

moment, and then straightens himself again and resumes his journey. The long stiff hairs with which he is protected, much like a porcupine, we should think would render it impossible for an insect enemy to place an egg anywhere upon his skin. Mr. P. Reid tells me he once saw one of these caterpillars crawling with a hurried eager step across a dusty road, with an ichneumon fly pursuing him, striving to cling upon his back, but falling off in consequence of the rapid motion of the caterpillar. The fly finding itself frustrated in its every effort, next, as if humming to itself the refrain, 'It will never do to give it up so,' flew a few feet forward of the caterpillar, and turning, darted back with all its energy, hitting the caterpillar square in his face. The caterpillar thus roughly assailed suddenly stopped, and bent himself together in his accustomed manner, and in an instant the fly alighting upon his back, appeared to fix an egg at the margin of one of the breathing pores, which had become fairly exposed by the caterpillar doubling his body thus together. In a moment the caterpillar was recovered from his shock, and was crawling rapidly forward again, when the fly struck him a second time in the same way, and thus he was stopped; and had an egg deposited in his side three times before he reached the tall grass beside the highway, in which he was secure from further molestation."

4. *Terrestrial Mollusca*.—While tuning over the stones in search of geological specimens, I found during a single visit to the mountain no less than five species of land shells. Three of these were easily determined—a fourth appears to be a described species, but of the fifth I can find no account, and it may be new. These two must, therefore, remain unnoticed for the present.



Fig. 2.



Fig. 3.

Figs. 2 and 3.—*Helix Albolabris* (Say.) (*The White Lipped Helix*.) Montreal Mountain, 24th April, 1857.

In the above two figures the largest and most common species is represented, and the following is the description given in Gould's *Invertebrata of Massachusetts*.

"Shell orbicular, depressed-conical, thin, shining, of a yellowish brown or russet-colour; whorls five or six, rounded, separated by a well defined suture, and forming a moderately elevated spire, regularly and distinctly wrinkled by the lines of growth, which are crossed by very numerous, delicate, revolving hair lines, scarcely visible without a magnifier; aperture, semi-elliptical, contracted by the lip, which is white and very broadly reflected; outer edge sharp, somewhat waved, and coloured orange on the back; umbilicus covered by the extremity of the lip. Diameter generally over one inch.

"The animal varies in color, sometimes being pure white, cream-colour or greyish; head brownish above; tentacula dusky at tip; eyes black; back shagreened with granular tubercles; foot rather more than twice the diameter of the shell, pointed behind."

This is one of the most abundant of the few species of snails found in Canada. In all newly cleared lands the whitened shells of dead specimens are everywhere to be met with and living ones may be procured by searching under decaying logs, rotten stumps or stones. Limestone cliffs overgrown with small trees and herbage are more especially favoured haunts of this species. Dr. Gould remarks:

"This is our largest snail, and, though so simple in its structure and coloring, is a pleasing shell. Its delicately striated surface, and broad white lip, cannot fail to gain admiration. It is subject to very little variety, the principal variations being the want of the white reflected lip, and the open umbilicus in its immature stages.

"The economy of these animals may be briefly stated as follows: They subsist upon decaying leaves and vegetable fibre, under which they usually shelter themselves. In moist weather and after showers, they issue from their retreats, and crawl over the leaves or up the trunks of trees, until driven back by a change of the weather. In early spring they are often seen collected in groups on the sunny side of the rocks. In June they deposit their eggs, to the number of thirty to eighty, in the light mould by the side of

rocks and logs. These are white, opaque, and elastic; and in about twenty to thirty days the young animal issues from them with a shell consisting of one whorl and a half. In October they cease to feed, and select a place under some log or stone where they may be sheltered for the winter, and there they fix themselves with the mouth upwards. Thus they close by secreting a thin, transparent membrane, and as the weather becomes cold, they grow torpid and remain in that state until the warmth of spring excites them to break down the barrier, and enter upon a new campaign of duty and pleasure."

Fig. 4.



Fig. 5.

Figs. 4 and 5.—*Helix Alternata*. (Say.)

This species is easily recognised when good specimens are procured, by the numerous bands of brown colour which ornament the surface. It is more depressed or flatter than *H. albolabris*, and the umbilicus is not covered over, but open, so that all the whorls may be seen from the under side. In the dead and partly decayed shells the colour for the greater part disappears, but the perfect ones make rather handsome cabinet specimens. It is thus described in the work above cited.

"Shell orbicular, depressed, slightly concave above and below; general tint a light fawn color, which, on the upper surface, alternates, in about equal proportions, with oblique, zigzag bars of dark-brown; these bars grow narrower and lighter on the lower surface as they converge to the umbilicus; they are generally interrupted by a light coloured zone which issues from the middle of the inner margin of the aperture; whorls five to six, flattened above, conspicuously plicated at the lines of growth, so as to produce a rough surface above, but nearly smooth beneath; the shell has a sharp dividing line between the upper and lower surfaces in all its earlier stages, which disappears only at maturity, forming a circular aperture, slightly modified by the preceding whorl; lip simple and delicate; umbilicus large and deep, exhibiting all the volutions. Diameter often an inch.

"Animal with the head and tentacula of a light slate color, back brown, remainder of the upper surface brownish orange; eyes black; base of foot drab coloured; collar saffron. Tentacula one third of an inch long, blackish at tip. Foot not much exceeding the diameter of the shell, terminating in a broad, flat, obtuse tip; a light marginal line runs along the foot from the head to the posterior tip."

The habits of this species are similar to those of *H. Albolabris*.

Fig. 6.



Fig. 6.—*Helix Monodon*. (Rackett.)

The species represented by Fig. 6.—"the single-toothed snail," is much smaller than either of the other two, and not so abundant. It has a sort of a tooth on the whorl just at the edge of the aperture. The technical description is thus given.

"Shell slightly convex; whorls five or six, narrow, diminishing very gradually in breadth from the outer whorl to the apex, marked by very fine lines of growth, and covered with a dark russet or chestnut coloured epidermis, which is beset with very minute, hair-like projections; aperture contracted by a deep groove behind the lip; lip white, narrow, reflexed, a little grooved on its face, extending on the base to the umbilicus, and slightly contracting it, and its outer edge not projecting beyond the surface of the whorl; umbilicus deep, not exhibiting all the volutions, partially covered by the lip; base rounded, very much excavated at the umbilical region, with a compressed, elongated white tooth at the aperture. Greatest diameter nearly half an inch.

"Animal yellowish-brown, darker on the head and tentacula. Foot narrow, cylindrical, half as long again as the diameter of the shell, terminating in a point. Eyes black.

The hair-like projections above mentioned, and also represented in the figure, did not appear on the specimens I collected on the mountain, and Dr. Gould says they are often wanting at every stage of growth.—*Canadian Naturalist and Geologist*.