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NOTES ON THE FUNGUS-BEETLE, *CIS VITULA* MANN.

BY HARRY B. WEISS,
New Brunswick, N. J.

The following notes are the results of observations made on *Cis vitula* Mann.,¹ collected in *Polyporus versicolor* L., at Alma, Calif., during January by Mr. Hartman and forwarded to me together with a large quantity of the fungus by Mr. H. E. Burke. *Polyporus versicolor* is a common and widely distributed polypore and in this particular instance, it was taken on dead almond (*Prunus amygdalus*).

At the time of the receipt of the infested fungus, only adults were found. Several months later, however, after having been kept in a warm room, larvæ and pupæ were secured. The larvæ work in the context of the fungus especially in the thickest parts at the base, riddling it in all directions. Pupation also takes place in the basal context. The beetles range over the entire polypore consuming all parts of it. On account of the hairiness of the larvæ, they become covered with particles of excrement and borings found in their channels, but on account of the dryness of these materials few particles adhere to a larva after it has been removed from the fungus.

Full-grown larva. Length, 3.5 to 4 mm. Width, 0.8 mm. Whitish, sometimes slightly creamy, except for mouth parts, tarsal claws, dorsal abdominal plates of the eighth and ninth segments and posterior hooks which are brownish to brownish black; elongate subcylindrical, tapering slightly at anterior and posterior ends; body flattened beneath. Dorsal surfaces of head and body covered with minute, fine hairs. Head and each body segment also bear several, comparatively long, fine hairs. Ventral surface bears only a few, long, fine hairs. Head narrower than posterior edge of prothorax. Dorsal surface of eighth abdominal segment bears a slightly chitinized, somewhat brownish plate with a few minute tubercles. Dorsal surface of ninth abdominal segment bears a

¹ Kindly identified by Mr. Charles Dury.

larger, more strongly chitinized, light brownish plate with numerous minute tubercles and terminating in two comparatively prominent chitinous, acutely pointed spines or hooks which are curved upward.

Pupa. Length, 3 mm. Width, 1.1 mm. Whitish, somewhat elongate, sides subparallel, anterior and posterior ends tapering slightly. Dorsal surfaces of thorax and abdomen clothed with minute fine hairs. Dorsal surface of prothorax bears several long, fine hairs. A transverse row of long, fine hairs on dorsal surfaces of meso and metathorax and each abdominal segment. Anterior edge of prothorax bilobed. Dorsal surface of prothorax bears numerous, uniformly minute, brownish tubercles, a few of which bear long, fine hairs and the remainder, minute hairs. Last abdominal segment bears a pair of dorsal, acutely pointed, brown-tipped, diverging spines. Ventral surface and wing cases bearing a few hairs.

Polyporus versicolor appears to be a favorite food plant of members of the *Cioidæ*, many species occurring by hundreds in a small group of sporophores. It does not appear likely that the beetles play anything except possibly an accidental part in the distribution of the spores which are normally wind borne. The beetles frequent the interior of the fungus, appear to shun the light except when in search of fresh food and remain in the sporophore until it is almost all consumed. On account of the abundance of *Polyporus versicolor*, fresh food is usually within easy reach and requires only a migration of several inches or less on the part of the beetles. Examinations of the trunks of trees in various degrees of health and which were close to stumps covered by *Polyporus versicolor* infested by *Cioidæ* failed to reveal the presence of any beetles belonging to this family.



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