

and conceals the egg. When, on the other hand, the bud is scarcely open, the egg is placed upon the outer face of the bud scale, near the stem. A confined female, after ovipositing on all the buds of the plant supplied, placed her two last eggs on the petioles of leaves. Ovipositing takes place in the middle of the day, and each female disposes of about sixteen eggs. In nature, these are placed singly, never more than one on any plant, but unlike *irus*, the female of this species will often oviposit several times within a radius of a few feet.

*The egg.*—Turban-shaped, top slightly depressed; micropyle, a rosette of cells, still further depressed; bottom flat or irregularly indented. Sides ornamented with low rounded bosses in series, each connected with the nearest ones surrounding it by slightly elevated ridges, which are broadened out midway between the bosses, and are exceedingly irregular in outline, a character which serves at once to distinguish the egg from that of the congeneric species (as far as these are known). Cell walls of bottom and of micropyle narrow, clear-cut and of uniform width. At the edge of the micropyle the walls broaden abruptly, and the sculpture of the surrounding area is similar to that of the sides, except that the bosses are wanting. Plate III, fig. 1, shows the micropyle and depression; fig. 2, a part of the surface sculpture from the region of greatest diameter; and figs. 3 and 4, the top and side. When first laid, the egg is light green, with a faint bluish tinge, which disappears within a few hours. The colour gradually changes as the embryo larva develops, from light green to yellow-green, to greenish-yellow, and, finally, from four to thirteen hours before the birth of the caterpillar, to chalky-white.

*Period of incubation.*—On May 10th, 1905, I obtained sixteen eggs from a female confined over *Kalmia*. These were laid between 10 a.m. and 3.30 p.m., and all hatched between 2 and 11 p.m. on May 15th. An egg laid on *Kalmia* at 11.11 a.m., May 3rd, 1905, hatched during the early morning of May 9th. Another, laid on *Vaccinium* at 11.38 a.m., May 8th, 1905, hatched between 10 a.m. and 2 p.m. on May 11th. Only one egg was secured this spring. It was laid at 1.20 p.m., May 14th, and hatched at 3.25 p.m. on the 18th. From these instances it will be seen that the period of incubation varies from three to almost six days.

*The larval stages.*—I have been unable to discover eggs on the food plants, except when I have seen the female oviposit, and although I have spent many hours in the search, I have never found a newborn larva.