

Notes on Two Pests of Pineapple Not Known in Hawaii.¹

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The observations recorded in this paper were made in the fall of 1932 in Jamaica and Guatemala and concern two borers of pineapple, one, the pineapple stem borer (*Metamasius ritchiei* Marshall) and the other, a Lepidopterous borer which has apparently not yet received a common name (*Thecla echion* [Linn.]).*

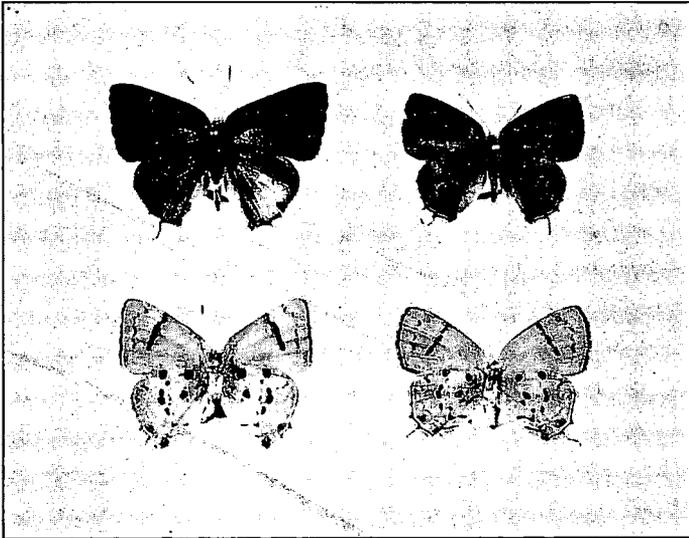


FIG. A. *Thecla echion* (Linn.)
Adults: ♂ and ♀ (Courtesy U. S. N. Museum)

M. ritchiei was studied in Jamaica at the time of its first finding and but little has been added since that time. It has remained closely localized in the type locality which is a densely wooded

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* Identified by Mr. Carl Heinrichs, U. S. National Museum. (There is some uncertainty with regard to the use of the name *Thecla echion*, for the butterfly which was introduced from Mexico into Hawaii, whose larva feeds on the flower heads of lantana, has also been identified as *echion*.—Ed.)

area. There, pineapples are grown in small scattered plantings with little cultivation and under extremely humid conditions. Under these conditions, the borer is an extremely serious pest. It bores through the stem of fruiting plants, emerging through the fruit, which is completely ruined in the process. It attacks young growing suckers, the borings reaching to the growing point. Plants were seen with evidence of a double attack, young larvae being found in a stump already traversed by old borings.

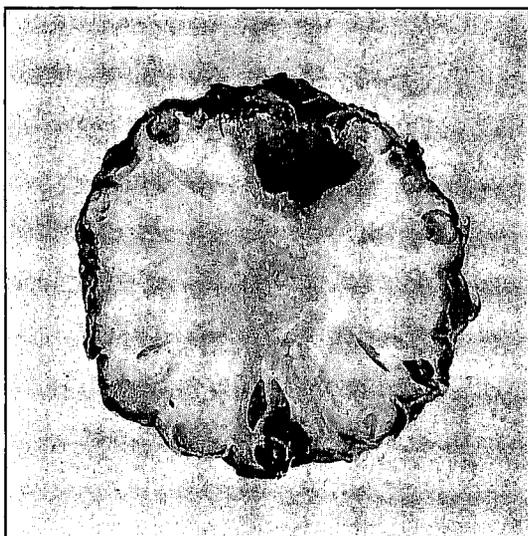


FIG. B. Section through small immature pineapple showing work of larvae in fruit tissue.

In spite of its seriousness in the one locality there appears to have been no spread into other localities in spite of the fact that some movement of planting material has taken place into other locations in Jamaica where pineapples are grown. These facts suggest the possibility that the insect has specialized environmental requirements which limit its spread to other areas. No pineapples are grown in Hawaii in any environment even approximating that in which it succeeds in Jamaica. On the other hand, the barrier interposed by dense and varied tropical vegetation which separates pineapple plantings may be too great for the insect to surmount.

The lycaenid butterfly, *T. echion*, for which the name "pineapple fruit borer" is proposed, was found in Guatemala at Montufar, Palin, and Escuintla. The larva is approximately one inch long when mature, of a salmon pink color and appearing somewhat flaccid on account of an uneven integument and a slightly flattened shape. It is found principally at the base of the young growing slips, boring in at the attachment of slip and fruit. Sometimes it is found boring into the fruit above the point of attachment of the slips. Its curious flattened shape and flaccid body are admirably adapted to its boring habit. It can, when disturbed, bore with extreme rapidity.

No certain evidence of parasitism was observed but the insect is not common in the areas where it was found for out of several hundred fruits examined less than a dozen larvae were obtained.

Both species of insect mentioned above are dangerous potential pests to pineapple in Hawaii for, although they are limited either in numbers or in distribution in their native habitats, the situation in Hawaii provides a condition not encountered where they are found, namely, continuous cultivation of pineapples in large pure stands.