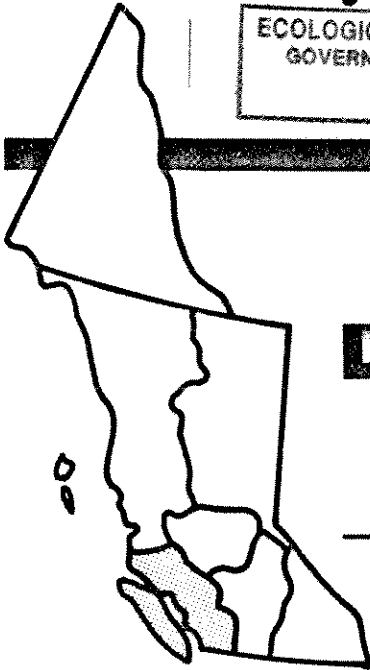


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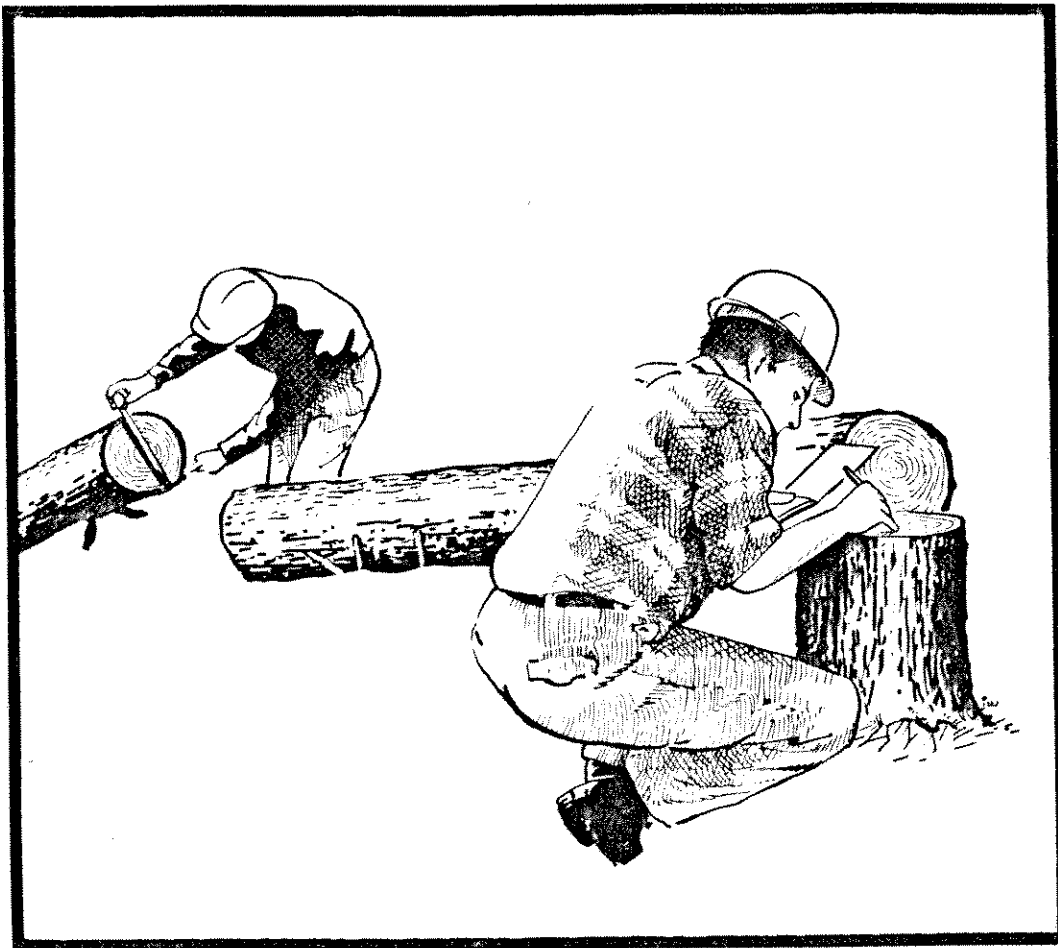
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Forest Insect and Disease Conditions

Vancouver Forest Region 1982

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SUMMARY OF PEST CONDITIONS

This report outlines forest insect and disease conditions in the Vancouver Forest Region in 1982 and forecasts population trends of some potentially damaging forest pests.

Phantom hemlock looper moderately to severely defoliated western hemlock on 100 ha at Coquitlam Lake. Douglas-fir tussock moth severely defoliated Douglas-fir trees near Chilliwack, in Clearbrook and Abbotsford, at Cassidy and at two locations in the Greater Victoria area. Western oak loopers moderately to severely defoliated Garry oak and Douglas-fir in the Mount Maxwell Ecological Reserve on Saltspring Island. Root weevils killed or damaged western hemlock and balsam seedlings in the Holberg area on Vancouver Island. Numerous regeneration Sitka spruce stands were attacked by spruce weevil near Port Alberni and in the northern part of the Island. Localized infestations of mountain pine beetle continued at reduced levels in the Pemberton and Fraser Canyon areas. Winter moth defoliation of deciduous trees in the Greater Victoria areas were little changed from 1981 but larval parasites were more numerous. Dwarf mistletoe, Armillaria root disease and Phellinus root rot were common in mature and second growth stands throughout the Region. For the first time in recent years, no defoliation by western spruce budworm was recorded in 1982.

The field survey extended from May 19 to October 14 during which special surveys were completed to monitor Provincial parks and campsites for adult gypsy moth, examination of natural and managed second growth stands for pest problems and examination of a western hemlock plantation on Vancouver Island for terminal crook disease.

A total of 476 insect and disease samples were submitted to the Pacific Forest Research Centre by CFS FIDS personnel and 76 by other agencies or individuals. Locations where one or more samples were collected and the areas of the Region covered during about 25 hours of fixedwing aircraft aerial surveys, for defoliator and bark beetle infestations, are shown on Map 1.

There was a 17% increase in the number of collections containing larvae in mainland forests from 61% in 1981 to 78% and on Vancouver Island a 1% increase from 66% in 1981 to 67% in 1982.

Details on individual pest problems follow under host tree species and by importance.

DECIDUOUS TREE PESTS

Winter moth, Operophtera brumata

Defoliation of deciduous trees on southern Vancouver Island continued in 1982 for the twelfth consecutive year with only a slight reduction in extent or intensity in the Greater Victoria, Colwood and Saanich Peninsula areas. Defoliation occurred mainly on Garry oak, broadleaf maple and fruit trees and was generally light except for localized areas of severe defoliation in Victoria and the Saanich Peninsula.

Four larvae were hand collected from two Garry oak in the Mt. Maxwell Ecological Reserve on Saltspring Island in May, a follow-up survey in December produced no adults; no defoliation was attributed to winter moth at this site. Surveys in the Delta-Richmond areas were negative.

A parasite release program established in 1979 continued in 1982, with 350 adult Cyzenis albicans and 250 adult Agrypon flaveolatum released at the PFRC and High Rock Park in Victoria.

With recovery of 12 adult Agrypon flaveolatum at three locations in Victoria, indications are that larval parasites have become sufficiently established in the Greater Victoria area to influence winter moth populations; further releases will be made in 1983.

Western oak looper, Lambdina f. somniaria

Garry oak and Douglas-fir in 16 ha of the Mt. Maxwell Ecological Reserve on Saltspring Island were severely defoliated (50-100%) in 1982 for the third consecutive year.

Light to severe defoliation was recorded on up to 20 Douglas-fir trees, 4 of which were attacked in 1982 by Douglas-fir bark beetle, Dendroctonus pseudotsugae.

The large moth flights in December indicate that the oak looper infestation will continue in 1983.

Gypsy moth, Lymantria dispar

Personnel of the Forest Insect and Disease Survey again cooperated with personnel of the Canada Department of Agriculture in a survey for gypsy moth in the Vancouver Region in 1982. On the mainland one or two traps baited with sex attractant pheromone were placed in 8 provincial parks or campsites, however no adults were trapped. On Vancouver Island two traps were placed in each of five locations and results were negative (Table 10).