

INTROGRESSIVE HYBRIDIZATION IN THE SPRUCE SPECIES OF BRITISH COLUMBIA

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The study is divided into two parts, one of which is an investigation of geographic variation in immature spruce populations and refers to the growth behavior of 150 spruce populations grown in a relatively uniform environment. The seed, which was collected throughout the white, Engelmann, and Sitka spruce complex in British Columbia, was sown in a coastal nursery on Vancouver Island. Detailed measurements were made on these populations during two growing seasons.

The second part is a study of geographic variation in mature spruce populations and refers to a biometrical assessment of variation in cone scale morphology which was carried out on a mass collection of spruce cones collected in 157 areas throughout the range of spruce in British Columbia. This collection, therefore, embraces all four spruce species of the province. These are Sitka spruce [Picea sitchensis (Bong.) Carr.], black spruce [P. mariana (Mill.) B.S.P.], white spruce [P. glauca (Moench) Voss subsp. glauca], and Engelmann spruce [P. glauca (Moench) Voss subsp. engelmannii].

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