

fied at the extremities. Spiracles black. At the end of this stage the larvæ empty their intestinal canals and spin cocoons on the surface of the ground without moulting.

*Cocoon* entirely of yellow silk, double, the outer layer of coarse meshes, the inner thinner and more compact. Larvæ in July; the flies emerged the following April. In the last moult there is no increase in the size of the head, but the larvæ feed in the last stage. The ♂ larvæ are smaller than the ♀, and their heads do not enlarge at the moult before the last, so they possess the anomalous character of having three stages without any growth of the head. I have never observed anything of this kind in the Lepidoptera, perhaps owing to their very different manner of moulting. In the saw-flies the old head is split at each moult, as in the Lepidoptera at pupation only, and the new one has to grow after the moulting instead of largely before it, as in the Lepidoptera.

*Hylotoma pectoralis*, Leach. The red-headed birch saw-fly.

A general description of this larva has been given by Rev. T. W. Fyles (CAN. ENT., XVIII., 38). I have a few details to add.

Found on the black birch (*Betula lenta*) at Woods' Holl, Mass., and Plattsburgh, N. Y.; also common on the white birch (*Betula papyrifera*) at Keene Valley, N. Y.

*Eggs*.—Laid in a series of saw-cuts along the edge of the leaf between the upper and lower epidermis, producing slight swellings 1.5 mm. in diameter. The eggs are soft and white.

The number of larval stages was not exactly determined, but what evidence I have leads me to believe that there are eight, and I shall describe them on that basis.

*First stage*.—Head reddish; width .6 mm. Body essentially as in the next stage (Keene Valley).

*Second stage*.—Head shining black, a little paler at sutures, round, about as high as wide, dented at clypeus; width, about .7 mm. Thoracic feet black, except at the joints. Body as in the next stage, but the piliferous dots much smaller and so less distinct (Woods' Holl).

*Third stage*.—Head light reddish-brown, shining, clypeus slightly indented in black; eye black in a black spot; head well rounded, rather higher than wide, full at vertex; width, .9 mm. Thoracic feet large, largely black; abdominal feet small, their bases black and corresponding spots on the apodal segments. Body shining yellowish-green, alimentary canal obscured; segments hardly annulate, but with three rows of large