

The Canadian Ecology Centre



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Manager's Message



George Bruemmer at a forest genetics meeting with Randy Ford, Dennis Joyce and Kent Virgo

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The FRP Display It's Everywhere!

The Forestry Research Partnership display has had a busy spring. The colourful display was used in Sault Ste. Marie at the Celebration of Science exhibit in April, at the Commercial Thinning Workshop and the Sportsmen's Show in Timmins, and then at Forestry Day in Mattawa in early May. Finally, the display was again front and centre during the Ontario Professional Foresters Association meeting in North Bay in late May. The display has generated considerable public interest in the partnership, and is booked for additional events, including the Federation of Ontario Naturalists (FON) Conference in Toronto in June. FRP Intern Doug Tribe will be staffing the display for the FON conference.



FRP display and publications

Manager's Message continued...

It seems like we produced our last newsletter just yesterday, but here it is three months later already. As usual, there is no scarcity of activity or progress to write about this time around. Our partnership staff and members have experienced a full and successful spring, and we are all pleased with what has been accomplished.

Our submission to the Ontario Living Legacy Board was made in mid April. This is our second request for funding, and we are hoping to better the amount of the grant that was provided for our 2000-2001 fiscal year. Last year the partnership received almost 70% of what was requested to leverage budgets for all of our various projects. Al Stinson and myself extend many thanks to our partnership members who prepared individual submissions. It was a big job to collate and package these up for the Board, but it was made easier by the quality of each of your project write-ups. In total, we are looking to fund 42 new and renewed projects for this year, up from 32 during last year.

The partnership secretariat has met several times in the past few months to deal with general issues, check on existing projects, review new project proposals, and to work with the technology transfer team in the development of an adaptive process for the implementation of operational intensive forest management (IFM) programs. We have made steady progress toward the development of a course of action that we think will be successful. Ultimately, we want to help put intensive forest management tools and approaches into the hands of foresters and technicians in all Tembec Sustainable Forest Licenses. At the same time, and through the same process, we want to work to identify knowledge deficiencies, and to follow-through in funding and implementing the research, study and data collection required to improve our understanding of IFM.

Plenty of other projects are on track. We are finally starting to see some agreement and small successes with data sharing through our liaisons with the Forest Ecosystem Science Cooperative and it's members; plans for our Teachers' Tour this August are going well, with a solid schedule, and plenty of support and enthusiasm from many sources; our

website is being regularly visited, and the number of visitors is increasing steadily, and the reviews of it's style and content have been quite positive; and most importantly, there has been improvement for our partnership in working and communicating with the frontline forest management staff at Tembec offices. Both groups are actively working together to maximize the value that can be gained from partnership projects.

It has been a busy spring for our partnership, and it is going to get even busier as we synthesize and focus our many science and research projects to deliver tangible, practical and useful results for Tembec forest management that lead to our ultimate goal of a sustainable increase in allowable cut of 10% in the next 10 years across Tembec's licenses. There are exciting times ahead!

George Bruemmer R.P.F.
Manager, Forestry Research Partnership
gbruemmer@tembec.ca

Welcome to Robin Harding

Robin Harding has joined the Forestry Research Partnership for the next year as a Science and Technology Intern. Working out of the Ontario Forest Research Institute in Sault Ste. Marie, Robin will help the technology transfer team with various projects including the production of communications materials, technical writing, and FRP event organization. Robin's background includes graduation from the Fish and Wildlife and the Integrated Forest Management Technologist programs at Sault College. She has also worked in several contract positions, including one with the Canadian Forest Service as an aquatic eco-toxicology technician.

Robin can be reached at 705-946-2981 ext. 111.
Her e-mail address is:
robin.harding@mnr.gov.on.ca

Teachers' Tour Update

Five Tembec sponsored teachers from Timmins, Temiscaming, Mattawa and Huntsville have registered for the August Teachers' Tour at the Canadian Ecology Centre in Mattawa.

"We want to build a network of teachers throughout our mill communities," says George Bruemmer, FRP Manager. "These teachers will take positive messages about forestry to their classrooms, and to other teachers throughout Ontario, and this can only help our industry in the long-run."

In total, 50 teachers from all over North America, with approximately 20 from Ontario, are scheduled to visit the Centre for four days in August. In addition, an information package was sent out to 'helper' teachers from Ontario who previously participated in other teachers' tours. These teachers will take part in a training session in late July to get ready for August's tour.

"Partnership and Ecology Centre staff are working together to ensure a positive experience for the teachers," says George. "We have some pretty innovative things planned, but underlying it all, we will get out some positive and realistic forestry messages."

The Teachers' Tour is being planned as an annual event following this initial year. For more information on the Teachers' Tour, please visit the FRP website at

<http://forestresearch.canadianecology.ca>. Don't forget to try the Virtual Teachers' Tour.



Aerial View of Commercial Thinning near Kapuskasing

Commercial Thinning Project Off to a Great Start!

A successful and well-attended commercial thinning workshop hosted by the OMNR's northeast science and information section was held at the Ramada Inn in Timmins on April 24th and 25th. Over 80 people from both government and industry attended the two-day event, which included a variety of presentations relating to the science, operations, economics, and issues surrounding commercial thinning.

The commercial thinning project is off to a good start. Trials in black spruce have been undertaken in the Gordon Cosens Forest, and additional trials in jack pine are planned in the Romeo Malette Forest, and with Domtar Inc. near Chapleau, who are also a partner in the project.



Black Spruce Commercial Thinning Trial near Kapuskasing

"We're sorting out a lot of the bureaucracy around approvals and plan amendments," says Jon Cutter, co-leader of the project, and an independent consultant to the FRP from North Bay. "We also need to know for sure where we stand on how thinning volume affects allowable cut, and allocated areas for the year. Once this is sorted out, everyone will have a better comfort level with commercial thinning operations."

Commercial thinning, when used as a forest management prescription, in theory, will allow the growth of more wood fibre, in a shorter period of time. There is good potential to use both pre-commercial and commercial thinning as one of a suite of intensive forest management tools that will help Tembec reach its goal of a sustainable increase in allowable cut of 10% in 10 years across all licenses.

Data Sharing Slowly But Surely

An Editorial by John Pineau, Technology Transfer Coordinator

Opinions on the controversial issue of data sharing are as numerous as people. Personally, I tend to think pretty well everything should be shared in an effort to bring about better knowledge, understanding, and to improve how we do things; perhaps a somewhat overly altruistic, and generous attitude. There is however, a wide and varied spectrum of opinion that includes many combinations of availability and/or restricted access, undoubtedly the best approach if logically and realistically applied. There are some good reasons to restrict sharing data, and I will list some of them here: privacy guarantees, protection of values, theft of intellectual property/analysis potential, misuse and misapplication, loss of organizational investment, loss of industrial/corporate advantage, etc.

The majority of forestry data, in my opinion, is not of the kind that we need to hide or guard. Certainly we want to protect certain non-timber values, or the detailed accounting information of a company, but we also want to bring about better forest management by improving our knowledge. This can only be done through study and research, which means data collection. An individual data set only reaches any real value if it is used to the full potential of purposes that are possible. It is definitely worth so much more than the original cost to collect or obtain it, if it is abundantly and freely used, and this new value is in essence calculated at a higher, more philanthropic level.

Within our partnership, we are now achieving some success with data sharing of G.I.S. locations and summary attribute data for permanent sample plots with several companies, in addition to Tembec. These plots are being displayed on the FRP website, with more data, including forest ecosystem classification plots on the way.

Data sharing between partnership projects is a little tricky, and is still being negotiated in some cases, especially where data is potentially being exchanged between different partner organizations. Things would go smoother if we all remembered that in working toward common goals and objectives, some things, like data, have to be more openly shared, and delay or avoidance is counter-productive. We are a strong and effective partnership, and I think we should be moving quickly to share forestry data between projects and organizations in the interest of reaching common goals.

Adieu to Jessie Johnston

Jessie Johnston completed her internship with the Forestry Research Partnership on May 18th. Jessie did an excellent job of designing, developing, and making operational, what has been consistently called a useful and attractive website. Jessie worked out of Mattawa for the entire year of the internship. Specific programming credits on the website include the virtual teachers' tour, the virtual trail, and a very innovative splash page. Jessie also helped out with a variety of other projects. Jessie has moved to London to further develop and promote a web design business she recently started. We wish Jessie the best of luck in her new endeavour. Her solid, behind the scenes work with our partnership will be missed.



Jessie at the Canadian Ecology Centre

Feature Research Project

Benchmark Yield Curves Under Development

Steady progress is beginning to be made in the Forestry Research Partnership project to develop benchmark growth and yield curves for the standard forest units.

“Things are on track now,” says Al Stinson, Forest Research Operations Coordinator with the FRP, and co-leader of the project. “We have Murray Woods of OMNR’s southcentral science and information helping to co-lead the project, and we have also brought in Dr. Margaret Penner to provide additional expertise,” says Al. “John Parton, with OMNR’s northeast Science and Information is also playing a key leadership role in the project.”

The focus so far has been data gathering. Various permanent sample plot, and growth and yield data sets are held or managed by the province, the Canadian Forest Service, and companies. The project team will obtain and compile the available data by the end of the summer, and begin constructing curves for the highest priority forest units. So far, the OMNR-maintained data and the Quebec PSP data (natural stands) have been acquired, and have been helpful in determining data gaps.

“The Quebec growth and yield data has come in really handy,” says Murray Woods. “It’s nice that forests are forests, and that they don’t have to respect borders. It is great to see this willingness in the sharing of datasets.”



Murray Woods

The initial focus is on the development of yield curves or expected growth rates for jack pine, black spruce, mixed wood, tolerant hardwood

selection, and white pine shelterwood. The intent is to develop curves for a range of management intensities, from natural to intensively managed forest stands. The common acronym used to describe this range of yield curve intensities for specific forest types is NEBIE (natural, extensive, basic, intensive, elite). More detailed information on this topic is available on the FRP website at <http://forestresearch.canadianecology.ca>.

The Benchmark Yield Curve project is an essential and overdue exercise. Plonski’s yield curves remain the basis for many management plans despite being developed in the 1950’s from a limited number of temporary sample plots in unmanaged stands. The curves for this project are being developed for the next round of forest management plans, and will be produced in consultation with Tembec planning foresters. They will build on the wealth of data that has been collected in the past 5 decades.

“A yield curve is far more accurate if it reflects the spatial and temporal variation in the landbase,” says Dr. Margaret Penner. “We have to be able to develop these curves as much as possible from permanent sample plots located within specific management units, or at the very least, from within very similar forests and geographical areas. They have to be customized to reflect the reality of each landbase.”

The Yield Curve Project will provide Tembec with scientifically sound, and accurate yield curves, giving forest managers confidence in their planning process and, also identify information gaps for directing additional data collection. For the FRP, the project provides a benchmark for achieving a sustainable 10% increase in annual allowable cut over 10 years.



Al Stinson and John Parton

Implementing Intensive Forest Management - A Process is Born

The partnership secretariat and technology transfer team have been meeting frequently during the past few months to develop and refine a process to bring about the implementation of operational intensive forest management programs for Tembec licenses. Originally, a single workshop, with some advanced preparation and various smaller scale meetings was planned, however, this concept has given way to a much more sophisticated and involved process that includes full meetings of partnership researchers and Tembec forest management staff, with a culminating workshop in April of 2002, followed by a series of visits to Tembec operations sites by a carefully assembled Intensive Forest Management Planning Team. This team would be composed of key FRP researchers and scientists, as well as local Tembec forest management staff.

“It’s going to be a complex undertaking,” says Guy Smith, FRP Tech Transfer Lead, and Chief of Marketing and Technology Transfer Section with the Canadian Forest Service in Sault Ste. Marie. “Not only do we want to extract and synthesize information, approaches, and tools for planning and implementing intensive forest management, we also want to identify where our knowledge and data are limited, so we can direct future research to better our understanding of IFM.”

The implementation process is scheduled to begin this summer, when FRP technology transfer team members will make a series of presentations to Tembec staff about the process itself, and how they will be involved. A workshop is also planned in late August for FRP management and secretariat, key researchers and Tembec staff, which will roll out the results of the IFM Spatial Feasibility Analysis with presentations from Ajith Perera and his team.

“Our operations staff will be ready to be involved in a significant way with the IFM implementation process,” says Sue Pickering, Assistant Chief Forester with Tembec in Timmins. “We can see that some very tangible benefits are possible as the result of properly applying FRP research and science.”



FRP Secretariat Meeting in the Sault.

Too Many Bugs? Visit the Virtual Trail!

One of the newest features of the Forestry Research Partnership website is the Virtual Trail. Designed by former Intern Jessie Johnston, the trail is a useful educational tool that closely parallels the descriptions and interpretation of the actual Forestry Research Trail, located near the Canadian Ecology Centre in Samuel De Champlain Provincial Park. The Virtual Trail includes an on-screen map of all interpreted stops along the trail in the forest. When a user clicks on any one of the stops with a mouse, digital photos of that specific stop, and pop-up explanatory text appears.

“We are very pleased with the job Jessie did in designing and programming the Virtual Trail,” says Al Stinson, Forest Research Operations Coordinator for Tembec and the FRP. “We wanted the actual trail to teach folks about forest management, and about the science and data collection that is involved with a permanent sample plot. The Virtual Trail also does this. They compliment each other quite nicely,” says Al

Although nothing can truly substitute for a refreshing and invigorating walk through the woods on the real Forestry Research Trail, the new Virtual Trail provides effective information and teaching about forestry and forest management. Maintenance on the Forestry Research Trail is planned for this summer, and enhancements to the Virtual Trail are also on the agenda. The Virtual Trail can be accessed on the FRP website at <http://forestresearch.canadianecology.ca>.

Up in Smoke! A Prescribed Burn for the Competition Study and Demonstration

On April 22, a small prescribed burn at the Gurd research area was successfully ignited, controlled and extinguished by members of the Ontario Ministry of Natural Resources Fire Management group based out of North Bay. Brent Handley, Senior Fire Operations Supervisor oversaw the burn, which covered 8 - 20 by 20 metre plots, or about one third of a hectare.

“It was a small burn”, says Brent. “We had great conditions, and things were well planned. Everything went off without a hitch.”



Ignition at the Gurd Prescribed Burn

The burn is part of a competition study and demonstration, headed up by Doug Pitt, a research scientist with the Canadian Forest Service. The intent of the burn is to stimulate competitive vegetation, in this case, to create a uniform coverage of Pin Cherry, which is the main competitor for seedlings on most of the Gurd site. The Pin Cherry around Gurd is generally patchy, and grows in clumps. However, with plenty of seed in and around the vegetation mat, it is hoped that the fire will aid in germination, and in stimulating root suckering, resulting in a more evenly distributed and dense cover of Pin Cherry over time.

A few weeks later, on May 14th, two types of jack pine seedlings were planted on the burn site. One type was regular or standard stock, while the other was genetically improved stock (thanks to Domtar and Shining Tree SFL for the seedlings). The main objective of the competition study, both at Gurd and McConnell Lakes is to study and compare how different types and levels of competition affect different trees, and different stock.



The Gurd prescribed burn

Andrée Morneault, Vegetation Management Specialist with the Ministry, and part of the Competition Study Team is pleased with the progress at Gurd. “We have an interesting study that is going to tell us a lot about jack pine competition at Gurd, and white pine competition up at McConnell Lake,” says Andrée. “What is really nice about Gurd is that it is very accessible, and makes for an interesting demonstration site to show and explain to interested forestry folk, or to the public, what we are up to with this study.”



A Gurd Competition Study/Demo Seedling

**For more information about the Forestry Research Partnership Newsletter
contact:**

Christina Morris
C/o Great Lakes Forestry Centre
1219 Queen St. E.
Sault Ste. Marie, ON
P6A 5M7

(705) 759-5740 ext. 2322
chrmorri@NRCan.gc.ca

Partner Contacts:

Natural Resources Canada
Canadian Forest Service
Great Lakes Forestry Centre
P.O. Box 490
1219 Queen St. East
Sault Ste. Marie, ON, Canada, P6A 5M7

(705)759-5740
www.glfc.forestry.ca

Canadian Ecology Centre
P.O. Box 430
Hwy 17 West
Mattawa, ON, Canada, P0H 1V0

(705)744-1715
www.canadianecology.ca

Ontario Ministry of Natural Resources
Ontario Forest Research Institute
P.O. Box 969
1235 Queen St. East
Sault Ste. Marie, ON, Canada, P6A 2E5

(705)946-2981
www.mnr.gov.on.ca

Tembec Inc.
Canadian Ecology Centre
P.O. Box 430
Hwy 17 West
Mattawa, ON, Canada, P0H 1V0

(705)744-1715
www.tembec.ca