

Patrick H. Martin

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Colorado State University
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EDUCATION

Ph.D., Cornell University, Forest Ecology, 2005.

M.S., Yale School of Forestry & Environmental Studies, Forest Science, 1998.

M.A. & B.A., St. Andrews University (Scotland), Joint Honours, International Relations and Modern History, *summa cum laude*, 1994.

RESEARCH INTERESTS

Landscape Ecology; Forest ecology; Invasion ecology; Tropical biology; Biogeography; Spatially explicit dynamics of forest ecosystems; Dendroecology; Climate change; Linkages between tree population dynamics and forest ecosystem processes; Likelihood estimation methods and modeling.

PROFESSIONAL EXPERIENCE

- *Assistant Professor*, Horticulture & Landscape Architecture, Colorado State University. Sept. 2006-present.
- *Adjunct Professor*, Natural Resource Sciences, University of Rhode Island. Jan. 2006-May 2006.
- *Post-Doctoral Fellow*, Institute of Ecosystem Studies. Sept. 2003-Dec. 2005.
- *Lecturer*, Summer Field Modules, Yale School of Forestry & Environmental Studies. 1998-present.
- *Teaching Assistant*, Cornell University, 1998-2002.
- *Teaching Assistant*, Yale School of Forestry & Environmental Studies, 1996-1998.
- *Researcher*, Hubbard Brook Experimental Forest. Summer 1997.

PROFESSIONAL HONORS & AWARDS

- *NSF SGER*. Response of tropical montane cloud forests to severe fires, Cordillera Central, Dominican Republic. *PIs*: Drs. T. Fahey and R. Sherman. 1 year, **\$57,477**. 2005.
- *USDA NRI*. Invasion of Northeastern Forests by Exotic Tree Species. *PIs*: Drs. C. Canham and P. Marks. 3 years, **\$250,000**. 2003.
- *Andrew W. Mellon Research Grant*. Modeling the pattern and impacts of Norway maple invasions in northeastern forests. With Dr. P. Marks. **\$1,500**. 2003.
- *Garden Club of America*, Award in Tropical Botany. The role of environment and natural disturbances in plant community pattern and dynamics in a neotropical cloud forest. With Dr. T. Fahey. **\$5,500**. 2003.
- *NSF*, Research & Training Grant, Biogeochemistry Grant Award. **\$2,500**. 2002.
- *NSF*, Research & Training Grant, Graduate Fellowship. 2 years, **\$35,000**. 1998.

- *Yale Forestry & Environmental Studies*, Klemme Scholarship. **\$3,500**. 1997.
- *Yale Sperry-Mellon Research Grant*, Project in Forest Ecology. **\$500**. 1997.
- *Yale Tropical Resources Institute*, Research Fellowship. **\$2,500**. 1996.
- *St. Andrews University*, May Wong Prize in International Relations. **\$350**. 1994.

PROFESSIONAL AFFILIATIONS

Ecological Society of America; Association for Tropical Biology and Conservation.

PROFESSIONAL ACTIVITIES

Ad-hoc reviewer for *American Midland Naturalist*, *Biotropica*, *Ecological Monographs*, *Ecography*, *Journal of the Torrey Botanical Society*, *Journal of Tropical Ecology*, *Plant Ecology*, and *Springer Life Science Books*. Invasives specialist for the Nature Conservancy sponsored Shawangunk Ridge Biodiversity Partnership

TEACHING EXPERIENCE

Forest Ecology; Forest Hydrology; Fire Ecology; Plant Taxonomy and Field Identification; Field Biology; Navigation, Land Mapping and Surveying; Introduction to GPS and GIS; Environmental Conservation; Ecological Statistics.

PUBLICATIONS

- Perkins, S., S. Altizer, O. Bjornstad, J. Burdon, K. Clay, L. Gomez, J. Jeschke, P. Johnson, K. Lafferty, C. Malstrom, P.H. Martin, A. Power, P. Thrall, D. Strayer, and M. Uriarte. (*in press*) Infectious Disease in Invasion Biology. *Ecology of Infectious Diseases*, Cary Conference 2005. Springer-Verlag.
- Martin, P.H. and P.L. Marks. (2006) Intact forests provide only weak resistance to a shade tolerant invasive Norway maple (*Acer platanoides* L.). *Journal of Ecology* 94: 1070-1079.
- Martin, P.H. and T.J. Fahey. (2006) Fires above the clouds: fire history along environmental gradients in the subtropical pine forests of the Cordillera Central, Dominican Republic. *Journal of Tropical Ecology* 22(4): 1-14.
- Sherman, R.E., P.H. Martin, and T.J. Fahey. (2005) Vegetation-environment relationships in forest ecosystems of the Cordillera Central, Dominican Republic. *Journal of the Torrey Botanical Society* 132(2): 293-310.
- Martin, P.H., R.E. Sherman, and T.J. Fahey. (2004) Forty years of tropical forest recovery from agriculture: structure and floristics of secondary and old growth riparian forests in the Dominican Republic. *Biotropica* 36(3): 297-317.
- Martin, P.H. (1999) Norway maple (*Acer platanoides*) invasion of a natural forest stand: the pattern of colonization and understory consequences. *Biological Invasions* 1(2/3): 215-222.

Submitted:

Martin, P.H., R.E. Sherman, and T.J. Fahey. Tropical montane forest ecotones: climate gradients, natural disturbance, and vegetation zonation in the Cordillera Central, Dominican Republic. *Journal of Biogeography*.

In preparation:

- Martin, P.H., C.D. Canham, and P.L. Marks. Modeling exotic tree invasions of intact forests: effects on native flora and key invasive life-history traits.
- Martin, P.H., C.D. Canham, and P.L. Marks. Empty niches or fluctuating resources?: lessons and implications of shade-tolerance in plant invasions of forests

- Martin, P.H. and C.D. Canham. Quantifying key life-history traits in exotic tree invasions: growth and shade tolerance as a function of resources in northeastern forests.
- Martin, P.H. and C.D. Canham. The role of dispersal, fecundity and fitness in exotic tree invasions of northeastern forests.
- Martin, P.H. and T.J. Fahey. The role of plasticity in extraordinary ecological amplitude: elevational trends in needle longevity, morphology and isotopic C fractionation in *Pinus occidentalis* in the Dominican Republic.

CONTRIBUTED PAPERS & INVITED SEMINARS

- Ecological Society of America*, Annual Meeting, Memphis, TN. Invasion of northeastern forests by exotic trees. *Contributed Oral Presentation*, 2006.
- Vermont Depart. Forests, Parks & Recreation*, Forest Health Information Meeting, White River Junction, VT. The Potential of Norway Maple as a Forest Invader. *Invited Seminar*, 2006.
- Yale University*, Dept. Forestry & Environmental Studies, New Haven, CT. Methods for predicting the spread and impact of exotic plants. *Invited Seminar*, 2005.
- Yale University*, Dept. Forestry & Environmental Studies, New Haven, CT. Methods for predicting the spread and impact of exotic plants. *Invited Seminar*, 2005.
- University of Rhode Island*, Dept. Natural Resources Science, Kingston, RI. Modeling invasions of northeastern forests. *Invited Seminar*, 2005.
- Columbia University*, Dept. Ecology, Evolution and Environmental Biology, New York, NY. Modeling invasions of northeastern forests. *Invited Seminar*, 2005.
- Nature Conservancy Workshop*, Constanza, Dominican Republic. Fire ecology in the montane pine forests of the Dominican Republic. *Paper*, 2004.
- Harvard Forest*, Petersham, MA. Invasion of northeastern forests by exotic tree species: interactions between population dynamics. *Invited Seminar*, 2004.
- University of Montreal*, Montreal, Canada. Invasion ecology of Norway maple. *Invited Seminar*, 2004.
- Ecological Society of America and Weed Science Society of American*, Ft. Lauderdale, FL. P.H. Martin. Norway maple invasion of forest stands: 4-years of seedling establishment and demography in small gaps and deep shade. *Paper*, 2003.
- Regional Water Authority Association Conference*, New Haven, CT. Plant invasion dynamics and the regeneration of native trees. *Paper*, 2003.
- Cornell University*, Dept. Natural Resources, Ithaca, NY. Can species-rich tropical forests recover in secondary forests in the Dominican Republic? *Invited Seminar*, 2002.
- Cornell University*, Wilderness Management, Ithaca, NY. Fire in wilderness ecosystems. *Invited Seminar*, 2001.
- Cornell University*, Landscape Architecture, Ithaca, NY. From old field to old growth: floristics and structure in a chronosequence of upland forests. *Invited Seminar*, 2000.
- University of Arizona*, Lab of Tree Ring Research, Tucson, AZ. The ecology and dendrochronology of a subtropical pine, *Pinus occidentalis*. *Invited Seminar*, 2000
- Greater New England Research Symposium on the Ecology of Invasive Species*, New Haven, CT. P.H. Martin. Norway maple (*Acer platanoides*) invasion of a natural forest stand: understory consequence and regeneration pattern. *Paper*, 1999.