

Curriculum Vitae

Laura Michelle Bowe
Senior Instructor and Herbarium Curator
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Education: 1997. Ph.D., Biology. Vanderbilt University, Nashville, TN.

1991. B.S., Biology. Wofford College, Spartanburg, SC.
Graduated *magna cum laude*.

**Professional
experience:**

Present: Senior Instructor, Department of Biology, Missouri State University, Curator, Ozarks Regional Herbarium

Summer, 2015. Worked with Dr. Wendy Anderson (Stetson University) on a project re-evaluating the status of several parcels of BLM land on Lopez Island (Washington; part of the San Juan Islands)

2002-2009: Assistant Professor, Department of Biology, Missouri State University; Curator, Ozarks Regional Herbarium (SMS)

Courses taught at Missouri State: Identification of Woody Plants (Bio 339), Plant Taxonomy (Bio 334), Applications of Molecular Markers (Bio 540), Nonmajors' biology (Bio 102; Principles of Biological Science—General Education), Advanced Woody Plants (Bio 630), Advanced Plant Taxonomy (Bio 634), and Graduate Seminar (Bio 628)

2006-2009: Missouri State University Committee on General Education and Intercollegiate Programs. Chair, 2008-2009.

2003-2009: Missouri State University Committee on Biosafety

2008-2009: Missouri State University Faculty Senate Committee on the General Education Program's Basic Required Courses.

1997-2002: Assistant Professor of Biology and Curator of the Herbarium, Frostburg State University, Frostburg, MD.

Courses taught: Dendrology, Plant Taxonomy, Molecular Biology, Genetics, Genetics Lab, Morphology of the Thallophytes (includes algae, bacteria and fungi), Morphology of the Embryophytes (includes bryophytes and vascular plants), “Human Biology and the Environment” (non-majors’ biology—General Education), Biotechnology Lab, Evolution (graduate independent study), and Graduate Seminar.

-Served on the Undergraduate Biology Curriculum Committee.

1997-2002. Adjunct faculty at the Appalachian Laboratory (University of Maryland).

August 2001: Volunteer Consultant for Allegany County (Maryland) Board of commissioners (two environmental reports completed).

1999. Maryland Rare Plant Reintroduction Task force.

Summer 1999: Assisted with Dr. Wendy Anderson's Drury College (now University) Field studies course in Baja, California (Mexico).

1991-1997. Teaching Assistant, Vanderbilt University. Duties: lead and supervise undergraduate basic biology labs (Biology 100 and Biological Sciences 110), prepare laboratories, grade exams, and occasionally give botany lectures.

1989-1991. Wofford College. Undergraduate greenhouse and botany lab assistant.

1990. Summer Undergraduate Research Program, Savanna River Ecology Lab; Ken McLeod, director. Worked on sandhills oak/scrub ecology-measured photosynthesis and osmotic potential.

Awards, grants and distinctions:
(since 2000)

2022. Missouri Native Plant Society Wylie award for Service to the organization.

2017. CNAS award for faculty excellence in Service.

2013. CNAS award for faculty excellence in Service.

2012. CNAS award for faculty excellence in Teaching

2008. Assessing habitat quality from density and genetics of dominant tree species growing along the Rio Conchos in northern Mexico (Missouri State University Latin American Faculty Research Grant; \$5,000)

2006. L. M. Bowe. U.S. Fish and Wildlife Service, De-listing the Missouri

Bladderpod: The Future of Private Property and effects of Differential Herbicides (\$15,000).

2005. Bowe, L.M. and C. Witkowski. Beckman Coulter Genomics Educational Matching Funds for GenomeLab CEQ Equipment-- for a new DNA sequencer and start-up supplies (\$51,430).

2005. Weimer, J., J. Heywood and L.M. Bowe. Missouri Department of Natural Resources grant for the "Historical recruitment and clonal reproduction of *Quercus stellata* Wangenh in an old-growth midwest savanna" (\$2,538.55).

2004. SMSU Faculty research grant. Use of AFLPs in a genetic comparison of two aspects of biological conservation: rare species and invasive exotics (\$6,761).

2003. CNAS SMSU Centennial Project: A temporal map of Southwest Missouri State University. Investigators: L.M. Bowe, R. Martin and L.M.. Moskal. (\$5,000). Also, the graduating class of 2004 donated \$400 to the project.

2003. National Park Service grant (\$9998). Project title: Locate and evaluate historic trees at Wilson's Creek National Battlefield. Co-Pi's: L. M. Moskal and L. Michelle Bowe.

2001-2002. Frostburg State University Faculty Development Project Grant: "DNA sequencing of the Phytochrome gene from *Taxus canadensis*, a staterare medicinal plant species." (ca. \$1500)

Societies: Missouri Native Plant Society (President and Treasurer of Southwest Chapter, *Petal Pusher* Editor)

**Publications:
and reports
(since 2008)**

2018. Bowe, L.M. NPS Final report: HTLN Prairie Plant Identification and Voucher/Study Specimen Collection at GWCA

2024. Maggie M. Mayberry, Jacob S. Francis, Jenny K. Burrow, Faith E. Dall, Michelle Bowe, Anne S. Leonard, Parker M. Campbell , and Avery L. Russell. One for the road: bumble bees consume pollen at flowers. *Apidologie* 55: 82. 15 pp.

2017. Bowe, L.M. NPS Final report: Bioblitz and George Washington Carver National Monument May 21 2016

2016. Bowe, L.M. and G. Yatskievych. *Cynoglossum creticum* in the North American Flora. *Lundellia* 19: 39-46.

2014-2017. (non-peer-reviewed). Curator's Corner Columns and Chapter Reports for the *Petal pusher* (every 2 months).

2015. (Internally reviewed by MONPS members). Michelle Bowe, Becky Erickson, Malissa Briggler, and Emily Horner. Wildflowers of Missouri's Roadsides. An educational pamphlet published by MODOT and the Missouri Native Plant society. Photos and text.

2012. King, S.H., J. Moody-Weiss, P.L. Redfearn, J.L. Keene, and L.M. Bowe. Plants of the Bull Shoals Field Station, Taney County, Missouri. *Missouriensis*.

2010. (non-peer-reviewed). Two chapter reports for the Springfield Chapter of the Missouri Native Plant Society—published in *Petal Pusher* (July and September issues)

2008. Keene, J. and L.M. Bowe. Report to the US Fish and Wildlife Service: Preservation of Missouri Bladderpod through landowner cooperation and the control of brome grass.

Meeting presentations (since 2005):

2023, 2022. Jenny K. Burrow^{*a}, Maggie M. Mayberry^{*a}, Jacob S. Francis^b, Faith E. Dall^a, Michelle Bowe^a, Anne Leonard^c, and Avery L. Russell^a Picky eaters: generalist bees sample pollen on flowers by ingestion before collection. Presented at SCIB in July 2023 and the Animal Behavior Society meetings in July 2022.

2009. Lallemand, S., M. Kaps, F. Einhellig, L. Bowe. Applied Allelopathy: Effects of Daffodils on Other Species in Sustainable Agriculture and the Home Landscape. Presented at the American Society of Horticultural Science meetings.

2009. Choudhury, S.N., L.M. Bowe and D.W. Taylor. Phylogeographic analysis of rare lady's tresses orchids (*Spiranthes*) from Missouri and Indiana. Poster presented at the Graduate Interdisciplinary forum at Missouri State University.

2009. Keene, J.L. and L.M. Bowe. Genetic and ecological aspects of conserving the federally threatened Missouri bladderpod. Poster presented at the Graduate Interdisciplinary forum at Missouri State University.

2007. Bowe, L.M. and M. E. Ladd. Loss of American and Slippery elm genomes due to cryptic invasion of Siberian elm: evidence from AFLPs. Poster presented at the international Ecological Genomics Symposium in Kansas City

2006. Weimer, J., J.S. Heywood and M. Bowe. Historical recruitment and clonal reproduction of *Quercus stellata* Wangenh. in an old-growth midwest savanna. Presented at the Missouri State University Graduate Interdisciplinary forum.

2005. Ladd, M., S. Snider, J. Lewis and L.M. Bowe. Genetic invasion: Hybridization between native and non-native elms in Southwest Missouri. Poster presented at the Missouri Academy of Sciences meetings. Received award for best undergraduate poster.

2005. Wood, C. (advisors: M. Moskal and M. Bowe). Community Oriented Geospatial Education: The Southwest Missouri State University College of Natural and Applied Sciences Centennial Project. Poster presented at SMSU interdisciplinary forum.

Invited Lectures: (since 2008)

2024. Missouri Prairie Foundation Webinar Series: A primer on photosynthesis, water transport, and hormones

2024. Missouri Prairie Foundation Webinar Series: A primer of plant morphology

2016. The Springfield Nature Center: Wild edible Plants for botanical enthusiasts

Fall 2014. Plant Keying workshop: Master Gardeners State meeting.

Spring 2013. Twig Identification workshops: Master Naturalists, Missouri Native Plant Society

2010. Invasive and non-native plants. Presentations given to Missouri Native Plant Society (twice—slightly different presentations each time)—one to Springfield Chapter, and one to the West Plains chapter.

Jan. 2008. Loss of native elm genomes due to cryptic invasion of Siberian elm. Biology Department Seminar Series

Jan. 2008. Plant Distributions and Global Warming. Focus the Nation Teach-in presentation at Missouri State University

March 2008. Cryptic invasion of Siberian elm: evidence for loss of native genomes. Seminar given at Indiana University Southeast

April 2008. Hybridization of elms revealed by molecular markers—and other research at Missouri State University. Seminar/recruitment presentation at Arkansas Tech University