

# Kevin Mark Potter, Ph.D.

## Curriculum Vitae

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Department of Forestry and  
Environmental Resources  
North Carolina State University  
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### Education

#### North Carolina State University, Raleigh, North Carolina, 27695

*Doctor of Philosophy in Forestry (Ecology Minor)* August 2006

Dissertation advisor: Dr. John Frampton

Dissertation title: “Evolutionary History and Genetic  
Conservation of Fraser Fir (*Abies fraseri*)”

*Master of Science in Natural Resources*

*(Forest Economics and Management Option)*

December 2002

Thesis advisor: Dr. Fred Cabbage

Thesis title: “Landscape Characteristics and North Carolina  
Stream Life: A Multiple-Scale Ecological Risk  
Assessment of Nonpoint Source Pollution”

#### Drake University, Des Moines, Iowa, 50311

*Bachelor of Arts in Journalism and Mass Communication*  
*(History Minor)*

May 1993

Graduated magna cum laude, with College Honors

Honors Thesis title: “Tracing Colorado History Through Rocky  
Mountain Place Names”

### Work Experience

#### Research Assistant Professor

July 2007 – present

Department of Forestry and Environmental Resources  
3120 Jordan Hall  
North Carolina State University, Raleigh, North Carolina, 27695-8008

#### Main responsibilities:

- Developing and applying a system to rank the relative risk of genetic degradation for forest tree species based on species-specific biological characteristics, such as rarity and fecundity, and extrinsic threats to each species, including climate change and pest and pathogen susceptibility.

- Employing the Multivariate Spatio-Temporal Clustering technique to assess population-level extirpation risk for more than 300 North American forest tree species under multiple climate change models and scenarios.
- Conducting rangewide genetic variation studies on eastern hemlock (*Tsuga canadensis*) and ponderosa pine (*Pinus ponderosa*).
- Analyzing phylogenetic community statistics across thousands of Forest Inventory and Analysis plots to develop broad-scale indicators of biodiversity change over time.
- Serving as editor of the annual Forest Health Monitoring national report on the health of U.S. forests (2008, 2009, 2010, 2011), and contributing chapters describing large-scale geographic hot spot analysis of fire occurrence and pest and pathogen activities.

**Postdoctoral Research Associate**

**July 2006 – July 2007**

Central America and Mexico Coniferous Research Cooperative (CAMCORE)  
3229 Jordan Hall Addition  
North Carolina State University, Raleigh, North Carolina, 27695-8008

Main responsibilities:

- Employed allozymes to explore the evolutionary history of eastern hemlock (*Tsuga canadensis*), an ecologically important species threatened by an exotic insect.
- Used amplified fragment length polymorphisms (AFLPs) to research the genetic diversity and architecture of Carolina hemlock (*Tsuga caroliniana*), a rare Southern Appalachian endemic.
- Quantified the genetic structure and diversity in *Pinus oocarpa* and related species across Mesoamerica in the context of resistance to pitch canker.
- Completed a comprehensive rangewide seed collection of Fraser fir (*Abies fraseri*) to ensure the genetic diversity of the species is adequately preserved.

**Doctoral Graduate Fellow and Research Assistant**

**August 2002 – July 2006**

Department of Forestry and Environmental Resources  
3120 Jordan Hall  
North Carolina State University, Raleigh, North Carolina, 27695-8008

Main responsibilities:

- Used microsatellite markers to quantify the genetic architecture and diversity of Fraser fir (*Abies fraseri*) populations.
- Simulated population genetic dynamics of Fraser fir populations using a mathematical model that contained both transition matrices and stochastic processes.
- Assessed conservation status of Fraser fir, and developed gene conservation strategy for this imperiled Southern Appalachian endemic, based on genetic diversity and modeling results.
- Initiated molecular systematics project to explore evolutionary relationships in the fir (*Abies*) genus, using chloroplast gene sequences.

**Masters Degree Graduate Student**

**August 2001 – August 2002**

Department of Forestry and Environmental Resources

3120 Jordan Hall  
North Carolina State University, Raleigh, North Carolina, 27695-8008

Main responsibilities:

- Researched the impact of land cover changes and forestry best management practices on water quality in North Carolina, with an emphasis on benthic macroinvertebrates.
- Developed an ecological risk assessment approach to forecast future changes in North Carolina water quality, as measured by the health of benthic macroinvertebrate communities.
- Used geographic information system software to characterize land cover and geographic characteristics of North Carolina watersheds.
- Funded as part of a U.S. Environmental Protection Agency grant to research aquatic vulnerability of streams in the Southeastern United States.

## **Other Qualifications**

Grants and Contracts:

- Lead Principal Investigator (one of three), “Population-Level Assessment of Climate Change Genetic Risk in North American Forest Trees,” \$115,000, USDA Forest Service Joint Venture Agreement 10-JV-11330146-049 with North Carolina State University, 2010-2012.
- Principal Investigator (one of three), “Forest Health Monitoring, Assessment, and Analysis,” \$275,526, USDA Forest Service Joint Venture Agreement 11-JV-11330146-090 with North Carolina State University, 2011-2012.
- Principal Investigator (one of four), “Forest Health Monitoring, Analysis and Assessment,” \$284,052 USDA Forest Service Joint Research Agreement 10-JV-11330146-064 with North Carolina State University, 2010-2011.
- Lead Principal Investigator (one of three), “Assessing Forest Tree Risk of Extinction and Genetic Degradation from Climate Change,” \$30,000, USDA Forest Service Cooperative Agreement 09-CA-11330146-078 with North Carolina State University, 2009-2010.
- Principal Investigator (one of four), “Forest Health Monitoring, Assessment and Analysis,” \$250,000, USDA Forest Service Joint Research Agreement 09-JV-11330146-087 with North Carolina State University, 2009-2010.
- Principal Investigator (one of four), “Forest Health Monitoring and Assessment,” \$259,911, USDA Forest Service Joint Research Agreement 08-JV-11330146-078 with North Carolina State University, 2008-2010.

**Refereed Publications:**

**Potter, K.M.**, R.M. Jetton, W.S. Dvorak, V.D. Hipkins, W.A. Whittier, and J. Rhea. *In press*. "Extensive inbreeding and unexpected geographic patterns of genetic variation in eastern hemlock (*Tsuga canadensis*), an imperiled North American conifer." *Conservation Genetics*. DOI: 10.1007/s10592-011-0301-2v.

**Potter, K.M.**, and C.W. Woodall. *In press*. Trends in tree evolutionary diversity across life stages indicate change in regional forest biodiversity. *Ecological Applications*. DOI: <http://dx.doi.org/10.1890/10-2137.1>.

**Potter, K.M.**, J. Frampton, S.A. Josserand, and C.D. Nelson. 2010. Evolutionary history of two endemic Appalachian conifers revealed using microsatellite markers. *Conservation Genetics*. 11(4):1499-1513. DOI:10.1007/s10592-009-9980-3.

Dvorak, W.S., **K.M. Potter**, V.D. Hipkins, and G.R. Hodge. 2009. Genetic diversity and gene exchange in *Pinus oocarpa*, a Mesoamerican pine with resistance to the pitch canker fungus (*Fusarium circinatum*). *International Journal of Plant Sciences*. 170(5):609-626. DOI:10.1086/597780.

**Potter, K.M.**, J. Frampton, S.A. Josserand, and C.D. Nelson. 2008. Genetic variation and population structure in Fraser fir (*Abies fraseri*): A microsatellite assessment of young trees. *Canadian Journal of Forest Research*. 38:2128-2137. DOI:10.1139/X08-064.

Josserand, S.A., **K.M. Potter**, C.S. Echt, and C.D. Nelson. 2008. Isolation and characterization of microsatellite markers for Carolina hemlock (*Tsuga caroliniana*). *Molecular Ecology Resources*. 8(6):1371-1374. DOI:10.1111/j.1755-0998.2008.02294.x.

**Potter, K.M.**, W.S. Dvorak, B.S. Crane, V.D. Hipkins, R.M. Jetton, W.A. Whittier, and R. Rhea. 2008. Allozyme variation and recent evolutionary history of eastern hemlock (*Tsuga canadensis*) in the southeastern United States. *New Forests*. 35:131-145. DOI: 10.1007/s11056-007-9067-2.

Josserand, S.A., **K.M. Potter**, G. Johnson, J.A. Bowen, J. Frampton, and C.D. Nelson. 2006. Isolation and characterization of microsatellite markers in Fraser fir (*Abies fraseri*). *Molecular Ecology Notes*. 6:65-68. DOI:10.1111/j.1471-8286.2005.01138.x.

**Potter, K.M.**, F.W. Cabbage, and R.H. Schaberg. 2005. The best landscape predictors of water quality depend on watershed size. *Landscape and Urban Planning*. 71:77-90. DOI:10.1016/j.landurbplan.2004.02.001.

**Potter, K.M.**, F.W. Cabbage, G.B. Blank, and R.H. Schaberg. 2004. A watershed-scale model for predicting nonpoint pollution risk in North Carolina. *Environmental Management*. 34(1):62-74. DOI:10.1007/s00267-004-0117-7.

**Refereed Publications in Revision, in Review, and in Preparation:**

**Potter, K.M.** and W.W. Hargrove. *In review*. Determining suitable locations for seed transfer under climate change: A global quantitative method. *New Forests*.

**Potter, K.M.**, V.D. Hipkins, and R. Means. *In preparation*. Mitochondrial DNA variability across the range of ponderosa pine (*Pinus ponderosa*): Recent evolutionary history and implications for conservation. *American Journal of Botany*.

**Potter, K.M.**, F.H. Koch, and W.D. Smith. *In preparation*. Continental scale patterns and environmental correlates of North American forest phylogenetic community structure. *Global Ecology and Biogeography*.

**Potter, K.M.**, B.S. Crane, C. Aubry, W. Devine, R. Shoal, A. Bower, and J. Miller. *In preparation*. A flexible framework for ranking the relative risk of genetic degradation in forest tree species. *Forest Ecology and Management*.

**Potter, K.M.** and F.H. Koch. *In preparation*. A geographic hot spot analysis approach for assessing continental-scale forest health threats. *Environmental Monitoring and Assessment*.

**Professional Publications and Conference Proceedings:**

**Potter, K.M.** and B.S. Crane. *In press*. "Silviculture and the Assessment of Climate Change Genetic Risk for Southern Appalachian Forest Tree Species." *Proceedings of the 16th Biennial Southern Silvicultural Research Conference (BSSRC)*. J.R. Butnor, ed. Charleston, South Carolina, February 15, 2011. General Technical Report SRS-xxx. Asheville, North Carolina: U.S. Department of Agriculture, Forest Service, Southern Research Station.

Jetton, R.M., W.S. Dvorak, **K.M. Potter**, W.A. Whittier, and R. Rhea. 2011. Genetics and conservation of hemlock species threatened by the hemlock woolly adelgid. *Proceedings of the 30<sup>th</sup> Southern Tree Improvement Conference*, Amy Brunner, ed. Blacksburg, Virginia, May 31-June 3, 2009. pp. 81-87.

**Potter, K.M.**, R.M. Jetton, W.S. Dvorak, J. Frampton, and J. Rhea. 2010. "Ex situ seed collection represents genetic variation present in natural stands of Carolina hemlock." pp. 181-190 in B. Onken and R. Reardon, compilers, *Proceedings of the Fifth Symposium on Hemlock Woolly Adelgid in the Eastern United States*, Asheville, North Carolina, August 17-19, 2010. USDA Forest Service, Forest Health Technology Enterprise Team, FHTET-2010-07, Morgantown, West Virginia, pp. 181-190.

**Potter, K.M.**, W.W. Hargrove, and F.H. Koch. 2010. Predicting climate change extirpation risk for central and southern Appalachian forest tree species. *Proceedings from the Conference on Ecology and Management of High-Elevation Forests of the Central and Southern Appalachian Mountains*. J.S. Rentch and T.M. Schuler, eds. Snowshoe, West Virginia, May 14-15, 2009. General Technical Report NRS-P-64.

Newtown Square, Pennsylvania: USDA Forest Service, Northern Research Station. pp. 179-189.

Jetton, R.M., W.S. Dvorak, W.A. Whittier, **K.M. Potter**, and R. Rhea. 2009. Genetics and conservation of hemlock species threatened by the hemlock woolly adelgid. *Proceedings of the 20<sup>th</sup> U.S. Department of Agriculture Interagency Research Forum on Invasive Species, 2009*, Katherine McManus and Kurt Gottschalk, eds. Annapolis, Maryland, Jan. 13-16, 2009. General Technical Report NRS-P-51. Newtown Station, Pennsylvania: USDA Forest Service, Northern Research Station. pp. 39-40.

**Potter, K.M.** 2009. From genes to ecosystems: Measuring evolutionary diversity and community structure with Forest Inventory and Analysis (FIA) data. *Proceedings of the 2008 Forest Inventory and Analysis (FIA) Symposium*, Will McWilliams, Gretchen Moisen, and Ray Czapslewski, comps. Park City, Utah, Oct. 21-23, 2008. RMRS-P-56CD. Fort Collins, Colorado: USDA Forest Service, Rocky Mountain Research Station. 1 CD.

Jetton, R.M., W.A. Whittier, W.S. Dvorak and **K.M. Potter**. 2008. Status of *ex situ* conservation efforts for eastern and Carolina hemlock in the southeastern United States. pp. 81-89 in: B. Onken and R. Reardon, eds., *Proceedings of the 4<sup>th</sup> Symposium on Hemlock Woolly Adelgid*. USDA Forest Service, FHTET-2008-01, Morgantown, WV, 299 p.

**Potter, K.M.**, and J. Frampton. 2005. An *ex situ* gene conservation plan for Fraser fir. *Proceedings of the 28<sup>th</sup> Southern Forest Tree Improvement Conference*, Steven E. McKeand and Bailian Li, eds. Raleigh, North Carolina, June 21-23, 2005. pp. 148-159.

**Potter, K.M.**, J. Frampton, and J.R. Sidebottom. 2005. Impacts of balsam woolly adelgid on the Southern Appalachian spruce-fir ecosystem and on the North Carolina Christmas tree industry. *Proceedings of the 3<sup>rd</sup> Symposium on Hemlock Woolly Adelgid in the Eastern United States*, Brad Onken and Richard Reardon, eds. Asheville, North Carolina, Feb. 1, 2005. pp. 25-41.

**Potter, K.M.**, and J. Frampton. 2003. Fraser fir: A natural Christmas tree threatened in its native stands. *American Christmas Tree Journal*. 47(5):22-28.

**Potter, K.M.**, and J. Frampton. 2003. Genetic variation in Fraser fir mortality due to Phytophthora root rot. *Proceedings of the 27<sup>th</sup> Southern Forest Tree Improvement Conference*, Craig R. McKinley, ed. Stillwater, Oklahoma, June 24-27, 2003. pp. 72-74.

Hess, G.R., S.D. Daley, B.K. Dennison, S.R. Lubkin, R.P. McGuinn, V.Z. Morin, **K.M. Potter**, R.E. Savage, W.G. Shelton, C.M. Snow, and B.M. Wrege. 2001. Just what is sprawl, anyway? *Carolina Planning*. 26(2):11-26.

### **Government Publications:**

**Potter, K.M.**; B.L. Conkling, editors. *In press*. Forest Health Monitoring 2011 National

Technical Report. General Technical Report SRS-xxx. Asheville, North Carolina: U.S. Department of Agriculture, Forest Service, Southern Research Station.

**Potter, K.M.** *In press*. Introduction. Chapter 1 in K.M. Potter and B.L. Conkling, eds., Forest Health Monitoring 2011 National Technical Report. General Technical Report SRS-xxx. Asheville, North Carolina: U.S. Department of Agriculture, Forest Service, Southern Research Station.

**Potter, K.M.** *In press*. Large-scale patterns of insect and disease activity in the conterminous United States and Alaska from the National Aerial Detection Survey Database, 2010. Chapter 2 in K.M. Potter and B.L. Conkling, eds., Forest Health Monitoring 2011 National Technical Report. General Technical Report SRS-xxx. Asheville, North Carolina: U.S. Department of Agriculture, Forest Service, Southern Research Station.

**Potter, K.M.** *In press*. Large-scale patterns of forest fire occurrence in the conterminous United States and Alaska, 2010. Chapter 3 in K.M. Potter and B.L. Conkling, eds., Forest Health Monitoring 2011 National Technical Report. General Technical Report SRS-xxx. Asheville, North Carolina: U.S. Department of Agriculture, Forest Service, Southern Research Station.

Hipkins, V.D., **K.M. Potter**, and R. Means. 2011. Genetic Assessment of Ponderosa Pine (*Pinus ponderosa*) Sites within the Proposed Wah Wah Mountains Area of Critical Environmental Concern (ACEC), Millard County and Iron County, Utah. Placerville, California: U.S. Department of Agriculture, Forest Service, National Forest Genetics Laboratory (NFGEL). 6 p.

Hipkins, V.D., **K.M. Potter**, and R. Means. 2011. Genetic Assessment of Ponderosa Pine (*Pinus ponderosa*) at the Square S Gulch Site, Rio Blanco County, Colorado. Placerville, California: U.S. Department of Agriculture, Forest Service, National Forest Genetics Laboratory (NFGEL). 4 p.

Hipkins, V.D., **K.M. Potter**, and R. Means. 2011. Genetic Assessment of Ponderosa Pine (*Pinus ponderosa*) at the Big Hole Site, Beaverhead County, Montana. Placerville, California: U.S. Department of Agriculture, Forest Service, National Forest Genetics Laboratory (NFGEL). 6 p.

**Potter K.M.** and B.S. Crane. 2010. *Forest Tree Genetic Risk Assessment System: A Tool for Conservation Decision-Making in Changing Times. User Guide, Version 1.2*. USDA Forest Service, Eastern Forest Environmental Threat Center, Asheville, North Carolina. [Online]. <http://www.forestthreats.org/current-projects/project-summaries/genetic-risk-assessment-system-description-120610.pdf>. [Date accessed: January 6, 2011].

**Potter, K.M.**; B.L. Conkling, editors. *In press*. Forest Health Monitoring 2010 National Technical Report. General Technical Report SRS-xxx. Asheville, North Carolina: U.S. Department of Agriculture, Forest Service, Southern Research Station.

**Potter, K.M.** *In press*. Introduction. Chapter 1 in K.M. Potter and B.L.Conkling, eds., Forest Health Monitoring 2010 National Technical Report. General Technical Report SRS-xxx. Asheville, North Carolina: U.S. Department of Agriculture, Forest Service, Southern Research Station.

**Potter, K.M.** *In press*. Large-scale patterns of insect and disease activity in the conterminous United States and Alaska from the National Aerial Detection Survey Database, 2009. Chapter 2 in K.M. Potter and B.L.Conkling, eds., Forest Health Monitoring 2010 National Technical Report. General Technical Report SRS-xxx. Asheville, North Carolina: U.S. Department of Agriculture, Forest Service, Southern Research Station.

**Potter, K.M.** *In press*. Large-scale patterns of forest fire occurrence in the conterminous United States and Alaska, 2009. Chapter 3 in K.M. Potter and B.L.Conkling, eds., Forest Health Monitoring 2010 National Technical Report. General Technical Report SRS-xxx. Asheville, North Carolina: U.S. Department of Agriculture, Forest Service, Southern Research Station.

**Potter, K.M.;** B.L.Conkling, editors. *In press*. Forest Health Monitoring 2009 National Technical Report. General Technical Report SRS-xxx. Asheville, North Carolina: U.S. Department of Agriculture, Forest Service, Southern Research Station.

**Potter, K.M.** *In press*. Introduction. Chapter 1 in K.M. Potter and B.L.Conkling, eds., Forest Health Monitoring 2009 National Technical Report. General Technical Report SRS-xxx. Asheville, North Carolina: U.S. Department of Agriculture, Forest Service, Southern Research Station.

**Potter, K.M.** *In press*. Hot spots of insect and disease activity in the conterminous United States and Alaska, 2007-08. Chapter 4 in K.M. Potter and B.L.Conkling, eds., Forest Health Monitoring 2009 National Technical Report. General Technical Report SRS-xxx. Asheville, North Carolina: U.S. Department of Agriculture, Forest Service, Southern Research Station.

**Potter, K.M.** and W.D. Smith. *In press*. Large-scale assessment of invasiveness and potential for ecological impact by non-native tree species. Chapter 5 in K.M. Potter and B.L.Conkling, eds., Forest Health Monitoring 2009 National Technical Report. General Technical Report SRS-xxx. Asheville, North Carolina: U.S. Department of Agriculture, Forest Service, Southern Research Station.

**Potter, K.M.** *In press*. Large-scale patterns of forest fire occurrence in the conterminous United States and Alaska, 2001-08. Chapter 9 in K.M. Potter and B.L.Conkling, eds., Forest Health Monitoring 2009 National Technical Report. General Technical Report SRS-xxx. Asheville, North Carolina: U.S. Department of Agriculture, Forest Service, Southern Research Station.

**Potter, K.M.;** B.L.Conkling, editors. *In press*. Forest Health Monitoring 2008 National Technical Report. General Technical Report SRS-xxx. Asheville, North Carolina: U.S. Department of Agriculture, Forest Service, Southern Research Station.

**Potter, K.M.** *In press*. Introduction. Chapter 1 in K.M. Potter and B.L.Conkling, eds., Forest Health Monitoring 2008 National Technical Report. General Technical Report SRS-xxx. Asheville, North Carolina: U.S. Department of Agriculture, Forest Service, Southern Research Station.

**Potter, K.M.** *In press*. Evolutionary diversity and phylogenic community structure of forest trees across the conterminous United States. Chapter 2 in K.M. Potter and B.L.Conkling, eds., Forest Health Monitoring 2008 National Technical Report. General Technical Report SRS-xxx. Asheville, North Carolina: U.S. Department of Agriculture, Forest Service, Southern Research Station.

**Potter, K.M.;** Koch, F.H. *In press*. Hot spots of insect and disease activity in the conterminous United States and Alaska, 2006. Chapter 5 in K.M. Potter and B.L.Conkling, eds., Forest Health Monitoring 2008 National Technical Report. General Technical Report SRS-xxx. Asheville, North Carolina: U.S. Department of Agriculture, Forest Service, Southern Research Station.

**Potter, K.M.** *In press*. Large-scale patterns of forest fire occurrence in the conterminous United States and Alaska, 2005-07. Chapter 6 in K.M. Potter and B.L.Conkling, eds., Forest Health Monitoring 2008 National Technical Report. General Technical Report SRS-xxx. Asheville, North Carolina: U.S. Department of Agriculture, Forest Service, Southern Research Station.

**Potter, K.M.** *In press*. Summary. Chapter 9 in B.L.Conkling, ed., Forest Health Monitoring 2007 National Technical Report. General Technical Report SRS-xxx. Asheville, North Carolina: U.S. Department of Agriculture, Forest Service, Southern Research Station.

### **Book Reviews:**

**Potter, K.M.** *In press*. Book review: *Molecular Approaches in Natural Resource Conservation and Management. Landscape Ecology*.

**Potter, K.M.** 2006. Book review: *Biological Resources and Migration. Landscape Ecology*. 21(4):625-626.

### **Professional Presentations:**

**Potter, K.M.** and W.W. Hargrove. 2011. "Determining suitable locations for seed transfer under climate change: A global quantitative method." IUFRO Restoring Forests: Advances in Techniques and Theory, Madrid, Spain, September 27, 2011.

**Potter, K.M.,** B.S. Crane, W.W. Hargrove. 2011. "Toward gene conservation triage: Assessing the relative genetic risk to forest trees affected by multiple threats." 96<sup>th</sup> Ecological Society of America Annual Meeting, Austin, Texas, August 8, 2011. (Invited)

Hargrove, W.W., **K.M. Potter**, F.H. Koch. 2011. "Forest tree species range shifts under two alternative GCM/scenario climate change forecasts." 96<sup>th</sup> Ecological Society of America Annual Meeting, Austin, Texas, August 8, 2011. (Invited)

**Potter, K.M.** and C.W. Woodall. 2011. "Combining Tree Demography and Evolutionary History to Detect Potential Climate Change Effects on Regional Forest Diversity." 8<sup>th</sup> North American Forest Ecology Workshop, Roanoke, Virginia, June 23, 2011.

**Potter, K.M.**, B.S. Crane, W.W. Hargrove, F.H. Koch. 2011. "Adapt, Move, or Die: Assessments of Forest Tree Genetic Degradation Risk Due to Climate Change." 8<sup>th</sup> North American Forest Ecology Workshop, Roanoke, Virginia, June 20, 2011. (Invited)

**Potter, K.M.** and B.S. Crane. 2011. "A Multi-Species Assessment of Relative Genetic Degradation Risk from Climate Change and Other Threats." 31<sup>st</sup> Southern Forest Tree Improvement Conference, Biloxi, Mississippi, June 13-16, 2011. (poster)

**Potter, K.M.**, R.M. Jetton, W.S. Dvorak, V.D. Hipkins, J. Rhea, W.A. Whittier. 2011. "Range-Wide Assessment of Genetic Variation and Structure in Eastern Hemlock, an Imperiled Conifer, Using Microsatellites." 31<sup>st</sup> Southern Forest Tree Improvement Conference, Biloxi, Mississippi, June 13-16, 2011. (poster)

Hargrove, W.W., **K.M. Potter**, F.H. Koch, and F.H. Hoffman. 2011. "Global Tree Range Shifts under Forecasts from Two Alternative GCMs Using Two Future Scenarios Using FIA." Eastern Forest Environmental Threat Assessment Center-Forest Inventory and Analysis Workshop, Knoxville, Tennessee, May 18, 2011. (Invited)

**Potter, K.M.**, B.S. Crane, W.W. Hargrove, F.H. Koch. 2011. "Adapt, Move, or Die: Spatially Explicit Assessment of Climate Change Genetic Degradation Risk in Southern Appalachian Forests." 26<sup>th</sup> Annual Symposium of the United States Regional Chapter of the International Association for Landscape Ecology, Portland, Oregon, April 4, 2011. (Invited)

Hargrove, W.W., **K.M. Potter**, F.H. Koch, and F.H. Hoffman. 2011. "Global Tree Range Shifts under Forecasts from Two Alternative GCMs Using Two Future Scenarios." 26<sup>th</sup> Annual Symposium of the United States Regional Chapter of the International Association for Landscape Ecology, Portland, Oregon, April 4, 2011. (Invited)

**Potter, K.M.** and B.S. Crane. 2011. "ForGRAS: A Framework for Assessing the Relative Risk of Genetic Degradation to Forest Trees Affected by Climate Change and Other Threats." First Friday All Climate Change Talks (FFACTs) video conference, USDA Forest Service Eastern Forest Environmental Threat Assessment Center (virtual), March 4, 2011.

**Potter, K.M.**, W.W. Hargrove and F.H. Koch. 2011. "Forecasts of Climate-Associated Shifts in Tree Species (ForeCASTS)." USDA Forest Service Eastern Forest Environmental Threat Assessment Center (EFETAC)/Western Wildland Environmental

Threat Assessment Center (WWETAC) technical user group inaugural meeting, Asheville, North Carolina, and Portland, Oregon (virtual), March 3, 2011.

Crane, B.S. and **K.M. Potter**. 2011. "Silviculture and the Assessment of Climate Change Genetic Risk for Southern Appalachian Forest Tree Species." 16th Biennial Southern Silvicultural Research Conference (BSSRC), Charleston, South Carolina, February 15, 2011.

**Potter, K.M.**, W.W. Hargrove, F.H. Koch, B.S. Crane, R.M. Jetton, W.S. Dvorak, and V.D. Hipkins. 2011. "Adapt, Move, or Die: Spatial Assessments of Forest Tree Genetic Degradation Risk Due to Climate Change." Department of Forestry and Environmental Resources seminar, North Carolina State University, Raleigh, North Carolina, January 31, 2011.

Hargrove, W.W., **K.M. Potter**, F.H. Koch, and F.M. Hoffmann. 2010. "Global Tree Range Shifts under Forecasts from Two Alternative Global Climate Models Using Two Future Scenarios." First Friday All Climate Change Talks (FFACTs) video conference, USDA Forest Service Eastern Forest Environmental Threat Assessment Center (virtual), December 3, 2010.

**Potter, K.M.**, W.W. Hargrove, F.H. Koch, and V.D. Hipkins. 2010. "Climate Change, Forest Trees and Genetic Peril." Presentation to Duke University Master of Environmental Management and Master of Forestry students, Research Triangle Park, November 19, 2010. (Invited)

**Potter, K.M.**, W.W. Hargrove, R.M. Jetton, W.S. Dvorak, V.D. Hipkins, R. Rhea, and W.A. Whittier. 2010. "Of Microsatellites, HWA and Climate Change: Assessing Genetic Diversity, and Threats to It, in the Southern Appalachians." 20<sup>th</sup> Annual Southern Appalachian Man and the Biosphere Conference, Gatlinburg, Tennessee, November 16, 2010. (Invited)

**Potter, K.M.**, W.W. Hargrove, and F.H. Koch. 2010. "Population-Level Assessment of Climate Change Genetic Risk in North American Forest Trees." 20<sup>th</sup> Annual Southern Appalachian Man and the Biosphere Conference, Gatlinburg, Tennessee, November 16, 2010 (poster).

**Potter, K.M.** and B.S. Crane. 2010. "Assessing Forest Tree Genetic Risk across the Southern Appalachians: A Tool for Conservation Decision-Making in Changing Times." Forest Landscapes and Global Change: New Frontiers in Management, Conservation and Restoration, IUFRO Landscape Ecology International Conference, Braganca, Portugal, September 23, 2010.

**Potter, K.M.** and C.W. Woodall. 2010. "Combining Forest Tree Demography and Evolutionary History to Detect Potential Climate Change Effects on Regional Biodiversity." Forest Inventory and Analysis (FIA) 2010 Symposium, Knoxville, Tennessee, October 5-7, 2010 (poster).

**Potter, K.M.** and C.W. Woodall. 2010. "Combining Forest Tree Demography and

Evolutionary History to Detect Potential Climate Change Effects on Regional Biodiversity.” Forest Landscapes and Global Change: New Frontiers in Management, Conservation and Restoration, IUFRO Landscape Ecology International Conference, Braganca, Portugal, September 21-24, 2010 (poster).

**Potter, K.M.**, R.M. Jetton, W.S. Dvorak, V.D. Hipkins, W.W. Hargrove, R. Rhea, and W.A. Whittier. 2010. “Of Microsatellites, HWA and Climate Change: Assessing Genetic Diversity, and Threats to It, Across the Range of Eastern Hemlock.” 5<sup>th</sup> Symposium on Hemlock Woolly Adelgid, Asheville, North Carolina, August 18, 2010. (Invited)

**Potter, K.M.**, R.M. Jetton, W.S. Dvorak, J. Frampton, and R. Rhea. 2010. “*Ex situ* Seed Collection Represents Genetic Variation Present in Natural Stands of Carolina Hemlock.” 5<sup>th</sup> Symposium on Hemlock Woolly Adelgid, Asheville, North Carolina, August 17-19, 2010 (poster).

**Potter, K.M.**, W.W. Hargrove, F.H. Koch, and V.D. Hipkins. 2010. “Population-level Assessment of Climate Change Genetic Risk in North American Forest Trees.” Botany 2010 conference, Providence, Rhode Island, August 4, 2010.

**Potter, K.M.**, W.W. Hargrove, F.H. Koch, and B.S. Crane. 2010. “Climate Change, Forest Trees, and Genetic Peril.” Presentation to USDA Forest Service Washington Office policy analysis interns, Raleigh, North Carolina, July 27, 2010. (Invited)

**Potter, K.M.**, W.W. Hargrove, F.H. Koch, and B.S. Crane. 2010. “Forest Trees, Climate Change and Genetic Peril: Range Modeling for North Carolina and Beyond.” North Carolina Climate Change Coordination Meeting, Raleigh, North Carolina, June 3, 2010. (Invited)

**Potter, K.M.**, R.M. Jetton, W.S. Dvorak, V.D. Hipkins, and R. Rhea. 2010. “Range-wide Eastern Hemlock Genetic Variation Study: Status Update and Results from the South.” First Meeting of the Working Group on Genetics and Host Resistance in Hemlock, Raleigh, North Carolina, May 25, 2010. (Invited)

**Potter, K.M.**, W.W. Hargrove, and F.H. Koch. 2010. “A Spatially Explicit Assessment of Climate Change Genetic Risk to 200 Forest Tree Species.” USDA Forest Service Forest Genetic Research Management Climate Change Workshop, Corvallis, Oregon, March 3, 2010. (Invited)

**Potter, K.M.**, W.W. Hargrove, F.H. Koch, and W.D. Smith. 2010. “Do Southern Hardwood Forests Have a Future?” 57<sup>th</sup> Annual Southern Hardwood Forest Research Group Meeting, Stoneville, Mississippi, March 2, 2010. (Invited)

**Potter, K.M.**, W.W. Hargrove, and F.H. Koch. 2010. “Assessing Forest Tree Risk of Genetic Degradation from Climate Change.” USDA Forest Service Forest Health Monitoring 16<sup>th</sup> Annual Workgroup Meeting, Albuquerque, New Mexico, Jan. 25-28, 2010 (poster).

**Potter, K.M.**, W.W. Hargrove, and F.H. Koch. 2009. "North American Forest Trees, Climate Change and Genetic Peril: Range Modeling in Action." 19<sup>th</sup> Annual Southern Appalachian Man and the Biosphere Conference, Asheville, North Carolina, November 17-19, 2009.

Crane, B.S. and **Potter, K.M.** 2009. "Rating the Risk of Climate Change to Southern Appalachian Tree Species: A Tool for Gene Conservation Decision Making." 19<sup>th</sup> Annual Southern Appalachian Man and the Biosphere Conference, Asheville, North Carolina, November 17-19, 2009.

**Potter, K.M.** and W.D. Smith. 2009. "Integrating Phylogenetics and GIS Analyses to Assess the Potential Ecosystem Impacts of Sudden Oak Death." Genomics of Forest and Ecosystem Health in the Fagaceae (Beech Family) conference, Research Triangle Park, North Carolina, November 10-13, 2009.

**Potter, K.M.** 2009. "A Case for Incorporating Evolutionary Relationships into Pest Risk Mapping." Third Workshop on Pest Risk Mapping, Pescadero, California, August 11-13, 2009.

**Potter, K.M.**, W.W. Hargrove, and F.H. Koch. 2009. "Assessing the Potential Genetic Impacts of Climate Change to North American Forest Tree Species." 30<sup>th</sup> Southern Tree Improvement Conference, Blacksburg, Virginia, May 31-June 3, 2009.

Jetton, R.M., W.S. Dvorak, **K.M. Potter**, W.A. Whittier, and R. Rhea. 2009. "Genetic Diversity and Ex Situ Gene Conservation of Eastern and Carolina Hemlocks Threatened by the Hemlock Woolly Adelgid in the Southern Appalachian Mountains." 30<sup>th</sup> Southern Tree Improvement Conference, Blacksburg, Virginia, May 31-June 3, 2009.

**Potter, K.M.**, W.W. Hargrove, and F.H. Koch. 2009. "Predicting Climate Change Extirpation Risk for Central and Southern Appalachian Forest Tree Species." Conference on Ecology and Management of High-Elevation Forests of the Central and Southern Appalachian Mountains, Snowshoe, West Virginia, May 14-15, 2009.

**Potter, K.M.**, J. Frampton, S.A. Josserand, and C.D. Nelson. 2009. "Evolutionary History and Population Genetics of Fraser Fir and Intermediate Fir, Southern Appalachian Endemic Conifers Imperiled by an Exotic Pest and Climate Change." Conference on Ecology and Management of High-Elevation Forests of the Central and Southern Appalachian Mountains, Snowshoe, West Virginia, May 14-15, 2009.

**Potter, K.M.** 2009. "Detecting Large-Scale Spatial Hot Spots of Forest Fire Occurrence Using MODIS Satellite Data." USDA Forest Service Forest Health Monitoring 15<sup>th</sup> Annual Workgroup Meeting, Savannah, Georgia, Feb. 23-27, 2009 (poster).

**Potter, K.M.** and F.H. Koch. 2008. "From Genes to Ecosystems: Measuring Evolutionary Diversity and Community Structure with FIA Data." 2008 Forest Inventory and Analysis (FIA) Symposium, Park City, Utah, Oct. 23, 2008.

**Potter, K.M.** 2008. "Forest Community Phylogenetics: Exploring Evolutionary Ecology Across Multiple Spatial Scales." Department of Forestry and Environmental Resources seminar, North Carolina State University, Raleigh, North Carolina, April 14, 2008.

**Potter, K.M.** 2008. "At the Intersection of Landscape, Genetics and Ecology: Community Phylogenetics and Multiple Scales." 23<sup>th</sup> Annual Symposium of the United States Regional Chapter of the International Association for Landscape Ecology, Madison, Wisconsin, April 9, 2008.

**Potter, K.M.** 2008. "Population Genetics and Gene Conservation of Southern Appalachian Hemlocks and Firs." Department of Biological Sciences seminar, East Tennessee State University, Johnson City, Tennessee, Feb. 27, 2008. (Invited)

**Potter, K.M.** 2008. "Forest Tree Genotypic Responses to Climate Change." Panelist presentation, Climate Change and Forest Health Focus Group, USDA Forest Service Forest Health Monitoring 14<sup>th</sup> Annual Workgroup Meeting, San Antonio, Texas, Feb. 13, 2008. (Invited)

**Potter, K.M.** and F.H. Koch. 2008. "The Evolutionary History of Forest Tree Communities: A New Tool for Assessing Forest Health." USDA Forest Service Forest Health Monitoring 14<sup>th</sup> Annual Workgroup Meeting, San Antonio, Texas, Feb. 11-14, 2008 (poster).

Josserand, S.A., B.M. Shamblin, **K.M. Potter**, C.J. Nairn, C.S. Echt, and C.D. Nelson. 2008. "Genomic Markers for Carolina Hemlock, Eastern Hemlock, and Five Other *Tsuga* Species." 4<sup>th</sup> Symposium on Hemlock Woolly Adelgid, Hartford, Connecticut, Feb. 12-14, 2008 (poster).

**Potter, K.M.** 2007. "Population Genetics of Fraser Fir, Eastern Hemlock and Carolina Hemlock." Conference of the Partnership for Saving Threatened Forests, Raleigh, North Carolina, November 29, 2007. (Invited)

**Potter, K.M.** 2007. "Integrating Landscape Ecology, Genetics and Conservation Biology in the Exploration of Forest Health." Joint meeting of the USDA Forest Service Eastern Forest Environmental Threat Assessment Center and Western Wildland Environmental Threat Assessment Center, Pawley's Island, South Carolina, September 11, 2007.

**Potter, K.M.**, W.S. Dvorak, J. Frampton, R.M. Jetton, W.A. Whittier, and M. Tighe. 2007. "Genetic diversity and conservation of Carolina hemlock (*Tsuga caroliniana*), a rare and threatened southern Appalachian conifer." Botany-Plant Biology Joint Congress, Chicago, Illinois, July 10, 2007.

**Potter, K.M.**, J. Frampton, S. Josserand, and C.D. Nelson. 2006. "The recent evolutionary history of the eastern North American firs (*Abies*): A microsatellite study." Botany 2006 conference, Chico, California, August 1, 2006.

**Potter, K.M.**, S. Josserand, J. Frampton, and C.D. Nelson. 2005. "A microsatellite assessment of genetic diversity and gene flow in Fraser fir (*Abies fraseri*), a Southern Appalachian endemic." Botany 2005 conference, Austin, Texas, August 15, 2005.

**Potter, K.M.**, and J. Frampton. 2005. "An *ex situ* gene conservation plan for Fraser fir." 28<sup>th</sup> Southern Forest Tree Improvement Conference, Raleigh, North Carolina, June 22, 2005.

Frampton, J., D.M. Benson, J. Li, A.M. Braham, E.E. Hudson, and **K.M. Potter**. 2005. "Seedling resistance to *Phytophthora cinnamomi* in the genus *Abies*." 28<sup>th</sup> Southern Forest Tree Improvement Conference, Raleigh, North Carolina, June 21, 2005.

**Potter, K.M.**, S. Josserand, J. Frampton, and C.D. Nelson. 2005. "A microsatellite assessment of population architecture and gene flow in Fraser fir." 28<sup>th</sup> Southern Forest Tree Improvement Conference, Raleigh, North Carolina, June 21, 2005 (poster).

**Potter, K.M.**, J. Frampton, L.K. Potter, and G.R. Hess. 2005. "Fraser Fir Population Size and Pollen Dispersal: A Landscape Genetics Model." 20<sup>th</sup> Annual Symposium of the United States Regional Chapter of the International Association for Landscape Ecology, Syracuse, New York, March 15, 2005.

Frampton, J., **K.M. Potter**, and J.R. Sidebottom. 2005. "Impacts of Balsam Woolly Adelgid in the Southern Appalachians." 3<sup>rd</sup> Symposium on Hemlock Woolly Adelgid in the Eastern United States, Asheville, North Carolina, Feb. 1, 2005.

Josserand, S., J.A. Bowen, **K.M. Potter**, J. Frampton, and C.D. Nelson. 2005. "Evaluation of Microsatellite Markers in Fraser Fir (*Abies fraseri*)." 3<sup>rd</sup> Symposium on Hemlock Woolly Adelgid in the Eastern United States, Asheville, North Carolina, Feb. 1, 2005 (poster).

**Potter, K.M.**, and J. Frampton. 2004. "Modeling Genetic Drift in a Threatened, Long-Lived Forest Tree Species." 2004 Ecological Society of America annual conference, Portland, Oregon, Aug. 4, 2004 (poster).

**Potter, K.M.**, and J. Frampton. 2003. "Phytophthora Root Rot Mortality in Fraser Fir: Genetic Variation in an Infested Progeny Test." Sixth International Christmas Tree Research and Extension Conference, Hendersonville, North Carolina, Sept. 15, 2003.

**Potter, K.M.**, and J. Frampton. 2003. "Genetic Conservation and Evolutionary History of Fraser Fir (*Abies fraseri*)." Sixth International Christmas Tree Research and Extension Conference, Hendersonville, North Carolina, Sept. 16, 2003 (poster).

**Potter, K.M.**, and J. Frampton. 2003. "Genetic Variation in Fraser Fir Mortality Due to Phytophthora Root Rot." 27<sup>th</sup> Southern Forest Tree Improvement Conference, Stillwater, Oklahoma, June 24, 2003.

**Potter, K.M.**, and F.W. Cabbage. 2003. "Landscape Characteristics and Nonpoint

Source Pollution in North Carolina: An Ecological Risk Assessment.” 2003 North Carolina Water Resources Research Institute Annual Conference, Raleigh, North Carolina, April 1, 2003.

**Potter, K.M.** 2002. “Fraser Fir (*Abies fraseri*): A Species Overview.” Institute of Forest Biotechnology Heritage Tree Workshop, Research Triangle Park, North Carolina, Dec. 11, 2002. (Invited)

**Potter, K.M.**, E.O. Sills, K. Jones, and D.N. Wear. 2002. “Assessing Forest Sustainability with Questions and Criteria.” 2002 Society of American Foresters national convention, Winston-Salem, North Carolina, Oct. 8, 2002.

**Potter, K.M.**, R.H. Schaberg, and F.W. Cabbage. 2002. “The Structure of North Carolina Stream Life: A Landscape-Level Ecological Risk Assessment of Nonpoint Source Pollution,” 2002 Ecological Society of America annual conference, Tucson, Arizona, Aug. 5, 2002 (poster).

### **Popular Publications:**

- More than 80 news releases during four years working in North Carolina State University’s News Services office (1997-2001). These releases promoted research advances, technology transfer efforts, and educational programs at the university, and resulted in news stories in major media outlets, including *USA Today*, *The Washington Post*, *U.S. News & World Report*, *The Chronicle of Higher Education*, *Popular Mechanics*, *The Los Angeles Times*, and the *Chicago Tribune*.
- Several dozen bylined stories in *The (Raleigh) News & Observer* during year as staff writer (1996-97), including “The futile war on fire ants” (Oct. 25, 1997), “Stalkers of the Coastal Plain” (about North Carolina’s carnivorous flora, June 30, 1997), and “Hurricane Fran’s latest legacy: Rash of poison ivy” (June 11, 1997).
- Several hundred news stories on Iowa and national politics and public policy while political reporter at the 50,000-circulation *Waterloo/Cedar Falls (Iowa) Courier* newspaper (1994-96). These included stories filed on Iowa General Assembly, the 1996 Iowa presidential caucuses, the 1996 Democratic and Republican national conventions, and the 1994 and 1996 primary and general elections.
- A weekly nonpartisan political analysis column in the *Waterloo/Cedar Falls Courier* (1994-96). These columns described, among other things, behind-the-scenes political wrangling at the Iowa statehouse, the national influence of Iowa’s members of Congress, the activities and prospects of Republican and Democratic presidential candidates in Iowa, and the impact of legislation on the *Courier’s* northeast Iowa readership.

### **Awards and Honors:**

- Belle Baruch Foundation Award for best poster, 31<sup>st</sup> Southern Forest Tree

Improvement Conference, Biloxi, Mississippi, June 13-16, 2011, for the poster “Potter, K.M., R.M. Jetton, W.S. Dvorak, V.D. Hipkins, J. Rhea, W.A. Whittier. 2011. “Range-Wide Assessment of Genetic Variation and Structure in Eastern Hemlock, an Imperiled Conifer, Using Microsatellites.”

- “Most Exciting Science” poster award, USDA Forest Service Forest Health Monitoring 16<sup>th</sup> Annual Workgroup Meeting, Albuquerque, New Mexico, Jan. 25-28, 2010, for the poster “Potter, K.M., W.W. Hargrove, and F.H. Koch. 2010. Assessing Forest Tree Risk of Genetic Degradation from Climate Change.”
- Namkoong Family Graduate Fellowship for scholarship and ethics in forestry and conservation, North Carolina State University Department of Forestry and Environmental Resources, 2005.
- North Carolina State University Preparing the Professoriate Fellowship, 2004-05.
- Forestry Faculty Fellowship for Excellence in Graduate Education, North Carolina State University Department of Forestry and Environmental Resources, 2004.
- North Carolina Plant Molecular Biology Consortium graduate student travel award, 2004, \$1,000.
- Junius Mebane Andrews and Horace Porter Andrews Graduate Fellowship, awarded by North Carolina State University to a single outstanding beginning doctoral student, 2002.
- Hofmann Forest Graduate Fellowship, awarded by the NC State University College of Natural Resources to outstanding beginning graduate students, 2002.
- Bruce Zobel Award for best student presentation at the 28th Southern Forest Tree Improvement Conference (tie), Raleigh, North Carolina, June 21-23, 2005.
- Bruce Zobel Award for best student presentation at the 27th Southern Forest Tree Improvement Conference, Stillwater, Oklahoma, June 24-27, 2003.
- Xi Sigma Pi forestry honorary society, North Carolina State University, 2002.
- Coordinator of media campaign “Promoting Centennial Campus, NC State’s Booming Technopolis,” winner of Award of Excellence, News Project category, Council for the Advancement and Support of Education, District III (Southeast), 2000-01.
- Editor of the *Bulletin*, the North Carolina State University faculty and staff newspaper, winner of Most Improved award for “magapapers and newspapers” category, APEX Awards for Publication Excellence, 2000.
- Editor of the *Bulletin*, the North Carolina State University faculty and staff newspaper, winner of a Special Merit Award for Internal Tabloids category,

Council for Advancement and Support of Education, District III (Southeast), 1997-98.

- Nominee for University Advancement Award for Excellence, North Carolina State University, 1999, 2000.
- National first place for college newspaper editorial writing, Society of Professional Journalists' Mark of Excellence Award, 1992.
- Cyril and Lucile Clifton Award for public affairs reporting, Drake University School of Journalism and Mass Communication, 1992-93.
- Robert and Lottie Brown News Editorial Scholarship, Drake University, 1989-93.
- Charles Ritchey Award for best research paper in a Drake University history course, 1992-93.
- Kappa Tau Alpha national journalism and mass communication honor society, 1992.
- Phi Sigma Iota International Foreign Language Honor Society, 1992.
- First place, *Periphery* literary magazine poetry contest, Drake University, 1990.
- Drake University President's List (for 4.0 GPA), Fall 1989, Spring 1991, Fall 1992; Dean's List (for 3.5 GPA), Spring 1990, Fall 1990, Fall 1991, Spring 1992, Spring 1993.
- National Merit Scholarship Finalist, 1989.

**Professional Service:**

- Coordinator of the Department of Forestry and Environmental Resources weekly seminar series, North Carolina State University, Fall 2011-present.
- Associate Editor for genetics and Advisory Board member of journal *New Forests*, international journal on the biology, biotechnology, and management of afforestation and reforestation, 2008-present.
- Completed peer reviews for manuscripts submitted to *Conservation Genetics*, *Environmental Monitoring and Assessment*, *Forest Ecology and Management*, *Integrated Environmental Assessment and Management*, *Journal of Ecology*, *New Forests*, *Silvae Genetica*, and *Water Resources Management*.
- Grant reviewer for USDA Cooperative State Research, Education, and Extension Service (CSREES) National Needs Graduate Fellowship Grants, 2009.

- Grant reviewer for National Science Foundation, Population and Evolutionary Processes Cluster, 2006.
- Session moderator, Conservation Biology Session: “Conservation Biology II,” Botany 2010 conference, Providence, Rhode Island, August 4, 2010.
- Session moderator, Genetics Session: “Molecular Evolution, Ecology and Population Genetics II,” Botany 2006 conference, Chico, California, August 1, 2006.
- Session moderator, Genetics Session: “Population, Conservation, and Ecological Genetics,” Botany 2005 conference, Austin, Texas, August 15, 2005.
- Abstract reviewer, 20<sup>th</sup> Annual Symposium of the United States Regional Chapter of the International Association for Landscape Ecology (US-IALE), March 2005.
- President, Natural Resources Organization of Graduate Students, North Carolina State University College of Natural Resources, Raleigh, North Carolina, April 2003-April 2004.
- Volunteer, working on system to track the effects of fire management, The Nature Conservancy, North Carolina Chapter, Durham, North Carolina, October 2001-May 2002.

### **Professional Memberships:**

Ecological Society of America  
International Association for Landscape Ecology, United States Regional Association  
Society of American Foresters  
Botanical Society of America  
Southern Appalachian Botanical Society  
American Chestnut Foundation

### **Certification:**

- Heartsaver First Aid, CPR, AED, Environmental Emergency certification (May 2009-May 2011, May 2011-May 2013)

### **Teaching Experience:**

**Preparing the Professoriate Fellow:** North Carolina State University, 2004-05

- Participated in teaching seminars and discussions, gained two semesters of teaching experience with oversight and evaluation (Teaching mentor: Dr. Gary Blank).

**Instructor:** Plant Conservation, North Carolina State University, Spring 2005

- Developed and delivered special topics course for upper-level undergraduate

students and graduate students, as part of Preparing the Professoriate program.

**Teaching Assistant:** Environmental Impact Assessment, North Carolina State University, Fall 2004

- Developed and delivered lectures and labs for class segment on water quality management and policy, in addition to teaching assistant responsibilities, as part of Preparing the Professoriate.

**Laboratory Instructor:** Dendrology, North Carolina State University, Fall 2002, Fall 2004

- Taught field laboratory sections of woody plant biology and identification course required of all undergraduate Forestry majors.

**Teaching Assistant:** Environmental Impact Assessment, North Carolina State University, Fall 2003

- Lectured on ecological risk assessment and water quality assessment, in addition to teaching assistant responsibilities.

**Guest Instructor:** Environmental Impact Assessment, North Carolina State University, Fall 2002

- Taught class on ecological risk assessment based on master's degree research.

**Guest Instructor:** Natural Resource Advocacy, North Carolina State University, Spring 2002

- Taught class on media relations for natural resource professionals.

**Guest Instructor:** Computers in Natural Resources, North Carolina State University, Fall 1999, Spring 2000, Fall 2000

- Taught lecture and lab on the use and design of high-quality PowerPoint presentations.

**Lecturer:** Media relations seminar, North Carolina State University, Fall 2001

- Presented talk to staff and faculty members about how to interact with news reporters.

### **Graduate Student Committees:**

**George Khan**, "Single Nucleotide Polymorphism Discovery in Pines (*Pinus*) Species for Hybrid Analysis," Department of Forestry and Environmental Resources, North Carolina State University, master of science, July 2010.

**Amanda Saville**, "Delimiting Species Boundaries in the *Dichantheium dichotomum* (L.) Gould Complex," Department of Plant Biology, North Carolina State University, master of science, July 2010.

### **Software and Computer Language Proficiency:**

- *Statistical analysis:* SAS, ASReml, Statistical Package for the Social Sciences (SPSS), PC-ORD, Microsoft Excel
- *Geographic Information Systems (GIS):* ESRI ArcGIS 9.2, ESRI ArcView 3.2, FloraMap
- *Population genetic analysis:* GeneMarker, ABI GeneScan, ABI Genotyper, PAUP\*, PopGen, Arlequin, Structure, Bottleneck, IBD, PHYLIP, FSTAT, GENEPOP, Genetic Data Analysis (GDA), InStruct, Microchecker, BAPS
- *Phylogenetic analysis:* Phylocom, Phylomatic
- *Scientific computation:* Matlab
- *Web and page design:* Hypertext Markup Language (HTML), Macromedia Dreamweaver, Adobe PageMaker, Microsoft PowerPoint, Microsoft Publisher

**Language Skills:**

- Native English speaker
- German (20 credit hours of college course work)
- Basic knowledge of Latin (6 credit hours of college course work)
- Learning conversational Spanish