

Canada
PFRRC
Pest rept
1972
Apr. 7



FOREST INSECT AND DISEASE SURVEY

PEST REPORT

Pacific Forest Research Centre • Canadian Forestry Service • Victoria

April 7, 1972

IMPORTANT FOREST INSECTS AND DISEASES IN MOUNT REVELSTOKE AND GLACIER NATIONAL PARKS

J. S. Monts and R. L. Fiddick

Since the late 1940's, Forest Insect and Disease Survey rangers have included Mount Revelstoke and Glacier National Parks in their annual appraisals of pest conditions in the forests of British Columbia. Some observations of pests in the parks that have been recorded in the annual ranger reports are summarized below.

Noteworthy Insects

Bark Beetles

Mountain Pine Beetle, Dendroctonus ponderosae

In 1955-56 the mountain pine beetle infested some 75% of the 1955 windfelled white pine on an extensive area in Mount Revelstoke National Park. Since that time, this beetle has taken a steady toll of white pine - as indicated by counts of red-topped trees: 25 in 1962; 200, 1964; 100, 1966; 70, 1968, and 250 in 1971.

In Glacier National Park, beetle-killed western white pine were recorded as follows: 75 red-topped trees along the Beaver River in 1958; 100 near Glacier in 1965; 50 near Beaver River in 1967, and 150 near Flat Creek in 1971.

Spruce Beetle, Dendroctonus rufipennis

Tree mortality caused by this insect was restricted to Engelmann spruce stands along the Beaver River in Glacier National Park. In 1957 numerous dead spruce trees were observed in the area from Stone Creek to Rogers. A survey in 1958 indicated some 35% tree mortality in those stands. Reports to date show no further damage by this bark beetle.

Alpine Fir Mortality caused by the Dryocoetes-Ceratocystis complex

In the 1960's, alpine fir mortality caused by the western balsam bark beetle, Dryocoetes confusus, and the fungus Ceratocystis dryocoetidis, was light in high elevation spruce-balsam stands. In 1964, some tree mortality occurred above the 4,500' elevation in Mount Revelstoke National Park. In Glacier National Park a pocket of 65 alpine fir trees was killed in 1968.

Defoliators

Black-headed budworm, Accleris gloverana

Localized infestations of black-headed budworm in Glacier National Park caused moderate defoliation of western hemlock trees from Glacier west to the Park boundary in 1964-67. Up to 15% defoliation was evident along the Illecillewaet River in 1966. Light defoliation occurred in western hemlock stands in Mount Revelstoke National Park during this period. Defoliation was not recorded in 1971. No tree mortality attributable to this pest has been recorded in these parks.

Western Hemlock Looper, Lambdina fiscellaria lugubrosa

Localized infestations of this occasionally destructive pest caused light defoliation of hemlock trees along the Beaver River in Glacier National Park in 1958 and again in 1964. Larvae have been found only occasionally since.

Tent Caterpillars, Malacosoma disstria, M. pluviale

In 1971 up to 80% of the aspen trees and some willow bushes were defoliated by the forest tent caterpillar, M. disstria, in Mount Revelstoke National Park, near Twin Butte. Only occasional colonies of the western tent caterpillar, M. pluviale, were found. Defoliation by these insects is unsightly although it seldom kills the trees.

Noteworthy Diseases

The following significant forest diseases have been recorded in Mount Revelstoke and Glacier National Parks.

Foliage Diseases

Fir Needle Rust, Pucciniastrum epilobii

This orange or yellowish needle rust infects current year's needles of Abies spp., causing defoliation and some growth retardation.

Douglas-fir Needle Cast, Rhabdocline pseudotsugae, R. weirii

These diseases cause unsightly needle cast of year-old needles of Douglas-fir. Red blotches appear on the needles in the spring and later they drop, leaving branches with only current year's foliage intact.

Other foliage diseases of relatively minor significance are

Lophodermium pinastri, a needle cast of various pines, and Coleosporium asterum, which causes needle rust on lodgepole pine. Melampsora medusae and M. occidentalis are needle rusts of larch and Douglas-fir, respectively.

Stem Diseases

White Pine Blister Rust, Cronartium ribicola

This rust of western white pine causes branch swellings and stem cankers. The infected bark is covered by yellowish blisters in early summer. Branch infections cause branch mortality, while stem cankers girdle and eventually kill the tree.

Dwarf Mistletoe, Arceuthobium americanum

The dwarf mistletoe of lodgepole pine causes mortality or loss in vigor, growth and wood quality. The infection centers are easy to recognize since heavily infected trees bear several large brooms, caused by the parasite.

Root Rots

A Root and Butt Rot, Fomes annosus

Fomes annosus causes brown root and butt rot of conifers. This rot may kill small groups of trees in infection centers.