



The avocado stem borer *Heilipus cruciatus* (Coleoptera:Curculionidae) in Veracruz Mexico.

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The genus *Heilipus* Germar, 1824

Is an endemic genus of curculionids in the American continent. It is currently made up of **88 species**, some of which are considered pests in crops with high commercial value, such as avocado (*Persea americana* Mill.) and soursop (*Annona muricata* L.).

Díaz-Grisales, V., Equihua-Martínez, A., Romero-Nápoles, J., Valdez-Carrasco, J., Vallejo-Espinosa, L. F. (2021) Nuevos registros de especies y un hospedero vegetal del género *Heilipus* Germar (Curculionidae: Molytinae: Hylobiini) para Colombia. Acta Zoológica Mexicana (nueva serie), 37, 1–12

Champion GC. 1902. Insecta – Coleoptera – Rhynchophora – Curculionidae – Curculioninae (part). p. 7–58; 715-718. In: Champion GC (ed.). *Biologia Centrali-Americana*, Vol. IV, part 4. London, UK. 750 p.

SECTION I.

1. **Hilipus cruciatus.** (Tab. I. fig. 11, ♀.)

Heilipus cruciatus, Chevr. Col. Mex. cent. 1, fasc. 1, no. 3 (June 1833) ¹.

Heilipus schönherri, Boh. in Schönh. Gen. Curc. iii. p. 160 (1836) ².

Hab. MEXICO ², Playa Vicente, Toxpam (*Sallé*), Jalapa, Cordova, and Paso de San Juan in Vera Cruz (*Höge*), Ojo Chico and Jalapilla (fide *Chevrolat* ¹).

Apparently not uncommon in the State of Vera Cruz. Distinguishable from *H. elegans* and other allied forms by the broad, sinuous, white vittæ not reaching the apex of the elytra, though sometimes extending along the suture to near the tip. The head is deeply foveate between the eyes, which are narrowly separated. The antennæ are inserted before the middle of the rostrum, which is longer in the female than in the male; the first and second joints of the funiculus are subequal in length. The venter is broadly depressed down the middle in the males. The sculpture of the prothorax and elytra is variable.

Mexican Molytinae (Coleoptera:Curculionidae)
Morrone J.J. 1999. *Dugesiana*. 6(1): 51-67.

Heilipus Germar, 1824: 399 [especie tipo: *H. lactarius* Germar, por designación subsiguiente de Schönherr, 1825] [= *Hilipus* Agassiz, 1846: 174, enmienda injustificada; *Hilipus* Gemminger y Harold, 1871: 2425, enmienda injustificada, *non* Agassiz, 1846; *Hiliplus* Leng y Mutchler, 1914: 471 (lapsus)].

ahrensii Boheman, 1843: 80.

albomaculatus (Champion, 1902: 16) (*Hilipus*) (Belice y Guatemala).

albopictus (Champion, 1902: 9) (*Hilipus*).

albovenosus (Champion, 1902: 10) (*Hilipus*).

→ *cruciatus* Chevrolat, 1833: [15] [= *H. schoenherri* Boheman, 1836: 160].

draco (Fabricius, 1801: 461) (*Rhynchaenus*) [= *H. rectirostris* (Champion, 1902: 12)] (Brasil, Cuba, El Salvador, Guatemala, Panamá, Paraguay, Perú y Venezuela).

elegans Guérin, 1844: 148 (Colombia, Costa Rica, Ecuador, Guatemala, Jamaica y Panamá).

fenestratus (Champion, 1902: 10) (*Hilipus*) (Guatemala).

furcatus (Champion, 1902: 13) (*Hilipus*).

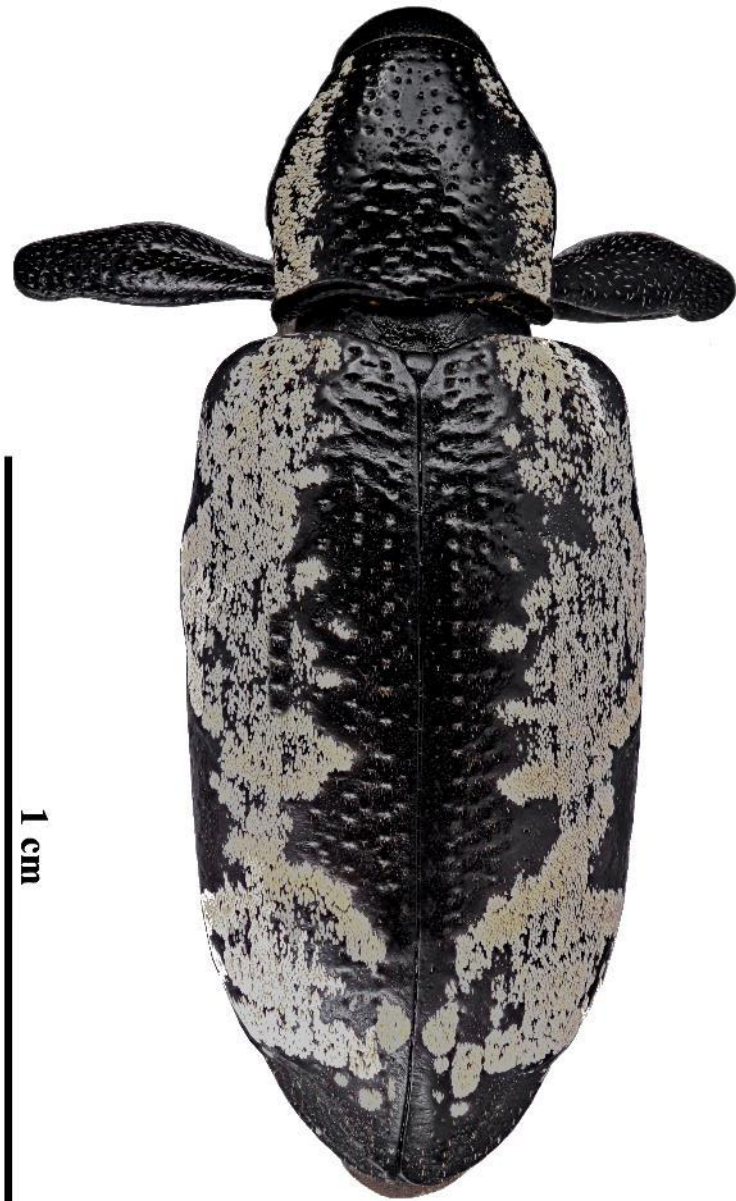
ESPECIES MEXICANAS DE MOLYTINAE (COLEOPTERA: CURCULIONIDAE)

guttiger (Champion, 1902: 20) (*Hilipus*) (Guatemala y Panamá).

hieroglyphicus (Champion, 1902: 11) (*Hilipus*) (Guatemala).

lauri Boheman, 1845: 443 (Colombia e introducido en los USA).

limbatus (Champion, 1902: 11) (*Hilipus*) (Honduras y Panamá).



Heilipus cruciatus

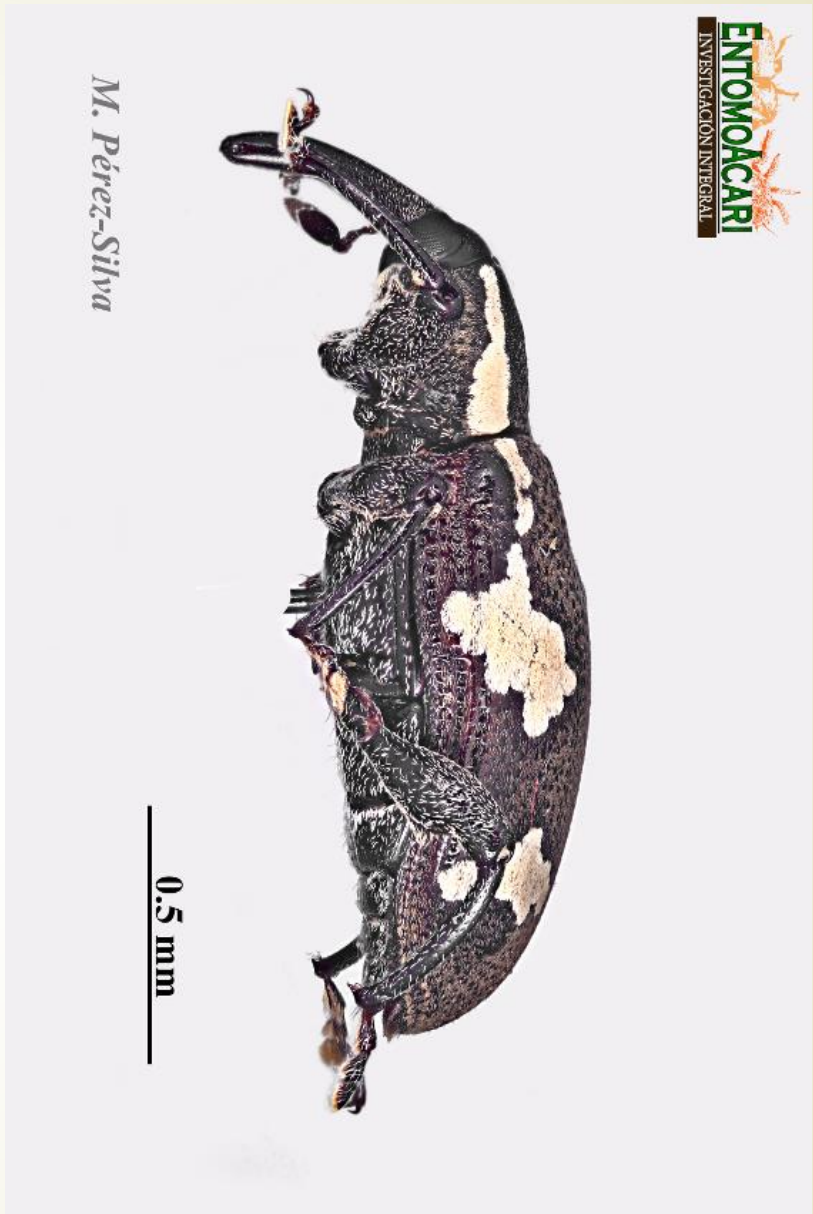
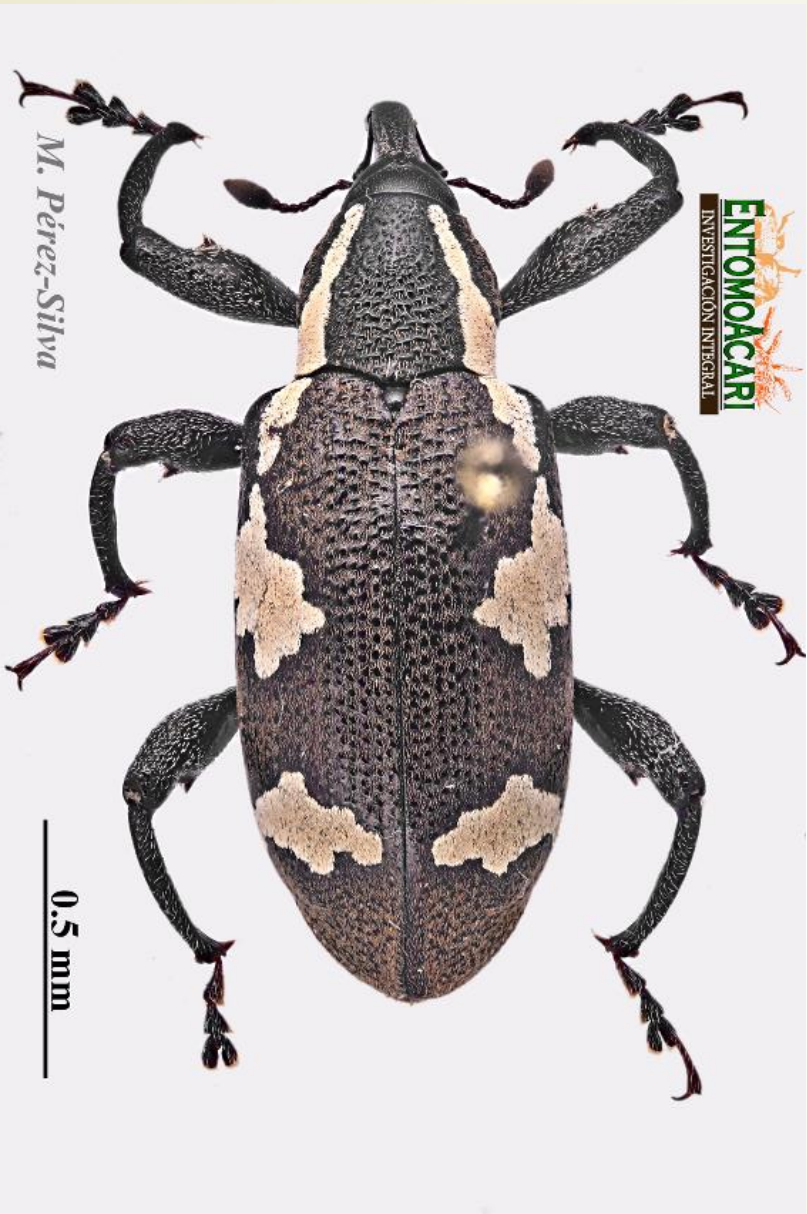
HEILIPUS CRUCIATUS MALE AND FEMALE GENITALIA



Male genitalia



Female genitalia



Heilipus albopictus



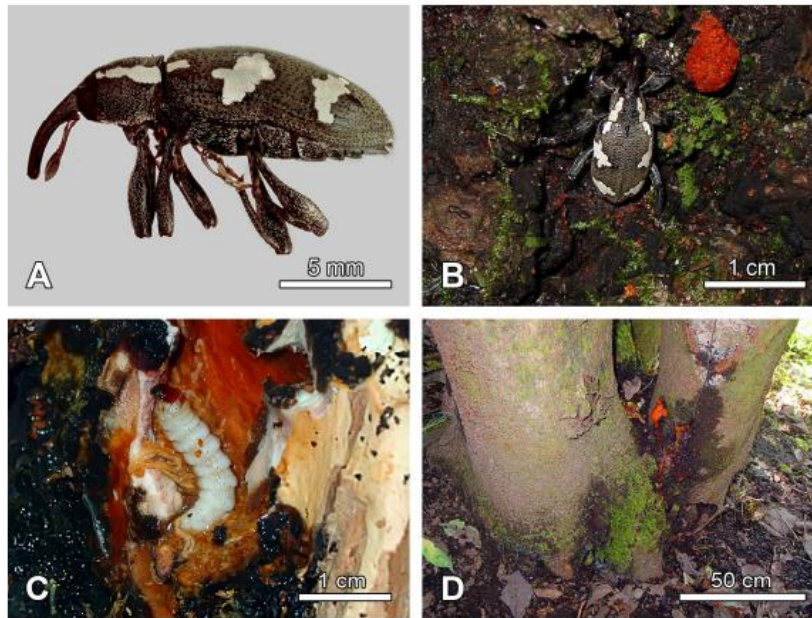
Heilipus cruciatus



M. Pérez-Silva

Heilipus albopictus

Avocado Trunk boring beetles of the Genus *Heilipus* in México:



Heilipus albopictus



Heilipus cruciatus

NEW RECORDS OF *HEILIPUS ALBOPICTUS* CHAMPION (COLEOPTERA: CURCULIONIDAE) INFESTING AVOCADO TREES IN MEXICO

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Field detection of boring insects

DAMAGE ON AVOCADO ORCHARDS





Adults on the avocado trunk



laid egg under laboratory conditions



Larvae on the trunk and rearing in laboratory



Pupae collected on the avocado trunk





General observations under laboratory conditions



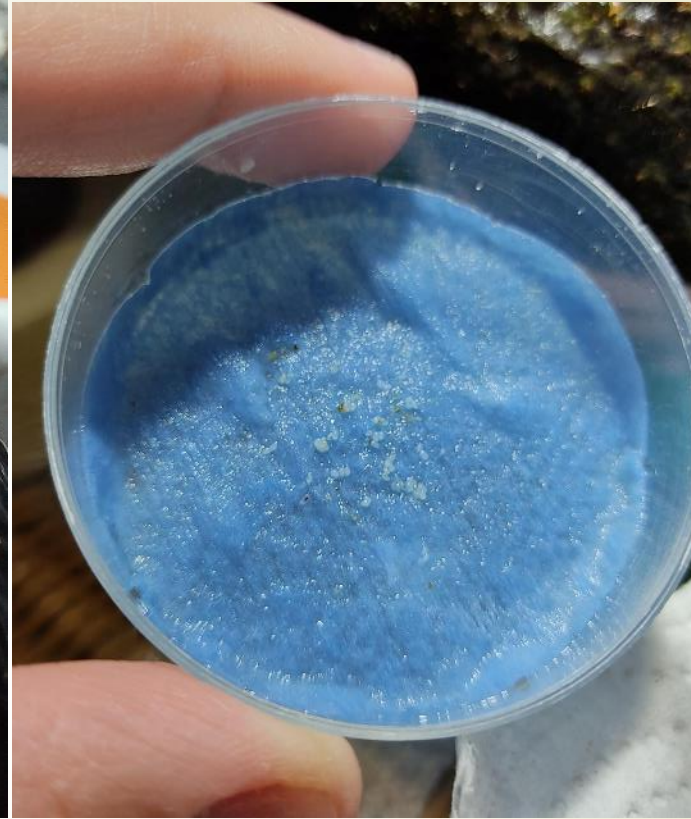
Diana te Montoya
19 de marzo de 2023 11:00 a. m.

Edit: EV

Adults feeding on avocado fruit



Diana C. Montoya C.
29 de marzo de 2023 11:00 a. m.



Oviposition behaviour

H. cruciatus. Veracruz
14/03/23



Diana C. Montoya C.
20 de marzo de 2023 12:23 p. m.

Egg laid under laboratory conditions

H. cruciatus. Veracruz



Diana C. Montoya C.
20 de marzo de 2023 12:21 p. m.

First instar larva under laboratory conditions



THANKS