

and pinches the chrysalis so as to kill it. In thistle the pupa is more exposed from having the stalk broken off above, and suffers from the attack of those species of ants that are always ascending plants in search of aphides.

One will frequently find in thistle, under conditions similar to those produced by *cataphracta*, a weevil, whose workings will require no little experience to distinguish from the caterpillar's by a first glance at the plant.

Mature larva: Length, 1.5 to 1.7 inches. Bodily anatomy and marking almost identical with *nitela*, but is much lighter in colour and more mottled. Is very active when disturbed in its burrow, and can go backward as rapidly as forward.

Begins to pupate Aug. 19; to emerge, Sept. 17. Pupa similar to *nitela*, but as a rule somewhat larger.

*Hydræcia purpurifascia*, G. & R.

Mr. Slingerland's article in CANADIAN ENTOMOLOGIST, Vol. XXIX., 161, relative to finding this species boring in cultivated Columbine, suggested to me that the wild variety might be a more natural food plant. An investigation showed my theory to be correct. But it is the root in this instance that is attacked, the plant stalk not offering a sufficient substance. The roots are surprisingly large and tuberous where the plant grows in favourable locations. The larvæ consume the inner part of the root completely, leaving only the outer skin tissue, which resembles the wrapper of a small cigar when they get through with it. These empty root skins are the only evidence one has to work upon in locating the pupa, as the plant shows no outward sign, and to find this evidence it is necessary to dig. That is all there is to it—one must dig. It is useless to mind soiled hands and frequent disappointments; if proof against poison ivy, it is a large factor in one's favour. Having once located a larva, the surrounding leaf mould must be examined carefully, as they seldom pupate in their burrows, and if the search has been thorough you may find a pupa or you may not. The latter often in the majority. It frequently happens there have been visitors before. Ground moles are early callers after the caterpillar has transformed, and fragments of the pupa shell where they have tunnelled under a plant tell how the spoils always fall to the lot of the earliest bird. Fortunately for the collector, Columbine grows in all sorts of seams and clefts of rocks, and it is here, where the plants are inaccessible to the mole, that one may search with