PEST REPORT

Pacific Forest Research Centre • 506 West Burnside Rd. • Victoria, B.C. • V8Z 1M5

October 25, 1977.

SPRUCE BEETLE - PRINCE RUPERT FOREST DISTRICT

Don Doidge and Peter Koot

The number of spruce trees attacked and killed by the spruce beetle in 1977 in Prince Rupert Forest District showed a dramatic increase over the number killed in 1975. The build-up of the epidemic first reported in 1976* began in windfalls in 1973 and increased in 1974.

Fresh attacks on standing trees by spruce beetle were observed near Smithers during the summer of 1977. In September aerial surveys of the same area revealed an estimated 2 000 ha of infested spruce type, with at least the same area of susceptible trees immediately adjacent. Another infestation noted in 1976 near Pork Chop Lake had increased from 40 ha to 120 ha of concentrated attack by 1977. Infested trees were scattered throughout a surrounding 80 ha of spruce type. Other areas where spruce beetle was noted were: Babine River, near the fish fence, 3 ha; Morice River, past the end of the Forest Development Road, 30 ha; Frypan Lake, 10 ha; Haul and Morrison lakes on the east side of Babine Lake, 3 ha each; Holland the Torkelsen lakes, 3 ha each; north of McBride Lake, near an unnamed small lake, 3 ha; Bill Nye Lake, 5 ha; and Coffin Lake, 20 ha. Scattered standing infested spruce trees were also noted alongside a clearcut close to Obed Helps ranch near Telkwa.

Spruce beetle in the Prince Rupert District normally has a two-year life cycle, i.e., overwintering first as a larva and again as an adult. Examination of broods in the Smithers Landing infestation during September revealed that 33% were larvae, 30% pupae and 36% adults (parents and tenerals). The probability is great that the pupae will progress to the teneral adult stage to overwinter, thus changing 30% of the population to a one-year life cycle and providing an increase over normal attack in 1978. A prism cruise in the Smithers Landing area infestation disclosed that 83% of the spruce were attacked in 1977, 3% were killed in 1976 and 14% are still healthy.

As is usual with bark beetles, a colder than normal winter in conjunction with below normal snowfall could reduce the spruce beetle population.

*Pest Report 23 March 1976.