

**A New *Protaulacistis* from Kauai
(Lepidoptera: Pyraustinae)**

By **ELWOOD C. ZIMMERMAN**

EXPERIMENT STATION, H.S.P.A., HONOLULU

While working at the British Museum (Natural History) on the manuscript for the forthcoming volumes for the Lepidoptera section of my "Insects of Hawaii," I have had an opportunity to check some of the material I collected in the mountains of Kauai in 1937. One of the species collected is a rather large (for our fauna) pyraustid which has escaped notice heretofore, and I wish to place it on record.

***Protaulacistis swezeyi*, new species (figs. 1, 2 and 3)**

Basically straw-colored over all; intensity of brown to fuscous lines, bands and spots variable; with an iridescent or purplish sheen, more purplish on fore wings. Labial palpi very long and slender; length from front margin of an eye to apex four times length of an eye on holotype male, about 4.7 on female allotype; first segment mostly white-scaled, second and third basically straw-colored sprinkled with fuscous. Legs sprinkled with fuscous and sometimes with some reddish scales, tibiae most densely so; outer sides of tarsi somewhat darker than inner sides, but not prominently so; outer middle spur of hind tibia of male developed, about one-half as long as inner middle spur; outer spurs on mid and hind tibiae dark fuscous on outer sides and distinctly darker than inner spurs. Head and thorax not dark speckled. Abdominal segments darker above, and there clothed with yellow-fuscous, but hind margins narrowly white,

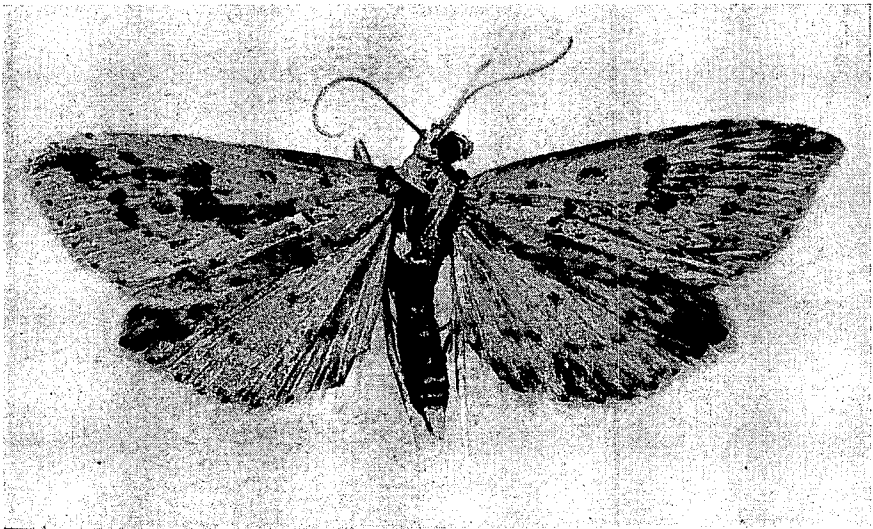


Fig. 1. Dorsal view of paratype male, *Protaulacistis swezeyi* Zimmerman.

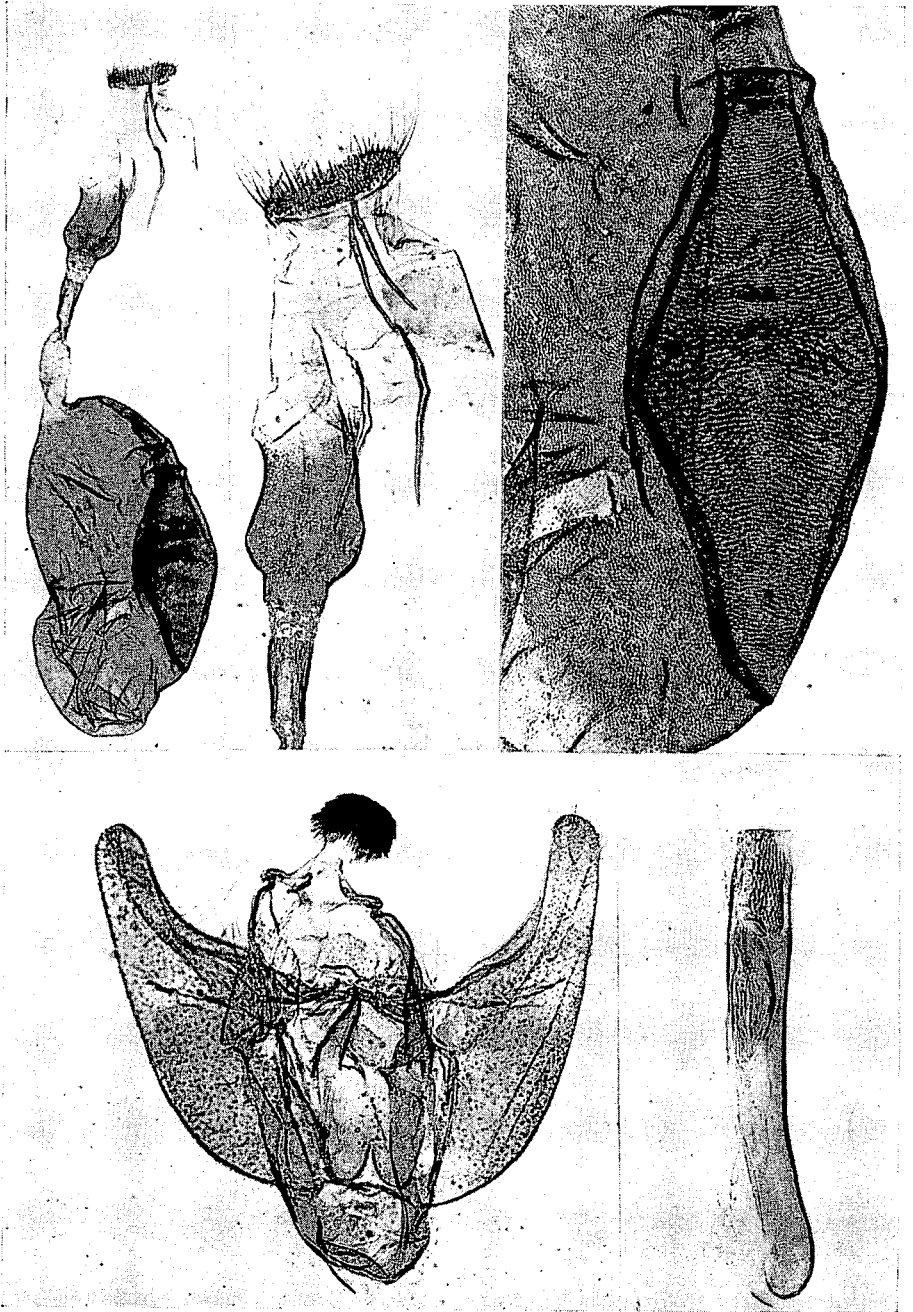


Fig. 2. Details of genitalia of *Protaulacistic swezeyi* Zimmerman. Upper row, left: female genitalia; middle: ovipositor and ductus bursae, showing sclerotization; right: detail of main part of signum. Lower row, left: male genitalia; right: aedeagus. These illustrations have been made from dissections of the holotype male and allotype female.

caudal segment paler. Wing patterns as illustrated; fore wings with more yellowish or orange scaling, lines mostly broken into series of spots, antemedian line sinuous and running forward to basal corner of orbicular spot; postmedian line mostly an arcuate series of spots, its posterior part confused or obsolete; orbicular spot variable, nearly obsolete or well-marked and dark-outlined; reniform spot usually dark-outlined, 8-shaped, posterior part usually best developed, this part sometimes solid fuscous, the anterior part sometimes obsolete; in some examples a dark, irregular zone extends from behind orbicular spot and, directed toward apex of wing, continues to postmedian line, and an extension may continue from just distad of postmedian line to apex of wing, thus making a dark patch at wing apex; with a series of widely spaced, small but well-marked dark terminal dots, fringes pale; hind wings with fringes pale, a terminal series of dark dots as on fore wings, thence a wide, continuous, pale fuscous terminal band (the courses of the veins are marked through the band as pale streaks) preceded inwardly by a similarly colored but much narrower and irregular band separated from the wide band by a narrow, pale zone, disc paler and with two small discal spots, the posterior one most distinct and normally quite prominent; underside of wings colored much as upper side; fore wings with underside sprinkled with fuscous, orbicular spot feeble, reniform spot well-marked, postmedian line a well-marked, arcuate, dentate, irregular line, its posterior part obsolete, and with a dark apical blotch extending to wing tip from near postmedian line; underside of hind wings more dark-speckled, the discal dark spots well-marked, the anterior one largest and the postmedian line strongly marked and distinctly more prominent than on dorsum. Genitalia of male and female as illustrated. Male genitalia small for such a large species of the group, valve broad, breadth along extreme base one-half length measured on a chord from lower posterior corner to apex; clasper obsolete, its usual position marked by a slightly thickened fold; juxta deeply and acutely emarginate at base, each outer dorsal corner produced into a long, heavy, sharply pointed, blade-like process; spinose apex of uncus nearly subcircular. Female with signum well-developed, its main part narrow-diamond-shaped and about two and one-half times as long as broad, but with the caudal end extended as a tape along bursa to base of ductus bursae; sclerotization of ductus bursae as illustrated. Expanse of fore wings: 28-31 mm.

Kokee, Kauai, Hawaiian Islands. Holotype male, allotype female, two males and four females taken July 6, 1937 and two females taken

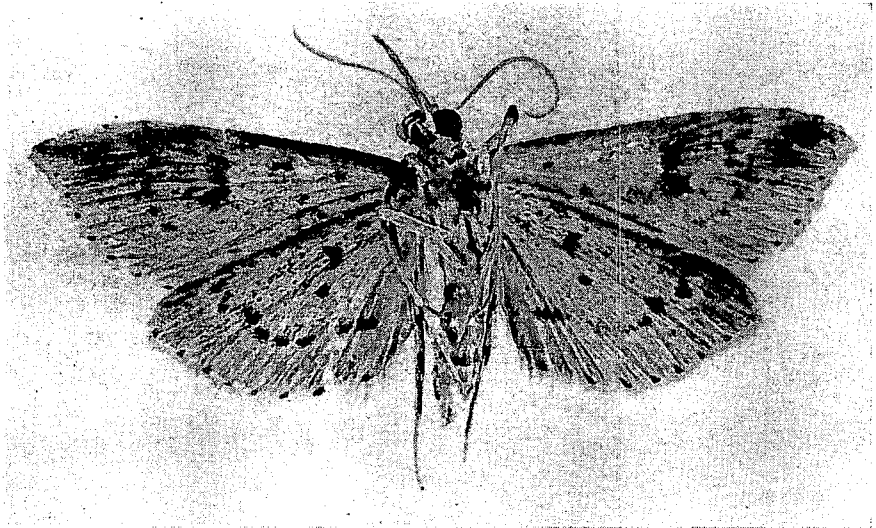


Fig. 3. Ventral view of paratype male, *Protaulacistic swzeyi* Zimmerman.

July 8, 1937. All of the specimens were taken in a light trap and all are more or less abraded. The holotype and allotype will be stored at Bishop Museum, and paratypes will be placed in the Experiment Station, Hawaiian Sugar Planters' Association and the British Museum (Natural History).

This is one of the largest of our native pyraustids, and, because of its large size, its very long palpi and its color pattern, cannot easily be confused with any of the other described species of the group. Because of its long palpi and large size it might be associated with *Pyrausta phaethontia* Meyrick or *Loxostege helioxantha* Meyrick, but its color and pattern alone will separate it, to say nothing of structural differences. Abraded, faded examples of what is called *Mecyna virescens* Butler in our collections might be confused with this species, but a glance at the much shorter palpi of that species will readily separate it.

It gives me pleasure to dedicate this new species to Dr. O. H. Swezey in recognition of his extensive research in the natural history of the Hawaiian Pyraustinae.