

ALYPIA MARIPOSA, LARVA.

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Mr. J. B. Lambert has kindly sent me some alcoholic larvæ of *A. mariposa*, and I may record a few points in comparison with the eastern *A. octomaculata*. Mr. Lambert has given the life history quite fully in the December number of the CANADIAN ENTOMOLOGIST, but our species have not been compared. The larva is especially interesting, as being the second one discovered in this genus. We have long been familiar with that of *A. octomaculata*, and everybody has described it; but the other species, though somewhat numerous, have remained unknown.

Mr. Lambert has sent me specimens which appear to be in stages II., III., IV. and VI. The larvæ are noctuiform as is *octomaculata* with joint 12 enlarged. The tubercles are of the normal noctuid arrangement,* large, low-conical, rather less developed than in *octomaculata*, with single, large, smooth setæ. The width of head by calculation would be for the six stages—0.32, 0.50, 0.77, 1.2, 1.8, 2.8 mm. (ratio, 0.65). The measurements of the examples before me are 0.5, 0.75, 1.2 and 2.8 mm.

As compared with *octomaculata*, the markings are more generalized. Until the last stage, the larva is very plainly marked; besides the black tubercles, there is only present a diffuse white dorsal and stigmatal band, gradually becoming more distinct. In the last stage there are added four transverse black bands on each segment, instead of the eight of *octomaculata*, and these bands are confined to the space between the dorsal and stigmatal lines, and the two central ones on each segment are fused together. The abdominal leg plates are pale, instead of black, as in *octomaculata*. The ground colour is duller than in the eastern species. Instead of the bluish-white ground with the transverse orange bands on joints 5, 6, 7, and 12 of *octomaculata*, the whole ground is dull orange, relieved only by

* I., anterior subdorsal; II., posterior, more nearly lateral; III., lateral above spiracle; IV., stigmatal posterior; V., anterior, and VI., posterior inferior sub-ventral; VII., three setæ in a triangle on leg plate; VIII., near medio-ventral line.

See article by Wilhelm Müller in Zool. Jahrbücher for 1886, on larvæ of South American Nymphalidæ. Tubercles VI. to VIII. do not appear characteristically on these specialized butterflies, and are not described by Müller.

the diffuse white longitudinal bands, which become obsolete anteriorly. The stigmatal band extends down below the spiracles and contrasts the black subventral tubercles. Its central part represents the inter-segmental, sub-stigmatal white patches of *octomaculata*, though the marking is here quite undefined. Posteriorly the white bands tend to usurp the whole ground area, showing the origin of the white ground in *octomaculata*.

Nearly two years ago, Mr. Lambert sent me an egg of *A. mariposa* (or possibly *A. Ridingsii*). The following is its appearance under the microscope:—Flattened, round, strongly depressed centrally at the micropyle. Rather less than forty deep grooves run vertically, a few not reaching the summit; the edges of these grooves are somewhat sinuate, as if formed of rows of large pits which had become confluent in a vertical direction. In a rather large area around the micropyle, the grooves cease and are replaced by closely crowded punctures, but not small, with sharply elevated rims. Diameter, .7 mm. Height about .2 mm. Base flattened.

ACTIAS LUNA.

On 24th May Mr. Lachlan Gibb took a female, which he left alive to get eggs, a number of which were laid between the 25th and 29th. On the 14th June the eggs were hatching, and the larvæ were offered butternut leaves, which they eat readily, and matured very rapidly. About the 27th of the month, Mr. Gibb kindly gave me four of these larvæ, which were then apparently more than half grown. They moulted once only, so far as my observations went, after I received them, and on 12th July three spun their cocoons, the fourth doing this on the 16th. Early in August Mr. Gibb asked me to take charge of his cocoons, and keep them with mine, as giving a better opportunity of getting another lot of eggs next season, and on 20th August I was surprised to find that one of Mr. Gibb's cocoons had disclosed the imago, a ♀. Thinking that this was only the forerunner of others, I kept it alive, taking all the cocoons down with me to Murray Bay, but no other emergence took place.

Mr. Street, jr., of this city, has since informed me that he saw a specimen on our mountain at about the same time as this one emerged.

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