



FIA–FSP Forest Science Corner

The role of research in the British Columbia Ministry of Forests and Range:

Profiling regional research teams

by Bruce Rogers, BC Ministry of Forests and Range

Anyone involved in British Columbia land and resource management is familiar with seeing the BC Ministry of Forests and Range’s Forest Science Program (FSP) attached to many projects and publications. But how many are truly aware of the FSP and the role it plays in informing resource policy makers, managers, and practitioners who are involved in managing BC’s forest and range lands? This article will offer insight into the FSP and update how the organization is extending its scientific information.



Vanessa Foord photo

The following are facts about the BC Ministry of Forests and Range (MFR):

- The MFR is the lead agency responsible for protecting the public interest in the use of the province’s forest and range lands.
- To address emerging priorities and issues such as mountain pine

beetle and climate change, the government is pursuing increased cross-agency collaboration and alignment on land-use planning, research, and resource management (BC Ministry of Forests and Range 2009).

The primary source of scientific information is research conducted by the FSP. The FSP consists of the Research Branch (within the Forest Stewardship Division) and three regional Forest Science Teams (within the Operations Division). The scope and scale of the FSP ranges from local to provincial, though the results are often important at a national and even international level. Program researchers work in a range of scientific disciplines, e.g., silviculture, growth and yield, ecology, earth sciences, forest genetics, and climatology.

Collaborations are key to the FSP, which receives invaluable assistance through contributions from MFR staff in regional and district offices, and in other branches of the MFR. Ministry scientists are actively involved in numerous scientific networks

and partnerships with other research organizations in BC, and in other parts of Canada and around the world. The FSP’s mission is “to help provide innovative solutions to high-priority forest management problems in British Columbia and to advance resource stewardship based on scientific principle” (www.for.gov.bc.ca/forsci/).

The concept that is currently driving legislation, regulation, policy, and practices in British Columbia is Sustainable Forest Management (SFM); it is the cornerstone of the Chief Forester’s vision for forestry in the province (Bourgeois 2008). Since the early 1900s, forest science research has addressed many challenges related to forest resource management and sustainability in BC. Under the *BC Forest and Range Practices Act (FRPA)* (BC Ministry of Forests and Range 2008) field practitioners, managers, and policy makers require that science inform their decisions concerning forest and range resources.

With the recent policy shift to a results-based framework, the MFR is now placing more emphasis on professional reliance. The onset of the dynamic management challenges associated with climate change and global certification in a highly competitive world market means that professionals are demanding that the FSP generate the most current and innovative science. Professional foresters, agrologists, biologists, hydrologists, geoscientists, and other experts are charged with applying their knowledge, training, and expertise to ensure resource management decisions are based on the best available science that balances the principles of sustainability and protection of the environment (BC Ministry of Forests 2004). Consequently, best management practices established under *FRPA* require professionals to be informed by science.

To adequately comply with this legislation, professionals must remain up-to-date and informed on many scientifically driven components of *FRPA*. Some of these include forest health, silviculture, range, and land-based regulations and standards such as ungulate winter range, caribou habitat, wildlife habitat areas, and general wildlife measures (BC Ministry of Forests and Range 2008). Other common subject areas acknowledged in *FRPA* that require the best available, regionally

NIFR Research Climatologist Vanessa Foord downloads data from an MFR climate station in 2009.



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specific science include community watersheds and fisheries, silvicultural systems and treatments, gene resources, terrain stability and soil disturbance, and botanical forest products (BC Ministry of Forests and Range 2008).

Adding another dimension to research complexity and provincial research priorities is the realization that climate change will influence future forest ecosystem dynamics. The Chief Forester’s Future Forest Ecosystem Initiative (FFEI) was established to facilitate research that would improve our ability to predict the impacts of climate change on forest and range ecosystems and to provide tools aimed at managing for resilience within them. Currently, there are many FFEI-related Forest Investment Account (FIA)–FSP-funded projects being undertaken by MFR Research Branch and regional staff (FFEI Technical Team 2008).

Scientific information from the FSP is presented in a range of forums, including peer-reviewed academic journal publications that reach beyond BC to international audiences, and provincial forums and publications that address regional issues such as those published by FORREX¹ and the MFR Technical Communications Section². FORREX is a BC-based charitable, non-share corporation that was founded in 1998 to help people develop science and knowledge-based solutions to complex natural resource challenges. It is in its 12th year of operation and its 5th year implementing the Provincial Forest Extension Program, funded largely through FIA–FSP. MFR Regional Forest Science Teams also maintain pages on their regional websites to provide access to research information in various forms.

Another method for disseminating FSP research has been through online presentations by researchers. Throughout the spring and summer of 2009, members of the Northern Interior Forest Region (NIFR) Research Team presented a series of topics for the NIFR Forest Science Seminar Series 2009/10 and will be continuing to do so with more presentations scheduled for the 2010 New Year³.

FORREX has also recently initiated the Online Research Chat series in which interested parties can register and view the presentation agenda online⁴.

Since research priorities can vary by region, the geographic alignment of the FSP with its headquarters and regional Forest Science Teams (Coast, Northern Interior, and Southern Interior) helps meet the FSP mandate across BC. Information for FSP Branch Headquarters, and all three Regional Teams is accessible using the web links provided in Table 1.

The NIFR Research Staff Information web page has recently been updated with comprehensive research staff profiles and can be accessed using the web links provided in Table 2. To navigate to a profile from a researcher’s page, click the “More Details” tab. The NIFR research staff members are located in two offices, one in Prince George and the other in Smithers, and have expertise in the major disciplines of ecology, climatology, geomorphology, hydrology, silviculture, soils, and wildlife. Training, consultation, and extension services are also provided. Research staff stay current in their areas by conducting field experiments, retrospective studies, and operational trials; by maintaining contacts with their peers; and by being active members of the general scientific community.

The author wishes to acknowledge Benita Kaytor for compiling and presenting the NIFR research profiles, Phil LePage for updating the Research Staff Information web page, Mike Jull for providing historic images of the Aleza Lake Research Forest, and Vanessa Foord for providing climate station images.



BC Archives photo

A meeting of Forest Rangers in 1928 at the Aleza Lake Research Station still in operation today just east of Prince George in central BC. (Source: Aleza Lake Research Forest [http://web.ubc.ca/~aleza/?page_id=206])

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¹ FORREX homepage: www.forrex.org/default.asp

² MFR Technical Communications Section: www.for.gov.bc.ca/hfd/TechComm.htm#Production_Resources

³ NIFR Forest Science Seminar Series 2009/10: For information on past and future presentations contact Yvonne Parkinson, NIFR Stewardship Team Leader at Yvonne.Parkinson@gov.bc.ca

⁴ FORREX Online Research Chat Series: www.forrex.org/events/scienceforum/default.asp



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Table 1. Web links for Forest Science Program research teams.

Branch Headquarters	www.for.gov.bc.ca/hre/
Coast Forest Region	www.for.gov.bc.ca/rco/research/
Northern Interior Forest Region	www.for.gov.bc.ca/rni/research/
Southern Interior Forest Region	www.for.gov.bc.ca/rsi/research/

Table 2. Web links for the Northern Interior Forest Region research staff.

Department	Prince George Staff	Website
Ecology	Craig Delong	www.for.gov.bc.ca/rni/research/Ecostaff.htm#CD
	Bruce Rogers	www.for.gov.bc.ca/rni/research/Ecostaff.htm#BR
Climatology	Vanessa Foord	www.for.gov.bc.ca/rni/research/Climatestaff.htm
Geomorphology	Marten Geertsema	www.for.gov.bc.ca/rni/research/GHstaff.htm#MG
Hydrology	John Rex	www.for.gov.bc.ca/rni/research/GHstaff.htm#JR
Silviculture	Richard Kabzems	www.for.gov.bc.ca/rni/research/Silvstaff.htm#RK
Soils	Stéphane Dubé	www.for.gov.bc.ca/rni/research/Soilstaff.htm#SD
Wildlife	Dale Seip	www.for.gov.bc.ca/rni/research/Wildstaff.htm#DS
Department	Smithers Staff	Website
Ecology	Allen Banner	www.for.gov.bc.ca/rni/research/Ecostaff.htm#AB
	Karen McKeown	www.for.gov.bc.ca/rni/research/Ecostaff.htm#KM
Geomorphology	Matt Sakals	www.for.gov.bc.ca/rni/research/GHstaff.htm#MS
Hydrology	Dave Wilford	www.for.gov.bc.ca/rni/research/GHstaff.htm#DW
Silviculture	Dave Coates	www.for.gov.bc.ca/rni/research/Silvstaff.htm#DC
	Erin Hall	www.for.gov.bc.ca/rni/research/Silvstaff.htm#EH
	Phil LePage	www.for.gov.bc.ca/rni/research/Silvstaff.htm#PL
Wildlife	Doug Steventon	www.for.gov.bc.ca/rni/research/Wildstaff.htm#DoS
Branch Staff	Will Mackenzie	www.for.gov.bc.ca/rni/research/Adjstaff.htm#WM
	Ben Heemskerck	www.for.gov.bc.ca/rni/research/Adjstaff.htm#BH

References

- BC Ministry of Forests. 2004. Results-based regulations revitalize resource sectors. News Release 2004FOR0004-000048. www.llbc.leg.bc.ca/public/PubDocs/bcdocs/366988/bcf_nr_jan_23_2004.pdf
- BC Ministry of Forests and Range. Forest Science Program website. www.for.gov.bc.ca/forsci/
- BC Ministry of Forests and Range. 2009. 2009/10–2011/12 Service Plan Update. www.bcbudget.gov.bc.ca/2009_Sept_Update/sp/pdf/ministry/for.pdf
- BC Ministry of Forests and Range. 2008. *Forest and Range Practices Act*. www.for.gov.bc.ca/tasb/legsregs/frpa/frpa/frpatoc.htm
- Bourgeois, W.W. 2008. Ecosystem-based management: Its application to forest management in British Columbia. *BC Journal of Ecosystems and Management* 9(1):1–11. www.forrex.org/publications/jem/ISS47/vol9_no1_art1.pdf
- Future Forest Ecosystems Initiative (FFEI) Technical Team. 2008. 2008/09 Work Plan. BC Ministry of Forests and Range, Victoria, BC. www.for.gov.bc.ca/ftp/hts/external/publish/web/ffeI/project/FFEI_Workplan2008_final.pdf 