

POPULAR ENTOMOLOGY.
HALISIDOTA TUSSOCK MOTHS.

By ARTHUR GIBSON.

Among the insects which occur at Ottawa more or less commonly every season, are three different kinds of arctian moths belonging to the genus *Halisidota*. They are all of about the same size, measuring, when the wings have been expanded, from one and a half to two inches, and not one of the three would probably ever be picked out in a collection of insects as being specially attractive, or as possessing any particular or striking beauty. In the realm of nature, however, it is by no means only the so-called attractive or beautiful objects that are studied; all have their place in this interesting world of ours, and even the smallest or most inconspicuous-looking insect will be found worthy of some thought and investigation biologically.

The genus *Halisidota*, according to the latest revision, is not an extensive one in North America, there being only eight species found north of Mexico. The majority of these are southern or western in range, but, as above stated, three of them, viz., *H. tessellaris*, S. & A., *H. maculata*, Harr., and *H. caryæ*, Harr., may be found in the Ottawa district almost any season.

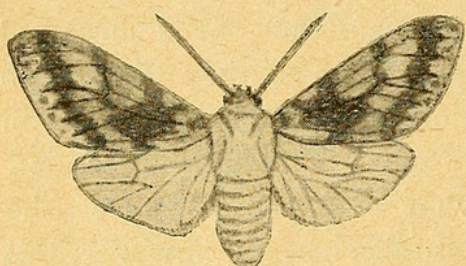
The moths of these three species emerge from their cocoons during the month of June, and, being nocturnal in habit, only fly at night. Like all insects they vary in numbers with the seasons. Some years the moths are noticeably abundant, others the reverse, but, as a rule, these insects may be collected any season in either the larval or adult states of their existence.

The perfect insects, as is the case with hundreds of other kinds of moths, are attracted to lights, and everyone has noticed on warm, close evenings, during the months of June and July, the swarms of insects of all kinds which fly around the electric lights, particularly those in the outskirts of cities and towns. The attraction which these arc lights have for insects is well known to the entomologist, and anyone desirous of securing moths for study can easily collect ample material during almost any warm evening from May till October.

The caterpillars of these *Halisidotas* are general feeders, and all have been found here at Ottawa feeding on oak, elm, willow, basswood, ash, etc. They become full grown in autumn, and after wandering about in search of a suitable place to make their winter home, each caterpillar spins an oblong-oval cocoon composed of the hairs from its body, interwoven with some silk. Soon after completing its cocoon, it changes to a reddish-brown object, called the pupa, and while in this state it gradually transforms into the perfect insect, the moth emerging the following June. These cocoons may often be found in open woods in spring, under pieces of old plank, dry logs, or even flat slabs of stone, which in some way have been disturbed or dislodged. After having collected these cocoons and brought them home to watch for the appearance of the moths, it often happens that one is surprised to see in the box, or breeding cage, in which they have been placed, a large fly somewhat like the ordinary house fly except in size, or a still larger kind of fly, in the sense of being longer, viz., one of the hymenoptera, instead of what we expected to see—the perfect insect or moth. To one who studies insects, however, this is not always a disappointment, as a knowledge of our parasitic, or beneficial species, is of much value, and were it not for these parasitic forms, some kinds of which prey to such a marked extent upon our native species of injurious insects, these latter would soon multiply enormously, and quickly destroy all vegetation.

The Checkered *Halisidota*, *H. tessellaris*, S. & A., is slightly larger than the other two species found at Ottawa, and expands, when the wings have been spread, about two inches. It is a delicate looking moth with semi-transparent wings, of a buff color. The forewings, which are narrower, making them appear more pointed than in *maculata* and *caryæ*, are checkered with five irregular transverse bands, margined narrowly with black, the 2nd, 4th and 5th of which extend right across the wing. The shoulder covers and collar of the thorax are the same color as the wings, but are margined on the inside with greenish-blue. Down the centre of the thorax is a stripe of the same greenish-blue. The balance of the thorax, the upper surface of the abdomen and the legs are yellowish-orange.

The caterpillar of the Checkered *Halisidota*, when full grown, is over an inch in length, with a black head, the body covered with hairs of a delicate buff-yellow color. In front are four dorsal blackish pencils, or conspicuous tufts, besides which are two pairs of shorter lateral white tufts, and, near the end of the body, a pair of whitish tufts. At Ottawa the basswood seems to be a favorite food plant of the larvæ, although they are often found on a number of other trees, such as hickory, walnut, beech, and frequently on fruit trees, to which, however, they do no serious harm. These caterpillars have, also, been recorded as a nuisance on shade trees in cities in New Jersey, but in Canada no complaint of this nature has, I think, been made.

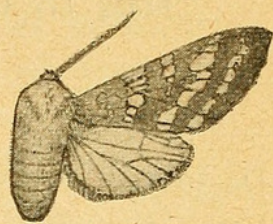


Halisidota maculata, Harris.
(Original.)

The Spotted *Halisidota*, *H. maculata*, Harr., is a more conspicuous moth than *tessellaris*. The forewings are ochre-yellow, spotted with blotches of dark brown, the outer of which form a distinct band across the wing. The other blotches form four partial transverse bands, the 2nd, 3rd and 4th of which join, in most specimens, in the centre of the wing, forming one large blotch. The body is of much the same color as the forewings, and just behind the collar are two oblique stripes, which converge and almost form a V-shaped mark. The hindwings are paler than the forewings, translucent, and without spots.

The larva of this species is larger and quite different from the preceding. The body is black, covered with tufts of bright-yellow and black hairs, the black tufts being on the four anterior and three posterior segments, and the yellow tufts on the remaining segments. The latter are centered down the middle of the back with a row of black tufts. We have not found this caterpillar as commonly, at Ottawa, as the other two species. The oak is probably the favorite food plant, and some writers speak of the species as "The Oak Tussock Moth."

The Hickory *Halisidota*, *H. caryæ*, Harr., is quite different from either of the foregoing. The ground color of the forewings is ochre-yellow, but is heavily dusted with brown scales. On the forewings are five, more or less, transverse bands, or rows of spots, joined together.



Halisidota caryæ, Harris.
(Original)

The outer two rows of these are pearly, the others mostly the ground color of the wings, edged with brown. The hindwings are semi transparent, the same as in the Checkered *Halisidota*. The body is of about the same color as the wings, the shoulder covers of the thorax being margined with brown on the inside.

The caterpillar of the Hickory *Halisidota* is the commonest larva of the genus, which we have in this district. It has a black head and the body is clothed with dense tufts of white hairs, with a ridge of black hairs down the centre of the back, and two pairs of long black pencils on the 1st and 7th abdominal segment. When full grown it is about one and a half inches in length.

The female moth lays her eggs in a cluster on the underside of a leaf, and the young caterpillars in their earlier stages have the habit of congregating. As they approach maturity, however, they separate, and wander off by themselves. During the past summer the writer had a brood of these caterpillars under observation, some of which were kept in glass jars. An interesting point noted was that when the caterpillars, in their last stage, were being returned to the jars, after these had been cleaned, if they happened to drop against the sides of the jars, they were able at once to hold on to the glass by their feet, instead of dropping to the bottom.

When disturbed all of these *Halisidota* caterpillars have the habit of falling to the ground and curling up, remaining in such position for some little time. They can, therefore, be collected easily from the trees, or bushes upon which they feed, by simply holding, with one hand, an inverted umbrella under the food plant and tapping the branches or twigs with a light stick held with the other hand.



Gibson, Arthur. 1905. "Popular Entomology." *The Ottawa naturalist* 19(2), 48–51.

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