

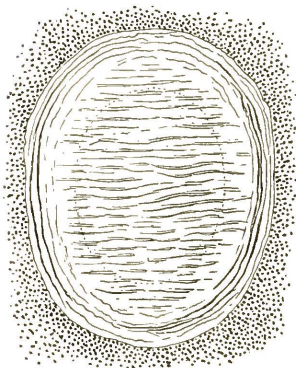


COCOONS AND YOUNG OF CONIOPTERYX VICINA.

BY J. H. EMERTON, BOSTON, MASS.

While hunting for spiders under leaves on the ground at Allston, a suburb of Boston, in November, I found the cocoons of this neuropterous insect attached to oak leaves and resembling the egg cocoons of small spiders like *Micaria* and *Castaneira*. The cocoons were white and had fine parallel wrinkles across the upper surface, in this differing from spider cocoons, which are usually smooth. In nearly every case the cocoons were on small broken pieces of leaves of last season's growth. The under side of the cocoon is thin and attached to the leaf by its whole surface. The upper side is formed by a flat ring sometimes thickened on the inner edge and a transversely wrinkled cover which is not attached to the inner edge of the ring but beyond it near the outer border of the cocoon, as shown in the section. The mature insect tears a hole

CROSS SECTION OF COCOON



COCOON ATTACHED TO BARK



Winter larva as taken from cocoon



Pupa with larva skin adhering to lower end.

in the upper side large enough to crawl through, and leaves the pupa skin half way out.

The larva is flattened sidewise like an amphipod crustacean and lies on its side in the cocoon. It is motionless when removed, even after several days in a warm room. It resembles closely the larva of *C. psociformis* Curtis described and figured by Schlectendal in the proceedings of the Verein für Naturkunde of Zwickau, Saxony, in 1881. The head resembles it closely and the mandibles are short and pointed as in *psociformis*, but the antennae and legs are much shorter than in that species. The whole body is roughened with fine rounded elevations and each segment is crossed by a single row of short hairs.

Schlectendal found his larvæ in winter under loose bark of oak trees at Halle in cocoons resembling those of spiders and was as much astonished as I was at the discovery. He, however, concluded that the cocoons were really those of spiders and that the larvæ had eaten the eggs. The cocoons differ in structure from any spider cocoons with which I am acquainted and it seems more probable that they are made by the larvæ themselves when about to hibernate.

A larva in a cocoon found November 9 and kept in the house in a tight bottle matured and came out of the cocoon January 30. Cocoons collected January 31 and then containing larvæ had pupæ in them March 1, and the mature insects came out March 12 to April 1.



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