



Northeastern States Research Cooperative

A Research Program for the Northern Forest



TO LEARN MORE:
www.nsrcforest.org

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Research Theme 1: Sustaining Productive Forest Communities

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Research Theme 4: Biodiversity and Protected Area Management

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How to Apply for Funding

An annual Request for Proposals (RFP) calls for submission of pre-proposals to the appropriate Theme. Approved pre-proposals advance to the next competitive round of full proposals. The RFP, containing dates and details, can be found on the NSRC website:

www.nsrcforest.org

The Northeastern States Research Cooperative (NSRC) is a competitive grant program supporting cross-disciplinary, collaborative research in the Northern Forest – a 30-million acre working landscape that is home to more than two million residents and stretches from eastern Maine through New Hampshire and Vermont and into northern New York.

The NSRC addresses the importance of the Northern Forest to society and the need for research activities to benefit the people who live within its boundaries, work with its resources, use its products, visit it, and care about it. Between 2001 and 2014, the NSRC awarded over 300 grants, totaling over \$22 million, to researchers throughout the region.

Samples of NSRC Research Projects

Personal Contact Remains Effective Form of Mountain Summit Visitor Education and Stewardship



Robert Manning, University of Vermont
 GPS tracking and a survey of visitors on Sargent Mountain, Maine revealed that visitors tend not to notice resource impacts, and few acknowledge causing impacts. Personal contact by a steward more successfully delivered educational messages to visitors than did posted signs.

Experimental Ice Glazing in a Northern Hardwood Forest to Understand Ecological Impacts of Ice Storms

Lindsey Rustad, USDA Forest Service Northern Research Station
 In a northern hardwood forest in New Hampshire, scientists manually created ice glaze on tree branches using methods similar to those used to make snow at ski areas. This novel tool will allow scientists to study icing events as the Northern Forest faces an increase in ice storms in response to climate change.

How Forest Evapotranspiration May Be Affected by Climate Change

Heidi Asbjornsen, University of New Hampshire

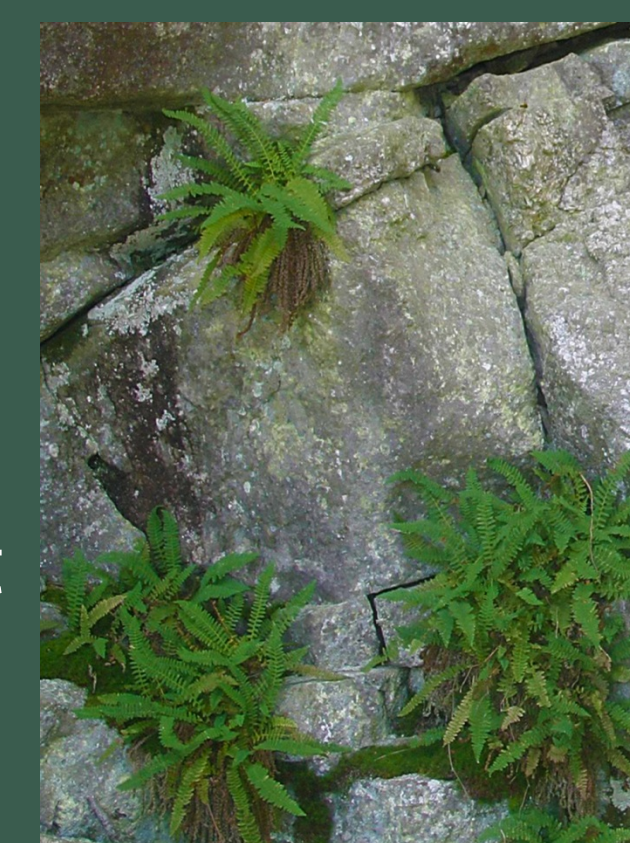


Scientists studied tree growth and evapotranspiration, how water moves from soil to atmosphere through plants, in some cases using data collected over 50 years. Findings from Maine to West Virginia, demonstrate much greater sensitivity to warming climate and drought in the southern part of the region than in the cooler, more humid Northern Forest.

Rare Fern Valuable to Understand Plant Responses to Climate Change

Danilo Fernando, SUNY College of Environmental Science & Forestry

Scientists determined that changes in precipitation are more critical to survival of rare fragrant fern than are increasing temperatures. Fragrant fern is an example of a species with a southern range limit in the Northern Forest and serves as a model for understanding elements of biodiversity we could lose to climate change.



High Site Quality and Pruning Improve White Pine Lumber Yield and Quality

René Germain, SUNY College of Environmental Science & Forestry

In a comparison study in the Adirondacks, researchers found that eastern white pine trees grown on high quality, fertile sites yielded more 16-foot logs than did pines grown on marginal sites. On high quality sites, pines that were intensively pruned in the 1930s produced butt logs that yielded the highest quality lumber.



Ecological Impacts of Residential Roads on Adirondack Songbirds



Michale Glennon, Wildlife Conservation Society

Researchers demonstrated that bird communities may be impacted as far as 200 meters from both roads and houses in the Adirondack Park. Roads provide foraging and feeding opportunities but provide less opportunity for nesting compared to areas near houses. Keeping residential roads narrow and speed levels low will help reduce strong negative impacts on songbird communities in the Adirondacks and in other areas of the Northern Forest region.

20-Year Results from Ecological Based Silviculture Studies in Maine

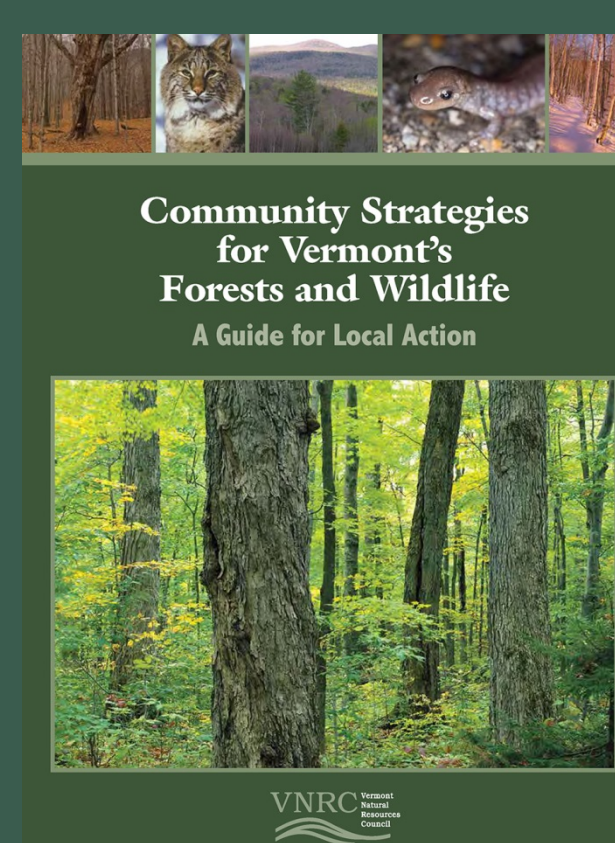
Robert Seymour, University of Maine

Scientists will evaluate the economic trade-offs of using ecological based silvicultural systems, or ways to grow and harvest trees that mimic natural disturbances in a forest. Results from 20-year-old studies will inform forest managers, particularly those of larger production-based holdings who have concerns that such silvicultural systems may result in lost economic productivity, compared to more traditional forestry.

Reducing Forest Fragmentation Through Subdivision and Zoning Strategies

Jamey Fidel, Vermont Natural Resources Council

Researchers scrutinized the relationship of subdivision and land use change in Vermont towns to devise ways to reduce forest fragmentation. They created an engaging technical assistance manual "Community Strategies for Vermont's Forests and Wildlife," an online community planning tool kit, and a forest fragmentation action plan to help communities grapple with development pressures on forestland.



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