

from pores along the side, which probably serves as a defence against many of its enemies. In the latter part of summer it is full-grown (measuring an inch and a half or more in length) and spins a strong brown oval cocoon, either in the leaves, with which it falls to the ground, or on the surface of the earth under leaves, etc. It does not transform to a pupa until the following spring, and the winged insect appears in June and July. Though the larvæ of this species are large and voracious, they are never so numerous as to become very destructive to foliage.

*Trichiosoma triangulum* is a northern species, somewhat similar in appearance to the preceding, but smaller, being about three-fifths of an inch long. The head and thorax are black, the latter clothed with long whitish hairs. The thighs are bluish-black (the four posterior ones of the male having a sharp tooth underneath) and the remainder of the legs yellow. The antennæ are eight-jointed, the base and club being dark, and the intervening joints yellow. The wings have a strong yellowish tinge. This insect is rare throughout Ontario, but appears to be more plentiful west and north. Mr. Geo. W. Taylor records it (*Canadian Entomologist*, vol. xvi, page 91) as tolerably common in British Columbia. The larva is said to have the same habits and to undergo the same changes as that of *Cimbex*.

*Abia Kennicotti* is a smaller and somewhat bee-shaped insect about one-third of an inch long. Its colour is black varied with blue and green; the legs whitish and wings yellowish. I am not acquainted with its habits. Two closely allied species, not yet recorded from Canada, although probably inhabiting it, are *Abia caprifolia* and *Abia cerasi*, which, as their names indicate, feed upon the honeysuckle and cherry respectively. The larva of the former is described as yellow, with the back greenish, and with rows of black spots. It spins a compact cocoon half an inch long, in which it undergoes its changes in the manner of that of the *Cimbex*.

The last species of this sub-family which I will mention is a diminutive black fly (only about one-eighth of an inch long), which I have frequently found on hickory (*Carya amara*). It is *Acordulecera dorsalis*, and has short six-jointed antennæ, the last joint rounded, but not enlarged so as to form a club or knob. The body is short and stout; black, with minute whitish hairs; the feet are also whitish. I have taken these saw-flies upon the hickory leaves about the first of June, and again about the first of August. Larvæ, which are perhaps those of these flies, do considerable damage to the hickory, especially the smaller trees, as they feed together in a row across the leaf and devour everything but the mid-rib. They are pale green, whitish below, about one-third of an inch long, and when full grown they descend to the ground and form therein white shell-like cocoons about the size of a grain of rice, from which so far I have been unable to obtain the winged insects.

#### SUB-FAMILY 2.—HYLOTOMINÆ.

The species of this group are not numerous, and are distinguished by the antennæ having only three or four joints, of which the third is very much longer than the others. Two genera are represented in Canada; the first—*Schizocerus*—by a single species which I have not seen, the second—*Hylotoma*—by four. Of these I have collected three species in this vicinity, and have received the fourth from Mr. Fletcher, who captured it at Dalhousie, N.B. They are rather handsome insects, about one-third of an inch long, but are neither sufficiently numerous nor injurious to call for detailed descriptions. They are easily distinguished from our other saw-flies by their three-jointed antennæ, of which the third is very much elongated and in the males furnished with rows of hairs.

#### SUB-FAMILY 3.—TENTHREDININÆ.

The species herein contained are of small or moderate size, and the number of articulations in the antennæ varies from nine to fifteen. The sub-family contains at least nine-tenths of our saw-flies, and nearly all the well-known destructive species.

At the head of it stands *Cladius isomera*, which is a small shining black fly, with whitish feet and clouded wings; length less than one-quarter inch. The larvæ feed in large numbers upon the willow, and devour the leaves with the exception of the skeleton.

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