

JOEL R. CARLSON – Principal Consultant & Owner, Northeast Forest and Fire Management LLC, Sandwich, Massachusetts.

Joel is owner and operator of a forest and fire management consulting company that he started in 2006, Northeast Forest and Fire Management LLC. Northeast Forest and Fire Management, LLC works with a range of client organizations including local agencies, county agencies, state agencies, federal agencies, non-profit groups, and private property owners. The company develops management plans and studies including forest management plans, wildfire hazard assessments, community wildfire protection plans, fire management plans, prescribed burn plans, and monitoring protocols. It undertakes ecological and forest management inventory and monitoring to evaluate fire and forest management objectives. Services also include the coordination and instruction of fire management trainings and workshops. Additionally Joel's company plans, implements, and conducts the application of vegetation management, logging operations, and prescribed fire for a wide range of resource management goals including ecological management, forest management, fuel hazard reduction, and view shed protection.

Joel completed a Bachelors of Science in the field of Forestry with a Wildlife Biology minor at the University of Massachusetts at Amherst and attended the graduate program of Forestry at the University of New Hampshire. Joel maintains professional certifications as a Society of American Foresters Certified Forester and Forest Auditor, Association of Consulting Foresters Certified Forester, Ecological Society of America Certified Ecologist, and Association of Fire Ecology Certified Wildland Fire Manager and Wildland Fire Ecologist. Additionally he maintains licenses as Massachusetts Licensed Forester, Pesticide Applicator, and Heavy Equipment Operator. His fireline qualifications include Prescribed Fire Burn Boss Type 2, Incident Commander Type 4, Incident Commander Type 5, Fire Effects Monitor, Engine Boss, Firing Boss, Firefighter Type 1, Firefighter Type 2 and is working on his Prescribed Fire Burn Boss Type 1 and Prescribed Fire Manager Type 2 position task books.

Since 2004, Joel has lectured on "Implementing Fire Regimes in Wildland Remnants: Problems and Pitfalls" at the National Advanced Fire and Resource Institute's annual Advanced Fire Effects (Rx510). Additionally Joel is currently serving as a community representative for the recently formed North Atlantic Fire Science Consortium.

A native of southeastern Massachusetts, Joel Carlson is currently a resident of Sandwich, Massachusetts where he lives with his wife Ellen, a planner with the National Park Service, and 2 young, Benjamin (16) and Nathan (13).

Revised: 07/01/2015 ca

Bearer, Scott L. – Senior Conservation Scientist, The Nature Conservancy, Harrisburg, PA.
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Dr. Bearer currently serves as TNC-PA's lead terrestrial scientist and is currently focused on a variety of prescribed fire-related projects, including the development of a collaborative Prescribed Fire Monitoring Program to assure Pennsylvania's prescribed fire efforts are achieving their ecological objectives. Aside from fire, he is working on efforts to mitigate damage from forest pests (especially the Hemlock Woolly Adelgid), and building partnerships to carry TNC's resiliency analysis into on-the-ground forest management approaches. He serves on several professional boards and committees, including the Pennsylvania Biological Survey Mammal Technical & Vegetation Classification Committees, the Wildlife Society state board, PGC State Wildlife Action Plan Steering Committee, DCNR Ecosystem Management Advisory Committee, DCNR Natural Gas Advisory Committee, USFS NIACS Vulnerability Assessment Team, among others.

Scott was red-carded in 1993 and joined Pennsylvania's Specialized (out-of-state) Crew in 1994. After getting his first Squad Boss assignment in 1995, Scott now functions primarily as a FFT1 or FEMO on Pennsylvania wildfires or prescribed burns. He is also a volunteer structural firefighter and EMT. Before joining TNC, Scott worked for both the Pennsylvania Game Commission and the PA DCNR Bureau of Forestry, and has also previously been a contracted welder, a telemark ski instructor, and a solo-rated hang-gliding instructor.

Scott joined TNC in 2006, after completing a post-doctorate (USFWS-Patuxent Research Center) where he developed the monitoring plan to remove the bald eagle from the federal Endangered Species list. He holds a Ph.D. from Michigan State University where he studied Tibetan/Chinese forest harvesting impacts on giant panda habitat (Wolong Nature Reserve, Sichuan, PRC), a M.S. from Clarion University (Landscape Ecology; forest fragmentation effects on bat ecology), and a B.S. from Virginia Tech (Forestry and Wildlife). When not fishing, hunting or camping in his restored 1973 Volkswagen bus, Scott lives in Elimsport, PA with his wife, their son, and Cooper the golden-doodle.

Howard, Lauren F. - Assistant Professor of Biology, Arcadia University, Glenside, PA
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Dr. Lauren F. Howard is a plant community ecologist who studies the effects of disturbance, particularly fire, on forest change and species diversity in the central Appalachian Mountains. Dr. Howard's research explores the history of fire in high elevation pine forests in West Virginia using dendrochronology (forensic analysis of tree rings). This research explores connections between fire history and present day forest composition and diversity. He also studies controlled burning strategies in oak forests and barrens on State Game Lands in Pennsylvania, and collaborated with the PA Game Commission in designing their burn monitoring protocols.

To accomplish his research and provide results to natural resource managers and practitioners, Dr. Howard partners with The Nature Conservancy, US Forest Service, and state agencies such as the WV Division of Natural Resources and the PA Game Commission. He is a community representative for the North Atlantic Fire Science Exchange, a Joint Fire Science Program-funded organization designed to facilitate communication among, and access to resources for, both scientists and managers. He is a member of the PA Prescribed Fire Council, the Central Appalachian Fire Learning Network, the Ecological Society of America, and the Southern Appalachian Botanical Society.

Dr. Howard earned his B.S. in Biology from Norwich University in 1997. He earned his M. S. (1999) and his Ph.D. in Plant Biology (2003) at the University of New Hampshire, studying the role of disturbance history and environmental factors on composition, succession and biodiversity in New Hampshire forests. His postdoctoral position for the National Commission on Science for Sustainable Forestry (2004) explored the historic roles of disturbance in northeastern US forests and how they could inform current forest management practices.

He currently teaches Ecology, Conservation Biology, and General Biology at Arcadia University in the greater Philadelphia area. He mentors undergraduate students in forest ecology and dendrochronology and involves undergraduate research assistants in field and laboratory projects.

A bibliography of recent publications is available upon request from the instructor.

Patrick McElhenny began work with The Nature Conservancy in 1998 and at present is the fire manager for the Pennsylvania and Delaware Chapters where he coordinates and manages fire activities for the Conservancy. Prior to becoming the fire manager Patrick worked for the Conservancy at Fort Indiantown Gap on the regal fritillary project and at Long Pond as the contact for invasive species management. He has been involved in fire activities since 2000 and leading burns since 2007. Besides fire activities Patrick has a background in vegetation monitoring and invasive species management. He graduated from Penn State-DuBois with a degree in Wildlife Technology.

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Michael C. Owens-Cultural Resource Program Manager, Delaware Water Gap, National Recreation Area, National Park Service

Michael has worked as a professional Archaeologist for Engineering and Environmental consulting firms, Universities and research non-profits since 1997. In 2004 he joined the National Park Service as an Archaeologist at Harpers Ferry, WV and later at the Historic Preservation Training Center of the National Park Service. He is currently working as the Cultural Resource Program Manager at the Delaware Water Gap National Recreation Area. During his entire time with the National Park Service Michael held a Red Card and has worked on fire crews and as a single resource in California, Idaho, Texas, Virginia, North Carolina, West Virginia, New York, New Jersey and Maryland in varying terrain and environments from lowland swamps to areas above tree line at 8,000 feet elevation encountering a variety of fuels and cultural resources.

Michael earned a B.A. in American History from the Catholic University of America in 1987, completed Ph.D. course work in Anthropology, Temple University, Philadelphia, PA in 2004 and received an M.A. from Temple in Anthropology 2011, completed a three year training program in Historic Preservation at the Historic Preservation Training Center, National Park Service in 2013. Michael has successfully completed Historic Preservation and Archaeological projects involving a variety of resources and concerned parties such as, the National Park Service, United States Forest Service, United States Fish and Wildlife Service, United States Department of Transportation, Department of Defense as well as State and County Governments.

Date Revised: 03/16/2015 MCO

Mike Pruss - Section Chief, Private Lands, PA Game Commission, Harrisburg, Pennsylvania.

Mike grew up on a beef farm outside Washington, PA, where they regularly used prescribed fire to manage pastures and hayfields. Mike worked eight years for the Arizona Game and Fish Department as a Nongame Wildlife Biologist and Habitat Biologist in the southeast and northeast regions, and was involved in planning and monitoring landscape scale prescribed fires for endangered species habitat management. He returned to Pennsylvania in 2000 as the Regional Biologist for Pheasants Forever covering the northeastern US and southeastern Canada, where he was involved in the initial discussions leading up to the creation of the PA Prescribed Fire Council. In 2005, he began working in his current position, and was the agency lead on developing their prescribed fire program, including their work with the Council, TNC, and DCNR to develop the Prescribed Fire Practices Act, opening the door to conduct prescribed fire on a large scale in Pennsylvania. Mike was the Agency lead in developing the Scotia Barrens Burn Program, and continues to be involved in those burns. As the current agency lead on the Hunter Access and Farm Bill programs, Mike works with federal agriculture agency partners to increase the technical and funding capacity for prescribed fire in their programs, especially VPA-HIP, CREP, WLFW, and EQIP. Mike currently owns and operates Ewe Win Farms in Mifflin County, Pennsylvania, where they regularly use prescribed fire to manage hayfields and pastures. He is grandfathered as an RXB3 in Pennsylvania, and has completed coursework through the RXB2 level.

Mike received his B.S. in Wildlife and Fisheries Science in 1989 from the Pennsylvania State University and an M.S. in Wildlife Ecology in 1991 from the University of New Hampshire, where he assisted with prescribed fire on the experimental forest under the direction of Dr. David Olson.

Date Revised: 02/13/2015 MTP

Mark Swartz - Wildlife Biologist 2, PA Department of Military and Veterans Affairs, Fort Indiantown Gap, Annville PA. markswartz@pa.gov

Mr. Swartz is from Lansdale, PA in Montgomery County. He attended Penn State University from 1995-2002 and received two Bachelor's degrees, one in Wildlife and Fisheries Science and another in Forest Biology. As an undergraduate, He assisted with graduate projects related to salamander ecology, scavenging and game bird ecology, and the control of agricultural insect pests. After graduation, He worked seasonally with The Nature Conservancy at Ft. Indiantown Gap National Guard Training Center (FIG-NGTC), PA. Here, he assisted with the Regal Fritillary Butterfly monitoring project. This eventually led to graduate school at Shippensburg University where he earned his Master's of Science in Biology. For his thesis research, he measured and compared vegetative cover and host plant densities in fields with and without the Regal Fritillary Butterfly.

Currently, he works as a Wildlife Biologist with the Pennsylvania National Guard at FIG-NGTC. Here, he works with other wildlife biologists, foresters, and other land managers to maintain habitat for soldiers and wildlife (and plants). His professional interests are related to entomology, botany, disturbance ecology, general ecology, and museum curation. When he is not working in biology, he spends his spare time playing and composing for the classical guitar.