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Status of Insects in the Swastika  
District

Applejohn, M.J.

Information Report  
(Forest Research Laboratory, Ontario Region)

O-X-50

1966

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O-X-34	Forest Insect & Disease Surveys	
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O-X-36	--Kemptville District	J. Hook
O-X-37	--Pembroke District	R. A. Trieselmann
O-X-38	--Lake Simcoe District	A. A. Harnden
O-X-39	--Lake Huron District	R. L. Bowser
O-X-40	--Lake Erie District	J. R. Trinnell
O-X-41	--North Bay District	L. S. MacLeod
O-X-42	--Parry Sound District	C. A. Barnes
O-X-43	--Sault Ste. Marie District	H. G. McPhee
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O-X-55	--Fort Francis District	M. J. Thomson

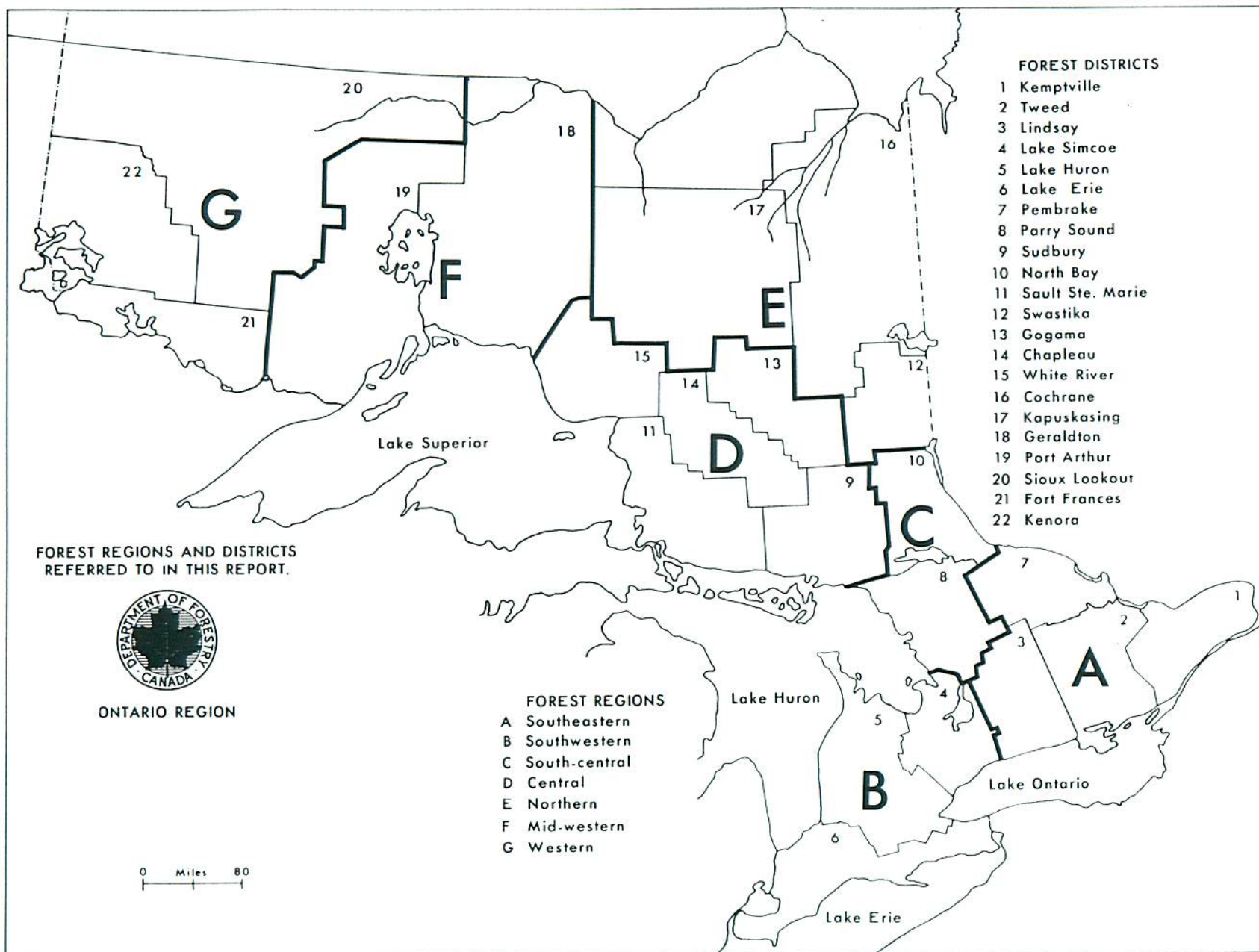
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Photographs

\* Regional Supervisors





## FOREWORD

J. E. MacDonald

A prolonged period of drought, extending from May until August, seriously affected the growth and survival of forest stands on shallow sites and in plantations, particularly in central and southern Ontario. This was evidenced in August when hardwoods on rocky sites in many areas turned brown and shed their foliage. Serious losses of conifers planted in 1966 were reported in the Sault Ste. Marie, Lake Huron, Lake Simcoe and Lindsay districts.

Intensive surveys were carried out in 1966 to determine the distribution and incidence of Scleroderris canker of pine and of Dutch elm disease. These revealed that Scleroderris canker is widely distributed in northern Ontario. Incidence and tree mortality was highest in young red and jack pine plantations, however, significant losses of jack pine reproduction were also observed in several areas. Incidence of the disease was low in southern Ontario. Dutch elm disease is well established throughout southern Ontario and in localized areas in North Bay and Sudbury districts in northern Ontario. The incidence of infection was particularly high in the Toronto, London and Windsor areas. Over 50 per cent of the elm trees in many areas in southwestern Ontario were infected and the disease has taken a heavy toll of trees in older areas of infection.

Noteworthy changes in the extent and intensity of infestations of the forest tent caterpillar and jack pine budworm occurred in 1966. Weather conditions in the spring brought about a collapse of the forest tent caterpillar outbreak that had occurred over a vast area in Sioux Lookout, Kenora and Port Arthur districts in recent years. Heavy infestations persisted in Fort Frances District and in numerous areas in central and southeastern Ontario, but no outstanding changes in their extent and intensity occurred. Forest tent caterpillar defoliation forecasts for 1967 are contained in the district reports that follow.

Jack pine budworm infestations were reported in three widely-separated parts of Ontario. The largest of these occurred in the western part of Fort Frances and Kenora districts. Pockets of infestation occurred in the southern part of Sault Ste. Marie District and on Manitoulin Island.

The European pine sawfly continued to be a serious pest in pine plantations in southern Ontario. Since its discovery in a Scots pine plantation on Manitoulin Island in 1965, it has been found in five additional plantations on the Island. The results of control measures using virus sprays to contain the sawfly in this northern location will be followed with interest in 1967.

Expansion of the forest research program of the Department of Forestry and Rural Development in Sault Ste. Marie and the establishment of new positions in the Insect and Disease Survey Section has resulted in many changes of duties for Survey technicians. Five new district technicians will be required for the 1967 field season and numerous district re-assignments will be made. A list of technicians and their district assignments will be issued to key personnel of the Department of Lands and Forests and Industry early in the field season.



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M. J. Applejohn



Ugly-nest Caterpillar, Archips cerasivoranus (Fitch.)

Populations of this insect increased markedly for the second consecutive year. A particularly heavy infestation occurred on cherry in Harley Township where 483 tents were counted in a square chain plot (Table 7). Heavy infestations also occurred in Cairo and Walker townships. Medium populations were noted in Hilliard, Marter, Kearns and Playfair townships and light infestations were observed at widely separated locations in divisions 42 and 39.

TABLE 7

Summary of Ugly-nest Caterpillar Colony Counts in the Swastika District from 1964 to 1966

Location (township)	Sample unit	Av. tree height in feet	Number of tents per sample unit		
			1964	1965	1966
Eby	square chain plot	5	0	62	29
Harley	square chain plot	4	51	287	483
Kearns	mile of roadside	4	7	19	57
Cairo	square chain plot	4	-	-	158
Playfair	square chain plot	3	-	-	58

Birch Skeletonizer, Bucculatrix canadensisella Chamb.

Infestations that occurred on birch stands in a large part of the District in 1964 and 1965 virtually collapsed in 1966. Small pockets of light infestation persisted in Casey and Harris townships in Division 42 and in Ray Township in Division 63. This sharp decline in population levels is reflected in larval counts summarized in Table 8.

TABLE 8

Summary of Larval Counts of the Birch Skeletonizer on White Birch Foliage in the Swastika District from 1964 to 1966

Note: Counts were based on examination of four leaves from each of five trees at each location

Location (township)	Av. d.b.h. in inches	Total no. of larvae			Av. no. of larvae per leaf		
		1964	1965	1966	1964	1965	1966
Lamplugh	3	272	90	4	10.2	3.6	0.1
Yarrow	3	201	10	0	8.0	0.4	0.0
Cairo	6	151	56	0	6.0	2.2	0.0
Black	3	102	61	10	4.0	2.4	0.4
Walker	4	228	34	3	9.1	1.3	0.1
Marriot	3	315	104	0	12.6	4.0	0.0



Jack-pine Budworm, Choristoneura pinus Free

Populations of this budworm increased appreciably in 1966. Light infestations were detected on roadside jack-pine trees in Hudson and Ingram townships. Small numbers of larvae were collected in eight other townships throughout the district.

Larch Casebearer, Coleophora laricella (Hbn.)

Minor fluctuations in populations of the larch casebearer occurred in 1966. The most noteworthy occurred in Lebel Township where the average number of larvae per 18-inch branch tip declined from 7.4 in 1965 to 0.8 in 1966 (Table 9). Smaller numbers of larvae were observed in Hudson, Harker and Teck townships. An infestation west of Matatchewan in Powell Township increased from light to medium intensity. New, light infestations were detected in McGarry, Hearst and Hilliard townships.

TABLE 9

Summary of Larch Casebearer Larval Counts in the Swastika District  
from 1964 to 1966

Note: Counts were based on examination of four 18-inch branch tips taken  
from the mid-crown of each of four trees

Location (township)	Av. d.b.h. in inches	Av. no. of larvae per branch tip		
		1964	1965	1966
Marter	4	0.6	3.0	7.1
Lebel	5	0.9	7.4	0.8
Powell	4	0.8	8.7	17.4
Hilliard	5	-	-	8.5
Hudson	5	13.8	8.1	4.8
Harker	6	-	12.9	8.8

European Spruce Sawfly, Diprion hercyniae (Htg.)

Quantitative sampling revealed a general increase in populations of this sawfly (Table 10). In Kearns and Bowman townships 54 and 43 larvae respectively were recovered in tray samples. High populations were also noted on open-grown white spruce in Walker Township where 37 larvae were counted on eight beating tray samples. Populations of the second generation in September were generally lower than the first generation in July.



TABLE 10

Summary of European Spruce Sawfly Larval Counts made in July in the Swastika District from 1964 to 1966

Location (township)	Tree species	Av. d.b.h. in inches	Total no. of larvae per 15-mat sample		
			1964	1965	1966
Bowman	WS	6	13	21	43
Pacaud	WS	5	17	11	23
Dymond	WS	4	5	13	21
Eby	BS	4	2	5	5
Garrison	WS	7	9	10	13
Eby	WS	4	11	11	26
Cane	WS	2	-	-	28
Kearns	WS	4	-	-	54

Birch Miner, Fenusa pusilla Lep.

Little change in numbers or distribution of this insect occurred in 1966. Heavy infestations persisted in Harris, Teck, Dymond and Eby townships. New heavy infestations occurred in Armstrong and Dack townships. A pocket of medium infestation was observed along the east shore of Spear Lake in North Williams Township. Low numbers of mined leaves were noted at several locations in Division 42. Damage in all cases was confined to small white birch regeneration and the lower branches of larger trees.

American Aspen Beetle, Gonioctena americana (Schaeff.)

Heavy infestations of this defoliator persisted along Highway 560 between Gowganda and the Gogama District boundary. Other heavy infestations were noted near the High Falls Dam in Baden Township, along the Sunrise Lake Road in Ossian Township and north of Highway 66 in Arnold Township. A medium infestation occurred in Benoit Township. Light defoliation was observed at numerous locations in divisions 39 and 42.

Aspen Blotch Miner, Lithocolletis salicifoliella Chamb.

Populations of this leaf miner declined in 1966. The most noticeable decline occurred in Kimberly and Marriot townships where leaf mining declined from 29 and 31 per cent respectively in 1965 to 12 and 15 per cent in 1966 (Table 11). A heavy infestation on pole-sized trembling aspen near Sunny Lake in Dunmore Township declined to light intensity. In contrast to the above trend on aspen, heavy infestations persisted on balsam poplar in Chamberlain and Teck townships. Light-to-medium infestations were observed on blasam poplar at several other locations. Light infestations occurred on large-toothed aspen in Henwood Township and on willow in Dack Township.

TABLE 11

Summary of Damage Caused by the Aspen Blotch Miner in the Swastika District  
from 1964 to 1966

Note: Counts were based on examination of 100 leaves selected at random from  
three trees at each location.

Location (township)	Host	Av. d.b.h. in inches	Per cent of leaves infested			Total no. of mines		
			1964	1965	1966	1964	1965	1966
Teck	tA	2	0	0	7	0	0	7
Playfair	tA	3	0	5	11	0	5	11
Walker	tA	4	23	15	4	31	17	4
Kimberly	tA	4	40	29	12	59	31	12
Marriot	tA	4	25	31	15	40	31	15
Chamberlain	bPo	2	-	-	42	-	-	47
Dack	W	1	-	-	12	-	-	13
Catherine	bPo	2	-	-	10	-	-	12

Western Tent Caterpillar, Malacosoma pluviale Dyar

Little change in the status of this insect occurred in 1966. A light infestation persisted in Warden Township where 23 tents were counted along one mile of roadside (Table 12). New, light infestations were detected in Chown, Brethour and Pacaud townships.

Roadside brushing and spraying with herbicides have been important control factors.

TABLE 12

Summary of Western Tent Caterpillar Colony Counts in the Swastika District  
from 1964 to 1966

Location (township)	Tree species	Sample unit	No. of tents per sample unit		
			1964	1965	1966
Munro	pCh	square chain plot	23	30	12
Warden	pCh wB tA	mile of roadside	12	25	23
Argyle	pCh	mile of roadside	12	16	13
McEvoy	pCh wB	mile of roadside	13	27	21
McCool	pCh	square chain plot	-	-	8



Cedar Sawfly, Monoctenus fulvus Nort.

Population levels of this insect were higher in 1966 than in recent years. A light infestation occurred in Eby Township where 41 larvae were counted on a 15-tray sample (Table 13). Low populations were observed at Sunneywater Lake in Gamble Township, along the northeast shore of Lake Matatchewan in Baden Township, and on the south shore of Abitibi Lake in Rand Township.

TABLE 13

Summary of Cedar Sawfly Larval Counts in the Swastika District  
in 1966

Location (township)	Av. d.b.h. in inches	Total no. of larvae per 15-tray sample
Eby	2	41
Dymond	2	5
Farr	3	6
Chown	2	11

Red-pine Sawfly, Neodiprion nanulus nanulus (Schedl.)

Light infestations of this sawfly occurred on young jack pine trees in Terry, Nordica, and Farr townships and at several locations along Highway 65 between New Liskeard and Elk Lake. Individual colonies were noted on red and jack pine trees along Highway 101 east and west of Matheson and near Kirkland Lake in Teck Township.

Red-headed Jack-pine Sawfly, Neodiprion virginianus complex

Substantial increases in population levels of this insect were observed in the district in 1966. A heavy infestation occurred at Arctic Gateway Park in Maisonville Township where an average of 10.2 colonies per tree was recorded (Table 14). Medium infestations occurred in Tolstoi, Brethour, Playfair, Henwood and Chamberlain townships. Low numbers of colonies were observed commonly elsewhere in the district (see map). Defoliation of infested trees ranged from five to seventy per cent (see photograph).

TABLE 14

Summary of Red-headed Jack-pine Sawfly Colony Counts Made on Ten Jack-pine Trees in the Swastika District from 1964 to 1966

Location (township)	Av. d.b.h. in inches	Av. no. of colonies per tree		
		1964	1965	1966
Playfair	1	0.8	0.5	2.3
Eby	4	0.6	0.9	0.9
Maisonville	6	1.5	1.6	10.2
Teck	4	1.1	0.3	0.8
Munro	5	0.6	0.6	1.1
Chamberlain	2	-	1.7	4.6
Brethour	4	-	2.1	3.8

Pitch Nodule Maker, Petrova albicapitana (Busck.)

A small heavy infestation occurred near Davis Lake in Tolstoi Township. A light infestation was observed in a Scots pine plantation near Wabiwawa in Chamberlain Township. Little change in population levels occurred elsewhere in the district compared with 1965 (Table 15).

TABLE 15

Summary of Damage by the Pitch Nodule Maker on Jack-pine in the Swastika District from 1964 to 1966

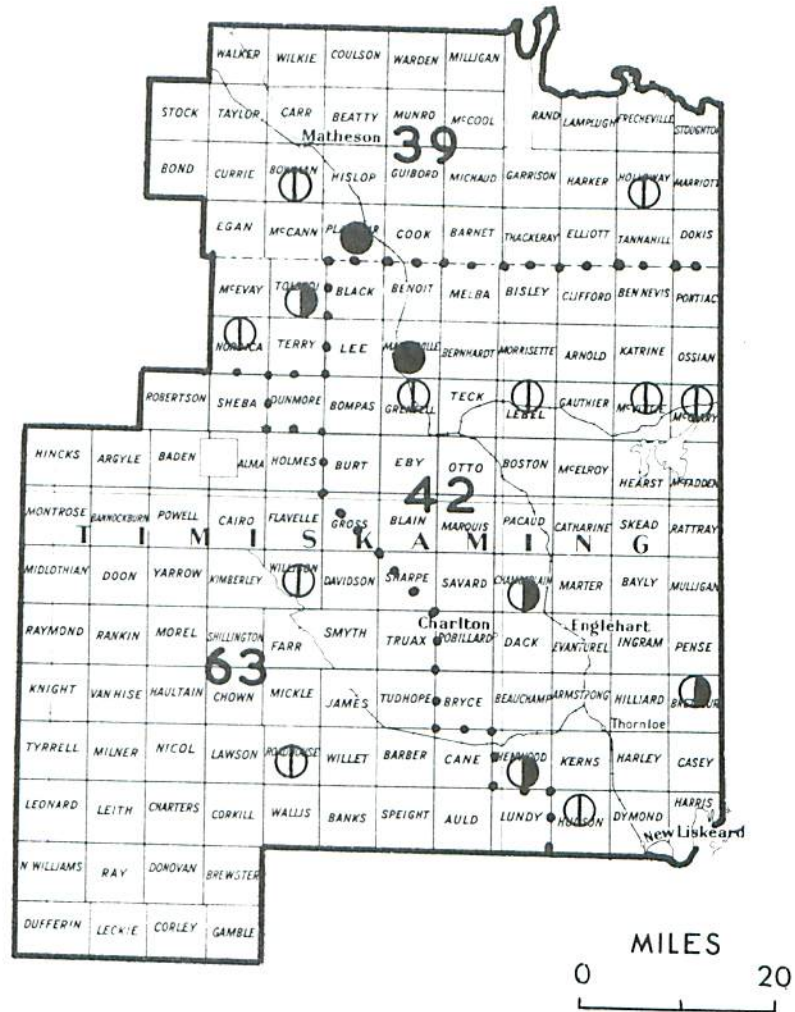
Location (township)	Av. d.b.h. in inches	Av. no. of nodules per tree		
		1964	1965	1966
McCann	3	1.4	1.1	0.9
McVittie	3	0.7	0.2	0.2
Gauthier	2	2.7	0.8	0.5
McEvoy	2	1.3	1.0	0.0
Michaud	3	2.0	0.9	2.1
Playfair	3	-	-	0.9

Yellow-headed Spruce Sawfly Pikonema alaskensis Roh.

Heavy infestations persisted for the second consecutive year on roadside windbreaks and small plantations in Harley, Evantural, Cane, Dymond and Eby townships. Ornamentals suffered severe damage in the towns of Swastika and Kirkland Lake in Teck Township. A medium infestation occurred at Hills Lake Hatchery in Bryce Township. Light defoliation was observed on open-grown white and black spruce trees at numerous other locations.



# SWASTIKA DISTRICT



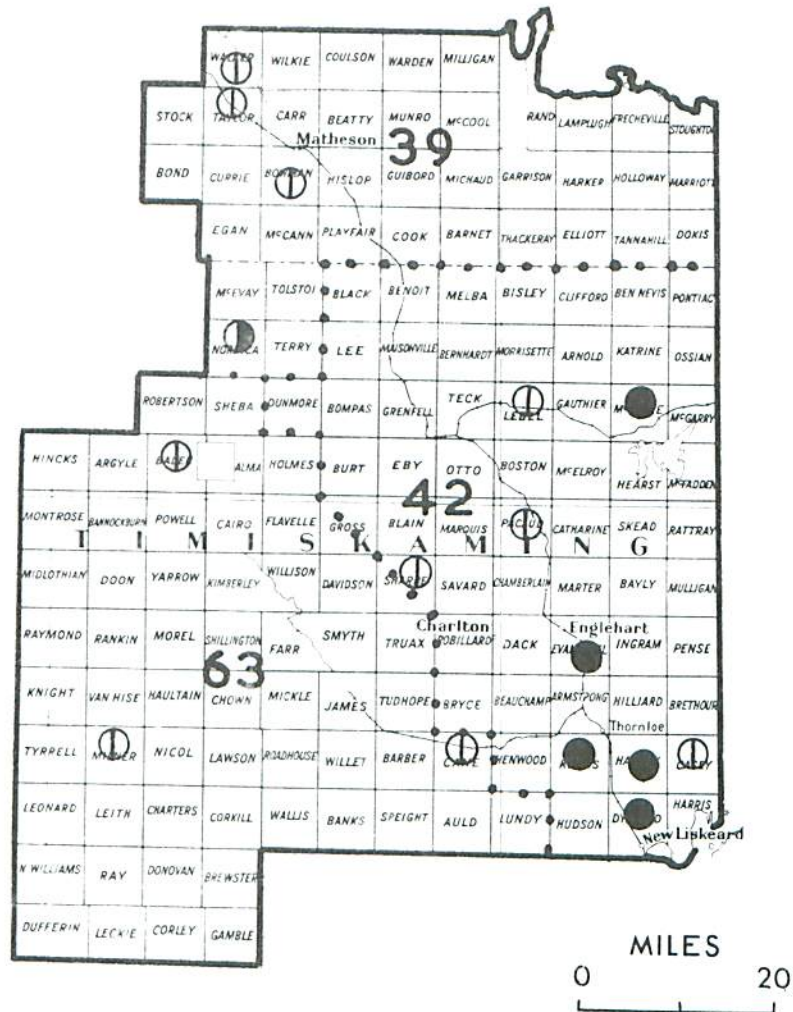
## RED-HEADED JACK PINE SAWFLY

Location of infestations in 1966

### Legend

- Light infestation . . . . . ○
- Medium infestation . . . . . ◐
- Heavy infestation . . . . . ●

# SWASTIKA DISTRICT



## YELLOW-HEADED SPRUCE SAWFLY

Location of infestations in 1966

### Legend

- Light infestation . . . . . ①
- Medium infestation . . . . . ②
- Heavy infestation . . . . . ③



White-pine Weevil, Pissodes strobi Peck

A heavy infestation persisted on scattered white pine regeneration in Grenfell Township where 28 per cent of the leaders of sample trees were infested (Table 16). Light infestations were noted in a red pine provenance test plot in Ingram Township and on Scots-pine plantings in Chamberlain and James townships. Light-to-moderate damage was observed on black spruce regeneration along Highway 101 in Munro Township and on jack pine regeneration along Highway 65 in Henwood Township.

TABLE 16

Summary of White-pine Weevil Damage in the Swastika District from 1964 to 1966

Location (township)	Host	No. of trees examined	Per cent of leaders infested		
			1964	1965	1966
Gauthier	jP	100	8	6	4
Grenfell	wP	50	26	14	28
Benoit	jP	100	6	5	3
Nordica	jP	100	5	12	8
McGarry	bS	50	10	36	10
Currie	bS	100	-	-	9
McEvoy	jP	100	-	-	8

Balsam Shoot-boring Sawfly, Pleroneura borealis Felt.

Light infestations of this primitive sawfly persisted in Marquis and Farr townships and new light infestations were noted in Tudhope and Holloway townships. Although 1966 was a peak year in the insect's 2-year life cycle, only minor increases in numbers of mined buds were recorded at most sample points and damage was much less severe than in 1964 (Table 17). Records show that in the peak year of 1964 late frosts caused considerable larval mortality and low populations in 1966 may be a direct result.

TABLE 17

Summary of Balsam Shoot-boring Sawfly Damage in the Swastika District from 1964 to 1966

Location (township)	Av. d.b.h. in inches	No. of buds examined in 1966	Per cent of buds mined		
			1964	1965	1966
Bernhardt	4	234	1.7	2.8	0.4
Benoit	4	247	27.0	0.0	5.7
Eby	6	369	17.7	5.0	5.9
Marquis	6	286	18.3	0.0	8.4
Farr	6	218	16.5	1.5	9.6

Larch Sawfly, Pristiphora erichsonii (Htg.)

Populations of this defoliator continued to decline in most areas in 1966. A medium infestation in Milner Township declined to light intensity. Substantially reduced numbers occurred in Gauthier, Holloway, and McGarry townships. Exceptions to the above trend occurred in Benoit, Lee and Ingram townships where individual, open-grown trees were severely defoliated.

Mountain-ash Sawfly, Pristiphora geniculata (Htg.)

Populations of this insect persisted at a high level in 1966. Heavy infestations recurred on clumps of mountain ash in Eby, Nicol, McGarry and Catherine townships. Severe damage to mountain ash ornamentals occurred in Teck and Dymond townships. Light to moderate damage was encountered at numerous other locations in the district.

Amber-marked Birch Leaf Miner, Profenusa thomsoni (Konow)

Quantitative sampling showed substantial reductions in numbers of mined leaves at five of seven locations (Table 18). A single pocket of heavy infestation persisted north of Davis Lake in Tolstoi Township. Small medium infestations occurred in Rand, McCann, Mickle, and Banks townships. Light damage of white birch foliage was observed at several other locations.

TABLE 18

Summary of Damage Caused by the Amber-marked Birch Leaf Miner in the Swastika District from 1964 to 1966

Note: Counts were based on examination of 100 leaves from three trees at each location.

Location (township)	Av. d.b.h. in inches	No. of leaves attacked			Total no. of mines		
		1964	1965	1966	1964	1965	1966
Playfair	3	31	27	15	80	35	15
James	4	53	22	22	90	30	25
Stock	3	30	16	6	77	21	6
Arnold	3	70	40	12	103	51	14
Van Hise	3	35	15	2	78	18	2
Clifford	4	58	18	18	96	25	22
Otto	3	56	30	13	89	47	13



A Poplar Leaf Roller, Pseudexentera oregonana Wlshm.

A substantial decline in numbers of this insect occurred in 1966. The heavy infestation which has persisted in Dymond, Armstrong, Harley and Hudson townships since 1962 declined to light intensity. Light infestations recurred along Highway 65 between New Liskeard and the Quebec boundary. Light infestations were detected for the first time north of Highway 101 in Munro and Marriot townships. Light defoliation was observed at several locations in Division 63.

Spruce Bud Gall Midge, Rhabdophaga swainei Felt.

Although little change in population levels was recorded at most quantitative sample points, (Table 19) an appreciable increase in numbers of this insect occurred in 1966. Heavy infestations occurred on black spruce in Dack, Evantural, and Walker townships and on white spruce at two locations in Chamberlain Township. Medium infestations were detected on black spruce in Arnold, Pontiac, and Dunmore townships. Low numbers of infested buds were observed at numerous other locations.

TABLE 19

Summary of Damage Caused by the Spruce Bud Gall Midge in the Swastika District from 1964 to 1966

Location (township)	Tree species	No. of shoots examined in 1966	Per cent of shoots infested		
			1964	1965	1966
Garrison	WS	143	5.5	0.0	3.5
Lebel	WS	161	2.9	4.4	3.1
Dymond	WS	65	0.9	0.0	4.6
Chamberlain	WS	226	-	-	28.8
Eby	BS	154	3.5	2.6	2.6
Eby	WS	150	9.3	3.1	4.0

TABLE 20

## Summary of Miscellaneous Insects Collected in the Swastika District in 1966

Insect	Host(s)	Remarks
<i>Accleris oxycoccana</i> Pack	blueberry	Heavy infestations in Thackery Twp.
<i>Acronicta lepusculina</i> Gn.	tA	Small numbers near Isobel Lake
<i>Adelges abietis</i> Linn.	wS	Light infestation in Beauchamp Twp.
<i>Adelges strobilobius</i> Kalt.	bS	Heavy infestation near Watabeag Lake
<i>Agromyza ulmi</i> Frost.	wE	Medium infestation in Dymond Twp.
<i>Altica corni</i> Woods	Do	Large numbers in Otto Twp.
<i>Anoplonyx luteipes</i> (Cress.)	tL	Small-to-medium numbers on mat samples at numerous locations
<i>Aphania dextrana</i> McD	bPo	Low population in Garrison Twp.
<i>Aphrophora parallela</i> Say.	ScP	Light infestations in Henwood, Dack, and Maisonville twps.
<i>Argyrotaenia tabulana</i> Free	jP	Light infestations in plantations in McCool Twp.
<i>Campaea perlata</i> Gn.	bF	Small numbers on mat samples
<i>Caripeta angustiorata</i> Wlk.	wP, jP	Two collections on mat samples
<i>Catocala relictata</i> Wlk.	cPo	Single collection from Swastika Nursery
Cecidomyiidae	jP	High populations in Tolstoi and Michaud twps.
<i>Choristoneura fumiferana</i> (Clem.)	wS, bF	Small numbers on mat samples at several locations
<i>Choristoneura rosaceana</i> Harr.	W	Small numbers in Pacaud and Dymond twps.
<i>Coleophora betulivora</i> McD	wB	Low populations at several locations
<i>Croesus latitarsus</i> Nort.	wB	Single colony in McCool Twp.
<i>Dasyneura balsamicola</i> , Lintn.	bF	Light infestation at Kenogami Lake
<i>Dendroctonus obesus</i> Mann.	wS	High population in spruce logs
<i>Dimorphopteryx pinguis</i> (Nort.)	wB, Al	Common in the district
<i>Dioryctria abietivorella</i> Grt.	bF	Small numbers in cones in Rand Twp.
<i>Dioryctria reniculella</i> Grt.	wS	Low population in new shoots in Dymond Twp.
<i>Disonychia alternata</i> Ill.	W	Heavy infestation in Yarrow Twp.
<i>Epinotia cruciana</i> Linn.	W	Light infestation in Robillard Twp.
<i>Epinotia lindana</i> Fern.	Do	Medium-to-large numbers in Kearns and Maisonville twps.
<i>Epinotia solandriana</i> Linn.	wB, Al	Small numbers at several locations
<i>Eriophyes</i> sp.	bO	Light infestation in Hilliard Twp.
<i>Eupithecia filmata</i> Pears.	wS, bF	Common on mat samples throughout the district
<i>Eupithecia gelidata</i> Moesch.	wB	Low population in Bowman Twp.
<i>Eupithecia palpata</i> Pack.	wP	Single collection from Grenfell Twp.
<i>Euthyatira pudens</i> Gn.	Do	Low population in Maisonville Twp.
<i>Evodinus monticola</i> (Rand.)	wS	Small numbers in trap logs



TABLE 20 (continued)

Insect	Host(s)	Remarks
<i>Fenusa dohrnii</i> (Tischb)	Al	Heavy in Morrisette Twp.
<i>Gracillaria alnivorella</i> Cham.	Al	Heavy near Wildgoose Lake
<i>Gracillaria cuculipenella</i> Hbn.	bAs	Light in Yarrow Twp.
<i>Gracillaria invariabilis</i> Braun	pCh	Heavy infestation along Hwy. 101 in Garrison Twp.
<i>Halisidota maculata</i> Harr.	W	Single colony in Yarrow Twp.
<i>Hylurgopinus rufipes</i> Eich.	wE	Small numbers in Harley Twp.
<i>Hyphantria cunea</i> Dru.	wB	Single colony in Armstrong Twp.
<i>Lapara bombycoides</i> Wlk.	jP	Low number in Playfair Twp.
<i>Lithocolletis aceriella</i> Clem.	rM, Mo	Medium in Knight Twp.
<i>Lithocolletis betulivora</i> Wlshm	wB	Small numbers at several locations
<i>Lithocolletis</i> sp.	Ha	Light infestation in Knight Twp.
<i>Macremphytus varianus</i> (Nort.)	Do	Medium numbers in several twps.
<i>Malacosoma disstria</i> Hbn.	tA	Occasional colonies in the New Liskeard area
<i>Monochamus notatus</i> (Drury)	wS	High population in trap logs
<i>Monochamus scutellatus</i> (Say)	wS	High population in trap logs
<i>Nematus fulvicrus</i> Prov.	W	Single colony in Eby Twp.
<i>Nematus limbatus</i> Cress.	W	Single colony in Grenfell Twp.
<i>Nematus ribesii</i> (Scop.)	currant	Single colony in Kirkland Lake
<i>Nematus salicisidoratus</i> Dyar	W	Low population in Bowman Twp.
<i>Nematus ventralis</i> Say	tA, W	Single colonies found commonly
<i>Neodiprion abietis</i> complex	wS, bF	Low populations at several locations
<i>Neodiprion pratti banksianae</i> Roh	jP	Single colony in Terry Twp.
<i>Neodiprion swainei</i> Midd.	jP	Light infestation at Banks Lake
<i>Pareophora minuta</i> MacG.	bAs	Heavy infestations in Yarrow, Baden and Midlothian twps.
<i>Peridroma saucia</i> Hbn.	bS, jP	Light infestation in tubelings
<i>Phenacaspis pinifoliae</i> Fitch	jP	Light infestation at Banks Lake
<i>Phlytaenia tertialis</i> Gn.	El	Low population in Knight Twp.
<i>Phratora americana canadensis</i> Brown	W	Light infestation in Dack Twp.
<i>Phyllocolpa agama</i> (Roh.)	W	Light in Kimberly and McCann twps.
<i>Phytomyza</i> sp.	honey-suckle	Heavy infestation in Teck Twp.
<i>Pikonema dimockii</i> (Cress.)	wS	Small numbers on mat samples at numerous locations
<i>Pineus floccus</i> Patch	wS	Heavy in Skead and Lebel twps.
<i>Pissodes approximatus</i> Hopk	rP	Light in Marquis and Grenfell twps., medium in Nordica Twp.
<i>Prociphilus tessellatus</i> (Fitch)	AL	Numerous heavy infestations
<i>Pulicalvaria piceaella</i> Kft.	blue S	Medium on ornamentals in New Liskeard
<i>Pyraustra futilalis</i> Led.	dogbane	Light in Grenfell Twp.

TABLE 20 (continued)

Insect	Host(s)	Remarks
<i>Recurvaria</i> sp.	wB	Light infestation in Lee Twp.
<i>Rhynchaenus rufipes</i> Lec.	W	Heavy in Eby Twp.
<i>Saperda calcarata</i> Say	tA	Damage to several trees on shore of Abitibi Lake
<i>Schizolachnus piniradiatae</i> (Dav.)	rP	Medium infestation in Ingram Twp.
<i>Schizura concinna</i> A. & S.	W	Single colony in Armstrong Twp.
<i>Semiothisa bisignata</i> Wlk.	wP	Medium numbers in Grenfell Twp.
<i>Semiothisa orillata</i> J.E. Smith	eC	Medium numbers in Eby Twp.
<i>Semiothisa</i> sp.	tL	Medium numbers in Lebel Twp.
<i>Taniva aboliniana</i> Kft.	wS	Light infestation on plantation trees in Harley Twp.
<i>Tenthredinidae</i> # 13	W	Single colonies in three twps.
<i>Tenthredinidae</i> # 12	W	Small numbers at several locations
<i>Trichiocampus irregularis</i> (Dyar)	W	Medium numbers at two locations
<i>Vasates quadripes</i> Shim	siM	Heavy at Charlton
<i>Xylomoges dolosa</i> Grt.	tA	Small numbers in Nordica Twp.
<i>Zeiraphera ratzeburgiana</i> Ratz.	wS	Heavy in Harley Twp.
<i>Zeiraphera</i> sp.	jP	Light in Tolstoi Twp.
<i>Zeugophora</i> sp.	bPo, tA	Heavy in Teck Twp. Light-to-medium at numerous other locations