

rows, one to each, of small tubercular flattened points, pale or whitish-yellow; from 2 to 13 a white stripe along base, just over the spiracles, and above this the ground is yellowish for a little way; a medio-dorsal yellow line and sometimes a fine line on middle of side; yellow tuberculated points over the legs, in arcs of from 3 to 6; on foremost ridge of 3rd segment, high on the side, a dead black tubercle, a little raised and rounded, in yellow ring; spiracles in brown ovals; surface covered with a fine short down; head obovoid, green, smooth, sparsely pilose; the ocelli brown.

Occasionally the larvæ in later stages are differently colored. One had the dorsum dark green, edged on either side by a gray line, and successively by a band of yellow, a gray line, and a black band; the 3rd segment was wholly, and 5th partly black. Two others of same brood were green, with a black band along base of body, and black patches on 3 and 11.

CHRYSALIS—Length .5 inch; helmet-shaped; compressed laterally, the abdomen somewhat carinated; mesonotum high, rounded, sloping abruptly to top of head case, much compressed and sharply carinated, followed by a deep excavation; head case not prominent, square or nearly so at top, a little excavated, the corners sub-pyramidal and scarcely at all produced; along carina of abdomen a yellow line, which forks and passes round mesonotum to top of head case; a slight yellow lateral line on abdomen; color green, either deep, or with a blue or a yellow tint; the abdomen much sprinkled with pale yellow flat points or small spots; a few of these about the head case. Duration of this stage 5 days in July, 7 days in August.

I described and figured *Bachmanni* in both sexes, and also the egg, the two later stages of the larva, and the chrysalis, in *Butterflies of N. A.*, Vol. 2, Part 1, 1874. At that time I was unable to give the complete larval history. In subsequent years I have repeatedly taken the butterfly and observed all of the preparatory stages. It is certain that in this region this species appears in several successive generations, probably four, that the later butterflies hibernate, and the survivors are on the wing early in May, and probably in favorable seasons in April. The first generation in descent from the hibernating females are on the wing in June; the second generation in July; the third in August; and late butterflies emerge from chrysalis in September, and these would be of the fourth generation in descent from the hibernating females. The period from laying of the egg