

KATHERINE F. CROWLEY

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EDUCATION

- 2009 Ph.D. in Natural Resources, Program in Biogeochemistry & Environmental Biocomplexity, Cornell University
1995 M.S. in Plant Ecology, Minor in Quaternary Paleocology, University of Minnesota
1992 B.S. in Botany & Zoology (*summa cum laude*), Michigan State University

PROFESSIONAL EXPERIENCE

- 2009-present *Postdoctoral Associate*, Cary Institute of Ecosystem Studies, Millbrook, NY
2004-07 *Graduate Research Fellow*, EPA Science to Achieve Results (STAR) Program
Fall 2003 *Graduate Research Assistant*, Dept. of Natural Resources, Cornell University
2002-03 *Graduate Fellow*, The Graduate School, Cornell University
1999-02 *Ecologist*, NH Natural Heritage Bureau / The Nature Conservancy, Concord, NH
1996-99 *Plant Ecologist*, Huffman & Associates and Huffman & Carpenter, Inc., Reno, NV
1995-96 *Regional Botany Specialist*, The Nature Conservancy, Minneapolis, MN
1992-94 *Graduate Research Assistant*, Dept. of Forest Resources, University of Minnesota
1992-93 *Graduate Fellow*, University of Minnesota

TEACHING EXPERIENCE

- Spring 2008 Graduate Teaching Assistant, *Nature and Culture*, Cornell University
Fall 2007 Co-instructor, *Wetland Ecology & Management*, Cornell University
Spring 2004 Graduate Teaching Assistant, *Landscape Impact Analysis*, Cornell University
Fall 2000 Instructor, *Biosphere at Risk*, St. Anselm College, Manchester, NH
July 1996 Teaching Assistant, *Jurisdictional Delineation of Wetlands*, UC Berkeley Extension
Fall 1994 Graduate Teaching Assistant, *Ecology of Vegetation*, University of Minnesota
1993-94 Graduate Teaching Assistant, *Introductory Biology*, University of Minnesota

GRANTS AND FELLOWSHIPS

- 2008-09 Foreign Language and Area Studies Fellowship in Dutch, Cornell Institute for European Studies; funded by U.S. Dept. of Education
2007-10 USDA CUAES Hatch Grant (\$52,500): Bedford, B. L. and K. F. Crowley.
Integrating research with education and outreach to maintain biodiversity in New York wetlands
2004-07 EPA Science to Achieve Results (STAR) Graduate Fellowship (\$111,344):
Explaining plant diversity in nutrient-limited rich fen wetlands: The role of mosses in fen nutrient dynamics
2005 Cornell Biogeochemistry & Environmental Biocomplexity Program (BEB) Small Grant (\$7,487): Crowley, K., J. Maul, D. Clune, and M. Weiss.
A shared BEB tool for image analysis of root systems: winRHIZO
2004-05 Knight Institute Study of Student Writing Graduate Student Fellow (\$1,500)
2003-05 Cornell BEB Program Small Grants (\$10,824)
2003 Kieckhefer Adirondack Fellowship (\$5,000)
2003 Lauff Tuition Award, Michigan State Univ. Kellogg Biological Station (\$1,000)
2002-03 Cornell Graduate School Fellowship

- 1994 Univ. of Minnesota Paleorecords of Global Change RTG Summer Traineeship
 1993 Univ. of Minnesota Dept. of Ecology, Evolution, & Behavior Fellowship
 1993 Univ. of Minnesota Wilkie Fund for Natural History Grant (\$200)
 1992-93 Univ. of Minnesota Graduate School Fellowship
 1988-92 Michigan State University Distinguished Freshman Scholarship (tuition)

AWARDS

- 2007-08 *Outstanding Teaching Assistant Award*, Dept. of Natural Resources, College of Agriculture and Life Sciences, Cornell University
 2007 *Exceptional Poster Presentation*, 10th International Wetland Biogeochemistry Symposium, Annapolis, MD, April 1-4.
 1992 Elected to *Phi Beta Kappa* National Honor Society
 1992 *Board of Trustees Scholarship Award*, Michigan State University
 1990 *Karl Stiles and James Butcher Award for Zoology*, Michigan State University
 1989 *American Chemical Society Chemistry Award*, Michigan State University

PUBLICATIONS AND SELECTED PROFESSIONAL REPORTS

- Crowley, K. F.** 2009. Mosses influence vascular plants in rich fens through effects on the biogeochemistry of shallow soils. Ph.D. dissertation. Cornell University, Ithaca, NY.
 Sperduto, D.D. and **K.F. Crowley**, in collaboration with N. Barrett; Natural Heritage programs in ME, MA, CT, and RI; NatureServe and other partners. 2002. Atlantic white cedar in New England: analysis and proposed classification. New Hampshire Natural Heritage Inventory (NHNHI), Department of Resources and Economic Development (DRED), Concord, NH.
 Sperduto, D.D. and **K.F. Crowley**, in collaboration with Natural Heritage programs in ME, MA, CT, and RI; N. Barrett; NatureServe and other partners. 2002. Floodplain forests in New England: analysis and proposed classification. NHNHI, DRED, Concord, NH.
Crowley, K.F. and B.D. Kimball. 2001. Evaluation of rare plant populations and exemplary natural communities in areas impacted by the 1998 ice storm in NH. NHNHI, DRED, Concord, NH.
Crowley, K.F. and D.D. Sperduto. 2001. Ecological landscape analysis of New Hampshire state lands. NHNHI, DRED, Concord, NH.
Crowley, K.F. and D.D. Sperduto. 2001. Key to upland forest communities in New Hampshire. NHNHI, DRED, Concord, NH.
Crowley, K.F. and D.D. Sperduto. 2001. Natural Areas assessment for New Hampshire state lands. NHNHI, DRED, Concord, NH.
Crowley, K.F. and D.D. Sperduto. 2000. Northern blazing star (*Liatris borealis* Nutt) at the Pease International Tradeport, New Hampshire. NHNHI, DRED, Concord, NH.
 Sperduto, D.D., W.F. Nichols, **K.F. Crowley**, and D.A. Bechtel. 2000. Black gum (*Nyssa sylvatica* Marsh) in New Hampshire. NHNHI, DRED, Concord, NH.
 Nichols, W.F., D.D. Sperduto, D.A. Bechtel, and **K.F. Crowley**. 2000. Floodplain forest natural communities along minor rivers and large streams in NH. NHNHI, DRED, Concord, NH.
Crowley, K. F. 1995. Patterns of temporal and spatial change in the vegetation of Voyageurs National Park. Masters thesis. University of Minnesota, St. Paul, MN.

PRESENTATIONS

- Crowley, K.F.** and B.L. Bedford. 2009. Reaching beneath the surface: Influence of mosses on vascular plant root growth in rich fens. Society of Wetland Scientists and Wetland Biogeochemistry Symposium Annual Meeting, Madison, WI, June 22-26.
Crowley, K.F., A. Cheesman, and B.L. Bedford. 2008. The effects of mosses on phosphorus availability and microbial activity in rich fens. Ecological Society of America Annual Meeting, Milwaukee, WI, Aug. 3-8.

- Crowley, K.F.**, A. Cheesman, and B.L. Bedford. 2008. Mosses influence phosphorus availability and microbial activity in shallow fen soils. Society of Wetland Scientists Annual Meeting, Washington, D.C., May 26-30.
- Crowley, K.F.** and B.L. Bedford. 2007. Mosses facilitate above- and belowground vascular plant growth in rich fens. Ecological Society of America Annual Meeting, San Jose, CA, Aug. 6-10.
- Crowley, K.F.** and B.L. Bedford. 2007. Mosses influence vascular plant growth in rich fens through effects on phosphorus availability and aeration in the rooting zone. 10th International Wetland Biogeochemistry Symposium, Annapolis, MD, April 1-4 (*Exceptional Poster Presentation*).
- Crowley, K.F.** and B.L. Bedford. 2006. The role of mosses in the plant species composition and phosphorus dynamics of mineral-rich fen wetlands. EPA STAR Graduate Fellowship Conference, Washington, D.C., Sept. 24-26.
- Crowley, K.F.** and B.L. Bedford. 2004. Explaining plant diversity in wetlands: The role of mosses in fen nutrient dynamics. EPA STAR Graduate Fellowship Conf., Washington, D.C., Oct. 11-13.
- Crowley, K.F.**, D.D. Sperduto, W.F. Nichols, and D.A. Bechtel. 2001. Distribution, composition, and age structure of black gum (*Nyssa sylvatica*) swamps in New Hampshire. Ecological Society of America Annual Meeting, Madison, WI, Aug. 6-10.
- Crowley, K.F.** and K.L. Cole. 1995. Patterns of temporal and spatial change in the vegetation of Voyageurs National Park. Ecological Society of America Annual Meeting, Snowbird, UT.
- Crowley, K.F.** and K.L. Cole. 1995. Patterns of change in the vegetation of Voyageurs National Park. Landscape Ecology Symposium, International Assoc. of Landscape Ecology, Mpls., MN.

INVITED LECTURES

- Oct. 2005-06 *Bryophytes in wetland ecosystems: Adaptations, distributions, and community patterns*. Wetland Ecology & Management, Cornell University
- March 2006 *Controls on phosphorus mineralization in peatlands*. Principals of Biogeochemistry, Cornell University

LEADERSHIP AND PROFESSIONAL SERVICE

- 2007 Peer reviewer for *Botany*
- 2004-07 Small Grant Review Panelist, Cornell Biogeochemistry and Environmental Biocomplexity (BEB) Small Grants Program
- 2005 Co-president, Cornell BEB Graduate Student Association
- 2004-05 Representative, Cornell Graduate and Professional Student Assembly
- 2003-04 Member, Cornell Graduate and Professional Student Council of Representatives

TEACHING: TRAINING AND OUTREACH

- Spring 2007 *Innovative Teaching in the Sciences*, Dept. of Education, Cornell University
- Spring 2007 *Science Communication Workshop*, Cornell BEB Program, Cornell University
- Spring 2006 Co-organizer, *Cornell BEB GIS Workshop*, Cornell University, Feb. 27 and Mar. 6
- Fall 2006 *Biogeochemistry Teaching Workshop*, Cornell BEB Program, Cornell University
- April 2006-07 Volunteer, *Expanding Your Horizons Stream Ecology Workshop* for middle school girls, Cornell University, April 29, 2006 and April 27, 2007
- Spring 2005 Co-organizer, *Cornell BEB Science Ethics Workshop*, Cary Institute of Ecosystem Studies, Millbrook, NY, April 3-4
- 2004-05 Graduate Student Fellow, *Knight Institute Study of Student Writing*, Cornell Univ.
- Spring 2004 *Writing in the Majors Seminar on Teaching using Writing*, Cornell University

SOCIETY MEMBERSHIPS

Ecological Society of America, Society of Wetland Scientists