

LAKE OF THE WOODS

## Some Notes on the Control of Foliage Eating Insects Under Forest Conditions

By JOHN D. TOTHILL

In Charge of Natural Control Investigation, Entomological Branch, Department of Agriculture

How many readers have witnessed an insect outbreak in the woods? Swarms of caterpillars; trees for miles stripped of nearly all their greenery; and a sense of depression like that produced by a forest newly swept by fire! Outbreaks of this character occur at irregular intervals on most of our valuable forest trees. At such times the losses involved are often very great.

About thirty years ago, for instance, an outbreak of saw flies occurred on the larch or tamarack in New Burnswick. The insects were present in such numbers that practically the entire tamarack stand was killed and since that time the tamarack swamps have been practically unproductive. In recent years the same

forest area has been exposed to an outbreak of the spruce budmoth. This has resulted in the weakening and death of a large proportion of balsam fir (Abies balsamea) now of great value for the production of pulp. In this case the loss involved will probably be greater than the sum total of fire damage for the past fifty years in the forests of the same Province. Other cases could be cited for all our Canadian forest regions, but these two cases will serve perhaps to indicate how great are the losses often resulting from outbreaks of forest insects.

Camping in woods rendered desolate by an insect outbreak and far from human habitation, one is faced with the apparent hopelessness of the situation. Cre-