4-segmented palp; basal palpomere small, remaining apically almost equal in length; galea densely pubescent bearing numerous long setae; lacinia with a few spines on inner apical edge. Labium (fig. 5) with 3-segmented palp, with last palpomere very short. Mentum elongate, trapezoidal.

Pronotum transverse, 0.51-0.54 times as long as wide, widest at the base (figs. 1, 4). Procoxal cavities externally open, internally closed (fig. 4). Prosternal process narrow and bidentate apically. Mesonotum as in fig. 13. Scutellum small, with lines on the hind edges (fig. 13). Mesosternum with a narrow keel (fig. 4). Mesocoxal cavities separated, outwardly open. Metacoxa strongly transverse (fig. 4).

Elytron (fig. 12) irregularly punctured, with distinct, complete epipleuron and tridentate apical edge.

Wing as in fig. 9.

Abdomen with 5 visible sternites (fig. 4).

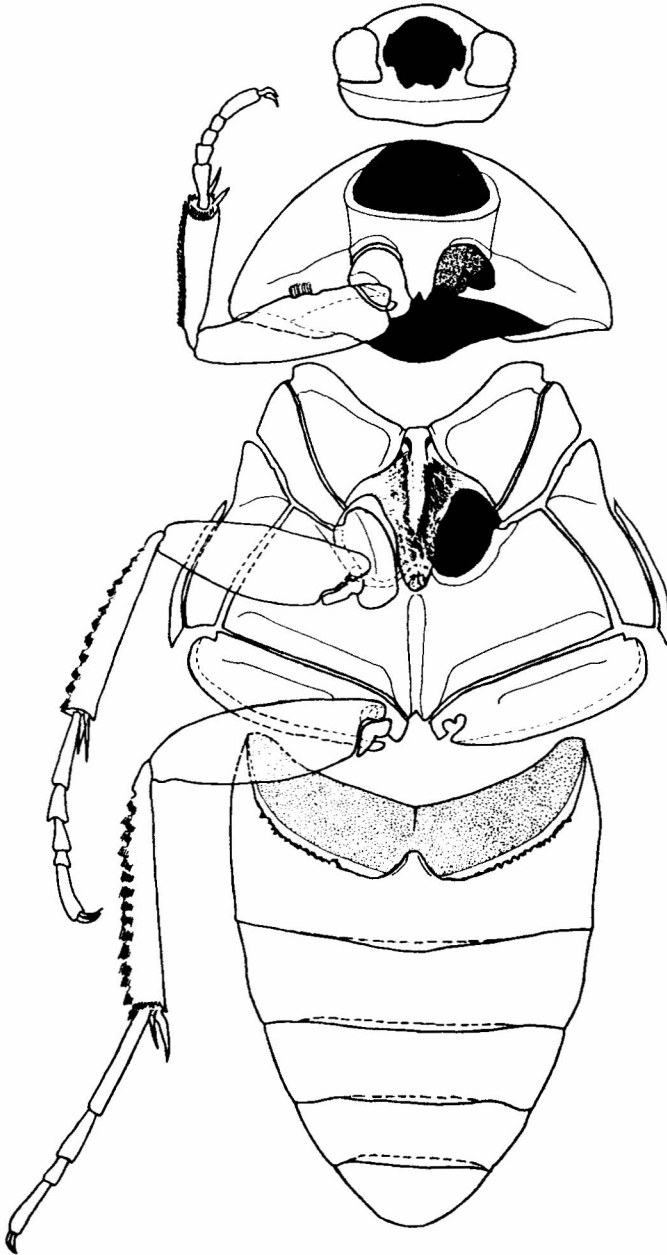
Male genitalia and associated tergites and sternites as in figs. 14 and 15. Female terminalia and ovipositor as in figs. 16 and 17.

Sexual dimorphism. Male with small bunch of setae on profemur (fig. 4).

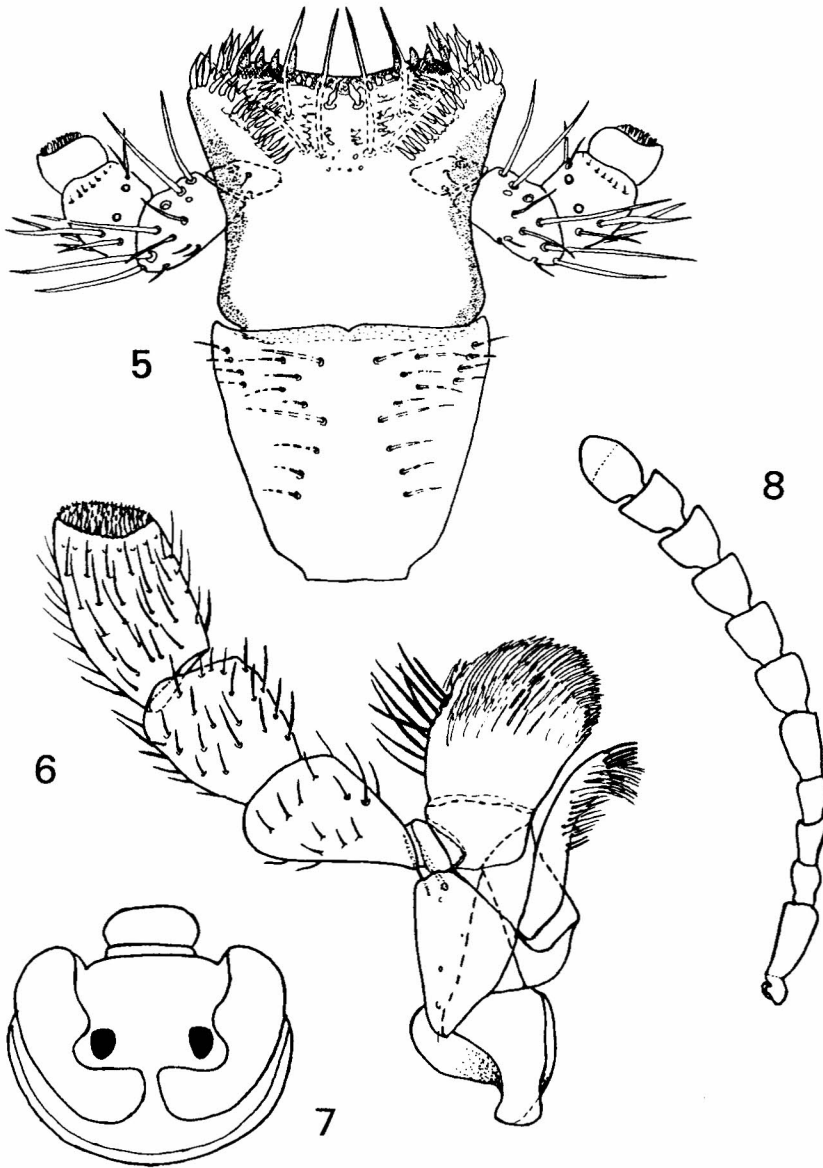
## DESCRIPTION OF THE MATURE LARVA

Length 10.0-10.5 mm. Body elongate, almost parallel-sided, subcylindrical (figs 2, 3). Body yellowish-white, only thoracic and abdominal tergal plates and urogomphi brown, more heavily pigmented.

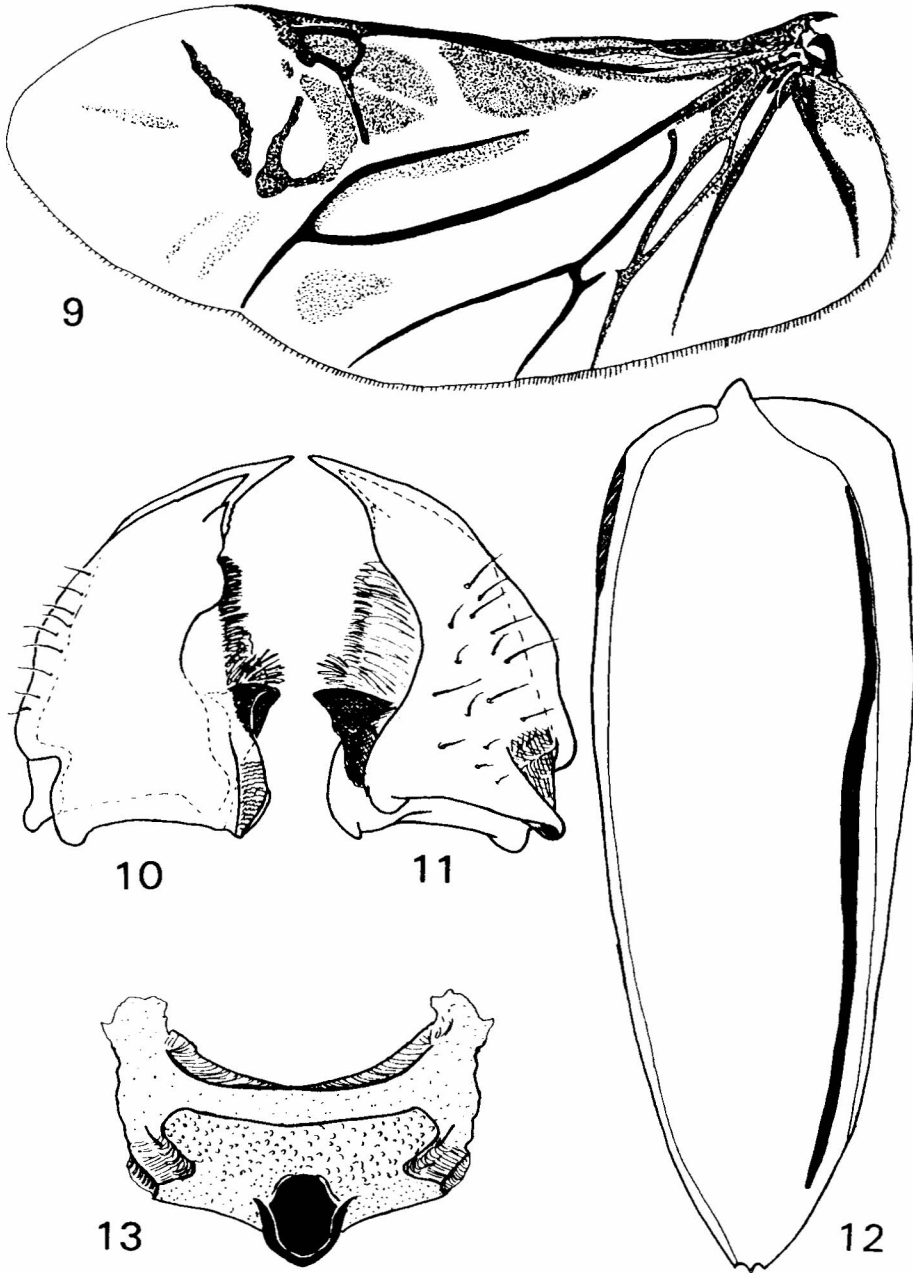
Head transverse, narrowing anteriorly, 1.5 times as wide as long (figs. 18, 19). Dorsal surface with a pattern of sclerotized areas as in fig. 18. Frontoclypeal suture present. Epicranial stem reduced, median endocarina strong, extending anteriorly between frontal arms. Frontal arms lyriform. Two pairs of well developed, diverging hypostomal rods. Five stemmata. Antenna 3-segmented (fig. 21). Antennomere I short and transverse. Antennomere II subquadrate, with trichoid sensillum and 2 setae. Antennomere III short, with 3 apical setae. Mandibles slightly asymmetrical, each bidentate apically (figs 24, 25). Outer margin with 2 setae and a pore between them. Mola absent, base of the mandible with a brush of hairs. Labrum transverse, with well-developed tormae, anterior margin emarginate medially; epipharynx, reticulated sculpture and 5 gustatory sensilla on each side (fig. 23). Maxilla with transverse cardo, elongate stipes and large articulating area (fig. 19); mala with numerous setae and 6 large spines; maxillary palp 3-segmented; palpomere I short,



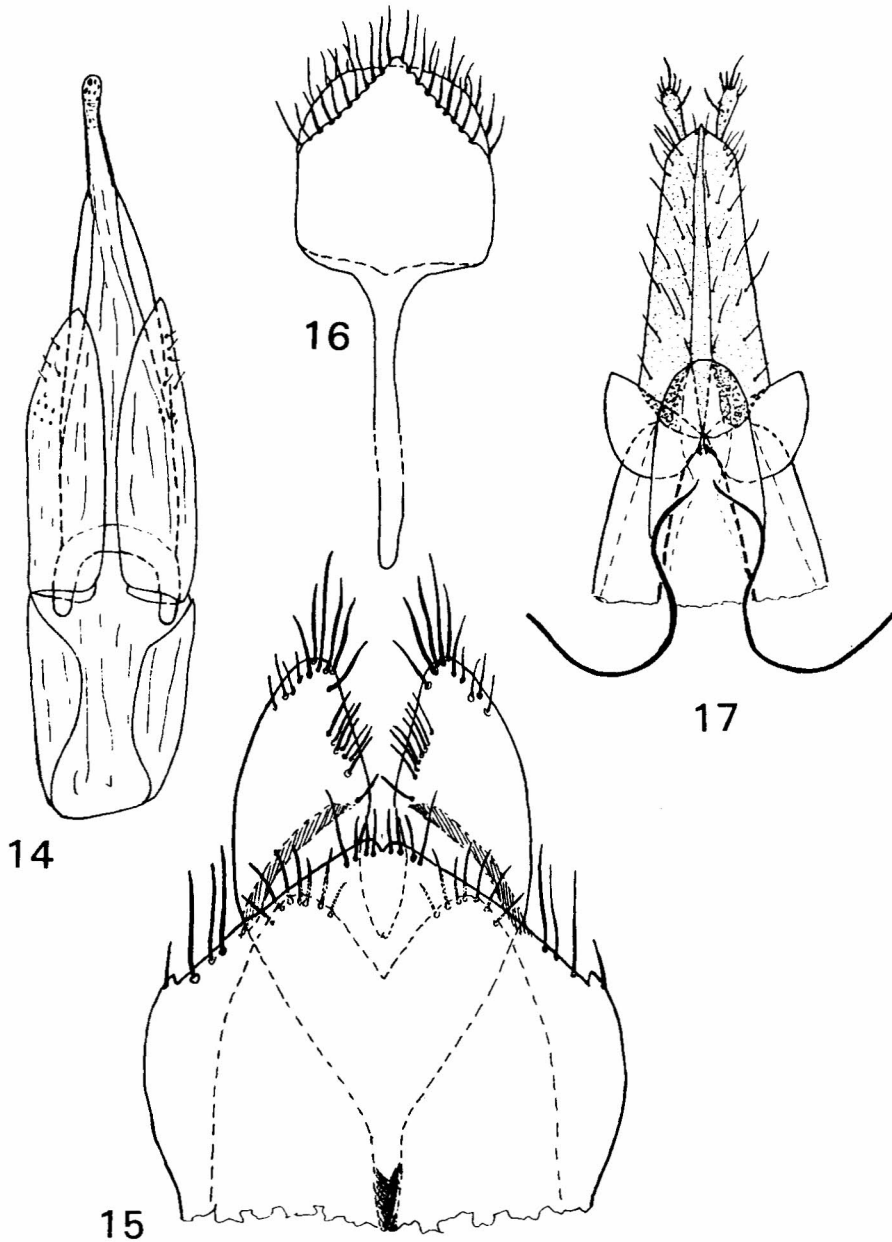
4. *Eustrophopsis quindecimmaculata*, adult male, ventral



5-8. *Eustrophopsis quindecimmaculata*, adult. 5 - mentum and submentum, dorsal; 6 - maxilla, ventral; 7 - head, dorsal; 8 - antenna

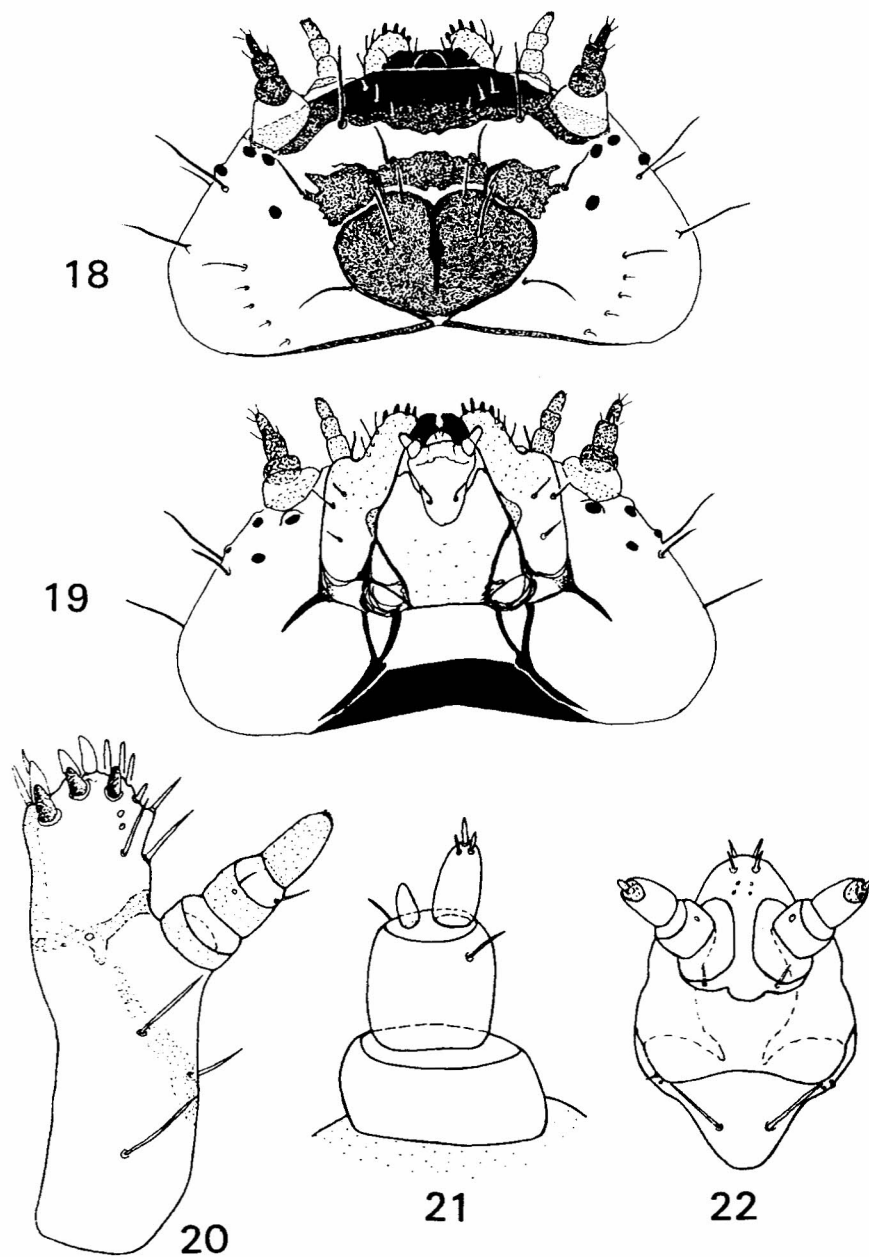


9-13. *Eustrophopsis quindecimmaculata*, adult. 9 - hind wing; 10 - right mandible, ventral; 11 - right mandible, lateral; 12 - mesonotum with scutellum; 13 - left elytra, ventral

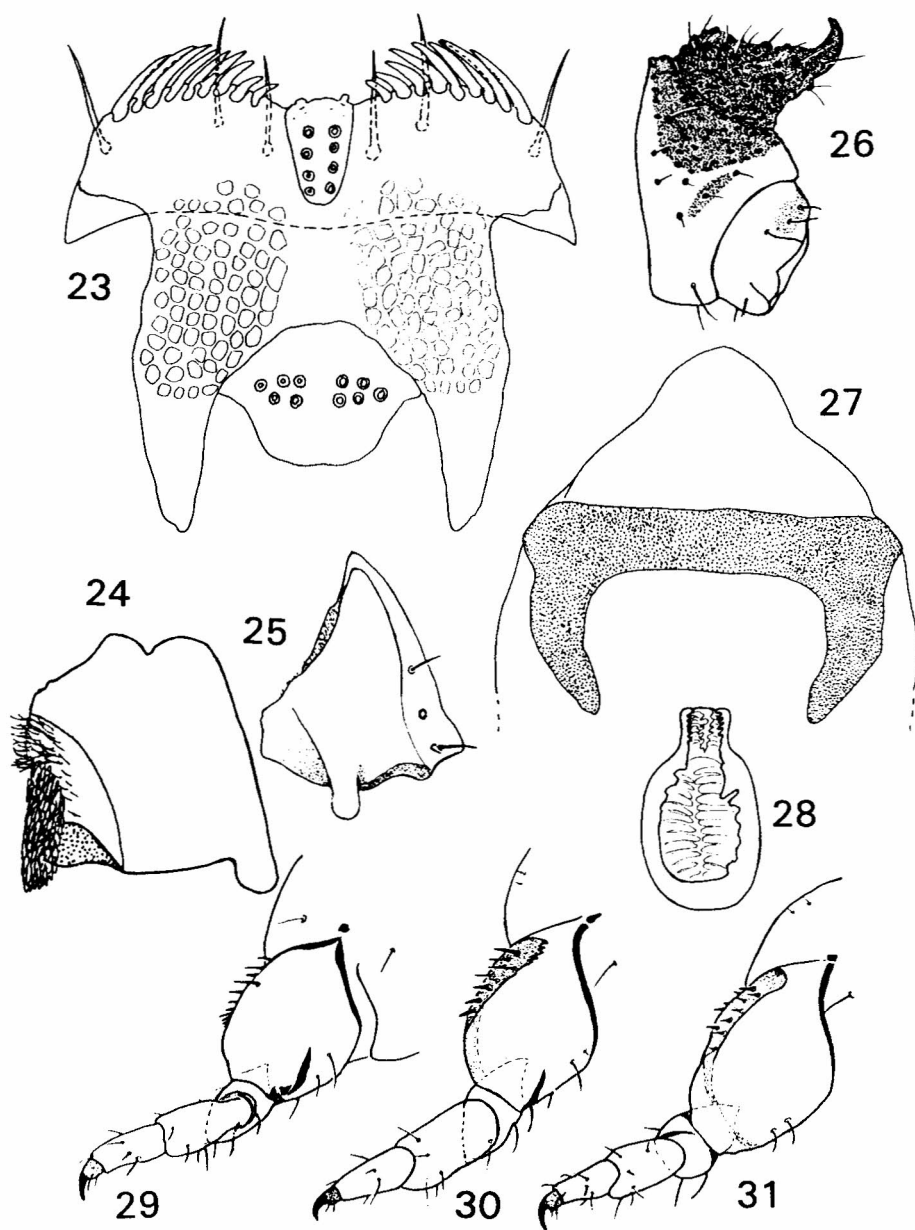


14-17. *Eustrophopsis quindecimmaculata*, adult. 14 - male genitalia; 15 - male terminalia; 16 - female terminalia; 17 - ovipositor





18-22. *Eustrophopsis quindecimmaculata*, larva. 18 - head, dorsal; 19 - same, ventral; 20 - maxilla, ventral; 21 - antenna, lateral; 22 - labium, ventral



23-31. *Eustrophopsis quindecimmaculata*, larva. 23 - labrum-epipharynx, ventral; 24 - mandible, lateral; 25 - mandible, dorsal; 26 - 9. and 10. segments of abdomen, lateral; 27 - hypopharynx; 28 - thoracic spiracle; 29 - prothorax leg; 30 - mesothorax leg; 31 - metathorax leg

II subquadrate, with 1 pore and 2 setae, III elongate. Labium, with 2-segmented palps (fig. 22); basal palpomere with a pore; palpomere II with short seta apically; hypopharynx sclerotized, with transverse bar and well-developed rods.

Prothorax larger than other terga, 1.69 times as wide as long (figs 2, 3). Mesothorax 0.61 times long as prothorax. Metathorax 0.69 times as long as prothorax. Thoracic and abdominal terga with dark, transverse sclerotizations.

Abdomen with segments similar in size. Urogomphi well-developed, upturned, with tubercles and setae (fig. 26). Segments VIII and IX with tubercles. Segment X circular, posteroventral.

Legs short, tarsungulus with 2 setae (figs 29, 30, 31).

Spiracles annular-biforous (fig. 28).

#### BIOLOGY

Larvae of *Eustrophinae* feed on softer fruiting bodies of *Hymenomyces* (LAWRENCE 1991). In Ecuador larvae were found in *Trametes*-like fungus growing on the stump. Adults were hidden under the fungus and probably they are nocturnal.

#### DISTRIBUTION

Brazil, Ecuador (new locality), Peru.

#### MATERIAL EXAMINED

Ecuador: Palora, prov. Morona-Santiago, 22.11.1994, leg. P. WĘGRZYNOWICZ (3 adults and 4 larvae); Ecuador (2 ex.); Brazil (3 ex.). All specimens are preserved in Museum and Institute of Zoology PAS in Warsaw.

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