



# BUILDING KNOWLEDGE FOR NORTHERN FOREST COMMUNITIES



University of  
New Hampshire



State University of New York College of  
Environmental Science and Forestry



The University of Vermont

## 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. NSRC addresses the importance of the Northern Forest to society and the need to work collaboratively with the people who live within its boundaries, work with its resources, use its products, visit it, and care about it.

**NSRC connects  
USFS and non-USFS  
researchers with stakeholders  
to benefit the environment and  
economy of the Northern Forest  
region.**

**NSRC engagement, collaboration,  
and coordination extend the  
impacts of USFS priorities.**

## Congressional Authorization:

Forest and Rangeland Renewable Resources  
Research Act (Public Law 105-185).

## Federal Funding Source:

**USDA Forest Service**

**FY 2020 Funding:** \$1.95 million

**FY 2021 Funding:** \$2.47 million

**FY 2022 and 2023 Funding:** \$7.17  
million

## FY 2021 Research Competition

In February 2024, NSRC announced 18 awards totaling nearly \$4.5 million of federal funding and close to \$2 million of matching funds for research that focuses on areas of concern identified by forest stakeholders in the Northern Forest region.

The projects cover a broad range of concerns related to forest biodiversity & connectivity, climate change & energy, invasive pests & diseases, recreation & tourism, and traditional ecological knowledge about forest systems.

The request for proposals drew a strong response from researchers representing institutions across the region. NSRC received 49 project proposals requesting more than \$14 million in funding.

### Focus Areas

- State of the Forest
- Measuring & Quantifying Impacts
- Developing Tools for Response
- Rural Community & Economic Development



# NSRC Projects Awarded 2023

## 2023 Projects

- **Social, economic, and ecological dimensions of forest management for climate change adaptation and resilience.** *PI Jeanette Allogio, University of Maine.*
- **Using a functional trait approach to inform assisted migration for climate adaptation in the Northern Forest region.** *PI Heidi Asbjornsen, University of New Hampshire.*
- **Satellite monitoring of eastern white pine (EWP) health through assessing the forest structure.** *PI Pulakesh Das, University of Maine.*
- **The effects of seed dispersal and seedling establishment limitations on climate-driven tree species range shifts in the northeastern U.S.** *PI Martin Dovciak, SUNY-ESF.*
- **Tools for rehabilitative silviculture to enrich habitat and restore productivity in degraded hardwood stands.** *PI John Foppert, Paul Smith's College.*
- **Assessing the future Northern Forest through the lens of seedling survival and sapling recruitment.** *PI Lucas Harris, University of Vermont.*
- **Northern Forest historical atlas project.** *PI Daniel Hayes, University of Maine.*
- **Assessing eDNA as a monitoring tool for forest arthropod biodiversity and pests.** *PI Jason Johnston, University of Maine.*
- **Sustainable co-production of bioplastics and hydrochar from forest residue biomass.** *PI Ankita Juneja, SUNY-ESF.*
- **Private forest landowner engagement in forest management programs for carbon sequestration.** *PI Danielle Kloster, SUNY-ESF.*
- **Post-release non-target impacts of hemlock woolly adelgid biocontrol.** *PI Angela Mech, University of Maine.*
- **Decadal-scale trends in northern forest carbon storage in relation to nutrient availability and rising carbon dioxide.** *PI Scott Ollinger, University of New Hampshire.*
- **Assessing fire-dependency in natural red pine forests of the Northeast.** *PI Simon Pendleton, Plymouth State University.*
- **Digital species-site-suitability systems for regenerating northern forests.** *PI Michael Premer, University of Maine.*
- **A predictive scaling framework of forest structure and functional diversity in a non-equilibrium world.** *PI Sydne Record, University of Maine.*
- **Mapping canopy height model and aboveground biomass of northeastern forests annually at 25 m resolution through remote sensing data fusion and machine learning.** *PI Bahram Salehi, SUNY-ESF.*
- **Long-term monitoring of rare plant populations in the Adirondack alpine.** *PI Kayla White, Adirondack Mountain Club.*
- **Climate-smart biodiversity conservation practices for managed forest landscapes.** *PI Andrew Whitman, Manomet.*

## Indigenous Forest Knowledge Fund Projects Awarded

The NSRC Indigenous Forest Knowledge Fund grants support education and training of Indigenous youth in applied forest research and applied forest research to advance communications, outreach, and economic programs for Tribal Nations and Indigenous communities.

The 2024 Indigenous Forest Knowledge fund Request for Proposals (RFP) will fund up to \$1.5 million of applied research in the northern forest specifically to support indigenous education and knowledge. Research projects will be chosen in late 2024 after an early spring call for proposals.

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The Northeastern States Research Cooperative (NSRC) is a partnership of the Northern Forest states of Maine, New Hampshire, New York, and Vermont, in coordination with and with funding provided by the USDA Forest Service, an equal opportunity provider.

[www.nsrcforest.org](http://www.nsrcforest.org)