

## PREPARATORY STAGES OF CALOTHYSANIS AMATURARIA.

BY D. S. KELLICOTT.

The preparatory stages of this pretty Phalenid are not given in Packard's "Monograph of the Geometrid Moths", nor cited by Henry Edwards in his "Catalogue of the Preparatory Stages of N. A. Lepidoptera"; and, since they differ in some regards from the general characters of the caterpillars of the genus as given by Guenée, I have drawn up a brief account of larva and pupa.

The food plant at Columbus is *Polygonum dumetorum*, on which it was found in abundance during July and the first week in August.

Larva, 25 mm., long slender, cylindrical, with the last ring slightly swollen, and the first abdominal very much so, its diameter equaling twice that of the next ring. In ground colour there are two varieties: one deep brown or black, the other reddish or light brown. The skin under a lens exhibits paler lines and stripes made by whitish dots. Colour beneath similar to that above, except that the whitish stripes are plainer. The head is small, concolorous, with a white line on either side of the occiput extending on the prothorax; on the front there are four faint white longitudinal lines. On the 2nd, 3rd, 4th and 5th abdominal rings there is a pale lateral stripe, having three white curved lines on each, so arranged as to give the appearance of a slender stem twining about a rod. There are a few whitish dashes on sides of thorax; legs concolorous.

The larva clings to the smooth stems by its claspers, head downwards and body curved like an inverted clothes-hook. When disturbed it springs from its support to the ground, and quickly wriggles itself under cover. Its behaviour when walking is singularly hesitating and unsteady; after each step it lifts its body and explores right and left for danger before venturing another advance. When in this attitude its remarkably swollen first abdominal ring reminds one of a miniature cobra.

The pupa is light in colour, somewhat swollen below; the slender pointed abdomen tipped with black ends in a strong triangular piece edged with hooklets; the hind shield is triangular, with four tubercles between the base of the antennal covers and with the clypeal apex bilobed. Length, 12 mm.

The pupa is sustained among the herbage by a few silken threads, which are the merest shadow of a cocoon. Pupa July 26, imago Aug. 1.

Mr. Webster followed with a paper on