

The Canadian Entomologist.

VOL. XXXIV. LONDON, NOVEMBER, 1902.

No. 11

THE LIFE-HISTORY OF THE VARIABLE CUTWORM, *MAMESTRA ATLANTICA*, GRT.

BY DR. JAMES FLETCHER AND ARTHUR GIBSON, OTTAWA.

In the Report of the Dominion Entomologist for 1901 a notice was given of this insect, the moth of which has for some years at Ottawa been one of the commonest species of the genus found flying during the summer. Any species as abundant as this is must be injurious, should the caterpillars at any time attack a cultivated crop. The larvæ have occasionally been found in vegetable gardens, around peas and beet root, but no injury as yet has been noticed. The finding of a cluster of eggs last year by Mr. Gibson gave an opportunity of studying the life-history, which is herewith submitted.

On the 6th June, 1901, a batch of about 90 eggs of *Mamestra atlantica*, Grt., was found at Ottawa on *Lonicera caprifolium*, Linn. The eggs were laid on the upper surface of a leaf, in a compact heap of three layers.

Egg.—Dome-shaped, slightly smaller at the base than just above it, where it is widest; height, 0.4 mm.; width, 0.6 mm. In general appearance similar to the eggs of *Peridroma saucia*, Hbn., which have been so often figured. The micropyle is conspicuous, surrounded by about 5 rings of large cells. The ribs, about 24 in number, all divide once, and some of them twice, before they reach the base. The large cells, which show plainly above the point where the ribs divide, occur over the whole surface of the egg, forming a network connecting the ribs. When found, the eggs were of a pinkish shade.

The eggs hatched during the morning of the 10th June.

Stage I.—Length after hatching, 2.3 mm., of a dirty whitish colour, alimentary canal showing dark through the skin. After feeding, the colour is pale green. Head 0.4 mm., wide, large, rather flat in front, pale brown; mandibles reddish; ocelli dark; hairs on face black, each of which is