

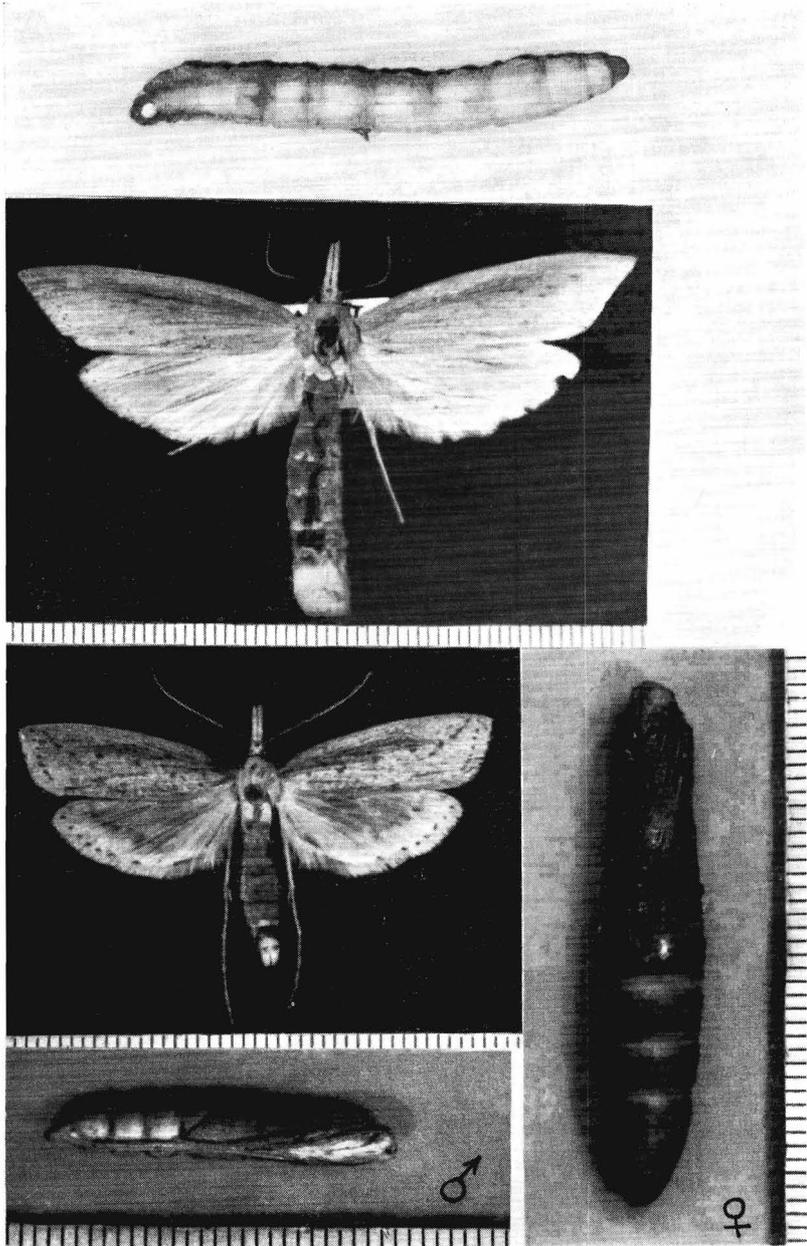
CONTRIBUTION TO THE LIFE HISTORY  
OF *SCHOENOBIOUS MAXIMELLUS* (PYRALIDIDAE)

by A. BLANCHARD

In Wm. T. M. FORBES' "The Lepidoptera of New York and Neighboring States" (part 1: 525; 1923), there is a note which reads in part: "The Schoenobiinae are a small group of more or less aquatic moths . . . The larvae are hardly known structurally, and are borers in marsh and aquatic plants . . ." Of the genus *Schoenobius*, the same author says that it is a very difficult one in the South, and is not well understood. Of *Schoenobius maximellus* Fernald, he states "male unknown." When I sent some specimens for identification to the United States National Museum, I was told that this institution had no males in its collection. I have, by sheer luck, found one food plant of this species and observed many larvae and males, and I hope that the following biological notes will be of interest.

All around Don George Lake (ten miles southeast of Richmond, Fort Bend County, Texas) grows a tall, coarse Gramineae: *Zizaniopsis miliacea* (Michx.) Doell & Aschers (or Southern Wild Rice). I have seen the same plant in a few other places (Huntsville State Park, Freeport, Rosenberg, Welder Wildlife Foundation), but nowhere as abundant as it is around Don George Lake, where it has practically crowded out all other plants, at least along the southern shore. The larva of *Schoenobius maximellus* bores vertically along the axis of this plant, in the leaves, and even penetrates several millimeters into the hard crown. I have always found it head down at the bottom of its burrow, except when it is ready to pupate.

It pupates head up at the bottom of the burrow or very close to it, after covering the walls with a fine layer of white silk. The top of the cocoon is closed by a series of trap-door-like obturations more or less evenly spaced a few millimeters apart. The obturation which is immediately on top of the pupa seems more silky than the others and may be built differently or with greater care than the others, as it is very often the only one which remains watertight. Five or six obturations are not at all uncommon. The exit hole is sideways, just above the top obturation. It must be difficult for the larva to upright itself, prior to pupation, in a burrow the cross-section of which is not appreciably larger than the cross-section of its own body.



*Schoenobius maximellus*

Left, top to bottom: larva; ♀ adult; ♂ adult; ♂ pupa. Right, ♀ pupa. The graduations are millimetric.

The female larvae and pupae are considerably larger than those of the males, although both vary very much in size: length of the female pupae 28 to 38 mm., diameter 5 to 8 mm. An average male pupa is 25 mm. long and 4 to 5 mm. in diameter. A striking difference between the male and female pupae is that the tongue of the male pupa almost reaches or slightly protrudes beyond the anal end, whereas the female tongue goes only slightly beyond the wing cases. The adult female has a wingspread of about 60 mm., the male only 40 mm.

During the first week of December, 1961, I collected four larvae, which were spinning their cocoons, and eleven pupae. December 20 and 24, 1961, I collected about a dozen larvae and three times as many pupae. They hatched during January and the first two weeks of February, 1962; both sexes were in about equal numbers. April 28, 1962, I collected one larva and two pupae. I have captured a male adult June 22, 1962, at the Welder Wildlife Foundation. I collected at Don George Lake, December 15, 1962, eight pupae, one of which was ready to emerge. So it seems that there is a generation during the early winter months and one or more generations during the remainder of the year.

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I do not feel qualified to describe the immature stages of this species, but would be happy to collect some material for anyone interested in doing so.

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