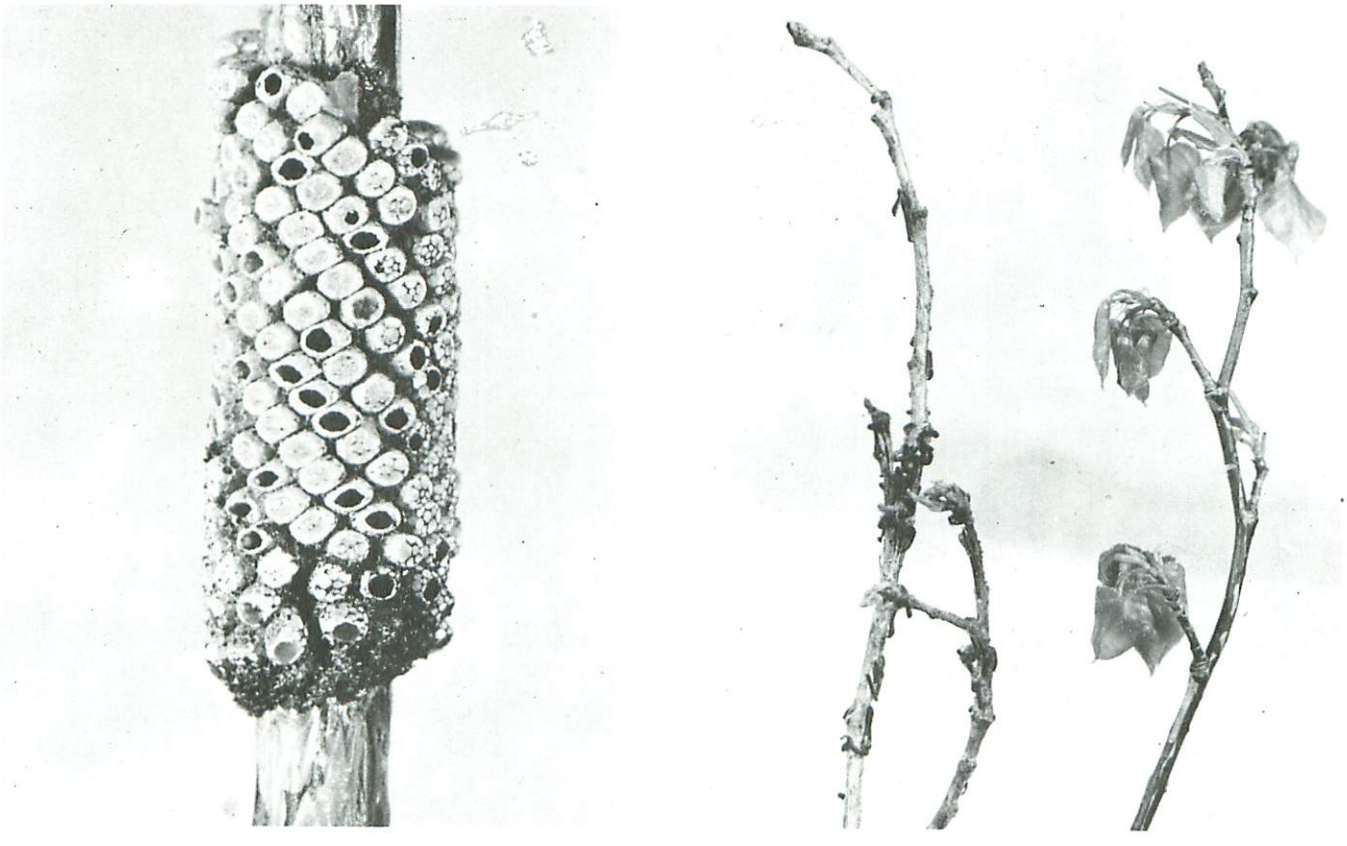
Environment Canada | Environnement Canada
Forestry Service | Service des Forêts

FORESTRY BULLETIN

May, 1976

Forest Insect and Disease Conditions in Ontario



A forest tent caterpillar egg band with spumaline removed to show the partial hatch of eggs, and a small group of young tent caterpillars representing the survivors from numerous colonies. Read the writeup on forest tent caterpillar for recent developments.

GREAT LAKES FOREST RESEARCH CENTRE
Box 490 • Sault Ste. Marie • Ontario

FOREST INSECTS

Forest Tent Caterpillar, *Malacosoma disstria* Hbn.

The Forest Insect and Disease Survey, in last year's final Forestry Bulletin and in various other reports, made forecasts of more extensive defoliation of broad-leaved trees in 1976 than in 1975. Consequently it also predicted more frequent disruption of man's enjoyment of the out-of-doors in June, 1976 by the mass migration of forest tent caterpillars in search of food. Forecasts have always been subject to the qualification that spring weather at the time of egg hatch and early larval development must be favorable if the infestation is to continue. Weather conditions this spring, at least in central Ontario south of a line joining Sault Ste. Marie and Kirkland Lake, were in fact highly *un*favorable for tent caterpillars. The hatching of eggs began in some areas as early as the Easter weekend (April 18), but hatch had barely begun when cool weather set in again. Subsequently the hatching of eggs was slow owing to cool weather, and caterpillars could not feed for prolonged periods because the buds remained tightly closed. As a result, numbers are greatly reduced over 1975 and are certainly much lower than were forecast on the basis of the number of healthy egg masses that were overwintering successfully on host trees. In some locations eggs failed to hatch altogether, whereas in others a high percentage of eggs hatched but the survival of larvae was low. It would appear that severe defoliation by the forest tent caterpillar, at least in the Northeastern, Algonquin and Southeastern regions, will be limited to those stands having the highest counts of egg bands.

Aerial spraying operations against the forest tent caterpillar in three provincial parks in the Algonquin Region were cancelled by the Ontario Ministry of Natural Resources. Property owners in the above-named regions who plan to spray in problem areas are also advised to check their host trees immediately. Unless large numbers of small caterpillars are present on each of several scattered trees in the stands to be treated, spraying may be cancelled.

In northwestern Ontario, the hatching of eggs and the establishment of larvae proceeded normally; hence, forecasts are expected to run true. In the more northerly parts of northeastern Ontario, eggs had still not begun to hatch at the time of writing.

Spruce Budworm, *Choristoneura fumiferana* (Clem.)

Report O-X-250, published by the Great Lakes Forest Research Centre, describes the spruce budworm situation in Ontario in 1975 and provides infestation forecasts for three major sections of the province that are currently affected or threatened. The following abbreviated forecasts are based on egg cluster counts made late in 1975.

Southern Ontario: Declining populations over 1975, yet at most of the 127 locations numbers were sufficiently high to cause moderate or severe levels of defoliation in 1976.

Northeastern Ontario: Generally increased intensities of defoliation for northern districts and decreased intensities for southern districts.

Northwestern Ontario: A marked upward change in budworm populations based on counts made at over 200 locations.

Here again, forecasts presume the occurrence of favorable spring weather at the time of larval emergence and early larval development. It is recognized that in central and southern Ontario the spruce budworm also began to merge during the record-breaking warm weather over the Easter weekend. However, the proportions of spruce budworm populations that emerged prematurely at different locations and exposures are not readily determined. Subsequent spring weather has been cool to cold and early indications are that numbers may be lower than expected, but the population picture is inadequately known at the present time.

Again, Report 0-X-250, copies of which may be obtained from the Information Office, Great Lakes Forest Research Centre, depicts cartographically areas in which balsam fir trees have begun to die: over 3 million acres in northeastern Ontario and 300,000 acres in southern Ontario.

TREE DISEASES

Pathological field surveys in 1976 will emphasize foliage diseases on a wide variety of forest and shade trees. Other disease surveys are designed to determine whether or not *Cylindrocladium floridanum*, the cause of nursery root rot disease, can be found in northern Ontario nurseries. In addition, the effectiveness of the Scleroderris sanitation trials, which have been carried out by the Ontario Ministry of Natural Resources at three widely separated locations in northern Ontario in cooperation with the Forest Insect and Disease Survey Unit, will be evaluated for the first time in 1976.

Several changes in technician assignments were made in 1976 and two new Survey Field Technicians were trained to fill vacancies which occurred in the past year. The entire field arm of the Unit began field duties on May 10 from summer headquarters located across the province. Means of contact are listed in case important forest pest problems of unknown or uncertain cause prove troublesome for forest management.

Region	Names of Technicians	Address	Telephone
Northwestern	M.J. Thomson	RR #1, Site 25, Box 9, Sioux Lookout, Ont.	(807) 737-3630
	R.J. Sajan	210 Butler Ave., Fort Francis, Ontario	(807) 274-6821
North Central	H.R. Foster	Box 495, Geraldton, Ont.	(807) 854-1317
	H.D. Lawrence	RR #1, Postal Station "F" Thunder Bay, Ont.	(807) 577-8612
Northern	L.S. MacLeod	Box 267, Temagami, Ont.	(705) 569-3467
	H. Evans	Box 817, Chapleau, Ont.	(705) 864-1042
	J. Hook	Box 202, Moonbeam, Ont.	(705) 367-2185
Northeastern	K.C. Hall	Box 490, S.S. Marie, Ont.	(705) 949-9461
	W.D. Biggs	S.S. #1, Site 5, Box 7, Sudbury, Ont.	(705) 674-0453
Algonquin & Eastern	H.J. Weir	c/o O.M.N.R., Minden, Ont.	(705) 286-2650
	V. Jansons	PFES, Chalk River, Ont.	(613) 589-2932
	C.A. Barnes	Box 1150, Kemptville, Ont.	(613) 258-5664
Central & Southwestern	M.J. Applejohn	Box 100, Angus, Ont.	(705) 424-5721
	D.C. Constable	RR #2, Chatsworth, Ont.	(519) 794-2108

W. L. Sippell
Head
Forest Insect & Disease Survey Unit

L. L. McDowall
Chief of
Survey Technicians

May 25, 1976