

A NEW TORTRICID OF ECONOMIC IMPORTANCE IN
THE HAWAIIAN ISLANDS.

[Lepidoptera, Tortricidæ.]

By AUGUST BUSCK.

Amorbia emigratella, new species. Male and female.

Female.—Basal joint of labial palpi short, ochreous; second joint long, porrected, rust-red, with a violaceous sheen on the tip; terminal joint short, reddish brown, shaded with black. Face behind the palpi short-scaled, whitish; head reddish brown, mixed with ochreous and with a short pointed frontal tuft. Antennæ reddish brown, simple. Thorax and patagia uniformly dark brown. Fore wings with base of costa strongly arched; costal and dorsal edges nearly parallel; apex squarely pointed; termen slightly sinuate below apex, thence evenly rounded; ochreous brown, shading into light ochreous on the terminal third; the edge between two colors is not sharply drawn, but the limits are still quite distinct, the lighter color occupying the area below a straight line from basal fourth of the dorsal edge to apex. From just before the middle of costa runs an indistinct, dark bluish-gray band obliquely outward towards tornus, but fades out in the ochreous part of the wing and is even interrupted in the brown costal part; parallel with this is another similarly colored, but less distinct, streak at apical third, also disappearing in the light portion of the wing. On the dorsal edge at basal fourth and at the middle are two short dark gray streaks, parallel with the costal streaks. The entire wing is finely mottled with a close transverse apparently darker striation, which is produced by transverse rows of slightly elevated scales. These markings are of varying intensity in different specimens, some showing hardly any trace of the darker cross-bands and having the ground-color lighter and nearly unmottled except for the fine transverse striation caused by the slightly raised rows of scales. Hindwings light straw-yellow, with the apex mottled with dark brown and black and with the costal cilia absent and abruptly beginning again just before the tip of the wing. Cilia straw-white. Underside of the forewings reddish ochreous, with a blackish terminal line before the cilia. Abdomen light yellow. Legs straw-yellow; the anterior and middle legs shaded with reddish brown exteriorly and with the tarsi faintly annulated.

Alar expanse, 27-29 mm.

Male.—Of considerably smaller size and of a general lighter color. Forewings nearly uniformly light ochreous without the darker basal and costal shade. The first costal dark streak is represented by a dark bluish brown triangular spot, terminating in a nearly black dot;

the second costal streak is replaced by a faint, curved, dark line, emitted from a small bluish brown costal spot. The transverse striation caused by the rows of slightly raised scales is apparent. The antennæ are pectinated.

While the two males from Hawaii before me do not exhibit much variation, a similar range of variation as is found in the females may be expected in the males.

Alar expanse, 20-23 mm.

Habitat—Tantalus and Makiki, Oahu, Hawaiian Islands, Otto H. Swezey, collector.

Type—No. 12777, U. S. National Museum.

The types of this very distinct species were bred by Mr. Otto H. Swezey, assistant entomologist of the Hawaiian Sugar Planters' Association, who writes as follows, under date of October 26, 1909:

This tortricid is quite a pest in the Hawaiian Islands. The larvæ are leaf-rollers on many kinds of plants, shrubs, and fruit-trees, often so numerous as to defoliate the trees and sometimes attacking the fruit as well. It is an introduced species here which has been present for several years. No one here knows where it came from, nor has anyone learned its identity.

The species has long been known to the writer from Mexico and has undoubtedly been introduced from that country to Hawaii within comparatively recent years. In the National Museum are specimens from Jalapa, Santa Rosa, Orizaba, Vera Cruz (Wm. Schaus coll.), and Mexico City (R. Müller coll.), Mexico, and from Costa Rica (Wm. Schaus). The species comes nearest the darker and larger North American species, *A. cuncana* Walsingham.

The genus, which is characteristic of America, has veins 7 and 8 in the forewings stalked in the female, coincident in the male, but is, aside from this secondary sexual character, amply defined by characters common in both sexes, the venation and form of the hindwings, and the raised scales of the forewings.