

the 20th of July, one of them began to change color, growing darker; on the 21st it became very dark, and on the morning of the 22nd the young larva was hatched. The second egg was then deepening in color and produced the larva on the 23rd. The remaining egg was unproductive and after a time began to shrivel up.

Appearance of larva fresh from the egg.—Length one tenth of an inch. Head large, bilobed, black. Body black, roughened with small brownish black tubercles—second segment* elevated or thickened and of a dull glossy flesh color, with a prominent fleshy tubercle on each side, a patch of white on seventh and eighth segments, wide anteriorly, pointed behind. A dull flesh colored dorsal streak on fourth and eleventh segments. Twelfth segment with a pair of fleshy tubercles, rather prominent, but not so large as those on second. Both those on second and twelfth have several short whitish hairs proceeding from them. Under surface brownish black, feet and prolegs of the same color.

These larvæ I failed to rear. Having no trees of the wild cherry within a convenient distance, I thought they might be fed with leaves from a cultivated variety, on which specimens taken nearly full grown had been previously fed. It appeared however that the leaves were much tougher than those of the native species, so much so that the infantile jaws of these diminutive larvæ failed to make any impressiou on them, and before the mistake was discovered and the proper food supplied, they were weakened past recovery and died.

Colias philodice.—A female was captured on the 18th of July and placed in a large sized pill box. The box was examined every day until the 23rd, and up to that date no eggs were deposited. It was not looked into again until the morning of the 26th, when five eggs were observed sticking to the sides of the box, and the parent dead. From the stiffness of the body of the dead insect, I thought that they were probably deposited on the 24th.

† The eggs were about one twenty-third of an inch long, much elongated, tapering at each end, with twelve or fourteen raised longitudinal ribs, with smaller cross lines in the concave spaces between them. The cross lines were not always regular, sometimes so, at other times two or three in a row were placed somewhat diagonally. Color when first deposited, pale lemon yellow, changing in three or four days to a pale red, then gradually to *bright* red, and from that to dark brown, just before the larva made its appearance. Four of the eggs hatched on the 30th and the remaining one on the 31st.

* In these descriptions the head is regarded as the first segment, making the total number thirteen.

† Some of the descriptions following have already appeared in Dr. Packard's book "A Guide to the Study of Insects"—but for several reasons it has been thought desirable to publish the whole of the information gained by these experiments in an aggregate form.