LIVING FOREST LABORATORIES FOR SUSTAINABLE SILVICULTURE IN BRITISH COLUMBIA

A.K. Mitchell (Research Scientist, Natural Resources Canada, Canadian Forest Service, Pacific Forestry Centre, Victoria, British Columbia, amitchel@nrcan.gc.ca)
A. Vyse (Research Forester Emeritus, British Columbia Forest Service, Southern Interior Region, Kamloops, British Columbia.)

Currently, the focus of forest management in British Columbia is shifting toward partial cutting systems, based in part on the assumption that forest structure, habitat, biodiversity, and healthy ecosystem processes form links in a sustainability chain. Numerous long term research installations have been established across the province to test theses assumptions and to demonstrate the practical application of new silvicultural concepts. However, the application of these concepts is mixed. The move is more marked on the BC Coast, where stand level retention systems have been employed in a variety of ecosystems by large and small operators with considerable public support. In the Interior, where there is a longer history of partial cutting, operators are retaining forested riparian and wildlife habitat areas at the landscape level, but there are relatively few modern examples of either retention systems or more traditional silvicultural systems at the stand level.

We provide case studies of partial harvesting applications in coastal and interior forest types, and use key indicators of sustainability to demonstrate the differences between alternative approaches. All alternatives have some negative effects on components of the forest ecosystem. And therefore, we suggest that widespread application of a single practice is unlikely to be sustainable. We speculate on the differences in ecological, economic and social conditions that have led to the differences in approaches between the Coast and Interior. We also discuss the value of long term research installations in providing support for more sustainable forest management activities and make a plea for long term funding commitments.

Keywords: Alternative silvicultural systems, MASS, Sicamous, Science based management, Living Forest Laboratories.