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SUMMARY OF FOREST PEST CONDITIONS
by
FOREST INSECT AND DISEASE SURVEY
PRINCE RUPERT FOREST REGION (EAST), AUGUST, 1988

This very brief report is a summary of forest pest conditions encountered in the Prince Rupert Forest Region (East) up to August. A more detailed report will be available later when aerial and fall survey data on which population trends for 1989 will be based are completed.

PINE PESTS

Mountain pine beetle

Observed mortality was similar or slightly reduced from last year. Some major infestations such as the Telkwa River, Trout Creek and hills just west of Granisle have increased in size, but this is balanced by a significant decrease in spot infestations south of Houston adjacent to the Morice River in the Harold Price Creek area and in the Nilkitkwa. Across on the east side of Babine Lake mortality is similar to 1987. According to 'R' values taken in the spring, 1988 attacks should be reduced in most areas, except at Telkwa River, Trout Creek and Tochcha Lake on the east side of Babine Lake, where 'R' values of 5.0, 8.4 and 10.5, respectively, were recorded.

Further information will be available upon receipt of aerial survey maps from the Bulkley and Lakes districts.

Pine root collar weevil

Populations have greatly increased in the past three years, especially in young stands west of Smithers along the Bulkley and Kispiox rivers. Three permanent (at least 5 years) study plots were located to study the long term impact of weevil activity and to observe the patterns of local populations. In all three areas 60% or more of the trees were infested (100% of the trees at Date Creek). The impact of this increase in populations is being seen in a four-year old stand at Km 1 of the Salmon FDR near Hazelton; 15% of the young lodgepole pine have already died from girdling by Hylobius, and a further 60% are infested. In other areas where the stands average 20 years old, significant mortality should occur in one to two years.

Tomentosus root disease

Root rot surveys in three mixed pine-spruce and one pure pine stand, all of which ranged from 45-60 years old, found no evidence of rot or even staining at the root crown.

Pine terminal weevil

Examination of leaders attacked in 1987 at four locations (10+ leaders examined per location) indicated that populations should decline slightly with live progeny averaging 1.34 per leader (range .6-2.0). Five to 25% (average 15%) of the terminals were infested.

Pine needle sheathminer

An 18- to 20-year old plantation at Collins Lake near Km 50 of the Morice Lake road was severely infested with an average of 30% of the needles mined on 80%+ of the trees over 200+ ha.

Cecidomyiidae

Two plantations were significantly affected by Cecidomyiidae attacks. At Km 1 of the N. Owen FDR 80% of the 8-year old planted lodgepole pine were attacked; approximately 10% of the attacks were to leaders. Many trees had more than one branch crook from 1988 attacks. Near Elizabeth Lake (Mile 13 Kispiox FDR) 5% of the branch tips were crooked from Cecidomyiidae attacks.

SPRUCE PESTS

Spruce beetle

Single small infestation at Km 11 of the N. Owen FDR killed 10 trees. All trees had been attacked in 1987 and most of the progeny had cycled in one year. Area was heavily pheromone-baited and will be logged this winter.

Spruce terminal weevil

Not significant activity in EPR this year. Aside from a limited area (±2 ha) near Km 50 of the Morice FDR where 25% of the open grown spruce had been attacked, only scattered attacks to roadside regeneration were seen in the district.

ALPINE FIR PESTS

Needle diseases

Pucciniastrum epilobii, Uredinopsis sp., Isthmiella quadrispora. Light infections of primarily fir-fireweed rust, P. epilobii, were widespread throughout the west and central alpine fir stands within EPR. Most notable

infection centers were: Goathorn Creek (Telkwa River) 90% 1988 needles over 100+ ha; Km 15 Kwun Creek FDR, 40% 1988 needles over 100+ ha, Elizabeth Lake 30% 1988, 60% 1987 needles lost; Telkwa Hi road, 10% 1988 needles and Chapineau Lake, 10% 1988 needles.

Western blackheaded budworm

Infestation levels similar to 1987 with high populations and visible damage to alpine fir occurring throughout much of the Bulkley, Morice districts and the southwest end of the Lakes District, between elevations of 700-1100 m. Greatest amount of damage was seen along the southern end of the Nilkitkwa FDR, along the Chapman FDR, near Perow and between Km 50 and 65 of the Morice FDR where 70-100% of the new growth particularly in the understory (some small trees up to 90% defoliated) was consumed. In none of these areas, however, was the damage apparent from the air as overstory trees with their mass of foliage tended to effectively mask the recent damage.

Delphinella tip blight

Small localized infection centers of tip blight were seen at Blunt Creek near Moricetown and near Elizabeth Lake. Scattered trees in both areas were infected and up to 80% of the tips had wilted and reddened.

MULTIPLE HOST PESTS

Black army cutworm

Feeding-caused seeding mortality was limited to only 10 trees throughout the EPR in 1988 and only 4 plantations supported populations which resulted in noticeable herbaceous defoliation. At CP 316 in the Carral FPR (off the Kispiox Main) where the only seedling damage occurred, many seedlings which had been up to 95% defoliated in spring recovered completely by August due to abundant adventitious growth.

Thirty-two sets of attractant traps were hung in 1987 burns to monitor next year's population.

PESTS OF YOUNG STANDS

A total of 10 stands (pure lodgepole pine and mixed lodgepole pine, white spruce and alpine fir) were surveyed. No major spruce pests were found but pests significantly affecting the young lodgepole pine included H. warreni, northern pitch twigmoth, pine terminal weevil, pine needle sheathminer and Cecidomyiidae. Diseases such as western gall rusts and stem rusts were rare in the stands examined in 1988 but were more common toward Burns Lake than in eastern portions of EPR. Only light frost damage was seen in a few areas affecting wS and alF new shoots.

Stocking in 3 stands for which I have information (other POYS forms still in Smithers) averaged 5.33 crop trees per plot (range 4.07 - 6.0). Crop trees are defined as those trees of sufficient vigour properly spaced which will form a component of the mature stand. Average stocking for lodgepole pine planted at 2.5 m^2 spacing is 8 trees/plot, so stocking was only 66.6% i.e. plantations were only 2/3 stocked.

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