



Adirondack Research Consortium

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2014 Fall Workshop

"What is the Greater Threat to Northern Forest Communities: Climate Change or White-tailed Deer?"

September 25, 2014

Tannery Pond Community Center, North Creek, NY

*Sponsored by the Colgate Upstate Institute, Colgate University
&
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Agenda

The purpose of this workshop is to promote an understanding of the impacts of white tail deer populations on forest regeneration, biodiversity, human health, and local communities in New York's Northern Forest.

- 8:30 Coffee and Danish
- 9:00 Welcome: **Dan Spada**, President, Adirondack Research Consortium
Bruce Selleck, Colgate University, and Program MC
- 9:05 Forest Regeneration - **Ralph Nyland**, SUNY ESF
- 10:00 Biodiversity - **Troy Weldy**, The Nature Conservancy
- 10:45 Break
- 11:00 Human Health Impacts – **Melissa Prusinski**, New York State Department of Health
- 12:00 Lunch
- 1:00 Policy Management and Practices – **Jeremy Hurst**, Wildlife Biologist, NYS DEC
- 2:00 Discussion: Community Experiences – Case studies and implementation plans
Catherine Cardelus, Colgate University
Bernd Blossey, Cornell University
- 3:30 Adjourn

Eligible for 4.0 hours Category 1-CF SAF Credit

FEATURED PRESENTERS

Ralph D. Nyland specializes in northern hardwood silviculture. He studies regeneration methods for both even- and uneven-aged stands, the dynamics and tending of immature stands and age classes, the production potential of alternate management strategies, and the effects on ecologic and non-market values. His regeneration studies, work with interference by understory beech root suckers, and assessing effects of browsing date back to the early 1970's. Dr. Nyland earned his BS (1958) and MS (1959) degrees in forestry and silviculture from SUNY-ESF, and his PhD from Michigan State University (1966) in forest management and silviculture. In 1967 he joined SUNY-ESF and in 1977 joined the teaching faculty becoming in 1981 a Professor of Silviculture. In 1997, he was appointed Distinguished Service Professor, with a continued emphasis in silviculture. Dr. Nyland authored or coauthored more than 150 technical publications, has written two books, and edited another. The most recent book titled *Silviculture: Concepts and Applications* now in its third edition.

Dr. Nyland will discuss successful regeneration of forest stands in the Adirondacks which depend on deliberately dealing with at least four major factors. These include: Protracted and intensive browsing by deer and snowshoe hare; Interference by American beech and rhizomatous ferns; Lack of adequate light near the ground due to understory and upper canopy shading; and, Paucity of a viable seed due to effects of exploitive harvesting, or having reproductive immature trees.

Troy Weldy is a Senior Conservation Manager for The Nature Conservancy of New York where he focuses on various forest health issues including deer management, invasive species and carbon markets. He is author of over 75 articles and other publications including the New York Flora Atlas and a chapter on invasive species management within *Conserving Biodiversity on Military Lands*. One of these articles was titled "Too Many Deer: A Bigger Threat to Eastern Forests than Climate Change?" which was highlighted in *Forbes Magazine* and the *Wall Street Journal*. His previous roles include North American Director of Forest Health for The Nature Conservancy, Director of US Network Operations for NatureServe, Director of the New York Flora Association, Botanist for the New York Natural Heritage Program and Faculty Research Associate for Vassar College. He has a BS from Butler University and a MA from the College of William & Mary.

Do deer have a greater right to inhabit the landscape than trilliums, warblers and salamanders? That will be the primary question asked during this talk. The Nature Conservancy completed a state wide analysis on the impact of deer on forest health. This presentation will expand upon that with a focus on the impacts of heavy deer browse on forest condition, but specifically looking at their impact on wildflowers, birds and other wildlife. Throughout the northeast there has been a decline in various bird species, particularly ground nesting birds. Through more targeted hunting programs, it is possible to bring these species back. We will discuss some potential options including opening more "nature preserves" to hunting and expanding the number of tools available to the land managers to improve overall forest condition.

Melissa Prusinski is a Research Scientist and Laboratory Supervisor with the New York State Department of Health, Bureau of Communicable Disease Control, Vector Ecology Laboratory, in Albany, NY. Over the past 15 years, her research interests have focused on the epidemiology, vector biology and landscape ecology of diseases transmitted by ticks and other arthropods. She serves as Chief Coordinator of the NYSDOH Statewide Tick-borne Pathogen Surveillance Initiative, and was head of the former NYSDOH Tick Identification Service from 2001-2011. Her published research can be found in peer-reviewed journals including: *Emerging Infectious Diseases*, *Environmental Entomology*, *Ecosphere* and the *Journal of Medical Entomology*.

Her presentation is entitled, "All is Not Quiet on the Western Front – The Geographic Expansion of Tick-borne Disease in New York State", and will provide an overview of tick ecology and current epidemiological trends in

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Countess Alicia Spaulding-Paolozzi Environmental Research and Education Center, Paul Smith's College Campus

tick-borne disease in New York. She will also discuss recent research focusing on the environmental factors and mechanisms promoting growth and spread of vector tick populations in the Adirondack Park and beyond.

Jeremy Hurst, wildlife biologist, has coordinated the white-tailed, black bear and moose management programs for the New York State Department of Environmental Conservation since 2005. In this role, he guides development and implementation of big game management plans and research and monitoring programs, coordinates deer harvest quotas, provides recommendations for big game related policies and regulations, and engages the public in the management process. Mr. Hurst earned his M.S. degree in Wildlife Ecology and Management from SUNY-ESF, where he studied deer movement within winter yards and historical changes in winter yard location in the Adirondack Region of northern New York.

His presentation will provide an overview of NYSDEC's deer program, the statutes and policies affecting deer management in northern New York and our current efforts to understand and manage deer-related impacts to forests. He will discuss aspects of his career and working for a state agency as well as steps to become a DEC biologist.

Dr. Catherine Cardelús is an ecosystem ecologist interested in one of ecology's fundamental questions: what are the patterns of biodiversity and how will biodiversity and ecosystem processes respond to a changing environment? She studies this in many ecosystems including the rainforest canopy of Costa Rica, the temperate deciduous forests of NY, and the montane forests of northern Ethiopia. Catherine is an Assistant Professor of Biology and Environmental Studies at Colgate University. She earned her BA at Barnard College and PhD at the University of Connecticut.

Dr. Cardelús will discuss her course, Community-Based Environmental Issues, in which her students studied the "deer issue". Her students approached this by studying the biology, the economics, and the public perception of deer in Hamilton NY. The course culminated in a public community forum in which they presented their results.

Dr. Bernd Blossey is an Associate Professor in the Department of Natural Resources at Cornell University. His teaching focus is on Biological Invasions and Conservation Biology. His research addresses three main areas: how plant invasions and their management affect native ecosystems, how we can achieve improvements in the success of biological weed control, and what determines the increased competitive ability of invasive plants. Dr. Blossey received both his Master of Science degree and his Ph.D. from Christian Albrechts University.

Dr. Blossey's talk is called, "**Resilient forests of the future: community responses to deer and invasive species**". Climate change has captured the attention of scientists, policy makers and communities in attempts to prepare for an uncertain but warmer future. All biotic communities will need to find appropriate responses to the expected changes in temperature, precipitation patterns, plant and animal invasions, to just name a few. The ability to respond to such changes, ecologically or evolutionarily, requires abundant and healthy populations, and appropriate living conditions in present and future habitats, including corridors that may connect them. The impacts associated with white tailed deer across much of North American are currently severely curtailing the ability of plant and animal communities to develop appropriate responses to climate change. Our animal and plant neighbors who we enjoy on our hikes and visits to the woods are on extended life-support, although we may not recognize this at present. Communities have stewardship responsibilities; agencies have a responsibility to enable communities to respond. I will outline different approaches communities have tried in the Finger Lakes Region to address overabundant deer herds.

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