NATURE STUDY OF ANIMALS.

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SPHINX CATERPILLARS.

A caterpillar similar to the one shown in Figure 1, and in exactly the same infested condition, covered over with small oval bodies, was sent to me a few days ago by a New Brunswick teacher. The oval bodies are not a part of the caterpillar proper, but must be regarded as an accident. We will mention them later.

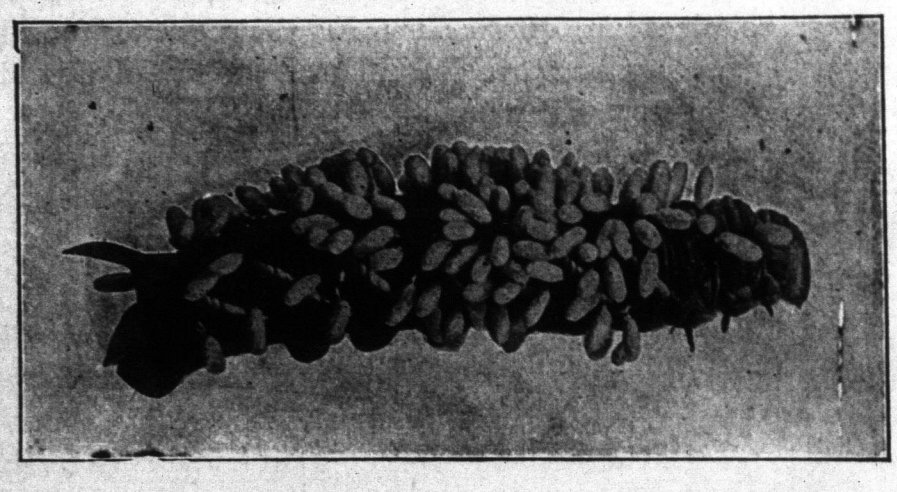

Fig. 1. Sphinx caterpillar with cocoons of branconid parasites.

These caterpillars, larvae, are common in the fall, and are easily seen as they crawl along roads and foot-paths. Why are they so seldom found feeding on plants? Why do they leave their "feeding grounds" at this time of year? Note and study their general appearance: their large size, naked cylindrical bodies, the conspicuous horn at the posterior end, and their beautiful green color. The color markings vary with different species, and at times in the same species, brown and even black forms being found, where the regular color is green. Most of the species have oblique lines along the sides, usually light in color, and in some, paralleled with a dark line.

These forms are Sphinx caterpillars, the larvae of Hawk-moths or Sphinxes. The name "Sphinx" was given to them by the great naturalist Linnaeus, since in their characteristic position, with the fore part of the body raised, in which position they often remain for hours, they reminded him of the Egyptian Sphinx. And further, like the Egyptian Sphinx they have a riddle — that posterior horn. The many questions asked about it all remain unanswered.

Most of the Sphinxes pass the pupa stage in the ground, so caged specimens should be provided with three or four inches of moist light earth, if one wishes to have them pupate. Watch them burrowing into the earth. Which end serves as the digger? How do these little creatures know to do this? Compare this knowledge with the ability of the silk worm to weave its cocoon, the spider to spin its web, the little bird to build its nest and the duckling to swim. Is it the same kind of knowledge that man shows in building houses, boats, etc?

These caterpillars do not form cocoons, like those of other moths we are familiar with, but chrysalides. Compare it in this respect with both butterflies and moths. These chrysalides are often found in gardens during the spring planting. They are long, and taper gradually toward the ends, and are usually of a shiny brown color. The long tongue forms a curved handle down one side, and is often compared to the handle of a jug. Bend the end of the abdomen to one side and note the reaction. Under this stimulus it twitches nervously from side to side. But a little irritation of this nature often proves fatal to the developing moth.

Many of the moths are very beautiful. The wings are long and narrow and are very strong, and for this reason the name "Hawk-moths" is applied to the group. As one watches them hovering over the flowers, sipping, nectar with their long tongues, they are easily mistaken for a small "new species" of humming-bird. Comstock says: "Of all the beautifully arrayed lapidoptera some of the Hawk-moths are the most truly elegant. There is a high-bred, tailor-made air about their clean-cut wings, their closely fitting scales, and their quiet but exquisite colors. * * * They seldom have vivid colors except touches of yellow or pink on the abdomen or hind wings, as if their fastidious taste allowed petticoats only of brilliant colors always to be worn beneath quiet-toned over-dresses."

The small oval bodies mentioned above are cocoons of little parasitic braconid-flies, of the genus Apanteles. They have a wonderful life history. The mother parasite deposited eggs within the body of the caterpillar; the eggs hatched and the larvae flies fed upon the juices and tissues