Forest Climate Change Initiative (FCCI)

The University of Maine's **Center for Research on Sustainable Forests** has initiated an effort to better coordinate regional research and scientists working on the potential effects of climate change on forests. The University of Maine has significant expertise on climate and forest resources, which exists across academics units, centers, and institutes. The FCCI web portal is intended to serve as a point of access to these resources and encourage networking among university expertise as well as external stakeholders.

crsf.umaine.edu/forest-climate-change-initiative/

FCCI Scientist Profile

Sarah J. Nelson

Director of Research, Appalachian Mountain Club

Institutional Affiliations: University of Maine Center for Research on Sustainable Forests

Research Focus: Climate effects on freshwaters, changing winters in northeastern North America, mercury dynamics in national parks

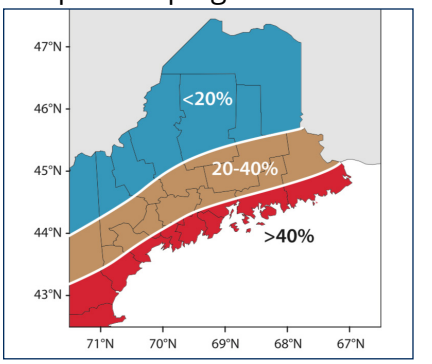
Sarah Nelson is Director of Research for the Appalachian Mountain Club. Prior to that she was an associate research professor in the School of Forest Resources, and Director, Program in Ecology & Environmental Services at the University of Maine. She has worked with US EPA, US Geological Survey, and the National Park Service on research, assessment, and monitoring of the effects of atmospheric pollution and climate change on forests, foodwebs, and freshwaters in remote and protected ecosystems. She has a Bachelor of Arts from Columbia University, and a Master of Science and Doctorate of Philosophy in Ecology & Environmental Sciences from the University of Maine.

Forest Climate Change Research Focus

Changing Winters in Maine and Beyond

Warming temperatures and greater variability in snowpack depth, density, and duration have cascading effects on natural resources, wildlife ecology, and the economies that depend upon keeping the cold.

- Northern Forest Region Scientific Synthesis: Defining how winters are changing across the Northern Forest Region.
- Winter Weather Whiplash: An interdisciplinary team of natural and social scientists and economists are developing a framework to define and respond to highly variable Winter Weather Whiplash events. These include winter weather occurring when it shouldn't, or unusually warm weather occurring when it should be cold.
- Phenological shifts in Maine lakes: A study with UMaine Farmington colleagues on how climate change affects lakes across the extremes of Maine weather: from the coasts to the highest peaks.



Projected snowfall decline by ~2050.
From Maine's Climate Future, Fernandez et al. 2015.