

FOREST INSECT AND DISEASE CONDITIONS IN SASKATCHEWAN
PROVINCIAL PARKS, 1971

by

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INTRODUCTION

There were no serious outbreaks of insects or annual diseases in the Provincial Parks of Saskatchewan in 1971. However, a few minor infestations did occur and these will be kept under surveillance in the coming year. These included defoliation of aspen in the Moose Mountain Park by the Bruce spanworm; aspen defoliation by leaf rollers in the Pike Lake Park and high populations of the ugly nest caterpillar in the Danielson Park.

A number of insects and diseases of interest were collected or recorded in the various parks and these are discussed under their respective Park headings.

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BATTLEFORDS PARK

The numbers of forest insects and amount of defoliation remained generally low in 1971. One insect pest, the large aspen tortrix, Choristoneura conflictana (Wlk.) caused light defoliation to aspen throughout much of the park. This insect caused severe defoliation in neighboring parts of the province, notably the Midnight Lake area and in the Thickwood Hills north of Blaine Lake.

The most noticeable foliage diseases were the rusts and leaf spots of aspen, Melampsora medusae Thüm, and Drepanopeziza populorum (Desm.) Hoehn.; and Septoria musiva Pk. and Linospora tetraspora Thompson on balsam poplar. Cytospora cankers were common on those hybrid poplars that had suffered frost or mechanical damage.

BLACKSTRAP PARK

A very low incidence of defoliating insects was noted. The poplar borer, Saperda calcarata Say was observed on the occasional mature aspen, similarly the trunk rot, Fomes igniarius (L. ex. Fr.) Kickx. was the most common disease and this too was confined to the older aspen trees.

BUFFALO POUND LAKE PARK

No serious outbreaks were observed. Isolated Colorado spruce were lightly attacked by the yellow-headed spruce sawfly, Pikonema alaskensis (Roh.), while the woolly elm aphid, Eriosoma americanum (Riley) was moderately abundant on native American elm. No significant diseases were found.

CYPRESS HILLS PARK

No major insect outbreaks were recorded in the Park in 1971.

Of interest was the severe infections of Gymnosporangium sp. rust on the foliage of Saskatoon and hawthorn. Some noteworthy insects collected are listed below:

<u>Insect species</u>	<u>Host trees</u>	<u>Remarks</u>
Spruce budworm <u>Choristoneura fumiferana</u> (Clem.)	White spruce	Very low populations present
Spruce coneworm <u>Dioryctria veniculella</u> (Grt.)	White spruce	Low populations infesting spruce cones
Lodgepole needle miner <u>Coleotechnites starki</u> Freeman	Lp. pine	Pockets of light needle mining near Fort Walsh
Spruce spider mite <u>Oligonychus ununguis</u> (Jac.)	White spruce	Light foliage damage was caused to ornamental trees on cottage sites

DANIELSON PARK

The ugly nest caterpillar, Archips cerasivovanus (Fitch) was prevalent on large numbers of planted choke cherry throughout the picnic and camping areas. Although the permanent damage is generally light the unsightly appearance is often of concern to the visiting public. As well, some Nanking cherry was defoliated by the beet webworm Loxostege sticticalis Linn. The cottonwood leaf mining beetle, Zeugophora scutellaris Suffr. was moderately abundant on hybrid poplars throughout the park.

The most common disease was a canker caused by Cytospora sp. This appears to be confined mainly to poplars that have been weakened by mechanical damage, frost or grass competition.

DUCK MOUNTAIN PARK

The only significant damage noted was caused by the yellow-headed spruce sawfly, Pikonema alaskensis (Roh.). This was generally light and confined to a few open growing, ornamental white spruce in the recreation area.

ECHO VALLEY PARK

The cottonwood leaf mining beetle, Zeugophora scutellaris Suffr. caused light to moderate damage to the hybrid poplars, particularly in the upper campground area. Petiole gall aphids, Pemphigus sp., were also abundant on the poplars, but the resultant damage was of a less important nature.

The incidence of the canker, Cytospora sp. was high on those poplars already weakened by climatic or cultural factors.

GOODSPIRIT LAKE PARK

There were very light infestations of the yellow-headed spruce sawfly, Pikonema alaskensis (Roh.) throughout the spruce stands of the park. Small pockets of heavy populations of the prairie tent caterpillar, Malacosoma californicum lutescens (N. & D.) occurred on rose and chokecherry throughout the south-western portion of the park.

The most common disease appears to be the perennial trunk rot, Fomes igniarius (L. ex Fr.) Kickx., which is confined to aging trembling aspen.

GREENWATER LAKE PARK

Insects and diseases were at very low levels in 1971 in the park. A collection of the forest tent caterpillar Malacosoma disstria Hbn. was made near the resort area. This insect is capable of widespread defoliation of deciduous trees, but at the very low levels present defoliation would be negligible for 1972.

MEADOW LAKE PARK

As one of the larger parks a number of noteworthy insect and disease species were present. However, very little damage was evident in 1971.

Attacks of the spruce gall aphid, Adelges sp. caused disfiguration of occasional white spruce in cottage and picnic areas. Similarly the yellow-headed spruce sawfly, Pikonema alaskensis (Roh.) caused very light defoliation to ornamental white spruce.

A number of perennial diseases were evident in the park. Dwarf mistletoe, Arceuthobium americanum Nutt. ex Engelm. was widespread on jack pine. Birch die-back was common in the Kimball Lake area, while the globose rust gall, Endocronartium harknessii (J.P. Moore) Y. Hiratsuka, and the comandra blister rust, Cronartium comandrae Pk. was widely distributed throughout the jack pine stands. There were occasional small pockets of severe infections of the annual spruce needle rust, Chrysomyxa ledicola Lagerh. near Greig and Kimball lakes.

MOOSE MOUNTAIN PARK

Light to moderate defoliation of mature aspen occurred in frequent small patches throughout the park. Larval feeding was almost complete at the time of examination, but it would seem that most of the damage was caused by the Bruce spanworm, Operophtera bruceata (Hulst). Very low populations of the yellow-headed spruce sawfly, Pikonema alaskensis (Roh.) occurred on the ornamental spruce in the resort area.

NIPAWIN PARK

There were no major insect or disease outbreaks in the park in 1971. However, moderate to severe defoliation of aspen by the large aspen tortrix, Choristoneura conflictana Wlk. did occur in the Piprell Lake - Summit Lake area and it is possible that some defoliation may occur in the park in 1972.

PINE LAKE PARK

Leaf rollers caused moderate defoliation to numerous patches of trembling aspen throughout the Pike Lake - Dundurn area. In the Pike Lake Park a small pocket of defoliation occurred in the picnic site immediately west of the recreation area. The spruce coneworm, Dioryctria reniculella (Grt.) occurred in very low numbers on the Colorado spruce in the beach area. Colonies of the prairie tent caterpillar, Malacosoma californicum lutescens (N. & D.) were at exceptionally low levels.

The only significant disease noted was the white trunk rot, Fomes igniarius (L. ex Fr.) Kickx. and this was confined to the older, decadent aspen.

ROWANS RAVINE PARK

The most noticeable insect damage was the blotch mining of hybrid poplar foliage by the cottonwood leaf-mining beetle, Zeugophora scutellaris Suffr. and galls formed by the poplar bud-gall mite, Aceria parapopuli (Kiefer). In the latter case the older poplars, some that may have been there prior to park development, were the most severely attacked.

The caragana leaf blight, Septoria caraganae (Jacz.) Died. was prevalent on caragana during late August, but infections were generally light.

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