CURRICULUM VITAE – 24 May 2023

KENNETH J. SYTSMA
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Areas of Interest

Phylogenetics of flowering plants; adaptive radiations of island, tepui, and Andean flora; contingent and correlative floral morphological evolution in *Salvia* (Lamiaceae); molecular and morphological evolution of Myrtales, Ericales, Lamiales, Brassicales, Campanulales and commelinoid monocots; biogeography of disjunctions; phylogeography of rare or invasive species; floristics, biogeography, and DNA barcoding of Great Lakes flora; pollination biology

Positions

2022-	Chair of Botany, University of Wisconsin, Madison
1994-	Professor of Botany University of Wisconsin, Madison
2016-2019	Hofmeister Professor of Botany University of Wisconsin, Madison
2004-2008	co-Chair of Biology Major University of Wisconsin, Madison
2006-2007	Acting Director, Wisconsin State Herbarium
1998-2001	Chair of Botany, University of Wisconsin, Madison
1993-1997	Acting Director University of Wisconsin Herbarium, Madison
1990-1994	Associate Professor of Botany University of Wisconsin, Madison
1985-1990	Assistant Professor of Botany University of Wisconsin, Madison
1983-1985	Post-doctoral Researcher Genetics Department University of California, Davis
1979-1983	Fellow, Washington University, St. Louis
1980-1981	Curator, Summit Herbarium (Missouri Botanical Garden) Panama City, Panama
1976-1979	Assistant Curator, Clarence R. Hanes Herbarium Western Michigan University, Kalamazoo

Education

1983	Ph.D.	Washington University, St. Louis, MO	Systematic and Evolutionary Biology
1979	M.A.	Western Michigan University, Kalamazoo (cum laude)	Botany, Ecology
1976	B.S.	Calvin College	Biology

Grand, Rapids, MI

Dissertations

Ph.D.	*Evolution and Biosystematics of the* Lisianthius skinneri *(Gentianaceae) species Complex in Central America*. Peter H. Raven and Barbara A. Schaal, co-advisors.
M.A.	*A Vegetational Analysis of a Wetland Complex in Southwestern Michigan*. Richard W. Pippen, advisor.

Honors and Awards

2022-present	Chair, Botany Department, University of Wisconsin, Madison
2016-2109	Hofmeister Professor of Botany, University of Wisconsin, Madison
2014-2015	Past-president, American Society of Plant Taxonomists
2013-2014	President, American Society of Plant Taxonomists
2008-2014	Associate Editor, *Journal of Botany*
2003-2005	Vilas Award, University of Wisconsin, Madison
2001	Distinguished Alumni Award, Western Michigan University
1999-2006	Associate Editor, *Plant Systematics and Evolution*
1998-2001	Chair, Botany Department, University of Wisconsin, Madison
1993-1997	Acting Director, University of Wisconsin Herbarium, Madison
1987	Young Scientist Award (XIV International Botanical Congress, Berlin)
1987	Botanical Society of America Travel Award (to present paper at the XIV International Botanical Congress)
1986	George R. Cooley Award (the outstanding ASPT contributed paper presented at the 1986 AIBS annual meeting)
1985-	Assistant Professorship, Botany Department, University of Wisconsin, Madison
1983-1985	NSF Postdoctoral Fellowship
1979-1983	Washington University Fellowship
1976-1979	Western Michigan University Assistantship
1972-1973	Freshman Honors Scholarship, Calvin College

Grants Awarded

2017-2022	NSF DEB Grant – $676,373 for Phylogenetics, biogeography, and morphological evolution of an adaptive radiation - *Salvia* (Lamiaceae)
2016-2019	Hofmeister Endowment – $40,000 annually for 3 years
2015-2017	NSF Dissertation Improvement Grant – Jeff Rose $17,060 for Evolutionary trends within the Polemoniaceae (Ericales)
2010-2016	NSF Biodiversity Grant – $2,934,000 for Dimensions: Roles of functional, phylogenetic, and genetic diversity in structuring and sustaining plant communities through environmental change; co-PI with D. Waller, T, Givnish, K. Cameron
2013-2015	NSF Dissertation Improvement Grant – Daniel Spalink $19,565 for Phylogeny, biogeography, and population genetics of *Scirpus* (Cyperaceae))

2010-2015	US Fish & Wildlife Service – $43,920 for Gaining Crucial Knowledge Regarding the Federally Endangered *Eriogonum pelinophilum*: an examination of conservation genetics and species relationships
2010-2011	University of Wisconsin WARF Foundation - $42,418 for Molecular Phylogenetics in *Clarkia* (Onagraceae)
2009-2011	NSF Dissertation Improvement Grant – Ben Grady ($10,429 for Edaphic endemism in *Eriogonum* (Polygonaceae): a molecular phylogenetic approach)
2009-2011	NSF Dissertation Improvement Grant – Bryan Drew ($14,214 for Systematics, evolution, and biogeography of *Lepechinia* (Lamiaceae))
2008-2009	Hilldale/Holstrom Undergraduate/Faculty Research Fellowship (for Phylogenetics placement and horizontal gene transfer in the holoparasite *Mitrastema*); with Tom Kleist)
2004-2009	NSF: Tree of Life - $3 million ($180,000 [UW portion] for Resolving the Angiosperm Tree and 12 of its Thorniest Branches)
2005-2007	NSF Dissertation Improvement Grant – Jay Walker ($10,000 for Systematics of *Salvia* sect. *Audibertia*, subg. *Calosphace*, and related Meriandreae)
2006-2007	Hilldale/Holstrom Undergraduate/Faculty Research Fellowship (for Testing Different Phylogenetic Histories in *Clarkia*); with Cody Williams)
2000-2006	NSF Grant ($250,000 for Molecular Phylogenetics and Biogeography of Endemic Elements of the Guayana Highland Flora; coPI with P. Berry, T. J. Givnish)
2003-2005	Vilas Award ($25,000 for Molecular Phylogenetics, Speciation, and Genomics in *Clarkia* (Onagraceae))
2003-2004	Hilldale/Holstrom Undergraduate/Faculty Research Fellowship (for Genetic Analysis of Invasive Purple Loosestrife); with Nic Jelinski)
2000-2002	Smithsonian Mellon ($96,050 for Evolution and Historical Biogeography of Onagraceae Tribes Onagreae, a Major Lineage Derived from the Madro-Tertiary Flora; coPI with W. Wagner et al.; money funneled through Smithsonian)
2000-2002	NSF Dissertation Improvement Grant - Jocelyn Hall ($10,000 for Floral Evolution and Systematics of the Plant Family Capparaceae)
2000-2001	Hilldale/Holstrom Undergraduate/Faculty Research Fellowship (for Using novel genome painting techniques to study polyploidy and chromosome evolution in *Clarkia* (Onagraceae); with Jeffrey Morawetz)
2000	NSF REU ($5,000 for Construction of a *Brodiaea* BAC library for FISH/GISH studies of chromosome evolution)
1999-2001	NSF Dissertation Improvement Grant - Chris Pires ($10,000 for Integrating Biosystematics and Phylogenetics: Floral Diversity, Polyploidy, and Serpentine Endemism in Themidaceae)
1995-1998	NSF Grant ($160,000 for Molecular Evolution, Adaptive Radiation and Geographic Speciation in the Hawaiian Lobelioids; coPI with T.J. Givnish)
1994-1998	NSF Grant ($185,000 for Molecular Systematics and Adaptive Radiation in Myrtales; PI)
1995-1997	NSF Dissertation Improvement Grant - Molly Nepokroeff ($10,000 for Evolution of Breeding Systems in Hawaiian *Psychotria*: A Phylogenetic Approach)
1995-1997	NSF Dissertation Improvement Grant - Michelle Zjhra ($10,000 for Phylogeny and Adaptive Radiation of Bignoniaceae in Madagascar)

1994-1996	NSF Dissertation Improvement Grant - Harvey Ballard ($10,000 for Phylogenetic Relationships, Infrageneric Classification and Character Evolution in *Viola* (Violaceae); coPI with R.R. Kowal)
1993-1995	NSF Grant ($120,000 for Molecular Systematics of the Rapateaceae and Allied Monocot Families; coPI with T.J. Givnish)
1992-1993	NSF REU Supplement ($5,000 for DNA Sequencing to Assess Generic Relationships within Rapateaceae of the Guayana Shield; coPI with T.J. Givnish)
1992	NSF REU Supplement ($5,000 for DNA Sequencing to Evaluate Putative Rapid Speciation in *Clarkia* sect. *Rhodanthos* in California)
1991-1994	NSF Grant ($274,102 for Molecular Systematics in Epilobieae, Onagraceae and Myrtales)
1991-1993	NSF Dissertation Improvement Grant - William Hahn ($16,500 for Molecular and Morphological Analysis of *Caryota* (Palmae))
1991	NSF Supplementary Grant - William Hahn ($2,550 for Field Trip to VietNam)
1990-1992	NSF Grant ($125,000 for Molecular Evolution in *Brocchinia*, Pitcairnioideae, and Allied Monocots; coPI with T.J. Givnish as PI)
1990	NSF REU Supplement ($4,000 for Molecular Evolution in *Brocchinia*; coPI with T. Givnish)
1990	Nave Fund ($4,000 for Molecular Evolution in the Family Bromeliaceae and Field Collection in the Guayana Shield; with T.J. Givnish)
1989-1991	NSF Dissertation Improvement Grant - Karen K. Nakasone ($7,715 for Molecular Phylogenetics of *Phlebia* (Basidiomycotina) and Related Genera)
1989-1991	NSF Grant ($37,365 for Cladistic Analyses of *Viburnum* based on Molecular Characters; subcontract PI with M. Donoghue as coPI)
1989	NSF REU Supplement ($4,000 for Sequence Analysis of the rbcL Gene in the Onagraceae)
1989-1991	NSF Biological Instrumentation Program (55% of $170,000 for Plant Growth Facility at the Department of Botany, University of Wisconsin-Madison; one of three co-PIs with T. Sharkey PI)
1989-1990	Wisconsin Alumni Research Foundation Grant ($18,358 for Comparative Sequence Analysis of the Chloroplast *rbcL* Gene)
1989-1990	National Geographic Society ($21,000 for Molecular Evolution, Adaptive Radiation, and Speciation in Hawaiian Lobelioids; coPI with T. J. Givnish)
1988-1990	NSF Dissertation Improvement Grant - James F. Smith ($15,225 for Systematics and Evolution of *Columnea* section *Pentadenia* (Gesneriaceae))
1988-1990	NSF Grant ($74,718 for Molecular Evolution and Adaptive Radiation in the Bromeliad Genus *Brocchinia*; coPI with T. J. Givnish)
1986-1989	NSF Grant ($125,000 for Molecular Phylogenetics in Onagraceae)
1987-1988	Wisconsin Alumni Research Foundation Grant ($6,480 for Molecular Phylogenetics in Onagraceae)
1987	Nave Fund ($5,500 for Molecular Evolution in the Family Rapateaceae of the Guayana Shield; with T.J. Givnish)
1984-1985	NSF Post-doctoral Grant (with L.D. Gottlieb as PI; $90,000)
1978	Sigma Xi National Grant-in-Aid ($500)
1978	Western Michigan Biology Graduate Research Grant ($1,000)
1977	Western Michigan Graduate College Research Grant ($1,000)

Professional Affiliations

Botanical Society of America
American Society of Plant Taxonomists
Society for the Study of Evolution
Association of Systematic Biologists

Experience

2022-	Chair, Botany Department, University of Wisconsin, Madison
2014-2015	Past-President, American Society of Plant Taxonomists
2013-2014	President, American Society of Plant Taxonomists
2012-2013	President-elect, American Society of Plant Taxonomists
2006-2007	Acting Director, Wisconsin State Herbarium
2004-2007	co-Chair of Biology Major, University of Wisconsin, Madison
2005	Exploration and plant collection of Lamiaceae in Argentina and Uruguay
1998-2001	Chair, Botany Department, University of Wisconsin, Madison
1998-1999	Instructor: tropical biology course in Hawaii
1998-2006	Associate Editor, *Plant Systematics and Evolution*
1994-	Full Professor, Botany Department, University of Wisconsin, Madison
1995-	Faculty, Au Sable Institute of Environmental Sciences, Michigan
1993-1997	Director, University of Wisconsin Herbarium
1996	Review panel for evaluating Royal Botanic Gardens, Kew
1995	Review panel for evaluating Biological Aspects of Conservation major, UW
1994-1995	Instructor: tropical biology course in Venezuela
1995-1997	Panel member in Systematic Biology Program, NSF
1991	Exploration and plant collection of Bromeliaceae in the tepuis of the Guayana Highlands of Venezuela
1990-1994	Associate Professor, Botany Department, University of Wisconsin, Madison
1990-1991	Nominations Committee, American Society of Plant Taxonomists
1989	Exploration and plant collection of Campanulaceae and Goodeniaceae in the Hawaiian Islands
1988-1992	Editorial Board, Systematic Botany
1988	NSF Postdoctoral Grants Panel
1987	Exploration and plant collection of Bromeliaceae and Rapateaceae in the Guayana Highlands of Venezuela
1985-1990	Assistant Professor, Botany Department, University of Wisconsin, Madison
1983-1985	Post-doctoral Researcher, U California, Davis: Molecular Systematics of *Clarkia*
1981-1983	Teaching Assistant, Washington University
1980-1981	Resident Curator, Summit Herbarium, Panama; collecting for the Flora of Panama project (Missouri Botanical Gardens)
1980	Tropical Ecology course 80-3; Organization for Tropical Studies, Costa Rica
1978-1979	Field Assistant, botanical research in Michigan: Reproductive Barriers to Hybridization in *Aureolaria* (Scrophulariaceae)
1978	Field Assistant, botanical research in Belize: Pollination Biology of *Costus*
1977-1979	Assistant Curator, Clarence R. Hanes Herbarium, Western Michigan University
1976-1979	Teaching Assistantship, Western Michigan University

Courses Taught

Botany 400 — Plant Systematics (Fall, yearly)
Botany 401 — Vascular Flora of Wisconsin (Spring, even years)
Botany 422 — Biogeography (Spring, odd years)
Botany 563 — Molecular Approaches in Systematics and Evolution (4 times)
Botany 575 — Beringian Field Biology (2 times)
Botany 639 & 640 — Tropical Biology Field Course in Venezuela & in Hawaii (once each)
Botany 940 — Systematics & Evolution Graduate Seminar (Spring & Fall, yearly)
Au Sable, MI — Field Botany (5 weeks, every summer)

Invited National and International Symposia (recent)

2022 Biodiversity at the brink: leveraging herbaria for conservation! Botanical Society of America, Anchorage, Alaska
2018 Evolutionary History, Biogeography, and Floral Morphometrics of *Salvia* (Lamiaceae) Colloquium, Botanical Society of America, Rochester, Minnesota
2018 Ericaceae: Systematics, Ecology and Evolution Colloquium, Botanical Society of America, Rochester, Minnesota
2016 Patterns and Processes of American Amphitropical Plant Disjunctions: New Insights, Botanical Society of America, Savannah, Georgia
2015 Morphospaces, Morphometrics, and Phylogenetics, Botanical Society of America, Edmonton, Alberta
2013 A Colloquium Honoring Leslie D. Gottlieb, Botanical Society of America, New Orleans, LA
2011 After the Break-up: Dispersal and Biogeography of Late Gondwanan Austral-Pacific Plant Lineages, XVIII International Botanical Congress, Melbourne, Australia
2011 Onagraceae as a Model System – the Peter Raven Symposium, Botanical Society of America, St. Louis, MO
2009 Angiosperm Tree of Life, Botanical Society of America, Snowbird, UT
2006 Evolution of Ericales, Botanical Society of America, Chico, CA
2005 Keynote Address, XVII International Botanical Congress, Vienna
2005 Recent Advances in Angiosperm Phylogenetics, XVII International Botanical Congress, Vienna
2003 Keynote Address, Argentina/Chile Botanical Society Congress, San Luis
2002 Tropical Intercontinental Disjunctions, Madison, WI
2000 Plant Systematics: a Half-Century of Progress and Future Challenges, Portland, OR
1999 The Order Myrtales (organizer), XVI International Botanical Congress, St. Louis
1998 Second International Conference on the Comparative Biology of Monocots, Sydney, Australia [presented by T.J. Givnish].
1995 "Adaptive Radiation and Molecular Phylogenetic Data" (co-organizer), McGill University, Montreal
1995 International Symposium 'Monocotyledons: Systematics and Evolution', Royal Botanic Gardens, Kew

Graduate Students

Nicole Mitidieri Rivera	Ph.D. student	Phylogenetics, biogeography, and syconium evolution in American *Ficus* (Moraceae)
Yushin Wei	Ph.D. dissertator	Biogeography and floral evolution in *Frasera* (Gentianaceae) and phylogeography of two widespread species
Alexa DiNicola	Ph.D. dissertator	Phylogenetics and evolution of western North American *Potentilla* complex
Cara Streekstra	M.S. 2021	Systematics of the *Phlox divaricata* complex
Chloe Drummond	Ph.D. 2018	Phylogeography of *Rubus parviflorus* (Rosaceae) - a western North American-Great Lakes disjunct
Jeffrey Rose	Ph.D. 2018	Phylogenetics, biogeography, and speciation in *Polemonium* (Polemoniaceae)
John Zaborsky	Ph.D. 2018	Phylogenetics, radiation, and evolution of succulence in Malagasy Pedaliaceae
Daniel Spalink	Ph.D. 2015	Phylogenetics and adaptation in *Scirpus* (Cyperaceae)
Ben Grady	Ph.D. 2012	Evolution and radiation of serpentine endemics in *Eriogonum* (Polygonaceae)
Brent Berger	Ph.D. 2012	Phylogenetics and evolution of Combretaceae
Bryan Drew	Ph.D. 2011	Phylogenetics and biogeography of *Lepechinia* (Lamiaceae)
Josh Sulman	M.S. 2010	Phylogeny and ecology of *Sparganium* – the bur reeds
Rachel S. Jabaily	Ph.D. 2009	Phylogenetics, biogeography, and radiation in *Puya* (Bromeliaceae)
Marie Trest	M.S. 2007	Phylogenetics and species concepts in the lichens *Everniastrum* lichen complex (co-advised with A. Gargas)
Jay Walker	Ph.D. 2006	Phylogenetics and floral evolution in neotropical *Salvia* (Lamiaceae)
Jocelyn Hall	Ph.D. 2003	Systematics and floral evolution of Capparaceae and other core Brassicales
Chris Pires	Ph.D. 2000	Phylogenetics and biosystematics in the *Brodiaea* (Themidaceae) complex.
Sky Feller	M.S. 2000	Conservation and evolution of the threatened *Gnaphalium saxicola* (Asteraceae) in Wisconsin
Celeste Raker	M.S. 1999	Taxonomy of wild potatoes.
Aaron Rodriguez	Ph.D. 1999	Ecology and molecular systematics of *Tigridia* (Iridaceae).
Michelle Zjhra	Ph.D. 1998	Molecular systematics of Bignoniaceae in Madagascar.
Molly Nepokroeff	Ph.D. 1997	Molecular systematics and evolution of breeding systems in *Psychotria* (Rubiaceae) in Hawaii.
Timothy Evans	Ph.D. 1995	Systematics of the Commelinaceae and Commelinales.
Elena Conti	Ph.D. 1994	Molecular systematics of Myrtales and related families.
Molly Nepokroeff	M.S. 1992	Biosystematics of axillary inflorescenced *Psychotria* in Central America.
William Hahn	Ph.D. 1993	Monograph and molecular systematics of *Caryota* (Palmae).

Karen Nakasone	Ph.D. 1991	Molecular systematics of the basidiomycete *Phlebia* using mitochondrial DNA.
James F. Smith	Ph.D. 1991	Biosystematics and evolution in *Columnea* (Gesneriaceae).
Randy L. Smith	M.S. 1988	Chloroplast DNA-based phylogeny of *Populus* (Salicaceae).

Post-Doctorals* and Faculty Visitors

Dr. Michael Donoghue	Phylogenetics of *Viburnum*
Dr. Brian Husband	Molecular systematics of *Epilobium* and *Chamerion*
Dr. Shirley Graham	*rbcL* and *ndhF* sequencing of Lythraceae
Dr. James Rodman	Molecular phylogenetics of glucosinolate plants
*Dr. David Baum	Molecular phylogenetics in Epilobieae (Onagraceae)
*Dr. Charles Delwiche	Transition from Coleochaetales to land plants using chloroplast DNA sequence information
*Dr. William Alverson	Molecular phylogenetics of bombacoid Malvaceae
Dr. David Spooner	Molecular systematics and biogeography of *Solanum* sect. *Petota*
*Dr. Joachim Kadereit	Molecular phylogenetics of *Papaver*
Dr. Jorge Crisci	Phylogenetics of Onagraceae and Ericales
Dr. Liliana Katinas	Phylogenetics of Mutisieae and *Camissonia*
*Dr. Juerg Schoenenberger	Phylogenetics of Ericales
*Dr. Ricardo Kriebel	Molecular phylogenetics and evolution of Wisconsin flora; floral evolution in *Salvia*
Dr. Jesús G. González-Gallegos	Molecular evolution in *Salvia* subg. *Calosphace*
Dr. Ferhat Celep	Molecular and morphological evolution in *Salvia* and *Lamium*
*Dr. Jeffrey Rose	Molecular evolution in *Salvia* and Lamiaceae

Publications

Rose, J. P., and K. J. Sytsma. 2023. A new combination for a narrowly endemic *Polemonium* (Polemoniaceae). *Novon: A Journal for Botanical Nomenclature* 31: 33-35.

Kriebel, R., B. T. Drew, R. Claßen-Bockhoff, and K. J. Sytsma. 2023. Evolution of anther connective teeth in sages (*Salvia*, Lamiaceae) under pressure by bee and hummingbird pollinators. *Flora* 298: 152199. doi.org/10.1016/j.flora.2022.152199 [Special issue - *Ecology and evolution of plant-pollinator interactions: the importance of natural histor*y]

Rose, J. P., and K. J. Sytsma. 2023. Phylogeography and genetic variation in Western Jacob's Ladder (*Polemonium occidentale*) provide insights into the origin and conservation of rare species in the Great Lakes Region. *Molecular Ecology* 32: 79-94. https://doi.org/10.1111/mec.16730

Kriebel, R., J. P. Rose, B. T. Drew, Jesús G. González-Gallegos, F. Celep, L. Heeg, M. M. Mahdjoub, and K. J. Sytsma. 2023. Model selection, hummingbird natural history, and

biological hypotheses: a response to Sazatornil et al. *Evolution* 77: 646-653. (doi.org/10.1093/evolut/qpac023).

Beck, J. J., D. Li, S. Johnson, D. Rogers, K. M. Cameron, K. J. Sytsma, T. J. Givnish, and D. M Waller. 2022. Functional traits mediate individualistic species-environment distributions at broad spatial scales while fine-scale species associations remain unpredictable. *American Journal of Botany* 109: 1991–2005.

Drummond, C. P., T. C. Cochrane, and K. J. Sytsma. 2022. Western North American plants disjunct in the Great Lakes Region – 40 years after Marquis and Voss. *International Journal of Plant Sciences* 183: 691-705.

Rose, J. P., C.-L. Xiang, K. J. Sytsma, and B. Drew. 2022. A timeframe for mint evolution: towards a better understanding of trait evolution and historical biogeography in the Lamiaceae. *Botanical Journal of the Linnean Society* 200: 15-38. doi.org/10.1093/botlinnean/boab104

Kriebel, R., B. T. Drew, J. G. González-Gallegos, F. Celep, G. M. Antar, J. F. B. Pastore, R. Uría, and K. J. Sytsma. 2022. Stigma shape shifting in sages (*Salvia*: Lamiaceae) – hummingbirds guided the evolution of New World floral features. *Botanical Journal of the Linnean Society* 199: 428-448. doi.org/10.1093/botlinnean/boab096 [special issue on *Evolution in the Neotropics*]

Rose, J. P., R. Kriebel, L. Kahan, A. DiNicola, J. G. González-Gallegos, F. Celep, E. M. Lemmon, A. R. Lemmon, K. J. Sytsma, and B. T. Drew. 2021. Sage insights into the phylogeny of *Salvia*: Dealing with sources of discordance within and across genomes. *Frontiers in Plant Sciences* 24: 2606. doi: 10.3389/fpls.2021.767478 [special issue on *Phylogenetic Discordance in Plant Systematics*]

Tarullo, C., J. P. Rose, K. J. Sytsma, and B. Drew. 2021. Using a supermatrix approach to explore phylogenetic relationships, divergence times, and historical biogeography of Saxifragales. *Turkish Journal of Botany* 45: 440-456. https://doi.org/10.3906/bot-2106-41

Rose, J. P, and K. J. Sytsma. 2021. Complex interactions underlie the correlated evolution of floral traits and their association with pollinators in a clade with diverse pollination systems. *Evolution* 75: 1431-1449. doi:10.1111/evo.14220

Rose, J. P, C. A. P. Toledo, E. M. Lemmon, A. R. Lemmon, and K. J. Sytsma. 2021. Out of sight, out of mind: widespread nuclear and plastid-nuclear discordance in the flowering plant genus *Polemonium* (Polemoniaceae) suggests widespread historical gene flow despite limited nuclear signal. *Systematic Biology* 70: 162-180.

Givnish, T. J., R. Kriebel, J. Zaborsky, J. P. Rose, D. Spalink, D. M. Waller, K. M. Cameron, and K. J. Sytsma. 2020. Adaptive associations among life history, reproductive traits, environment, and origin in the Wisconsin angiosperm flora. *American Journal of Botany* 107: 1677-1692.

Celep, F., Z. Atalay, F. Dikmen, M. Doğan , K. J. Sytsma, and R. Claßen-Bockhoff. 2020. Pollination ecology, specialization, and genetic isolation in sympatric bee pollinated *Salvia* (Lamiaceae). *International Journal of Plant Sciences* 181: 800-811.

Kriebel, R., B. T. Drew, Jesús G. González-Gallegos, F. Celep, L. Heeg, M. M. Mahdjoub, and K. J. Sytsma. 2020. Pollinator shifts, contingent evolution, and evolutionary constraint drive floral disparity in *Salvia* (Lamiaceae): evidence from morphometrics and phylogenetic comparative methods. *Evolution* 74: 1335-1355. doi:10.1111/evo.14030

Hu, G.-X., E.-D. Liu, Z.-K. Wu, K. J. Sytsma, B.T. Drew, and C.-L. Xiang. 2020. Integrating DNA sequences with morphological analysis clarifies phylogenetic position of *Salvia grandifolia* (Lamiaceae): an enigmatic species endemic to southwestern China. *International Journal of Plant Sciences* 181: 787-799.

Spalink, D., R. MacKay, and K. J. Sytsma. 2019. Phylogeography, population genetics, and distribution modeling reveal vulnerability of the Atlantic Coastal Plain Flora: a case study of *Scirpus longii* (Cyperaceae). *Molecular Ecology* 28: 2046-2061.

Kriebel, R., B. T. Drew, C. P. Drummond, J. G. González-Gallegos, F. Celep, M. M. Mahdjoub, J. P. Rose, C.-L. Xiang, G.-X. Hu, J. B. Walker, E. M. Lemmon, A. R. Lemmon, and K. J. Sytsma. 2019. Tracking the temporal shifts in area, biomes, and pollinators in the radiation of *Salvia* (sages) across continents: leveraging Anchored Hybrid Enrichment and targeted sequence data. *American Journal of Botany* 106: 573-597.

Spalink, D., R. Kriebel, P. Li, M. C. Pace, B. T. Drew, J. G. Zaborsky, J. Rose, C. P. Drummond, M. A. Feist, W. S. Alverson, D. M. Waller, K. M. Cameron, T. J. Givnish, and K. J. Sytsma. 2018. Spatial phylogenetics reveals evolutionary constraints on the assembly of a large regional flora. *American Journal of Botany* 105: 1938-1950. DOI: 10.1002/ajb2.1191

Spalink, D., J. Pender, M. Escudero, A. L. Hipp, E. H. Roalson, J. Starr, M. J. Waterway, L. Bohs, and K. J. Sytsma. 2018. The spatial structure of phylogenetic and functional diversity in the United States and Canada: an example using sedges (Cyperaceae). *Journal of Systematics and Evolution* 56: 449-465 doi: 10.1111/jse.12423.

Rose, J. P., T. Kleist, S. Löfstrand, B. T. Drew, J. Schönenberger, and K. J. Sytsma. 2018. Phylogeny, historical biogeography, and diversification of angiosperm order Ericales suggest ancient Neotropical and East Asian connections. *Molecular Phylogenetics and Evolution* 122: 59-79. DOI: 10.1016/j.ympev.2018.01.014

Edger, P. P., J. C. Hall, A. Harkess, M. Tang, J. Coombs, S. Mohammadin, M. E. Schranz, Z. Xiong, J. Leebens-Mack, B. C., Meyers, K. J. Sytsma, M. Koch, I. A. Al-Shehbaz, and J. C. Pires. 2018. Brassicales phylogeny inferred from 72 plastid genes: a reanalysis of the phylogenetic localization of two paleopolyploid events and origin of novel chemical defenses. *American Journal of Botany* 105: 1-7. [INVITED SPECIAL ARTICLE for the **Special Issue: Using and Navigating the Plant Tree of Life**] doi:10.1002/ajb2.1040

Kriebel, R., M. Khabbazian, and K. J. Sytsma. 2017. Shifts in pollen shape and size in the order Myrtales using Ornstein-Uhlenbeck models. *PLoS ONE* 12(12): e0187228. https://doi.org/10.1371/journal.pone.0187228

Drew, B. T., S. Liu, J. M. Bonifacino, and K. J. Sytsma. 2017. Amphitropical disjunctions in New World Menthinae (Lamiaceae): three Pliocene dispersals to South America following late

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