Status of Insects in the Tweed District

Livesey, F.

Information Report O-X-6
(Forest Research Laboratory, Ontario Region)

FOREWORD

J. E. MacDonald

Outbreaks of the forest tent caterpillar have highlighted reports dealing with forest insect surveys for the past several years. In 1965, the outbreak in Western Ontario reached its peak and poplar stands within an area of about 34,000 square miles were severely defoliated. Egg surveys in the fall revealed that a marked decline in infestation intensity will occur in Sioux Lookout and Kenora districts but high larval populations will persist in Fort Frances and Port Arthur districts in 1966. Trends in infestation intensities will vary from area to area in eastern Ontario, with the most noteworthy increase in the extent of infestations occurring in the Lake Nipissing outbreak.

The development of new infestations of Bruce spanworm and the European pine sawfly were of particular interest in 1965. Infestations of the former occurred in Sault Ste. Marie, Sudbury and Pembroke districts. Severe defoliation of hardwoods that resulted in relatively large areas represented first records of extensive infestations in Ontario. A major extension in the known distribution of the European pine sawfly was recorded when the insect was found in two Scots pine plantations on Manitoulin Island. This extension places the insect much closer to major stands of jack pine in northern Ontario.

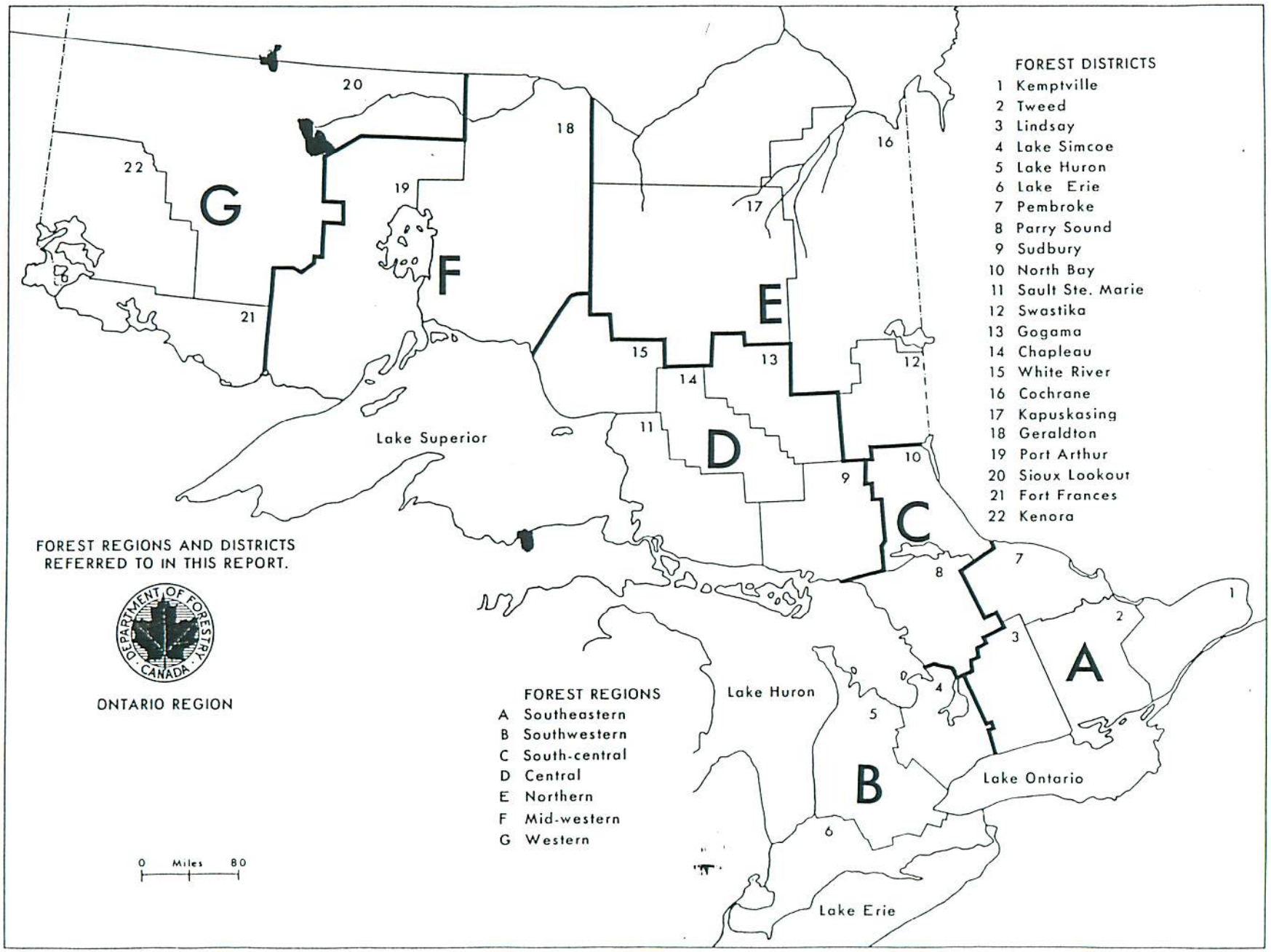
For the third consecutive year low temperatures in the spring caused considerable mortality of the current year's shoots of balsam fir and white spruce at many locations in Ontario. Continued cold weather throughout the summer delayed the development of many insects and in some instances larvae failed to reach maturity before freezing temperatures occurred in the fall.

Tree disease surveys continued to reveal serious losses of white elm resulting from Dutch elm disease in southern Ontario. In northern Ontario two centers of infection occurred on Manitoulin Island and infected elm were found at one location near Spanish on the North Shore of Lake Huron. Intensive surveys to determine the distribution and incidence of this disease will be continued in 1966.

During the early years of the Survey in Ontario Field Technicians were largely concerned with determining the distribution and abundance of forest insects and appraising losses in forest stands. As a consequence the detection aspect of survey work was of a high order. Later, added responsibility for disease surveys and the development of more elaborate sampling procedures, reduced the time available for purely detection work. To compensate for this, greater emphasis has been placed on systematic aerial reconnaissance throughout the vast forested areas of central and northern Ontario.

The Survey welcomed the addition of a Forest Research Technician to its staff in 1965. This appointment now provides one field representative for each district in the Southeastern Region where formerly three men were responsible for survey work in four districts.

In the reports that follow, insects and tree diseases that are of interest in adjoining districts are dealt with on a regional basis. Others are dealt with in detail on a district basis.


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.
DEPARTMENT OF FORESTRY · CANADA ·
ONTARIO REGION
FOREST REGIONS
A Southeastern
B Southwestern
C South-central
D Central
E Northern
F Mid-western
G Western
0 Miles 80
Lake Superior
Lake Huron
Lake Ontario
Lake Erie

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Ontario

* Regional Supervisors

1965

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O-X-11	--Lake Erie District	J. R. Trinnell
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O-X-26	--Fort Francis District	M. J. Thomson

STATUS OF INSECTS IN TWEED DISTRICT

F. Livesey

Cherry Ugly-nest Caterpillar, Archips cerasivoranus Fitch

This insect increased in abundance in 1965, particularly in Prince Edward County. Heavy infestations occurred on clumps of cherry at Milford in South Marysburgh Township, near Cherry Valley in Athol Township, and along one road in Ameliasburgh Township where populations were so high that the host trees were completely enveloped by webbing. Population levels were low elsewhere in the district except at Wolfe Lake in Bedford Township and near Eldorado in Madoc Township, where numerous tents were observed. Results of quantitative sampling are shown in Table 8.

TABLE 8

Summary of Cherry Ugly-nest Caterpillar Colony Counts per Mile of Roadside in the Tweed District in 1964 and 1965

Township	Total number of larval tents observed	
	1964	1965
Ameliasburgh	-	1000+
Athol	-	237
Oso	3	8

Cedar Leaf Miner, Argyresthia thuiella Packard

An abrupt decline in numbers of leaf miners on cedar was evident in areas which previously had supported high populations. Heavy infestations that had persisted for several years in the southern part of the district, seriously thinning the crowns of host trees, subsided to a low level in 1965.

Pine Tube Moth, Argyrotaenia pinatubana Kearfott

A medium-to-heavy infestation of this tubemaker occurred on ornamental and shoreline white pine trees in Kennebec Township in Frontenac County and in a mixed-age stand near Oak Lake in Sidney Township, Hastings County. Light infestations were observed across the northern half of the district.

A Miner on Ironwood, Chrysopelia ostryaella Chambers

The heavy infestations of this leaf miner reported in Olden, Oso, Kaladar, Kennebec, and Sheffield townships in 1964 subsided in 1965. A pocket of light infestation occurred in a farm woodlot near Stirling in Hastings County.

Larch Casebearer, Coleophora laricella Hubner

Casebearer populations remained at an extremely low level throughout the district. Pupae collected in a sample plot at Millbridge and reared in the laboratory revealed that 10 per cent were parasitized. Results of quantitative sampling are shown in Table 9.

TABLE 9

Summary of Larch Casebearer Counts in the Tweed District from 1963 to 1965

Note: Counts were made on sixteen 18-inch branch tips, four from the mid-crown of each of four trees.

Location (township)	Av. d.b.h. of trees in inches	Av. no. of larvae per 18-inch branch tip		
		1963	1964	1965
Bagot	6	4.2	0.2	0.2
Barrie	4	0.6	0.9	0.1
Carlow	4	1.0	1.8	0
Cashel	5	2.6	0.2	0.2
Elzevir	7	3.0	1.8	0.8
Faraday	3	0.6	0.1	0.2
Kaladar	4	-	-	0.6
Olden	6	1.0	1.8	0.2
Palmerston	5	0.6	0.4	0.3
Tudor	4	1.0	0.2	0.2
Wollaston	4	0.6	1.2	0

Nursery Pine Sawfly, Diprion frutetorum (F.)

This sawfly occurred commonly on Scots pine trees in the southern half of the district, especially on trees more than fifteen feet in height. Large numbers of a predator, Sinea diadema Fabricius, were observed at a sample location in Tyendinaga Township. Larval counts made on Scots pine trees are summarized in Table 10.

TABLE 10

Summary of Nursery Pine Sawfly Larval Counts in the Tweed District from 1963 to 1965

Township	Av. d.b.h. of trees in inches	Total number of larvae per 15-tray sample		
		1963	1964	1965
Tyendinaga	8	2	25	35
Sidney	3	43	29	16
Hungerford	3	4	10	4
Elzevir	8	-	-	8

European Spruce Sawfly, Diprion hercyniae (Htg.)

An appreciable increase in numbers of larvae of this insect was recorded at most sample points (Table 11). Although the insect is a potentially serious defoliator of all species of spruce and caused severe damage in the Maritime Provinces in the 'thirties, no serious infestations have occurred in Ontario.

TABLE 11

Summary of European Spruce Sawfly Larval Counts in Tweed District from 1962 to 1965

Township	Av. d.b.h. of wS trees in inches	Total number of larvae per 15-tray sample			
		1962	1963	1964	1965
Dungannon	7	11	5	6	4
Faraday	9	12	7	2	13
Herschel	6	16	6	6	70
Hungerford	6	16	3	7	15
Limerick	5	6	4	6	18
McLure	3	12	27	11	10
McNab	5	58	39	3	12
Wicklow	5	11	7	2	3
Wollaston	8	1	0	6	12
Oso	6	-	-	-	12
Brougham	4	-	-	-	6

Pine Bud Moth, Exoteleia dodecella Linn.

Small numbers of buds on Scots and Mugho pines were infested by this introduced insect at scattered locations. The adult lays eggs on the needles in late June or early July and the newly-hatched larvae enter the needles where they feed and remain over winter. The larvae leave the needles in the spring and enter the developing buds, feed and pupate, and emerge as adults in June. Results of quantitative sampling showed a decline in population levels in recent years (Table 12).

TABLE 12

Summary of Damaged Buds Caused by the European Pine Bud Moth in the Tweed District from 1963 to 1965

Note: Counts are based on the examination of 50 bud clusters from each of four Scots pine trees.

Location	Per cent of buds destroyed		
	1963	1964	1965
Kaladar	6.0	3.0	2.5
Hinchinbrooke	12.0	7.0	2.0
Sheffield	29.0	12.0	4.0

Elm Leaf Miner, Fenusa ulmi Sund.

Heavy infestations of this miner occurred on slippery elm in all age classes at scattered locations in the south half of the district. White elm and rock elm were not infested even when their branches projected into the crowns of heavily infested slippery elm trees. The highest populations were observed south of the village of Moira in Huntingdon Township and along the Stoco-Marlbank road in Hungerford Township. In the Moira infestation the leaves were severely mined and entire tree crowns were brown by the end of June.

Pine Root Collar Weevil, Hylobius radicis Buch.

Six per cent of the trees in a small Scots pine Christmas tree plantation at Flinton in Kaladar Township were killed by girdling just below ground level. A windbreak of 8-inch d.b.h. Scots pine on a dry ridge in Sheffield Township is also infested, but little mortality has resulted as yet. These are the first recorded occurrences of this potentially dangerous insect in the district.

Overwintering pupae from Flinton were obtained through the co-operation of the Ontario Department of Lands and Forests for rearing in the Forest Insect Laboratory in Sault Ste. Marie, and emerged adults were identified as H. radicis. Typical damage is shown in the accompanying photograph.

Fall Webworm, Hyphantria cunea (Drury)

The fall webworm was observed most commonly in the southern part of the district, especially on willow and elm trees along the shores of Hay Bay in Lennox-Addington County, and along roadsides in Prince Edward County. Thirteen larval tents were observed in one mile of roadside in Storrington Township in Frontenac County. None have been found at five other sample points for the past two years.

Cedar Sawfly, Monoctenus fulvus Nort.

Although a slight increase in numbers of this insect occurred at most permanent sample points population levels were generally low (Table 13). Counts ranged from a low of 5 larvae per 15-tray sample to a high of 70 larvae in a sample from Limerick Township. No appreciable defoliation was observed in the district.

TABLE 13

Summary of Cedar Sawfly Larval Counts
in Tweed District, 1963-1965

Township	Av. d.b.h. of trees in inches	Total number of larvae per 15-tray sample		
		1963	1964	1965
Admaston	6	37	29	11
Bangor	5	1	0	23
Dungannon	5	4	0	18
Huntingdon	4	3	0	34
Kennebec	4	-	-	6
Kingston	2	-	-	5
Limerick	3	2	0	70
McNab	4	-	-	8
Matawachan	6	69	16	9
Oso	6	8	16	8
Rawdon	4	3	3	29
Sheffield	6	-	-	7
Sidney	4	-	-	12
Wollaston	4	2	30	13

Eastern Tent Caterpillar, Malacosoma americanum (F.)

Heavy infestations occurred on cherry and apple throughout the district. Highest population levels occurred south of the village of Kaladar where 538 primary tents were counted along one mile of roadside cherry trees. Heavy infestations also occurred in Madoc, Grattan, Oso, and Radcliffe townships. High population levels reported in 1964 in Thurlow, McNab, and Raglan townships declined slightly.

Table 14 lists the counts made in recent years and the accompanying map shows the location of sample points and the number of tents observed at each point in 1965.

TABLE 14

Summary of Eastern Tent Caterpillar Colony Counts
in Tweed District, 1963-1965

Township	Number of tents observed per mile of roadside		
	1963	1964	1965
Bagot	30	74	14
Elzevir	51	47	16
Faraday	51	15	15
Grattan	-	-	114
Griffith	0	26	39
Hinchinbrooke	123	63	73
Lyndoch	10	49	10
Madoc	-	-	114
McNab	-	-	46
Oso	147	93	103
Radcliffe	0	109	62
Raglan	0	96	41
Sheffield	142	112	538
Thurlow	-	82	40
Wicklow	12	6	7
Wollaston	8	12	3

Red-headed Pine Sawfly, Neodiprion lecontei (Fitch)

Several heavy infestations occurred in young red pine plantations in the eastern and northern parts of the district. Small red pine plantations in McNab Township in Renfrew County, Olden Township in Frontenac County, and Elzevir Township in Hastings County were severely defoliated. Numerous colonies occurred on a group of twenty-foot-high ornamental red pines in Olden Township. Light infestations were common throughout the district. Results of quantitative sampling are shown in Table 15.

TABLE 15

Summary of Red-headed Pine Sawfly Colony Counts
in the Tweed District from 1963 to 1965

Location (township)	Tree species	No. trees examined	Av. height of trees	No. trees infested	Av. no. of colonies per infested tree 1963	1964	1965
Olden	rP	20	3	16	-	-	2.1
McNab	rP	50	5	50	1.3	1.3	6.0
Effingham	rP	100	6	3	-	-	1.3
Thurlow	jP	16	25	2	4.0	1.0	1.0
Grattan	rP	100	3	5	-	1.0	1.0
Elzevir	rP	100	4	45	-	-	1.2

Jack-pine Sawfly, Neodiprion pratti paradoxicus Ross

Heavy infestations of this sawfly persisted on jack pine trees at numerous locations in the district, and populations were particularly high on open-grown trees. More than fifty colonies per tree were observed along Highway 7 in Marmora Township, (Table 16). Many trees have been killed by recurring heavy infestations in this area. Severe defoliation also occurred in Hungerford, Thurlow, Bangor, Elzevir, McNab, and Horton townships. Moderate damage was observed on small groups of trees in Olden and Abinger townships (see map).

TABLE 16

Summary of Jack-pine Sawfly Colony Counts
in the Tweed District from 1963 to 1965

Location (township)	Av. d.b.h. of trees in inches	Av. no. of colonies per tree 1963	1964	1965
Elzevir	7	3.1	5.2	8.5
Hungerford	7	2.0	3.2	14.1
Marmora	8	50+	50+	50+
Olden	4	-	7.0	8.1
Abinger	3	-	-	1.7
McNab	5	-	-	21.7
Bangor	3	-	-	9.5

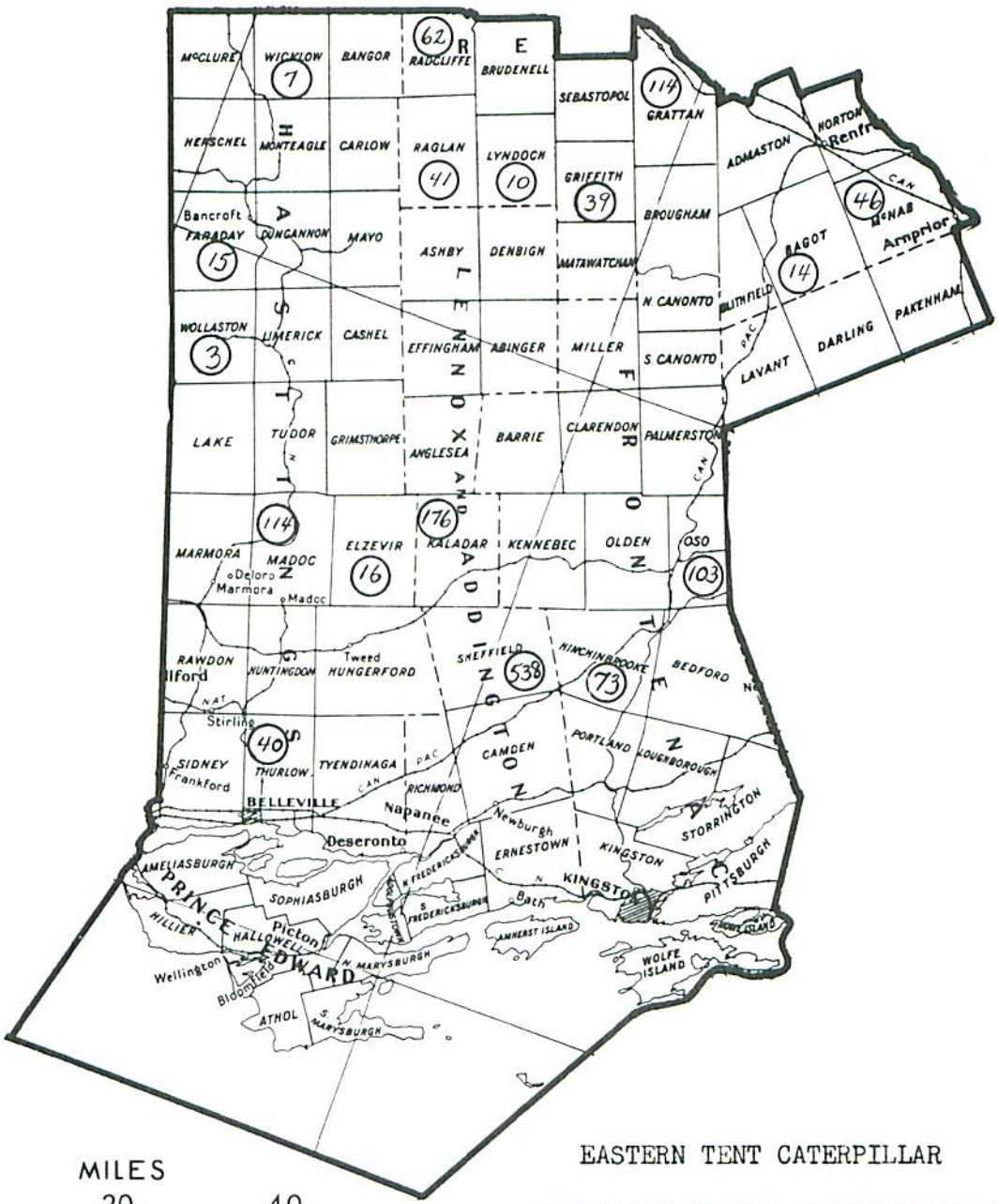
Maple Leaf Cutter, Paraclemensia acerifoliella Fitch

An abrupt decline in numbers was noted except on understory trees in Palmerston and Clarendon townships where heavy infestations were observed. Heavy infestations that occurred in recent years in Oso and Hinchinbrooke townships declined to light infestations.

Yellow-headed Spruce Sawfly, Pikonema alaskensis Roh.

Control measures carried out against this insect in 1964 in the Moira River

TWEED DISTRICT



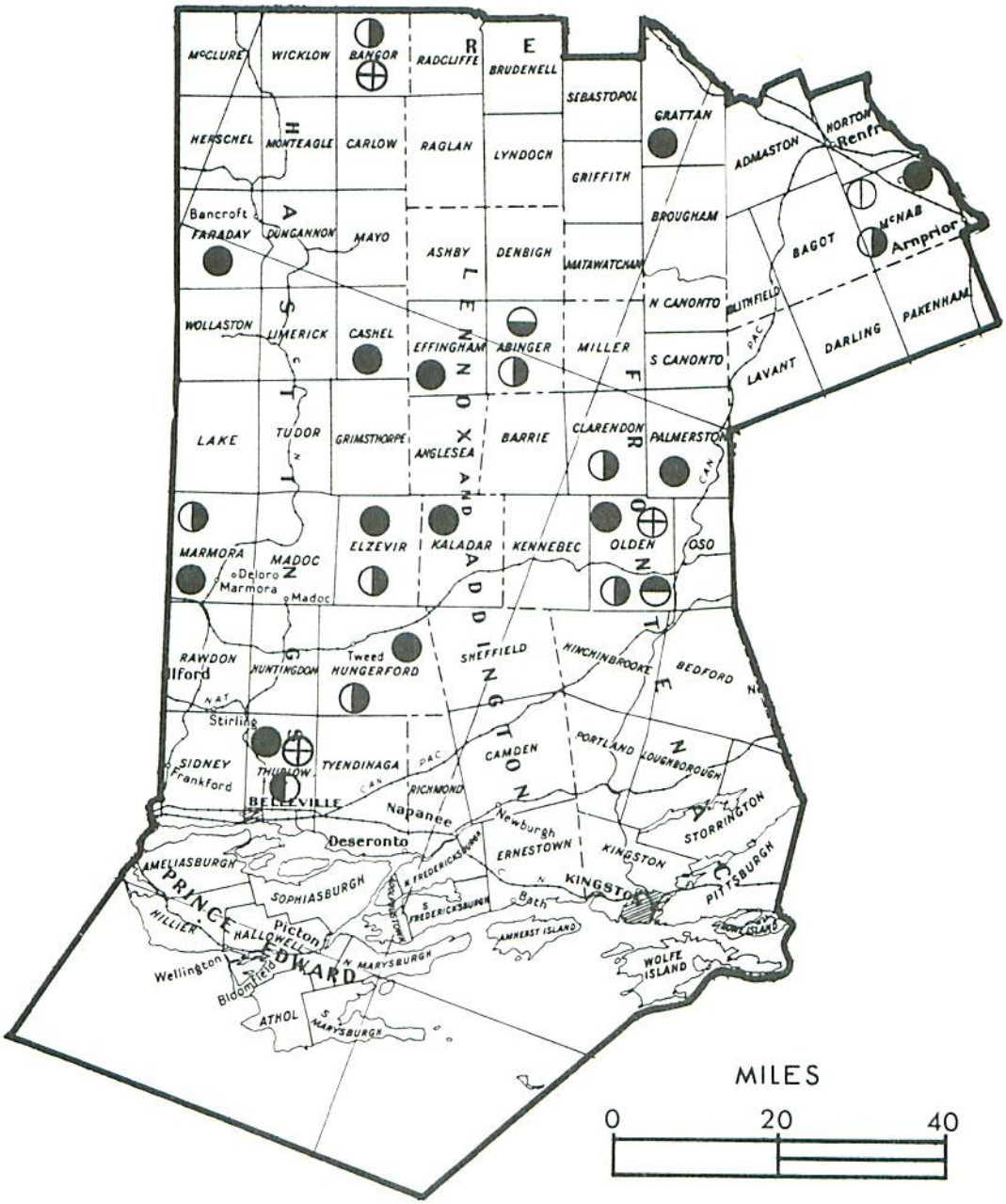
MILES

0 20 40

EASTERN TENT CATERPILLAR

Encircled figures indicate number of tents observed along one measured mile of roadside in 1965.

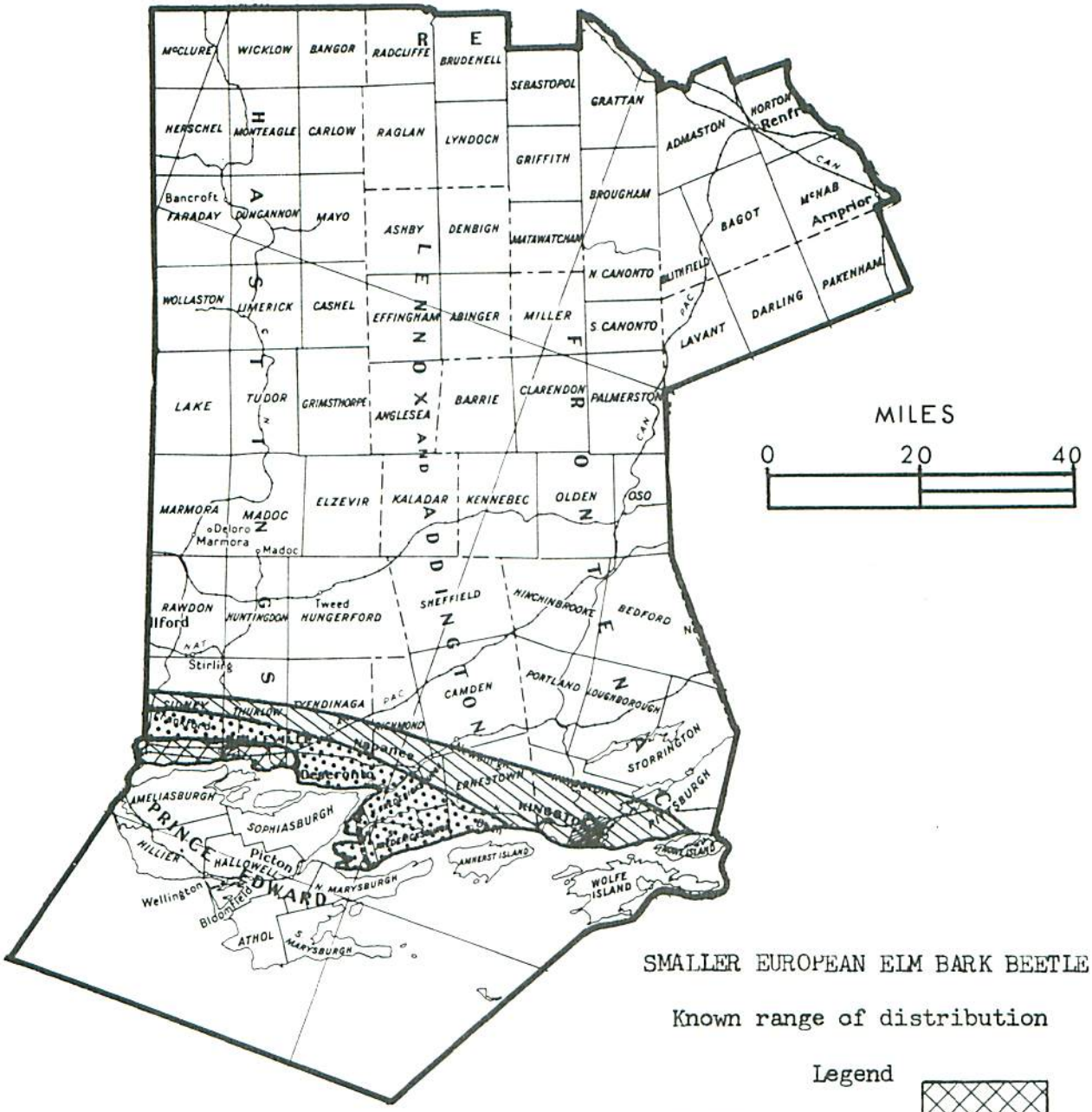
TWEED DISTRICT



Collection Points of Various Species of Pine Sawflies

Neodiprion lecontei (Fitch)	●
Neodiprion pratti paradoxicus Ross	◑
Neodiprion sertifer (Geoff.)	◑
Neodiprion pinetum (Nort.)	◒
Neodiprion pratti banksianae Roh.	◒
Neodiprion virginianus complex	◑
Locations where Neodiprion spp. cocoons were exposed in a program to obtain cocoon parasites.	⊕

TWEED DISTRICT



SMALLER EUROPEAN ELM BARK BEETLE

Known range of distribution

Legend

In 1962.....

In 1963.....

In 1965.....

Conservation Authority area produced good results and defoliation in 1965 was negligible. A heavy infestation occurred in a white spruce plantation in the O'Hara Mill Conservation area, and understory trees in Sand Banks Provincial Park were severely defoliated. Population levels were generally much higher in the southern part of the district than elsewhere and ornamental trees were severely defoliated in urban areas such as Belleville, Trenton, Picton, and Kingston.

White Pine Weevil, Pissodes strobi Peck

Heavy infestations occurred in mixed plantations in Hungerford Township north of the town of Tweed and near Weslemkoon in Effingham Township. Light-to-moderate leader damage was observed on a wide variety of coniferous hosts throughout the district. However, white pine was most heavily infested (Table 17).

TABLE 17

Summary of White Pine Weevil Counts
in Tweed District in 1965

Township	Host tree and number sampled	Av. d.b.h. in inches	Per cent of leaders weevilled
Hungerford	100 wP	2	21
Effingham	200 wP	2	25
Effingham	200 rP	2	9
Kaladar	100 wP	1	9
Madoc	100 wP	1	6
Radcliffe	200 jP	1	6
McNab	100 wP	1	5
Grattan	100 wP	1	4

Larch Sawfly, Pristiphora erichsonii (Htg.)

A slight increase in population numbers was recorded generally. Tamarack in a 100-acre stand near Flinton in Kaladar Township suffered 75 to 85 per cent defoliation. Light infestations persisted in the east-central part of the district, and larval colonies were observed commonly in Kennebec, Olden, Oso, and Clarendon townships in Frontenac County.

A Leaf Roller on Aspen, Pseudexentera oregonana Wlshm.

Heavy infestations of this insect were observed on trembling aspen at widely-separated locations in the northern half of the district. Severe defoliation occurred on second growth north of Dacre in Grattan Township and in Faraday and Dungannon townships south of Bancroft. The insect was found in small numbers on most aspen stands elsewhere in the district.

Elm Bark Beetles, Scolytus multistriatus (Marsh.) and
Hylurgopinus rufipes (Eichh.)

Intensive surveys in the southern part of the district in 1965 revealed an eastern extension of the known range of the smaller European elm bark beetle, S. multistriatus to a point one mile north of Howe Island in Pittsburgh Township,

Frontenac County. This vector of the Dutch elm disease now occurs in a narrow strip across the southern part of Hastings, Lennox-Addington and Frontenac counties (see map).

The native elm bark beetle, H. rufipes, also an important vector of the disease, is abundant throughout the district (see photograph).

TABLE 18

Summary of Miscellaneous Insects Collected in Tweed District

Insect	Host(s)	Remarks
Acleris logiana Linn.	wB	Small numbers near Hardwood Lake in Renfrew County.
Acleris variana Fern.	wS	Low populations near Coe Hill, Wollaston Twp.
Adelges abietis Linn.	wS	Small numbers observed at several locations.
Adelges lariciatus (Patch)	wS	Galls common throughout the district.
Alsophila pometaria Harr.	wE	Found only in southern Hastings County.
Altica ulmi Woods	rE	Light infestation of the elm flea beetle at the O'Hara Mill, Madoc Twp.
Amphibolips inanis O.S.	rO	Oak apple galls common at Kaladar.
Anacampsis innocuella Zell.	tA	Heavy infestation of leaf rollers near Hardwood Lake, Raglan Twp.
Anatis mali (Say)	jP, wS	Small numbers in Hungerford and McLure twps.
Anchylopera discigerana Wlk.	wB	Small numbers along Highway 500 in Raglan Twp.
Andricus petiolicus (O.S.)	wO	Gall insects numerous near Camden East in Camden Twp.
Anisota senatoria (A. & S.)	bO	A few orange-striped oakworms found in Tyendinaga Twp.
Anomogyna elimata Gn.	wS, bF	Widespread low populations.
Anoplonyx canadensis Hgtn.	tL	Found on open-grown trees near Coe Hill, Limerick Twp.
Aphelia pallorana Rob.	wP	Low numbers at White Lake, Olden Twp.
Aphrophora parallela Say	scP, mP	Heavy spittle bug infestation on a windbreak in Sheffield Twp. Light infestation near Deseronto in Tyendinaga Twp.
Argyresthia freyella Wlshm.	eC	Population levels of this cedar leaf miner were greatly reduced.
Argyresthia laricella Kft.	tL	Larch twig borer in low numbers in northern Hastings County.
Argyresthia thuiella Pack.	eC	Heavy infestations of recent years of this leaf miner subsided.

TABLE 18 (continued)

Insect	Host(s)	Remarks
Biston cognataria Gn.	Honey locust	Small numbers in Rawdon Twp.
Brachyrhinus ovatus Linn.		Strawberry root weevil. Adults invaded homes at Sharbot Lake and Tweed in search of overwintering sites.
Brachys aerosus Melsh.	wO	Common on one tree in Camden Twp.
Caripeta divisata Wlk.	bF	Small numbers at Sharbot Lake, Oso Twp.
Cecidomyia verrucicola O.S.	Ba	Heavy leaf gall infestations in Sidney and Loughborough twps.
Cephalcia marginata Middlekauf	rP	Frass nests common on a group of 30 foot trees at White Lake Rearing Station.
Chilocorus stigma Say	scP	Found feeding on scale insects at two locations.
Choristoneura fumiferana (Clem.)	wS	Small numbers of the spruce budworm at two locations.
Corythucha arcuata mali Gib.	Deciduous	Widespread heavy infestations of lacebugs.
Dasyneura balsamicola Lintn.	bF	Light midge infestation near Douglas in Admaston Twp.
Dendroctonus simplex Lec.	tL	Common in dead and dying trees at one location in Kennebec Twp. Trees had been influenced by change in water table caused by highway construction.
Diapheromera femorata (Say)	eC, sM	The walkingstick insect was observed at widely-separated locations.
Dioryctria disclusa Heinr.	mP	Light infestation in Mugho pine cones near Marysville in Tyendinaga Twp.
Ecdytolopha insiticiana Zell.	Honey locust	The locust twig borer was found commonly.
Epinotia aceriella Clem.	sM	Low numbers of the maple trumpet skeletonizer found at White Lake Headquarters.
Erannis tiliaria (Harr.)	Ba, wE	Found only in the southern part of Hastings County.
Eriophyes abnormis Garm.	Ba	Heavy leaf gall infestations were common throughout the district.
Eriophyes populi Nal.	tA	Heavy infestations of gall-forming aphids on regeneration near Combermere.
Erynnis icelus Scud. & Burg.	W	Low numbers of leaf folders near Hardwood Lake, Raglan Twp.

TABLE 18 (continued)

Insect	Host(s)	Remarks
Eucosma gloriola Heinr.	wP, scP	Average of 2 infested lateral shoots per tree on Scots pine regeneration near Flinton.
Eupithecia filmata Pears.	wS	Low numbers in McNab Twp., Renfrew County.
Eupithecia mutata Pears.	He	Found feeding in hemlock cones, Storrington Twp., Frontenac County.
Eupithecia transcanadata McK.	wS	Common throughout the district.
Fenusa dohrnii (Tischb.)	Al	Light leaf miner infestations in Oso and Herschel twps.
Fenusa pusilla (Lep.)	wB	Scattered heavy infestations. Especially severe on ornamental trees in the southern part of Frontenac County.
Fenusa ulmi Sund.	sE	Heavy leaf miner infestations at scattered locations.
Feralia jocosa Gn.	jP	Low numbers at three widely-separated locations.
Gargaphia tiliae (Walsh)	Ba	Heavy lace bug infestations in the northern part of the district.
Gonioctena americana Schaeff.	tA	Small heavy infestation of poplar leaf beetle near Denbigh. Light infestation east of Combermere.
Gretchena delicatana Heinr.	I	General low numbers feeding in flowers.
Hylurgops pinifex Fitch	wP	Bark beetles common in logs and stumps.
Ips pini Say	scP, rP	Bark beetles common.
Leucanthiza dircella Braun	Leatherwood	Widely-separated small heavy infestations.
Lithocolletis robiniella Clem.	Locust	Light infestations at several locations.
Macrobotys pertextalis Led.	bAs	Low numbers on heavily shaded reproduction in Mayo Twp.
Megastigmus piceae piceae Roh.	wS	Spruce cones heavily infested near Flinton.
Mulsantina picta Rand.	scP	"Ladybirds" found commonly feeding on scale insects.
Myzus cerasiae (F.)	Ch	Heavy aphid infestation near Purdy, Bangor Twp.
Neodiprion abietis complex	bF	Found in low numbers in north part of district.
Neodiprion pinetum (Nort.)	wP	Scattered colonies on understory trees in Olden Twp.
Neodiprion pratti banksianae Roh.	jP	Light infestation on roadside reproduction in Abinger Twp.
Neodiprion sertifer (Geoff.)	scP	Status unchanged. Ornamentals in Belleville heavily infested.

TABLE 18 (continued)

Insect	Host(s)	Remarks
Neodiprion virginianus complex	jP	Scattered colonies observed in roadside plantations in McNab and Horton townships.
Nepytia canosaria Wlk.	eC	False hemlock looper. Low numbers throughout the district.
Orthotomicus caelatus Eich.	wS, rP	Bark beetles common in logging slash.
Palthis angulalis Hbn.	scP, wS	Spruce harlequin. Small numbers across the district.
Parectopa robiniella Clem.	Lo	Light leaf miner infestation near Springbrook, Rawdon Twp.
Pareophora minuta MacG.	bAs	Small heavy infestations on understory trees at four locations.
Pemphigus populicaulis Fitch	cPo	Poplar leaf-petiole aphid. Heavy infestation near Hay Bay.
Periclista sp.	O	Small clumps of scrub oak heavily infested at several locations.
Phyllocolpa (Nematus) sp.	tA	General light infestations of this leaf-folding sawfly.
Pissodes approximatus Hopk.	wP	Small trees girdled at ground level north of Flinton.
Pityogenes hopkinsi Sw.	wP	Bark beetles found wherever white pine slash was examined.
Plagiodera versicolor Laich.	W	Light leaf beetle infestation near Henderson, Barrie Twp.
Pleroneura borealis Felt.	bF	Most balsam fir trees in north half of district lightly infested.
Prociphilus tesselatus (Fitch)	Deciduous	Heavy infestations of the woolly alder aphid were common.
Pseudexentera cressoniana Clem.	rO	Light infestations on small trees in Lake and Kaladar townships.
Pulicalvaria (Recurvaria) sp.	eH	Low needle tier populations in Frontenac County.
Pulicalvaria thujaella Kft.	eC	Low leaf miner populations throughout the district.
Semiothisa dispuncta Wlk.	wS, bF	Found commonly wherever host trees were examined.
Trisetacus alborum Keifer	rP	Caused profuse budding on exposed trees in a natural stand in Bagot Twp.
Zeiraphera ratzeburgiana Sax.	wS	Spruce bud moth rarely found.