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Status of Insects in the Parry Sound
District

Barnes, C.A.

Information Report O-X-64
(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	--Cogama 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 D. C. Constable
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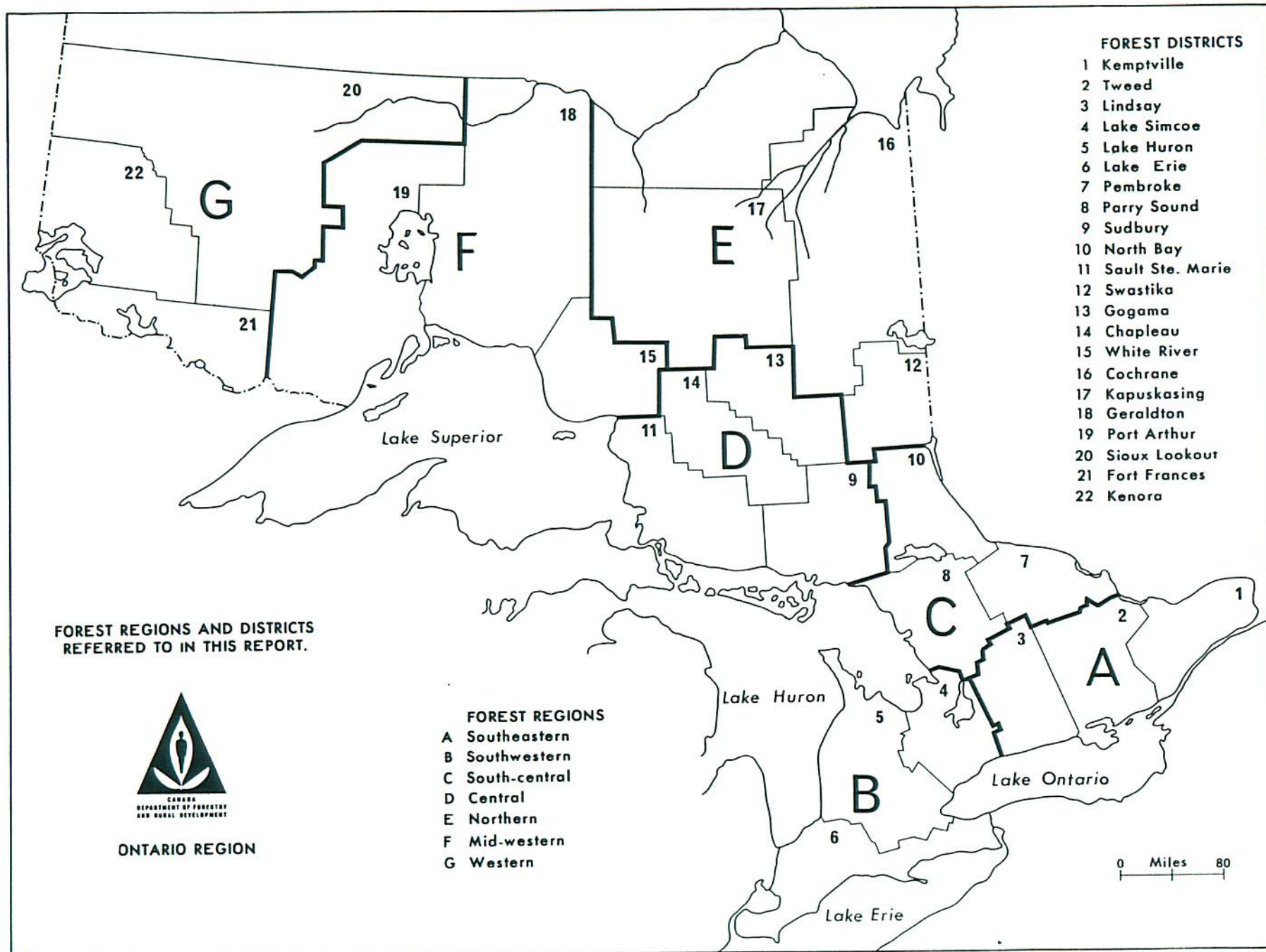
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Photographs

Regional Supervisors *



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 PARRY SOUND DISTRICT

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C. A. Barnes

Spruce Budworm, Choristoneura fumiferana (Clem.)

In the past eight years intensive surveys have failed to reveal any major change in numbers of this insect in the district. In 1966 larvae were collected at one location and in 1967 the insect was found in small numbers in McClintock, Stephenson, Machar, McKellar, Henvey and Mowat townships.

Because hardwood forests cover approximately 57 per cent, mixed-woods 34 per cent and coniferous eight per cent of productive timberlands in the district, areas where outbreaks could occur are limited to pockets of white spruce and balsam fir in scattered locations in divisions 81 and 83.

A close surveillance of the areas where the spruce budworm was found in 1967 and other susceptible areas will continue.

Jack-pine Budworm, Choristoneura pinus pinus Free.

Moderate to heavy infestations of this insect occurred in an area of approximately 415 square miles in the northwest part of the district (see map). The most notable of these infestations were located in five townships from Pointe au Baril north to the French River. Square-yard mat samples revealed a maximum of 30 and a minimum of 12 larvae per sample at several points in this area. Moderate to severe defoliation of young red pine occurred in a plantation near the junction of the Pakesley Road and Highway 69 in Mowat Township.

Light infestations were common in jack pine stands in Carling and McDougall townships.

Larch Casebearer, Coleophora laricella Hbn.

No appreciable change in population levels occurred at sample points in 1967 (Table 4). Surveys throughout the district revealed low populations, with less than 10 per cent defoliation.

TABLE 4

Summary of Larval Counts of the Larch Casebearer
in the Parry Sound District, 1965-1967

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

Location (township)	Tree species	Av. no. of larvae per 18-inch branch tip		
		1965	1966	1967
Ridout	eL	14.8	4.2	3.9
Wallbridge	tL	0.5	0.0	0.8
Chapman	tL	1.0	1.4	1.0
Perry	tL	0.2	0.1	0.3
McLean	tL	0.2	0.4	1.3
Chisholm	tL	0.8	3.5	1.2
Stephenson	tL	0.6	0.2	2.6
McAulay	tL	-	-	0.7

European Spruce Sawfly, Diprion hercyniae (Htg.)

A general decline in population levels occurred at seven of ten sample points examined in 1967. The most notable decline occurred in Ryerson, Gurd, Joly and Monteith townships (Table 5). An increase in the larval count was noted in the plot in Perry Township, where 87 larvae were collected compared with 36 in 1966. No appreciable change was observed in larval counts at other sample points. Defoliation was negligible in all areas examined.

TABLE 5

Summary of European Spruce Sawfly Larval Counts Taken on White Spruce Trees in the Parry Sound District 1965-1967

Location (township)	Av. d.b.h. of sample trees in inches	Total no. of larvae per 15-tray sample		
		1965	1966	1967
Ryerson	8	43	37	0
Chapman	6	24	18	12
Gurd	10	51	63	49
McMurrich	7	19	10	17
Monteith	7	37	31	12
Perry	8	40	36	87
Croft	6	4	6	14
Joly	8	87	29	4
Machar	12	11	14	8

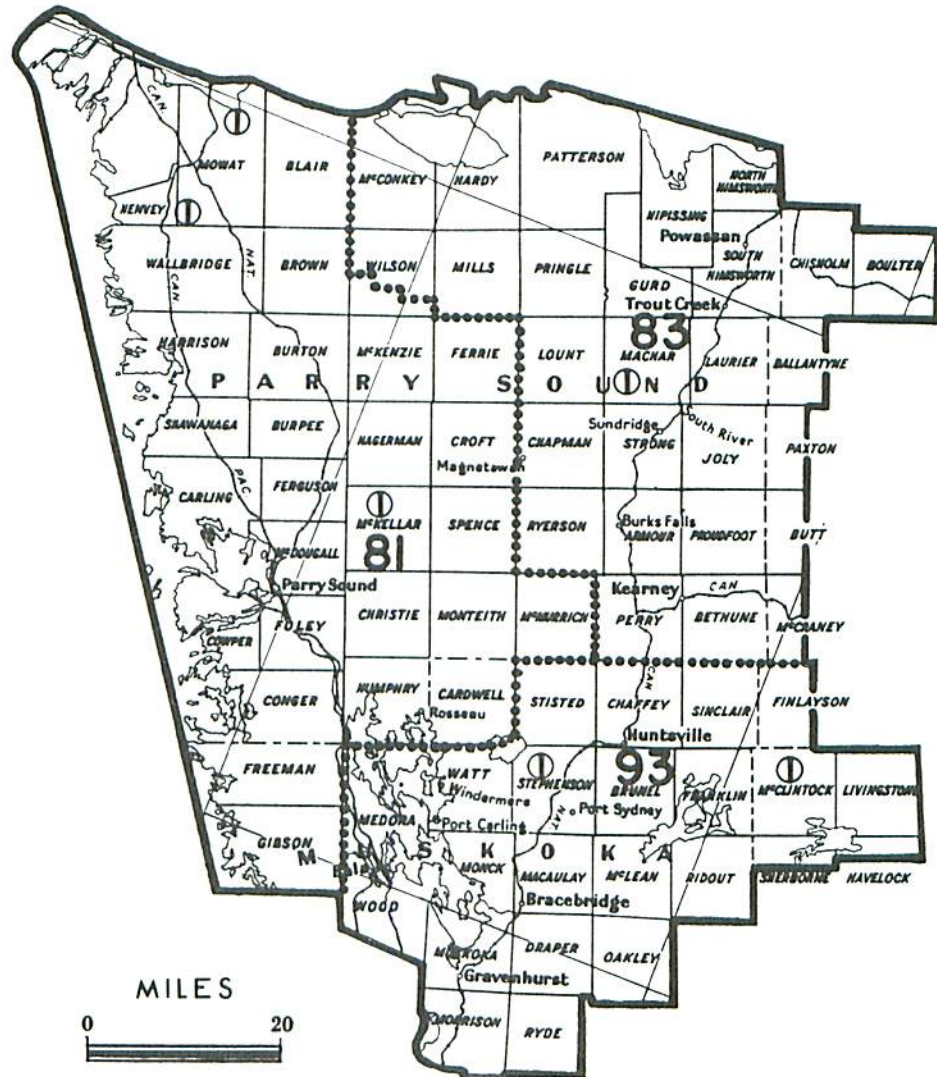
Eastern pine Shoot Borer, Eucosma gloriola Heinr.

Moderate infestations of this shoot-boring insect persisted for the fourth consecutive year in a Scots pine plantation near Huntsville in Stisted Township. The moderate infestation reported in 1966 in Armour Township declined to light intensity in 1967 with four out of 100 Scots pine trees infested. Elsewhere in the district populations declined to the lowest level recorded in recent years.

Jack-pine Needle Miner, Exoteleia pinifoliella (Chamb.)

Moderate to heavy infestations were observed in clumps of jack pine near Still River in Mowat Township, near Parry Sound in McDougall Township and along the Bear Lake Road east of Orrville in Monteith Township. Light infestations were common near Huntsville and on scattered trees along the south shoreline of Lake Nipissing.

PARRY SOUND DISTRICT



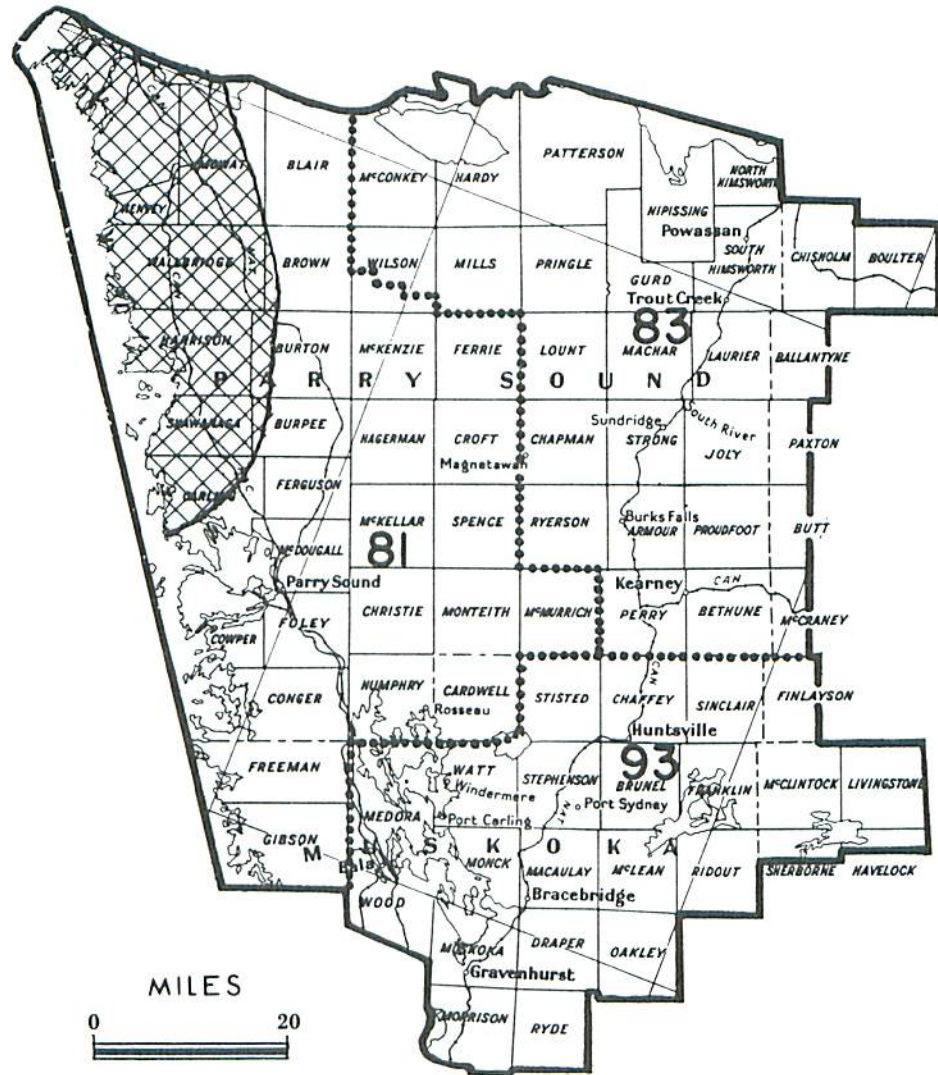
SPRUCE BUDWORM

Locations where defoliation occurred
in 1967

Legend

Light defoliation ①


PARRY SOUND DISTRICT



JACK-PINE BUDWORM

Area where defoliation occurred
in 1967

Legend

Moderate to severe defoliation ... 

Birch Leaf Miner, Fenusa pusilla (Lep.)

Medium to heavy infestations were common throughout the district in 1967. Heavy infestations were observed in clumps and pockets of white birch in Mowat, Henvey, Chaffey, Machar, McAulay, McLean and Stephenson townships. In most instances leaf mining approximated 60 to 70 per cent of the leaf surface. Ornamental birches were heavily infested in towns and villages throughout the district.

Eastern Tent Caterpillar, Malacosoma americanum F.

Although counts of initial tents approximated those recorded in 1966, survival of young larvae was low. Early hatch coupled with late foliage development caused a sharp decline in population levels throughout the district. The heavy infestations recorded in 1966 along Highway 69 from the Parry Sound-Lake Simcoe district boundaries to the French River declined in intensity, and only pockets of medium to heavy infestation remain through this area. Counts based on the examination of cherry shrubs in sample areas are summarized in Table 6.

TABLE 6

Summary of Eastern Tent Caterpillar Colony Counts
in the Parry Sound District 1965-1967

Location (township)	Sampling area			No. of primary tents		
				1965	1966	1967
Franklin	square	chain	plot	3	0	0
Stephenson	"	"	"	0	0	6
McAulay	"	"	"	7	4	1
Chisholm	"	"	"	2	1	0
Boulter	"	"	"	3	2	0
McLean	mile of	roadside		31	3	11
Brunel	"	"	"	2	1	1
Stephenson	"	"	"	2	2	8
Wood	"	"	"	27	41	23
McDougall	"	"	"	14	22	14
MacKenzie	"	"	"	6	11	3
Harrison	"	"	"	181	164	123

Forest Tent Caterpillar, Malacosoma disstria Hbn.

With the exception of a small pocket of medium to heavy infestation near the Parry Sound-North Bay district boundary in North Himsworth Township, infestations throughout the district collapsed in 1967. In Division 93 only a few scattered colonies were observed in old areas of infestation. The most notable decline was near Footes Bay in Medora Township where severe defoliation of trembling aspen, red oak and sugar

maple trees occurred in 1966. In Division 81 no colonies of larvae were observed from Highway 69 easterly to Highway 11. The abnormally cold spring and late development of foliage was no doubt a contributing factor in the sudden decline of infestations through the district.

On the basis of egg band counts a medium infestation is expected to persist in North Himsworth Township. No infestations are expected elsewhere in the district (Table 7).

TABLE 7

Summary of Egg Band Counts of the Forest Tent Caterpillar
in the Parry Sound District in 1967

Location (township)	Av. d.b.h. of sample trees in inches	No. of trees	Total no. of	Forecast
		examined 1967	egg bands 1967	
Nipissing	6	3	0	Nil
French River	5	3	0	Nil
Wood	7	3	0	Nil
Muskoka	6	3	0	Nil
Medora	6	3	0	Nil
North Himsworth	6	3	24	M-H

A light trap has been operated near Dorset since 1961 to capture forest tent caterpillar adults. The decline in infestations in the district is reflected in the number of adult moths collected in 1967 compared with 1966 (Table 8).

TABLE 8

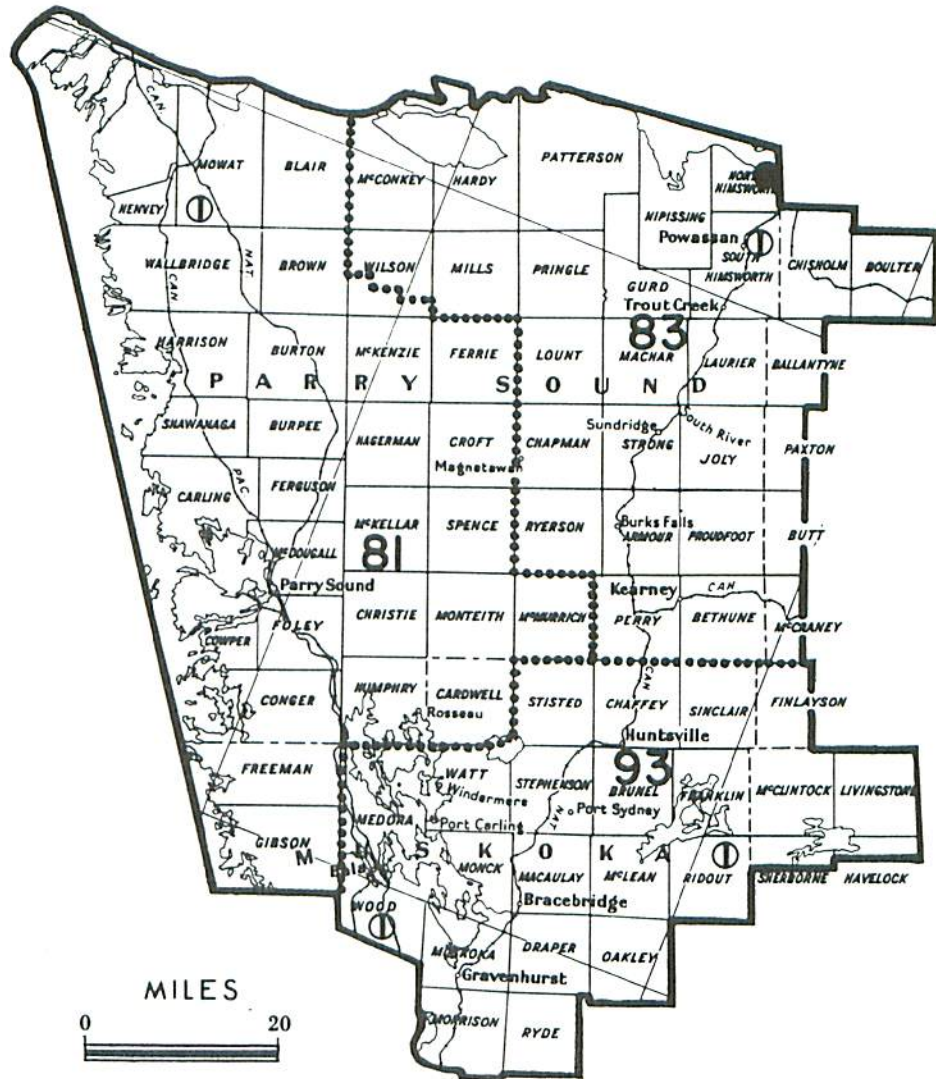
Summary of Forest Tent Caterpillar Moths Recorded in a Light Trap
in the Parry Sound District for the years 1961-1967

Location (township)	Total no. of female and male moths						
	1961	1962	1963	1964	1965	1966	1967
Ridout	13	71	56	31	19	207	33

Red-headed Pine Sawfly, Neodiprion lecontei (Fitch)

Heavy infestations of this sawfly persisted for the fourth consecutive year in red and Scots pine plantations in Ridout, McAulay and Stephenson townships. Complete defoliation of red pine trees occurred in the Ridout

PARRY SOUND DISTRICT



FOREST TENT CATERPILLAR

Locations where defoliation occurred
in 1967

Legend

- Light defoliation ①
- Moderate to severe defoliation ... ●

plantation, whereas insecticides controlled the outbreak in McAulay and Stephenson townships. Mortality of young trees in the Ridout infestation was widespread following several years of severe defoliation.

A decline in intensity was noted in the heavy infestation that occurred in a Scots pine plantation in Gibson Township in 1966, however mortality caused through successive years of defoliation is common in this area.

Isolated pockets of heavy infestation occurred in ten townships in Division 93 and small pockets of light infestation were common at scattered locations elsewhere in the district.

TABLE 9

Summary of Red-headed Pine Sawfly Colony Counts
in the Parry Sound District in 1966 and 1967

Note: 100 trees were examined at each location.

Location (township)	Tree species	Av. height of sample trees in feet	No. of trees infested		Av. no. of colonies per infested tree	
			1967	1966	1966	1967
Henry	rP	9	5		1.0	1.0
Mowat	jP	20	3		1.0	1.0
Wilson	rP	12	12		1.0	1.0
Ridout	rP	10	100		2.5	3.1
Livingstone	rP	8	5		1.0	1.0
Stephenson	scP	10	8		2.2	1.3
McAulay	rP	10	14		1.7	1.0

Red-pine Sawfly, Neodiprion nanulus nanulus Schedl.

Occasional colonies were observed at several locations in the district in 1967. A decline in population levels occurred at sample points in Franklin and South Himsworth townships (Table 10).

TABLE 10

Summary of Red-pine Sawfly Colony Counts in the
Parry Sound District in 1966 and 1967

Note: Ten trees examined at each location.

Location (township)	Av. d.b.h. of sample trees in inches	No. of trees infested		Av. no. of colonies per tree	
		1966	1967	1966	1967
McDougall	6	3	6	1.0	1.0
Franklin	5	5	0	1.0	0.0
South Himsworth	6	8	0	1.1	0.0

Jack-pine Sawfly, Neodiprion pratti banksianae Roh

With one exception, little change occurred in population levels of this sawfly in 1967. In McLean Township an increase was noted when 17 colonies were recorded on ten sample trees. Defoliation did not exceed ten per cent at any location. Counts based on the examination of ten trees at each location are summarized in Table 11.

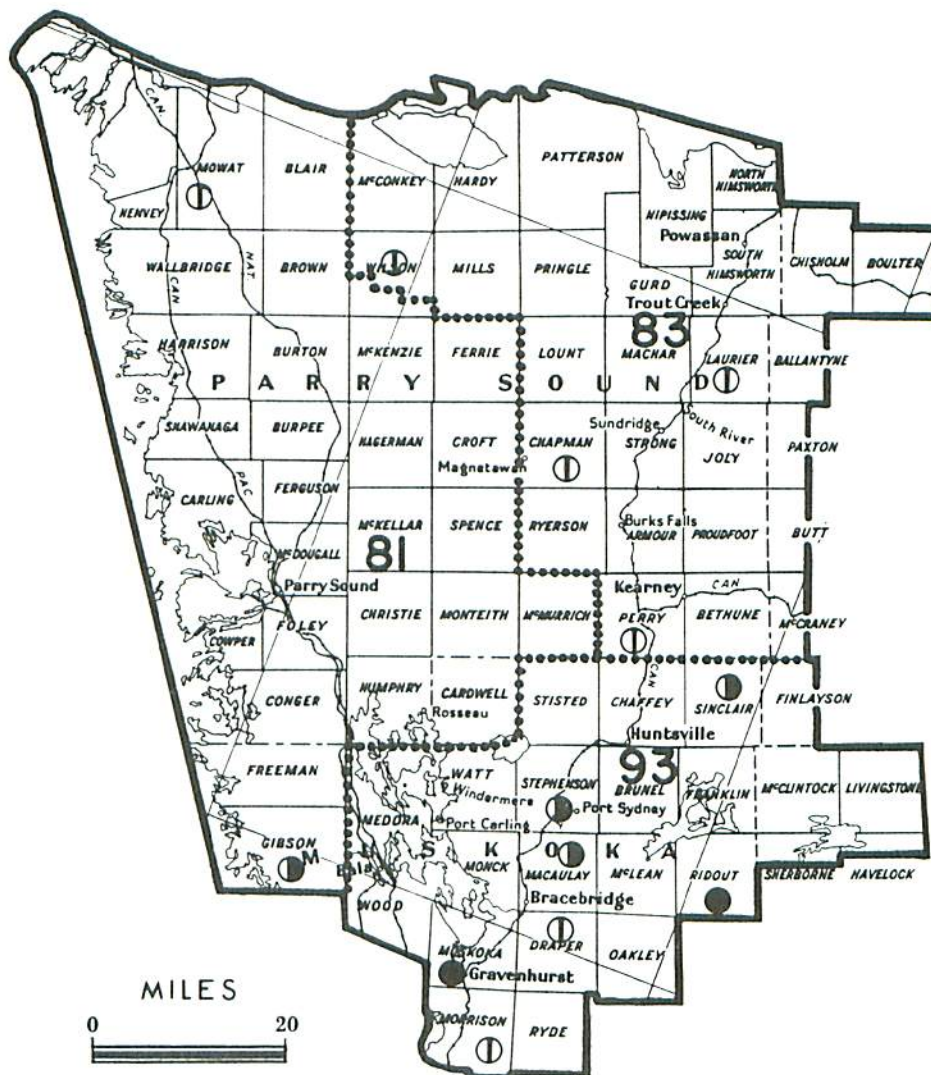
TABLE 11

Summary of Jack-pine Sawfly Colony Counts in the
Parry Sound District in 1966 and 1967

Note: Ten trees examined at each location.

Location (township)	Av. d.b.h. of sample trees in inches	No. of trees infested		Av. no. of colonies per tree	
		1966	1967	1966	1967
Monck	5	1	7	1.0	1.0
Draper	5	3	3	1.0	1.0
Ryerson	4	10	3	1.0	1.0
McDougall	6	2	7	1.5	1.0
McLean	5	0	10	0.0	1.7
Medora	5	7	0	1.1	0.0
Monteith	4	10	2	1.4	2.5

PARRY SOUND DISTRICT



RED-HEADED PINE SAWFLIES

Locations where infestations were observed
in 1967

Legend

Light infestation ○
 Medium infestation ◐
 Heavy infestation ●

Red-headed Jack-pine Sawfly, Neodiprion virginianus complex

With one exception population levels of this sawfly remained at a low level in 1967 (Table 12). In the French River area an increase in colonies was recorded and defoliation approximated 15 per cent on some of the sample trees.

TABLE 12

Summary of Red-headed Jack-pine Sawfly Colony Counts
in the Parry Sound District in 1966 and 1967

Note: Ten trees examined at each location.

Location (township)	Av. d.b.h. of sample trees in inches	No. of trees infested		Av. no. of colonies per tree	
		1967	1966	1966	1967
Pickerel River	5	2	1.0	1.0	1.0
French River	4	10	0.8	2.7	2.7
Henvy	5	6	2.7	2.1	2.1
Shawanaga	5	2	1.0	1.0	1.0

White-pine Weevil, Pissodes strobi (Peck)

For the past three years population levels of this weevil on Scots, white and jack pine have remained at a relatively low level in the district, however in 1967 medium infestations were observed at two widely-separated locations. These were located in a white pine plantation near Dorset in Ridout Township and in regeneration white pine near Huntsville in Chaffey Township. Of 100 trees examined, damage to terminal growth was 18 and 16 respectively. Counts based on the examination of 100 trees at each location are summarized in Table 13.

TABLE 13

Summary of Damage by the White-pine Weevil in the
Parry Sound District in 1966 and 1967

Note: 100 trees were examined at each location.

Location (township)	Tree species	Per cent trees infested		Per cent cumulative damage all years	
		1966	1967	1966	1967
McLean	jP	0	0	41	41
McLean	rP	0	0	18	18
McMurrich	jP	0	0	56	56
McAulay	jP	1	1	58	59
Armour	scP	2	4	55	59
Chaffey	wP	20	16	63	79
Ridout	wP	-	18	-	18

Balsam Shoot-boring Sawfly, Pleroneura borealis Felt.

This shoot-boring insect on balsam fir occurs in infestation intensities in alternate years. In 1966 populations in an infestation year were at the lowest level ever recorded in the district. In 1967 populations increased appreciably at all sample points, counts were comparable to the 1964 infestation year (Table 14). Medium to heavy infestations were common in McLean, Ferguson, Franklin and Laurier townships. Damage to new shoots ranged from 10 to 20 per cent.

TABLE 14

Summary of Balsam Shoot-boring Sawfly Larval Counts
in the Parry Sound District, 1964-1967

Location (township)	Av. d.b.h. of sample trees in inches	No. of new buds examined 1967	Per cent shoots infested			
			1964	1965	1966	1967
Joly	6	261	5.8	0.0	0.6	4.2
McLean	5	227	17.0	0.0	1.2	20.7
MacKenzie	7	181	8.1	3.3	0.0	6.6
Ferguson	6	218	7.1	0.1	0.6	10.1
Chaffey	5	312	7.8	0.3	1.3	9.0
Franklin	5	297	13.8	0.8	0.3	12.5
Laurier	5	302	11.3	1.0	0.0	15.9

Larch Sawfly, Pristiphora erichsonii Htg.

In 1967, population levels of this sawfly on native and European larch increased in the northwest and central part of the district, but defoliation of host trees did not exceed 15 per cent at any location. Light infestations were common throughout these areas.

Mountain-ash Sawfly, Pristiphora geniculata Htg.

For the third consecutive year light to medium infestations persisted at several locations in the district, particularly in Perry, McDougall, Shawanaga, Hagerman, Chaffey and Muskoka townships. Defoliation of host trees did not exceed 30 per cent. Light infestations occurred at several other locations in the district.

A Poplar Leaf Roller, Pseudexentera oregonana Wlshmn.

The heavy infestations that have persisted for the past four years in the northwest part of the district declined to medium intensity in 1967. Defoliation of trembling aspen trees ranged from 20 to 40 per cent through this area. The medium to heavy infestations reported in McMurrich, Spence, Ferguson, MacKenzie and Croft townships declined to light and medium intensity and defoliation ranged from 10 to 30 per cent.

Light infestations were common at numerous other points.

TABLE 15

Summary of Miscellaneous Insects Collected in the Parry Sound District

Insect	Host(s)	Remarks
<i>Acleris variana</i> (Fern.)	eH,wS	Small numbers of larvae at five locations
<i>Acmaeops proteus</i> Kby.	wS	Wood boring beetles common in trap logs
<i>Adelges abietis</i> Linn.	wS	Needle galls common on this host at numerous locations through the district
<i>Adelges lariciatus</i> (Patch)	wS	Small numbers of needle galls on occasional trees near Ahmic Harbour in Croft Township
<i>Altica populi</i> Brown	bPo	This leaf beetle collected in small numbers near Scotia
<i>Anacamptis innoculella</i> Zell.	lA	Leaf rollers common on understory aspen near Callendar
<i>Anacamptodes vellivolata</i> Hlst.	wP	Small numbers of these loopers on this host in Harrison Township
<i>Aphrophora parallela</i> Say	bF,wP	Spittlebug common on these hosts at numerous locations through district
<i>Archippus strianus</i> Fern.	wS	Small numbers at one location
<i>Archips cerasivoranus</i> (Fitch)	cherry	Heavy infestations of the ugly-nest caterpillar observed on roadside cherry shrubs through Chaffey, Ryerson, Boulter, Carling, Franklin, Draper and Oakley townships
<i>Argyresthia laricella</i> Kft.	tL	Small numbers of this shoot borer observed in Chapman and MacLean townships
<i>Campaea perlata</i> Gn.	bF	Small numbers at two locations
<i>Caripeta angustiorata</i> Wlk.	wP	Small numbers
<i>Caripeta divisata</i> Wlk.	bF	Common on beating tray at five scattered locations

TABLE 15 (continued)

Insect	Host(s)	Remarks
<i>Caripeta piniata</i> Pack.	wP	Small numbers
<i>Charadra deridens</i> Gn.	Be	Small numbers of this insect on understory beech near Rosseau
<i>Choristoneura rosaceana</i> Harr.	tA,W	Associated with leaf rollers on these hosts at two locations
<i>Coleophora betulivora</i> McD.	wB	Small numbers of casebearers near Ravenscliffe in Chaffey Township
<i>Compsolechia niveopulvella</i> Chamb.	tA	Small numbers collected with leaf rollers near MacTier in Freeman Township
<i>Corythucha pergandei</i> Heidemann	Al	Common on roadside alder near Emsdale in Perry Township
<i>Crocigrapha normani</i> Grt.	eH	Small numbers
<i>Dasineura balsamicola</i> (Lintn.)	bF	Needle gall common through district
<i>Ectropis crepuscularia</i> Schiff.	bF	Common in beating samples at balsam fir sample points
<i>Epinotia solandriana</i> Linn.	wB	Light infestations of leaf rollers on understory and roadside white birch in Mowat and Machar townships
<i>Eufidonia notataria</i> Wlk.	bF	Small numbers at two locations
<i>Eupithecia filmata</i> Pears.	wS	Small numbers at three locations
<i>Erannis tiliaria</i> Harr.	tA	Small numbers of larvae on understory aspen near Wasi Falls
<i>Fenusa dohrnii</i> (Tischb.)	Al	Leaf mining heavy on occasional roadside alder near Scotia and Emsdale
<i>Feralia jocosa</i> Gn.	bF	Small numbers at two locations
<i>Gonioctena americana</i> (Schaeef.)	tA	Moderate defoliation of small aspen near Port Sydney. Light infestations common in Franklin and Laurier townships

TABLE 15 (continued)

Insect	Host(s)	Remarks
<i>Hypagyrtis piniata</i> Pack.	bF,wS	Small numbers of larvae at five collection points
<i>Hyphantria cunea</i> Dru.	Al,cCh	Occasional nests along roadsides in Perry, Wood, Medora and Freeman townships
<i>Lambdina fiscellaria fiscellaria</i> (Gn.)	eH	Small numbers collected from beating at five sample points
<i>Lapara bombycoides</i> Wlk.	wP	Single larva
<i>Lepyrus alternans</i> Csy.	W	Small numbers of adult weevils in pine plantation in Mowat Township
<i>Lithocolletis salicifoliella</i> Cham.	tA	Poplar leaf miners observed in small numbers near Powassan
<i>Lobophora nivigerata</i> Wlk.	tA	Single larva
<i>Mindarus abietinus</i> Koch.	bF	Small numbers observed at balsam fir sample plots
<i>Monoctenus fulvus</i> Nort.	ewC	Small numbers of cedar sawflies at all sample points
<i>Monoctenus suffusus</i> (Cress.)	J	Small numbers of this sawfly collected while beating juniper for <i>Thera juniperata</i> L.
<i>Nematus limbatus</i> Cress.	W	Colonies of this sawfly common on roadside willow in Croft and Proudfoot townships
<i>Nematus populi</i> (Marl.)	tA	One colony of these insects observed on a small tree near Powassan
<i>Nematus salicisodoratus</i> Dyar	W,tA	Light infestations of this sawfly on willow observed at widely scattered locations in three townships of division 83
<i>Nycteola frigidana</i> Wlk.	W	Single larva
<i>Nymphalis antiopa</i> Linn.	W	Single colonies of spiny elm caterpillar observed in McDougall and Ridout townships
<i>Ocnerostoma strobivorum</i> Free.	wP	Needle miners common on small white pine near Bracebridge
<i>Ocnerostoma</i> sp.	rP	Needle miners common on plantation red pine in Perry and McDougall townships

TABLE 15 (continued)

Insect	Host(s)	Remarks
<i>Petrova albicapitana</i> (Busck)	jP	Small numbers of pitch nodule makers on occasional jack pine near the French River
<i>Phenacaspis pinifoliae</i> (Fitch)	jP, rP, scP	Medium infestations of this scale on these three hosts in McDougall, and Mowat townships
<i>Phratora americana canadensis</i> Brown	W	Several colonies observed skelotinizng leaves near Limberlost
<i>Phyllocoptes aceris-crumena</i> (Rly.)	sM	Leaf galls common on roadside trees at one location in Freeman township
<i>Pikonema alaskensis</i> (Roh.)	wS	Small localized infestations of this sawfly in Machar, Perry, Sherborne and Chapman townships, defoliation approximated ten per cent at each location
<i>Pikonema dimockii</i> (Cress.)	wS	Small numbers
<i>Pineus similis</i> Gill.	wS	Hedgerow white spruce heavily infested by this needle gall near Gravenhurst
<i>Pristiphora lena</i> Kinc.	wS	Small numbers of this sawfly observed in Perry Township
<i>Profenusa thomsoni</i> (Konow)	wB	Light infestations of this leaf miner common in Medora and Mowat townships
<i>Protoarmia porcellaria</i> <i>indicateria</i> Wlk.	wS, bF	Small numbers at three locations
<i>Psilicorsis faginella</i> Cham.	Be	Several larvae collected on understory trees near Hayes Corners in Humphrey Township
<i>Pulicalvaria piceaella</i> (Kft.)	wS	Small numbers at one location in Mowat Township
<i>Sciaphila duplex</i> Wlshn.	tA	Associated with leaf rollers at two locations, small numbers of larvae collected

TABLE 15 (concluded)

Insect	Host(s)	Remarks
<i>Semiothisa bisignata</i> Wlk.	wP	Small numbers of larvae at two locations
<i>Semiothisa dispuncta</i> Wlk.	wS	Single larva collections at three points
<i>Sparganothis sulfureana</i> Clem.	rP	Small numbers
<i>Thera juniperata</i> L.	J	Juniper lightly infested along roadside and in old fields near MacTier
<i>Toumeyella numismaticum</i> P. McD.	scP	Fringe trees in Scotch pine plantations moderately infested by the pine tortoise scale in Stisted and Armour townships
<i>Trichiocampus irregularis</i> (Dyar)	W	Eggs and larvae common on roadside willow at one location in Sinclair Township
<i>Trisetacus alborum</i> Keifer	wP	Common on new shoots of this host near Pointe au Baril
<i>Vasates quadripes</i> Shim	sM	Heavy infestations of this leaf gall at numerous locations through the district
<i>Zale helata</i> Sm.	wP	Small numbers of larvae at two locations