



6th North American Forest Ecology Workshop



Patterns of advance regeneration in lodge pole pine stands

Brooks, D. and Burton, P.

Volunteer Oral Presentation

Pure and pine-leading stands of mature lodgepole pine in the central interior of British Columbia were surveyed for understory densities of tree seedlings and saplings. Although stocking is patchy, significant differences are associated with biogeoclimatic subzone and (in certain contexts) other site and stand attributes. Surprisingly, pine-leading stands often have more advance regeneration of spruce and fir than found in spruce-leading stands. Advance regeneration is significantly more abundant in SBSmc, and less abundant in SBSdk, than in adjacent SBSdw subzones. Stands at higher elevations tend to have more regeneration, especially of subalpine fir. Older stands also have significantly more regeneration of spruce and fir. Modal ('01') site series tend to have greater regeneration density in some subzones, but not others. The influence of distance to available seed sources (stands dominated by mature spruce or fir) appears to have little overall influence on the density of understory regeneration. Predictive factors differ in their relative importance when results are interpreted in terms of stocking (full occupancy of microsites by trees), and at the stand level rather than the plot level. These trends and considerations are being integrated into a predictive GIS model and a decision-support schema to aid in the prioritization of beetle-affected stands for harvest or deferral.