



Center for Research on Sustainable Forests 2007-2008 Annual Report



It's hard to believe that the Center has been around for two full years! We work closely with University of Maine forest resources researchers, in academic fields spanning forestry, parks & recreation, soil science, resource economics, spatial engineering, and more. Maine's forests offer so many research opportunities and we are excited to work with a variety of excellent researchers, as well as local, state, regional, national, and international contacts and groups on many forest-related topics.

The Center is located in Nutting Hall on the University of Maine campus, next to the School of Forest Resources and the Cooperative Forestry Research Unit (CFRU). We work closely with both groups, and are proud to have the CFRU as a formal component of our research center.



Faculty & Staff *

G. Bruce Wiersma, Director

Summer E. Allen, Communications & Development Coordinator

Erin Simons, Assistant Scientist (Spatial Analysis of Forest Wildlife Habitat)

Kasey Legaard, Associate Scientist (Forest Remote Sensing)

*Please see the CFRU's annual report for their faculty/staff.

Graduate Students

Suzanne Bethers, M.S. Forest Resources (awarded May 2008)

Dina Alberto, M.S. Forest Resources (expected graduation August 2009)

Elizabeth Lewis, M.S. Forest Resources (expected graduation August 2009)

Cooperating Faculty & Staff

- Aria Amirbahman, Associate Professor of Civil & Environmental Engineering
- Kathleen P. Bell, Associate Professor of Resource Economics & Policy
- Jeffrey Benjamin, Assistant Professor of Forest Operations
- Thomas Brann, Professor of Forest Resources
- Aram Calhoun, Associate Professor of Wetlands Ecology
- Christopher Cronan, Professor of Biology & Ecology
- David Correia, Assistant Professor of Geography
- John Daigle, Associate Professor of Forest Recreation Management
- Bryan Dail, Assistant Professor of Soil Microbiology
- Michael Day, Associate Scientist in Ecosystem Science
- Ivan J. Fernandez, Professor of Soil Science
- Douglas Gardner, Associate Professor of Wood Science & Technology
- Barry Goodell, Professor of Wood Science & Technology
- Michael Greenwood, Professor of Tree Physiology
- Daniel Harrison, Professor of Wildlife Ecology
- Malcolm L. Hunter, Jr., Professor of Conservation Biology & Wildlife Ecology
- George L. Jacobson, Jr., Professor of Biology, Ecology & Climate Change
- Richard Jagels, Professor of Forest Biology
- Jody Jellison, Professor of Molecular Plant Pathology
- Richard W. Judd, Professor of Environmental History
- Laura S. Kenefic, Faculty Associate & Researcher of Silviculture
- Alan J. Kimball, Associate Professor of Forest Resources
- William B. Krohn, Professor of Wildlife Ecology
- Melissa Laser, Cooperating Researcher of Marine Science
- Jessica Leahy, Assistant Professor of Parks, Recreation & Tourism
- Robert J. Lilieholm, Associate Professor of Forest Policy
- William H. Livingston, Associate Professor of Forest Resources
- Cynthia S. Loftin, Associate Professor of Wildlife Ecology
- Stephen A. Norton, Professor of Geological Sciences
- Terry Porter, Assistant Professor of Management
- Robert Rice, Professor of Wood Science
- Steven A. Sader, Professor of Forest Resources
- Robert S. Seymour, Professor of Forest Resources
- Mario Teisl, Professor of Resource Economics & Policy
- Alan S. White, Professor of Forest Ecology
- Jeremy Wilson, Assistant Professor of Forest Management

Summary of Accomplishments in 2007-2008:

Presentations, Publications, Workshops, & Events:

Wiersma, G.B. Presentation to the Cooperative Forestry Research Unit at their fall meeting, Orono, Maine, October 11, 2007.

Co-sponsorship (with CFRU) of a full-day workshop on deer wintering areas, attended by nearly 100 managers, policymakers, and scientists. Part of the Munsungan Workshop Series. Orono, Maine, December 9, 2007.

Wiersma, G.B. Presentation to the Cooperative Forestry Research Unit's advisory committee at their annual meeting, Orono, Maine, January 23, 2008.

Co-host (with the American-Russian Forestry Federation and FBRI and AEWFC faculty/staff) of a delegation of Russian forest industry representatives touring facilities throughout the Northeast, including UMaine. Orono, Maine, February 12, 2008.

Wiersma, G.B. Moderator of the Maine Green Forest Summit "Green Markets & the Maine Woods," Portland, Maine, April 17, 2008.

Organizer/sponsor, Forests for Maine's Future public expo, "All Things Woods," (see Forests for Maine's Future section for more details) Portland, Maine, April 26, 2008.

Bethers, Suzanne. "The effects of chronologically elevated N and S deposition on the nutrition and physiology of sugar maple at the Bear Brook watershed in Maine." M. S. Thesis (Forest Resources), May 2008. G.B. Wiersma, advisor.

Sponsor, CLAMS/ForCAST lecture with Dr. Pete Bettinger from the University of Georgia. Orono, Maine, May 13, 2008.

Wiersma, G.B. and S. Allen, presentation to Northern Research Station Director & Deputy Director on the CRSF, NSRC, & ForCAST. Newtown Square, PA, June 10, 2008.

Wiersma, G.B. and S. Allen, presentation on ForCAST and CRSF to USDA/CSREES program leaders, Washington, D.C. June 12, 2008.



Northeastern States Research Cooperative (NSRC)

www.nsrcforest.org

This is the third year that the University of Maine has received funding for the NSRC, a research cooperative between the US Forest Service, and the participating states of Maine, New Hampshire, Vermont, and New York. An RFP is released jointly and each state coordinates their own peer-reviewed process on an individual theme. This year, Maine's Theme (Forest Productivity & Products) funded three new projects for one of two total years, and reallocated funds for the second year of six projects that were approved in the 2007 funding cycle. Below are the new projects:

Harrison, Dan (UMaine)

The effectiveness of zoning to protect deer wintering areas during 1975-2007: Does compromising forest productivity to protect deer habitat achieve desired ecological objectives?

Hawley, Gary (UVM)

Restoring American Chestnut and associated products to the Northern Forest

Weiskittel, Aaron (UMaine)

Refinement of the FVS-NE predictions of individual tree growth response to thinning

The NSRC has vastly improved the design and availability of the shared website in the past year, and it is a great resource. For more information on the other states' awards, or general information on the NSRC, please visit the website.

Keeping Maine's Forests (KMF)

Keeping Maine's Forests is a study group formed earlier this calendar year at the request of the Governor's Office, with a specific inquiry into how rising land values, increasing populations, and global economics will affect the future of Maine's forests. The objective is to assess problems facing the Maine forests and then to come up with a series of proposed solutions to help maintain the integrity of the resource. This study group has met every six to eight weeks since February 2008 and has been focusing on information gathering. A final report is expected to be submitted to the Governor's Office by summer 2009.



ForCAST

A research concept that evolved from a workshop on long-term monitoring that was held in our first year, ForCAST is a cross-disciplinary research and communications effort of the CRSF. Over the past year, two research scientists and several graduate and undergraduate students have been specifically working on projects that are integral to ForCAST. Several faculty and staff directly or peripherally contribute to the project.

Basic overview of current ForCAST work being done:

One project is developing a statewide map of forest cover change, documenting forest canopy disturbance and regeneration or regrowth occurring from 2000-2007. Once completed, this map will extend the statewide forest cover change data provided by a previously developed 1991-2000 forest cover change map and the 1993 Maine GAP vegetation and landcover map. The other project is a wildlife habitat supply study. Satellite-derived data of forest change in northern Maine is being used to evaluate the cumulative effects of forest management on American marten and Canada lynx habitat supply. We are planning to use these projects to make forward-looking projections. This has already been attempted for the study on wildlife habitat.

The CRSF coordinated an application to the first round of MTAF proposals entitled "Forecasting & assessing the future and status of Maine's forests using LiDAR technology." This proposal received a "recommended to proceed" rating, but due to the number of proposals that received a "highly recommended" status, our proposal was not selected to move forward. We are currently planning on applying for the second round of MTAF funds, while also broadening our funding source possibilities by looking at other agencies. This application process was the first major grant application put forward by a key group of CRSF faculty/staff and we count it as a successful team effort.

Forests for Maine's Future

www.forestsformainesfuture.org



Forests for Maine's future, a partnership of the CRSF, the Maine Forest Service, the Maine TREE Foundation, and the Small Woodland Owners' Association of Maine (SWOAM) has gone through a lot of changes in the past year. We hired a writer (Andy Kekacs) to work on writing/publishing periodic natural resources stories in Maine newspapers and to keep up a website dedicated to public outreach on Maine's forests. Andy also writes a monthly electronic newsletter titled "Fresh from the Woods," which is sent out to a large distribution list and posted on the FMF website as well. Major website improvements were made this year.



The other major effort of FMF was the second annual public forestry expo, "All Things Woods," which was held in Portland on April 26, 2008. This full-day event was free to the public and consisted of displays, vendors, educational opportunities, and entertainment. A small EPSCoR grant for youth activities allowed a focus on youth-friendly programs by educators from the Maine Discovery Museum and the Chewonki Foundation. Other workshops were given on topics such as backyard birding and mushroom foraging. There were opportunities to learn how to shoot a bow and arrow, watch lumberjills from the Great Maine Lumberjack Show demonstrate their skills, and listen to American traditional folk music. The attendance was doubled from the previous year's event, with a specific increase noted in

the number of families with children attending. FMF partners are interested in planning a third event for Spring 2009.





**Cooperative Forestry Research Unit
(CFRU)**

www.umaine.edu/cfru

The CFRU falls within the CRSF, but it files all its own annual reports. Check with Spencer Meyer, Research & Communications Coordinator, for more information.

For More Information:

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