

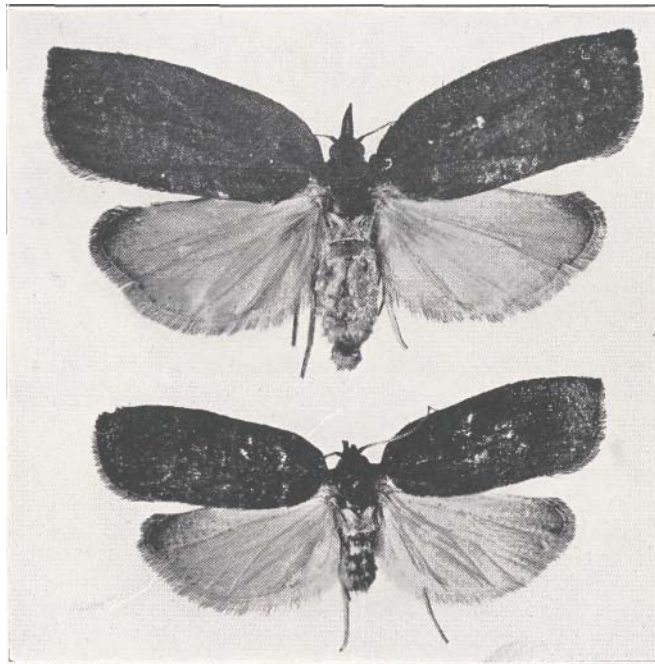
**Pathology and Entomology a New Avocado Moth (*Lepidoptera, Fm. Tortricidae*)**

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*Amorbia essigana*, new species\*

Taken from Monthly Bulletin Dept. of Agriculture, State of California, April 1 1929.



In response to requests from California, where this new insect affecting the avocado has been found in several sections, especially in the southern part of the state, an advance description of this avocado moth *Amorbia essigana* is given.

Labial palpi dark reddish brown with a strong bluish sheen. Face, head, collar, and base of antennae dark reddish brown with even stronger bluish or purplish sheen. Antennae and cilia golden yellow. Thorax dark reddish brown. Forewings dark chestnut brown with strong metallic sheen; extreme base black; an ill-defined and indistinct blackish spot on the middle of the costa, produced obliquely outwards and downwards to the end of the cell; a similar blackish spot at basal third of dorsum; scattered metallic black scales on the entire wing, tending to form an indistinct transverse striation; extreme terminal edge black; cilia light silvery gray, nearly white. Hindwings ochreous white with the tips touched with brown, and extreme apex mottled with black, cilia silvery white with apical

part touched with black. Abdomen ochreous white. Legs white, front and middle legs brown on the outer sides and with dark brown tarsi; posterior legs and tarsi touched with light golden brown. The females are larger and more uniformly brown than the males, with markings even less pronounced.

Alar expanse: Female 26-30 mm. Male 24-26.

Habitat: Chula Vista, San Diego, and La Habra Heights, Los Angeles Co., Calif.

Foodplant: Avocado (*Persea*).

U. S. N. Mus. Type No. 41815-

Paratypes in collections of California Department of Agriculture and in California Academy of Science.

Described from 11 specimens.

Named in honor of my distinguished friend, Professor E. O. Essig, who reared this species in 1922, reporting it as "doing considerable damage to the foliage in avocado orchards" and who sent me adults and caterpillar of the species for identification. Lately I have received beautifully reared series from Mr. H. H. Keifer of the California Department of Agriculture, with request for a name to be used in the publications of the Department. Hence this description in advance of my forthcoming Revision of the *N. Amer. Tortricidae*. The species has also been received through Mr. H. M. Armitage, Deputy Horticultural Commissioner, from F. D. Halm, of La Habra Heights, Los Angeles Co., who reported it injurious to avocado fruit, "the larva making a surface burrow in a maturing avocado fruit."

The genus *Amorbia* embraces sixteen described species, mainly from Central and South America; California has three described species (including the present) and one species found in Eastern United States. One Mexican species *A. emigratella*, Busck, has been introduced into the Hawaiian Islands and is also spreading in southern Texas.

*Amorbia essigana* is closely allied to the larger California species *A. cuneana* Walsingham and may eventually prove to represent only a foodplant race. Neither the male nor the female genitalia are differentiated sufficiently for specific separation, but apparently constant characters in color and size separate the present species from the larger and lighter *A. cuneana* Walsingham, the larva of which feeds on *Arctostaphylos glauca* and *Umbellularia californica*, and it is obligatory to recognize it as distinct until breeding may prove the opposite.

The photograph of the male genitalia of *A. cuneana* (Barnes and Busck Contribution Nat. Hist. Lepidoptera N. Am. vol. 5, pi- 31 fig. 1) serves equally well for the recognition of *A. essigana*; figures of both male and female genitalia will appear in the forthcoming Revision of *N. Amer. Tortricidae*.

#### **TORTRICID MOTH PROVES PEST OF AVOCADO** (*Press Item*]

A tortricid moth, determined by August Busck of the United States National Museum of Washington, D. C., as *Amorbia essigana*, was recently reared by Mr. L. E. Myers of the Los Angeles County Horticultural Commissioner's office, from a larva found attacking avocado. The larva in question was forwarded to the horticultural office by Mr. F. D.

Halm of La Habra Heights. The work of the larva consisted of making a large and unsightly burrow in the rind of the fruit. This is not the first record of its occurrence in California, as according to Mr. Busck it was first reported by Professor E. O. Essig, in 1922 on the same host and recently from San Diego also on avocado. In the latter place it seems to be more troublesome in attacking the leaves rather than the fruit. It has been suggested by Mr. Keifer of the State Department of Agriculture that the species is native and possibly of more common occurrence in Mexico than in California. Mr. Busck is describing the same as a new species and a description of it is to be published by him in this Monthly Bulletin.