

TECHNICAL NOTE

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FOREST INSECTS AND DISEASES IN PRINCE EDWARD ISLAND NATIONAL PARK IN 1994

Personnel of the Forest Insect and Disease Survey of the Canadian Forest Service regularly survey national parks for forest insect and disease conditions. This report discusses some of the forest pests encountered this year in Prince Edward Island National Park. Terminology used in this report to describe levels of defoliation, damage or insect population levels are defined as follows: trace (1-5%), light (6-29%), moderate (30-69%), and severe (70-100%).

Prince Edward Island National Park, a 40-km stretch of coastline along the north shore of P.E.I., is located in the Prince Edward district of the Maritime Lowlands ecoregion. The well-drained, light, sandy soils in this ecodistrict mainly support white spruce, balsam fir, red maple, and white birch.

BIRCH SKELETONIZER, a tiny insect, causes late summer browning of birch foliage and premature leaf drop. Trees are not usually seriously affected unless high populations are present for several years. For the third consecutive year, this insect caused varying levels of damage from light to severe on white birch throughout the Park.

SPRUCE BUDWORM defoliation of white spruce and balsam fir decreased slightly from last year with the majority of the damage in the trace category. The highest defoliation was light on white spruce at the Rustico Island campground.

BIRCH CASEBEARER initially feeds as a leafminer, then the larva vacates the mine and builds a cigar-shaped case in which it lives and feeds. Severe feeding can cause the leaves to turn brown and give the tree a scorched appearance. Leaf browning increased from last year with an average of 58% of the white birch leaves suffering mainly light damage. The highest leaf browning observed was moderate on all the white birch at Brackley picnic park.

WHITE PINE WEEVIL larvae feed on the inner bark of the leaders of young, open-growing pines and spruces. Infested leaders die, turn red and assume a distinctive shepard's crook shape. White pine weevil damage on white spruce, ranged from 8 to 25% of the trees affected, with the worst damage in the Brackley beach area.

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GYPSY MOTH is a major pest of forest and shade trees in southern Ontario, southern Quebec, and the northeastern United States. Since the 1980s, it has been present in southwestern New Brunswick and western Nova Scotia. The hairy larvae are easily recognized by the five pairs of blue and six pairs of red dots along their backs. As part of the province-wide gypsy moth monitoring program, 25 gypsy moth pheromone traps were placed by Park personnel in 1994. There was only one male moth caught in one trap, compared to last year when two male moths were caught in one trap. No other life stages of the gypsy moth were found in the Park or elsewhere on Prince Edward Island. Visitors are requested to report any suspected gypsy moth finds to Park personnel.

BIRCH LEAFMINER larvae feed between the epidermal layers of the leaf and produce a blotch mine which turns reddish brown, as the season progresses, giving heavily infested trees a scorched appearance. Four species of birch leafminer occur in the Maritimes but, until this year, only three were recorded in the Park. The fourth, the early birch leaf edgeminer, *Messa nana* (Klug.) was collected at the Cavendish campground and Rustico Island for the first time. These collections, plus at two other locations elsewhere on the Island, represent the first time *Messa nana* has been collected on Prince Edward Island. Patches of trace and light leaf browning were observed on white birch and wire birch throughout the Park. The highest injury was observed at Cavendish and Dalvay Pond but only at light damage levels.

SPRUCE BUDMOTHS overwinter in the egg stage and emerge in the spring as larvae ready to feed in the developing buds. They tie the bud cap to the shoot with silk and can cause severe damage to new shoots on open-grown and ornamental white spruce. An average of 31% of the white spruce shoots were affected throughout the Park, with the highest occurrence (51%) at Cavendish campground. This represents a decrease from last year's average of 42% and high of 63%; it is the first decrease since 1991.

NOTES ON SOME OTHER PESTS OF INTEREST:

Eastern spruce gall adelgid damaged an average of 12% of the white spruce shoots in the Park; **pine bark adelgid** populations were light and moderate with some severe on the branches and stems of white pine along the Farmlands Trail; **fall webworm** nests were a common sight on hardwoods throughout the Park for the second consecutive year; leaf browning by the **alder flea beetle** was moderate and severe on alder at Dalvay Pond and Long Pond; **cherry blight** was light on pin cherry throughout the Park; feeding by the **snowshoe hare** was light and moderate on white pine and light on red pine along the Farmlands Trail; old and new damage by **Hypoxylon canker** was observed on trembling aspen at numerous locations, with the worst damage being 40% of the trees with new cankers and 48% with old infection at Rustico Island campground.

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