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SUMMARY OF FOREST PEST CONDITIONS IN THE PRINCE RUPERT FOREST REGION, 1994

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This report briefly summarizes the activities of some of the more important forest pests currently active in the Prince Rupert Forest Region in 1994. A more detailed report of these and other pests will be available later in the year.

Pine Pests

Aerial surveys by CFS/FIDS mapped ***mountain pine beetle*** infestations over 1875 ha in the Kalum and Kispiox TSAs. The most active infestations in the Kalum TSA were centered in the Aiyansh area, with scattered spot attack east to the Cranberry River and in the Shumal Creek area, as in 1993. In the Kispiox TSA, mostly small infestations continued in the Cranberry area and along the Skeena River west of Kitwanga, but declined in the Sicintine River area. In Tweedsmuir Provincial Park, mountain pine beetle infestations totaled 720 ha, along the northeast shore of Eutsuk Lake. High 1993 attack levels indicate continued increases in numbers of red trees in most areas this year. Results of aerial surveys of the areas by the BC Ministry of Forests are not yet available. The most significant infestations are expected to be centered in the Telkwa River Valley and Babine River areas in the Bulkley TSA, and in the northern Morice TSA, similar to the last few years.

Warren's root collar weevil infested a high proportion of planted pine in many areas, particularly in the Kispiox TSA, but tree mortality was low. Damage to terminals of young lodgepole pine caused by the ***lodgepole terminal weevil*** remained low in all surveyed areas within the region with the highest levels (5%) at Boya Lake. ***Pine needle cast*** discolored year-old pine needles near Burns Lake in the Lakes TSA, McDonnel Lake in the Bulkley TSA, near Oliver Creek, and was scattered along Highway 16 to Terrace in the Kalum TSA and between Good Hope Lake and the Yukon border in the Cassiar TSA.

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Spruce Pests

Attacks to white and Sitka spruce by ***spruce beetle*** were significant in the region for the first time in nearly ten years. Numerous small patches of recent mortality were mapped near the B.C./Alaska border in "Rainy Hollow" along the Haines Road, and in the upper Chilkat, Klemer and Kalsall river valleys. These infestations originated from ongoing beetle outbreaks in the lower Chilkat River drainage of adjacent Alaska. Aerial surveys of parts of the Cassiar TSA mapped several small spots of tree mortality in the Alger Creek drainage and one eight-ha area of light attack along the Stikine River at Arrival Creek. An infestation near Chisholm Lake in the Morice TSA, first reported last year, expanded significantly, as well as an infestation in the adjacent Morice River corridor, where small pockets have occurred for a number of years. Ground probes of white spruce adjacent to km 57.5 of the West Morice FSR found 57% of the trees to be currently attacked. Additional aerial and ground surveys are planned for this area in September, to assess current and red (1993) attacks.

Populations of ***eastern spruce budworm*** decreased slightly causing mostly trace defoliation of white spruce in the extreme northeastern part of the region in stands along the Liard River between Coal River and Irons Creek, just south of the Yukon border. Mass collections of budworm larvae for parasite studies are currently in rearing at the Pacific Forestry Centre Insectary. The ***yellow-headed spruce sawfly*** continues to defoliate ornamental spruce in several spots in Terrace, with some trees removed due to unsightly appearance caused by the previous year's attack.

Spruce weevil attacks continued in the Kalum TSA, with 33% current attack noted near Onion Lake and attacks at similar levels in many previously infested areas. In continued monitoring of the northerly progress of the weevil, no attacks were noted at the Bell Irving crossing area and at Spruce Creek, but are present in the Meziadin area. ***Spruce aphid*** lightly to moderately discolored Sitka spruce over 160 ha in patches along the coast, from south of Prince Rupert to the Port Simpson area. ***Large-spored spruce - Labrador-tea rust*** moderately to severely discolored young white spruce over 85 ha southwest of Dease Lake. This caused current needles to turn bright yellow in mid-summer and drop off.

Alpine Fir Pests

Mortality of mature alpine fir by ***balsam bark beetle*** continued in almost all susceptible stands, most notably in the north and south central parts of the region. Most were in the Bulkley TSA, in the Telkwa River Valley, McDonnel and Trout creek areas, and at the north end of Babine Lake and the Babine and Nilkitkwa river drainages. In the Cassiar TSA, 140 patches of recently killed

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trees were mapped over 7015 ha. Most were along the east side of Mt. Edziza Park, along the Stikine River south of Glenora, in the Dease River-Cottonwood River area, along the Klappan River north of Tumeka Lake, along the Eagle River, and near Echo Lake. Further data on total area affected for the region is pending completion of additional aerial surveys by the BC Ministry of Forests.

For the second consecutive year, ***Delphinella tip blight*** killed the recently flushed tips of alpine fir in almost every stand surveyed, in which alpine fir formed a significant component, in the Interior cedar-hemlock biogeoclimatic zone. The disease was also prevalent in the Babine Lake and Nilkitkwa River areas.

Multiple Host Pests

A total of 34 ***Pests of Young Stand (POYS)*** surveys were completed to date in the region, in locations ranging from north of Dease Lake to Ootsa Lake. Additional surveys will be completed this fall. Stands were primarily treated under the Forest Resource Development Agreements (FRDA I&II) between 1987 and 1993. Many of the surveyed plantations were naturally established stands that had been spaced, or rehabilitation sites that had been replanted. As in previous years, the most damaging agents were environmental factors such as frost and wind. Other pests included spruce weevil, stem and gall rusts of pines, and animal browsing of alpine fir. Detailed survey summaries will be available later in regional and FRDA reports. Stand-by-stand summaries will also be sent to District and Regional BC Ministry of Forests' offices.

For the second consecutive year there was no damage to newly planted seedlings due to feeding by the ***black army cutworm*** in 1994. Pheromone traps were placed in 21 sites; two of these sites were burned by wildfire in 1994 and the remainder were broadcast burned in 1993. Results will be reported following trap retrieval and analysis. Abundant early season fruiting bodies of the ***Rhizina root disease*** fungus killed small numbers of seedlings in a new plantation near km 55 of the Nilkitkwa FSR in the Bulkley TSA. Most of the damage caused by this disease normally occurs later in the season; follow-up surveys of this and other recently burned sites in the area will be conducted in September.

Mammal Damage

Porcupine damage was mapped over 690 ha in 77 infestations in similar areas to previous years, including the Khutzeymateen Inlet, Kalum Valley and Shames River. New areas of activity were mapped along the Klastine River, Burrage Creek, near Nuttlude Lake, and an area near the confluence of the Hyland and Liard rivers.

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Environmental Damage

During aerial surveys, ***blowdown*** was recorded in 15 separate locations covering 420 ha. Most were above Tseax River, along the Klappan River, in the upper Kitimat River Valley, and along the Nass River near the Ishkheenickh River.

Deciduous Tree Pests

Large aspen tortrix moderately and severely defoliated trembling aspen in 33 separate infestations totaling over 7500 ha at widespread locations. Defoliation occurred near Telegraph Creek, northeast of Dease Lake, along the Iskut River, in the Cranberry River Valley (second consecutive year), and around the north side of Tyhee Lake near Telkwa. Defoliation along the north side of Burns Lake was an extension of much larger infestations in adjacent areas of the Prince George Region (see CFS/FIDS Pest Reports 94-3,-18). ***Northern tent caterpillar*** severely defoliated willows, wild rose and other shrub species over a broad area around Meziadin Lake, and a single localized area just east of Smithers. Colonies were also common along the Nass River near Aiyansh, but damage was minor. ***Birch leafminer*** severely defoliated white birch over 660 ha near Echo Lake. ***Poplar-and-willow borer*** continued to infest and kill roadside black cottonwood primarily in the Kitimat Valley and along the Skeena River to west of the Exstew River. The ***pacific willow leaf beetle*** continued to severely skeletonize willow foliage, from Kitwanga west to near Terrace, and north to beyond Cranberry Junction. An unidentified ***leafminer*** lightly to moderately discolored mature black cottonwood over 460 ha along highway 37 in the area bordering the Kalum and Cassiar TSAs.

Other noteworthy forest pests were generally at endemic levels in the region or were of relatively minor significance.

More complete regional information will be available following completion of ground and aerial surveys.

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