

# Research highlights non-timber resources

**N**on-timber forest products (NTFPs) are becoming significantly more important due to increased global demand, economic diversification in the rural sector, cultural revitalization, and increased health benefits associated with NTFPs. As their significance increases, issues have arisen such as resource and access rights, over-harvesting, sustainability, stewardship, high disturbance levels, and compatible management. The following projects address these issues at various levels.

**Wendy Cocksedge** of Royal Roads University is working to understand “the spatial and quality attributes of culturally important non-timber forest product species in MPB-affected areas of the Cariboo-Chilcotin.”

In this three-year study, Cocksedge is examining the effect of MPB on NTFPs that the T’exelc and Xats’ull First Nations rely on. NTFP species that are important to First Nations’ communities will be identified and incorporated into the vegetation inventory, enabling the understanding of the distribution, abundance, and quality of species located in MPB and non-MPB areas. Understanding the effects of mountain pine beetle on NTFPs will inform remediation efforts. The project will also establish protocol and formal agreements for how information will be shared between Aboriginal bands, Tolko Industries Ltd., and Royal Roads University.

In the project’s first year, identification work was carried out using traditional use studies, literature reviews, and workshops with partner bands. Twenty species were selected for field studies within territory identified by the Northern Shuswap Tribal Council. The studies focussed on areas north of Williams Lake, areas within Tolko operations in the Williams Lake Timber Supply Area, and areas affected by the MPB. Data collected was compared with similar ecosystems. Information from these reviews was verified using pre-existing maps, literature, and discussions with local harvest-

ers. In the project’s second and third years, a work plan will be developed based on the information collected in the first year.

This project will produce three finished products. First, a report for the Forest Science Program, which will be based on the literature reviews and analysed sample data. Second, the quantitative and qualitative data collected will be linked to the Forest Ecosystem Recovery Project to better understand the effects of large-scale disturbances on culturally important NTFPs. Third, a plain language report of all data, including the information collected from the community, will be completed for the T’exelc and Xats’ull Nations.

**Darcy Mitchell**, also of Royal Roads University, is looking at the need for up-to-date and co-ordinated information regarding compatible management of timber and NTFPs. The three-year project will develop a Timber/NTFP Compatible Management Cluster on Royal Roads University Centre for Non-Timber Resources (CNTR) Web site, building on the Centre’s current resources. By collaborating with Crown land and private land managers, including First Nations, community forests, and woodlot owners, extension products or case studies will be produced, providing comprehensive, tangible examples of practical strategies for managing for multiple forest resource values. The last component of the project is to update the NTFPs bibliography, which was gifted to the CNTR by the Institute for Culture and Ecology.

Mitchell’s project will assist forestry and natural resource professionals to better use the resources available for integrating management of timber and non-timber resources. “This project may help bridge the divisions in the FSP program between ‘sustainability’ and ‘timber,’” said Mitchell. “Much information about commercially valuable non-timber forest resources is undoubtedly collected in research that focusses on the co-production of

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## FIA–FSP Forest Science Corner

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non-commercial values of forests. This information has been captured to help us better understand how to compatibly manage timber and non-timber products." Mitchell explained that the division between "timber" and "sustainability" within the Forest Science Research Program also obscures the fact that the distinction between environmental services, for which there are currently few or no markets, and commercially important forest products and services, is shifting rapidly. Values such as First Nations traditions and tourism/recreation are also receiving less attention than they should because of this artificial division.

"We hope this project will be both a very efficient way to increase our understanding of compatible management of timber and non-timber resources, and will also help to guide a more integrated research agenda for FSP in future," said Mitchell.

**Bill Chapman** from the BC Ministry of Forests and Range is developing tools to more effectively monitor the effects of the MPB epidemic on the spatial distribution of pine mushrooms. Currently

the pine mushroom is the most valuable NTFP in British Columbia; however, MPB and salvage harvest operations threaten the sustainability of the pine mushroom industry through habitat loss and increased pressure on remaining habitat and product. Managing and monitoring pine mushrooms is vital to the sustainability of a resource that is key to the economies of many rural First Nations communities.

The project's focus is to develop tools which easily and accurately determine pine mushroom persistence and presence, and which identify new harvest areas to ensure the resource remains sustainable. This is challenging because the pine mushroom does not fruit on an annual basis and sporocarp production is not well understood; habitat could be destroyed before it is identified. It is important, then, to develop monitoring tools that can identify the presence of pine mushrooms independently of sporocarp production. Two molecular tools are being developed: a pine mushroom-specific primer for use in genetic analysis and a monoclonal antibody stain. 