

## ENTOMOLOGY.

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The cool nights and light frosts which occurred in September have had a marked effect on the abundance of insect life. On bright days Clouded Yellows and White Cabbage Butterflies have been abundant, and towards the end of the month a third brood appeared of both the Nettle Butterfly (*Vanessa Milbertii*) and the Camberwell Beauty (*Vanessa Antiopa*). After a few trials of their newly gained wings, these gems of the summer landscape will seek some quiet nook in cave or hollow tree, and sink into a state of torpor from which they will only be aroused by the returning warmth of opening Spring. On Sept. 25th a single specimen of Peck's Skipper (*Pamphila Peckus*) was seen sipping the nectar from a stalwart Michaelmas Daisy (*Aster puniceus*).

Several caterpillars were sent to the leaders during the month. Hidden in a den made by catching together two or three leaves of *Salix cordata* or other rough-leaved willows, the solitary caterpillars of *Nisus niades Icelus* were several times found. These have pale green slug-shaped bodies with large brown heads, separated from the body by a small neck. They apparently pass the winter in the caterpillar state.

The beautiful black, yellow and white Zebra caterpillars of *Mamestra picta* have been very abundant and destructive. Their numbers, however, have been much reduced by a minute parasite of the Proctotrypid genus (*Trichogramma*) which passes all its preparatory stages inside the egg. The moth which lays the egg from which the Zebra caterpillars hatch, deposits from 100 to 250 in a flat patch on the under side of a leaf. Of over twenty of these patches collected in the beginning of September, not a single egg produced the caterpillar, but instead the minute parasite above named. The same microscopic benefactor, or a closely allied species, did good service in destroying the egg of the Imported Currant Saw-fly, and of a new imported enemy of the willow which has only lately appeared in America in the shape of another Saw-fly (*Nematus pallidiventrus*). The event of most importance in this line is the sudden and wide-spread appearance in Canada of the Cattle Horn-fly (*Hematobia serrata*). The habits and the best remedies for this pest are all given in the recently issued Bulletin 14 of the Central Experimental Farm.—J. F.