

Roger Earl Latham

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PROFESSIONAL EXPERIENCE

Ecologist/Conservation Biologist

Continental Conservation, Rose Valley, Pennsylvania (2000–ongoing):

Doing applied research and conservation planning as a consultant for the National Park Service, The Nature Conservancy, Natural Lands Trust, Western Pennsylvania Conservancy, Audubon, Pennsylvania Department of Conservation and Natural Resources, and other agencies and organizations involved in wildland restoration and management.

Assistant Professor

Department of Biology, Swarthmore College, Swarthmore, Pennsylvania (1996–2000):

Conducted research in restoration ecology and alternative persistent states in plant communities; taught courses and seminars in ecology and related subjects; supervised student research.

Post-doctoral Researcher

Department of Geology, University of Pennsylvania, Philadelphia (1992–96):

Directed an experimental research program on the ecology, biogeochemistry and conservation biology of fire-maintained shrubland ecosystems marked by exceptional clusters of rare species.

Director, Science and Stewardship; Stewardship Ecologist

Pennsylvania Field Office, The Nature Conservancy, Philadelphia (1988–92):

Planned and implemented management of a regional nature preserve system. Supervised assistants, interns, preserve stewards and volunteers. Developed preserve design, biological monitoring, restoration, and protection strategies for globally rare species and exemplary occurrences of natural communities.

Botanist/Field Investigator

Pennsylvania Flora Project, Morris Arboretum, University of Pennsylvania, Philadelphia (1982–83):

Located and documented populations of approximately 200 species of rare plants across eastern Pennsylvania as part of the multi-agency Pennsylvania Natural Diversity Inventory.

Naturalist/Environmental Planner

Fahringer McCarty Grey, Inc., Pittsburgh (1973–80):

Collaborated in developing conservation management plans for large landholdings of state and federal government agencies and conservation organizations in five states.

EDUCATION

Ph.D. in Biology	University of Pennsylvania (1990) Thesis: Co-Occurring Tree Species Change Rank in Seedling Performance with Small-Scale Resource Variation (Advisor: Dr. Brenda B. Casper)
B.A. in Biology	Swarthmore College (1983)

PROFESSIONAL CERTIFICATION

Certified as Senior Ecologist, Ecological Society of America (1995)

PROFESSIONAL AND CIVIC SERVICE ACTIVITIES

Science Committee, Audubon Pennsylvania, Harrisburg (2009–ongoing)

Board of Trustees, Natural Lands Trust, Media, Pennsylvania (2008–ongoing)

Community Classification Standing Committee, Pennsylvania Biological Survey (2008–ongoing)

Environmental Advisory Council (Chairperson), Borough of Rose Valley, Pennsylvania (2008–ongoing)
 Steering Committee, Private Lands Plant Sanctuary Program, Pennsylvania Department of Conservation and Natural Resources (2008–ongoing)
 Advisory Committee, Wild Resource Conservation Program, Pennsylvania Department of Conservation and Natural Resources (2007–09)
 Steering Committee, Pennsylvania Biological Survey (2005–ongoing)
 Deer Management Forum, Audubon Pennsylvania and Pennsylvania Habitat Alliance (2001–05)
 Natural Areas Committee, Tyler Arboretum, Media, Pennsylvania (2000–ongoing)

AWARDS

Science Award, The Nature Conservancy of Pennsylvania (1999)

PROFESSIONAL SOCIETIES

American Institute of Biological Sciences	Natural Areas Association	Society for Ecological Restoration
Ecological Society of America	Sigma Xi	Union of Concerned Scientists
	Society for Conservation Biology	

EDITORIAL WORK

Journal Editor

Editor of *Bartonia: Journal of the Philadelphia Botanical Club* (1999–2007)

Peer reviewer for professional journals, organizations and agencies

<i>American Journal of Botany</i>	<i>Journal of the Torrey Botanical Society</i>	<i>Northeastern Naturalist</i>
<i>American Midland Naturalist</i>		<i>Oecologia</i>
<i>American Naturalist</i>	<i>Journal of Vegetation Science</i>	Pennsylvania Wild Resource Conservation Program
<i>Annals of Botany</i>	<i>Mitteilungen der Eidgenössischen Forschungsanstalt für Wald, Schnee und Landschaft</i>	<i>Plant Ecology</i>
<i>Australian Journal of Ecology</i>		<i>Restoration Ecology</i>
<i>Diversity and Distributions</i>	National Science Foundation	U.S. E.P.A. National Health and Environmental Effects Laboratory
<i>Ecography</i>	Natural Sciences and Engineering Research Council of Canada	
<i>Ecology</i>		
<i>Forest Ecology and Management</i>	New Hampshire Agricultural Experiment Station	
<i>Journal of Applied Ecology</i>		

INVITED SYMPOSIUM PRESENTATIONS

Forests Too Deer: How Today's Record High Deer Population Affects Ecosystems, Biodiversity and Quality of Life—Gordon Natural Area Seminar, West Chester University, West Chester, Pennsylvania (2009)

Paleo- and Present-Day Ecology of Fire-Maintained Ecosystems in Pennsylvania—Fire in Pennsylvania Conference, State College (2008).

All Meadows Aren't Created Equal: a Diversity of Meadow Communities—New Directions in the American Landscape Symposium, Connecticut College, New London, and Villanova University, Villanova, Pennsylvania (2008).

Native grasslands and meadows in Pennsylvania: their history and current condition—Bowman's Hill Wildflower Preserve's Land Ethics Symposium, Langhorne, Pennsylvania (2007); plenary address, Eastern Native Grass Symposium, New Cumberland, Pennsylvania (2006); Pennsylvania Grasslands Workshop, Kings Gap (2005).

Shrubland Longevity and Rare Plant Species in the Northeast—Early-Successional Forests and Shrubland Habitats in the Northeastern United States: Critical Habitats Dependent on Disturbance, University of New Hampshire, Durham (2002).

TEACHING, MENTORING

Courses taught or co-taught (1996–99, Swarthmore College)

Biodiversity Seminar, Ecology, Organismal and Population Biology, Paleobiology Seminar, Senior Evolution Seminar, Senior Honors Study

Graduate thesis advisor/collaborator/examiner

Laura Siegwart, M.S., Biology. 2008. Does fire severity difference create divergent plant communities in black spruce – *Kalmia* forests of eastern Newfoundland? Lakehead University, Thunder Bay, Ontario.

Anne W. Wibiralske, Ph.D., Geology. 2002. Comparison of nutrient capital between shrubland and forest and between Illinoian and Wisconsinan tills on the Pocono Plateau, Pennsylvania. University of Pennsylvania, Philadelphia.

Keith R. Maurice, M.S., Geography. 2000. Landscape factors influencing vegetation persistence and transition rates in mesic till barrens, Pocono Plateau. West Chester University, West Chester, Pennsylvania.

Catherine Rees, M.S., Environmental Studies. 1997. Fire and *Pinus rigida* rock outcrop communities of the northern Shawangunk Mountains. Bard College, Annandale-on-Hudson, New York.

Karen Borza Arabas, Ph.D., Geography. 1996. Fire and vegetation dynamics in the eastern serpentine barrens. Pennsylvania State University, University Park.

John E. Thompson, M.S., Geology. 1995. Interrelationships among vegetation dynamics, fire, surficial geology, and topography of the southern Pocono Plateau, Monroe County, Pennsylvania. University of Pennsylvania, Philadelphia.

Colin A. Maclachlan, M.L.A. 1994. Nottingham County Park: the restoration and management of a temperate eastern serpentine barrens. University of Georgia, Athens.

SELECTED PUBLICATIONS

Peer-reviewed volume

Latham, R. E. (ed.), J. Beyea, M. Benner, C. A. Dunn, M. A. Fajvan, R. R. Freed, M. Grund, S. B. Horsley A. F. Rhoads and B. P. Shissler. 2005. *Managing White-tailed Deer in Forest Habitat from an Ecosystem Perspective: Pennsylvania Case Study*. Audubon Pennsylvania and the Pennsylvania Habitat Alliance, Harrisburg. 340 pp. (pa.audubon.org/deer_report.html)

Peer-reviewed journal articles and book chapters

Latham, R. E., D. Zercher, P. McElhenny, P. Mooreside and B. Ferster. 2007. Habitat restoration and management for the eastern regal fritillary, *Speyeria idalia idalia* (Drury), at a military installation in Pennsylvania. *Ecological Restoration* **25**: 103–111.

Gustafson, D. J. and R. E. Latham. 2005. Is the serpentine aster, *Symphyotrichum depauperatum* (Fern.) Neesom, a valid species and actually endemic to eastern serpentine barrens? *Biodiversity and Conservation* **14**: 1445–1452.

Wibiralske, A. W., R. E. Latham and A. Johnson. 2004. A biogeochemical analysis of the Pocono till barrens and adjacent hardwood forest underlain by Wisconsinan and Illinoian till in northeastern Pennsylvania. *Canadian Journal of Forest Research* **34**: 1819–1832.

Maurice, K. R., J. M. Welch, C. P. Brown and R. E. Latham. 2004. Mesic till barrens in retreat: topography, fire and forest contagion effects. *Landscape Ecology* **19**: 603–620.

Latham, R. E. 2003. Shrubland longevity and rare plant species in the northeastern USA. *Forest Ecology and Management* **185**: 21–39.

- Gustafson, D. J., G. Romano, R. E. Latham and J. Morton. 2003. Amplified fragment length polymorphism analysis of genetic relationships among the serpentine barrens endemic *Cerastium velutinum* Rafinesque var. *villosissimum* Pennell (Caryophyllaceae) and closely related *Cerastium* species. *Journal of the Torrey Botanical Society* **130**: 218–223.
- Eberhardt, R. W. and R. E. Latham. 2000. Relationships among vegetation, surficial geology and soil water content at the Pocono mesic till barrens. *Journal of the Torrey Botanical Society* **127**: 115–124.
- Castelli, J. P., J. Sullivan, B. B. Casper and R. E. Latham. 1999. Early understory succession following catastrophic wind damage in a deciduous forest. *Canadian Journal of Forest Research* **29**: 1–6.
- Petraitis, P. S. and R. E. Latham. 1999. The importance of scale in testing the origins of alternative community states in ecosystems. *Ecology* **80**: 429–442.
- Ricklefs, R. E., R. E. Latham and H. Qian. 1999. Global patterns of tree species richness in moist forests: distinguishing ecological influences and historical contingency. *Oikos* **86**: 369–373.
- Latham, R. E., J. E. Thompson, S. A. Riley and A. W. Wibiralske. 1996. The Pocono till barrens: shrub savanna persisting on soils favoring forest. *Bulletin of the Torrey Botanical Club* **123**: 330–349.
- Ricklefs, R. E., M. T. Kalin-Arroyo, R. E. Latham, T. M. Lewinsohn, D. J. Lodge, N. I. Platnick and D. Wright. 1995. The distribution of biodiversity. Pages 139–173 in V. H. Heywood (ed.), *Global Biodiversity Assessment*, Cambridge University Press for United Nations Environmental Programme.
- Latham, R. E. and R. E. Ricklefs. 1993. Continental comparisons of temperate-zone tree species diversity. Pages 294–314 in R. E. Ricklefs and D. Schluter (eds.), *Species Diversity in Ecological Communities: Historical and Geographical Perspectives*, University of Chicago Press.
- Latham, R. E. and R. E. Ricklefs. 1993. Global patterns of tree species richness in moist forests: energy-diversity theory does not account for variation in species richness. *Oikos* **67**: 325–333.
- Ricklefs, R. E. and R. E. Latham. 1993. Global patterns of diversity in mangrove floras. Pages 215–229 in R. E. Ricklefs and D. Schluter (eds.), *Species Diversity in Ecological Communities: Historical and Geographical Perspectives*, University of Chicago Press.
- Latham, R. E. 1992. Co-occurring tree species change rank in seedling performance with resources varied experimentally. *Ecology* **73**: 2129–2144.
- Ricklefs, R. E. and R. E. Latham. 1992. Intercontinental correlation of geographical ranges suggests stasis in ecological traits of relict genera of temperate perennial herbs. *American Naturalist* **139**: 1305–1321.
- Petraitis, P. S., R. E. Latham and R. A. Niesenbaum. 1989. The maintenance of species diversity by disturbance. *Quarterly Review of Biology* **64**: 393–418.

Other publications

- Latham, R. E. (ed.), M. D. Grund, S. B. Horsley, B. C. Jones, W. H. McWilliams, C. K. Nielsen, C. S. Rosenberry, R. S. Seymour, B. P. Shissler and D. M. Waller. 2009. *Monitoring Deer Effects on Forest Ecosystems in Pennsylvania State Forests*. Pennsylvania Department of Conservation and Natural Resources, Bureau of Forestry, Harrisburg. 49 pp.
- Latham, R. E. 2008. *Pink Hill Serpentine Barrens Restoration and Management Plan*. John J. Tyler Arboretum, Media, Pennsylvania, and Mt. Cuba Center, Greenville, Delaware. 87 pp.
- Steckel, D. B., H. M. Harper, R. Latham, S. Charkes and A. F. Rhoads. 2008. *Stewardship Handbook for Natural Lands in Southeastern Pennsylvania*. Natural Lands Trust, Media, Pennsylvania. 222 pp.
- Furedi, M. A., R. Latham, T. Davis and G. Podniesinski. 2008. *Management Plan for Goat Hill Wild Plant Sanctuary*. Pennsylvania Department of Conservation and Natural Resources, Harrisburg. 49 pp.
- Latham, R. and J. F. Thorne. 2007. *Keystone Grasslands: Restoration and Reclamation of Native Grasslands, Meadows and Savannas in Pennsylvania State Parks and State Game Lands*. For the Wild Resource Conservation Program, Pennsylvania Department of Conservation and Natural Resources, Harrisburg. 100 pp.
- Latham, R. E., D. B. Steckel, H. M. Harper, C. Steckel and M. Boatright. 2007. *Lehigh Gap Wildlife Refuge Ecological Assessment*. For the Lehigh Gap Nature Center, Slatington, Pennsylvania, by Natural Lands

- Trust, Media, Pennsylvania, Continental Conservation, Rose Valley, Pennsylvania, and Botanical Inventory, Allentown, Pennsylvania. 62 pp. + 8 maps, 5 appendices.
- Latham, R. and A. F. Rhoads. 2006. The historical flora of Wykers Island in the Delaware River, Bucks County, Pennsylvania, from the 1884 to 1887 botanical notes of John and Harvey Ruth. *Bartonia* **63**: 29–47.
- Latham, R. 2006. Smart Conservation's™ plant community module: a tool for rapid quality-assessment of natural communities by non-experts. Pages 139–146 in R. B. McKinstry, Jr., C. M. Ripp and E. Lisy (eds.), *Biodiversity Conservation Handbook: State, Local and Private Protection of Biological Diversity*, Environmental Law Institute, Washington, D.C.
- Moyer, B., B. Shissler and R. Latham. 2006. Deer, communities and quality of life. Ecosystem Management Project, Fort Hill, Pennsylvania. 8 pp.
- Latham, R. 2005. Protecting the Unionville Barrens: biological, historical and value considerations. Brandywine Conservancy, Environmental Management Center, Chadds Ford, Pennsylvania. 30 pp.
- Latham, R. E. 2004. [Book review of] *Measuring Biological Diversity*, by Anne E. Magurran. *Journal of Vegetation Science* **15**: 854–856.
- Latham, R. E., D. B. Steckel, H. M. Harper and D. C. Rosencrance. 2003. *Conservation and Stewardship Plan for the Crum Woods of Swarthmore College*. For Swarthmore College, Swarthmore, Pennsylvania by Natural Lands Trust, Media, Pennsylvania and Continental Conservation, Rose Valley, Pennsylvania. 138 pp. + 19 maps, 12 appendices.
- Latham, R. E. 2002. Inventory of the current state of scientific knowledge on biodiversity in Pennsylvania. Pennsylvania Biodiversity Partnership, Pittsburgh. 70 pp.
- Latham, R. 2000. Friendly fire: foresters learn from natural burn [editorial]. *Patriot-News*, Harrisburg, Pennsylvania.
- Latham, R. 2000. Fighting fire with fire saves forest: good management techniques can help to prevent the kind of blazes now charring the West [editorial]. *Sunday News*, Lancaster, Pennsylvania.
- Latham, R. 2000. Good forest management will curb catastrophic fires [editorial]. *Pocono Record*, Stroudsburg, Pennsylvania.
- Latham, R. E. 2000. The Crum Woods in peril: toward reversing the decline of an irreplaceable resource for learning, research, recreation and reflection [white paper]. 18 pp. + map. Swarthmore College, Pennsylvania.
- Latham, R. 1999. [Book review of] Ed Ayres '63, *God's Last Offer: Negotiating for a Sustainable Future*. *Swarthmore College Bulletin* **97**(2): 48.
- Latham, R. E. 1993. The serpentine barrens of temperate eastern North America: critical issues in the management of rare species and communities. *Bartonia* **57** Suppl.: 61–74 (*Proceedings of the Symposium on Rare Plants of Pennsylvania and Adjacent States*, 28 March 1991, Philadelphia).

Journal manuscripts in preparation/review

- Latham, R. E., J. E. Thompson, A. Sugden-Newbery and P. Stoll. Spatial analysis of vegetation change in a mesic shrubland: effects of geomorphology, fire history and forest proximity. (To be submitted to *Landscape Ecology*)
- Latham, R. E. Restoration of eastern serpentine grasslands. (To be submitted to *Natural Areas Journal*)
- Latham, R. E. and J. F. Thorne. Disturbance, succession, and restoration in eastern North American serpentine grasslands. (To be submitted to *Conservation Biology*)
- Latham, R. E., E. Dubinsky and S. R. McCandless. The interdependence of soil depth, soil chemistry and vegetation type in eastern temperate serpentine barrens. (To be submitted to *Journal of the Torrey Botanical Society*)