The Canadian Entomologist.

Vol. XLV. ' LONDON, DECEMBER, 1913 No. 12

THE PREPARATORY STAGES OF APOCHEIMA RACHELÆ HULST.*

BY ARTHUR GIBSON, DIVISION OF ENTOMOLOGY, OTTAWA.

A cluster of about 200 eggs of this rare moth was received from Mr. Norman Criddle in 1903. Oviposition took place at Aweme, Man., during the nights of April 20, 21 and 22, and the larvæ hatched at Ottawa on May 9 and 10.

To the notes made in 1903, further information has been added from a recent study of inflated larvæ.

Egg.—The eggs were laid in an agglutinated mass and when received (May 1) were yellowish in colour. On May 6-8 they turned pinkish, then black, and before hatching were beautifully iridescent. In shape, the egg is oval; height 0.6 mm.; breadth 0.3 mm.; the whole surface roughened.

The eggs were secured by confining the female moth in a collecting net-bag. Since, however, Mr. Criddle has found eggs under natural conditions, viz., on a twig or poplar (see figure 1, plate XIV) these had been deposited in a tightly compressed mass. On another occasion, a female which the same observer had in confinement laid the eggs in a cluster on her own body.

Larval Stage I.—Length 2.5 mm. Head 0.4 mm. wide, somewhat quadrate in shape, slightly depressed at vertex; dull black in colour, mouth-parts reddish brown, ocelli black. Body velvety black, with five transverse bands of white on abdomen; collar and stigmatal stripe white; thoracic feet black; prolegs concolorous with body.

Stage II.—Length 6 mm. Head 0.7 mm. wide, blackish brown, with conspicuous whitish patches, giving a mottled appearance; the lower half of clypeus and lower portion of epicranium reaching to ocelli, almost wholly whitish in some specimens; in others the front of head is mostly whitish, with a few dark brown spots on clypeus and inner margins of cheeks. The larvæ are now of a grayish-brown colour, with whitish longitudinal lines and

*Contributions from the Division of Entomology, Department of Agriculure, Ottawa.