



Forest Climate Change Initiative (FCCI) An Overview and Discussion



2019 MAINE SUSTAINABILITY & WATER CONFERENCE
Thursday, March 28, 2019, 1:30-4 pm
Augusta Civic Center

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 (crsf.umaine.edu/forest-climate-change-initiative/). This session will highlight the goals of this initiative and begin a larger discussion on research priorities. In particular, the session will feature an overview of current FCCI activities, presentations on the current state of knowledge across multiple disciplines, and a panel discussion of stakeholders on their experiences and information needs regarding emerging weather patterns and climate change. A facilitated open discussion will follow to identify and prioritize information needs and research priorities.

Hour 1: Current State of Forest Climate Change Conditions & Research

Overview of the Forest Climate Change Initiative (FCCI): Potential regional sources of information, current resources provided by FCCI, and plans for FCCI moving forward.

Aaron Weiskittel, University of Maine Center for Research on Sustainable Forests

Evidence for a Changing Physical and Chemical Climate in Maine: Current and predicted changes in Maine's climate based on regional observations and projections, highlighting the broader implications of these changes and influence on the larger economy.

Ivan Fernandez, University of Maine School of Forest Resources & Climate Change Institute

Current State of Knowledge and Research on Potential Effects of Climate Change on Forest Ecology: Current understanding and implications of the physiological response of trees, forests, and the larger ecosystem to expected changes in future climate.

Jay Wason, University of Maine School of Forest Resources

Current State of Knowledge and Research on Potential Effects of Climate Change on Forest Economics: Specific implications of climate change on Maine's forest-based economy and linkages to expected changes in the global economy covering a broad array of economic factors like fiber, carbon, and water.

Adam Daigneault, University of Maine School of Forest Resources

Current State of Knowledge and Research on Human Dimensions of Climate Change and Potential Effects on Behaviors Associated with the Use and Management of Forests: Role of future climate change on how humans interact with the forest beyond traditional management (recreation, aesthetics, cultural identity), including factors such as changes in snow cover, extreme events, and tick-borne disease prevalence.

Sandra De Urioste-Stone, University of Maine School of Forest Resources

Hour 2: Panel and Group Discussions

Panel Discussion with stakeholders representing forest industry, forest policy & economics, and human dimensions of forest resources: **Doug Denico**, *Maine Forest Service*; **Andy Cutko**, *The Nature Conservancy*; **Rex Turner**, *Maine Bureau of Parks and Lands*; and **Marcia McKeague**, *Acadian Timber (Retired)*.

Facilitated Group Discussion on research needs and priorities.

Moderator: *Nick Fisichelli, Schoodic Institute*

Outcomes will be synthesized by FCCI into a short conference report following the sessions.

Speaker Biographies

AARON WEISKITTEL is the Director of the Center for Research on Sustainable Forests and Professor of Forest Biometrics & Modeling in the School of Forest Resources at the University of Maine. His research has been focused on developing a new growth and yield model for the Acadian Region, evaluating stem taper/volume equations, and exploring the potential influence of climate change on forest productivity. He has a Bachelor of Science in Natural Resources from The Ohio State University and Master of Science in Forest Resources as well as a Doctorate in Philosophy in Forest Science from Oregon State University. He has been at the University of Maine since 2008 after working for Weyerhaeuser.

IVAN FERNANDEZ is a Distinguished Maine Professor of Soil Science in the School of Forest Resources at the University of Maine. He is a soil scientist with interests in the biogeochemistry of forested ecosystems in a changing chemical and physical climate. He is also interested in how we are developing adaptation strategies for managing ecosystem response to climate change, particularly as it relates to terrestrial ecosystems and the freshwater resources they encompass. He has a Bachelor of Arts in Biology from Hartwick College, and a Master of Science in Plant & Soil Sciences as well as a Doctorate in Philosophy in Forest Resources from University of Maine. He has been a faculty member since 1983 after working for the National Council of the Paper Industry for Air and Stream Improvement.

JAY WASON is Assistant Professor of Forest Ecosystem Physiology in the School of Forest Resources at the University of Maine. Before joining SFR, Dr. Wason was a postdoctoral associate at the Yale School of Forestry & Environmental Studies. His research uses lab and field studies to determine the physiological responses of northeastern forest trees to novel future climate conditions. He has a Bachelor of Arts from the University of Pittsburgh and a Doctorate of Philosophy from SUNY College of Environmental Science and Forestry.

ADAM DAIGNEAULT is Assistant Professor of Forest, Conservation, and Recreation Policy in the School of Forest Resources at the University of Maine. His work has been to develop quantitative models to assess the socio-economic impacts of environmental policy on the natural resource sectors, which includes climate change mitigation and adaptation. He has a Bachelor of Arts in Economics & Environmental Studies from Denison University and a Master of Arts in Economics as well as Doctorate in Philosophy in Environmental & Natural Resource Economics from The Ohio State University. Adam has been a faculty member since 2016 after being a Senior Economist at Landcare Research, New Zealand's leading institute on terrestrial ecosystems and biodiversity research and an Economist for the U.S. EPA.

SANDRA DE URIOSTE-STONE is Assistant Professor of Nature-based Tourism in the School of Forest Resources at the University of Maine. Her interests are in developing collaborative and interdisciplinary research to address what makes some societies and communities more resilient to global and local changes, including climate change. She has a Bachelor of Arts from Universidad del Valle de Guatemala and a Master of Science as well as Doctorate in Philosophy from the University of Idaho. She has been a faculty member since 2013 after being a Department Chair, Instructor and Researcher at Universidad del Valle de Guatemala and Ecotourism Program Manager for a conservation nonprofit organization in Guatemala working with indigenous/rural communities.

DOUG DENICO is Director of the Maine Forest Service. Prior to being lured out of retirement to serve as Director, he worked for 27 years for International Paper and Scott Paper Co. in northern Maine. He obtained his Master of Science in Forest Economics and Bachelor of Science in Forest Management from the University of Maine.

ANDY CUTKO is Director of Science for The Nature Conservancy of Maine. Prior to joining that organization in 2017, he was an Ecologist with the Maine Natural Areas Program within the Maine Department of Conservation. He has a Bachelor of Arts from Williams College and a Master of Forestry from Duke University.

REX TURNER is Outdoor Recreation Planner at the Maine Bureau of Parks and Lands and has been in that position since 2008. Prior to that, he was the Director of Education at Maine Lakes Conservancy Institute and a professional outdoor guide. He has a Bachelor of Science in Outdoor Recreation and Master of Forestry, both from the University of Maine.

MARCIA MCKEAGUE retired as Vice President of Acadian Timber where she was responsible for the operations of Acadian Timber's 300,000 acres of timberlands in Maine; she was also President of Katahdin Timberlands LLC, a company owning and managing over 600 recreational leased lots in Maine. Prior to joining Brookfield in 2003, Marcia managed both the wood procurement activities and the timberlands of Great Northern Paper. Marcia has over 30 years of experience in the forest industry, primarily in planning and operations management functions. She has a Bachelor of Science in Forestry from the University of Michigan and a Master of Science in Forestry from Michigan State University and is a licensed professional forester in Maine.

NICK FISICHELLI is the Forest Ecology Director with Schoodic Institute at Acadia National Park. Nick focuses on natural resource dynamics and protected area management challenges in a continuously changing world. This includes scientific research, education, and stewardship outreach with an emphasis on understanding ecosystem dynamics, drivers, and global change stressors in eastern forests. He was a Fulbright Fellow in Germany and earned his Doctorate of Philosophy in Forest Ecology from the University of Minnesota.