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Jodi Axelson completed a M.Sc. from the University of Regina in the spring of 2007. Her research topic focused on reconstructing streamflow in the South Saskatchewan River basin in Alberta. Jodi is now working as a forest biologist at the Pacific Forestry Centre in Victoria, B.C. She has years of experience in the application dendrochronology to the study of natural disturbances, and is currently working with doctors Alfaro and Hawkes researching the impacts of mountain pine beetle on growth and yield of lodgepole pine in the southern and central interior of B.C.



Stand dynamics following past mountain pine beetle outbreaks in south-central British Columbia

By R. Alfaro, J. Axelson, and B. Hawkes

As a natural agent of disturbance, beetle outbreaks play an important functional role in directing ecological processes and maintaining biological diversity of forest ecosystems. As the outbreak continues, and especially after its eventual collapse, forest managers will need to develop strategies to manage the large areas left unsalvaged. For this they will need information on the basic stand dynamics processes associated with mountain pine beetle outbreaks, such as host mortality, post-outbreak stand growth, recruitment rates and changes in species composition. To address these knowledge gaps our study compares stand dynamics in even and uneven-aged stands located in the IDFdk BEC zone of the southern and central interior of British Columbia. We used dendrochronology and stand mensuration data to prepare a historical reconstruction and a current picture of lodgepole pine leading stands in the southern interior. We characterized the historical disturbance regimes and measured the effects of disturbance agents on stand structure to develop a conceptual model of stand dynamics post-beetle disturbance.