

PEST REPORT

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

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Engraver beetle attack in stands adjacent to logged areas in the western portion of the Williams Lake TSA

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High numbers of 'fading' lodgepole pine were observed adjacent to recently logged areas in the Mt. Alex area of the Gaspard Creek drainage during a limited aerial survey conducted on July 24. Ground examination on July 29 of three cutblocks: CP 900 - 300 ha; CP 903 - 98 ha and A 26980 - 100 ha, revealed extensive slash accumulation in piles or windrows from which dramatically increased populations of engraver beetles, Ips probably pini had emerged and attacked perimeter trees in adjacent stands. Depth of penetration of attacking beetles into neighbouring stands ranged from 20 to 50 meters. Continuous tree mortality was noted along many boundary lines or in groups ranging from 2 to 50 trees.

A verbal description of the damage was reported to District headquarters (John Bradley) resulting in a cooperative helicopter aerial survey of the upper Gaspard drainage and Klokut Lake area (CP 906, Blk 1 & 2) where reports of high engraver beetle populations had been received. Extensive attack was mapped at all five sites (Maps 1 to 5). In addition, aerial observations over seven logging sites (similar logging methods and time span) showed extensive engraver beetle attack around logged perimeters. These logged sites were:

A20019 - CP 906, Blk 2 - 2900 Rd.
A20019 - CP 927, Blk 1, 2, 3 Churn Cr. (2800 Rd.)
A20025 - CP 942 Big Cr.
A20019 - CP 953 Blk 2, 3 Big Cr.
A26978 - Small bus. Mud Cr. & Witte Cr. roads
A29642 - " " " " "
A26978 - " " " " "

There is limited published information pertaining to engraver beetle development and habits in British Columbia. However, over the past two years in the Cariboo Region, two flights or attack periods per year have been observed. The first and heavier attack is believed to be the main "breeding" attack and occurs in early May (1987 attack occurred during the first week of May) and will

vary according to prevailing temperatures. The second attack is in August. There is some basis, from American literature, to believe that the August flight, or a portion thereof, is a maturation flight where beetles will attack and kill trees and feed under bark until attaining maturity and then re-emerge, drop to the ground and overwinter in the duff. This would enable the beetles to survive harsher winter conditions than those that attacked trees and laid eggs.

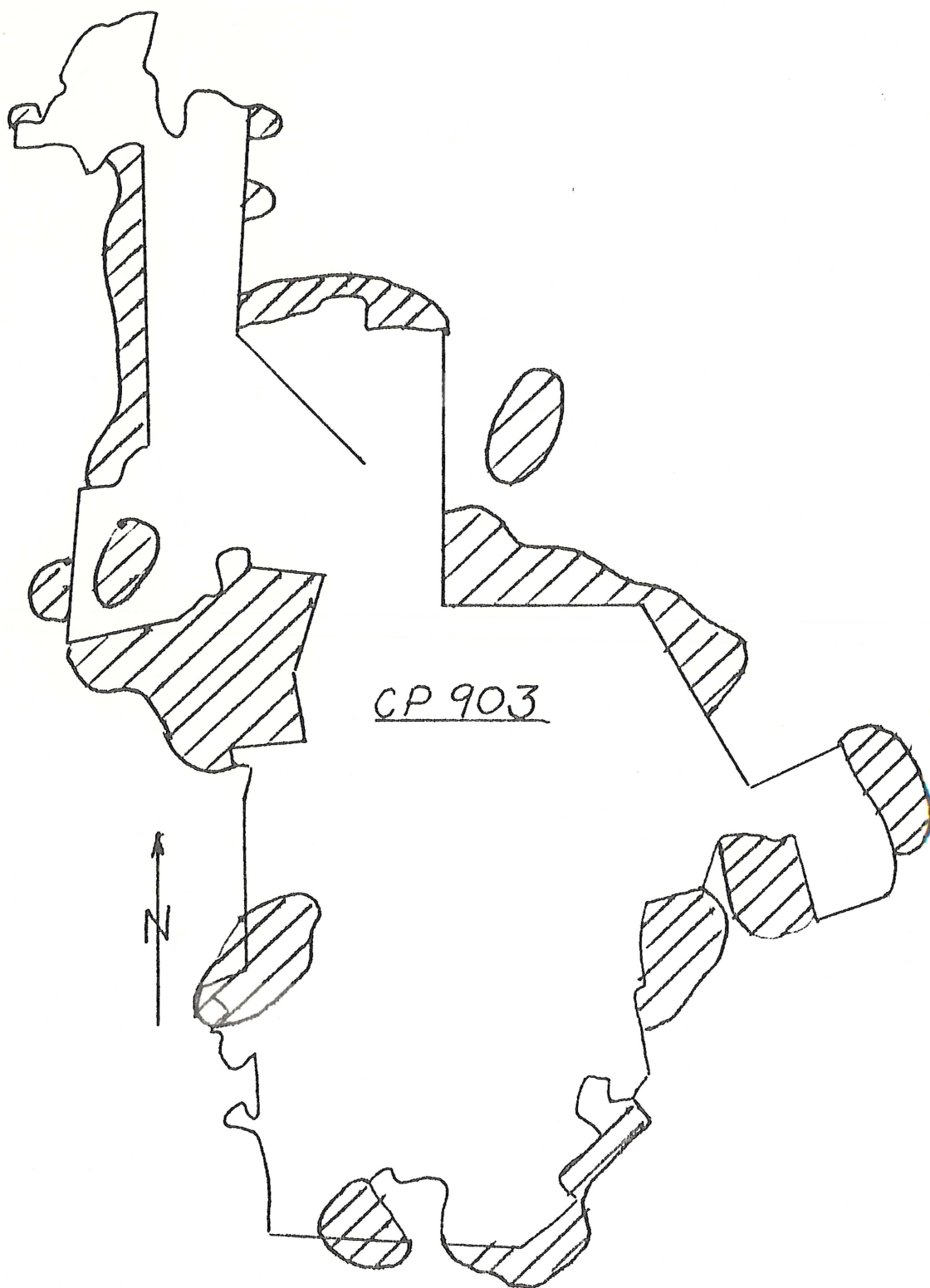
Foliage color change as a result of beetle attack occurs in July and August from the May attack and in May and June of the following year as a result of the August attack.

Aerial surveys were limited to the Williams Lake district, however, similar damage was noted north of Big Creek in the Alexis Creek District. It must be assumed, therefore, that where slash piles have been left over the summer in the Alexis Creek and West Quesnel districts, a hazard exists.

In addition to engraver beetle-caused tree mortality, moderate to severe defoliation of current year's growth caused by a pine weevil, Magdalis spp. was noted on patches of regeneration pines along the cutblock perimeters. This weevil attains epidemic proportions in logging slash and in silviculturally thinned pine stands. Tree damage other than increment loss is expected to be minimal.

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MAP 1



MAP 2

CP900

→ Z

