

four inches high. On 27th May, I found a pupa hanging to the outer side of a rail, as I crossed the railway to my garden. I then, in the fall, searched daily for eggs, to see how late they were to be found. On 2nd Sept., I found 2 eggs; on 4th, 1; on 8th, 1; on 10th, 1; on 14th, 1, and saw the female lay this egg; on 16th, found 3; on 20th, 2; on 22nd, 1. I found no eggs later than this. Mr. Marsh found larvæ up to 30th Sept., though he obtained no eggs apparently later than 5th Aug. But the eggs to produce his late larvæ must have been laid early in September. On 26th and 27th Sept., I had occasion to drive many miles, and saw great numbers of the fresh butterflies flying about the *Actinomeris* flowers. My last imago, from one of the eggs found, was 12 days in pupa and came out 11th Oct. So that the butterflies were coming out of pupæ later, if anything, at Amherst than they were at Coalburgh.

It had been said that no one ever found an *Archippus* egg in New England, or on very young *Asclepias* plants, that could have been laid by an hibernator, though thousands of plants had been searched, at different localities, by many persons. Negative evidence is no evidence at all in such a case. If one thousand plants had failed to produce an egg, the one thousand and first plant nevertheless might have it. The hibernated females are very few, as there is every reason to believe, after hearing of the wholesale destruction over large areas of country of the late larvæ; and *Asclepias* plants are exceedingly plenty in the spring, thousands of them to one *Archippus* egg, no doubt. So that a person might very possibly look all day and not find an egg. And on the other hand, the first plant touched might have an egg on it. That the eggs are there is sufficiently proven by the resultant butterflies.

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## ON THE NATURE OF SEASONAL DIMORPHISM IN RHOPALOCERA.

BY T. D. A. COCKERELL, WEST CLIFF, COLORADO.

In studying the seasonal variation exhibited by various species of butterflies, I have been struck by the fact, that whereas in most instances the form emerging in the spring is darker and smaller than the summer brood, there are also exceptions to this rule, in which the vernal emer-