Contractor and				
II.	CAN Fo 46-14 0-X 71			
	71 ADEW			
ц.				
LI.				
		Status of	Insects in th District	ne Kapuskas
		Foreman, F	Fred F.	
		Informatio (Forest Resear	n Report ch Laboratorv	0-X-7
I				, oncario
	3			

sing

71 Region)

2	1967

Information Report No.	Subject	Author
0-X-57	Forest Insect & Disease Surveys Lindsay District	M. J. Thomson
0-X-58	Tweed District	F. Livesey
0-X-59	Kemptville District	M. J. Applejohn
0-X-60	Lake Simcoe District	R. L. Bowser
0-X-61	Lake Erie District	G. T. Atkinson
0-X-62	Lake Huron District	V. Jansons
0-X-63	North Bay District	L. S. MacLeod
0- <b>X-</b> 64	Parry Sound District	C. A. Barnes
0-x-65	Pembroke District	R. A. Trieselmann
0-x-66	Sault Ste. Marie District	H. J. Weir
0-x-67	Sudbury District	G. W. Cameron
0-X-68	Chapleau District	D. Ropke
0-x-69	Gogama District	W. Ingram
0-x-70	Cochrane District	H. R. Foster
0-X-71	Kapuskasing District	F. F. Foreman
0-X-72	Swastika District	H. R. Foster
		L. S. MacLeod
		W. Ingram
0-X-73	Port Arthur District	K. C. Hall
0-X-74	Geraldton District	K. C. Hall
		D. C. Constable
0-X-75	White River District	D. C. Constable
0-X-76	Sioux Lookout District	P. E. Buchan
0-X-77	Kenora District	P. E. Buchan
		J. Hook
0-X-78	Fort Francis District	J. Hook
	<ul> <li>Additional Science (additional additional additional Sciences) (20) (20) (20) (20) (20) (20) (20) (20</li></ul>	

# TABLE OF CONTENTS

## REPORTS OF FOREST RESEARCH TECHNICIANS

### Ontario

Fore	word, J. E. MacDonald	Fage
Á.	SOUTHEASTERN FOREST REGION	<u>Al-51</u>
	Lindsay District, M.J. Thomson* Tweed District, F. Livesey Kemptville District, M.J. Applejohn	A 19
В.	SCUTHWESTERN FOREST REGION	<u>B1-46</u>
	Lake Simcoc District, R.L. Bowser* Lake brie District, G.T. Atkinson Lake Huron District, V. Jansons	B 24
С.	SOUTH-CENTRAL FOREST REGION	<u>C1-49</u>
	North Bay District, L.S. MacLcod* Parry Sound District, C.A. Barnes Pembroke District, R.A. Trieselmann	C 19
D.	CENTRAL FOREST REGION	<u>D1-49</u>
	Sault Ste. Marie District, H.J. weir* Sudbury District, G. Cameron Chapleau District, D. Ropke Gogama District, W. Ingram	D 21 D 27
E.	NORTHERN FOREST REGION	<u>E1-45</u>
	Cochrane District, H.R. Foster* Kapuskasing District, F. Foreman Swastika District, H.R. Foster, L.S. MacLeod, W. Ingram	E 25
F.	MIDLESTERN FOREST REGION	<u>F1-27</u>
	Fort Arthur District, K.C. Hall* Geraldton District, K.C. Hall, D. Constable White River District, D. Constable	F 14
G.	WESTLEN FOREST REGION	<u>G1-36</u>
	Sioux Lookout District, F.E. Buchan* Kenora District, P.E. Buchan, J. Hook Fort Frances District, J. Hook	G 20

Photographs

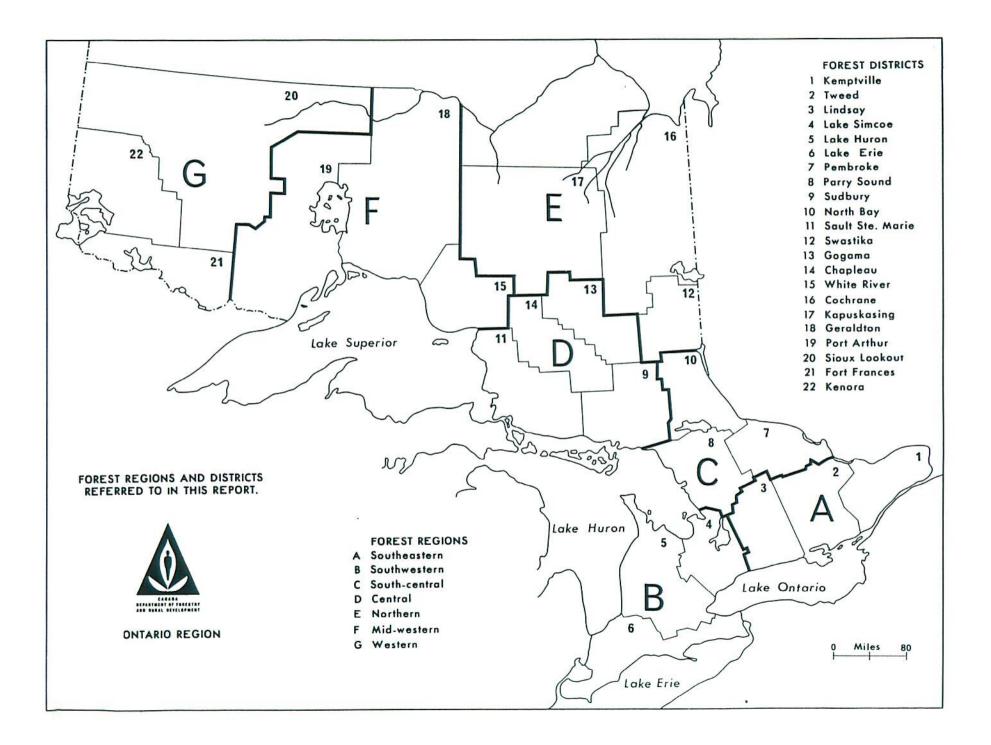
1

1

1

17

Regional Supervisors \*



#### FOREWORD

Fopulation levels of the spruce budworm increased sharply in widelyseparated 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 redheaded 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 <u>Scleroderris</u>-canker of pine. The discovery of <u>Ceratocystis ulmi</u> (Buism.) C. Moreau in Sault Ste. Marie constituted a marked westward extension of the range of the disease caused by this pathogen. <u>Scleroderris</u>-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 <u>Cytospora kunzei</u> Sacc. and <u>Folyporus</u> tomentosus Fr. at widely-separated points in southern Ontario and pockets of infection of <u>Fomes annosus</u> (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 KAPUSKASING DISTRICT

Page

I

ſ

T

01

ľ

T

-

.

Spruce Gall Aphid Adelges lariciatus	E 25
Ugly-nest Caterpillar Archips cerasivoranus	E 25
Birch Skeletonizer Bucculatrix canadensisella	E 25
Spruce Budworm Choristoneura fumiferana	E 25
A Leaf Roller on White Birch Gracillaria sp.	E 25
Aspen Blotch Miner Lithocolletis salicifoliella	E 26
Pitch Nodule Moth Petrova albicapitana	E 26
A Leaf-folding Sawfly on Balsam Poplar <u>Phyllocolpa</u> sp.	E 26
A Leaf-folding Sawfly on Trembling Aspen	E 27
Yellow-headed Spruce Sawfly Pikonema alaskensis	E 28
White-pine Weevil Pissodes strobi	E 28
Balsam Shoot-boring Sawfly Pleroneura borealis	E 29
Larch Sawfly Pristiphora erichsonii	E 29
Amber-marked Birch Leaf Miner Profenusa thomsoni	E 29
Spruce Bud Midge Rhabdophaga swainei	E 30
Summary of Miscellaneous Insects Collected	E 31

Fred F. Foreman

A heavy infestation of this insect was observed on white spruce saplings growing under dominant, overmature poplars, jack pine and spruce along the north shore of Nagagamisis Lake in McEwing Township.

Light infestations were observed in Owens, O'Brien and Fauquier townships.

## Ugly-nest Caterpillar, Archips cerasivoranus (Fitch)

A pocket of severe infestation occurred in Wicksteed Township about one mile west of Cree Lake bridge. A moderate infestation was observed on roadside pin cherry in Township 238. Low numbers of tents were distributed along Highway 631 in Arnott Township.

These infestations represent a significant increase in population levels compared with 1966 when no infestations were recorded in the district.

# Birch Skeletonizer, Bucculatrix canadensisella Cham.

Survey records indicate that no collections of this insect were made from 1956 to 1961 and that only one collection was made in 1962. However, in 1963, population levels increased and heavy infestations occurred in 1964 and 1965. This outbreak subsided in 1966 and only one larva was collected in 1967.

## Spruce Budworm, Choristoneura fumiferana (Clem.)

A light infestation occurred on open growing white spruce for a distance of two miles along Highway 11 in Gill Township. Quantitative sampling in this area showed that 2 percent defoliation of the current year's growth occurred.

Low numbers of larva persisted on heavily branched white spruce about 1/2 mile south of Mattice in Eilber Township. One pupal case was collected, and two lightly-defoliated white spruce were observed near Gurney Lake in Torrance Township.

A Leaf Roller on White Birch, Gracillaria sp.

A heavy infestation occurred in mature white birch stands over approximately 400 square miles in the vicinity of the Little Long Rapids Dam on the Mattagami River. Pockets of heavy infestation were found in Sweet, Gurney, and Arnott townships. Low numbers were common elsewhere in the district.

## Aspen Blotch Miner, Lithocolletis salicifoliella (Cham.)

Population levels of this insect on trembling aspen declined considerably (Table 6). On willow, pockets of moderate infestation occurred in Wicksteed, Bourinat, Owens and O'Brien townships and small numbers of mines were observed commonly in the central and western parts of the district.

### TABLE 6

Summary of Aspen Blotch Miner Counts Based on the Examination of 100 Leaves Taken at Random from Three Trembling-aspen Trees at Each Location

Location s	v. hei sample		Per c	ent of	leaves	mined	Total per ]		of mi eaves	ines
(township):			1964	1965	1966	1967	1964	1965	1966	1967
Wicksteed	9		0	3	7	2	0	3	7	3
O'Brien	12		4	6	12	l	4	8	14	1
Gurney	15	100	i	6	9	2	du se	6	9	3
Torrance	10		3	7	8	11	3	8	8	12
Gill	12		1	2	7	0	1	3	8	C

Pitch Nodule Moth, Petrova albicapitana (Busck)

A well stocked, two acre plantation of 8-foot jack pine, at Mileage 7 of the Gurney Road was heavily infected with this insect. A maximum of 25 nodules per tree was counted and up to six nodules per branch occurred commonly. All trees examined were infested by this insect.

A Leaf-folding Sawfly on Balsam Poplar, Phyllocolpa sp.

The heavy infestation of this leaf-folding sawfly that occurred in the district from 1962 to 1966 declined sharply in 1967 (Table 7). The heaviest attacks occurred on open growing regeneration.

A heav infestation control in mature white birch stand, even operainstely 100 equive miles in the visinity of the libble long aspide less on the Mattagene Eiven. I cheta of hear, infected or were found in Sweet, Lurmer, and Arnold Struchtels, i.e. nucler, wire cleawhere in the district.

### TABLE 7

Summary of Leaf-folding Sawfly Counts on Balsam Poplar in the Kapuskasing District in 1966 and 1967

Note: Trees sampled average 5 feet in height.

Location	Total no. of <u>leaves</u> per tree		Total no. of folded leaves		Per cent of leaves folded	
(township)	1966	1967	1966	1967	1966	1967
Fauquier McCrea McMillan Seaton*	268 234 296 327	292 295 189	73 77 97 94	17 20 16	27.2 32.8 32.8 28.7	5.8 6.8 8.5

\* The Township of Seaton was treated with a chemical broadleaf defoliator in July, 1967.

A Leaf-folding Sawfly on Trembling Aspen, Phyllocolpa sp.

The heavy infestations of this insect reported in 1966 subsided in 1967 as indicated in Table 8.

#### TABLE 8

Summary of Leaf-folding Sawfly Counts on Trembling Aspen in the Kapuskasing District in 1966 and 1967

Note: Based on the examination of 100 leaves from three trees at each location.

Location		eaves infested	Total number of folds per 100 leaves		
(township)	1966	1967	1966	1967	
Gill	12	1	16		
Wicksteed	17	2	24	1	
Gurney	9	9	~4	~	
O'Brien	18	ó	23	9	
Parnell	11	2	11.	0	
Torrance	7	2	7	2	

# Yellow-headed Spruce Sawfly, Pikonema alaskensis (Roh.)

This insect occurred commonly on white spruce across the district in 1967. Medium infestations were observed in Township 238, and in Elgie, Casgrain, and Howells townships. The greatest increase in infection intensity occurred on small, open-grown white spruce. Low numbers of larva occurred in Rodgers, Cargill, Owens, Williamson and Eilber townships. Low to moderate numbers of larva were present on all white spruce ornamentals examined.

# White-pine Weevil, Pissodes strobi (Peck)

A decline in weevil damage occurred in most of the district (Table 9). However, an exceptionally heavy infestation was observed in one small woodlot in Owens Township where 50 per cent of the white and black spruce leaders were weevilled. This woodlot contained an aspen-spruce mixture with 30-foot tall spruce just breaking through the aspen canopy.

A few jack pine saplings were weevilled in Gurney and Wicksteed townships.

#### TABLE 7

### Summary of Damage by the White-pine Weevil in the Kapuskasing District in 1966 and 1967

Location (township)	Host	Per cent of t. 1966	10/17
Shearer	wS	6	6
Kohler	bS	13	2
Parnell	wS	11	4
Clavet Gurney	bS	4	2 4
	1		

### Balsam Shoot-boring Sawfly, Pleroneura borealis Felt

This insect is normally abundant in the new shoots of balsam fir in alternate years. However, population levels remained low in 1965 and 1966. In 1967 appreciable numbers occurred at two quantitative sample points (Table 10).

#### TABLE 10

Summary of Damage by the Balsam Shoot-boring Sawfly in Kapuskasing District for the period 1964-67

Note: The data is based on the examination of all buds on twenty branch tips, four from each of five trees at each location.

Location	Numbers of buds infested			Per cent of buds infested				
(township)	1964	1965	1966	1967	1964	1965	1966	1967
Shackelton	6	0	0	15	4.0	0	0	3.5
Fergus	,12	0	0	19	5.5	0	0	4.8

### Larch Sawfly, Pristiphora erichsonii (Htg.)

Following a decline in population levels from 1960 to 1966, this sawfly increased in numbers in 1967. Colonies of larvae were common across the district. Pockets of heavy infestation occurred in stands of saplings in Wicksteed Township. Medium infestations were observed in Clavet, Beaton, Casselman and Howells townships. Elsewhere, population levels were low (map).

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

Heavy infestation recurred at many points in divisions 47 and 74 as this insect continued a westerly spread in the Kapuskasing District (Table 11). Infestations declined to light and medium intensity in some areas in Division 75 where the insect has been active for several years.

#### TABLE 11

Summary of Damage by the Amber-marked Birch Leaf Miner in the Kapuskasing District in 1966 and 1967

Note: Based on examination of 100 white birch leaves picked at random from three trees at each location.

Location	Per cent of 1	eaves affected	Total num	ber of mines	
(township)	1966	1967	1966	1967	
Wicksteed	53	enert avil 3c-do	193		
Frost	_	48	-	288	
Stoddart	100	100	200+	2004	
Fauquier	46	65	103	122	
Casselman	27	4	60	4	
Seaton	19	-	23	-	

Spruce Bud Midge, Rhabdophaga swainei Felt

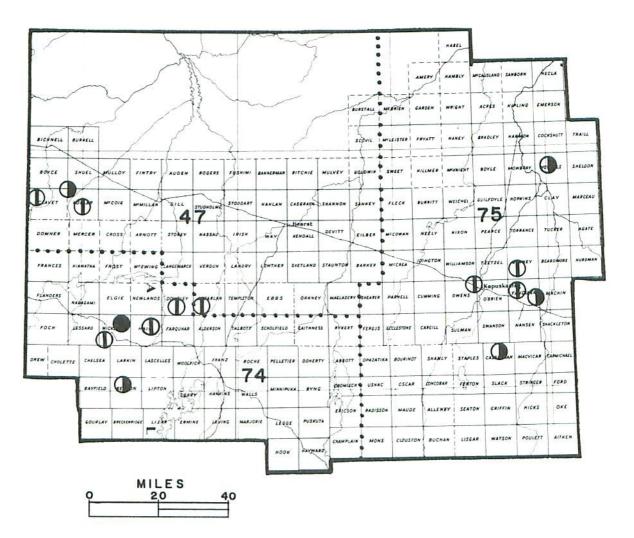
General observations and quantitative sampling showed that population levels of this midge were comparable to 1966 (Table 12). The highest number of infested buds occurred in McCrea Township where 10.6 per cent of the black spruce buds and 1.3 per cent of the white spruce buds were attacked.

#### TABLE 12

Summary of Damage by the Spruce Bud Midge in the Kapuskasing District in 1965, 1966, and 1967

Location		Per cent 1965	of buds 1966	infested 1967
(township)	Host	1905	1700	1701
McCrea	wS	0.47	3.1	1.3
McCrea	bS	-	7.9	10.6
Parnell	wS	0.0	2.5	1.3
Macvicar	wS	0.0	2.7	2.0
McEwing	wS	0.0	1.5	0.7
McMillan	wS	0.0	3.0	0.0
McMillan	bS	0.0	2.5	2.0

KAPUSKASING DISTRICT



LARCH SAWFLIES

Locations where infestations were observed in 1967

#### Legend

Light	infestation	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		•	$\square$	
Medium	n infestation		•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
Heavy	infestation		•	•	•	•	•	•	•	•	•	•	•	•	•		•	•	•	•	•	0	

## TABLE 13

Summary of Miscellaneous Insects Collected in the Kapuskasing District in 1967

-

[

1

-

Insect	Host(s)	Remarks
Acleris variana (Fern.)	bF,wS	Collected in Harmon and Owens townships and Township 238
Adalia bipunctata Linn.	E	This predator beetle which feeds on aphids was found on ornamentals in the town of Kapuskasing
Anacampsis innocuella Zell.	tA	Low numbers at Government Lake, Wicksteed Township
Anchylopera subaequana Zell.	W	Low numbers in Owens Township
Anoplonyx canadensis Hgtn.	tL	Low numbers on beating samples, Owens Township
Antheraea polyphemus (Cram.)	wB	One larva collected in Bourinat Township
Archippus strianus Fern.	wS	Low numbers on beating samples in Eilber Township
Campaea perlata Gn.	bF	Low numbers in Eilber and Cargill townships
Caripeta divisata Wlk.	wS	Low numbers in Cargill and Eilber townships
Cecidomyia reeksi Vock.	jP	A medium infestation of two trees in the Spruce Falls Nursery, Fauquier Township; counts taken elsewhere in the district were negative
Coleophora betulivora Mcd.	wB	Common at eastern edge of district
Coleophora laricella Hbn.	tL	Low numbers in Fauquier Township; reduced from 5.3 cases per 18" branch tip in 1966 to 1.2 in 1967
Dasineura balsamicola (Lint)	bF,wS	Common in district, occasionally heavy on individual trees
Dioryctria reniculella Grt.	wS	Collected in Eilber and Harmon townships

TABLE 13 (continued)

1

1

-

1

1

Insect	Host(s)	Remarks
Diprion hercyniae (Htg.)	wS	Very low numbers at the corner of Owens, Williamson, Teetzel, and O'Brien townships
Ectropis crepuscularia Schiff.	wS	One collection in Eilber Township
Eitelius gregarius (Marl.)	W	Low numbers about Remi Lake, Fauquier Township
Enargia decolor Wlk.	tA	Light defoliation of a small area in Lisgar Township; one larva collected
Epinotia solicitana Wlk.	wB	Two larvae collected in Studholme Township
Epinotia sp. near heucherana Heinr.	Al	Light in Bourinat and Shearer townships
Eriocampa ovata Linn.	AL	Low numbers in Wicksteed Township; not usually found in the Kapuskasing District
Eriosoma americanum (Riley)	E	Moderate damage to ornamentals in the town of Kapuskasing
Eufidonia notataria Wlk.	bF	Two larvae on a beating sample in Fauquier Township
Eupithecia filmata Pears.	bF,wS	Collected in Harmon, Fauquier, Owens, Williamson, Eilber, and Gill townships
Eupithecia gelidata Moesch.	wB	Low numbers in Gill and Wicksteed townships
Eupithecia gibsonata Tayl.		Moderate numbers in Frost Township; low numbers in Township 238
Eupithecia transcanadata Mack.	bF,wS,eC	Collected in Harmon, Owens, Williamson, Cargill, Eilber, and Frost townships
Euura salicis-pisum (Walsh)	W	Low numbers of galls in Beaton Township
Fenusa dohrnii (Tischb.)		A moderate infestation in Fauquier Township; low numbers in Gurney Township

E	33
	~

# TABLE 13 (continued)

-

-

1

-

1

Insect	Host(s)	Remarks
Fenusa pusilla (Lep.)	wB	Moderate infestation in Kapuskasing Town Park; first record in Kapuskasing District
Feralia jocosa Gn.	bF,wS	Single larva collected in Cargill, Eilber, and Fauquier townships
Galerucella decora (Say)	W	Low numbers in Torrance Town- ship
Gonioctena americana (Schaef.)	tA	A light infestation in Lessard Township
Gonioctena notmani (Schaef.)	W	Low numbers in Lessard Township
Gracillaria invariabilis Braun.	pCh	Low numbers in Lisgar and Howells townships
Gracillaria syringella Fabr.	lilac	One heavy infestation in the town of Hornepayne
Halisidota maculata Harr.	W	Low population on roadside willow, Shearer Township
Hemichroa crocea (Four.)	Al	A low number of colonies observed in Fauquier Township
Hylemya planipalpis Stein.	wS	Low levels of damage in Township 238
Hydriomena divisaria Wlk.	wS	Four larvae on beating samples in Frost Township
Hydriomena furcata Thun.	Al	Over 50% defoliation along Nagasami River, <sup>M</sup> cMillan Township
Ipimorpha pleonectusa Grt.	jP	Collected, Spruce Falls nursery Fauquier Township
Lithocolletis aceriella Clem.	М	A low population in Parnell Township
Macremphytus intermedius Dyar	Do	Low numbers found in Fauquier Township
Malacosoma disstria Hbn.		Two male moths collected in light trap, Fauquier Township
Malcosoma pluviale Dyar	pCh	A low number of tents at one point in Wicksteed Township

F	21
1.1	24

# TABLE 13 (continued)

Insect	the set	Host(s)		Remarks
Messa popul: Town.	ifoliella	bPo	Ξų	Collected in Slack Township and Township 238
Monochamus n Drury	notatus	wS		Three larvae from trap logs in Lisgar Township
Monochamus Say	scutellatus	wS		Forty-six larvae from trap logs in Lisgar Township
Monoctenus	fulvus Nort.	еC		Low numbers on beating samples, Kipling Township and Township 238
Nematus lim)	oatus Cress.	W		A moderate number in Owens Township
Nematus sal: Dyar.	icisodoratus	W di		Low numbers in Fauquier Township
Neodiprion a complex	abietis	bF,wSoaf		Low numbers present in Lisgar, Owens and Eilber townships
Neodiprion : Schedl.	nanulus nanulus	jP		Moderate infestation on three trees in Kipling Township
Neodiprion n Midd.	nigroscutum	jP		Two larvae of this uncommon sawfly were collected in Kip- ling Township
Neodiprion 1	maurus Roh.	jP		Collected in Dowsley, Elgie and Gurney townships
Neodiprion - complex	virginianus	jР		Colonies collected in Torrance Gurney, Studholme, Clavet, Elgie and Beaton townships
Nyctobia lin	nitaria Wlk.	bF		Low numbers found in Harmon, Fauquier and Williamson townships
Oligonychus	ununguis (Jac.)	bF		Severe foliage damage in a small area in Devitt Township
Orgyia anti	qua L.	Έ	De	Low numbers on ornamentals, Kapuskasing
Pareophora	minuta MacG.	wAs		Low numbers in Fauquier Township
			$R_{\rm f}$	

E	35	

TABLE 13 (concluded)

Insect	Host(s)	Remarks
Pikonema dimmockii (Cress.)	wS	Low numbers in Owens, Eilber, and Gill townships and Township 238
Pristiphora lena Kinc.	wS	Low numbers in Hanlan and Owens townships
Protoboarmia porcelaria indicataria Wlk.	bF,eC,wS	Low numbers on beating samples in Fauquier, Owens, Williamson, Cargill and Frost townships
Pseudexentera oregonana Wlshm.	tA	Two larvae found in Eilber Township
Rhyacionia adana Heinr.	jР	Low numbers on shelterbelts, Spruce Falls Nursery, Fauquier Township
Sciaphila duplex Wlshm.	.tA	Light infestation present in Eilber and Lisgar townships
Semiothisa bicolorata Fabr.	jP	Collected in Gill Township
Semiothisa dispuncta Wlk.	bF,wS	Low numbers collected in Owens, Cargill, Eilber, Frost, Fauquier, and Williamson town- ships
Semiothisa sexmaculata Pack.	tL	Collected in Owens and McMillan townships
Semiothisa submarmorata Wlk.	tL	Collected in McMillan Township
Swammerdamia cuprescens Braun	wB	Low numbers in Gill and Studholme townships
Taniva albolineana Kft.	wS	Light damage in Eilber Township
Tetropium cinnamopterum Kby.	wS	One larva from trap logs, Lisgar Township
Trichiosoma triangulum Kby.	Al	One larva of these large, solitary sawflies, was collecte in Wicksteed Township
Vasates quadripes Shim.	siM	Severe infestation of ornamenta in town of Kapuskasing
Xylomyges dolosa Grt.	tA,bPo	Low numbers in Slack Township and in Township 238

1