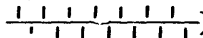


the outside, was perfectly healthy, I was surprised to find such an amount of corruption inside, so I began to investigate, and in every part of the tree I found a great number of small beetles or borers still at work. Their manner of proceeding was this. They would bore through the bark until they came to the soft pulpy part of the new annular growth of new wood just forming and bore a tunnel from 1 to 3½ inches. At very short intervals they would form a little cell on each side of the main passage and deposit a small white egg (in this way ) and do it with wonderful precision, and where tens of thousands of these borers would attack a tree you may be assured they made short work of it; but still there are some parts of the country that do not seem to suit them. I have noticed that in some parts where there is a deep, dry, light, loamy soil, every spruce tree of any size is totally destroyed, whilst on the other hand, where you find a wet, gravelly bottom, you will rarely find a spruce tree affected.

"I would also mention that although the borer works up to the tops of the trees, it is not the young shoots which are first attacked, but they begin near the ground first and work up."

The only remedy which can be suggested as yet for this evil is prompt cutting of the timber as soon as the injury is observed.

#### AMERICAN LARCH, OR TAMARAC.

##### The Larch Saw fly (*Nematus Erichsonii*, Hartig.)

This insect is still found in large numbers in the Provinces of Quebec and New Brunswick; but the reports which come in appear to me to be satisfactory. It is true it is widening its area of destruction; but there are many places where two or three years ago it was plentiful in which it does not now occur.

In the Ottawa district last spring the perfect fly was very abundant, but although the larvæ were looked for very closely few could be found, and efforts to secure a supply for study were unsuccessful, even in an isolated grove where the females had been seen ovipositing. The egg-bearing twigs, in the summer, after the time the eggs should have hatched, showed very few cases of defoliation. All reports, however, were not of this nature. Prof. Saunders observed them as "very abundant in parts of Nova Scotia, especially in the County of Cumberland where the trees in many localities were almost entirely denuded of their foliage." Mr. G. U. Hay writes: "I am not so sure that the ravages of the worm which infests the larch tree are less this year in some parts of New Brunswick than in previous seasons. During a recent visit I made to Miscon and Shippegan, I observed a very large proportion of the trees wholly or partly defoliated. This also was the case along the Intercolonial Railway from Bathurst to St. John. At Norton, about 25 miles from St. John, many trees were wholly defoliated.

As an off-set against this intelligence I found, during the past summer, that a tamarac swamp at Dalhousie, N.B., which, in 1884, was almost defoliated, was entirely free of these larvæ.

#### BIRCH.

##### The Birch Saw-fly (*Hylotoma dulciaria*, Say).

*Attack.*—Yellow false caterpillars with orange heads and 6 rows of black spots down the back, and a short black oblique dash above each leg along the sides.