

LORI J. KAYES
Department of Integrative Biology
Oregon State University
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EDUCATION

- 2009 Ph.D. Forest Ecology, Oregon State University, Corvallis, OR
Dissertation: Early-Successional Vegetation Dynamics and Microsite Preferences following Post-fire Forest Restoration in Southwestern Oregon, Advisors: Drs. Klaus Puettmann and Paul Anderson
- 2002 M.S. Environmental Education and Certificate in Botany, Southern Oregon University, Ashland OR
Thesis: Atlas of Rare Plant Species on Lake Peak, Oregon: Baseline Data for Global Climate Change Monitoring, Advisor: Dr. Steven Jessup
- 1998 B.S. Biology with Psychology Minor, University of Wyoming, Laramie, WY

PROFESSIONAL EXPERIENCE

- 2011 - present Course Coordinator and Instructor (General Biology for Majors), Biology Program, Oregon State University, Corvallis, OR
- 2011 Contract Botanist, Pacific Crest Botanical Surveys, Ashland, OR
- Instructor (Forest Ecology, Botanical Beginnings), Science Department, Lane Community College, Eugene, OR
- 2010-2011 Post-Doctoral Research Associate, Department of Botany, University of Wyoming. Laramie, WY
1. Habitat Management Plan for Black-Tailed Prairie Dogs at Devils Tower National Monument. Principal Investigator: Dan Tinker.
2. Estimating Future Forest Structure and Carbon Balance Following a Mountain Pine Beetle Outbreak in Lodgepole Pine Stands in Southeastern Wyoming. Principal Investigator: Dan Tinker.
- Instructor (General Biology), Life Science Program, University of Wyoming. Laramie, WY
- 2009 Post-Doctoral Research Associate, Department of Forest Ecosystems and Society, Oregon State University, Corvallis, OR.
- Limits to plant community and trait –level convergence following fire and restoration. Principal Investigators: Klaus Puettmann and Paul Anderson.
- Instructor (Wildland Fire Science), Department of Science, Mount Hood Community College, Gresham, OR
- 2004-2008 PhD Candidate and Graduate Research Assistant, Department of Forest Ecosystems and Society (formerly Department of Forest Science), Oregon State University, Corvallis, OR

PROFESSIONAL EXPERIENCE (CONTINUED)

- 2006-2007 Teaching Assistant (Wildlife and Forest Management and Departmental Seminar Series), Department of Forest Science, Oregon State University, Corvallis, OR
- 2006 Instructor (Fire Ecology), Biology Department, Southern Oregon University and Siskiyou Field Institute, Ashland, OR
- 2005 Teaching Assistant (Discovery Seminar Series), Sustainable Forestry Partnership, Oregon State University, Corvallis, OR
- 2002-2004 Botanist, Butte Falls Resource Area, Medford District BLM, Medford, OR
- 2002-2003 Conference Coordinator, Siskiyou Field Institute, Cave Junction, OR
- 2002 Grant Manager, Environmental Education Department, Southern Oregon University, Ashland, OR
- Youth Program Coordinator (Intern), Siskiyou Environmental Film Festival, The Siskiyou Project, Cave Junction, OR
- 2001 Herbarium Assistant, Biology Department, Southern Oregon University, Ashland, OR

AWARDS AND RECOGNITION

- 2013 Loyd Carter Award for Outstanding and Inspirational Undergraduate Teaching, College of Science, Oregon State University
- 2012-2013 National Academies Education Fellow in the Life Sciences.
- 2007-2008
1. Hayes Graduate Fellowship in Forestry, College of Forestry, Oregon State University
 2. Doris and Richard Waring Student Travel Grant, Department of Forest Science, Oregon State University
- 2007
1. Outstanding PhD Student Award, Department of Forest Science, Oregon State University
 2. ABLS Student Travel Award, American Bryological and Lichenological Society
- 2006-2007 Hayes Graduate Fellowship in Forestry, Department of Forest Science, Oregon State University
- 2005-2006 James H. Dukes, Jr Graduate Fellowship in Forestry, Department of Forest Science, Oregon State University
- 1995-1996 Honor's Program, University of Wyoming
- 1994-1995
1. Dean's List, Albertson College of Idaho
 2. Academic All-American, United States Collegiate Ski Association
 3. All-American Women's Nordic Skiing, United States Collegiate Ski Association
 4. Phi Eta Sigma National Honor Society, Albertson College of Idaho Chapter

GRANTS AND CONTRACTS

- 2014
1. Enhancing STEM Education at Oregon State University. National Science Foundation, WIDER. \$1.3 mil. (PI: Milo Koretsky). 2014-2016.
- 2013
1. Northwest Biosciences Consortium (NWBC): Implementation of Vision and Change in the Introductory Biology Curriculum. National Science Foundation, Research Coordination Network in Undergraduate Biology Education, \$500,000 (PIs: Stasinios Stavrianeas, Erin Baumgartner, Jeffrey Brown, Lori Kayes, Stacey Kiser). 2013-2018.
 2. Enhanced Technology for Undergraduate Biology Laboratories, Technology Resource Fund Expansion Grant Oregon State University \$10,000 (PIs: Robert Mason, Lori Kayes)

- 2012 1. Provost Funds for Classroom Improvement. Oregon State University, \$300,000 (PIs: Robert Mason and Lori Kayes)
2. Enhanced Technology for Undergraduate Biology Laboratories, Technology Resource Fund Oregon State University \$92,000 (PIs: Robert Mason, Lori Kayes, Mark Lavary)
- 2010 1. Estimating Future Forest Structure and Carbon Balance Following a Mountain Pine Beetle Outbreak in Lodgepole Pine stands in Southeastern Wyoming, Wyoming Space Grant Consortium \$20,000 (PI: Dan Tinker)
2. Prairie Dog Habitat Management Plan, Devil's Tower National Monument, National Park Service \$20,000 (PI: Dan Tinker)
- 2004-2008 USDA Forest Service and USDI BLM: Timbered Rock Reforestation, Stand Development and Fuels Study (PIs: Paul Anderson and Klaus Puettmann)
- 2003 Salary Match Grant, USDI Bureau of Land Management, Medford District, Butte Falls Research Area and Siskiyou Field Institute
- 2001-2002 Field Research Grant, USDA Forest Service, Rogue River National Forest

TEACHING EXPERIENCE

Teaching Internship Experience (BI405) – Mentor undergraduates in a teaching experience based in Principles of Biology laboratories.

Principles of Biology (BI211, BI212, BI213) – Lab-based course in General Biology for majors introducing biochemistry, cell function, genetics and natural selection, ecology

Fire Ecology (BIO299) - Summer field course focusing on fire ecology, fuels reduction and species adaptations to fire in southwestern Oregon.

Wildland Fire Science (NR160) – Introductory lab course on Wildland Fire science focus on fire ecology and management. Lab section included basic navigation, Wildland firefighting skills, fuels measurements, computer simulation and fire ecology.

General Biology (LIFE1010) – Lab-based course in General Biology for majors introducing biochemistry, cell function, genetics and natural selection, ecology

Botanical Beginnings (BI101I) – Lecture-lab combined course in General Biology for non-majors focused on organ, cell and tissue structure and function. Plants were the organism used to examine these topics.

Forest Ecology (BI103J) – Lecture-lab combined course in biology for non-majors focused on evolution and ecology (from population level to biome level). Forests were the system used to study these topics.

RECENT PRESENTATIONS

2013 Hewitt, K.M. and L.J. Kayes. 2013. Creating motivating environments for biology students. National Association of Biology Teachers (NABT) Professional Development Conference, November 20-23, Atlanta, GA..

Hubert, D.L., Hewitt, K.M. and L.J. Kayes. 2013. Animal behavior and invasive species in a socio-scientific issues-based laboratory module. National Association of Biology Teachers (NABT) Professional Development Conference, November 20-23, Atlanta, GA.

RECENT PRESENTATIONS (CONT.)

- 2013 Hewitt, K.M., L.J. Kayes, and R. Mason. 2013. Design and implementation of a socio-scientific issues-based curriculum. National Association of Biology Teachers (NABT) Professional Development Conference, November 20-23, Atlanta, GA..
- Hewitt, K.M., L. Kayes, R. Mason, J. Bouwma-Gearhart. 2013. Design and implementation of a socio-scientific issues-based curriculum: Investigating Biology Student Motivation. Vision and Change in Biology Undergraduate Education: Chronicling Change, Inspiring the Future conference. August 28-30, Washington D.C.
- Kayes, L.J., R. Mason, K. Hewitt. 2013. Slowly turning a big ship: Making small changes to big classes. Vision and Change in Biology Undergraduate Education: Chronicling Change, Inspiring the Future conference. August 28-30, Washington D.C.
- Hewitt, K.M., L. Kayes, R. Mason, J. Bouwma-Gearhart. 2013. The Effects of a Socio-scientific Issues-Based laboratory curriculum on university biology student motivation. Society for the Advancement of Biology Education Research (SABER) Annual Meeting: July 11-14, Minneapolis Minnesota.
- 2012 Kayes, L.J. and D.B. Tinker. 2012. Projected future forest conditions and live carbon pools following a mountain pine beetle epidemic in southeastern Wyoming . Ecological Society of America Annual Meeting August 05-11, Portland, OR.
- Kayes, L.J., R. Mason, J. White, and S. Eddy. 2012. Graduate teaching assistant training and curriculum development (poster). Biology Leadership Conference, March 9-11, Kiawah Island, SC.
- 2009 Kayes, L.J., K.J. Puettmann and P.D. Anderson. 2009. Post-fire microsites and effects of bryophytes on germination and establishment of conifers and early-seral species. 7th North American Forest Ecology Workshop, June 22-26, 2009, Logan, UT.
- Kayes, L.J., K.J. Puettmann and P.D. Anderson. 2009. Plant community convergence following the completion of post-fire restoration treatments in southwestern Oregon. 3rd Conference on Klamath-Siskiyou Ecology: Sustaining Biodiversity in a Changing Environment, May 28-30, 2009, Selma, OR.
- Kayes, L.J., K.J. Puettmann and P.D. Anderson. 2009. Plant community dynamics following wildfire and restoration treatments in the Timbered Rock fire. Northwest Scientific Annual Meeting, March 25-28, 2009, Seattle, WA.
- 2008 Kayes, L. J. 2008. Early-successional vegetation dynamics and microsite preferences following post-fire restoration in southwestern Oregon. Thesis Defense Seminar, December 12, 2008, Department of Forest Ecosystems and Society, OSU, Corvallis, OR.
- 2007 Kayes, L.J., K.J. Puettmann and P.D. Anderson. 2007. Early response of terrestrial cryptogam communities to post-fire restoration treatments and environmental factors. American Bryological and Lichenological Society Annual Meeting, August 12-16, 2007, Xalapa, MX.
- Kayes, L.J., K.J. Puettmann and P.D. Anderson. 2007. Correlations between vegetation layers during post-fire restoration in southwestern Oregon. Ecological Society of America Annual Meeting, August 5-10, 2007, San Jose, CA.

RECENT PRESENTATIONS (CONT.)

- 2007 Kayes, L.J., K.J. Puettmann and P.D. Anderson. 2007. Early vegetation dynamics following postfire restoration in southwestern Oregon. 6th North American Forest Ecology Workshop, June 18-22, 2007, Vancouver, BC.
- Anderson, P.D., Puettmann, K.J., & Kayes, L. 2007. Early development of planted and natural tree regeneration following fire in southwestern Oregon. 6th North American Forest Ecology Workshop, June 18-22, 2007, Vancouver, BC.
- Kayes, L.J., K.J. Puettmann and P.D. Anderson. 2007. Early response of terrestrial cryptogam communities to post-fire restoration treatments and environmental factors. Forest Science Department Graduate Student Symposium, May 18, 2007, Corvallis, OR.
- Kayes, L.J., K.J. Puettmann and P.D. Anderson. 2007. Three-year vegetation response to post-fire reforestation treatments in the Timbered Rock Fire. The Scientific Foundations of Post-fire Policy Workshop, Oregon State University, March 12, 2007, Corvallis, OR. (Invited)
- 2006 Kayes, L.J., K.J. Puettmann and P.D. Anderson. USDI Bureau of Land Management: BLM Timbered Rock Field Site Visit, Medford, OR
- Kayes, L.J., K.J. Puettmann and P.D. Anderson. 2006. Early vegetation response to post-fire reforestation treatments in the Timbered Rock Fire. USDA Forest Service, Southwestern Oregon Wildfire Research Symposium, February 8, 2006, Gold Beach, OR.
- Kayes, L.J., K.J. Puettmann and P.D. Anderson. 2006. Early vascular plant recovery after the Timbered Rock Fire. Native Plant Society of Oregon, Siskiyou Chapter, April 20, 2006, Ashland, OR. (Invited)
- 2004 Kayes, L.J. Medford District BLM and the Nature Conservancy, Medford, OR: Wildflowers of Table Rocks
- 2003 Kayes, L.J. Second Conference on Klamath-Siskiyou Ecology, Cave Junction, OR: Atlas of rare plant species on Lake Peak, Oregon: baseline data for global climate change monitoring. (Poster)
- Kayes, L.J. Medford District BLM and the Nature Conservancy: Wildflowers of Table Rocks

PUBLICATIONS*Referred:*

Hewitt, K., Hubert, D., Chouinard, A., Kayes, L. *In review*. An Issues-based laboratory module for integrating animal behavior and invasive species concepts: Investigating the effects of the invasive red swamp crayfish. *American Biology Teacher*.

Kayes, L.J. and D.B. Tinker. *In prep*. Aboveground carbon storage and forest recovery following a mountain pine beetle epidemic in southeastern Wyoming. For submission to *Global Change Ecology*

Kayes, L.J., K.J. Puettmann, and P.D. Anderson. *In prep*. Plant community convergence following the completion of post-fire restoration treatments in southwestern Oregon. For submission to *Northwest Science*

PUBLICATIONS (CONT.)

- Kayes, L.J., K.J. Puettmann, and P.D. Anderson. *In prep.* Post-fire bryophyte microsites and effects of bryophytes on germination and establishment of conifers and early-seral species. For submission to *Fire Ecology*
- 2014 Hewitt, H. and Kayes, L.J. 2014. *Socioscientific Issues in Biology*. Hayden-McNeil Publishing.
- 2013 Hewitt, H. and Kayes, L.J. 2013. *Socioscientific Issues in Biology: Principles of Biology Course Packet*, Oregon State University.
- 2012 Farrell, K. and Kayes, L.J. 2012. *Diversity of Life; Principles of Biology Course Packet*. Oregon State University.
- Kayes, L.J. and D.B. Tinker. 2012. Forest Structure and Regeneration Following a Mountain Pine Beetle Epidemic in Southeastern Wyoming. *Forest Ecology and Management* 263:57-66
- 2011 Halofsky, J.E., D.C. Donato, D.E. Hibbs, J.L. Campbell, M. Donaghy Cannon, J.B. Fontaine, J.R. Thompson, R.G. Anthony, B.T. Bormann, L.J. Kayes, B.E. Law, D.L. Peterson, and T.A. Spies. 2011. Mixed-severity fire regimes: lessons and hypotheses from the Klamath-Siskiyou Ecoregion. *Ecosphere* 2: art40.
- Kayes, L.J., K.J. Puettmann, and P.D. Anderson. 2011. Short-term bryoid and vascular vegetation response to reforestation treatments following wildfire in conifer plantations. *Applied Vegetation Science* 14 (3):326-339.
- 2010 Kayes, L.J., P.D. Anderson, and K.J. Puettmann. 2010. Vegetation succession among and within structural layers following wildfire in managed forests. *Journal of Vegetation Science* 21(2): 233-247.
- 2008 Kayes, L.J., K. Van Wormer, D. Kofranek, K. Sale and B. McCune. 2008. Chemical Variation of *Usnea longissima* Ach. in the central Oregon Coast Range. *North American Fungi* 3(5):1-10.
- 2004 Sims, L.J. 2004. Atlas of rare plant species on Lake Peak, Oregon: Baseline data for global climate change monitoring. In K.L. Mergenthaler, J.E. Williams, E.S. Jules (editors). *Proceedings of the Second Conference on Klamath-Siskiyou Ecology*, page 158. Siskiyou Field Institute, Cave Junction, Oregon.
- Non-Referred:*
- 2009 Kayes, L.J. 2009. *Early-Successional Vegetation Dynamics and Microsite Preferences following Post-fire Forest Restoration in Southwestern Oregon*. Ph.D. Dissertation. Oregon State University, Corvallis, OR.
- 2002 Sims, L.J. 2002. *Atlas of Rare Plant Species on Lake Peak, Oregon: Baseline Data for Global Climate Change Monitoring*. M.S. Thesis. Southern Oregon University, Ashland, OR. (Prior to 2004, I published under my maiden name Sims)

UNIVERSITY SERVICE

- 2012–2015 Bachelorette Core Curriculum Committee, Oregon State University
President's Council on the Status of Women, Oregon State University

UNIVERSITY SERVICE (Cont.)

- 2013-2014 Ecampus Committee, Zoology Department, Oregon State University
Undergraduate Curriculum Committee, Zoology Department, Oregon State University
- 2012-2013 Undergraduate Curriculum Committee, Zoology Department, Oregon State University
Strategic Plan Curriculum Committee, Biology Program/Zoology Department, Oregon State University
- 2010 Organizing Committee for Mountain Pine Beetle Manager's Workshop, University of Wyoming
- 2007-2008 Search Committee for FRA in Forest Ecology and Silviculture
Graduate Student Symposium Committee
- 2006-2007 Search Committee for post-doctoral position in Forest Ecology and Silviculture
Graduate Student Representative, Department of Forest Science, Oregon State University
Graduate Student Symposium Committee
Admissions Committee
Curriculum Committee
Organizer, Winter Department Seminar Series
- 2005-2006 Graduate Student Representative, Department of Forest Science, Oregon State University
Website Committee
Curriculum Committee
Organizer, Spring Department Seminar Series
- 2004-2005 Organizer, Sustainable Forestry Partnership Seminar Series

PROFESSIONAL SERVICE

- General Manuscript Reviewer: Journal of Vegetation Science, European Journal of Forest Research,
Northwest Science, Journal of Microbiology, Forest Ecology and Management
- 2009-2010 Vice-President, Native Plant Society of Oregon
- 2007-2009 Board of Directors, Native Plant Society of Oregon
- 2005-2006 Volunteer Teacher, Polk County Water and Conservation District Outdoor School
- 2004-2005 Volunteer Teacher, Benton County School District Spring Field Day
- 2002 Visiting Teacher, Jackson County Middle Schools
- 2000-2001 Volunteer Teacher, Outdoor School, Siskiyou Environmental Education Center

PROFESSIONAL SOCIETY MEMBERSHIPS

- Ecological Society of America
American Bryological and Lichenological Society
The Association for Fire Ecology
Northwest Lichenologists
Oregon Native Plant Society
Xi Sigma Phi Forestry Honors Society
Gamma Sigma Delta Agricultural Honors Society
National Association of Biology Teachers
Biology Directors Consortium
Northwest Biosciences Consortium