



Interlink

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FOREST CO-OP 10TH ANNIVERSARY FUND RECIPIENTS ANNOUNCED

In early December, the Board of Directors announced the recipients of the \$100,000 Forest Co-op 10th Anniversary Fund. The three (3) projects submitted by the Forest Co-op Fish & Wildlife Science Unit members received the following funding allocations:

- Forest Co-op Wetlands & Waterbirds Project - \$25,000
- Forest Co-op Caribou Population Viability Analysis (PVA) Project - \$20,000
- Forest Co-op Lichens & Caribou VMAP Project - \$12,000

The members of the Forest Co-op Growth & Yield Science Unit submitted one project proposal which was approved as follows:

- Forest Co-op Growth & Yield Permanent Growth Plot (G&Y PGP) Program - \$50,000

Additional information regarding each of these projects is outlined in the following pages.

In reviewing the merits of the applications from the Science Units, the Board noted that the members had considered and met a number of criteria in the design and development of the projects including:

- a) added value to the needs of Forest Co-op Members
- b) multiple partners, strengthening existing relationships and introducing new collaborations
- c) leverage opportunities from outside funding programs
- d) applied science research that will help to fill knowledge gaps regarding effects of forest management
- e) innovative methodology that is timely and relevant.

It is understood that acquisition of leveraged funding opportunities is required in all cases to successfully implement these projects.

Congratulations to the members of the Science Units and the Science Delivery Teams associated with these successful submissions!

MARK YOUR CALENDARS!!!

APRIL 2008 IS LINED-UP TO BE A BUSY MONTH!!!

Sault Ste. Marie, Ontario – Holiday Inn, Waterfront

April 8 – 10, 2008 Forest Co-op / SFMN Forest Songbirds Workshop

Thunder Bay, Ontario – Travelodge Hotel Airlane

April 21, 2008 Forest Co-op Growth & Yield Science Unit Meeting (afternoon)

April 22, 2008 Forest Co-op 3rd Annual Science Day – (all day)

April 23, 2008 Forest Co-op Annual General Meeting (morning)

For your information, we have planned the Thunder Bay events to correspond with the Ontario Professional Foresters Association (OPFA) Annual Meeting April 23 – 25, 2008, also at the Travelodge Hotel Airlane in Thunder Bay.

FOREST CO-OP FISH & WILDLIFE SCIENCE UNIT (FWSU)

The Forest Co-op FWSU held its fall meeting in Sault Ste. Marie on September 27, 2007. The focus of the meeting was to finalize project submissions for the Forest Co-op 10th Anniversary Fund. The group agreed to submit three projects, all of which have since received funding approval. The projects are as follows:

The **Forest Co-op Wetlands & Waterbirds Project** focuses on riparian zones and shoreline forests, subjects of continuing interest to forest managers. OMNR's proposed modifications to the current guidelines for shoreline forest management in the Stand and Site Guide are based on the fact that active management will not negatively affect water quality if conducted as prescribed. However, the likely effects on secretive water birds are relatively poorly understood. Moreover, the effects of forest management on these birds is being called into question in a number of active forest management plans. This project would help significantly to fill that gap.

The four principal objectives of the project are to:

1. evaluate the effectiveness of past forest management practices to emulate natural disturbance with respect to pattern and process in waterbird communities;
2. test for spatial scale dependency in the effects of forest management on waterbirds;
3. evaluate the extent to which readily surveyed waterbird species might serve as reliable "indicators" of the presence of other, less obvious species, for purposes of developing efficient effectiveness monitoring protocols for waterbirds; and
4. develop models to estimate numbers of individuals (population size) and extent (range size) of waterbirds, data required for improved assessment and listing of species putatively 'at risk'.

Dr. Tom Nudds, University of Guelph, is leading the science delivery team.

The **Forest Co-op Caribou Population Viability Analysis (PVA) Project** is being led by Dr. John Fryxell, University of Guelph. Woodland caribou is a high profile species at risk with a significant impact on forest management in Ontario. This project will focus on important components of the caribou management challenge summarizing current available data and modeling spatially explicit population viability to assess key uncertainties in demographic rates and interactions as well as plausibility of alternate hypotheses to explain historical patterns.



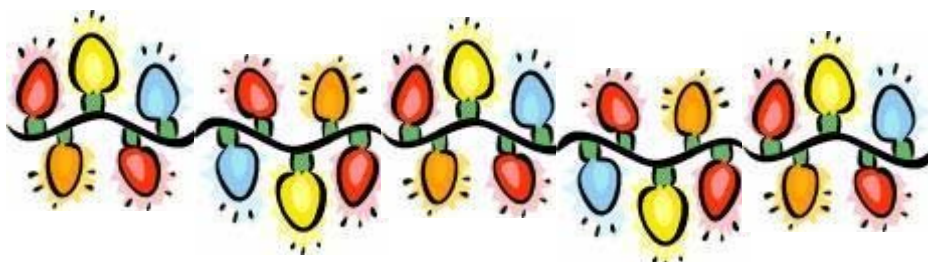
The **Forest Co-op Lichens & Caribou VMAP Project** provides added value for members by using Permanent Growth Plot data from the Forest Co-op Growth & Yield Science Unit. In this project being led by Steve Newmaster, University of Guelph, caribou diet diversity will be explored, the effects of certain post-harvest silvicultural techniques on long-term site colonization of lichens will be tested as well as the responses of individual lichen species to herbicide applications. This project will improve understanding of the effects of forest management in general, and specific silvicultural prescriptions in particular, on food plants used by woodland caribou.

The **Forest Co-op / SFMN Forest Songbird Workshop** was also discussed at the Forest Co-op FWSU meeting. Planning is well on its way for the 3-day workshop set for April 8 to 10, 2008 at the Holiday Inn, Waterfront in Sault Ste. Marie, Ontario.

Organizing Committee Members for this event include Kandyd Szuba – Domtar Inc., Derrick Romain – AbitibiBowater Inc., Jim Baker and Rob Rempel – Ontario Ministry of Natural Resources, Margaret Donnelly – Sustainable Forest Management Network (SFMN), Dianne Miller – Forest Ecosystem Science Co-operative Inc. (Forest Co-op) and Ian Thompson – Canadian Forestry Service.

DON'T FORGET TO CHECK OUT OUR NEW FOREST CO-OP WEBSITE

www.forestco-op.ca



FOREST CO-OP GROWTH & YIELD SCIENCE UNIT (GYSU)

Another busy field season is drawing to a close and, with the recent winter storms across the province, it is likely a welcome change. The field crews have been tirelessly working away at the mountain of PGP measurements over the last eight months.

The majority of the field work this year has fallen under the banner of the Forest Co-op GYSU Permanent Growth Plot (PGP) Program and has included the re-measurement of 470 PGPs and the establishment of 65 new PGPs. By the time things slow down for the holidays, all of the plot measurements will be complete and the data will be entered! The second significant component of the field program this year fell under the Forest Co-op Prescribed Burn Project. This project, which utilizes Forest Co-op PGP plot protocols in its design, is investigating the effects of prescribed burns and basic silviculture on forest growth and yield, stand dynamics and early stand floristics as compared to natural fire. Over the past two years, this project has accounted for the measurement of an additional 282 PGPs. Following the completion of the project, these plots will be incorporated into the Forest Co-op PGP network.

Despite the tough financial times currently being faced by the member organizations of the Forest Co-op GYSU, they have continued to make strong commitments in an effort to sustain the Forest Co-op GYSU PGP Program. This program has been highly leveraged in the past and we are currently seeking leverage opportunities for 2008 and on. The recent announcement of financial support for the PGP Program from the Forest Co-op 10th Anniversary fund is welcome assistance. In 2008, there are nearly 450 PGPs scheduled for re-measurement across the boreal region and more than 70 PGPs available in the southcentral region. There is also much work to be done in areas of data analysis and modeling if the resources can be sourced.

The fall meeting of the Forest Co-op GYSU was held October 2-3 in Sioux Lookout, Ontario in conjunction with Superior Woods Tree Improvement Association (SWTIA). The meeting included a half day field tour to a number of research sites in the area along with a half day presentation workshop. The presentations, covering a range of tree improvement and growth and yield topics, included guest speakers from as far as New Brunswick and British Columbia. The next meeting of the Forest Co-op GYSU is scheduled for Monday, April 21, 2008 in Thunder Bay and will be held in conjunction with the Forest Co-op 3rd Annual Science Day and the Forest Co-op Annual General Meeting.

FOREST CO-OP PGP DATA ENTRY TOOL UPGRADES

Over its ten year history, the Forest Co-op has invested significantly in the establishment and re-measurement of Permanent Growth Plots (PGPs) in all forest regions of the province. In any given year at the Forest Co-op, hundreds of PGPs are either established for the first time, or increasingly so, re-measured. Data from these plots have been used by most Forest Co-op members in yield curve development in support of planning and are also being used to build provincial and regional growth and yield models. Researchers that use Forest Co-op PGP data insist it be as clean as possible in order to have faith in the reported results. Data accuracy is therefore paramount. Data errors can find their way into the database, however, being introduced during field collection, or even during data entry in the office.

In 2007, the Forest Co-op invested in upgrades to the OMNR built data entry tool that it has been using for several years. Craig Robinson, with GeoSpatial Consulting Inc., upgraded the data entry tool for use with the 2007 field data collection. The Microsoft Access based tool now has extended features that include:

- Simplified data entry that speeds up the ability to enter new PGP establishments and PGP re-measurements;
- Greater control of standard data values through the extensive use of lookup code tables;
- The introduction of business rules and logic that validate data entry, to ensure that inter-dependent data values are valid;
- Most significantly, the introduction of business rules and logic that examines PGP data between measurement years, searching for data problems that can occur over time within a single plot, such as shrinking trees, or trees that changes species, or dead trees that come back to life;
- and a reporting system that identifies data errors within and between PGP measurements, and allows the user to track and resolve these errors.



These new features have helped with the identification of errors during the 2007 data entry and field collection, as well as identify errors from previous years. Users have also reported a 25% gain in productivity for entering and validating data over previous years through the use of the new tool. The result has been that the Forest Co-op now has a significantly cleaner and more accurate PGP database that will improve the databases used by Forest Co-op members and researchers.

Forest Co-op Membership

Active Members

Abitibi-Consolidated Company
of Canada — Paul Poschmann

Bowater Canadian Forest
Products Inc. — John Lawson

Buchanan Forest Products Ltd.—
Bert Hennessey / *Genevieve Knauff

Domtar Inc.—
Kandyd Szuba / *Brian Nicks

Domtar Inc. / Weyerhaeuser Company
Limited (Dryden) —
Murray Ferguson / *Janet Lane

FERIC — Mark Ryans /
*Brad Sutherland

Forintek Canada Corporation —
Yves Levesque / *Tony Zhang

Lake Abitibi Model Forest —

Natural Resources Canada (CFS) —
Art Groot / Bill Meades
Rod Smith / Ted Van Lunen
*Peter Newton

Ontario Ministry of Natural
Resources—
Wayne Fiset / *Vivienne Scott
Tricia Greer / *Bill Towill
Ed Iwachewski / *Dan Duckert
Joe Kapron / *Scott Jones
Al King / *Taylor Scarr
Rob McAlpine / *Eric Doidge
Mary-Ellen Stoll / *Bob Watt
Brian Batchelor
Frank Kennedy
Tim Sullivan

Tembec Enterprises Inc.—
Sue Pickering / *Jeff Leach

Wagner Ontario Forest Management Ltd
Jiska Westbroek / *Mike O'Neill

Weyerhaeuser Company Limited
(Kenora) Matt Wilkie / *Bob Boyce

Associate Members

Confederation College of Applied Arts
& Technology—
Brian Kurikka / * Dave Archibald

GeoSpatial Consulting Inc.—
Craig Robinson /
* Geordie Robere-McGugan

Sumac Forest Information Services Ltd.
Dave Carr / * Todd Domney

PGP DATA COMPILER AND REPORTING TOOL

Forest Co-op members have invested millions of dollars in the PGP database, through the continued collection of thousands of PGPs, over most of the provinces forest management units. This database has been serving members well as a data source for various forest management and research-oriented projects. So how then do we extract even more value out of the investments made in the database, and provide members with even more information that can assist them with their business decisions?

Currently, Forest Co-op members have access to a range of reports that summarize some of the more basic features of plot data in the PGP database. These include reports that summarize tree characteristics such as mean DBHs and heights, or plot characteristics such as leading species. The PGP Compiler and Reporting Tool, currently under development by GeoSpatial Consulting Inc., will greatly enhance the attributes available for generating summaries from the PGP database. The database compiler, when complete, will include:

- Calculated tree and plot volumes. This will include the traditional statistics of gross and merchantable volume but, through the use of taper equations, will also include log and/or grade volumes based on user defined criteria. All volumes will be generated using the latest available research and formulas from provincial and federal researchers on Ontario tree taper and tree height. The Forest Co-op is currently developing, through Spatialworks of Sault Ste. Marie, a parallel software tool that will interact with the compiler.
- Plot-level statistics of density, species composition, piece size, and numerous per/ha statistics.

The compiler will permit a standard means of creating detailed information on volume and quality across the entire PGP database. Once PGP databases are compiled, they can be deployed to members along with the Reporting Tool. The Reporting Tool will allow users to generate detailed reports, charts and graphs of the compiled statistics for their own use, right on their desktop. The reporting tool will also permit the grouping and stratifying of plots by the user to create a range of custom reports. For instance, a user can summarize together the plots across their management unit, or group by ecosite, or group by site class. When these new tools are available in the spring, members will be able to see summaries and reports of their PGP data that were never before possible, adding additional value to the Forest Co-op PGP database.



SEASON'S GREETINGS

THE FOREST CO-OP MANAGEMENT AND STAFF
WISH YOU A JOYOUS FESTIVE SEASON
AND A HAPPY, HEALTHY NEW YEAR.

- ALL THE BEST FOR 2008 -

DIANNE, DAVE & JANECE

