Status of Insects in the Lake Erie District

Atkinson, G.T.

Information Report O-X-61
(Forest Research Laboratory, Ontario Region)

1967

Information Report No.	Subject	Author
O-X-57	Forest Insect & Disease Surveys --Lindsay District	M. J. Thomson
O-X-58	--Tweed District	F. Livesey
O-X-59	--Kemptville District	M. J. Applejohn
O-X-60	--Lake Simcoe District	R. L. Bowser
O-X-61	--Lake Erie District	G. T. Atkinson
O-X-62	--Lake Huron District	V. Jansons
O-X-63	--North Bay District	L. S. MacLeod
O-X-64	--Parry Sound District	C. A. Barnes
O-X-65	--Pembroke District	R. A. Trieselmann
O-X-66	--Sault Ste. Marie District	H. J. Weir
O-X-67	--Sudbury District	G. W. Cameron
O-X-68	--Chapleau District	D. Ropke
O-X-69	--Gogama District	W. Ingram
O-X-70	--Cochrane District	H. R. Foster
O-X-71	--Kapuskasing District	F. F. Foreman
O-X-72	--Swastika District	H. R. Foster
		L. S. MacLeod
		W. Ingram
O-X-73	--Port Arthur District	K. C. Hall
O-X-74	--Geraldton District	K. C. Hall
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O-X-75	--White River District	D. C. Constable
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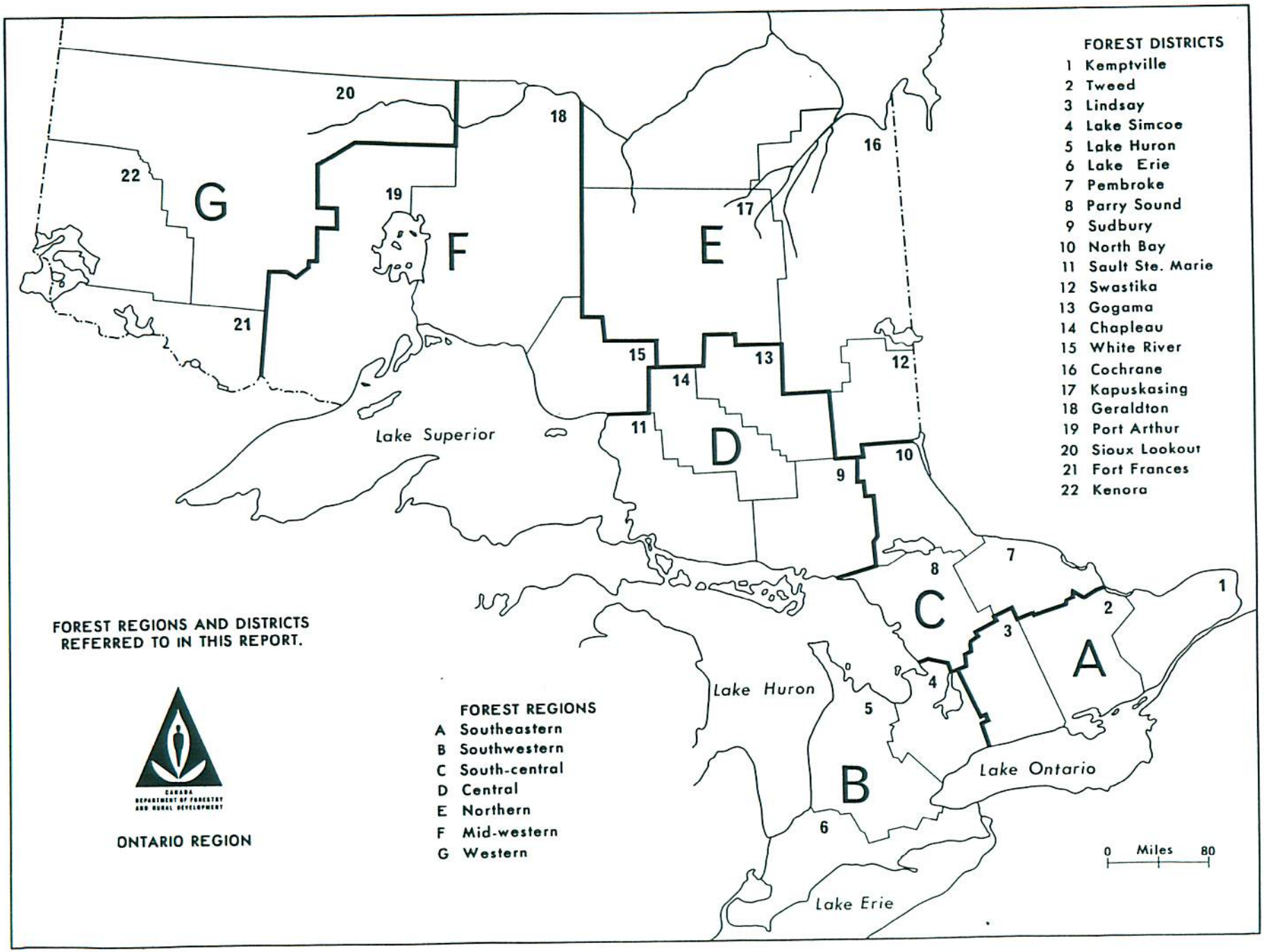

FOREST DISTRICTS
1 Kemptville
2 Tweed
3 Lindsay
4 Lake Simcoe
5 Lake Huron
6 Lake Erie
7 Pembroke
8 Parry Sound
9 Sudbury
10 North Bay
11 Sault Ste. Marie
12 Swastika
13 Gogama
14 Chapleau
15 White River
16 Cochrane
17 Kapuskasing
18 Geraldton
19 Port Arthur
20 Sioux Lookout
21 Fort Frances
22 Kenora
FOREST REGIONS AND DISTRICTS REFERRED TO IN THIS REPORT.
CANADA DEPARTMENT OF FORESTRY AND RURAL DEVELOPMENT
ONTARIO REGION
FOREST REGIONS
A Southeastern
B Southwestern
C South-central
D Central
E Northern
F Mid-western
G Western
Lake Superior
Lake Huron
Lake Ontario
Lake Erie
0 Miles 80

FOREWORD

Population levels of the spruce budworm increased sharply in widely-separated parts of Ontario in 1967. Heavy infestations occurred in the Burchell Lake area in Port Arthur District and in woodlots in parts of Pembroke, Tweed and Kemptville districts. A light infestation persisted east of Chapleau in the Central Forest Region. The Burchell Lake infestation is of particular concern because of the nature of the forest in that area. Stands currently infested, as well as those to the north as far as Lac Des Mille Lacs, contain considerable mature balsam fir and white spruce which are highly susceptible to attack by the spruce budworm.

For the second consecutive year, weather conditions during May had a pronounced effect on infestations of the forest tent caterpillar. Mortality of eggs and newly-emerged larvae greatly reduced population levels of this pest. The only major areas of infestation remaining in the Province were in the eastern part of Fort Frances District and the southern part of Sault Ste. Marie District.

Two species of sawflies were of major importance in pine plantations. The European pine sawfly continued to extend its range in southeastern Ontario and two new centers of infestation were found on Manitoulin Island. The red-headed pine sawfly caused severe defoliation in red pine shelterbelts and plantations at numerous locations in the central and southern parts of the Province.

Intensive surveys were continued to determine the distribution and incidence of Dutch elm disease and Scleroderris-canker of pine. The discovery of Ceratocystis ulmi (Buism.) C. Moreau in Sault Ste. Marie constituted a marked westward extension of the range of the disease caused by this pathogen. Scleroderris-canker of pine continued to cause severe losses of young red pine and, to a lesser extent, jack pine in numerous plantations in central and northern Ontario. By comparison, damage in southern Ontario was negligible.

Diseases of spruce were caused by Cytospora kunzei Sacc. and Polyporus tomentosus Fr. at widely-separated points in southern Ontario and pockets of infection of Fomes annosus (Fr.) Cke. root-rot persisted in several red pine plantations in Lindsay, Lake Simcoe and Lake Erie districts. Details on the distribution and damage caused by these and other forest diseases and insects are contained in the regional and district sections of this report.

J. E. MacDonald

STATUS OF INSECTS IN THE LAKE ERIE DISTRICT

G. T. Atkinson

Fall Cankerworm, Alsophila pometaria Harr.

In 1964 there was a marked upward trend in population levels of this insect but, in 1965, infestations collapsed throughout the district. In 1966 light infestations were found at scattered points and in 1967 only one collection was found on ironwood in South Cayuga Township.

Orange-striped Oakworm, Anisota senatoria J. E. Smith

A medium infestation of this defoliator was observed on roadside white oak along Lincoln County Road #36 in Canborough and Caistor townships. Heavy infestations recorded in 1966 in Bosanquet and Dawn townships declined to light intensity and a medium infestation on mature trees in the town of Glencoe subsided in 1967. Defoliation was negligible in the remainder of the district.

Pine Spittlebug, Aphrophora parallela Say

A rise in population levels of this spittlebug was evident on white pine in the district in 1967. The insect was also found commonly on Scots pine although the heaviest concentration of nymphs occurred on white pine. Heavy infestations occurred in white pine plantations in South Walsingham and Charlotteville townships. Needle browning was common and light twig mortality was observed on the lower crowns on scattered trees in the aforementioned townships. A light infestation was observed on the lower crowns of 30-foot white pine trees in a plantation in Malahide Township. Numbers remained low elsewhere in the district.

Jack-pine Resin Midge, Cecidomyia reeksi Vock.

A heavy infestation occurred in a small jack-pine plantation in South Walsingham Township. Open-grown jack pine in Charlotteville Township supported medium-to-heavy infestations. A medium infestation recorded in North Cayuga Township in 1966 subsided in 1967.

Larch Casebearer, Coleophora laricella Hbn.

The results of quantitative sampling are indicative of population levels of this insect in the district in 1967 (Table 3). Slight increases in numbers were recorded on native larch in Caradoc Township and on European larch in Charlotteville Township. A review of sampling results shows that a peak in population levels occurred in 1966 in the townships of North Dorchester, Yarmouth and Bosanquet. A sharp decline was recorded in 1967 in North Dorchester and Yarmouth townships. Numbers were low in the remainder of the district.

TABLE 3

Summary of Larch Casebearer Counts in Lake Erie District from 1965 to 1967

Note: Counts were based on the examination of four 18 in.-branch tips from each of four trees at each point.

Location (township)	Host	Av. d.b.h in inches	Average number of larvae per 18-inch tip		
			1965	1966	1967
Bosanquet	tL	10	5.9	15.3	12.4
Caradoc	tL	9	7.5	1.8	6.2
Charlotteville	eL	10	0.0	0.5	3.0
N. Dorchester	tL	8	8.2	12.5	1.4
S. Walsingham	eL	10	0.2	0.9	0.1
Yarmouth	eL	12	1.5	16.4	3.1

Walnut Caterpillar, Datana integerrima G. & R.

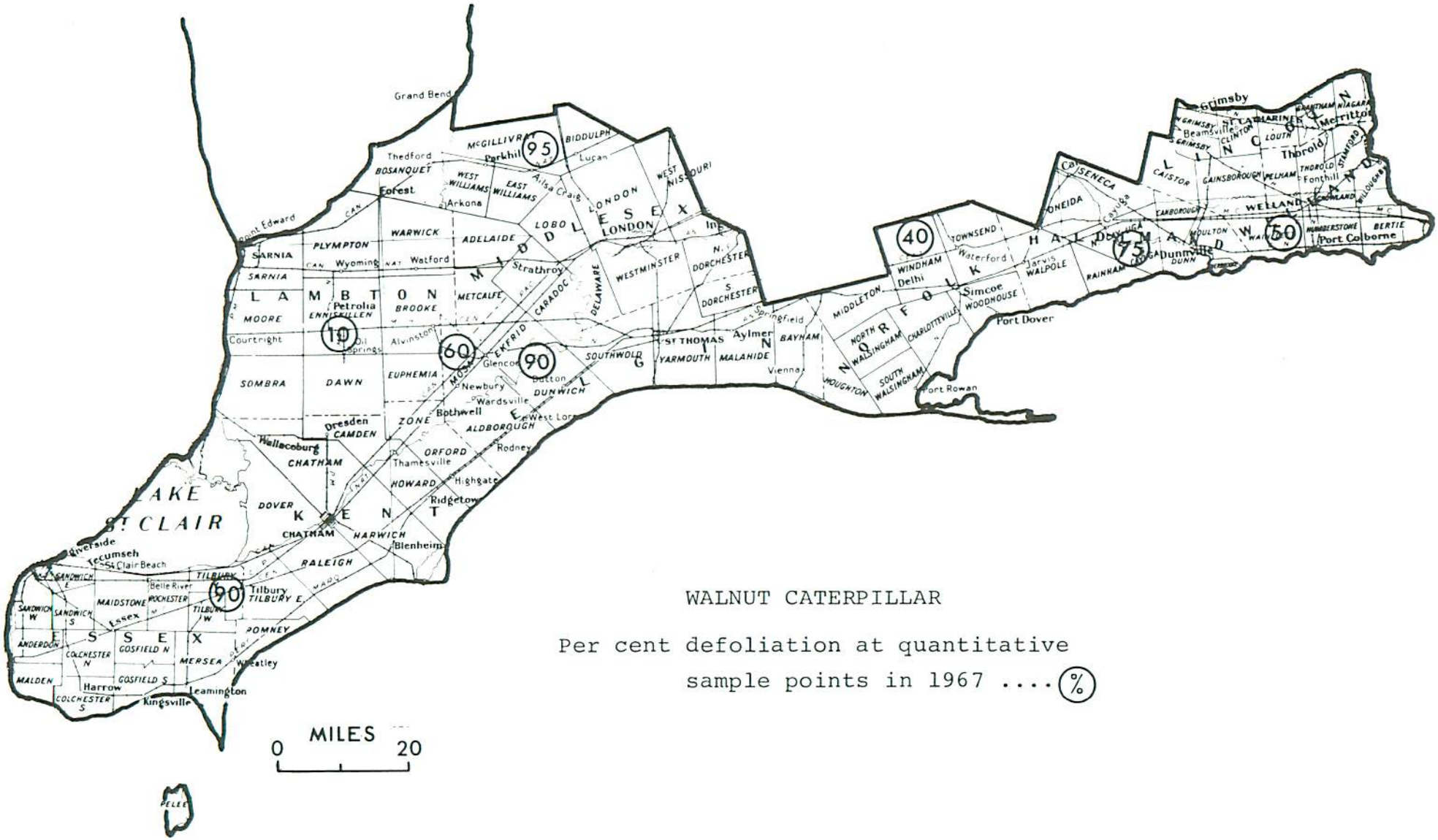
Individual walnut and hickory trees were severely defoliated by this insect throughout the district in 1967 (see map). Quantitative data contained in Table 4 shows an increase in defoliation except at one location in Enniskillen Township. Severe defoliation of black walnut occurred in South Walsingham, Charlotteville, Canborough and McGillivray townships. Heavy infestations were found on shagbark hickory in Charlotteville Township, and medium infestations occurred in North Cayuga Township.

TABLE 4

Summary of Walnut Caterpillar Defoliation Estimates on Black Walnut in Lake Erie District in 1966 and 1967

Location (township)	Av. d.b.h.	Number of trees examined	Estimated per cent defoliation	
			1966	1967
Dunwich	5	10	40	90
Enniskillen	5	10	10	10
McGillivray	5	20	20	95
Mosa	7	20	20	60
South Cayuga	5	15	0	75
North Tilbury	7	5	70	90
Wainfleet	6	15	25	50
Windham	5	10	1	40

LAKE ERIE DISTRICT



WALNUT CATERPILLAR

Per cent defoliation at quantitative sample points in 1967 .... (%)

Nursery Pine Sawfly, Diprion frutetorum Lec.

A further decline in numbers of this sawfly was recorded in the district in 1967 (Table 5). A light infestation occurred on Scots pine along Highway 21, south of Wyoming in Plymton Township. Numbers were very low in the remainder of the district. There was no change in distribution boundaries in 1967.

TABLE 5

Summary of Nursery Pine Sawfly Larval Counts in Lake Erie District in 1965, 1966 and 1967

Location (township)	Host	Av. d.b.h. in inches	Total no. of insects per 15-tray sample		
			1965	1966	1967
Enniskillen	scP	5	26	8	0
Stamford	jP	5	5	3	0
Stamford	scP	4	58	8	0
Willoughby	scP	5	5	3	0
Charlotteville	scP	3	-	-	7
Westminister	scP	3	-	-	1
Plympton	scP	3	-	-	24

Introduced Pine Sawfly, Diprion similis Htg.

A further decline in numbers of this sawfly occurred in 1967. A medium infestation that occurred on a jack pine windbreak in Stamford Township in 1965 declined to light intensity in 1966 and in 1967 no larvae were found at this location. In Charlotteville Township only one larva was collected on a 15-tray sample from red pine.

European Spruce Sawfly, Diprion hercyniae (Htg.)

Very little change in population levels of this sawfly occurred in the district in 1967. An increase in numbers was recorded on white spruce at sampling points in South Walsingham, and Adelaide townships and on Norway spruce in Woodhouse Township but, infestations were light at all these locations (Table 6). A light-to-medium infestation occurred on open-grown Norway spruce along the MacDonald-Cartier Freeway in Westminster Township.

TABLE 6

Summary of European Spruce Sawfly Larval Counts in the Lake Erie District in 1966 and 1967

Location (township)	Host	Av. d.b.h. in inches	Total no. of insects per 15-tray sample	
			1966	1967
Adelaide	wS	5	2	9
North Cayuga	wS	5	6	7
South Walsingham	wS	11	13	25
Woodhouse	nS	14	9	19
Westminster	nS	4	-	51

Eastern Pine Shoot Borer, Eucosma gloriola Heinr.

Damage by this shoot borer was common in the district in 1967 but numbers declined at quantitative sampling points (Table 7). Medium infestations occurred on white pine in McGillivray and Thorold townships. Light infestations were observed on white pine in Aldborough and Charlotteville townships.

TABLE 7

Summary of Damage to White Pine by the Eastern Pine Shoot Borer in Lake Erie District in 1966 and 1967

Location (township)	Average height of trees in feet	Per cent of trees infested		Av. no. of infested shoots per tree		Per cent of leaders attacked	
		1966	1967	1966	1967	1966	1967
Aldborough	8	10	10	0.5	0.3	2	1
Charlotteville	10	64	25	0.9	0.6	8	2
McGillivray	8	96	60	4.6	3.5	48	12
Thorold	10	52	30	0.9	0.5	16	9

The Dark-sided Cutworm, Euxoa messoria Harr.

Large numbers of this cutworm were found near the surface of the soil under defoliated 12-inch silver maple and ash seedlings in the St. Williams Nursery in the early part of June. Damage was very conspicuous because the demarcation line between the severely defoliated and uninfested seedlings was sharply defined. An insecticide applied to the infested area proved effective.

The dark-sided cutworm is one of our commoner cutworms but is essentially a field insect. According to Metcalf, Flint and Metcalf in "Destructive and Useful Insects" the eggs are laid chiefly in weedy or grassy fields in late summer or fall, the eggs hatch and the larvae spend the winter partly grown and feed destructively upon the host in the spring.

Birch Leaf Miner, Fenusa pusilla (Lep.)

A light infestation of this miner occurred on roadside white birch regeneration in Norfolk County Forest, Charlotteville Township. Elsewhere in the district numbers remained low.

Pales Weevil, Hylobius pales Boh.

Flagging of the branches of Scots pine Christmas trees was caused by adult pales weevils in several plantations in the district in 1967. In Norfolk County light-to-moderate flagging was observed at two locations and 25 per cent of the crowns of three trees in a plantation in Middleton Township were damaged. Light flagging was observed at one location in Euphemia Township. One of the problems associated with control is the creation of brood sites in cull trees that are slashed following the harvesting of saleable Scots pine.

Fall Webworm, Hyphantria cunea Dru.

A medium infestation of the fall webworm occurred on apple trees at the Department of Highways yard in South Colchester Township. Light infestations were observed in North Cayuga, Charlotteville and South Walsingham townships. Low numbers were observed in the remainder of the district except on Pelee Island where heavy infestations have been reported since 1964. However, time and workload in the current year precluded a visit to the Island therefore population densities are not known for 1967. A mass collection of about 4000 late-stage larvae for Dr. Kelleher of the Belleville laboratory was obtained from a variety of hosts including white elm, apple, willow, dogwood, black cherry, Manitoba maple and Chinese elm.

Pine Engraver, Ips pini Say and Southern Pine Engraver, Ips grandicollis (Eich.)

One tree in a Colorado spruce windbreak at St. Williams Forest Nursery was struck by lightning in 1966 and was dead by the early summer of 1967. By this time several adjacent trees had red foliage appearing in the upper crown and a heavy infestation of pine engraver beetles was observed in the upper portion of the stems. By August of 1967 the top third of the infested trees had died.

Eastern Tent Caterpillar, Malacosoma americanum F.

Heavy infestations of this insect were observed on cherry, apple and hawthorn in the Bothwell area in Zone Township. Light-to-medium infestations were recorded on apple and hawthorn in West Nissouri Township. A marked decline in numbers was evident along Highway 21 in Bosanquet Township where about 200 tents were recorded in one mile of roadside from 1961 through 1966 compared with 16 tents in 1967 (Table 8).

A prolonged cold, wet spring probably contributed to the general decline of this insect in 1967.

TABLE 8

Summary of Eastern Tent Caterpillar Counts in Lake Erie District in 1966 and 1967

Location (township)	Sample unit		Number of colonies per sample unit	
	1966	1967	1966	1967
Bosanquet	1 mile road	1 mile road	200+	16
McGillivray	sq. chain plot	" "	1	0
Moulton	1 mile road	" "	2	0
South Walsingham	1 mile road	" "	1	2
West Nissouri	sq. chain plot	" "	6	9
Woodhouse	1 mile road	" "	4	0
Zone	sq. chain plot	" "	22	16

European Pine Sawfly, Neodiprion sertifer (Geoff.)

This sawfly caused severe defoliation of red pine in the Backus Tract in South Walsingham Township and of Scots pine in South Cayuga and Willoughby townships. A medium infestation occurred on 30-foot red pine in Woodhouse and McGillivray townships. Light-to-medium infestations were observed in numerous Scots pine plantations in the remainder of the district. Population trends varied considerably at sample stations (Table 9). Control with virus proved effective when it was applied during early larval stages. Aerial spraying with a chemical insecticide gave good control in a Scots pine plantation in South Walsingham Township.

TABLE 9

Summary of European Pine Sawfly Colony Counts and Degrees of Infestation in Lake Erie District in 1966 and 1967

Note: Twenty trees were examined at each location.

Location (township)	Host	Av. height of trees in feet	Av. no. of colonies per tree		Degree of infestation	
			1966	1967	1966	1967
Adelaide	scP	9	5	7.0	M	M
Aldborough	scP	9	4	3.0	M	M
Euphemia	scP	15	8	0.9	M	L
McGillivray	rP	7	6	8.0	M	M
Mosa	rP	5	2	2.0	M	L
South Cayuga	scP	15	4	11.0	M	H
Romney	scP	15	3	0.5	M	L
Willoughby	scP	15	6	15.6	M	H

Spiny Elm Caterpillar, Nymphalis antiopa L.

Several colonies of the spiny elm caterpillar were found on Chinese elm in the Frechette section of the St. Williams Forest Nursery. Occasional willow trees in Charlotteville Township supported light-to-medium infestations. Scattered individual trees were lightly infested in the remainder of the district.

Larch Sawfly, Pristiphora erichsonii (Htg.)

A heavy infestation of the larch sawfly that had occurred for four consecutive years in South Walsingham Township declined to medium intensity in 1967. Medium infestations persisted on mature European and Japanese larch in the St. Williams Forest Nursery. The infestation at the Turkey Point Nursery increased from light to medium intensity. A medium infestation persisted for the third year on European larch in the Reynold Tract, Howard Township. Results of sequential sampling at two points in the district are shown in Table 10.

TABLE 10

Summary of Curled Shoot Counts and Degrees of Infestation of the Larch Sawfly in the Lake Erie District in 1966 and 1967

Location (township)	Host	Av. d.b.h. in inches	Per cent of tips curled		Degree of infestation	
		1967	1966	1967	1966	1967
Howard	eL	10	22	20	M	M
South Walsingham	eL	10	28	15	M	M

Spruce Needle Miner, Pulicalvaria piceaella (Kft.)

Extensive mining by this insect was observed on white and Norway spruce throughout the district in 1967. Medium-to-heavy infestations were observed on white spruce at the St. Williams Nursery in South Walsingham Township and on Norway spruce in Euphemia and Charlotteville townships. A medium infestation was recorded in a Norway spruce plantation in North Dorchester Township. Light infestations occurred at numerous points in the remainder of the district. Results of quantitative sampling are shown in Table 11.

TABLE 11

Summary of Damage by the Spruce Needle Miner in the Lake Erie District in 1967

Note: Based on the examination of one mid-crown branch from each of four trees at each location.

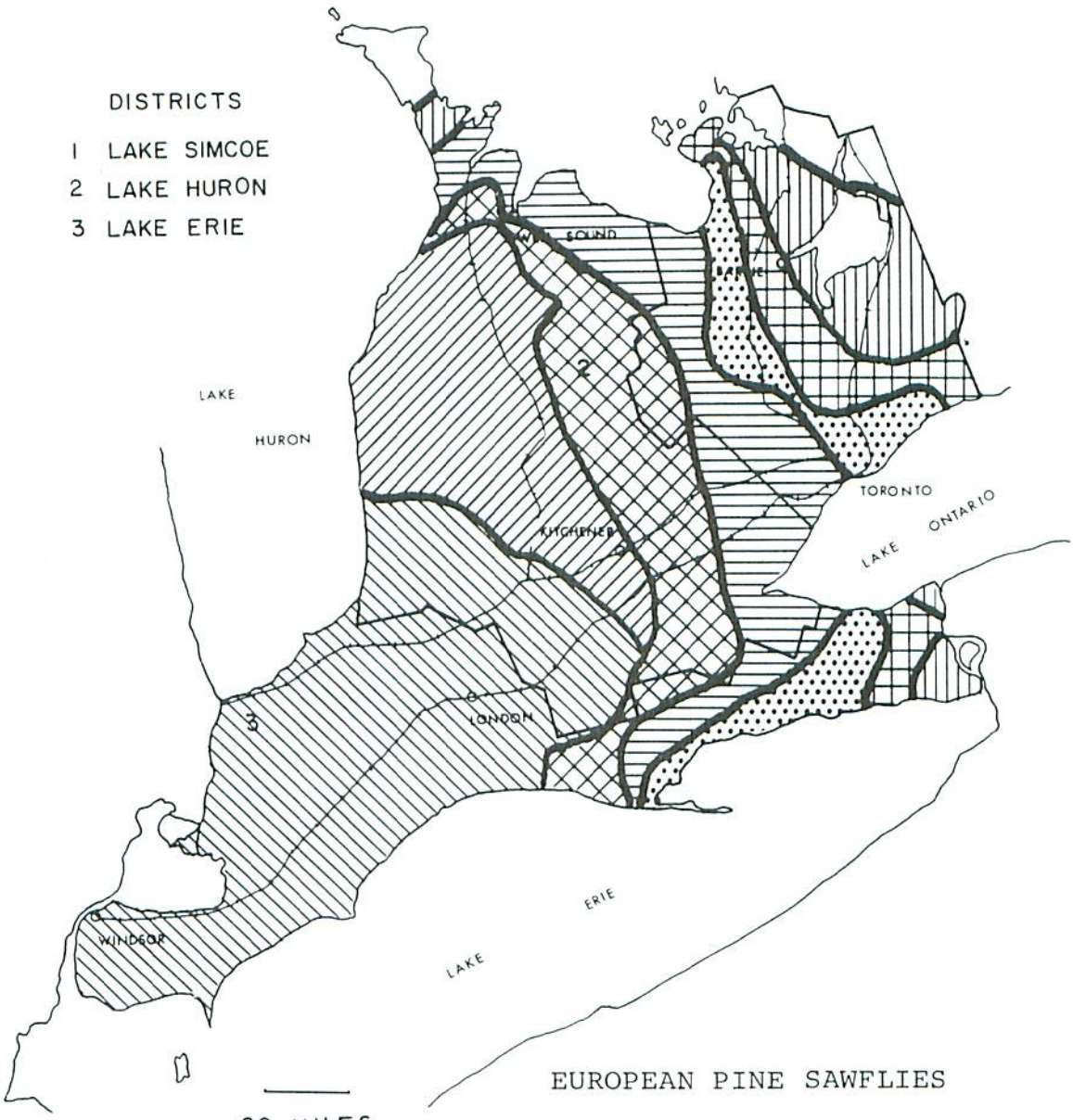
Location (township)	Host	Av. d.b.h.	Av. number of larvae per branch
North Dorchester	nS	3	22
South Walsingham	wS	2	19
Euphemia	nS	2	27
Charlotteville	nS	3	24

Cottony Maple Scale, Pulvinaria innumerabilis Rath.

Populations of the cottony maple scale erupted in a localized area centered around Bellecraft Beach in South Colchester Township. The area of heavy infestation covered approximately five square miles and small pockets of light infestation were found as far as the city of Windsor. The preferred host in the area was silver maple but the insect was found in small numbers on red maple, Manitoba maple, willow and honey locust as well.

The effect of the insect on maple in the area caused consternation among cottage owners and residents, particularly when alarming comments began to appear in the local news media. To counteract this concern, a news release was inserted in the Windsor Star on July 22, 1967, by the writer explaining that although severe infestations for two or more years could kill trees or cause some branch mortality, infestations seldom last more than a single year before parasites and predators sharply reduce populations of the scale. When chemical control is necessary, Malathion is recommended. This insecticide should be used according to manufacturers instructions to avoid damage to the trees or harm to the operator. Three applications are required for maximum control. The first should be applied on a warm day in spring before bud burst, and the following two at ten-to-fourteen day intervals.

SOUTHWESTERN REGION



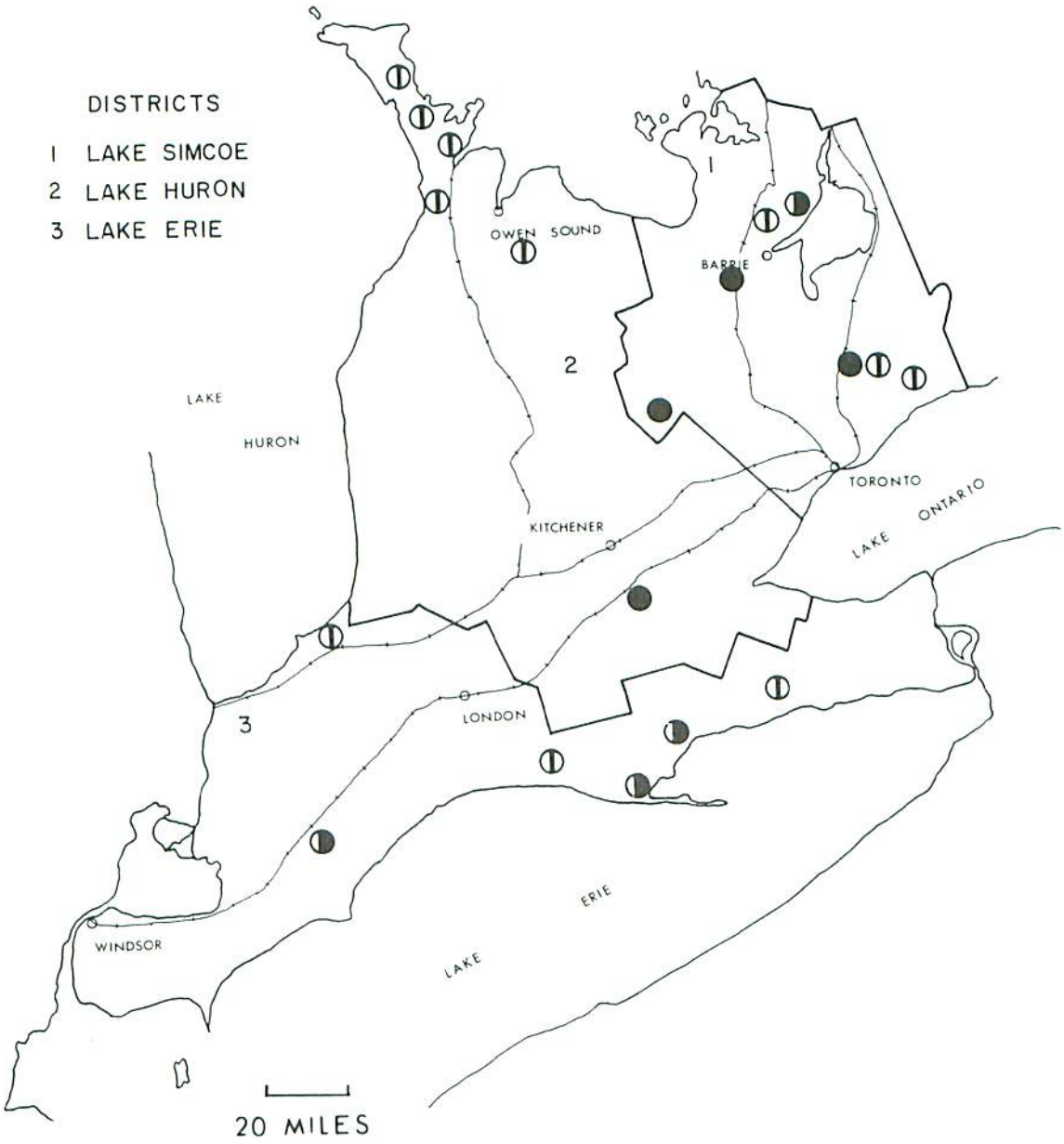
EUROPEAN PINE SAWFLIES

Boundaries of infestation
from 1950 to 1967

Legend

1950 ...
1954 ...
1956 ...
1959 ...
1961 ...
1963 ...
1967 ...

SOUTHWESTERN REGION



LARCH SAWFLY

Locations where infestations were observed in 1967

Legend

Light infestation .....

Medium infestation .....

Heavy infestation .....

According to Phillips (Can. Ent.; Vol. 94, Number 5, 1962), there is only one generation per year. The partly-grown adult females pass the winter on the bark of branches or twigs. Oviposition takes place early in June and the eggs hatch in 20 to 35 days and the young nymphs move to the new growth. Males emerge early in September and mating takes place immediately.

European Pine Shoot Moth, Rhyacionia buoliana Schiff.

A heavy infestation of this insect occurred on open-grown red pine at Stoney Point, North Tilbury Township. The 10-year-old red pine planted on filled land at this location averaged four feet in height. All the trees were attacked and approximately 98 per cent of the shoots were infested. A medium infestation was recorded in a Scots pine plantation in Willoughby Township. Light infestations recurred on Scots pine in Aldborough, Euphemia, Pelham and North Cayuga townships and on red pine in Woodhouse Township. Numbers were low in the remainder of the district.

Pine Owlet Moth, Zale helata Sm.

This was the most common insect obtained in beating samples from white pine. Light infestations were observed at the St. Williams Forest Nursery in South Walsingham Township and at the Turkey Point Nursery in Charlotteville Township. Larvae were found in small numbers on white pine at numerous other points in the district. One collection was obtained from Scots pine in South Cayuga Township.

TABLE 12

Summary of Miscellaneous Insects Collected

Insect	Host(s)	Remarks
Abbottana clemataria J. E. Smith	rO	Low numbers in South Walsingham Township
Acleris variana (Fern.)	H	Very low numbers
Acrobasis tricolorella Grt.	ecCh	Light on roadside regeneration
Acronicta hasta Gn.	bCh	Low numbers
Acronicta ovata Grt.	rO	Low populations on understory
Adelges abietis Linn.	nS	Medium infestations in S. Cayuga and Woodhouse townships
Adelges lariciatus (Patch)	wS	Heavy on reproduction in South Walsingham Township

TABLE 12 (continued)

Insect	Host(s)	Remarks
Agonopterix robiniella Pack.	Hon	Light infestation, South Walsingham Township
Amphipyra pyramidoides Gn.	Do	Low numbers in Backus Tract
Anacampsis innocuella Zell.	lA,tA	Common in district
Anchylopera burgessiana Zell.	rO	Populations were low
Archips argyrospilus Wlk.	Sa	Light infestations in Bosanquet Township
Archips cerasivoranus (Fitch)	ecCh	Very low populations
Arge pectoralis (Leach)	wB	Collected in Charlotteville Township
Argyresthia oreasella Clem.	ecCh	Common in district
Argyrotaenia quadrifasciana Fern.	ecCh	Collected in small numbers
Caripeta angustiorata Wlk.	wP	Beating produced small numbers
Choristoneura fumiferana (Clem.)	wS	Collected only in South Walsingham Township. Small numbers
Choristoneura rosaceana Harr.	Sa	Small numbers. Bosanquet Township
Chrysomela scripta F.	cPo	Adults in large numbers in St. Williams Nursery
Coleophora betulivora McD.	wB	Low populations
Coleophora innotabilis Braun	tA	Low populations
Coleophora pruniella Clem.	wB,ecCh	Light in South Walsingham Township
Corythucha pergandei Heidmann	ecCh	Heavy throughout district
Dendroctonus sp.	rP	Only insect found in dying trees, Turkey Point
Diapheromera femorata Say	rP,wP	Common in small numbers
Dichomeris ligulella Hbn.	rO	Low populations
Diplotaxis sp.	scP	Extensive feeding on needles by adult night feeders. Heavy in Christmas tree plantations

TABLE 12 (continued)

Insect	Host(s)	Remarks
Drepana bilineata Pack.	wB	Low numbers on regeneration
Ectoedemia populella Busck	tA	Common in district
Epinotia nanana Treit.	nS	Moderate in South Walsingham Township
Erannis tiliaria Harr.	ecCh,tA,wO,Mo	Small numbers on beating mat samples
Eupithecia gibsonata Tayl.	eC	Small numbers along Highway 401
Exartema inornatum Clem.	ecCh	Small numbers in South Walsingham Township
Exartema tilianum Heinr.	Ba	Light infestation in South Cayuga Township
Exoteleia dodecella Linn.	scP	Low populations
Fenusa dohrnii (Tischb.)	ebAl	Medium infestation on ornamentals in South Walsingham Township
Fenusa ulmi Sund.	wE	Common in district
Feralia jocosa Gn.	nS	Found commonly
Filatima demissa	ecCh	Numbers were low in district
Galerucella luteola Mull.	wE	Common in district; heavy in Malahide Township
Gracillaria superbifronella Clem.	Wi	Light infestation on understory in South Walsingham Township
Halisidota caryae Harr.	Bu,bWa	Common in district
Hydria prunivorata Ferg.	bCh	Small numbers on nursery stock in South Walsingham Township
Lepidosaphes ulmi (Linn.)	lA	Found commonly in small numbers
Lithocolletis salicifoliella Cham.	tA	Very low populations
Monoctenus fulvus (Nort.)	eC	Light infestation along Highway 401 in Westminster Township
Nadata gibbosa J. E. Smith	Wi	Low numbers

TABLE 12 (concluded)

Insect	Host(s)	Remarks
Nematus limbatus Cress.	W	45 per cent defoliation on roadside trees, Charlotteville Township
Nematus ventralis Say	w	Low populations
Nephopteryx subcaesiella Clem.	Hon	Heavy on ornamentals in St. Williams Nursery
Periclista albicollis (Nort.)	rO	Medium infestation, St. Williams Nursery
Phyllocolpa sp.	tA	Light infestation on regeneration in South Walsingham and Charlotteville townships
Pikonema alaskensis (Roh.)	nS,wS	Low numbers in South Walsingham Township
Pissodes strobi Peck	wP	100 trees examined - 7 leaders infested. South Walsingham Township
Pulicalvaria laricis Free.	el,tL	Found commonly in district
Spilonota lariciana Heinr.	el	Found commonly in district
Trichiocampus viminalis (Fall)	cPo	Small numbers in Malden Township