

# Curriculum Vitae

## Larry Hufford

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**Interim Dean, College of Arts and Sciences**  
**Professor, School of Biological Sciences**  
**Director, Marion Ownbey Herbarium**  
**Director, Conner Museum of Natural History**

### Address

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### Education

*B.S. Botany 1980:* Iowa State University  
*Ph.D. Botany 1986:* University of California, Berkeley

### Professional Experience

*2018-present:* Interim Dean, College of Arts and Sciences, Washington State University  
*2017-present:* Associate Dean for Faculty and Academic Affairs, College of Arts and Sciences, Washington State University  
*2016-2017:* Interim Director, School of the Environment, Washington State University  
*2012-2017:* Associate Director, General Studies Program, College of Arts and Sciences, Washington State University  
*2010-2017:* Director, School of Biological Sciences, Washington State University  
*2009-present:* Director, Conner Museum of Natural History, Washington State University (Interim Director 2009-2017)  
*2006-present:* Professor, School of Biological Sciences, Washington State University  
*2005-2006:* Research Associate Professor, Mesa State College, Grand Junction, Colorado, while on professional leave to conduct fieldwork on Colorado Plateau, USA  
*1999-2000:* Professional leave. Jodrell Laboratory, Royal Botanic Garden, Kew, United Kingdom  
*1999-2006:* Associate Professor, School of Biological Sciences, Washington State University  
*1993-present:* Director, Marion Ownbey Herbarium, Washington State University  
*1993-1999:* Assistant Professor, Department of Botany and Program in Biology, Washington State University  
*1991-1993:* Director, Olga Lakela Herbarium, University of Minnesota-Duluth  
*1989-1993:* Assistant Professor, Department of Biology, University of Minnesota-Duluth  
*1988-1990:* National Science Foundation Postdoctoral Fellow, University of Arizona (with Dr. Michael Donoghue) and the Universities of Kansas and Minnesota  
*1988:* Visiting Assistant Professor, Department of Botany, University of Kansas  
*1986-1987:* Postdoctoral Research Assistant (with Dr. Peter Endress) Institute of Systematic Botany, University of Zurich  
*1986:* Lecturer, Department of Botany, University of California, Berkeley  
*1980-1986:* Graduate Teaching and Research Assistant, University of California, Berkeley

## Administrative Experience

### *2018-present: Interim Dean, College of Arts and Sciences*

As the largest college at Washington State University, the College of Arts and Sciences has a substantial research, educational, and outreach profile. The geographically distributed College includes faculty, research laboratories, and coursework on the Everett, Pullman, Spokane, Tri-Cities, and Vancouver campuses. Our faculty consists of 318 tenured/tenure track members and 347 non-tenure track clinical and instructor members. The College comprises four schools, 12 departments, and three interdisciplinary programs that provide foundational coursework for all undergraduates at WSU and offer 38 undergraduate majors and 42 graduate degrees. The College provides more than 50% of the educational instruction across the WSU system and had 12,061 enrollment AAFTE in the 2017 academic year. During the past academic year, we enrolled 799 graduate students in our degree programs. College of Arts and Sciences contributes to the high level of research accomplishment at WSU, which is a Carnegie classification Research 1 University. Research expenditures in the College totaled \$28.13 million in the 2017 fiscal year.

While serving from June 2017 as Associate Dean, I was increasingly involved in leadership decisions and planning for the College in anticipation of transition to my leadership as Interim Dean at the beginning of 2018. My efforts and experiences to date have included the following:

- Lead efforts to achieve mission.
  - Plan strategy for educational, research, and outreach goals.
  - Implement decisions to achieve strategic goals.
  - Guide school, department, and program chairs and directors.
  - Lead College messaging (work with communications team)
- Personnel administration.
  - Responsible for faculty and staff hiring and review, including third-year review and tenure and promotion for faculty.
  - Address personnel issues, coordinating as needed with Human Resource Services and Attorney General's office.
  - Supervise four associate deans.
  - Supervise dean's office staff of 24, including communications, development, faculty development, finance, information technology, human resource, and student recruitment and advising teams (includes six direct reports).
- Budget management and fiscal planning.
  - State fund allocation of \$59 million (total spending, excluding grants, in fiscal year 2017 was \$74 million).
  - Lead planning of fiscal year 2019 budget.
  - Guide planning and implementation of university imposed 2.5% spending reduction.
  - Work with finance team (four members) on fiscal planning.
- Development and external relationship building.
  - Work with the College's development team (six members) on philanthropy.
  - Meet with prospective donors.
- Participate in University leadership.
  - Advise Provost on issues facing the College and University.
  - Participate in the Provost's Council.
  - Represent the College at University events.

## **Administrative Experience (continued)**

*2017-present: Associate Dean for Faculty and Academic Affairs, College of Arts and Sciences*

- Oversight for faculty affairs.
  - Guide faculty recruitment efforts.
    - Help to guide college hiring planning.
    - Guide department and school hiring plan development.
    - Review and approve hiring requests.
    - Guide chair and directors in preparation of job offers.
  - Oversee tenure and promotion and third-year reviews.
  - Manage retention negotiations and offers.
  - Manage personnel issues, coordinating as needed with Dean, Human Resource Services, and Attorney General's office.
  
- Oversight for academic affairs.
  - Leading strategic enrollment management.
  - Responsible for temporary instructional allocations to departments/schools.
  
- Guidance of department chairs and school directors.
  
- Guiding strategic initiatives.
  - Support for development of online programs.
  - Oversight for interdisciplinary Data Analytics program.
  - Oversight for planning of a new field station at Meyer's Point on University property on Puget Sound.

## **Administrative Experience (continued)**

### **2010-2017: Director, School of Biological Sciences**

The School of Biological Sciences, which resides in the College of Arts and Sciences, is a multi-campus unit distributed across Washington with faculty on the Pullman, Tri-Cities, and Vancouver campuses. The School has substantial educational, research, and public outreach roles. It offers undergraduate and graduate (M.S. and Ph.D.) degrees on the Pullman, Tri-Cities, and Vancouver campuses. The disciplinary coverage of the School includes ecology, evolutionary biology, genetics, genomics, human biology, molecular biology, nutrition, and physiology, providing both animal and plant emphases.

- Led vision development and directed efforts to achieve mission.
  - Provided engaged, collaborative, strategic leadership for high achievement.
  - Led and completed strategic planning process (2014-2015).
  - Responsible for fund-raising and development efforts.
  - Introduced social media to communicate with students, alumni, and others.
  - Instituted community-building events to promote interactions and recognition.
    - Acquired funding for community development effort in the School.
  - Worked closely with a leadership team of two Associate Directors, a senior manager, and senior academic coordinator to guide School.
  
- Provided fiscal planning for and managed an annual operating budget of about \$4.2 million and had oversight for grant budgets that totalled nearly \$5.6 million annually.
  - More than doubled annual external research funding from \$2.5 million to nearly \$5.6 million (Pullman campus only).
    - Oversaw rise in external grant submissions by 36% with an average of 2.6 proposals annually per faculty member.
  - Acquired internal funding to remodel a teaching laboratory for enrollment expansion in introductory biology course.
  
- Administered hiring, performance review, mentoring, and promotion/tenure processes for faculty and staff.
  - Supervised 47 faculty: 32 tenured/tenure track faculty, 9 clinical track faculty, and 6 instructors distributed across the Pullman, Tri-Cities, and Vancouver campuses of Washington State University.
  - Hired nine tenure-track and three clinical-track faculty in seven years.
  - Hired thirteen new staff in seven years.
  - Added to faculty ethnic diversity and the number of women.
  - Repeated successes in retaining faculty recruited by other institutions.
  - Developed and introduced a new objective annual review rubric for faculty.
  - Led faculty development of new, more explicit promotion and tenure guidelines for tenure-, clinical-, instructor-, and research-track faculty.
    - Led review of promotion process for non-tenure track faculty that was more broadly used across the College of Arts and Sciences.
  - Instituted spring 2014 formal mentoring for tenured associate professors to improve progress toward promotion and career-long success.
  - Instituted in spring 2016 peer review of teaching for Assistant Professors.
  - Guided promotion and tenure process for six associate professors and promotion of seven professors.
  - Supervised 16 staff (5 direct reports) including senior manager, principal assistant, academic coordinators, finance analysts, teaching laboratory preparators, field station manager, glasshouse/plant facilities manager, and stockroom manager.

## Administrative Experience as Director of School of Biological Sciences (continued)

- Administered undergraduate degree programs in biology and zoology, including pre-professional health program options.
  - Administered academic advising for ca. 800 undergraduate students.
  - Supervised student recruitment efforts and participated in one-on-one meetings with prospective students and their families, organized campus recruitment fairs, and presentations to groups of prospective students.
  - Led assessment of student learning outcomes and accreditation processes.
  - Conducted annual exit interviews with graduating undergraduates to assess experiences and gain insight into program's perceived strengths and weaknesses.
  - Led undergraduate curriculum development (comprehensive review in 2011).
  - Managed enrollment and curriculum delivery that served approximately 3000-4000 students per semester in our courses, generating circa 24,500 student credit hours annually and >800 AAFTE (Pullman campus) (ranked second within WSU in unit teaching productivity).
  - Expanded summer school enrollments and online course enrollments, increasing substantially revenues returned to the School.
  - Expanded our degree program to the Tri-Cities campus (began 2017).
  - Developed new programming to inform undergraduate students about research opportunities and advantages of research experiences.
  - Introduced workshops on career planning.
  - Acquired funding to transform teaching and student learning in introductory biology.
    - Led a team of 13 faculty and staff across our three campuses to create new inquiry-based laboratory experiences and adopt teaching approaches for better student engagement in lectures.
- Administered graduate degree program.
  - Offered PhD and MS degrees in biology and plant biology and a non-thesis MS in biology that enrolled about 85 students system-wide.
  - Guided improvements to our graduate program, including (1) the introduction of new courses on teaching methods and the writing of grant proposals; (2) professional training for new graduate students with programming to promote student success in graduate school and toward professional careers after graduation; and (3) introduction of a graduate research symposium to showcase accomplishments our current students as part of our annual recruitment of prospective students.
- Administered *Science* general education curriculum (broadly interdisciplinary courses used widely for general education requirements and career planning).
  - Managed enrollment to meet annual needs of over 400 students.
  - Coordinated transfer of *Science* administration in 2010 to School.
- Leadership committee to pilot Student Success Collaborative (SSC) (2013-2015), a broad-based effort at WSU to improve undergraduate retention and student success by data-rich risk assessment of students and enhanced academic advising.
  - Participated in planning sessions with senior WSU administrators and EAB representatives to implement SSC.
  - Administered School's SSC advising from pilot to full implementation.

## **Administrative Experience (continued)**

### **2016-2017: Interim Director, School of the Environment**

The School of the Environment was established in 2012 as a multidisciplinary unit to achieve research, scholarship, and learning related to the environment. The School resides both in the College of Agricultural, Human, and Natural Resource Sciences and the College of Arts and Sciences and has graduate and undergraduate degree programs in each college. The School offers degrees on the Pullman, Tri-Cities, and Vancouver campuses. The faculty are distributed among the Pullman, Tri-Cities, and Vancouver campuses and at the Puyallup Research and Extension Center and Wenatchee Tree Fruit and Extension Center.

- Appointed May 2016 from the outside for a two-year term to lead unit transformation.
  - Tasked to build among faculty a greater sense of unity of purpose and commitment to team, improve undergraduate recruitment into majors, increase course enrollments, and heighten faculty research productivity.
  - Reported to Deans of both College of Agricultural, Human, and Natural Resource Sciences and the College of Arts and Sciences
- Led vision development and directed School effort to achieve mission.
  - Used Vision and Strategy Committee to plan strategic objectives.
- Provided fiscal planning for and managed an annual operating budget of about \$3.2 million (Pullman only) and had oversight for research budgets that totalled nearly \$5.5 million system-wide.
- Administered hiring, performance review, mentoring, and promotion/tenure processes for faculty and staff.
  - Supervised 34 faculty: 29 tenured/tenure track faculty, 3 clinical track faculty, and 2 instructors distributed across the Pullman, Tri-Cities, and Vancouver campuses of Washington State University.
    - Hired three new tenure track faculty across three campuses.
  - Oversight for sixteen staff, encompassing administrative, finance, academic advising, and technical positions.
    - Supervised directly Administrative Manager.
    - Hired two new staff.
- Worked closely on administration of School with a leadership team consisting of two Associate Directors and a senior manager.
- Administered graduate degree program.
  - PhD degrees in Geology and Environmental and Natural Resource Sciences and MS degrees in Geology, Environmental Science, and Natural Resource Science that enrolled 120 students system-wide.
  - Worked with Associate Director and Graduate Studies Committee toward substantial improvements to the program, including developing:
    - Vision for the program that addresses outcome goals, improved guidance for new students, and improved training opportunities.
    - Recruitment strategy that is both more attractive to recruits and has more robust entrance requirements to improve quality of students.
    - More effective annual review of graduate students to assess better progress toward degrees and more timely completion of degrees.
    - Graduate student organization to build community.

### **Administrative Experience as Interim Director of School of the Environment (continued)**

- Administered undergraduate degree program.
  - BS degrees in Earth Science/Geology, Environmental and Ecosystem Studies, Forestry, and Wildlife Ecology and Conservation Science.
    - Worked to revitalize the Earth Science/Geology degree by increasing enrollments in upper division courses and the number of student majors.
  - Circa 300 student majors in degree program system-wide.
  - Administered academic advising for undergraduate students.
  - Supervised student recruitment efforts and have implemented more comprehensive recruitment involving staff and faculty to improve success.
  - Led assessment of student learning outcomes and accreditation processes.
  - Led undergraduate curriculum development.
    - Worked to revise the Earth Science/Geology curriculum to integrate better with mission of the School, better attract students, and provide for effective deployment of faculty effort.
  - Managed enrollment and curriculum delivery that serves approximately 2000 students per semester in our courses, generating circa 12,000 student credit hours annually and nearly 400 AAFTE (Pullman campus) (currently ranks tenth within WSU in unit teaching productivity).

### **2012-2017: Associate Director, General Studies Program, College of Arts and Sciences**

- Coordinated general studies-sciences program.
  - Led program development.
  - Supervised academic advising for the approximately 100 majors.
  - Led assessment and accreditation planning.
    - Led development of student learning outcomes and planning for assessment portfolio.
    - Used student focus groups to explore perceived strengths/weaknesses of the degree and assessment opportunities.
    - Piloted student portfolio preparation as assessment and career preparation tool (2015).
- Served on leadership team to coordinate general studies degree program in College of Arts and Sciences, which included planning assessment for the General Studies-Liberal Arts program.

## **Administrative Experience (continued)**

### *1993-present: Director, Marion Ownbey Herbarium*

The Marion Ownbey Herbarium is a collection of approximately 380,000 dried, curated plant specimens used for research, teaching, and outreach.

- Provide vision development, strategic planning, and effort to achieve mission.
- Manage budget and conduct development efforts.
- Supervise and coordinate the activities of the Curator (position ended 2010), graduate curatorial assistant, and undergraduate assistants.
- Grow collection by ~3500 specimens per year for a growth total of ~70,000 specimens under my leadership.
- Conduct educational outreach, which has involved K-12 teacher training, development of curricular materials, and workshops for students.
- Developed online educational programs about plant biology, regional plant communities, and local natural history as outreach.
- Led multi-year project to verify and update taxonomy of specimens in collection and reorganize families to match phylogenetic taxonomies.
- Led collection computerization project for both Ownbey Herbarium and the Plant Pathology Herbarium (fungal collection housed in the College of Agriculture, Human, and Natural Resource Sciences) that developed bioinformatic protocols used widely on campus (funded by National Science Foundation).

### *2009-present: Interim Director, Conner Museum of Natural History*

The Conner Museum of Natural History has public galleries of permanent displays of taxidermy specimens, a research collection of about 56,000 accessions of skins and skeletons, a frozen tissue collection, and a teaching collection devoted to animals.

- Provide vision development, strategic planning, and effort to achieve mission.
- Manage budget and conduct development efforts.
- Supervise and coordinate the activities of the Curator and undergraduate assistants.
- Produce and curate public exhibits.
- Conduct educational outreach, including workshops for K-12 groups and new project centered on curriculum materials for homeschooling families (funded by National Science Foundation).
- Conduct public outreach, including the Conner Museum Chats speaker series.
- Led collection improvement project (funded by National Science Foundation) that added 60 new specimen cases, provided for curation of backlogged specimens, and contributed to the expansion of our online database.



## Effort to Achieve Diversity and Equity

- Consistent support for diversity in hiring and decision-making.
- As Interim Dean made appointments that diversified leadership.
- Ensure diversity on committees, including assigning diverse faculty to standing, ad hoc, and faculty/staff search committees.
- Served as liaison for School of Biological Sciences to *ADVANCE at WSU*, a project funded by the National Science Foundation to promote diversity and improve professional climate at WSU.
  - Participated in retreat for administrators on diversity and equity.
  - Active role in discussions on approaches for training search committees to understand biases during faculty searches.
  - Acquired *ADVANCE* financial support to achieve a spousal hire in a faculty search in which our top candidate was female.
  - Promoted female faculty to use *ADVANCE* funds to acquire external mentors and collaborations that have enhanced their research profiles; four junior faculty have successfully used this option.
  - Promoted *ADVANCE* to develop materials for use during faculty searches to demonstrate institutional and regional commitment to diversity and equity.
- Promoted University financial support to facilitate career transitions for two female faculty, allowing new laboratories to be set-up well after hiring times for each to help maintain their productivity and centrality in our research mission.
- Awarded a Departmental Minigrant for the project *Enhancing Community in the School of Biological Sciences: Strategies to Improve Communications, Engagement and Shared Values* to enhance engagement and communications in an intellectually broad, multi-campus academic unit.
- Cultural competency training (at Chairs' and Directors' Forum, 24 October 2017)
- Participant in *Institutional Transformation Workshop* on best practices for recruiting and retaining diverse faculty (26 August 2011).
- Participant in *Institutional Transformation Workshop* on implicit bias and strategies to avoid biases in faculty hiring (16 October 2012).
- Participant in *Breaking the Bias Habit: A Workshop to Promote Gender Equity* on recognizing bias and creating work environments that limit effects of bias (3 October 2016).
- Supervision of *Women in STEM* (WiSTEM) initiative (2016-2017 academic year).
  - WiSTEM started in 2016 under the leadership of academic coordinators in the School of Biological Sciences to support undergraduate women with interests in STEM disciplines.
  - WiSTEM goals are to connect students to successful women mentors, demonstrate pathways to success in STEM, offer networking opportunities, and provide a supportive community through monthly meetings with faculty and other events.
  - The initiative has sponsored a visit by writer Eileen Pollack, author of *The Only Woman in the Room: Why Science is Still a Boys' Club*, that included a panel discussion about challenges for women in the sciences.

## Research Interests

Focal theme: Biodiversity, especially the patterns and processes of plant diversification.

Current research:

- Geographic aspects of evolutionary diversification, including use of the spatial structure of genetic diversity to understand how landscape has shaped diversity in the American West.
- Phylogenetic hypothesis testing to address taxonomic problems and ultimately the revision of taxonomies of plant groups in the American West.

## Awards

1980: Pearl Hogrefe Award in Creative Writing, Iowa State University.

Awarded for a body of original, creative writing

2015: Outstanding Chair/Director, Washington State University

Awarded annually by the Provost's office for outstanding achievements as a Chair or Director of an academic unit at Washington State University.

(see <https://news.wsu.edu/2015/03/05/hufford-named-outstanding-department-chairschool-director/#.VVEa5KZvmkQ>)

2015: Excellence in Institutional Service Award, College of Arts and Sciences, Washington State University

2016: Fellow, Linnean Society

## Grants

1984: Sigma Xi Grant-in-Aid of Scientific Research.

1987: Young Botanist's Grant, XIV International Botanical Congress.

1988-1990: National Science Foundation Postdoctoral Fellowship

Project: Reconstructing the roles of ontogenetic transformations in the hierarchical diversification of floral forms of *Besseyia* (\$52,800).

1990-1991: Grant-in-Aid of Research, University of Minnesota

Project: Evolutionary diversification of *Synthyris* (\$12,418).

1990-1991: National Science Foundation Grant

Project: Symposium: Phylogeny of Asteridae (\$5,200).

1991: Faculty Summer Research Fellowship, University of Minnesota

Project: The evolution of *Besseyia* and *Synthyris* (\$4,500).

1992-1993: American Philosophical Society Research Grant

Project: Ontogenetic evolution, morphological diversity and systematic relationships of Hydrangeaceae (\$2,107).

1993-1996: National Science Foundation Grant

Project: Phylogeny and diversification of Hydrangeaceae (\$150,000).

1994-1995: Research Minigrant, College of Science, Washington State University

Project: Ontogenetic evolution and innovation in milkweed flowers (\$1,667).

1995-1996: Washington State Tree Fruit Research Commission Grant

Project: Understanding secondary bloom production and development on 'Bartlett' pear trees (\$19,103) (PI: M. Willett, Co-PI: L. Hufford).

1996-1997: National Science Foundation Multiuser Equipment Grant

Project: An automated DNA sequencer for studies of phylogeny, population structure, coevolution, and development (\$68,750) (PI: P. S. Soltis; Co-PIs: D. E. Soltis, J. N. Thompson, and L. Hufford).

## Grants (continued)

- 1996-1998: National Science Foundation Doctoral Dissertation Improvement Grant  
Project: Molecular phylogenetics and patterns of floral diversification in the *Heuchera* group (\$9,000) (PI: D. E. Soltis; Co-PIs: L. Hufford, and R. K. Kuzoff).
- 1997-1998: USDA, Gifford Pinchot National Forest Contract  
Project: Curation of bryophytes and training of agency personnel (\$3,000).
- 1998-1999: USDA, Gifford Pinchot National Forest Contract  
Project: Entry of specimen labels for bryophytes and lichens in the Ownbey Herbarium's electronic database on the World Wide Web (\$4,000).
- 1998-1999: Washington Native Plant Society Education Grant  
Project: Educational websites on plants of Washington for middle school curricula. (\$500).
- 1998-2001: National Science Foundation Grant  
Project: Gynoecial diversification in Saxifragales: Clarifying the evolution of epigyny (\$165,035) (PI: D. E. Soltis; Co-PI: L. Hufford).
- 1999-2001: National Science Foundation Doctoral Dissertation Improvement Grant  
Project: Patterning of morphological diversification: Evolution of floral form in tribe Amorphaeae (Fabaceae) (\$8669) (PI: L. Hufford; Co-PI: M. McMahon).
- 2000-2003(*extension to 2004*): National Science Foundation, Research Grant  
Project: Phylogeny and androecial diversification of Loasaceae (\$160,000).
- 2002: Washington Department of Natural Resources Contract  
Project: Washington County Flora Database (\$29,180).
- 2002-2005: Mazamas Foundation Research Grant  
Project: The origin of Northwest mountain floras: Phylogeography of the *Synthyris missurica* complex (\$1800) (Co-PIs: L. Hufford and M. Webster).
- 2003-2006: National Science Foundation, Major Research Instrumentation Grant  
Project: Acquisition of DNA analysis equipment for research and training in molecular ecology and evolution (\$483,978) (PI: M. Webster; Co-PIs: L. Hufford, E. Roalson, W. Sheppard, and A. Storfer).
- 2005: *Carex* Working Group Contract  
Project: Database of Washington and Oregon *Carex* specimens in the Ownbey Herbarium (\$1000).
- 2006-2009 (*extension to 2010*): National Science Foundation, Biological Research Collections Grant. Project: Computerization of fungal and vascular plant collections at Washington State University. (\$483,617) (PI: L. Hufford; Co-PIs: L. M. Carris, K. F. Duncan, and J. D. Rogers).
- 2006-2008: National Science Foundation Doctoral Dissertation Improvement Grant  
Project: Geographic radiations and speciation in alpine clades of *Synthyris* (Plantaginaceae): a phylogeographic approach. (\$12,000) (PI: L. Hufford; Co-PI: K. Marlowe).
- 2007-2008: Murdock Charitable Trust. Project: Acquisition of a field gun-environment scanning electron microscope. (\$484,581) (PI: M. Knoblauch; Co-PIs: L. Hufford and 10 others)
- 2007-2008: Washington State University, Teaching and Learning Improvement Initiative Grant. Project: Development of concept-focused, investigation-driven laboratories for introductory plant biology classes. (\$13,493) (PI: A. McCubbin; Co-PI: L. Hufford)
- 2007-2008: Washington State University, Faculty-Led Study-Abroad Award. Project: Literature and natural history of England. (\$2,000) (PI: L. Hufford; Co-PI: Debbie Lee)
- 2008-2009: Washington State University, Samuel H. and Patricia W. Smith Teaching and Learning Grant. Project: Incorporating art into the learning of biology. (\$5,000) (PI: C. Omoto; Co-PIs: L. Hufford and C. Bruce).

## Grants (continued)

- 2009-2011 (*extension to 2012*): National Science Foundation, Informal Science Education Grant. Project: Using contemporary evolution to teach about the nature of science to underserved audiences. (\$75,000) (PI: L. Hufford [for 2011-2012]; Co-PIs: Carol Anelli, Richard Olmstead, Amy Ryken, and Peter Wimberger).  
I led our collaborative team to produce curriculum on evolution for home-schooling families. We developed inquiry-based lessons targeted across K-12 grade levels to introduce important ideas in evolutionary biology and made them available online (<http://sbs.wsu.edu/evolutionary/>). Our lessons meet grade content standards for Washington State.
- 2011-2012: WSU Advance Departmental Mini-Grant. Project: Enhancing community in the School of Biological Sciences: Strategies to improve communications, engagement, and shared values. (\$3,800).
- 2011-2014 (*extension to 2015*): National Science Foundation, Biological Research Collections Grant. Project: Resolving specimen backlog and storage needs in the Conner Museum. (\$400,102).
- 2011-2013: National Science Foundation Doctoral Dissertation Grant. Project: The geographic and ecological basis of species richness: diversification in *Mertensia*. (\$14,730) (PI: L. Hufford; Co-PI: Mare Nazaire).
- 2014-2015: Washington State University. Project: Transforming introductory biology at Washington State University: student-centered learning to meet contemporary challenges. (\$50,000 from Provost's Office and \$15,000 in matching funds from College of Arts and Science, Tri-Cities campus, and Vancouver campus) (PI: L. Hufford; Co-PIs: Lisa Carloye, Patrick Carter, Andy Cavagnetto, Asaph Cousins, Erica Crespi, Hanjo Hellmann, Raymond Lee, Kathleen McAteer, and Gretchen Rollwagen-Bollens).
- 2017-2019: National Science Foundation Field Station and Marine Laboratory. Planning Grant: Developing a Strategic Plan and Infrastructure Needs Assessment for Washington State University's Meyer's Point Environmental Field Station. (\$24,939) (PI: Stephen Bollens; Co-Is: Gretchen Rollwagen-Bollens, Stephanie Hampton, Larry Hufford, and John Stark).

## Postdoctoral Associates Directed

- Mark Fishbein* (co-supervised by Doug Soltis), 1998-2001. Project: Gynoecial diversification in Saxifragales: Clarifying the evolution of epigyny. Currently Associate Professor, Oklahoma State University.
- Linda Cook*, 2011-2012. Project: Developing an evolution curriculum for homeschoolers. Currently Instructor, Washington State University.

## Graduate Student Dissertation and Thesis Research Directed

- Robert Kuzoff*: Phylogeny and floral diversification of the *Heuchera* group of Saxifragaceae. Ph.D. 1998 (co-chaired with D. Soltis). Currently Associate Professor, University of Wisconsin-Whitewater.
- Michael Moody*: Phylogeny and floral diversity of Loasaceae subfamily Gronovioideae. M.S. 1999. Currently Assistant Professor, University of Texas-El Paso.
- Michelle McMahon*: Phylogeny and diversity of Amorpheae (Fabaceae). Ph.D. 2002. Currently Associate Professor and Curator of herbarium, University of Arizona.
- Angela Streit*: Phylogeography of the *Synthyris missurica* complex. M.S. 2004. Currently attorney at Arthur, Chapman, Kettering, Smetak & Pikala, P.A., Minneapolis.
- Robin O'Quinn*: Phylogeny, biogeography, and shoot system evolution in *Claytonia* (Portulacaceae). Ph.D. 2005. Currently Associate Professor, Eastern Washington University.
- Sarah Brustkern*: Phylogeography of the *Synthyris wyomingensis* complex. M.S. 2006.
- Karol Marlowe*: Comparative biogeography of western North American flowering plants. Ph.D. 2007. Currently technician, USDA Agricultural Research Service, Washington State University.
- John Schenk*: Phylogeny and systematics of *Mentzelia* section *Bartonia* (Loasaceae). Ph.D. 2009. Currently Assistant Professor, Georgia Southern University.
- Joshua Brokaw*: Phylogeny of *Mentzelia* section *Trachyphytum* (Loasaceae): Edaphic specialization and the origins of polyploidy. Ph.D. 2009. Currently Associate Professor, Abilene Christian University
- Sarah Jacobs*: Phylogeny of *Hydrangea* (Hydrangeaceae). M.S. 2009. Currently PhD student at University of Idaho.
- Mare Nazaire*: Phylogeny and diversification of *Mertensia* (Boraginaceae). Ph.D. 2013. Currently collections manager of herbarium at Rancho Santa Ana Botanic Garden.
- Joseph Grissom*: Phylogenetic and phylogeographic studies in *Mentzelia*. M.S. 2014. Currently school teacher in Indiana.
- Marcus Hooker*: Phylogeography of *Synthyris* (Plantaginaceae). Ph.D. expected 2018.
- Derek Denney*: Phylogeography of the *Mentzelia cronquistii* complex (Loasaceae). M.S. expected 2018

## Graduate Student Dissertation and Thesis Research Committees

- Dirk Albach, MS Botany 1998  
Kari Segraves, MS Botany 1998  
Mark Mort, PhD Botany 1999  
Michael Zanis, PhD Botany 2001  
Curtis Bjork, MS Botany 2004  
Josh Neely, PhD Botany 2005  
Ann Patten, PhD Plant Molecular Biology 2007  
Joseph Rausch, PhD Botany 2008  
Tatton Hymas, MS Botany 2015  
Lucy Allison, MS Plant Biology ongoing  
Joseph Kleinkopf, MS Plant Biology ongoing  
Joshua Brindley, PhD Plant Biology ongoing

## **Undergraduate Research Directed**

Dee Crust 1990  
Gary Walton 1992-1993  
Anna Senters 1998  
Emily Wynne 1999  
Anna Sherwood 2000-2001  
Jesse McCorkle 2003  
Seth Robertson 2004  
Kristen Wimberly 2004  
Lindsey McKinney (co-advised with Michael Webster) 2009-2010 (Honor's thesis project)  
Janae Moseley 2010-2011 (Honor's thesis project)  
Emma McGinty 2017

## **Teaching Experience**

My teaching experiences have encompassed diverse courses, ranging from small seminars to large lectures. I have applied inquiry-based laboratory exercises and experiential course projects for students. Grants have allowed me to explore art to teach botany, develop inquiry-based laboratory exercises, and to develop online educational materials. I have sought interdisciplinary reach through courses such as ethnobotany and museum studies.

### *Undergraduate Courses*

Contemporary biology: Biodiversity (nonscience majors)  
Contemporary biology: Deforestation (nonscience majors)  
Contemporary biology: Plants for pleasure (nonscience majors)  
Honors biology (nonscience majors)  
Introductory biology (evolution, ecology, and plants for science majors)  
Museums  
Plant anatomy  
Plant biology (nonscience majors)  
Plant development and structure  
Plant diversity  
Plant taxonomy  
Plants and people/ethnobotany  
Senior portfolio

### *Graduate Courses*

Plant diversity  
Professional portfolio development

### *Graduate Seminars*

Speciation and its consequences (with D. Christian)  
Flower development (with D. Soltis and P. Soltis)  
Evolutionary innovation  
Patterns of phylogenetic diversity  
Phylogeography in the American West  
Homology: issues and applications  
Narratives of scientific travel (with D. Lee)

## Fieldwork and Plant Collecting

*North America:* Primarily western and north central U.S.

*South America:* Chile, Peru

*Europe:* Alps of Switzerland and Italy, United Kingdom

*Asia:* Indonesia, Japan

## Professional Memberships

American Alliance of Museums

American Society of Plant Taxonomists

Association for the Study of Literature and the Environment

Botanical Society of America

## Professional Service

### **Journal Editor**

1998-2003: Editorial Board, *International Journal of Plant Sciences*

2003-2005: Associate Editor, *International Journal of Plant Sciences*

2005-2014: Editor, *International Journal of Plant Sciences*

2010-2014: Associate Editor, *Plant Systematics and Evolution*

### **Journal Manuscript Reviews**

*Aliso; Allertonia; American Journal of Botany; Annals of Botany; Annals of the Missouri Botanical Garden; Australian Plant Systematics; Biochemical Systematics and Ecology; BMC Evolutionary Biology; Botanical Journal of the Linnean Society; Botany; Brazilian Journal of Plant Physiology; Canadian Journal of Botany; Darwiniana; Evolution; Evolution and Development; Hort Science; International Journal of Plant Sciences; Journal of Evolutionary Biology; Journal of the Botanical Research Institute of Texas; Journal of Theoretical Biology; Madroño; Molecular Biology and Evolution; Molecular Breeding; Molecular Phylogenetics and Evolution; New Zealand Journal of Botany; New Zealand Natural Sciences; Novon; Organisms, Diversity and Evolution; Phytochemistry; Plant Biology; Plant Cell; Plant Systematics and Evolution; PLoS ONE; Rhodora; Scientia Horticulturae; Systematic Biology; Systematic Botany; Taxon; Trends in Plant Science; Western North American Naturalist*

### **External Advisory Boards**

2014-present: Living Collections Advisory Board, Arnold Arboretum, Harvard University.

Responsible for advising on the living collections development plan at the Arnold Arboretum.

2016-present: Advisory Board, Auditorium Chamber Music Series, University of Idaho.

Responsible for management of a chamber music series, including operations and fund-raising.

### **Invited Symposium Convener/Panel Moderator**

1995: Second International Rubiaceae Conference (Meise, Belgium)

2015: Rereading Romantic Ecologies, Association for the Study of Literature and the Environment conference (Moscow, Idaho)

## Professional Service (continued)

### *Professional Society Officer*

2000-2003: Program Coordinator, Developmental and Structural Section, Botanical Society of America

2005-2007: Chair, Developmental and Structural Section, Botanical Society of America

2006-2009: Council member, American Society of Plant Taxonomists

### *Professional Society Committees*

1996, 2007: Cooley Award Selection Committee, American Society of Plant Taxonomists

1998-2000: Moseley Award Selection Committee, Botanical Society of America (Chair, 2000)

2003-2005: Esau Award Selection Committee, Botanical Society of America (Chair, 2005)

2003-2004: Nominations Committee, American Society of Plant Taxonomists

2005-2007: Cheadle Award Selection Committee, Botanical Society of America  
(Chair, 2005-2007)

2007-2009: Awards and Honors Committee, American Society of Plant Taxonomists (Chair, 2008-2009)

2013-2016: Investment Committee, Botanical Society of America

2014: Strategic Planning Committee, Botanical Society of America

2016-present: Public Policy Committee, Botanical Society of America

### *Ad hoc Professional Committees*

2004: Herbarium Networks Content Committee, Chair

2004-2010: Steering committee for the MORPH Research Coordination Network, an NSF-funded project to foster cross-disciplinary interactions between organismic and molecular plant biologists to promote a modern synthesis in plant developmental biology (W.E. Friedman, University of Colorado, PI).

2008: Reviewer for the Augustin-Pyramus De Candolle Prize (Award for the best monograph of a genus or family of plants or fungi sponsored by the Geneva Société de Physique et d'Histoire naturelle).

2010-2016: Steering committee for the microMORPH Research Coordination Network, an NSF-funded project to facilitate development of research programs on speciation and diversification of plants using genetic data from populations to clades (P. Diggle, University of Connecticut, PI).

2013: Visiting Committee, Arnold Arboretum, Harvard University. Responsible for conducting an external review of the Arnold Arboretum.

2016: Search Committee, Washington Cooperative Fish and Wildlife Research Unit Leader, Unit is based at the University of Washington but is funded by the USGS to support research at regional universities, Washington State departments, and the Department of Interior.

### *External Examiner of PhD Dissertation*

1999: R. Evans, University of Toronto, Canada (dissertation and defense examiner)

1999: R. D. Smissen, University of Canterbury, New Zealand

2000: S. L. Munro, University of Capetown, South Africa

### *External Promotion Reviews*

Curatorial promotion: One university

Tenure/Promotion: Eight universities/museums

Promotion to Full Professor: Three universities



## Professional Service (continued)

### *Funding Agency Proposal Reviews*

Baker Fund; Funds for Scientific Research—Flanders (Belgium); Israel Science Foundation; Katholieke Universiteit-Leuven (Belgium); National Research Foundation (South Africa); National Science and Engineering Council of Canada; National Science Foundation; Nebraska EPSCoR; Ohio Plant Biotechnology Consortium; U.S. Department of Agriculture; University of Idaho

### *National Science Foundation Proposal Review Panel*

2003: Biological Research Collections

### *School of Biological Sciences Committees, Washington State University*

2000-2001, 2002-2005, 2006-2009: Graduate Student Advisory Committee

2000-2001: Conservation Biologist Search Committee

2000-2001: Plant Molecular Systematist Search Committee (chair)

2001-2005: Mentor Committee (chair) for Eric Roalson

2006-2007: Plant Evolutionary Genetics Search Committee

2006-2007: Seminar Committee (2007 chair)

2007: Space Planning Committee (chair)

2008-2009; 2009-2010: Evolutionary Developmental Biology Search Committee

2008-2010: Mentor Committee for Brian Kemp (2009 chair)

### *College of Sciences (disbanded 2012) Committees, Washington State University*

1994-1995: College of Sciences Planning Document Committee for Service Centers

2000-2001: Heald Hall Replacement Committee

### *College of Arts and Sciences Service and Committees, Washington State University*

2013: Selection Committee for outside professional consultants to plan strategic development of buildings and physical infrastructure in the College of Arts and Sciences.

2014: Infrastructure Task Force. This group was tasked to work with an outside consulting firm to determine physical infrastructure needs and plan a College vision to meet needs for upgraded research, scholarly, and educational spaces over the next ten years.

2016-present: Meyer's Point Task Force. This group has been tasked with articulating programmatic areas in education, research, and outreach for a new field station on Puget Sound.

2017: Facilitator, Visioning Session for Academic Realignment in Fine, Applied, and Performing Arts

2017: Facilitator, Visioning Session for Academic Realignment in Languages, Cultures, and Race

2017: Chair of Planning Committee to form a new School of Languages, Cultures, and Race

2017: Chair of Realignment Committee for Program in Women's Studies

## Professional Service (continued)

### *University Committees, Washington State University*

- 1994-2004: Graduate School Representative at PhD Preliminary Exams and Defenses
- 2002-2003: Museums/Special Collections Subcommittee of the "Nurture a World Class Environment for Research, Scholarship, Graduate Education, the Arts, and Engagement" implementation team
- 2009-2011: Departmental liaison to WSU Advance, which aims to recruit women to faculty positions, address barriers to advancement for faculty women, and improve professional climate at WSU.
- 2011-2012: Co-Chair of Integration Implementation Planning Team. This team planned the integration of the separate colleges of liberal arts and sciences as one new college. The team developed a vision for the new College of Arts and Sciences (established July 2012) and prepared practical plans for its administrative structures and procedures.
- 2013-2014: Digital Classroom Building Visioning Team. This committee worked with an architectural firm to assess needs and consult on design ideas for a projected new building to provide state-of-the-art digital classrooms.
- 2014: Urban Campuses Academic Issues Identification Committee. Our charge from the Provost was to (1) inventory academic policies and practices involving urban campuses and their relationship to the Pullman campus and (2) prioritize policy issues to be addressed by follow-up work groups, who will refine policies to better achieve WSU strategic goals. I led the development of policy issue statements for undergraduate education and research.
- 2014-2015: Undergraduate Instruction Workgroup. Our charge from the Provost was to recommend strategies to address issues identified by the Urban Campuses Academic Issues Identification Committee (see above) to meet undergraduate education needs across the five campuses of the WSU system.
- 2014-2015: Data Analytics Degree Development Workgroup. Our charge from the Provost was to develop a plan for undergraduate and graduate degrees in data analytics, including bioinformatics, business analytics, and health informatics, addressing governance and administration of the degrees to meet stakeholder concerns.
- 2016-2017: Academic Showcase Committee. This committee was responsible for reviewing proposed presentations at the university's annual showcase of faculty and graduate student research.
- 2017-present: Distinguished Scholarships Advisory Board. This group is responsible for advancing students toward distinguished national and international scholarships and fellowships.
- 2017-present: Search Advisory Committee for the Director of the Jordan Schnitzer Museum of Art. The Advisory Committee, which was appointed by the Provost, is working with search consultations from Museum Management Consultants, Inc. to evaluate candidates for the Museum Director position.
- 2018-present: ADVANCE at WSU Steering Committee. The Steering Committee helps to guide efforts to achieve a more inclusive/faculty-friendly environment and support success of under-represented minority faculty in any discipline and women faculty in tenure-track positions in STEM disciplines.

## Symposia and Minicourse Organized

- 1990: *Phylogeny of Asteridae* Symposium. Sponsor: American Society of Plant Taxonomists and Botanical Society of America at AIBS meeting in Richmond, Virginia. Publication: *Annals of the Missouri Botanical Garden* 79 (2), 1992. Funding: National Science Foundation and Botanical Society of America.
- 1996: *The Morphology and Evolution of Flowers: A Tribute to the Work of Shirley Tucker* Symposium. Co-organized with P. K. Diggle. Sponsor: Botanical Society of America at the AIBS meeting in Seattle, Washington. Publication: *International Journal of Plant Sciences* 158 (6, supplement), 1997.
- 2004: *Discerning Homology: Gene Expression, Development, and Morphology* Symposium. Co-organized with W. E. Friedman. Sponsor: Botanical Society of America at Botany 2004 meeting in Snowbird, Utah.
- 2007: *Investigating the Evolution of Plant Form: Conceptual Integration from the Molecular to the Ecological* Minicourse. Co-organized with W. E. Friedman. Sponsor: MORPH Research Coordination Network at University of Colorado, Boulder, Colorado.

## Invited Departmental Seminars

- 1987: University of Zurich, Institute for Systematic Botany.
- 1988: University of Kansas, Department of Botany.
- 1988: Iowa State University, Department of Botany.
- 1991: Louisiana State University, Department of Botany.
- 1992: Carleton College, Department of Biology.
- 1994: University of Nevada-Reno, Department of Biology.
- 1994: University of Minnesota, Duluth, Department of Biology.
- 1995: University of Zurich, Institute for Systematic Botany.
- 1996: University of Arizona, Department of Ecology and Evolutionary Biology.
- 1996: Duke University, Department of Botany.
- 1997: Washington State University, Department of Horticulture.
- 1997: University of Wisconsin, Department of Botany.
- 1997: University of Colorado, Department of Ecology, Population, and Organismal Biology.
- 1998: Whitman College, Department of Biology.
- 1999: Ohio State University, Department of Botany.
- 1999: University of Toronto, Department of Botany.
- 2000: Royal Botanic Garden, Kew, Jodrell Laboratory.
- 2002: University of Victoria (Canada), Department of Biology.
- 2005: Washington State University, School of Biological Sciences
- 2006: Washington State University, School of Biological Sciences
- 2008: Ohio University, Department of Environmental and Plant Biology
- 2008: Rancho Santa Ana Botanic Garden
- 2009: Skidmore College, Department of Biology
- 2013: Harvard University, Arnold Arboretum
- 2016: Rancho Santa Ana Botanic Garden

## Invited Symposium Presentations

- 1988: A preliminary phylogenetic analysis of lower Hamamelidae (Coauthored: L. Hufford and P. Crane). For *Evolution, Systematics and Fossil History of the Hamamelidae*, The Systematics Association (Reading, England).
- 1990: Phylogeny of the "Rosidae" and the origin of "Asteridae." For *Phylogeny of Asteridae*, American Society of Plant Taxonomists (Richmond, Virginia).
- 1993: Modes of ontogenetic sequence diversification in floral evolution. For *Evolution and Plant Development*, Keystone Symposium (Taos, New Mexico).
- 1995: The morphology and evolution of male reproductive structures among Gnetales. For *Biology and Evolution of Gnetales*, Botanical Society of America (San Diego, CA).
- 1995: Ontogenetic evolution and floral diversification of *Besseyia* (Scrophulariaceae). For *Chicago Plant Science Symposium*, Field Museum of Natural History (Chicago).
- 1996: Roles of ontogenetic evolution in the origin of floral homoplasies. For *The Morphology and Evolution of Flowers: A Tribute to the Work of Shirley Tucker*, Botanical Society of America (Seattle, WA).
- 1999: Homoplasmy and the patterning of floral morphological diversity: The implications of ontogenetic evolution. For *Floral Structure and its Implications for Systematics*, XVI International Botanical Congress (St. Louis).
- 2001: Phylogeny, ontogeny, and inferences of morphological diversity. For *Deep Morphology: Toward a Renaissance of Morphology in Plant Systematics*, University of Vienna (Vienna, Austria).
- 2002: A stamen story: forked filaments and staminodial innovations in the Loasaceae. For *Flowers: Diversity, Development, Evolution*, University of Zurich (Zurich, Switzerland).
- 2002: Ontogenetic evolution and patterns of morphological diversity. For *Generating Diversity: The Link Between Developmental Morphology and Phylogeny*, Botanical Society of America (Madison, Wisconsin).
- 2003: The Marion Ownbey Herbarium and plant identification in Washington. For Washington Science Teachers' Association annual meeting (Pullman Washington).
- 2003: Using phylogeny to explore diversity: reconstructions of evolutionary patterns and processes. For MORPH Research Coordination Network meeting (Boulder, Colorado).
- 2004: Homology in transformation: morphological evolution and perceptions of diversity. For *Discerning Homology: Gene Expression, Development and Morphology*, Botanical Society of America Botany (Snowbird, Utah).
- 2005: The Marion Ownbey Herbarium. For *Conference of Northwest Herbaria*. University of Idaho (Moscow, Idaho).
- 2007: Keys to innovation: Ontogenetic avenues to floral specialization. For *Plant Development for the Future*, Plant Canada 2007 (Saskatoon, Canada).
- 2007: Becoming *Hydrangea*. For *International Hydrangea Conference* (Ghent, Belgium).
- 2009: Serial homology and evolutionary innovation. For *Homology Workshop*, University of Colorado, Boulder, Colorado.
- 2010: Patterns and processes of clade diversification. For microMORPH Research Coordination Network meeting (Boulder, Colorado).

## Invited Public Lectures

- 2000: "The Royal Botanic Garden, Kew." Washington Native Plant Society.
- 2007: "From Here to Linnaeus." Spokane Garden Club.
- 2011: "Botanizing." Annual meeting of the Washington Native Plant Society.
- 2013: "Voyaging after Darwin: Joseph Dalton Hooker goes to Sea." Darwin Day Lecture, Eastern Washington University.
- 2013: "Becoming *Hydrangea*: The Wild History of a Popular Garden Plant." Arnold Arboretum, Boston.

## Invited Panel/Workshop/Working Group Participation

- 2004: *Herbarium Networks*. Sponsor: National Science Foundation at Michigan State University.
- 2009: *The Homology Workshop*. Sponsor: MORPH Research Coordination Network at University of Colorado, Boulder, Colorado.
- 2009-2010: *Floral Assembly: Quantifying the Composition of a Complex Adaptive Structure*. Sponsored by the National Evolutionary Synthesis Center (NESCent) at Durham, North Carolina.
- 2014: *Graduate Grant Writing Workshop*. Sponsored by the Office of Grant and Research Development at Washington State University. Served as panelist to discuss with graduate students strategies for preparing successful grant proposals.
- 2014: *Voice in Scholarly Writing*. Sponsored by the Department of English at the University of Idaho. Panel discussion about personal voice in scholarly writing with historian William Cronon and others.
- 2015: *Art, Advocacy, and Landscape*. Sponsored by the Environmental Humanities Graduate Program at the University of Utah. A field workshop with writer Terry Tempest Williams, environmental advocate Timothy DeChristopher, and artist Sarah Jones. I led a session on biodiversity and relationships between sciences and humanities.

## Papers Contributed at Meetings/Abstracts (57 total 1981-2017)

### *Contributions in Last Ten Years*

- 2008: A kintail of two colors: phylogeography of *Synthyris wyomingensis* (Plantaginaceae). Botany 2008 meeting (Coauthored: K. Marlowe, S. Brustkern, and L. Hufford).
- 2008: Age estimates of clade diversification in Loasaceae. Botany 2008 meeting (Coauthored: J. Schenk and L. Hufford).
- 2008: Effects of substitution models on divergence time estimates: an empirical study of model uncertainty using Cornales. Botany 2008 meeting (Coauthored: J. Schenk and L. Hufford).
- 2008: Polyploid evolutionary ecology in *Mentzelia* section *Trachyphytum*. Botany 2008 meeting (Coauthored: J. Brokaw and L. Hufford).
- 2009: A phylogenetic analysis of *Hydrangea* using plastid and ITS data. Botany 2009 meeting (Coauthored: S. J. Jacobs and L. Hufford).
- 2009: A phylogenetic analysis of *Mentzelia* section *Bartonia* (Loasaceae). Botany 2009 meeting (Coauthored: J. J. Schenk and L. Hufford).
- 2009: Evolutionary ecology of polyploidy in *Mentzelia* section *Trachyphytum* (Loasaceae). Evolution 2009 (Co-authored J. B. Brokaw and L. Hufford).
- 2011: Allopolyploid speciation in edaphic specialists: *Mentzelia mollis* and *M. packardiae*. Botany 2011 meeting (Co-authored J. B. Brokaw and L. Hufford).
- 2011: A phylogenetic analysis of Boraginaceae: implications for the relationships of *Mertensia*. Botany 2011 meeting (Co-authored M. Nazaire and L. Hufford).
- 2012: The phylogenetic relationships in *Mertensia*: Implications for taxonomy and inferring cryptic diversity. Botany 2012 meeting (Co-authored M. Nazaire and L. Hufford).
- 2012: Evolutionary potential of rare plants: *Mentzelia mollis* and *M. packardiae*. Evolution 2012 meeting (Co-authored J. Brokaw, Blaine Gilbert, and L. Hufford).
- 2013: Geographic origins and patterns of radiation in *Mertensia* (Boraginaceae). Botany 2013 meeting (Co-authored M. Nazaire and L. Hufford).
- 2013: Phylogeny of *Mentzelia* section *Mentzelia* (Loasaceae): implications for taxonomy and biogeography. Botany 2013 meeting (Co-authored J. Grissom and L. Hufford).
- 2015: Topographic and glacial influences on the phylogeography of *Synthyris rubra* (Plantaginaceae). Botany 2015 meeting (Co-authored M. Hooker and L. Hufford).

**Papers Contributed at Meetings/Abstracts (continued)**

- 2016: Diversification of *Synthyris* (Plantaginaceae) in the American West. Botany 2016 meeting (Co-authored M. Hooker and L. Hufford).
- 2017: Phylogeny of *Eucnide* (Loasaceae): Taxonomic Implications. Evolution 2017 meeting (Co-authored J. Brindley and L. Hufford).
- 2017: Evolution of the Paleo-Endemic Sister Species *Synthyris platycarpa* and *S. schizantha* (Plantaginaceae) in the Pacific Northwest. (Co-authored M. Hooker and L. Hufford).

## Publications

### *Journal Articles and Book Chapters*

1. Hufford, L. 1980. Staminal vascular architecture in five dicotyledonous angiosperms. *Proceedings of the Iowa Academy of Science* 87: 96-102.
2. Schmid, R., S. Carlquist, L. Hufford, and G. Webster. 1984. Systematic anatomy of *Oceanopapaver*, a monotypic genus of Capparaceae from New Caledonia. *Botanical Journal of the Linnean Society* 89: 119-152.
3. Hufford, L. 1987. Inflorescence architecture of *Eucnide* (Loasaceae). *Madroño* 34: 18-28.
4. Hufford, L. 1988. Potential roles of scaling and post-anthesis developmental changes in the evolution of floral forms of *Eucnide* (Loasaceae). *Nordic Journal of Botany* 8: 147-157.
5. Hufford, L. 1988. Roles of early ontogenetic modifications in the evolution of floral morphology of *Eucnide* (Loasaceae). *Botanische Jahrbücher für Systematik* 109: 289-333.
6. Hufford, L. 1988. Seed coat morphology of *Eucnide* and other Loasaceae. *Systematic Botany* 13: 154-167.
7. Hufford, L. 1988. The evolution of floral morphological diversity of *Eucnide* (Loasaceae): The implications of modes and timing of ontogenetic change on phylogenetic diversification. Pp. 103-119 in *Aspects of Floral Development*, P. Leins, S. C. Tucker, and P. K. Endress (eds.). Gebr. Borntraeger, Stuttgart.
8. Endress, P. K. and L. Hufford, 1989. The diversity of stamen structures and dehiscence patterns among Magnoliidae. *Botanical Journal of the Linnean Society* 100: 45-85.
9. Hufford, L. 1989. *Schismocarpus* and its potential loasaceous affinities. *Nordic Journal of Botany* 9: 217-227.
10. Hufford, L. 1989. Structure of the inflorescence and flower of *Petalonyx linearis* (Loasaceae). *Plant Systematics and Evolution* 163: 211-226.
11. Hufford, L. and P. R. Crane, 1989. A preliminary phylogenetic analysis of lower Hamamelidae. Pp. 175-192 in *Evolution, Systematics and Fossil History of the Hamamelidae*, P. R. Crane and S. Blackmore (eds.). Clarendon Press, Oxford.
12. Hufford, L. and P. K. Endress, 1989. The diversity of anther structures and dehiscence patterns among Hamamelididae. *Botanical Journal of the Linnean Society* 99: 301-346.
13. Hufford, L. 1990. Androecial development and the problem of monophyly of Loasaceae. *Canadian Journal of Botany* 68: 402-419.
14. Hufford, L. 1992. Floral structure of *Besseyia* and *Synthyris* (Scrophulariaceae). *International Journal of Plant Sciences* 153: 217-229.
15. Hufford, L. 1992. Leaf structure of *Besseyia* and *Synthyris* (Scrophulariaceae). *Canadian Journal of Botany* 70: 921-932.
16. Hufford, L. 1992. Phylogeny of Asteridae: an introduction. *Annals of the Missouri Botanical Garden* 79: 207-208.

### Publications (continued):

17. Hufford, L. 1992. Rosidae and their relationships to other nonmagnoliid dicotyledons: A phylogenetic analysis using morphological and chemical data. *Annals of the Missouri Botanical Garden* 79: 218-248.
18. Hufford, L. and W. C. Dickison, 1992. A phylogenetic analysis of Cunoniaceae. *Systematic Botany* 17: 181-200.
19. Hufford, L. 1993. A phylogenetic analysis of *Besseyia* (Scrophulariaceae). *International Journal of Plant Sciences* 154: 350-360.
20. Walton, G. B. and L. Hufford, 1994. Shoot architecture and evolution of *Dicentra cucullaria* (Papaveraceae, Fumarioideae). *International Journal of Plant Sciences* 155: 553-568.
21. Hufford, L. 1995. Loasaceae. *World of Plants* (Asahi Shimbun Press) 70: 298-301. (Translated into Japanese).
22. Hufford, L. 1995. Patterns of ontogenetic evolution in perianth diversification of *Besseyia* (Scrophulariaceae). *American Journal of Botany* 82: 655-680.
23. Hufford, L. 1995. Seed morphology of Hydrangeaceae and its phylogenetic implications. *International Journal of Plant Sciences* 156: 555-580.
24. Soltis, D. E., Q.-Y. Xiang, and L. Hufford, 1995. Relationships and evolution of Hydrangeaceae based on *rbcL* sequence data. *American Journal of Botany* 82: 504-514.
25. Bayer, R. J., L. Hufford, D. E. Soltis, 1996. Implications of molecular sequence data from cpDNA and nrDNA for phylogeny reconstruction in Sarraceniaceae. *American Journal of Botany* 21: 121-134.
26. Hufford, L. 1996. Developmental morphology of female flowers of *Gyrostemon* and *Tersonia* and floral evolution among Gyrostemonaceae. *American Journal of Botany* 83: 1471-1487.
27. Hufford, L. 1996. Ontogenetic evolution, clade diversification, and homoplasy. In *Homoplasy: The Recurrence of Similarity in Evolution*, M. J. Sanderson and L. Hufford (eds.), Academic Press, San Diego.
28. Hufford, L. 1996. The morphology and evolution of male reproductive structures of Gnetales. *International Journal of Plant Sciences* 157 (supplement): S95-S112.
29. Hufford, L. 1996. The origin and early evolution of angiosperm stamens. Pp. 58-91 in *The Anther: Form, Function, and Phylogeny*, W. D'Arcy and R. Keating (eds.), Cambridge University Press, Cambridge.
30. Sanderson, M. J. and L. Hufford, 1996. Homoplasy and the evolutionary process: An afterword. Pp. 271-301 in *Homoplasy: The Recurrence of Similarity in Evolution*, M. J. Sanderson and L. Hufford (eds.), Academic Press, San Diego.
31. Hufford, L. 1997. A phylogenetic analysis of Hydrangeaceae using morphological data. *International Journal of Plant Sciences* 158: 652-672.



**Publications (continued):**

32. Hufford, L. 1997. The roles of ontogenetic evolution in the origin of floral homoplasies. *International Journal of Plant Sciences* 158 (supplement): S65-S80.
33. Hufford, L. and P. K. Diggle, 1997. The morphology and evolution of flowers: A tribute to the work of Shirley Tucker--An introduction. *International Journal of Plant Sciences* 158 (supplement): S1-S2.
34. Hufford, L. 1998. Early development of androecia in polystemonous Hydrangeaceae. *American Journal of Botany* 85: 1057-1067.
35. Kuzoff, R. K., D. E. Soltis, L. Hufford, and P. S. Soltis, 1999. Phylogenetic relationships within *Lithophragma* (Saxifragaceae): hybridization, allopolyploidy, and ovary diversification. *Systematic Botany* 24: 598-615.
36. Moody, M. and L. Hufford, 2000. Floral development and structure of *Davidsonia* (Cunoniaceae). *Canadian Journal of Botany* 78: 1034-1043.
37. Moody, M. and L. Hufford, 2000. Floral ontogeny and morphology in *Cevallia*, *Fuertesia*, and *Gronovia* (Loasaceae subfamily Gronovioideae). *International Journal of Plant Sciences* 161: 869-883.
38. Hufford, L. 2001. Ontogenetic sequences: Homology, evolution, and the patterning of clade diversity. Pp. 27-58 in M. Zelditch (ed.), *Beyond Heterochrony*, John Wiley and Sons, New York.
39. Hufford, L., M. Moody, and D. E. Soltis, 2001. A phylogenetic analysis of Hydrangeaceae based on the chloroplast gene *matK*. *International Journal of Plant Sciences* 162: 835-846.
40. Kuzoff, R. K., L. Hufford, and D. E. Soltis, 2001. Structural homology and developmental transformations associated with ovary diversification in *Lithophragma* (Saxifragaceae). *American Journal of Botany* 88: 196-205.
41. Moody, M. L., L. Hufford, D. E. Soltis, and P.S. Soltis, 2001. Phylogenetic relationships of Loasaceae subfamily Gronovioideae inferred from *matK* and ITS sequence data. *American Journal of Botany* 88: 326-336.
42. Fishbein, M., C. Hibsich-Jetter, D. E. Soltis, and L. Hufford, 2001. Phylogeny of Saxifragales (angiosperms, eudicots): analysis of a rapid, ancient radiation. *Systematic Biology* 50: 817-847.
43. Hufford, L. 2001. Ontogeny and morphology of the fertile flowers of *Hydrangea* and allied genera of tribe Hydrangeeae (Hydrangeaceae). *Botanical Journal of the Linnean Society* 137: 139-187.
44. Pires, J. C., M. F. Fay, W. S. Davis, L. Hufford, J. Rova, M. W. Chase, and K. J. Sytsma, 2001. Molecular and morphological phylogenetic analyses of Themidaceae (Asparagales). *Kew Bulletin* 56: 601-626.
45. Soltis, D. E. and L. Hufford, 2001. Ovary position diversity in Saxifragaceae: Clarifying the homology of epigyny. *International Journal of Plant Sciences* 163: 277-293.

### Publications (continued):

46. Soltis, D. E., R. K. Kuzoff, M. E. Mort, M. Zanis, M. Fishbein, L. Hufford, J. Koontz, and M. T. K. Arroyo, 2001. Elucidating deep-level phylogenetic relationships in Saxifragaceae using sequences for six chloroplastic and nuclear DNA regions. *Annals of the Missouri Botanical Garden* 88: 669-693.
47. McMahon, M., and L. Hufford, 2002. Developmental morphology and structural homology of corolla-androecium synorganization in the tribe Amorpheae (Fabaceae: Papilionoideae). *American Journal of Botany* 89: 1884-1898.
48. Hufford, L. 2003. Homology and developmental transformation: models for the origins of the staminodes of Loasaceae subfamily Loasoideae. *International Journal of Plant Sciences* 164 (5 supplement): S409-S439.
49. Hufford, L. and M. McMahon, 2003. Beyond morphoclines and trends: the elements of diversity and the phylogenetic patterning of morphology. Pp. 165-186 in *Deep Morphology: Toward a Renaissance of Morphology in Plant Systematics*, T. F. Stuessy, V. Mayer & E. Hörandl (eds). Koeltz, Königstein.
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### Books Edited

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## Publications (continued):

### *Book/Meeting Reviews*

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## Manuscripts Submitted or In Preparation

Hufford, L. in press. *Synthyris*. In *Flora of North America North of Mexico*, Flora of North America Editorial Committee (eds.) Oxford University Press, New York and Oxford.

Schenk, J. J. and L. Hufford. In revision. A phylogenetic monograph on the systematics of *Mentzelia* section *Bartonia*. *Systematic Botany Monographs*.

## Museum Exhibits

*The Conner Museum has Teeth: A Special Exhibit*. For the Conner Museum of Natural History, 9-10 October 2009. Produced by L. Hufford; Co-curated by K. Cassidy and L. Hufford. This exhibit of museum specimens explored the natural history of teeth.

*Cougs in the Conner Museum: Prowl Our Cats*. For the Conner Museum of Natural History, 13-14 November 2009. Produced by L. Hufford; co-curated by K. Cassidy, Daryl Trumbo\*, Andrea Dixon\*, and L. Hufford. This exhibit examined the biology of cats, especially their phylogeny and the natural history of cats native to the Pacific Northwest.  
[\*graduate student]

*Fur and Feathers*. For the Conner Museum of Natural History, 9-10 April 2010. Produced by L. Hufford; Co-curated by K. Cassidy and L. Hufford. This exhibit of museum specimens explored the biology, especially functional similarities, of fur and feathers.

*Nature Twice: A Poetry Exhibit in the Conner Museum*. For the Conner Museum of Natural History, 9 Sept.-21 Nov 2010. Produced by L. Hufford and D. Lee; Co-curated by L. Hufford, D. Lee, B. Bunting\*, C. Craig\*, K. Gresham\*, M. Hillmann\*, C. Hinchliff\*, K. Keller\*, A. LaPiana\*, J. Leeds\*, M. McGrath\*, A. Parrish\*, L. Russo, and J. Trout\*. This exhibit encouraged visitors to consider diverse and creative ways to understand nature by pairing poems with museum specimens. This exhibit aimed to demonstrate that science and art are miscible and a mix of both inevitably influences our understanding of nature.  
[\*graduate student]