

CURRICULUM VITAE: Stacey DeWitt Smith

Department of Ecology and Evolutionary Biology, C127/C340 Ramaley,
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Office: 303-492-1374· Email: Stacey.D.Smith@colorado.edu
Web: www.colorado.edu/smithlab

EDUCATION

Ph.D. in Botany, University of Wisconsin, Madison, 2006
M.Phil. in Botanical Diversity, Universities of Reading and Birmingham, UK, 2001
B.S. Biology & B.A. Spanish, Virginia Polytechnic Institute & State University, 1999

RESEARCH INTERESTS

evolutionary genetics, comparative methods, floral trait evolution, hybridization, macroevolution, molecular evolution, plant biochemistry, phylogenetics, pollination ecology, systematics

APPOINTMENTS

Associate professor, Department of Ecology and Evolutionary Biology, University of Colorado-Boulder (2017-present)
Assistant professor, Department of Ecology and Evolutionary Biology, University of Colorado-Boulder (Aug. 2013-present)
Assistant professor, School of Biological Sciences, University of Nebraska-Lincoln (2010-2013)
NIH NRSA Postdoctoral Fellow with Dr. Mark Rausher, Duke University (2007-2010)
Center for Genomics Postdoctoral Fellow with Dr. Mark Rausher, Department of Biology, Duke University (2006- 2007)

RESEARCH

PUBLICATIONS

(*graduate student; **undergraduate student, + postdoctoral fellows that I have supervised)

BOOKS

Baum, D. A., & S. D. Smith. 2013. *Tree-Thinking: An introduction to phylogenetic biology*. Roberts & Company, Greenwood Village, Colorado.

PEER-REVIEWED ARTICLES

56. Liu, S.* & S. D. Smith. 2021. Phylogeny and biogeography of South American marsh pitcher plant genus *Heliamphora* (Sarraceniaceae) endemic to the Guiana Highlands. *Molecular Phylogenetics and Evolution* 154: 106961.
55. Wheeler, L. C., B. A. Wing & S. D. Smith. 2020. Structure and contingency determine mutational hotspots for flower color evolution. *Evolution Letters* doi.org/10.1002/evl3.212
54. Smith, S. D., M. W. Pennell, C. W. Dunn & S. V. Edwards. 2020. Phylogenetics is the new genetics (for most of biodiversity). *Trends in Ecology and Evolution* 35: 415-425.

53. Larter, M.+ , A. Dunbar-Wallis, A. E. Berardi+ & **S. D. Smith**. 2019. Developmental control of convergent floral pigmentation across evolutionary timescales. *Developmental Dynamics* 248: 1091-1100.
52. Dupin, J.* & **S. D. Smith**. 2019. Integrating historical biogeography and environmental niche evolution to understand the geographical distribution of Datureae (Solanaceae). *American Journal of Botany* 106: 1-12.
51. Wheeler, L. C.+ & **S. D. Smith**. 2019. Computational modeling of anthocyanin pathway evolution: biases, hotspots and trade-offs. *Integrative and Comparative Biology* 59: 585-598.
50. Deanna, R.+ , M. Larter+ , G. E. Barboza & **S. D. Smith**. 2019. Repeated evolution of a morphological novelty: a phylogenetic analysis of the inflated fruiting calyx in the Physalideae tribe (Solanaceae). *American Journal of Botany* 106 (2): 270-279.
49. **Smith, S. D.**, R. Angelovici, K. Heyduk, H. A. Maeda, G. D. Moghe, J. C. Pires, J. R. Widhalm, & J. H. Wisecaver. 2019. The renaissance of comparative biochemistry. *American Journal of Botany* 106 (1): 3-13.
48. Ng, J.+ & **S. D. Smith**. 2018. Why are red flowers so rare? Testing the macroevolutionary causes of tippiness. *Journal of Evolutionary Biology* 31: 1863-1875.
47. Deanna, R.+ , **S. D. Smith**, T. Särkinen & F. Chiarini. 2018. Patterns of chromosomal evolution in the florally diverse Andean clade Iochrominae (Solanaceae). *Perspectives in Plant Ecology, Evolution and Systematics* 35: 31-43.
46. Ng, J.+ , L. B. Freitas & **S. D. Smith**. 2018. Stepwise evolution of floral pigmentation predicted by biochemical pathway structure. *Evolution* 72: 2792-2802.
45. Larter, M.+ , A. Dunbar-Wallis, A. E. Berardi+ & **S. D. Smith**. 2018. Convergent evolution at the pathway level: predictable regulatory changes during flower color transitions. *Molecular Biology and Evolution* 35: 2159-2169.
44. Dupin, J.* & **S. D. Smith**. 2018. Phylogenetics of Datureae (Solanaceae), including description of the new genus *Trompettia* and re-circumscription of the tribe. *Taxon* 67: 359-375.
43. Gates, D. J.* , D. Pilson & **S. D. Smith**. 2018. Filtering of target sequence capture individuals facilitates species tree construction in the plant subtribe Iochrominae (Solanaceae). *Molecular Phylogenetics and Evolution* 123: 26-34.
42. **Smith, S. D.** & R. Kriebel. 2018. Convergent evolution of floral shape tied to pollinator shifts in Iochrominae (Solanaceae). *Evolution* 72: 688-697.
41. Moghe, G. D., & **S. D. Smith**. 2017. The push and pull of plant specialized metabolism underlies a long-standing, colorful mystery. *New Phytologist* 217: 471-473.
40. Gates, D. J.* , B. J. S. C. Olson, T. Clemente & **S. D. Smith**. 2017. A novel R3 MYB transcription repressor associated with the loss of floral pigmentation in *Iochroma*. *New Phytologist* 217: 1346-1356.
39. Fernandez-Hilario, R., & **S. D. Smith**. 2017. A new species of *Saracha* Ruiz & Pav. (Solanaceae) from the Central Andes of Peru. *Phytokeys*, in press.
38. McCarthy, E. W., A. Berardi+ , **S. D. Smith** & A. Litt. 2017. Related allopolyploids display distinct floral pigment profiles and transgressive pigments. *American Journal of Botany* 104: 1-10.
37. Dupin, J. G. R.* , N. J. Matzke, T. Särkinen, S. Knapp, R. G. Olmstead, L. Bohs & **S. D. Smith**. 2017. Bayesian estimation of global biogeographic history of Solanaceae. *Journal of Biogeography* 44: 887-899.

36. Gates, D. J.*, S. R. Strickler, L. A. Mueller, B. J. S. C. Olson, & **S. D. Smith**. 2016. Diversification of R2R3 MYB transcription factors in the tomato family Solanaceae. *Journal of Molecular Evolution* 83: 26-37.
35. Berardi, A., S. Hildreth, R. J. Helm, B. S. J. Winkel & **S. D. Smith**. 2016. Evolutionary correlations in flavonoid production in leaves and flowers of Iochrominae (Solanaceae). *Phytochemistry*. 130:119-127.
34. Ho, W., & **S. D. Smith**. 2016. Molecular evolution of anthocyanin pigment genes during flower color transitions. *BMC Evolutionary Biology* 16: 98. [doi: 10.1186/s12862-016-0675-3]
33. O'Meara, B. C., **S. D. Smith**[†], W. S. Armbruster, L. D. Harder, C. Hardy, L. C. Hileman, L. Hufford, A. Litt, S. Magallón, S. A. Smith, P. F. Stevens, C. B. Fenster, & P. K. Diggle. Non-equilibrium dynamics lead to long-term persistence of ancestral floral forms in modern angiosperms. *Proceedings of the Royal Society B* 283: 20152304. [†]Indicates co-first author [doi: 10.1098/rspb.2015.2304]
32. Ng, J.+ & **S. D. Smith**. 2016. How to make a red flower: the combinatorial effects of pigments. *AOB Plants* 8: plw013. [doi: 10.1093/aobpla/plw013]
31. Ng, J.+ & **S. D. Smith**. 2016. Widespread flower color convergence via alternate biochemical pathways. *New Phytologist* 209: 407-417.
30. **Smith, S. D.** 2016 Pleiotropy and the evolution of floral integration. *New Phytologist* 209: 80-85.
29. Cueva-Manchego, M. A., **S. D. Smith** & S. Leiva-González. 2015. A new species of *Iochroma* (Solanaceae) from the cloud forests of central Peru and its phylogenetic position in Iochrominae. *Phytotaxa* 227: 147-157.
28. **Smith, S. D.**, & E. E. Goldberg. 2015. Tempo and mode of flower color evolution. *American Journal of Botany* 102: 1014-1025.
27. Coburn, R. A.***, R. H. Griffin & **S. D. Smith**. 2015. Genetic basis of a rare floral mutant in an Andean species of Solanaceae. *American Journal of Botany* 102:1-9.
26. Ng, J.+ & **S. D. Smith**. 2014. How traits shape trees: New approaches for detecting character state-dependent lineage diversification. *Journal of Evolutionary Biology* 27: 2035-2045.
25. Muchhala, N., S. Johnsen, & **S. D. Smith**. 2014. Competition for hummingbird pollination and the evolution of flower color diversity in Andean Solanaceae. *Evolution* 68: 2275-2286. [Featured on the cover]
24. **Smith, S. D.** 2014. Quantifying color variation: Improved formulas for calculating hue with segment classification. *Applications in Plant Sciences* 2:1300088.
23. **Smith, S. D.**, S. Wang, & M. D. Rausher. 2013. Functional evolution of an anthocyanin pathway enzyme during a flower color transition. *Molecular Biology and Evolution* 30: 602-612.
22. Weisrock, D. W., **S. D. Smith**, L. M. Chan, K. Biebouw, P. M. Kappeler, & A. D. Yoder. 2012. Concatenation and concordance in the reconstruction of mouse lemur phylogeny: an empirical demonstration of the effect of allele sampling in phylogenetics. *Molecular Biology and Evolution* 29: 1614-1630.
21. **Smith, S. D.**, & S. Leiva G. 2011. A new species of *Iochroma* (Solanaceae) from Ecuador. *Novon* 21: 491-495.
20. **Smith, S. D.**, & M. D. Rausher. 2011. Gene loss and parallel evolution contribute to species difference in flower color. *Molecular Biology and Evolution* 28: 2799-2810.
19. Johnson, M. T. J., R. G. FitzJohn, **S. D. Smith**, M. D. Rausher & S. P. Otto. 2011. Loss of sexual recombination and segregation is associated with increased diversification in evening primroses. *Evolution* 65: 3230-3430.

18. Rosas-Guerrero, V., M. Quesada, W. S. Armbruster, R. Pérez-Barrales & **S. D. Smith**. 2011. Influence of pollination specialization and breeding system on floral integration and phenotypic variation in *Ipomoea*. *Evolution* 65: 350-364. [Recommended by Faculty of 1000]
17. **Smith, S. D.** 2010. Using phylogenetics to detect pollinator-mediated floral evolution. *New Phytologist* 188: 354-363.
16. Johnson, M. T. J., **S. D. Smith** & M. D. Rausher. 2010. The effects of plant sex on range distributions and allocation to reproduction. *New Phytologist* 186:769-779.
15. Johnson, M. T. J., **S. D. Smith** & M. D. Rausher. 2009. Plant sex and the evolution of plant defenses against herbivores. *Proceedings of the National Academy of Sciences* 106:18079-18084.
14. **Smith, S. D.**, C. Ané & D. A. Baum. 2009. Macroevolutionary tests of pollination syndromes: A reply to Fenster et al. *Evolution* 63: 2763-2767.
13. **Smith, S. D.**, D. A. Baum & V. J. Kolberg**. 2008. Morphological and cytological evidence for homoploid hybridization in *Iochroma* (Solanaceae). *Madroño* 55: 280-284.
12. **Smith, S. D.**, P. R. Izquierdo S.**, S. J. Hall** & D. A. Baum. 2008. Comparative pollination biology of sympatric and allopatric Andean *Iochroma* (Solanaceae). *Annals of the Missouri Botanical Garden* 95: 600-617.
11. Paape, T., B. Igic, **S. D. Smith**, R. Olmstead, L. Bohs & J. R. Kohn. 2008. A 15-million-year-old genetic bottleneck. *Molecular Biology and Evolution* 25: 655-663.
10. **Smith, S. D.**, C. Ané & D. A. Baum. 2008. The role of pollinator shifts in the floral diversification of *Iochroma* (Solanaceae). *Evolution* 62: 793-806.
9. Ané, C., B. Larget, D. A. Baum, **S. D. Smith** & A. Rokas. 2007. Bayesian estimation of concordance among gene trees. *Molecular Biology and Evolution* 24: 412-426.
8. **Smith, S. D.**, & D. A. Baum. 2007. Systematics of Iochrominae (Solanaceae): Patterns in floral diversity and interspecific crossability. *Acta Horticulturae* 745 (VI International Solanaceae Conference: Genomics Meets Biodiversity): 241-254.
7. **Smith, S. D.**, & D. A. Baum. 2006. Phylogenetics of the florally diverse Andean clade Iochrominae (Solanaceae). *American Journal of Botany* 93: 1140-1153.
6. D. A. Baum, **S. D. Smith** & S. S. Donovan. 2005. The tree-thinking challenge. *Science* 310: 979-980.
5. D. A. Baum, **S. D. Smith**, A. Yen, W. S. Alverson, R. Nyffeler, B. A. Whitlock & R. L. Oldham. 2004. Phylogenetic relationships of Malvatheca (Bombacoideae & Malvoideae; Malvaceae sensu lato) as inferred from plastid DNA sequences. *American Journal of Botany* 91: 1863-1871.
4. **S. D. Smith**, R. Cowan, K. B. Gregg, M.W. Chase, N. Maxted & M. F. Fay. 2004. Genetic discontinuities among populations of *Cleisthes* (Orchidaceae, Vanilloideae) in North America. *Botanical Journal of the Linnean Society* 145: 87-95.
3. **S. D. Smith** & J. E. Bond. 2003. An analysis of the secondary structure of the mitochondrial large subunit rRNA gene (*16S*) in spiders and its implications for phylogenetic reconstruction. *Journal of Arachnology* 31: 44-54.
2. **S. D. Smith** & I. E. Peralta. 2002. Ecogeographic surveys as tools for analyzing potential reproductive isolating mechanisms: An example using *Solanum juglandifolium* Dunal, *S. ochranthum* Dunal, *S. lycopersicoides* Dunal and *S. sitiens* I. M. Johnston. *Taxon* 51: 341-349. [Featured on the cover]
1. **S. D. Smith** & S. Knapp. 2002. The natural history of reproduction in *Solanum* and *Lycianthes* (Solanaceae) in a subtropical moist forest. *Bulletin of the Natural History Museum Botany* 32: 125-136.

BOOK CHAPTERS AND OTHER PUBLICATIONS

- Smith, S. D.** 2014. Interpreting phylogenetic trees. In *Oxford Bibliographies in Evolutionary Biology*. Ed. Jonathan Losos. New York: Oxford University Press. [peer-reviewed through publisher]
- Smith, S. D.,** R.E. Miller, S. P. Otto, R. G. FitzJohn & M. D. Rausher. 2010. The effects of flower color transitions on diversification rates in morning glories (*Ipomoea* subg. *Quamoclit*, Convolvulaceae). Pp. 202-226 in M. Long, H. Gu & Z. Zhou, Darwin's Heritage Today. Higher Education Press, Beijing, China.
- Smith, S. D.,** & S. Leiva G. 2005. Recuento cromosómico y estado actual de *Dunalia spathulata* (R. &P.) Braun & Bouché (Solanaceae: Solaneae) endémica de Perú. *Arnaldoa* 12: 68-71. (editor reviewed)

GRANTS & FUNDING**External Sources**

- 2019-2022 **National Science Foundation (NSF)**, Division of Environmental Biology, Systematics and Biodiversity Science Program. "Fossils, fruits, and seeds: an integrative approach to estimating a timetree for the nightshades," (Smith is sole PI)
- 2018-2021 **Mt. Cuba Center**. "Discovering the biogeographic and genetic history of *Clematis* sect. *Viorna*," (PI Harris, co-PI Smith)
- 2018 **Consejo Nacional de Investigaciones Científicas y Técnicas de Argentina**. "Solanáceas sudamericanas: Avances en la sistemática, filogenia, eco-fisiología y fitoquímica," (PI Barboza, co-PIs Casero, Uriburu, Deanna+, Palchetti, Marín, Cantero and Smith)
- 2016-2021 **National Science Foundation (NSF)**, Division of Environmental Biology, Phylogenetic Systematics Program. "CAREER: Testing the predictability of flower color evolution at a phylogenetic scale in the Petunieae clade (Solanaceae)", (Smith is sole PI)
- Research Experiences for Undergraduates (REU) Supplement, "Capturing carotenoid genes associated with flower color variation in Petunieae." to support Ashley Hamilton, Texas A&M University at Corpus Christi
- 2015-2016 **NSF**, Division of Environmental Biology, Phylogenetic Systematics Program, "Connecting New Systematic Biologists Across Borders: A Workshop in Model-Based Phylogenetics at Evolution 2015", (Smith is PI, Carstens is Co-PI)
- 2013-2017 **NSF**, Division of Environmental Biology, Evolutionary Genetics Program. "Mechanisms of convergent flower evolution above and below the species level." Smith is sole PI.
- Research Experiences for Undergraduates (REU) Supplement, "Capturing genetic variation in pigmentation genes associated with convergent flower color transitions." to support Keric Lamb & Amanda Malone, CU EBIO undergraduates
 - Research Assistantship for High School Students (RAHSS) Supplement, "Evolution of the *F3'5'h* gene during flower color transitions." To support Kaixin Cui of Fairview HS
- 2013-2016 **NSF**, Division of Environmental Biology, Biodiversity Discovery & Analysis Program. "Evolution and diversification of red flowers: Testing the macroevolutionary causes of rarity." Smith is sole PI.
- REU Supplement, "Repeated origins of red flowers in Mexican *Cestrum* (Solanaceae)." To support Daniel Jackson and Jeffrey Neiman, CU EBIO undergraduates

- RAHSS Supplement, “Evolution of petal cell shape in Iochrominae (Solanaceae).” To support Lauren Nalezny, Broomfield HS

2011 **Society of Systematic Biologists (SSB) Symposium**, “Understanding Patterns of Character Evolution and Diversification” at annual meeting; with co-PI Dr. Boris Igic (University of Illinois-Chicago)

HONORS/AWARDS

- 2020 Early Career Researcher Spotlight, JEZ-B: Molecular and Developmental Evolution
- 2017 Pan-American Society for Evolutionary Developmental Biology Early Career Award
- 2014 Botanical Society of America Emerging Leader Award
Society for the Study of Evolution, Outreach Award
- 2013 T. O. Haas Award for Excellence in Research, School of Biological Sciences, UNL
- 2012 Certificate of Recognition for Contributions to Students, UNL Parents Association
- 2007-2010 NIH Ruth L. Kirschstein Postdoctoral National Research Service Award.
- 2006 Molecular Evolution and Comparative Genomics Postdoctoral fellowship, IGSP Center for Evolutionary Genomics, Duke University.
Outstanding student talk, International Solanaceae Conference, Madison, WI.
- 2005 O. N. Allen Dissertator Fellowship, University of Wisconsin-Madison.
- 2004 Vilas Travel Grant, UW-Madison.
John Jefferson Davis Graduate Research Award, UW-Madison.
Tinker-Nave Short Term Field Research Grant, UW-Madison.
- 2003-2006 Marie Christine Kohler Fellowship, University of Wisconsin-Madison.
- 2003 NSF Doctoral Dissertation Improvement Grant.
- 2002 American Society of Plant Taxonomists Graduate Research Award.
Ruth Dickie Grants-In-Aid for Graduate Women in Science.
- 1999-2001 British Marshall Scholarship for postgraduate studies in the UK.
- 1999 College of Arts & Sciences Outstanding Senior Award
Phi Kappa Phi Lifetime Membership
Outstanding Senior Award, Dept. of Biology, Virginia Tech.
Outstanding Senior Award, Dept. of Foreign Languages and Literature, Virginia Tech.
Sigma Xi, Grants-in-Aid of Research.
- 1998 Morris K. Udall National Scholarship.
- 1997 Daughtrey Scholarship, Virginia Tech.
NSF REU internship, La Selva Biological Station, Costa Rica.
Biological Sciences Initiative Grant, Virginia Tech.
- 1996 Thomas Moss Leadership Scholarship, Virginia Tech.
- 1995 Phi Sigma Scholarship, Virginia Tech.

INVITED SEMINARS [46 total]

- 2020 Solanaceae Seminar Series, <https://physaloidseminars.weebly.com/>
Joint ‘Phylopizza’ Series, Smithsonian, NCBI and George Washington University
- 2019 Centre for Ecological and Evolutionary Synthesis, Oslo, Norway

- Dept. of Botany, University of Wisconsin, Madison, WI
 Interdisciplinary Plant Group, Univ. of Missouri, Columbia, MO
 Dept. of Biological Sciences, Louisiana State University, Baton Rouge, LA
- 2018 Dept. of Biological Sciences, Auburn University, Auburn, AL
 Organismal Biology and Ecology (OBE) Department, Colorado College, Colorado Springs, CO
 Dept. of Geology, University of Colorado, Boulder, CO
- 2017 Museo de Historia Natural, Universidad Privada Antenor Orrego, Trujillo, Peru
- 2016 Dept. of Ecology and Evolutionary Biology, Cornell University
 Rocky Mountain Biological Station, Crested Butte, CO
 Dept. of Botany, Natural History Museum, Univ. Nac. Mayor de San Marcos, Lima, Peru
 Dept. of Biology, University of Washington, Seattle, WA (**Melinda Denton Endowed Lecture**)
 Dept. of Ecology and Evolutionary Biology, University of California-Los Angeles
- 2015 Dept. of Biological Sciences, University of Idaho, Moscow, ID
 Dept. of Genetics, Universidade Federal do Rio Grande do Sul, Porto Alegre, Brazil
 Dept. of Biology, University of Pittsburgh, Pittsburgh, PA
 Dept. of Biology, Colorado State University, Fort Collins, CO
 Dept. of Zoology and Physiology, University of Wyoming, Laramie, WY
 Dept. of Plant Biology, University of Georgia, Athens, GA
- 2014 Dept. of Ecology and Evolutionary Biology, University of Michigan, Ann Arbor, MI
 Dept. of Ecology and Evolutionary Biology, University of Arizona, Tucson, AZ
- 2013 Women and Minority Scholars Lecture Series, Virginia Tech, Blacksburg, VA
 Dept. of Biology, University of Florida, Gainesville, FL
 Dept. of Ecology and Evolutionary Biology, Brown University, Providence, RI
 Dept. of Ecology and Evolutionary Biology, University of Colorado, Boulder, CO
- 2012 Divisions of Biological Sciences and Plant Sciences, Univ. of Missouri, Columbia, MO
 Dept. of Botany, Oklahoma State University, Stillwater, OK
 Dept. of Biology, University of Maryland, College Park, MD
 Dept. of Ecology, Evolution and Organismal Biology, Iowa State University, Ames, IA
 Dept. of Evolution and Ecology, University of California, Davis, CA
 Dept. of Ecology and Evolutionary Biology, University of Connecticut, Storrs, CT
 Dept. of Biology, University of Nebraska-Omaha, Omaha, NE
- 2011 Rancho Santa Ana Botanical Garden, Claremont Graduate University, Claremont, CA
 Harvard Univ. Herbarium, Dept. of Organismic & Evolutionary Biology, Boston, MA
 Dept. of Biology, Kansas State University, Manhattan, KS
 Dept. of Ecology and Evolutionary Biology, University of Kansas, Lawrence, KS
 Dept. of Biology, Black Hills State University, South Dakota, Spearfish, SD
- 2010 Dept. of Biology, University of South Dakota, Vermillion, SD
 Natural History Museum, Univ. Nacional Mayor de San Marcos, Lima, Peru
- 2009 Dept. of Biology, East Carolina University, Greenville, NC (Graduate Student Speaker)
 Dept. of Plant Biology, University of Minnesota
- 2008 School of Biological Sciences, University of Nebraska-Lincoln
 Dept. of Biology, Central Connecticut State University
- 2005 Dept. of Botany, Natural History Museum, Univ. Nac. Mayor de San Marcos, Lima, Peru

WORKSHOPS / SYMPOSIA

- 2019 Society for the Study of Evolution (SSE) Spotlight Session at Evolution 2019, “Beyond tempo and mode: toward process-based models of macroevolutionary trait evolution” **Co-organizer** (with J. Uyeda).
Integrative plant biology, Society for Integrative and Comparative Biology (SICB) meeting, Tampa FL, **Invited speaker**
- 2018 Oak Spring eFLOWER Summer School for graduate students in comparative methods, Upperville, VA, **Invited speaker**
Evolution of Plant Chemical Diversity: Renaissance of comparative biochemistry, Botany Meeting, Rochester, MN, **Speaker and co-organizer** (with J. C. Pires)
Endless forms: UC Berkeley Symposium on Non-Model Systems, Berkeley, CA, **Invited speaker**
Estimating species trees workshop, Society of Systematic Biologists (SSB) Meeting, Columbus, OH, **Invited speaker**
- 2017 Latin American Solanaceae Symposium, Joint Meeting of the Botanical Societies of Chile and Argentina, Mendoza, Argentina, **Invited speaker**
SSB Symposium at Evolution 2017, “Phylogenetic approaches to connecting genotypes to phenotypes.” **Speaker and organizer**
Comparative Methods Workshop, Universidad de Córdoba, Argentina (4 days, 30 participants), **Lead organizer and presenter**
- 2015 13th Annual Ecological Genomics Symposium organized by B. J. S. C. Olson. Manhattan, KS, **Invited plenary speaker**
7th Annual Symposium on STEM Education, CU Center for STEM Learning, Boulder, CO, **Poster presentation** (co-author, Dr. Gabrielle Katz)
Society for Systematic Biologists Graduate Student Workshop in Model-based Phylogenetics, Guarujá, Brazil, **Organizer and presenter**
- 2014 12th Annual Symposium in Plant Biology organized by M. Bartlett and J. Preston. Amherst, MA, **Invited speaker**
Inaugural Society for Systematic Biologists Workshop, Snowbird, UT, **Invited speaker**
- 2012 7th Annual Organismal Biology Day, Smithsonian Institution, Washington, D.C. **Invited speaker**
Estimating Species Trees Workshop organized by B. Carstens and L. Kubatko, Ohio State University, Columbus, OH. **Invited speaker**
- 2011 MicroMORPH NSF Research Network Conference organized by P. Diggie and N. Friedman, University of Colorado, Boulder, CO. **Invited speaker**
- 2010 Plant Science Retreat organized by the Plant Science Innovation Center of the University of Nebraska-Lincoln. Nebraska City, NE. **Invited speaker**
- 2004 Plant Speciation Symposium, sponsored by *New Phytologist* and organized by L. Rieseberg et al. Antigonish, Nova Scotia. Poster presentation.

CONFERENCE PRESENTATIONS

(presenter in parentheses, **undergraduate, *graduate student or + postdoc that I have supervised)

- 2020 SOL International Online Meeting (for Solanaceae), **2** contributed posters (Deanna+, Wheeler+)
Botany Meetings (virtual), **2** contributed talks (Pretz*, Strickler, Wheeler+), **1** poster (Harris*)
- 2019 X Congreso Colombiano de Botánica (Florencia, Caquetá, Colombia), **1** invited talk (Deanna+)

- Jornadas Argentinas de Botánica (Tucumán, Argentina), **1** invited talk (Deanna+)
- Botany Meetings (Tucson, AZ), **2** contributed talks (Pretz*, Hamilton**), **5** posters (Allende*, Liu*, Harris*, Fairchild**, Florez**)
- Evolution Joint Meetings (Providence, RI), **1** contributed talk (Wheeler+)
- Society for Integrative & Comparative Biology (Tampa, FL), **1** contributed talk (Wheeler+), **1** poster (Larter+)
- 2018 Botany Meetings (Rochester, MN), **1** contributed talk (Smith), **2** posters (Dupin*, Pretz*, Kantor**)
Society for Systematic Biologists Meeting (Columbus, OH), **2** posters (Liu*, Pretz*)
- 2017 Evolution Joint Meetings (Portland, OR), **3** contributed talks (Smith, Ng+, Larter+)
Botany Meetings (Fort Worth, TX), **1** contributed talk (Dupin*), **2** posters (Dupin*, Pretz*)
Pan-Am EvoDevo Meeting (Calgary), **Invited plenary speaker** (Smith)
- 2016 17th Annual Meeting of the Gesellschaft für Biologische Systematik (Munich, Germany), **Invited plenary speaker** (Smith)
- 2015 Pan-Am EvoDevo Meeting (Berkeley, CA), **Invited plenary speaker** (Smith), **1** contributed poster (Neiman**)
- 2015 Botany Joint Meetings (Boise, ID), Emerging Leader Lecture, **Invited speaker** (Smith)
- 2015 Evolution Joint Meetings (Guaruja, Brazil), **1** contributed talk (Smith), **1** contributed poster (Dupin*)
- 2015 Society for Systematic Biology Standalone Meeting (Ann Arbor, Michigan), **2** contributed talks (Ng+, Gates*)
- 2014 Botany Joint Meetings (Boise, ID), American Society of Plant Taxonomists Symposium, “Phylogenetic Comparative Methods and Approaches in Plant Science,” Organized by J. Schenk. **Invited speaker** (Smith)
- 2014 Evolution Joint Meetings (Raleigh, NC), **3** contributed talks (Ho+, Ng+, O’Meara), **1** poster (Gates*)
- 2013 Botany Joint Meetings (New Orleans, LA), **2** contributed posters (Dupin*, Gates*)
- 2013 Society for Molecular Biology and Evolution Meeting (Chicago, IL), Symposium in “Molecular mechanisms of functional evolution,” Organized by J. Thornton and V. Lynch. **Invited speaker** (Smith)
- 2012 Joint International meeting: Society for the Study of Evolution/European Society for Evolutionary Biology (Ottawa, Canada), **2** contributed talks (Smith, Muchhala+), **1** poster (Gates*)
- 2011 Evolution Joint Meetings (Norman, OK), **Society of Systematic Biologists** (SSB) Symposium, Symposium in “Understanding Patterns of Character Evolution and Diversification,” Organized by S. Smith and B. Igic. **Invited speaker** (Smith)
- 2011 Botany Joint Meetings (New Orleans, LA), **1** contributed talk (Smith)
- 2010 Evolution Joint Meetings (Portland, OR), **2** contributed talks (Smith, Johnson)
- 2009 *European Society for Evolutionary Biology* (Turin, Italy), Symposium on “Pollinator-mediated Selection in Floral Evolution,” Organized by Y. Sapir and W. S. Armbruster. **Invited speaker** (Smith)
- 2008 Evolution Joint Meetings (Minneapolis, MI), **1** contributed talk (Smith)
- 2006 VI International Solanaceae Conference (Madison, WI), **Selected speaker** (Smith)
- 2006 Evolution Joint Meetings (Stony Brook, NY), **1** contributed talk (Smith)
- 2005 Evolution Joint Meetings (Fairbanks, AK), **1** contributed talk (Smith)
- 2005 Botany Joint Meetings (Austin, TX), **1** contributed talk (Smith)
- 2004 Evolution Joint Meetings (Fort Collins, CO), **1** poster (Smith)

WORKING GROUP COLLABORATIONS

Synthesis of micro- and macroevolution (2019-present). Centre for Ecological and Evolutionary Synthesis (CEES), University of Oslo. Organizers: Nils Chr. Stenseth, F. Bokma. Steering committee comprises S. Smith, Naoki Irie and Carl Simpson.

Species Delimitation (2010-2011). National Institute for Mathematical and Biological Synthesis (NIMBioS). Organizers: D. Weisrock, R. Yoshida.

Floral assembly: Quantifying the composition of a complex adaptive structure (2008-2011). National Evolutionary Synthesis Center (NESCent). Organizers: C. Fenster, W. S. Armbruster, P. Diggle.

Comparative Methods in R Hackathon (2007). National Evolutionary Synthesis Center (NESCent). Organizers: B. O'Meara, S. Kembel, H. Lapp, S. Price, T. Vision, A. Zanne.

TEACHING**Courses Taught, University of Colorado-Boulder:**

Instructor: **General Biology**, Ecology & Evolutionary Biology (EBIO 1220). 3 hours lecture (3 credit hours). Spring 2015, Spring 2018

Instructor: **Plants and Society**, Ecology & Evolutionary Biology (EBIO 3590). 3 hours lecture / 3 hours lab (4 credit hours; TA). Spring 2015, Spring 2016, Fall 2016, Fall 2017, Fall 2018, Fall 2019

Co-Instructor (with Kane, Flaxman, Safran and Tripp): **Evolutionary Genomics**, Ecology & Evolutionary Biology (EBIO 3590). 2 hour seminar (2 credit hours). Spring 2015, Spring 2016.

Instructor: **Phylogenetics and Comparative Biology**, Ecology & Evolutionary Biology (EBIO 4290/5290). 3 hours lecture / 3 hours lab (4 credit hours; TA). Fall 2015, Spring 2019

Instructor: **Molecular Systematics and Evolution**, Ecology & Evolutionary Biology (EBIO 4290/5290). 3 hours lecture / 2 hours lab (3 credit hours; TA). Fall 2014

Instructor: **Phylogenetic Comparative Methods**, Ecology & Evolutionary Biology (EBIO 6100 / 6300). (1 credit hour). Fall 2013, Fall 2016, Fall 2018

Independent Study, University of Colorado-Boulder:

- Juan Florez, EBIO 4870, 2 credits, Plant Reproductive Biology & Luis Allende, EBIO 8840, 2 credits, Molecular Evolution, Summer 2019
- Laurence Fairchild, EBIO 4870, 2 credits, Pollination Biology, Spring 2019
- Sukuan Liu, Chelsea Pretz, Luis Allende & Patrick Morrison, EBIO 7840, 3 credits, Statistical comparative methods, Spring 2018
- Sukuan Liu, Carly Anderson, Javan Carter & Katherine Hernandez, EBIO 7840, and Kevin Thirouin, EBIO 4840, 3 credits, Phylogenetics, Fall 2017
- Lexi Cantor, EBIO 3870, 3 credits, Pollination Biology, Spring 2017
- Chelsea Pretz, Kristin White & Kelly Carscadden, EBIO 7840, 1 credit, Computational Phylogenetics, Fall 2016
- James Massey, EBIO 7840, 3 credits, Phylogenetics, Spring 2016
- Jessica Persinger, EBIO 4840, 3 credits, Phylogenetics, Spring 2016
- Jeffrey Neiman, EBIO 3870, 3 credits, Plant physiology & biochemistry, Fall 2014, Spring 2015

Courses Taught, University of Nebraska-Lincoln:

Instructor: **Organismic Biology**, Biological Sciences (BIOS103). 3 hours lecture / 3 hour lab (4 credit hours). Fall 2011, Fall 2012.

Instructor: **Phylogenetic Biology**, Biological Sciences (BIOS429/829). 3 hours lecture / 2 hour lab (4 credit hours). Spring 2012, Spring 2013.

Guest Faculty Member:

- **Tropical Plant Systematics**, Graduate field course in Costa Rica, Organization for Tropical Studies, 1.5 weeks of instruction on phylogenetics, June 2008, 2012

CU WORKSHOPS ATTENDED

Scientific Communication Advances Research Excellence (SCOARE) workshop, training on mentoring students in scientific communication, Biofrontiers, Fall 2019

Office of Diversity, Equity, and Community Engagement, Inclusive Pedagogy Workshops

- Increasing student motivation: Strategies that work, Fall 2017

FTEP (Faculty Teaching Excellence Program) Workshops

- Early Career Faculty workshop: Grants and Funding with N. Barger, Fall 2015
- Doing it all in the first seven years with M. Osborne, Fall 2015
- Early Career Faculty workshop: Tenure and Promotion with N. Barger, Fall 2015
- Early Career Faculty workshop: Graduate advising with N. Barger, Fall 2014
- Building relationships to foster learning with P. Axelrad, Fall 2014
- Early Career Faculty workshop: Grants and Funding with N. Barger, Fall 2014
- Early Career Faculty workshop: Renovation with S. Collinge, Spring 2014
- Designing courses and Syllabi with J. Fitzgerald, Fall 2013
- Leading Class Discussion with M. Klages, Fall 2013
- Work-Life Balance with F. Riosmena, Fall 2013
- Learning Goals and Formative Assessment with K. Perkins and S. Chasteen, Fall 2013
- Innovative Teaching with N. Barger and A. Palmer, Fall 2013

LEAP (Leadership Education for Advancement and Promotion) Workshops

- Workshop on student issues relating to DACA and immigration status, Spring 2018
- Women's Mentoring Luncheon, Spring 2014
- Introductory Leadership Workshop, 3 day-event, Spring 2014

MENTORING

Postdoctoral Associates [10 total]

Agnes Dellinger (Hertha Firnberg Fellow, 2020-present)

Miranda Sinnott-Armstrong (NSF PRFB, 2019-present)

Luke Wheeler (2018-present)

Maximilian Larter (2017-present)

Rocío Deanna (2017-present)

Robert Laport (2015-2018)

Julienne Ng (2013-2018)

Andrea Berardi (2014-2016, presently postdoctoral fellow with Dr. Cris Kuhlemeier)

Winnie Ho (2013-2014, presently NSF Postdoctoral Fellow, Univ. of Washington, Seattle)

Nathan Muchhala (2010-2013, presently Assistant Professor, Univ. of Missouri-St. Louis)

Graduate Students [6 total]

Jesse Harris (PhD, 2018-present)
Sukuan Liu (PhD, 2017-present)
Luis Allende (PhD, 2017-present)
Chelsea Pretz (PhD, 2016-present)
Julia Dupin (PhD, 2012-2017)
Daniel Gates (PhD, co-advised with D. Pilson at UNL, 2011-2016, currently postdoctoral fellow with Dr. Jeffrey Ross-Ibarra, Univ. of California-Davis)

Graduate Committees at CU-Boulder [19 total]

P. Morrison (MS, Mojzsis, 2019-2020); Z. Root (PhD, Medeiros, 2019-present); K. Feldmann (MA, Taylor, 2019-present); T. Jones (PhD, Quandt, 2018-present); A. Westmoreland (PhD, Flaxman, 2018-present); G. Glime (MA, Adams & Demmig-Adams, 2018-present); L. Barton (MS, Tripp, 2017-2019); K. Hernandez (PhD, Bowers, 2017-present); E. Funk (PhD, Taylor, 2017-present); K. Carscadden (PhD, Emery, 2017-present), A. Oliverio (PhD, Fierer, 2016-2019); K. Keepers (PhD, Martin, 2015-present); J. Massey (PhD, Medeiros, 2015-present); J. Lowenstein (PhD, Stock, 2015-present); S. Polutchko (MA, Adams & Demmig-Adams, 2015-2018); M. Sharples (PhD, Tripp, 2015-2019); M. Blanchard (PhD, Bowers, 2014-2019); M. Mitter (PhD, Mitton, 2014-2018); K. Bracy Knight (PhD, McCain, 2013-2017); T. Hammer (PhD, Fierer, 2013-2018)

Graduate Committees at UNL [12 total]

M. Whitman (PhD, Russo, 2012-2014); E. Racz (PhD, Russo, 2012-2013); M. C. Chelini (PhD, Hebets, 2011-2013); M. E. Chaffee (PhD, Brisson, 2011-2013); J. P. Gibert (PhD, Brassil, 2011-2013); W. Guo (PhD, Mower, 2011-2013); N. Hepburn (MS 2012, Mower); A. Kallenberg (PhD, Basolo, 2011-2015); G. Kandari (MS 2012, MacKenzie); K. Jain (PhD, Mower, 2011-2013); K. Roccaforte (MS 2012, Russo/Pilson); S. Willis (PhD 2011, Orti)

External Graduate Committees

Sofia Rojas (MS, Madriñán, Universidad de los Andes, 2019)
A. Dellinger (PhD, Schönenberger, University of Vienna, 2018)
M. Koski (PhD, Ashman, Univ. of Pittsburgh, 2011-2015)

Undergraduate Researchers [36 total]University of Colorado-Boulder [23]:

Chandra Jacobs (2020, REU from UNC Pembroke); Chantelle Yazzie (2020, REU from Utah State University); Mikayah Oxendine (2020, REU from Robeson Community College); Ashley Hamilton (2019, REU from TAMU-CC); Laurence Fairchild (2019-present); Juan Florez (2019); Nina Gustafson (2018); Nicholas Kelly (2017-2019, BURST), Alexis Assante (2017-2018, BURST), Kevin Thirouin (2017-2019); Alexis Kantor (2016-2018, BURST); Annaliese Miller (2016-2017), William Weaver (2015-2019, BURST, UROP); Jessica Persinger (2015-2017, BURST, REU; Indep. Study Spring '16 EBIO 3870); Nathaniel Pinson (2015-2016, BURST); Cathryn Toomey (2015, BURST); Lauren Nalezny (2015, REU); Keric Lamb (2014-2016, BURST, UROP, REU); Amanda Malone (2014-2016, BURST); Jeffrey Neiman (2013-2016, UROP, REU; Indep. Study Fall '14, Spring '15 EBIO 3870); Daniel Jackson (2013-2014, BURST, REU), Hanna Biagini-Lee (2013-2014, BURST); Justin Berl (2013-2014)

University of Nebraska-Lincoln [5]:

Brandan Dinkelman (2012-2013, UCARE studentship); Dylan Carter (2012-2013, UCARE studentship, NSF-REU); Richard Thomas (2012-2013); Latifa Obaidi (2011-2014, UCARE studentship, SMBE Undergraduate Travel Award 2013, Honors Thesis in Biochemistry); Rachel Coburn (2011-2014, NIH-INBRE Scholar, Goldwater Scholarship, Honors Thesis in Biochemistry)

Duke University [3]:

Christine Reinhardt (2010); Rechelle Tull (2009, SROP Summer Studentship); Akshay Nadkarni (2008-2009)

University of Wisconsin-Madison [5]:

Steven J. Hall (2003-2005, now Asst. Prof. at Iowa State University); Pablo Izquierdo (2002-2004); Vanessa Kolberg (2002-2004); Karen Walsh (2001-2003); Tara Mehta (2002-2003)

High School Students [7 total]

Kaixin Cui, Fairview High School (Summer 2014-2016, Science Research Seminar); Jessica Gloe, Nederland High School (Summer 2015); Kathy Ding, Fairview High School (Summer 2015); Hannah Hartung, Fairview High School (Summer 2014); Lauren Nalezny, Broomfield High School (2013-2014, Science Research Seminar, NSF- Research Assistantship for High School Students); Daisy Guiza Beltran (Summer 2013); Jacqueline Garcia (Summer 2013)

SERVICE

PROFESSIONAL SERVICE

Primary Literature Peer-Reviews for: [35 total] *American Journal of Botany*, *American Naturalist*, *Annals of Botany*, *Australian Journal of Botany*, *Current Opinion in Plant Biology*, *Current Zoology*, *CBE Life Sciences Education*, *Ecology Letters*, *Evolution*, *Evolution: Education and Outreach*, *Evolutionary Ecology*, *Frontiers in Plant Evolution and Development*, *Frontiers in Plant Science*, *International Journal of Evolutionary Biology*, *Journal of Heredity*, *Journal of Tropical Ecology*, *Insect Systematics and Diversity*, *Methods in Ecology and Evolution*, *Molecular Biology and Evolution*, *Molecular Ecology*, *Molecular Ecology Resources*, *New Phytologist*, *Perspectives in Plant Ecology*, *Evolution and Systematics*, *Phytokeys*, *Plant Biology*, *Plant Physiology*, *Plant Systematics and Evolution*, *Philosophical Transactions of the Royal Society B*, *Proceedings of the Royal Society B*, *Science*, *Systematic Biology*, *Taxon*, *The Plant Journal*, *Trends in Ecology and Evolution*

Editorial Board, *Evolution & Development*, 2019-present

Associate Editor, *Evolution*, 2017-2020

Associate Editor, *Systematic Biology*, 2021-present

Textbook Peer-Reviews:

Campbell Biology, Pearson, 2013

Bayesian Phylogenetics, Sinauer, 2013

Society Memberships & Service

- ***Society for Integrative and Comparative Biology***
Chair of the Prize committee for the Rising Star in Organismal Botany, 2018-2019, 2021
- ***Pan-American Society for Evolutionary Developmental Biology***
Membership and Registration Officer, 2017-present
- ***Society of Systematic Biologists***
Panel member, Women-in-Science Luncheon, 2016
Program Chair (Council Appointed), 2014–2016
Elected Council Member, 2012-2014
- ***American Society of Plant Taxonomists***
Honors and Awards Committee, 2018-present
Environment and Public Policy Committee, 2012-2014; Chair, 2014-2015
- ***Botanical Society of America***

Strategic Planning Committee, 2014, 2021
 Committee on Human Diversity, 2014-2018

- ***Society for the Study of Evolution***
 Elected Council Member, 2020-2022
 Hamilton Award Judge, 2013, 2014
 Panel leader, Women-in-Science Luncheon, Evolution Meeting 2013
- ***Society for Molecular Biology and Evolution***

UNIVERSITY SERVICE

A & S Consortium of Committees on Climate, Equity, iNclusion, & Diversity (ASCEND), Spring 2020

Council member, BioFrontiers Institute, Spring 2019-present

Faculty Leadership Institute, 2018-2019

Selection committee for Graduate School Dissertation Completion Fellowship, Fall 2018

Member of the cross-departmental shared equipment team, Fall 2017-Spring 2019

Team led by K. Ramirez, winner of the 2017 Short Experiment Innovation Grant

DEPARTMENTAL SERVICE

Department of Ecology & Evolutionary Biology, CU-Boulder

Justice, Equity, Diversity, and Inclusion Committee, Fall 2019-present (2021 Chair)

Taylor Reappointment Committee, Fall 2019

Academic Review & Planning Advisory Committee (ARPAC), 2018-2019

Resasco Interview Committee, Spring 2018

Aesthetics Committee, 2017-present

Carpenter Reappointment Committee, Fall 2016

Faculty meeting scribe, 2016-present

Greenhouse Manager Search Committee, 2015-2016 & 2019

Merit Committee, 2015-2016

Executive Committee, 2014-2015, 2018-2019

Greenhouse Committee, 2014-present

Population Geneticist Search Committee, 2014-2015

Graduate Committee, 2014

School of Biological Sciences, University of Nebraska-Lincoln

Faculty Search Committee for Evolutionary Biologist, 2013

Greenhouse Management Committee, 2012-2013

Integrative Evolutionary Biologist Hiring Committee, 2012

Life Sciences Course Development Committee, 2012-2013

Departmental Curriculum committee, 2011-2013

Biology Club Faculty Advisory Board, 2011

Strategic Hiring Task Force, 2011

OUTREACH

2020 Científico Latino Graduate School Mentor (mentees M. Vetter, UW-Eau Claire), provided review of applications and mock interviews

2019 Científico Latino Graduate School Mentor (mentees B. Fitzwater, MTSU; J. Lee, UCLA; J. Rodriguez, CSU-LA), provided review of applications and mock interviews

- 2018** Presenter at Girls and Science Event at the Denver Museum of Nature and Science (with ca. 8000 attendees).
- 2017** Evolution Keynote Speaker, Teaching Controversial Science Topics Workshop for middle and high school teachers, CU EBIO Department
Presenter, Party for the Planet, CU Museum Family Fun Day, Parker, CO
Presenter, Nano Day at the Boulder Public Library, sponsored by CU Science Discovery
Invited speaker for public lecture for Darwin Day Celebration sponsored by the University of Tennessee-Knoxville
- 2016** Interview with biotechnology class at Overland High School (Aurora, CO) organized by teacher Ashley Atwell
Family Day, “Catch Me if You Can: How plants and animals chase each other through evolution” Theme, CU Museum of Natural History. Presenter. 200 visitors.
- 2014** Family Day, “Fascinating World of Fruit” Theme, CU Museum of Natural History. Organizer. 140 visitors.
Family Day, “Bugs and Blooms” Theme, CU Museum of Natural History. Presenter. 110 visitors.
Plants and Pigments Activities (designed and presented). Boulder Farmer’s Market, CU Museum of Natural History Booth. 361 visitors.
- 2013** Panelist, UNL Women in Science Conference for high school students, Lincoln, NE
- 2012** “Sunday with a Scientist”, Designed and organized K-12 Fruit Biology Event (including 6 graduate and undergraduate presenters), University of Nebraska State Museum; Attracted 175 visitors
Fruit Biology presentation at AppleJack Festival, Kimmel Research & Education Center, Nebraska City, NE. Co-organized with S. Russo; Attracted ~400 visitors
- 2011** “Sunday with a Scientist”, Designed and organized K-12 Fruit Biology Event (including 8 graduate and undergraduate presenters), University of Nebraska State Museum; Attracted 194 visitors
Plant Molecular Biology Hands-On Lab (designed and presented), Northeast Upward Bound Program. 20 high school students participated.
- 2009** DNA Day Ambassador, North Carolina Public Schools
- 2008** School Days Presenter, Durham Middle Schools, Durham, NC
- 2007** Science Day presenter, Durham Elementary School System, Durham, NC
- 2006** Darwin Day Volunteer, University of Wisconsin-Madison
- 2004-2006** Evolution Initiative Coordinating Committee, University of Wisconsin-Madison
- 2002-2003** Ways of Knowing Research Exploration Host (for undergraduates), Center for Biology Education, UW-Madison