



Environment  
Canada

Environnement  
Canada

Forestry  
Service

Service  
des Forêts

# FOREST INSECT AND DISEASE CONDITIONS IN SASKATCHEWAN PROVINCIAL PARKS, 1972

by K.L. Mortensen, R.C. Tidsbury, and E.J. Gautreau

NORTHERN FOREST RESEARCH CENTRE  
EDMONTON, ALBERTA  
INFORMATION REPORT NOR-X-56

---

MARCH, 1973

FOREST INSECT AND DISEASE CONDITIONS IN SASKATCHEWAN  
PROVINCIAL PARKS, 1972

by

K. L. MORTENSEN, R. C. TIDSBURY, and E. J. GAUTREAU

NORTHERN FOREST RESEARCH CENTRE  
INFORMATION REPORT NOR-X-56  
MARCH 1973

CANADIAN FORESTRY SERVICE  
ENVIRONMENT CANADA  
5320 - 122 STREET  
EDMONTON, ALBERTA, CANADA  
T6H 3S5

TABLE OF CONTENTS

	<u>Page</u>
INTRODUCTION . . . . .	1
BATTLEFORDS PARK . . . . .	1
BLACKSTRAP PARK . . . . .	1
BUFFALO POUND LAKE PARK . . . . .	2
CYPRESS HILLS PARK . . . . .	3
DANIELSON PARK . . . . .	3
DUCK MOUNTAIN PARK . . . . .	4
ECHO VALLEY PARK . . . . .	4
GOODSPIRIT LAKE PARK . . . . .	4
GREENWATER LAKE PARK . . . . .	5
KATEPWA PARK . . . . .	5
MEADOW LAKE PARK . . . . .	6
MOOSE MOUNTAIN PARK . . . . .	6
NIPAWIN PARK . . . . .	7
PIKE LAKE PARK . . . . .	7
ROWANS RAVINE PARK . . . . .	8

FOREST INSECT AND DISEASE CONDITIONS IN SASKATCHEWAN  
PROVINCIAL PARKS, 1972

by

K.L. Mortensen\*, R.C. Tidsbury\*\*, and E.J. Gautreau\*\*

INTRODUCTION

Insects were more abundant in most Provincial Parks in 1972, but generally only light damage was incurred. Aspen defoliators and the yellow-headed spruce sawfly were the most common pests, while in two parks grasshoppers damaged tree foliage. There were no serious disease outbreaks, but a number of diseases of interest are mentioned.

---

\* Supervisor, Insect and Disease Survey; and

\*\* Ranger, Insect and Disease Survey.

BATTLEFORDS PARK

Insect and disease conditions remained much the same as in 1972. The large aspen tortrix, Choristoneura conflictana (Wlk.) was common in the park, but did not cause appreciable damage. Also present were low populations of the ash plant bug, Neoborus amoenus (Reuter), the woolly elm aphid, Eriosoma americanum (Riley), the spinney elm caterpillar, Nymphalis antiopa (L.), and the poplar borer, Saperda calcarata Say.

The most common foliage disease again was the aspen leaf spot Drepanopeziza populorum (Desm.) Hoehn, but infections were quite light. The Hypoxylon canker, Hypoxylon mammatum (Wahl.) Miller was noted in some aspen bluffs, particularly on fringe trees.

BLACKSTRAP PARK

Two, very localized infestations were observed in the park. The cottonwood leaf mining beetle, Zeugophora scutellaris Suffr. caused moderate damage to hybrid poplars in the vicinity of the boat launch, while several white spruce in the skiing area were moderately infested by the pine needle scale, Phenacaspis pinifoliae (Fitch).

BUFFALO POUND LAKE PARK

Only very light infestations of the more serious insect pests were observed in 1972. Of interest was a collection of the balsam fir sawfly, Neodiprion abietis complex on white spruce. This sawfly is rather uncommon on ornamentals in the southern part of the province. Also present on white spruce were very low populations of the spruce needleworm, Diorycytria reniculella (Grt.). A leaf gall sawfly, Pontania sp. was heavy on the occasional ornamental willow.

CYPRESS HILLS PARK

Frost damage to aspen was moderate to severe at Fort Walsh and along the north slopes of the hills near Adams and Coulee lakes. A number of very light insect infestations and disease infections were recorded in 1972, which are summarized below:

<u>Organism</u>	<u>Host Trees</u>	<u>Remarks</u>
Insect		
Spruce budworm, <u>Choristoneura fumiferana</u> (Clem)	W. spruce	Low populations along the Battle River from Fort Walsh to the Alberta border.
Black-headed budworm, <u>Acleris variana</u> (Fern.)	W. spruce	Low populations in the West Block.
Needle miner, <u>Coleotechnites</u> sp.	L. pine	Light damage throughout the area.
Spruce needle worm, <u>Dioryctria reniculella</u> (Grt.)	W. spruce	Low populations in the West Block.
American aspen beetle, <u>Gonioctena americana</u> (Schaeff.)	T. aspen	Widely scattered pockets of light defoliation of regeneration.
Poplar serpentine leaf miner, <u>Phyllocnistis populiella</u> Cham.	T. aspen	Severe mining of foliage along the Battle River from Fort Walsh to the Alberta border.
Disease		
Pine needle cast, <u>Elytroderma deformans</u> (Weir) Darker	L. pine	Moderate damage in the vicinity of the golf course.
A needle cast, <u>Lirula macrospora</u> (Dern) Darker	W. spruce	Very light infections throughout the park.
Leaf spot, <u>Drepanopeziza populorum</u> (Desm.) Hoehn.	T. aspen	Very light infections throughout the park.

DANIELSON PARK

Grasshoppers caused severe defoliation to several clumps of ornamental caragana in the camping area, otherwise only light insect damage was recorded. The cottonwood leaf mining beetle, Zeugophora scutellaris Suffr. was less abundant than in 1972. Spinney elm caterpillars Nymphalis antiopa (Linn.) occurred on the occasional Manchurian elm, while the leaf beetle, Chrysomela scripta Fabr. caused light skeletonizing of hybrid poplars.

DUCK MOUNTAIN PARK

The birch leaf skeletonizer, Bucculatrix canadensisella Chamb. caused patches of foliage damage of white birch during the latter part of August, and white spruce ornamentals were heavily defoliated by the yellow-headed spruce sawfly, Pikonema alaskensis Roh in the Ministik Beach area.

Several annual diseases were present, generally causing only light damage. Aspen shoot blight, Venturia macularis (FV) E. Muell. & V. Arx. occurred in moderate intensity on reproduction trembling aspen in the sports area. Aspen ink spot, Ciborinia whetzellii Seaver caused several heavily infected pockets of aspen in the camping area at Pickeral Point.

ECHO VALLEY PARK

Populations of the cottonwood leaf mining beetle, Zeugophora scutellaris Suffr. declined in 1972 and only light damage was observed throughout the park. A trace of damage by the yellow-headed spruce sawfly, Pikonema alaskensis Roh. was observed on the ornamental spruce. The ash plant bug, Neoborus amoenus (Reuter) was abundant causing moderate discoloration of the lower branches of green ash and occasional colonies of the spinney elm caterpillar, Nymphalis antiopa Linn. were found on Manchurian elm.

The status of the canker on poplars, Cytospora sp. remained much the same as in 1971.

GOODSPIRIT LAKE PARK

Insect and disease conditions were much the same as in 1971. The yellow-headed spruce sawfly, Pikonema alaskensis Roh. remained generally light. The aspen bud-gall, Aceria parapopuli (Keifer) was found on balsam poplar and trembling aspen, while the cottonwood leaf beetle, Chrysomela scripta Fabr. caused moderate skeletonizing of occasional balsam poplar.

A leaf spot of balsam poplar, Septoria musiva Pk. was common beginning in August.

GREENWATER LAKE PARK

Populations of the large aspen tortrix, Choristoneura conflictana Wlk. and the forest tent caterpillar, Malacosoma disstria Hbn. increased slightly. The yellow-headed spruce sawfly, Pikonema alaskensis Roh. caused moderate to severe damage to the ornamentals on the golf course.



Perennial witch's brooms, Apiosporina collinsii (Schw.)

v Hohnel were common on Saskatoon in the campground area.

#### KATEPWA PARK

There were no serious insect nor disease conditions recorded in 1972. The yellow-headed spruce sawfly, Pikonema alaskensis Roh, the woolley elm aphid, Eriosoma americanum (Riley) and the ugly nest caterpillar, Archips cerasivoranus (Fitch) occurred in very low numbers.

Low temperatures reported on June 18th caused frost damage to the foliage of Manitoba maple and American elm.

#### MEADOW LAKE PARK

Larval populations of the forest tent caterpillar, Malacosoma disstria Hbn. increased along the northern boundary of the park near Flotten Lake. An egg survey in August indicated a further increase could be expected in the Waterhen Lake area in 1973. Elsewhere populations are expected to remain low. Light infestations of the large aspen tortrix, Choristoneura conflictana Wlk. were recorded throughout the park and an increase in the abundance of this insect is also possible.

The status of the major diseases of the area remained virtually the same as reported in 1971. The root rot of conifers, Rhizinia undulata Fries was commonly found on the periphery of burned areas north of Waterhen Lake.

MOOSE MOUNTAIN PARK

The 1971 infestation of the Bruce spanworm, Operophtera bruceata (Hulst) declined in 1972. Only a few small pockets of aspen defoliation were observed a few miles west of Kenossee Lake. Low populations of the large aspen tortrix, Choristoneura conflictana Wlk. were found in most aspen samples. Several colonies of the forest tent caterpillar, Malacosoma disstria Hbn. were also observed during a June park examination. The aspen leaf beetle, Chrysomela crotchi Brown caused light damage to scattered patches of roadside aspen. Severe defoliation of a few ornamental white and Colorado spruce was observed in the recreation area at Kenossee Lake and in the spruce plantation on the west side of the park.

The perennial trunk rot of aspen, Fomes igniarius (L. ex Fr.) Kickx. occurs commonly in the mature to over mature aspen. As well, a condition of generally poor vigor of aspen is common throughout the Kenossee Lake resort area.

NIPAWIN PARK

The main defoliator in the park was the large aspen tortrix, Choristoneura conflictana Wlk. Scattered patches of light to moderate aspen defoliation were observed from Upper Fishing Lake to the park's north boundary. Low populations of the yellow-headed spruce sawfly, Pikonema alaskensis (Roh.) on white spruce, and the birch leaf skeletonizer, Bucculatrix canadensisella Chamb. on white birch were common throughout the park.

PIKE LAKE PARK

Moderate leaf roller populations continued in 1972, but were mainly confined to small, reproduction aspen. Very light populations of the spruce budworm, Choristoneura fumiferana (Clem.), the spruce needle worm, Dioryctria reniculella (Grt.) and the yellow-headed spruce sawfly, Pikonema alaskensis (Roh.) were found on the ornamental spruce in the recreation area. A sucking insect, the ash plant bug, Neoborus amoenus (Reuter) was abundant on green ash.

Perennial diseases such as black knot of cherry, Dibotryon morbosum (Schw.) Thiess and Syd., hypoxylon canker, Hypoxylon mammatum (Wahl.) Miller and trunk rot of aspen, Fomes igniarius (L ex Fr.) Kickx. occurred at low levels throughout the park. In annual rust, Puccinia sp was abundant on Saskatoon foliage.

ROWANS RAVINE PARK

Grasshoppers were probably the most serious pest in the past season. Severe defoliation was caused to caragana and to the lower branches of a few hybrid poplars. Severe yellow-headed spruce sawfly, Pikonema alaskensis Roh. damage occurred to a few white spruce ornamentals in the maintenance and office area. Damage by the cottonwood leaf mining beetle, Zeugophora scutellaris Suffr. declined to light in 1972. Aceria parapopuli Kiefer, the poplar bud-gall aphid was present, but did not appear to increase.

Mortensen, K.L. (et al.)

1973. Forest insect and disease conditions  
in Saskatchewan provincial parks,  
1972.

Information Report NOR-X-56; 8 p.;  
Northern Forest Research Centre,  
Environment Canada, Edmonton, Alberta.

Mortensen, K.L. (et al.)

1973. Forest insect and disease conditions  
in Saskatchewan provincial parks,  
1972.

Information Report NOR-X-56; 8 p.;  
Northern Forest Research Centre,  
Environment Canada, Edmonton, Alberta.

Copies of this publication (if still in stock) may be  
obtained from:

Information Officer  
Northern Forest Research Centre  
Canadian Forestry Service  
Department of the Environment  
5320 - 122 Street  
Edmonton, Alberta, Canada  
T6H 3S5