

Biographies of Speakers at Pinelands Climate Change Science Forum 2024 - Forests and Forestry Practices

Patricia Leopold, Climate Adaptation Specialist, USDA Forest Service Eastern Region State, Private, and Tribal Forestry

Patricia Leopold is the Climate Adaptation Specialist for R9 State, Private, and Tribal Forestry (SPTF), a position that is shared with the Northern Institute of Applied Climate Science (NIACS). Over the last 14 years with NIACS, Patricia has coordinated adaptation communities of practice, led the creation of ecosystem vulnerability assessments, co-authored the Adaptation Workbook, and trained numerous agencies, organizations, and natural resources professionals on incorporating climate change into management and planning. In SPTF, Patricia works to integrate climate change into all programs, and serve as the climate and forest carbon point of contact for SPTF staff and agency partners.

Susan Cook-Patton, Senior Forest Restoration Scientist on the Natural Climate Solutions Science Team, The Nature Conservancy

Susan Cook-Patton works to quantify the climate mitigation potential of reforestation and other natural climate solutions and infuse the best-available science into policy decisions. To do this, she collaborates with scientists across the globe, and from academic, government, and other non-governmental organizations. She has over a decade of experience leading scientific investigations into how changes in biodiversity and climate are impacting forest, grassland, and urban ecosystems. Before joining the Nature Conservancy in 2016, she was a policy fellow at the US Forest Service and a research fellow at the Smithsonian Institution. Susan holds a PhD in Community Ecology from Cornell University, and bachelor degrees in Biology, Psychology and English from Indiana University.

Karina Schafer, PhD, Faculty, Rutgers University

Dr. Schäfer's primary research interests lie in the realm of global change and its effects on terrestrial ecosystems. To this point, her research has focused on refining carbon budgets of forest ecosystems through sapflow based canopy conductance. In her current project she is adapting and re-parameterizing the Canopy Conductance Constrained Assimilation model (4CA) which she originally developed for a pine ecosystem at Duke. Once the model has been parameterized and validated at a specific site, climate change scenarios can be tested by using predicted values and implementing into the model predicting the outcome for that scenario for that site.

In addition, Karina is working in urban ecology through eddy-covariance measurements in the Meadowlands of New Jersey assessing CO₂ and CH₄ fluxes. Restoration of wetlands may or may not help in the carbon sequestration potential of wetlands and whether they will be able to keep up with sea level rise. Expanding the knowledge along the terrestrial – aquatic interface will enable predictions of resilience for these ecosystems.

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Jennifer Adams Krumins, PhD, Professor in the Department of Biology, Montclair State University

Jennifer Krumins' scientific career has centered on soil ecology and how plant and soil interactions change under the influence of anthropogenic disturbance. She is an educator of both undergraduate and graduate students in the classroom and in field and laboratory research. She has a doctorate from Rutgers University in Ecology and Evolution that was funded in a fellowship from NASA, and she completed her postdoctoral research at the Netherlands Institute of Ecology in a fellowship that was funded by the National Science Foundation. Currently, she is a Professor at Montclair State University. Her research is supported by the NSF, and she has published more than 40 papers in peer reviewed journals.

Emile D. DeVito, PhD, Manager of Science & Stewardship, New Jersey Conservation Foundation

Emile has been the Manager of Science and Stewardship at the New Jersey Conservation Foundation since 1989. He received a doctorate in Ecology in 1988 for research on bird communities and vegetation landscapes in New Jersey's Pine Barrens. Dr. DeVito develops management plans for NJCF's 20,000+ acres of holdings designed to protect and enhance biological diversity. Emile educates government officials, advocacy groups, land trusts, teachers and students on forest-interior habitat and migratory stopover needs of Neotropical songbirds. He is a trustee of the Pinelands Preservation Alliance and the NJ Natural Lands Trust. He serves on the Endangered and Non-Game Species Advisory Committee within the NJ Division of Fish and Wildlife, the New Jersey Invasive Species Council, and the Science Advisory Committee of the NY-NJ Trail Conference. ...read less

Leslie Jones Sauer, Ecological Restoration and Policy Expert, Senior Fellow Pinchot Institute

Ms. Sauer is a pioneer in the field of restoring native landscapes and was a founding board member of the Society for Ecological Restoration. Her book, *The Once and Future Forest* (Island Press, 1998, American Society of Landscape Architects, 2000 Merit Award in Communications), is a guidebook for managing natural landscapes-especially remnant deciduous forests. Ms. Sauer may be one of few people who have studied over 70,000 aerial photographs of the Pine Barrens in the course of mapping a million acres of vegetation for the newly formed Pinelands Commission in 1980 as well as two decades before for the NJ State Museum, *The Pine Barrens Vegetation Geography* 1973. She later mapped historic fire patterns in the Pygmy Pines.

She was also a key player in the Flood Protection Plan for a 14-mile stretch of the Passaic River in New Jersey, the Conservation Plan for the Manumuskin Watershed in New Jersey and the Comprehensive Watershed Management Plan for the Rockaway River Watershed. Her forest restoration projects range from urban greens, including both the Woodlands of Central Park and Prospect Park in New York City, and Wissahickon Park in Philadelphia, Pennsylvania,