

CURRICULUM VITAE

JASON P. SEXTON

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Life and Environmental Sciences Unit
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CURRENT POSITION

2026-present Professor
Department of Life and Environmental Sciences
University of California, Merced

EDUCATION AND TRAINING

12/2010 Ph.D., Ecology, University of California, Davis
Ecology Graduate Group
Dissertation advisors: Prof. Kevin Rice; Prof. Sharon Strauss

Dissertation title: Adaptation at the Range Edge and the Causes of
Range Limits in *Mimulus laciniatus*: The Roles of Gene Flow and
Selection

05/2000 M.S., Organismal Biology & Ecology, University of Montana,
Missoula
Thesis advisor: Prof. Anna Sala

Thesis title: Invasive Potential of *Tamarix ramosissima* in Continental
Climates of North America.

08/1997 B.S., Environmental Biology, Humboldt State University, Arcata,
California

EMPLOYMENT AND RESEARCH EXPERIENCE

2019-2026 **Associate Professor**
Department of Life and Environmental Sciences

- University of California, Merced
- 2014-2019 **Assistant Professor**
Department of Life and Environmental Sciences
University of California, Merced
- 2011-2013 **Postdoctoral Fellow**; *US National Science Foundation*, hosted by Prof. Ary Hoffmann at University of Melbourne. Investigated plants restricted to the Australian Alps and focused on species range size and the role of gene flow on the processes of adaptation and tolerance to rapidly changing environments. The performance of alpine plants was tested under a variety of conditions representing different types of environmental stress. This comparative study included a variety of alpine Australian plant groups, including native grasses, sedges, and forbs.
- 2001-2004 **Assistant Director**; *Sweeney Granite Mountains Desert Research Center, University of California, Riverside*; Coordinated and managed scientific and educational programs for natural reserve, including databases, herbarium, museum, library, and research. Managed facilities, improvements, and reserve use. Hosted symposia and coordinated meetings for regional scientific and resource management efforts among university, non-profit, governmental, and tribal groups.
- 1999 **Fire-effects Crew Member**; *Saguaro National Park, Tucson, Arizona*; Supervisor: Kathy Schon, M.S.; Long-term monitoring and plot establishment. Plant identification and herbarium specimen preparation.
- 1997 **Pollination Biology Intern**; *Biology Department, University of Miami, Florida*; Principal Investigator: Prof. Theodore Fleming; Collected data on bat, bird, and insect pollinators of columnar cacti flowers and conducted mist net surveys in Organ Pipe National Monument.
- 1996 **Plant Ecology Field Crew Member**; *Department of Biology, University of New Mexico, Albuquerque*; Principal Investigators: Dr. Bruce Milne and Dr. Robert Parmenter; Identified plants and collected long-term transect data at Sevilleta Long Term Ecological Research site (LTER).
- 1996 **Mammalian Ecology Field Crew Member**; *Museum of Southwestern Biology, University of New Mexico, Albuquerque*; Principal Investigator: Dr. William Gannon; Conducted bat mist netting, acoustic call sampling, and site habitat description for diversity survey throughout New Mexico.
- 1996 **Wildlife Preserve Host**; *Bureau of Land Management, Palm Springs-South Coast Resource Area, California*; Resided as natural history docent at Big Morongo Canyon Preserve. Conducted bird surveys and management of Brown-headed Cowbirds and Starlings.
- 1995 **Wildlife Technician**; *National Biological Service, University of New Mexico, Albuquerque*; Principal Investigator: Dr. Michael Bogan; Conducted bat mist netting, radio telemetry, and surveys of plant communities. Conducted rodent and salamander surveys. Prepared museum specimens and catalogued individuals.
- 1994 **Plant Ecology Technician**; *Biology Department, University of Nevada,*

- 1994 *Las Vegas*; Principal Investigator: Dr. Richard Hunter; Identified plants and collected life-history data at Nevada Test Site long-term succession plots. Trapped rodents and conducted blood sampling for *Hantavirus*. **Plant Ecophysiology Research Assistant**; *Biology Department, University of Nevada, Las Vegas*; Principal Investigators: Prof. Stanley Smith, Prof. Dale Devitt, and Dr. Anna Sala; Collected evapotranspiration rate data from riparian plants on the Virgin River, NV.
- 1990 **California Conservation Corps Corpsmember**; *Joshua Tree National Monument*; Assisted with national monument facility and trail maintenance and construction.

RESEARCH AWARDS AND GRANTS

- 2024-2029 National Science Foundation (ERC, \$2,171,693 to UC Merced) "Transformation of American Rubber through Domestic Innovation for Supply: TARDISS." PIs: K McCloskey, **J. Sexton**, C. Naughton.
- 2024-2025 Academic Senate Faculty Research Grant, UC Merced (\$10,000) "Coupling plant phenology and environmental DNA to detect global change responses." PI: **J. Sexton**.
- 2023-2027 National Science Foundation (IOS-2307792, \$267,129 to UC Merced) "Collaborative research: ORCC: Integrated mechanistic predictions of ecological and evolutionary responses to increasing aridity across the range of an iconic species." PIs: E. Cleland, UC San Diego; C. Merow, U. Connecticut; **J. Sexton**.
- 2023-2026 National Science Foundation (IOS- 2222467, \$206,971 to UC Merced) "Collaborative Research: ORCC: Harnessing adaptive variation in drought resistance strategies to manage populations under climate change." PIs: B. Blackman, UC Berkeley; N. Kooyers, University of Louisiana at Lafayette; D. Runcie, UC Davis; S. Brady, UC Davis; **J. Sexton**
- 2022-2026 National Science Foundation (DEB-2131818, \$216,783 to UC Merced) "Collaborative research: BEE: Integrating evolutionary genetics and population ecology to detect contemporary adaptation to climate change across a species range. PIs: S. Sheth, North Carolina State University; Chris Muir, University of Hawaii, Manoa; Jeffrey Diez, University of Oregon; Lluvia Flores-Renteria, CSU San Diego; **J. Sexton**
- 2022-2023 Yosemite Conservancy (\$57,939) "Big wall monkeyflowers" PI: **J. Sexton**, co-PIs Erin Dickman, NPS; Diana Tataru, Katie Ferris, Tulane University.
- 2020-2023 California Conservation Genomics Project (\$62,210) "Conservation and climate change genomics of California monkeyflowers with wide and restricted geographic distributions" PI: B. Blackman, UC

	Berkeley, co-PI J. Sexton .
2020-2023	California Conservation Genomics Project (\$101,772) "Conservation genomics of endangered California vernal pool grasses" PI: J. Sexton , co-PI R. Meyer, UC Santa Cruz.
2021-2022	Supplemental funding award, US Fish and Wildlife Service and Bureau of Reclamation (CESU - R17AC00044, \$124,883 to UC Merced).
2021-2023	Supplemental funding award, National Science Foundation (IOS-1558035, \$158,720 to UC Merced).
2020-2021	Academic Senate Faculty Research Grant, UC Merced (\$10,000) "Can microbes help plants respond to climate change?" PI: C. Frank, co-PI J. Sexton .
2016-2021	National Science Foundation (IOS-1558035, \$131,674 to UC Merced) "Collaborative research: mechanisms of malleability and resilience of flowering responses to current and future variability in seasonal cues in a geographically-widespread species." PI: B. Blackman, UC Berkeley; co-PIs J. Sexton ; N. Kooyers, UC Berkeley; D. Runcie, UC Davis.
2017-2021	US Fish and Wildlife Service and Bureau of Reclamation's Central Valley Project Conservation Program (CVPCP) and Central Valley Project Improvement Act Habitat Restoration Program (HRP) (CESU - R17AC00044, \$389,831) "Genetic investigation of listed vernal pool plants and their communities in Merced County." PI: J. Sexton , co-PI M. Stephens.
2017-2020	UC Catalyst Research award, UC Conservation Genomics Consortium (\$1.76 M), "Preservation of Biodiversity through Conservation Genomics," PI: B. Wayne, UCLA, many co-PIs and co-Investigators, co-Investigator: J. Sexton .
2016-2017	DOE Joint Genome Institute (Community Science Program, ca. \$34,000 in sequencing services) "The effect of drought stress on the bacterial, fungal and viral microbiome of Mimulus" PI: M. Siström, co-PIs C. Frank, J. Sexton .
2016-2017	Academic Senate Faculty Research Grant, UC Merced (\$15,000) "Do fungal endophytes contribute to water stress tolerance in vernal pool plants?" PI: C. Frank, co-PIs J. Sexton , M. Beman.
2016-2017	Yosemite Conservancy (\$82,200) "Save our sequoias: Merced and Tuolumne Groves respond to fire." PI: J. Sexton , co-PIs Molly Stephens, Alison Colwell, NPS.
2015-2016	Hellman Faculty Fund (\$20,000) "Effects of gene flow at warm and cold climate limits of plant species ranges." PI: J. Sexton
2014-2015	Academic Senate Faculty Research Grant (\$14,272) "The Role of Endophyte Diversity in Plant Distribution Limits." co-PIs C. Frank, C. Nobile, J. Sexton .

2009-2010	United States Department of Agriculture, Forest Service, NFN3 Native Plant Materials Program. "Assessing climate change potential in Sierra Nevada native plants." (\$22,000)
2009	UC Davis Graduate Student Association Travel Award
2009	UC Davis Plant Sciences Graduate Student Travel Award
2007-2009	Center for Population Biology Research Award, UC Davis (\$5,350)
2008	National Science Foundation Doctoral Dissertation Improvement Grant, NSF-DEB # 0808607. "The role of selection, gene flow, and range limits in determining adaptive phenotypes." (Primary author; CO-PI Dr. Kevin Rice). (\$11,975)
2008	UC Davis & Humanities Graduate Research Fellowship (\$1,500)
2008	California Native Plant Society Travel Grant
2006-2008	Jastro Shields Research Fellowships, UC Davis (\$4,740)
2007	Biological Impacts of Climate Change in California program travel award
2007	Summer Institute in Statistical Genetics, Tuition Scholarship, University of Washington (\$1,000)
2007	NSF Biological Invasions IGERT Research Grant, UC Davis (\$7,400)
2006-2007	California Native Plant Society Research Grants (\$1,300)
2006	UCLA Institute of the Environment Travel Grant

HONORS AND FELLOWSHIPS

2019	Nomination for Council Member for the Society for the Study of Evolution (not elected)
2018	UC Merced Leadership Award, Student Engagement Champion
2015	Faculty Success Training Program, National Center for Faculty Development & Diversity
2011-2014	National Science Foundation Postdoctoral Research Fellowship in Biology (PRFB), Broadening Participation in Biology Program. "Gene flow and niche breadth in novel environments: Adaptation under predicted climate change in Australian alpine plants." NSF Award Number 1003009. (Hosted by Dr. Ary Hoffmann at University of Melbourne) (\$189,000)
2011-2014	National Science Foundation International Research Fellowship Program (IRFP). Jointly awarded with NSF PRFB Fellowship (\$50,000)
2010	University of California, Berkeley Chancellor's Postdoctoral Fellowship (declined)
2010	University of California President's Postdoctoral Fellowship Program Finalist
2010	National Science Foundation Responding to Rapid Environmental

	Change (REACH) IGERT Bridge RAship. (\$30,000). “Biodiversity hotspots under global change: human and ecosystem adaptive potentials for reducing impacts.”
2009	Member of Phi Sigma Honor Society, UC Davis Chapter
2008-2009	National Science Foundation Alliance for Graduate Education and the Professoriate Advantage Fellow
2008; 2009	University of California, Davis Block Grant Fellowship (three quarters of support) (\$16,700)
2006-2010	Center for Population Biology Affiliate, UC Davis
2006	National Science Foundation Graduate Research Fellowship Program, Honorable Mention
2004-2006	National Science Foundation Integrative Graduate Education and Research Traineeship (IGERT), Biological Invasions, UC Davis. (\$60,000)
2004-2008	McDonald Graduate Student Fellowship, Plant Sciences Department, UC Davis. (\$90,000)
2003	Professional Development Award, University of California, Riverside (\$1,300)

PUBLICATIONS

Accepted, in press, or published

Breithaupt*, L., Kooyers, N., **Sexton, J.**, and B. Blackman. Meeting Report on the Assisted Gene Flow and Climate Change Responses Workshop. Golden Gate National Recreation Area, CA, USA. 5-7 March 2025. *In press at Evolutionary Applications*.

*Graduate student author

Pennington*, L.K. and **J.P. Sexton**. Resurrected in the field: benefits of adaptation to historic drought seen mainly at the leading edge of a plant species’ range. *Accepted pending minor revision at Journal of Evolutionary Biology*.

*Graduate student author

Shahriar, Abrar, Zavarin, Mavrik, Nuccio, Erin, Grant, Katherine E., McFarlane, Karis, Pett-Ridge, Jennifer, Toews, Daniel, **Sexton, J.P.**, Ryals, Rebecca, Baccei, Joy, Berndt, Aiden, Boiteau, Rene, Jawad, Ishtiaq Ahmed, Yang, Yu, Bansal, Sheel, O’Loughlin, Edward, Kemner, Kenneth, Matamala, Roser, Morrison, Keith. Optimizing Cryo-focused Pyrolysis GC/MS for Tracing Soil Organic Matter Across Diverse Ecosystems. (2026). *Environmental Science & Technology*. <https://doi.org/10.1021/acs.est.5c16415>

Schwab, S., Lam, K., Thornton, F., Brown, R., Kesler, J., Merow, C., **Sexton, J.**, and E. Cleland. (2026). Can species adapt to drought using multiple strategies? Lessons

from the California poppy. *New Phytologist*. <https://doi.org/10.1111/nph.71105>

Mead, Alayna, Joie R. Beasley-Bennett, Andrew Bleich, Dylan Fischer, Shelby Flint, Julie Golightly, Sara K. Klopff, Mason W. Kulbaba, Jesse R. Lasky, Jared M. LeBoldus, David B. Lowry, Nora Mitchell, Emily Moran, **Jason P. Sexton**, Kelsey L. Søndreli, Baxter Worthing, Michelle Zavala-Paez, Matthew C. Fitzpatrick, Jason Holliday, Stephen Keller, Jill A. Hamilton. (2025). Variation in responses to temperature in admixed *Populus* genotypes predicts geographic shifts in regions where hybrids are favored. *New Phytologist*. <https://doi.org/10.1111/nph.70787>

Shay*, J., Pennington*, L., Toews*, D., Green, E., and **J.P. Sexton**. (2026). The leading edge matters too: fitness and the expression of adaptive differentiation are greatest at the high-elevation edge of a species' range. *Ecology Letters*. DOI:10.1111/ele.70329

*Graduate student author

Toews, D.J.*, Escalona, M., Pennington, L.K.*, Chumchim, N., Fairbairn, C.W., Marimuthu, M.P.A., Miller, C., Nguyen, O.H., Ruiz-Ramos, D., Seligmann, W.E., Stephens, M., Cooper, R.D., Toffelmeier, E., Shaffer, H.B., Meyer, R.S., and **J.P. Sexton**. (2025). A genome assembly of Greene's tuctoria, *Tuctoria greenei*, an amphibious endemic and endangered California vernal pool grass. *Journal of Heredity*. esaf084, <https://doi.org/10.1093/jhered/esaf084>

*Graduate student author

Pennington, L.K.*, Escalona, M., Toews, D.*, Chumchim, N., Cooper, R., Fairbairn, C.W., Marimuthu, M.P.A., Miller, C., Nguyen, O.H., Ruiz-Ramos, D., Seligmann, W.E., Stephens, M., Toffelmeier, E., Shaffer, H.B., Meyer, R.S., and **J.P. Sexton**. (2025). A reference genome for Colusa grass, *Neostapfia colusana*, a threatened and endangered California vernal pool plant. *Journal of Heredity*. esaf075, <https://doi.org/10.1093/jhered/esaf075>

*Graduate student author

Martinez-Gomez, J., Merly Escalona, Jack M. Colicchio, Lauren N. Hamm, Mohan P.A. Marimuthu, Oanh Nguyen, Noravit Chumchim, William Seligmann, Rachel S. Meyer, **Jason P. Sexton**, and Benjamin K. Blackman. (2025). The reference genome of a Sierra Nevada endemic, the cut-leaved monkeyflower, *Mimulus laciniatus* (syn. *Erythranthe lacinata*). *Journal of Heredity*, esaf059, <https://doi.org/10.1093/jhered/esaf059>

Sheth, S., Albano, L., Blanchard**, C., Cook, E., Diaz, R., Gomez-Vega**, X., Kutella, K., Moazed, M., Patel, M., Prange, J., Ramadoss, N., Regan, A., Riley*, A., Rivas Hernandez**, M., Rojas**, J., Strebler, M., Verma**, A., Villano, L., Waits*, J., Wang*, D., Wilborn-Pilotte, O., Diez, J., Flores-Renteria, L., **Sexton, J.**, Muir, C.

(2026). Evolutionary responses to historic drought across the range of scarlet monkeyflower. *American Naturalist*. <https://doi.org/10.1086/738434>

*Graduate student author

**Undergraduate student author

Nguyen*, P., Escalona, M., Ryan E., Enbody, E., Miller, C., Marimuthu, M., Fairbairn, C., Seligmann, W., Chumchim, N., Nguyen, O., Toffelmier, E., Shaffer, B., **Sexton, J.**, and Cleland, E. (2025). A genome assembly of the California Poppy, *Eschscholzia californica*. *Journal of Heredity*, esaf058, <https://doi.org/10.1093/jhered/esaf058>

*Graduate student author

Hendrickson*, B., Heckel**, A., Martin**, R., and **J.P. Sexton**. (2025). Climatic determinants of plant phenology in vernal pool habitats. *American Journal of Botany*. <https://doi.org/10.1002/ajb2.70064>

*Graduate student author

**Undergraduate student author

Sexton J.P. Abundance across geographic species ranges and the rare edge hypothesis. (2024). *Proceedings of the Royal Society B*. 291: 20241874. <https://doi.org/10.1098/rspb.2024.1874>

Sexton, J.P., Clemens, M., Hall, J., Fyfe, V., Bell, N., and A. Hoffmann. Patterns and effects of gene flow on adaptation across spatial scales: implications for management. (2024). *Journal of Evolutionary Biology*. 37(6): 732-745.

Hendrickson*, B. Environmental determinants of phylogenetic diversity in vernal pool habitats. (2024). *Ecology and Evolution*. doi.org/10.1002/ece3.11583

*Graduate student author; paper was single-authored by a former graduate student and represents a dissertation chapter I advised.

Ruiz-Ramos, D.V., Meyer, R.S., Toews*, D., Stephens, M., Kolster, M.K., and **J.P. Sexton**. Environmental DNA (eDNA) detects temporal and habitat effects on community composition and endangered species in ephemeral ecosystems: a case study in vernal pools. (2023). *Environmental DNA*. 5:85-101. DOI: [10.1002/edn3.360](https://doi.org/10.1002/edn3.360)

*Graduate student author

Mandussi Montiel-Molina*, Jorge A., **Sexton, J.P.**, Frank, A.C., and J.M. Beman. Archaeal and bacterial diversity and distribution patterns in Mediterranean-climate vernal pools of Mexico and the western USA. (2023). *Microbial Ecology*. 85:24-36. <https://doi.org/10.1007/s00248-021-01941-2>

*Graduate student author

Shay*, J.E., Pennington*, L.K., Mandussi Montiel-Molina*, J.A., Toews*, D.,

Hendrickson*, B., and **J.P. Sexton**. Rules of plant species ranges: applications for conservation strategies. (2021). *Frontiers in Ecology and Evolution*. 9:700962. doi: 10.3389/fevo.2021.700962

*Graduate student author

Pennington*, L.K., R.A. Slatyer, D. Ruiz-Ramos, S.D. Veloz, and **J.P. Sexton**. (2021). How is adaptive potential distributed within species ranges? *Evolution*. 75(9): 2152–2166.

*Graduate student author

Kottler*, E.J., Dickman, E.E., **Sexton, J.P.**, Emery, N.C., and S.J. Franks. (2021). Draining the swamping hypothesis: Little evidence that gene flow reduces fitness at range edges. *Trends in Ecology and Evolution*. 36(6): 533–544.
DOI.org/10.1016/j.tree.2021.02.004

*Graduate student author

Meyer, R.S., E. Curd, T. Schweizer, Z. Gold, D. Ruiz, S. Shirazi, G. Kandlikar, W. Kwan, M. Lin, A. Freise, J. Moberg-Parker, M.M. Ramos, B. Shapiro, M. Dawson, **J.P. Sexton**, L. Pipes, A.G. Vedrenne, M.P. Mejia, E.L. Aronson, T. Moore, R. Nielsen, H. Lewin, P. Barber, J. Wall, N. Kraft, R.K. Wayne. (2021). The California environmental DNA "CALeDNA" Program. *California Agriculture*. 75(1): 20–32.

Lowry, D.B., J.M. Sobel, A.L. Angert, T.-L. Ashman, R.L. Baker, B.K. Blackman, Y. Brandvain, K.J.R.P. Byers, A.M. Cooley, J.M. Coughlan, M.R. Dudash, C.B. Fenster, K. G. Ferris, L. Fishman, J. Friedman, D.L. Grossenbacher, L.M. Holeski, C.T. Ivey, K.M. Kay, V.A. Koelling, N.J. Kooyers, C.J. Murren, C. D. Muir, T. C. Nelson, M.L. Peterson, J. R. Puzey, M.C. Rotter, J.R. Seemann, **J.P. Sexton**, S.N. Sheth, M.A. Streisfeld, A.L. Sweigart, A.D. Twyford, M. Vallejo-Marín, J.H. Willis, K.M. Wright, C.A. Wu, and Y.-W. Yuan. (2019). The case for the continued use of the genus name *Mimulus* for all monkeyflowers. *Taxon*. 68: 617–623.

Sexton, J.P. (2019). The adaptive continuum and how species succeed and fail. Invited article to *Philosophy, Theory, and Practice in Biology*. 11 (18).
DOI:http://dx.doi.org/10.3998/ptpbio.16039257.0011.018

Dickman*, E.E., Pennington*, L.K., Franks, S.J., and **J.P. Sexton**. (2019). Evidence for adaptive responses to historic drought across a native plant species range. *Evolutionary Applications*. 12(8): 1569–1582.

*Graduate student author

Hirst*, M.J., Griffin, P.C., **Sexton, J.P.**, and A.A. Hoffmann. (2017). Testing the niche breadth-range size hypothesis: habitat specialization versus performance in Australian alpine daisies. *Ecology*. 98: 2708–2724.

*Graduate student author

Sexton, J.P., Montiel*, J., Shay*, J., Stephens, M., and R.A. Slatyer. (2017). Evolution of ecological niche breadth. *Annual Review of Ecology, Evolution, and Systematics*. 48: 183-206

*Graduate student author

Hirst*, M.J., **Sexton, J.P.** and A.A. Hoffmann. (2016). Extensive variation, but not local adaptation in an Australian alpine daisy. *Ecology and Evolution*. 6: 5459-5472. DOI:10.1002/ece3.2294

*Graduate student author

Sexton, J. P., & E. E. Dickman*. (2016). What can local and geographic population limits tell us about distributions? *American Journal of Botany*. 103(1): 129–139.

*Graduate student author

Sexton, J.P., Hufford, M., Bateman*, A., Lowry, D., Meimberg, H., Strauss, S.Y., and K.J. Rice. (2016). Climate structures genetic variation across a species' elevation range: a test of range limits hypotheses. *Molecular Ecology*. 25(4): 911-928.

*Graduate student author

Sexton, J.P. and A.B. Griffith. (2015). Evolutionary conservation under climate change. in T.L. Root, K.R. Hall, M. Herzog, C.A. Howell, editors. *Biodiversity in a Changing Climate: Linking Science and Management in Conservation*. University of California Press.

Ferris*, K., **Sexton, J.P.**, and J. Willis. (2014). Speciation on a local geographic scale: the evolution of a rare rock outcrop specialist in *Mimulus*. *Philosophical Transactions of the Royal Society B*. 369: 20140001.

*Graduate student author

Grossenbacher, D.L., Veloz, S.D., and **J.P. Sexton**. (2014). Niche and range size patterns suggest that speciation begins in small, ecologically diverged populations in North American monkeyflowers (*Mimulus* spp.). *Evolution*. 68(5): 1270-1280.

Sexton, J.P., Hangartner, S.B., and A.A. Hoffmann. (2014). Genetic isolation by environment or distance: which pattern of gene flow is most common? *Evolution*. 68(1):1-15.

Citing media: What's more isolating – environmental distance or plain old distance? The Molecular Ecologist
(<https://www.molecular ecologist.com/2014/02/26/ibe-v-ibd/>)

Sexton, J.P., Ferris*, K.G., and S.E. Schoenig. (2013). The fern-Leaved monkeyflower (Phrymaceae), a new species from the northern Sierra Nevada of California. *Madroño*. 60(3): 236–242.

*Graduate student author

Slatyer*, R.A., Hirst*, M., and **J.P. Sexton**. (2013). Niche breadth predicts geographical range size: a general ecological pattern. *Ecology Letters*. 16(8): 1101-1114.

*Graduate student author

DeMarche**, M.L., Rice, K.J., and **J.P. Sexton**. (2013). Niche partitioning between close relatives suggests trade-offs between adaptation to local environments and competition. *Ecology and Evolution*. 3(3): 512-522.

**Undergraduate student author

Sexton, J.P., Strauss, S.Y., and K.J. Rice. (2011) Gene flow increases fitness at the warm edge of a species' range. *Proceedings of the National Academy of Sciences of the United States of America*. 108(28): 11704-11709.

-Selected as a "must read" article by Faculty of 1000.

Sexton, J.P., Schwartz, M.W. and B. Winterhalder. (2010) Incorporating sociocultural adaptive capacity in conservation hotspot assessments. *Diversity and Distributions*. 16(3): 439-450.

Epanchin-Niell, R.S., Hufford, M.B., Aslan, C.E., **Sexton, J.P.**, Port, J.D., and T.M. Waring. (2010) Controlling invasive species in complex social landscapes. *Frontiers in Ecology and the Environment*. 8(4): 210-216.

-All authors were graduate students.

Sexton, J.P., McIntyre, P.J., Angert, A.L., and K.J. Rice. (2009) Evolution and ecology of species range limits. *Annual Review of Ecology, Evolution, and Systematics*. 40: 415-436.

Aslan, C.E., Hufford, M.B., Niell, R.S., Port, J.D., **Sexton, J.P.**, and T.M. Waring. (2009) Practical challenges in private stewardship of rangeland ecosystems: yellow starthistle control in Sierra Nevada foothills. *Rangeland Ecology and Management*. 62: 28-37.

-All authors were graduate students and contributed equally.

Sexton, J.P., Sala, A. and K. Murray. (2006) Occurrence, persistence, and expansion of saltcedar (*Tamarix* spp.) populations in the Great Plains of Montana. *Western North American Naturalist*. 66(1): 1-11.

Bower, M., **Sexton, J.P.** and V. Carne-Cavagnaro. (2006) Agricultural invaders, pests, and disease in California's changing climate. Chapter 7. In Cavagnaro, T.R., Jackson, L.E. and Scow, K.M., eds. *Climate Change: Challenges and Solutions for California Agricultural Landscapes*. CEC-500-2005-189-SF.

Sexton, J.P., McKay, J.K. and A. Sala. (2002) Plasticity and genetic diversity may allow saltcedar to invade cold climates in North America. *Ecological Applications*. 12(6): 1652-1660.

In review, revision, or full manuscript draft

Hendrickson*, B., DeMarche, M., Maraglia, D., Gonzalez, O., Rice, K.J., Strauss, S.Y., and J.P. Sexton. Greater benefits of assisted gene flow in F2 vs F1 progeny at the cold edge of a species' range.

BioRxiv: <https://doi.org/10.64898/2026.03.14.711431>

*Graduate student author

Alayna Mead*, Michelle Zavala-Paez, Joie R. Beasley-Bennett, Andrew C. Bleich, Ian P. Clancy-Mallue, Dylan G. Fischer, Julie M. Golightly, Kristina M. Hufford, Lee A. Kalcsits, Sara K. Klopff, Jesse R. Lasky, Jared M. LeBoldus, David B. Lowry, Nora Mitchell, Emily V. Moran, **Jason P. Sexton**, Kelsey L. Søndreli, Matthew C. Fitzpatrick, Jason Holliday, Stephen Keller, Jill A. Hamilton. Phenotypic plasticity evolved for climate variability constrains performance under climate warming. BioRxiv: <https://doi.org/10.64898/2026.03.15.711905>

Askarova, G., Puchalska, E., Lewandowski, M., Sexton, J., Kuczyński, L., and A. Skoracka. Does biotic niche expansion come at an abiotic cost? Evidence from experimental evolution. BioRxiv: <https://doi.org/10.64898/2026.04.27.720987>

Emily Cook, Lucas J. Albano, Xitlaly Gomez-Vega, Katelin Kutella, Mariam Moazed, Marissa Strebler, Dachuan Wang, Christopher D. Muir, Lluvia Flores-Renteria, **Jason P. Sexton**, Seema Nayan Sheth, and Jeffrey Diez. The evolution of plasticity in drought-related traits in central and edge populations of *Mimulus cardinalis*. *In revision at Journal of Evolutionary Biology*

Mandussi Montiel-Molina*, J.A., **J.P. Sexton**, Beman, J.M. and A.C. Frank. Microbiome dynamics of an amphibious plant. *In revision*.

*Graduate student author

**Undergraduate student author

Andrea B. Salinas, Jackie E. Shay, Iolanda Ramalho da Silva, **Jason P. Sexton**, A. Carolin Frank. Climate filters the filters: mosses mediate root microbiome recruitment in wild monkeyflowers. *In prep*.

Toews, D.J.*, Escalona, M., Pennington, L.K.*, Chumchim, N., Fairbairn, C.W., Marimuthu, M.P.A., Miller, C., Nguyen, O.H., Ruiz-Ramos, D., Seligmann, W.E., Stephens, M., Cooper, R.D., Toffelmeier, E., Shaffer, H.B., Meyer, R.S., and **J.P.**

Sexton. (2025). A genome assembly of San Joaquin Valley Orcutt grass, *Orcuttia inaequalis*, an endangered amphibious grass endemic to California vernal pools. *In prep.*

*Graduate student author

Pennington*, L.K. and **J.P. Sexton.** Evidence for rapid drought adaptation but mixed heat adaptation to recent climate stress across a native plant species' range. *In revision.*

*Graduate student author

Hendrickson*, B. and **J.P. Sexton.** The Role of Adaptive Gene Flow in Rapid Evolution. *In prep.* Invited article for eLS (Encyclopedia of Life Sciences).

*Graduate student author

Lauder*, J.D., M. Stephens, C. Reynoso**, Y. Lommel**, O. Moraes, T. Sanchez, J. Heckel, A. Campos-Melendez**, A. Tse**, G. Dickman, T. Reyes, and **J.P. Sexton.** Interactions between fire timing and the giant sequoia seedling generation niche. 26 March 2024, PREPRINT (Version 1) available at Research Square [https://doi.org/10.21203/rs.3.rs-4062409/v1]

*Graduate student author

**Undergraduate student author

CONFERENCE PROCEEDINGS, NEWSLETTERS, AND OTHER PUBLICATIONS

Pennington*, L.K., and **J.P. Sexton.** 2024. Species Range Limits. Pages 219–236 in S. M. Scheiner, editor. Encyclopedia of Biodiversity (Third Edition). Academic Press, Oxford.

*Graduate student author

Sexton, J.P. (2025) General professional advice, philosophy, and policy. Self-published and available at https://sextonlab.ucmerced.edu/?page_id=17

Montiel, J.A., M.J. Beman, A.C. Frank, and **J.P. Sexton.** 2019. Visualizing diversity and distribution patterns for microbial communities in vernal pools. Pages 153-168 in R.A. Schlising, E.E. Gottschalk Fisher, G.M. Williams, and B. Castro (Editors), Vernal Pool Landscapes: Past, Present, and Future. Studies from the Herbarium Number 20, California State University, Chico, CA.

Sexton, J.P. (2014) Species range limits. Encyclopedia of Earth. Sexton, J. (2014). Species range limits. Retrieved from http://editors.eol.org/eoearth/wiki/Species_range_limits

Niell, R.S., Aslan C.E., Hufford, M.B., Port, J.D., **Sexton, J.P.**, and T.M. Waring. 2007.

Yellow starthistle symposium: The need for regional approaches to invasion management in Sierra Nevada foothill rangelands. *Noxious Times*. 8(3):4-5

Aslan, C.E., Hufford, M.B., Niell, R.S., Port, J.D., **Sexton, J.P.**, and T.M. Waring. 2007. The need for increased cooperation and coordination in yellow starthistle invasion management in Sierra Nevada foothill rangelands. *Proceedings of the California Invasive Plant Council Symposium*. 10:9-11.

Sexton, J.P. 2003. Knowing your weeds: Sahara mustard. 10 exotic plants in the Mojave Desert – part 5. *California Native Plant Society Newsletter*, Mojave Desert Chapter 3(5): 1-3.

Sexton, J.P. 2002. Knowing your weeds: tamarisk. 10 exotic plants in the Mojave Desert – part 2. *California Native Plant Society Newsletter*, Mojave Desert Chapter 3(3): 1-2.

Sexton, J.P., Davenport, S., Bogan, M.A. and T. J. O'Shea. 1996. Status and trends of bat populations in the Jemez Mountains at Bandelier National Monument and Los Alamos National Laboratory, New Mexico. Report to U.S. Department of the Interior and Los Alamos National Laboratories.

MEDIA ARTICLES AND NEWS HIGHLIGHTS

Ortiz, Brenda. (2025, June 4). Students Awarded Prestigious NSF Graduate Research Fellowship. *UC Merced University News*.
<https://www.ucmerced.edu/news/2025/students-awarded-prestigious-nsf-graduate-research-fellowship>

Wong, Kathleen. (2024, August 13). Improving predictions of plant species survival with the California poppy. *UC Natural Reserve System*. <https://ucnrs.org/improving-predictions-of-plant-species-survival-with-the-california-poppy/>

Gómez-Van Cortright, Guanani. (2023, May 3). How the DNA We Leave Behind Can Help Conservation. *Bay Nature*. <https://baynature.org/2023/05/03/how-the-dna-we-leave-behind-can-help-conservation/>

Ellingford, KC (2022, September 10). Big Wall Monkeyflowers. *National Park Service Video*. <https://www.nps.gov/media/video/view.htm?id=DF06A906-18E9-4D9B-9255-7A838FD4FE69>

Arakelian, Elizabeth. (2019, August 20). Researchers Use Monkey Flower to Study Climate Change. *UC Merced University News*.

<https://news.ucmerced.edu/news/2019/researchers-use-monkey-flower-study-climate-change>

Anderson, Lorena. (2016, May 23). Campus Getting Greener with New Research Growing Spaces. *UC Merced University News*.
<https://news.ucmerced.edu/news/2016/campus-getting-greener-new-research-growing-spaces>

Anderson, Lorena. (2016, April 4). Study Shows How Plants Could Adapt to Changing Climate. *UC Merced University News*. <https://news.ucmerced.edu/news/2016/study-shows-how-plants-could-adapt-changing-climate>

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Anderson, Lorena. (2015, December 11). UC Merced Shares in Three of Four UC Catalyst Grants. *UC Merced University News*.
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Anderson, Lorena. (2014, August 25). Rare Flower Variant Discovered by Professor Offers Insight into Evolution. *UC Merced University News*.
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Anderson, Lorena. (2014, April 23). Professor's Passion for Monkey Flower Leads to Genetic Discoveries. *UC Merced University News*.
<https://news.ucmerced.edu/news/2014/professor%E2%80%99s-passion-monkey-flower-leads-genetic-discoveries>

Yoder, Jeremy. (2014, February 26). What's more isolating – environmental distance or ... plain old distance? *The Molecular Ecologist*.
<https://www.molecular ecologist.com/2014/02/26/ibe-v-ibd/>

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<http://conservationmaven.com/frontpage/controlling-invasive-species-in-a-fragmented-management-mosa.html>

CONTRIBUTED CONFERENCE PAPERS *Presenter underlined

- Nguyen, P.T., Cleland, E., and **J.P. Sexton**. Multi-omics insights into ecological and evolutionary adaptation to aridity in *Eschscholzia californica*, the California poppy. SERCAL 2025. Sacramento, California, April, 2025.
- Tataru, D., E. Dickman, K.G. Ferris, J. McGahey, and **J. Sexton**. Monkeyflower adaptation on El Capitan. Cliff Ecology Conference, Yosemite National Park, September, 2024
- Blackman, B., **Sexton, J.**, Breithaupt, L., Hamm, L. Kooyers, N., Holt, S., Brady, S., Boynton, S., Kawa, D., Runcie, D., Stern, M., Thorne, J. Building networks to inform the practice of assisted gene flow. Northern California Botany Symposium. Chico, CA, 2024.
- Nguyen, P.T., Ferranti, D., Ryan, E., Escalona, M., **Sexton J.P.**, Cleland E.E. Decoding Drought Adaptation: Reference Genome of the California Poppy, *Eschscholzia californica*. SERCAL Annual Conference, Redlands, CA, 2024. (1st place poster)
- Daniel J. Toews, Merly Escalona, Lillie Pennington, Rachel Meyer, and **Jason Sexton**. Reference Genomes for Three Vernal Pool Grass Species of the Orcuttea Tribe. Northern California Botany Symposium, Chico, CA, 2024. (2nd place poster award)
- Daniel J. Toews and **J.P. Sexton**. eDNA or bust: comparing eDNA metabarcoding strategies and traditional plant survey methods in an endangered California ephemeral wetland ecosystem. Freshwater Sciences Conference, Brisbane, Australia, 2023.
- Daniel J. Toews, D. Ruiz-Ramos, M. Stephens, R. Meyer, and **J.P. Sexton**. Can environmental DNA detect rare plants? eDNA metabarcoding California vernal pool plant communities: A new tool for biodiversity assessments. California Native Plant Society Conference, San Jose, CA, October, 2022.
- Shay, J.E., L. Brooks, M. Kaze, A.C. Frank, Siström, M. and **J.P. Sexton**. The monkeyflower microbiome: insights from community shifts in response to drought. Ecological Society of America. Remote meeting, 2020.
- Shay, J.E., L. Brooks, M. Kaze, A.C. Frank, Siström, M. and **J.P. Sexton**. Endophyte communities in the cut-leaf monkeyflower (*Erythranthe laciniata*) respond differently to drought conditions above and belowground. Northern California Botanists Symposium, Chico, CA, 2020.
- Pennington, L. and J.P. Sexton. The effects of the 2013 Rim Fire on white fir seedlings in the Sierra Nevada Range. Northern California Botanists Symposium, Chico, CA, 2020.
- Lauder, J., Reynoso, C., Stephens, M., Lommel, Y. Moraes, O., Santos, A., Reyes, T.,

- Dickman, G., Ghezzehei, T., and J.P. Sexton. Small beginnings: implications of the seedling niche for conservation and management of giant sequoias (*Sequoiadendron giganteum*). Northern California Botanists Symposium, Chico, CA, 2020.
- Ruiz Ramos, D., Toews, D., Stephens, M., Meyer, R., Curd, E., Dawson, M., and **J.P. Sexton**. Differentiation of vernal pool communities assessed by eDNA: a community science experience. AGU Meeting, San Francisco, CA, 2019.
- Pennington, L., Dickman, E., and **J.P. Sexton**. Survival in a drier world: a study of rapid adaptation in response to drought in the Sierra Nevada endemic forb, *Erythranthe laciniata*. Northern California Botanists Symposium, Chico, CA, 2019. (second place poster winner)
- Shay, J.E., L. Brooks, M. Kaze, A.C. Frank, **J.P. Sexton**, and M. Sistrom. Endophyte community shifts in response to drought in monkeyflowers (*Erythranthe laciniata*) grown in native soil. Northern California Botanists Symposium, Chico, CA, 2019.
- Toews, D., D. Ruiz-Ramos, M. Stephens, and **J.P. Sexton**. Insights from a CALeDNA case study: challenges and opportunities using eDNA to characterize vernal pool plant communities. California Native Plant Society: Conservation Symposium, Santa Cruz, CA, 2019.
- Shay, J.E., Brooks, L., Kaze, M., Frank, C.A., **Sexton, J.P.**, and Sistrom, M. Endophytes shift in response to drought in monkeyflowers (*Erythranthe laciniata*) from native soil. Mycological Society of America, Minneapolis, MN, 2019.
- Shay, J.E., Brooks, L., Kaze, M., Frank, C.A., **Sexton, J.P.**, Sistrom, M. Endophytes shift in response to drought in monkeyflowers (*Erythranthe laciniata*) from native soil. Symbiosis Meeting, Yosemite National Park, CA, 2019.
- Toews, D., D. Ruiz Ramos, M. Stephens, and **J. Sexton**. Using an eDNA approach to Quantify Biodiversity in California vernal pool plant communities. Northern California Botanists Symposium, Chico, CA, 2019.
- Sexton, J.P.**, Pennington, L.K., R.A. Slatyer, D. Ruiz-Ramos, and S.D. Veloz. Is adaptive potential even across species ranges? Evolution Society Meeting, Montpellier, France, 2018.
- Daniel J. Toews, Molly Stephens and Dr. Dannise Ruiz, and **J. Sexton**. Detecting annual plant diversity in vernal pool soils with environmental DNA: challenges and opportunities. UC Genomics Conservation Consortium Workshop: Modernizing ecosystem management in California, Monterey, CA, 2018.
- J. Montiel, Beman, M., Frank, C., and **J.P. Sexton**. Microbes in vernal pools. Vernal Pool Landscapes: Past, Present, and Future, AquAlliance and the Vernal pool Recovery Plan Implementation Regional Working Group Conference, Chico, CA, April, 2018.
- D. Toews and **J.P. Sexton**. Does soil type matter to vernal pool plant species? Vernal Pool Landscapes: Past, Present, and Future, AquAlliance and the Vernal pool Recovery Plan Implementation Regional Working Group Conference, Chico, CA, April, 2018.
- M. Stephens, Ruiz-Ramos, D., Toews, D., and **J.P. Sexton**. Diversity above and below

- ground: the genetics of vernal pool plants and seed banks. Vernal Pool Landscapes: Past, Present, and Future, AquAlliance and the Vernal pool Recovery Plan Implementation Regional Working Group Conference, Chico, CA, April, 2018.
- Shay, J., Pennington, L., Toews, D., Green, E., and **J.P. Sexton**. Climate adaptation and fitness variation are greatest near the leading edge of a species range. Ecological Society of America meeting, New Orleans, LA, 2018.
- M. Stephens, Daniel J. Toews, D. Ruiz Ramos, and **J.P. Sexton**. The secret life of vernal pool soils: plant genetic diversity above and below ground. UC Merced Vernal Pools and Grassland Symposium, Merced, CA, 2018.
- Sexton, J.P.** and D. Ruiz-Ramos. Vernal pool systems. UC Conservation Genomics Workshop, Blue Oak Reserve, California. August 2017
- Spaeth, M., Stephens, M., Toews, D., and **J.P. Sexton**. Vernal pool plant biodiversity in Merced Vernal Pools and Grassland Reserve. Student Success Internship Program Symposium. April 2017.
- Sexton, J.P.**, Paredes, L., Quarnstrom, S., Ho, A., Rivera, V., Gomez, A., Josan, S., Dooman, G., Saini, P., Gutierrez, M., Delgado, D., Rodriguez, K., Shay, J., and other students of Flora of California. Plant inspirations on sustainability. UC Merced Climate Neutrality Curriculum Initiative Symposium. April 2017.
- Dickman, E.E., S.J. Franks, and **J.P. Sexton**. Adaptive response during historic drought in a Sierran monkeyflower: a resurrection experiment. Evolution Society Meeting, Portland, OR, 2017.
- Sexton, J.P.** Does species niche breadth predict plant performance in novel environments? An experimental test in Australian Alps plants. Evolution Society Meeting, Austin, TX, 2016.
- Sexton, J.P.** High fitness at the leading edge of a species range despite range-wide adaptive trade-offs in climate adaptation. Ecological Society of America meeting, Sacramento, CA, 2014.
- Sexton, J.P.**, Hangartner, S.B., and A.A. Hoffmann. Gene flow across environmental gradients: patterns and implications for adaptation. Evolution Society Meeting, Snowbird, UT, 2013.
- Sexton, J.P.**, Hufford, M., Bateman, A., Lowry, D., Meimberg, H., Willis, J., Strauss, S.Y., and K.J. Rice. Patterns of gene flow and genetic variation inform mechanisms underlying climatic limits of a species' range. Ecological Society of America meeting, Portland, OR, 2012.
- Sexton, J.P.**, Hufford, M., Bateman, A., Lowry, D., Meimberg, H., Willis, J., Strauss, S.Y., and K.J. Rice. Diversity, differentiation, and vicariance across the species range in the California Sierran endemic plant, *Mimulus laciniatus*. International Botanical Congress, Melbourne, Australia, 2011.
- Sexton, J.P.**, Rice, K.J., and S.Y. Strauss. Gene flow enhances fitness at low-elevation range limit in a Sierra Nevada monkeyflower. Ecological Society of America meeting, Albuquerque, NM, 2009.
- Sexton, J.P.**, Rice, K.J., and S.Y. Strauss. The role of selection, gene flow, and range limits in determining adaptive phenotypes of *Mimulus laciniatus*. Evolution

- Society Meeting, Moscow, ID, 2009.
- DeMarche, M.L., Sexton, J.P., and K.J. Rice. The effects of competition, adaptation, and hybridization on niche evolution between closely related species (*Mimulus guttatus* and *Mimulus laciniatus*). California Native Plant Society Conference, Sacramento, CA, 2009.
- Sexton, J.P., Rice, K.J., and S.Y. Strauss. Assessing climate change adaptive potential in a Sierra Nevada endemic. California Native Plant Society Conference, Sacramento, CA, 2009.
- Sexton, J.P., Rice, K.J., and S.Y. Strauss. Assessing climate change adaptive potential in a Sierra Nevada endemic plant. California Climate Change Conference, Sacramento, CA, 2008.
- Grossenbacher, D.L., Veloz, S.D., Sexton, J.P., and J.B. Whittall. Niche evolution is related to speciation: A test within the genus *Mimulus*. Ecological Society of America annual meeting, Milwaukee, WI, 2008.
- Niell, R.S., J.E. Wilen, C.E. Aslan, M.B. Hufford, J.P. Sexton, J. D. Port, and T.M. Waring. Land division among multiple managers can increase invasion rates by altering managers' control incentives. Ecological Society of America annual meeting, Milwaukee, WI, 2008.
- Aslan, C.E., M.B. Hufford, R.S. Niell, J.D. Port, J.P. Sexton, and T.M. Waring. Calling for a regional, cooperative response to invasive species: limitations to yellow starthistle control implementation by ranchers. Bay Area Conservation Biology Symposium, Davis CA, February 2008.
- Sexton, J.P., Rice, K.J., and S.Y. Strauss. The role of range edges in determining adaptive climate responses in the cut-leaved monkeyflower (*Mimulus laciniatus*). Ecological Society of America and SER annual meeting, San Jose, CA, 2007.
- Aslan, C., Hufford, M., Niell, R., Port, J., Sexton, J., and T. Waring. Limitations to implementation of yellow starthistle control measures by ranchers. Ecological Society of America and SER annual meeting, San Jose, CA, 2007.
- Sexton, J.P., Rice, K.J., and S.Y. Strauss. The role of selection, gene flow, and range edges in determining ecological responses to climate warming in the cut-leaved monkeyflower (*Mimulus laciniatus*). Summit on Evolution in Human-altered Environments, UCLA, 2007.
- Aslan, C., Hufford, M., Niell, R., Port, J., Sexton, J., and T. Waring. Economic and social influences on yellow starthistle control in Sierra Nevada foothill rangeland. Cal-IPC annual meeting, Rohnert Park, CA, 2006.
- Sexton, J.P., McKay, J. and A. Sala. Geographic variation in the functional responses of saltcedar (*Tamarix ramosissima*) to temperature. Ecological Society of America annual meeting, Spokane, WA, 1999.
- Sexton, J.P., Sala, A. and J.K. McKay. Ecological genetics of an exotic invasive, *Tamarix ramosissima*. Joint Meeting of the American Society of Naturalists, Society of Systematic Biologists and the Society for the Study of Evolution, Madison, WI, 1999.

INVITED TALKS FOR SYMPOSIA AND PROFESSIONAL MEETINGS

03/2025	Climate Change Adaptation and Assisted Gene Flow in Natural Populations Workshop, Nature Bridge Golden Gate
04/2024	Merced Vernal Pool and Grassland Reserve 10 th Anniversary Symposium
05/2023	UC Riverside Dept. of Botany & Plant Sciences Annual Symposium
09/2022	European Society of Evolutionary Biology, Prague, Czech Republic
01/2022	Northern California Botanists Symposium (remote due to COVID-19)
10/2020	Southern California Botanists Symposium (remote due to COVID-19)
07/2019	Dynamics and Demography of Alpine Islands Colloquium, Botanical Society of America Meeting, Tucson, AZ (Talk prepared and given by Lillie Pennington)
03/2017	Species in the Age of Discordance Meeting, University of Utah
01/2017	Northern California Botanists Symposium, Chico, CA
01/2016	Northern California Botanists Symposium, Chico, CA
07/2014	Evolutionary Insights from Studies of Geographic Variation Symposium, Botanical Society of America Conference, Boise, ID
12/2012	Plant Pollination and Mate Choice Symposium, Ecological Society of Australia meeting, Melbourne, Australia
12/2011	Inaugural Centre of Excellence for Environmental Decisions (CEED) Conference, University of Melbourne
06/2008	National Park Service Pacific West Region Natural Resources Workshop, Bodega Bay, CA
10/2007	Biological Impacts of Climate Change in California program meeting, Stanford University
10/2007	Mimulus Frontiers in Integrative Biological Research meeting, National Evolutionary Synthesis Center, Durham, North Carolina
12/2006	Rangeland Watershed Program Workgroup, UC Davis
02/2006	Mimulus Frontiers in Integrative Biological Research meeting, Duke University

INVITED SEMINARS, LECTURES, AND EVENTS

03/2025	UC Merced F3: Farms, Food, Future Ag Bag Seminar
05/2024	Functional Ecology in Ecosystem Management Workshop, University of Tehran (given remotely)
03/2017,	UCM Vernal Pool Naturalist Course
03/2023	Lecture to Universidad Autonoma Chapingo Agricultural College at UC Merced
09/2022	UC Merced, Quantitative and Systems Biology Seminar; lightning

	talk
03/2021	Sierra Streams Institute
02/2021	Berkeley University and Jepson Herbarium
09/2020	Carnegie Department of Plant Biology Seminar, Stanford University
11/2019	Ecology and Evolutionary Biology Seminar, UC Santa Cruz
1/2019	Environmental Systems Seminar, UC Merced
10/2018	Board of Trustees Meeting, University of California, Merced
10/2018	Yosemite Forum, Yosemite National Park
03/2018	Ecology and Evolutionary Biology Department, University of Colorado, Boulder
09/2017	California Naturalist Training Course, Wawona
08/2017	Conservation Genomics Consortium Meeting, Blue Oak Ranch Reserve
04/2017	Plant Biology Department, UC Davis
03/2017	March for Science, Yosemite National Park
03/2017	Sierra Nevada Research Institute Symposium, UC Merced
11/2016	Biodiversity Research Centre, University of British Columbia
04/2016	Biology Department Seminar, CSU Fresno
10/2015	Ecology, Behavior, and Evolution Seminar, UC San Diego
04/2015	Biology Department, UC Riverside
11/2014	Biology Department, University of San Francisco
06/2014	Sierra Nevada Flora, Yosemite Field Station
02/2014	Success in Natural Sciences, UC Merced
06/2013	Advanced Topics in Genetics, University of Melbourne
03/2013	School of Natural Sciences, UC Merced
08/2011	School of Biological Sciences Seminar, Monash University
05/2011	Botany Department Seminar, Latrobe University
05/2011	Genetics Department Seminar, University of Melbourne
12/2010	Genomic Variation Lab, UC Davis
01/2009	Introduction to Applied Ecological Genetics, UC Davis
06/2008; 05/2009; 05/2010	California Plant Communities, UC Davis
09/2006	General Botany, Mills College, Oakland, California
10/2003	Environmental Biology, Victor Valley College, Victorville, California
11/1997	Introductory Ecology, University of Montana, Missoula

TEACHING EXPERIENCE (COURSES)

2023, 2025, 2026	Co-Primary Instructor. <i>Evolution</i> . UC Merced
2017, 2020	Co-Primary Instructor. <i>Genetics</i> . UC Merced
2015, 2018, 2021,	Primary Instructor. <i>Ecological Genetics</i> . UC Merced

2024	
2015, 2016, 2017, 2019, 2021, 2022, 2023, 2024, 2025	Primary Instructor. <i>Flora of California</i> . UC Merced
2014	Primary Instructor. <i>Environmental Systems Seminar</i> . UC Merced
2014, 2016, 2018 2020, 2024	Primary Instructor. <i>Conservation Biology</i> . UC Merced
2001, 2002	Primary Instructor. <i>Biology 16-V. Deserts of Southern California</i> : field course. Sierra College, Rocklin, California
2000	Primary Instructor. <i>Biology 22, Introduction to Botany</i> : introductory undergraduate science course. Sierra College
2000	Primary Instructor. <i>Biology 16-H. Biology of Point Reyes National Seashore</i> : field course. Sierra College
2000	Primary Instructor. <i>Biology 16-K, Foothill Ecology of the Sierra Nevada</i> : field course. Sierra College
1998; 1999	Laboratory Instructor. Spring. <i>Biology 344. Plant Physiology</i> : upper division course. University of Montana, Missoula
1998	Laboratory Instructor. Fall. <i>Biology 250. Rocky Mountain Flora</i> : upper division course in plant taxonomy. University of Montana, Missoula
1997	Laboratory Instructor. Fall. <i>Biology 122. Introductory Ecology</i> : introductory undergraduate science course. University of Montana, Missoula

ADVISING, SUPERVISING, MENTORSHIP AND STUDENT COMMITTEE WORK

Faculty mentorship

Prof. Matthew Hutchinson, 2024-

Staff supervision

Jessica Malisch, Executive Director, UC Merced Natural Reserve System, 2025-

Charles Blanchard, Research Technician, 2025

Xitlaly Gomez-Vega, Research Technician, 2023

Ana Grace Alvarado, UC Merced Greenhouse Coordinator, 2024

Gabriel Tejeda, Research Technician, 2025

Elizabeth Green, Lab Manager, 2014-2016

Postdoctoral advising

Dr. Dannise Ruiz-Ramos, Postdoctoral Scholar and Assistant Project Scientist, 2017-2019; current position: Assistant Professor, University of Maryland, Eastern Shore

Dr. Molly Stephens, Assistant Project Scientist, 2015-2019; current position: Executive Director, Sierra Nevada Research Institute

Graduate advising

LaMonika Dent, PhD student, 2025-

Peter Nguyen, PhD student, 2023-

Lynn Breithaupt, PhD student, 2023-

Aster Riley, PhD/MS student, 2022-2025

Lillie Pennington, PhD student, 2017-2023; current position: NSF Postdoctoral Researcher, University of Georgia

Brandon Hendrickson, PhD student, 2017-2022; current position: Visiting Professor, University of Louisiana, Lafayette

Jackie Shay, PhD student, 2016-2021; current position: Assistant Teaching Professor, UC Santa Barbara

Jorge Montiel-Molina, PhD student, 2015-2021; current position: Postdoctoral Researcher, University of Arizona

Daniel Toews, PhD student, 2015-2024; current position: Restoration Program Manager, The Nature Conservancy

Yiping Guo, PhD rotation student, 2016

Erin Dickman, MS student, 2014-2016; current position: Biological Consultant

Committees and mentorship

Evelyn Perez-Agredano, PhD dissertation committee, UCM, 2024-

Emily Solario, Swarth-Fogel Scholarship mentor, 2025-

Bailey Carlson, PhD dissertation committee chair, UCM, 2024-

Malcolm Johnson, PhD dissertation committee member, UCM, 2024-

Jovany Barajas, PhD dissertation committee member, UCM, 2024-

Tara Harmon, MS committee member, UCM, 2024

Lucia Bazan Williamson, PhD dissertation committee chair, UCM, 2023-

Yinyue Du, PhD dissertation committee member, UCM, 2023-

Isabella Segarra, Swarth-Fogel Scholarship mentor, 2023

Charles Blanchard, Independent Study, 2024

Andres Aguilar, Swarth-Fogel Scholarship mentor, 2024

Diane-Marie Brache-Smith, PhD dissertation committee member, UCM, 2023-

Mark Twomey, Swarth-Fogel Scholarship mentor, 2022

Christopher Bivins, PhD dissertation committee member, UCM, 2022-

Pedro Antonio Perez, PhD dissertation committee member, UCM, 2022-

Reina Warnert, PhD dissertation committee chair, UCM, 2022-

Xitlaly Gomez Vega, UCM Student Success Internship, 2021-2022

Albert Medel, UCM Student Success Internship, 2021-2022

James Kupihea, PhD dissertation committee member, UCM, 2022

Fahad Ahmed, PhD dissertation committee member, UCM, 2021-

Andrea Salinas, MS dissertation committee member, UCM, 2021-2022

Flor Nunez, UCM Student Success Internship, 2019-2020

Citlaly Reynoso, Undergraduate Summer Statistics Internship, 2019

Gilma Sevilla Alvarez, UCM Student Success Internship, 2018-2019

Mimi Pomephimkham, UC Merced Student Internship, 2018-2019
Abel Campos-Melendez, UCM Student Success Internship, 2018-2019
Alyze Salan, Lab internship, 2018-2019
Lesly Lopez, PhD dissertation committee member, UCM, 2018-2023
Taran Rallings, PhD dissertation committee member, UCM, 2018-2022
Lindsey Jerome, MS thesis committee member, UCM, 2018-2019
Yazmin Lommel, UCM Student Success Internship, 2017-2018
Teanna Herrera, UCM Student Success Internship, 2017-2018
Adriana Gomez, UCM Student Success Internship, 2017
Valeria Rivera, UCM Phenology Project Internship, 2017
Leslie Paredes, UCM Phenology Project Internship, 2017
Sunshine Lopez, Independent Study, 2017
Kimberly Rodriguez, Research Internship, 2017
Laura Van Vranken, PhD dissertation committee chair, UCM, 2017-
Kinsey Brock, PhD dissertation committee chair, UCM, 2016-2021
Melissa Anderson, NSF Yosemite Environmental Science Research Training REU, 2015
Jasmin Ramirez Bonilla, UCM Research Internship, 2016-2018
Michael Spaeth, UCM Student Success Internship, 2016-2017
Amanda Tse, UCM Student Success Internship, 2016-2017
Angelo Aragon, Research Internship, 2016-2017
Alfredo Enriquez, Research Internship, 2016-2017
Robert Boria, PhD dissertation committee member, UCM, 2016-2021
Jeff Lauder, PhD dissertation committee member, UCM, 2016-2020
Mengjun Shu, PhD dissertation committee member, UCM, 2016-2020
Danaan DeNeve, PhD dissertation committee chair, UCM, 2015-2020
Samuel Araya, PhD dissertation committee member, UCM, 2015-2019
Liza Gomez Daglio, dissertation committee member, UCM, 2015-2016
Tyler Rackelmann, Research Internship, UCM, 2015-2016
Sherman Yu, Research Internship, UCM, 2015-2016
Mariana Roca de Souza, PhD dissertation committee member, UCM, 2015-2016
Lillie Pennington, NSF Yosemite Environmental Science Research Training REU, 2014
Laurel Sebastian, NSF Yosemite Environmental Science Research Training REU, 2014
John Williams, PhD dissertation committee member, UCM, 2014-2018
Kaitlin Lubetkin, PhD dissertation committee member, UCM, 2014
Sarah Abboud, MS thesis committee member, UCM, 2014-2016
Dana Carper, PhD dissertation committee member, UCM, 2014-2018
Aubrie Benterou, Research Internship, UCM, 2015
Julia Depass, Research Internship, UCM, 2015
Robert Martin, Research Internship, UCM, 2015
Alyssa Carrell, PhD dissertation committee member, UCM, 2014
William Higson, Research Internship, UCM, 2014-2016
Joseph Hall, Independent study, University of Melbourne, 2014
Emma Ajay, Honours thesis, University of Melbourne, 2013

Rachel Slatyer, Graduate research experience, University of Melbourne, 2012-2013;
 visiting scholar, UC Merced, 2014
 Emma Yearwood, Alpine ecological studentship, University of Melbourne, 2012-2013
 David Sparks, Alpine ecological studentship, University of Melbourne, 2012-2013
 Jessica Millett-Riley, Alpine ecological studentship, University of Melbourne, 2012
 Megan DeMarche, Undergraduate thesis, University of California, Davis, 2007-2008

SELECTED SERVICE AND SYNERGISTIC ACTIVITIES

2026-present	Chair, Department of Life and Environmental Sciences, UC Merced
2025-present	Faculty Director, UC Merced Natural Reserve System
2025	Hellman Fellows Fund grant reviewer
2025	Co-Organizer of Climate change Adaptation and Assisted Gene Flow in Natural Populations Workshop, Nature Bridge Golden Gate
2024-present	USFWS Vernal Pool Recovery Implementation Team member
2015-present	Project Lead, UC Merced Phenology Project
2014-2016; 2018-2025	Yosemite and Sequoia Research Station Advisory Committee Chair
2016-present	Member at-large, Co-Chair, and Chair of UC Merced Greenhouse committee
2024	Proposal panelist reviewer. National Science Foundation, Organismal Responses to Climate Change Program
2024	UC Merced Ad Hoc Agricultural Working Group member
2023, 2025	Canada Research Chair Nomination reviewer
2021-2023	Chair, Committee on Research (CoR), UC Merced
2022-2023	Co-Chair, UCM Research Safety Advisory Committee
2023-present	UC Natural Reserve System Systemwide Messaging Sub-Committee Chair
2023	California Native Plant Society Student Research Grant reviewer
2017-present	Northern California Botanists Student Research Grant reviewer
2020-2021	Vice-Chair, Committee on Research (CoR), UC Merced
2021-2022	Vice-Chair, Environmental Systems Graduate Group
2021-2022	UCM Life and Environmental Sciences Curriculum Committee
2022	¿field curious? guest instructor
2021-present	Advisory Committee Member for the Merced Vernal Pools and Grasslands Reserve (MVPGR)
2020-2021	Co-Chair of Valuing Black Lives Task Force Research Sub-committee
2020	Guest Speaker, Colfax High School Career Speaker Series, 31 January 2020
2019, spring	Turlock and Pitman High Schools Citizen Science Bioblitz; 1 April 2019

2019, spring	Monkeyflower kit spring experiment with Sierra Foothill Charter School
2019-present	University of California Natural Reserve System Advisory Committee, At-large Member
2019-present	California Conservation Genomics Project Advisory Committee Member
2019	Session Chair, Challenges and Solutions for Conserving Cryptic Diversity, Northern California Botanists Symposium
2018-2019	Vice-Chair, Quantitative and Systems Biology Graduate Group
2017-present	Advisory Member, California Biodiversity Network
2017-2023	Board of Directors Member, Northern California Botanists
2015-2018	Quantitative and Systems Biology Graduate Group Recruitment Committee Member, UC Merced
2017-2019	Quantitative and Systems Biology Graduate Group Secretary, UC Merced
2017	Proposal panelist reviewer. National Science Foundation, Division of Integrative Organismal Systems, Physiological and Structural Systems Cluster.
2016-2019	Environmental Systems Graduate Group Admissions and Fellowships Committee Member, UC Merced
2016-present	Advisor to Earth System Science undergraduates, UC Merced
2016	Pt. Reyes Natural Reserve System station review committee
2016	Yosemite Leadership Program Mentor, UC Merced
2015	ISEECI postdoctoral and graduate research proposal reviewer
2015	Guest Editor, <i>American Journal of Botany</i>
2015	UC Merced Writing Task Force Committee Member
2014-present	Sierra Nevada Research Institute Affiliate Faculty
09/2014	Coordinator and Moderator. A Celebration of Kevin Rice: Plant Ecology, Evolution, and Conservation Symposium , UC Davis.
2014-present	Science Mentor at UC Merced. Mentored 31 undergraduate student interns in evolutionary ecology.
2014	UC NRS Mathias Grant program reviewer.
2014	UC MEXUS postdoctoral and research grant proposal reviewer.
2015	Pre-proposal panelist reviewer. National Science Foundation, Division of Environmental Biology, Evolutionary Processes Cluster.
Ad hoc	Proposal reviewer. Serrapilheira Institute, Brazil
Ad hoc	Proposal reviewer. New Zealand Marsden Fund Council by the Royal Society Te Aparangi
Ad hoc	Proposal reviewer. Canadian NSERC Discovery Grant Program.
Ad hoc	Proposal reviewer. Swiss ETH Zurich Research Commission.
Ad hoc	Proposal reviewer. National Science Foundation, Integrative Ecological Physiology.
Ad hoc	Proposal reviewer. National Science Foundation, Bridging Ecology and Evolution.

Ad hoc	Proposal reviewer. National Science Foundation, Biological Anthropology.
Ad hoc	Proposal reviewer. National Science Foundation, Arctic Natural Sciences.
Ad hoc	Proposal reviewer. National Science Foundation, DEB CAREER.
Ad hoc	Proposal reviewer. National Science Foundation, DEB, Population and Community Ecology.
Ad hoc	Proposal reviewer. National Science Foundation, Oceanographic Program.
Ad hoc	Proposal reviewer. BiodivERsA European Joint Call.
Ad hoc	Proposal reviewer. Austrian Science Fund.
2012-2013	Royal Botanic Gardens Cranbourne research committee member.
2011-2013	Australian Alpine Research Network (TAARN) team member.
2004-2010	Science Mentor at UC Davis. Mentored 34 undergraduate student interns in evolutionary ecology and biotechnology.
2010	Awards Committee Reviewer. Reviewed research proposals for UC Davis Ecology Graduate Group fellowships.
2009-2010	National Science Foundation Responding to Rapid Environmental Change (REACH) IGERT mentor.
08/2009	Discussion Panelist. Participated in discussions with underrepresented undergraduates in science on applying to graduate school. UC Davis Chapter of Collaborative Learning at the Interface of Mathematics and Biology (CLIMB).
05/2009	Discussion Panelist. Participated in discussions with minority undergraduates on navigating graduate school successfully. UC Davis Chapter of Strategies for Ecology Education, Development, and Sustainability (SEEDS).
05/2008	Planning Committee Member. Metabolic Theory of Ecology Workshop, UC Davis.
08/2007	Session Moderator and Student Oral Competition Judge. Ecological Society of America Annual Meeting.
09/2006	Coordinator and Discussion Moderator. Yellow Starthistle Symposium, UC Davis.
2005-2006	California Environmental Protection Agency Climate Action Team member.
11/2004	Planning Committee Member. Mojave Desert Science Symposium II, University of Redlands.
11/2003	Coordinator and Moderator. Sweeney Granite Mountains Desert Research Center 25 th Anniversary Science Symposium, UC Riverside.

JOURNAL REFEREE (42 journals, 139 reviews)

American Journal of Botany (5); American Naturalist (4); Annals of Botany (5); Biochemical Systematics and Ecology; Biology Letters; BMC Evolutionary Biology (2); Botany Letters (2); Conservation Biology; Diversity and Distributions; Ecology (5); Ecosphere; Ecography (3); Ecology Letters (18); Ecological Monographs; Ecology and Evolution; Evolution (8); Evolutionary Applications (2); Functional Ecology; Global Change Biology; Global Ecology and Biogeography (4); Heredity (5); International Journal of Plant Sciences; Invasive Plant Science and Management; Journal of Biogeography (4); Journal of Animal Ecology; Journal of Ecology (5); Journal of Evolutionary Biology (5); Journal of the Torrey Botanical Society; Molecular Biology and Evolution; Madroño; Molecular Ecology (10); Nature Climate Change; New Phytologist (11); Oecologia (4); Oikos; Plant Biology (4); Plant Communications; PNAS (3); Philosophical Transactions B (4); Proceedings of the Royal Society B (4); Trends in Ecology & Evolution (4); Wetlands

SOCIETY MEMBERSHIPS

California Botanical Society
California Native Plant Society
Ecological Society of America
Northern California Botanists
Society for the Study of Evolution
Southern California Botanists
SACNAS
Sigma Xi