CURRICULUM VITAE
Nancy C. Emery, Ph.D.

CONTACT INFORMATION

Address:	Department of Ecology & Evolutionary Biology University of Colorado Boulder, CO 80309-0334
Phone:	(530)400-6490
Email:	Nancy.Emery@Colorado.edu
Lab Website:	http://www.emery-lab.org

EDUCATION & TRAINING

1/2007 – 8/2008	Postdoctoral Researcher, Department of Integrative Biology and the University and Jepson Herbaria, University of California, Berkeley, CA Research advisors: D.D. Ackerly & B.G. Baldwin
9/1999 – 12/2006	Ph.D., Population Biology, University of California, Davis, CA Dissertation advisors: M.L. Stanton & K.J. Rice
8/1994 – 6/1998	Sc.B., Biology, Brown University, Providence, RI Research mentor/honor's thesis advisor: M.D. Bertness

ACADEMIC APPOINTMENTS

8/2018 – present	Associate Professor, Department of Ecology and Evolutionary Biology, University of Colorado Boulder, Boulder, CO
8/2015 – 8/2018	Assistant Professor, Department of Ecology and Evolutionary Biology, University of Colorado Boulder, Boulder, CO
8/2015 – 9/2016	Adjunct Assistant Professor, Department of Biological Sciences, Purdue University, West Lafayette, IN
8/2009 – 7/2015	Assistant Professor, Departments of Biological Sciences and Botany & Plant Pathology, Purdue University, West Lafayette, IN
8/2008 – 8/2009	Visiting Assistant Professor, Departments of Biological Sciences and Botany & Plant Pathology, Purdue University, West Lafayette, IN

NON-ACADEMIC POSITIONS

6/2006 – 12/2006	Restoration Ecologist, H.T. Harvey & Associates Environmental Consulting, Davis, CA

HONORS, AWARDS & FELLOWSHIPS

2023	Undergraduate Research Opportunity Program, *Honorable Mention* for Undergraduate Mentor Award, University of Colorado Boulder
2020	Research & Innovation Office (RIO) Faculty Fellow, University of Colorado Boulder
2020	Outstanding Postdoc Mentor Award, University of Colorado Boulder
2014	College of Science Faculty Award for Outstanding Contributions to Undergraduate Teaching by an Assistant Professor, Purdue University
2014	Bravo Award for employee excellence, College of Agriculture, Purdue University
2012	Teaching for Tomorrow Fellowship Award, Purdue University

2012	Outstanding Graduate Educator Award, Department of Botany & Plant Pathology, Purdue University
2011	Outstanding Graduate Educator Award, Department of Botany & Plant Pathology, Purdue University
2001, 2002	Achievement Rewards for College Scientists (ARCS) Foundation Scholar, University of California at Davis
1999 – 2003	National Science Foundation Graduate Research Fellowship
1998	Honors, *Magna cum laude*, Brown University
1998	James F. Kidwell Prize in Population Biology and Genetics, Brown University

RESEARCH

Major Publications

*ǂpostdoctoral researcher co-author, *graduate student mentee co-author; †undergraduate mentee co-author*
ˢprovided statistical support

58. Saha, S., V. McKenzie, N.C. Emery, J. Resasco, S. Taylor, S. Krishnan, and L. Corwin. 2024. Examining How Student Identities Interact with an Immersive Field Ecology Course and its Implications for Graduate School Education. *CBE—Life Sciences Education* 23:ar44. DOI: 10.1187/cbe.24-02-0080
57. *Reed, W., ǂA. Westmoreland, K. N. Suding, D.F. Doak, W. Bowman, and N.C. Emery. 2024. Fine-scale temporal variation predicts community composition and species distributions across an alpine catchment. *Ecology* 105 (12): e4450. DOI: 10.1002/ecy.4450
56. Barthold J.E., Cai L., K.P. McCreery, K. Fischenich, K. Eckstein, V.L. Ferguson, N.C. Emery, G. Breur, C.P. Neu (*In Press*). Acellular cartilage-bone allografts promote long-term mechanical function and integrative repair in vivo. *npj Regenerative Medicine*.
55. *Westmoreland, A. and N.C. Emery. 2024. Asynchronous life histories generate uneven arms races and impact the maintenance of mutualisms. *The American Naturalist* 204 (3): E57-E69. DOI: 10.1086/731295
54. ǂOldfather, M. F., S. C. Elmendorf, E. Van Cleemput, J. J. Henn, J. D. Huxley, C. T. White, H. C. Humphries, Marko J. Spasojevic, Katharine N. Suding, Nancy C. Emery. 2024. Divergent community trajectories with climate change across a fine-scale gradient in snow depth. *Journal of Ecology* 112: 126–137. DOI: 10.1111/1365-2745.14223
53. *Tittes, S., C. Weiss-Lehman, N. Kane, R.A. Hufbauer, N.C. Emery, B. Melbourne. Evolution is more repeatable in the introduction versus range expansion phase of colonization. 2024. *Evolution Letters* 8 (3): 351-360. DOI: 10.1093/evlett/qrad063
52. *Carscadden, K.A., ǂM. Oldfather, D. Doak, and N.C. Emery. 2023. Demographic responses of hybridizing cinquefoils to changing climate in the Colorado Rocky Mountains. *Evolution & Ecology*. DOI: https://doi-org.colorado.idm.oclc.org/10.1002/ece3.10097
51. *Van Den Elzen, C., N. Sigman, and N.C. Emery. 2023. Do seed dispersal strategies reflect adaptation to environmental variability? *Functional Ecology* 37 (7): 1922-1934. DOI: 10.1111/1365-2435.14336
50. ˢSchneider S.E., A.K. Scott, B. Seelbinder, *C. Van Den Elzen, R.L. Wilson, E.Y. Miller, Q.I Beato, S. Ghosh, J.E. Barthold, J. Bilyeu, N.C. Emery, D.M. Pierce, and C.P. Neu. 2023. Dynamic biophysical responses of neuronal cell nuclei and cytoskeletal structure following high impulse loading. *Acta Biomaterialia* 163: 339-350. DOI: 10.1016/j.actbio.2022.07.002
49. ˢScott A.K, E. Casas, S.E. Schneider, A.R. Swearingen, *C.L. Van Den Elzen, B. Seelbinder, J.E. Barthold, J.F. Kugel, J.L. Stern, K.J. Foster, N.C. Emery, J. Brumbaugh, and C.P. Neu. 2023.

Mechanical memory stored through epigenetic remodeling reduces cell therapeutic potential. *Biophysical Journal* 8:1428-1444. DOI: 10.1016/j.bpj.2023.03.004

48. ˢWilson R.L., N.C. Emery, D.M. Pierce, C.P. Neu CP. 2023. Spatial Gradients of Quantitative MRI as Biomarkers for Early Detection of Osteoarthritis: Data From Human Explants and the Osteoarthritis Initiative. *Journal of Magnetic Resonance Imaging*. DOI: 10.1002/jmri.28471
47. *Carscadden, K.A., D. Doak, and N.C. Emery. 2022. Climate variation influences flowering time overlap in a pair of hybridizing montane plants. *Western North American Naturalist* 82 (1): 128-145. DOI: 10.3398/064.082.0112
46. Bjarke, N.J., B. Livneh, S.C. Elmendorf, J. Morse, N.P. Molotch, E.S. Hinckley, N.C. Emery, P.T.J. Johnson, and K.N. Suding. 2021. Catchment-scale observations at the Niwot Ridge Long-Term Ecological Research Site. *Hydrological Processes* 35 (9). DOI: 10.1002/hyp.14320
45. ♯Oldfather, M.F., *C.L. Van Den Elzen, †P. Heffernan, and N.C. Emery. 2021. Dispersal Evolution in Temporally Variable Environments: Implications for Plant Range Dynamics. *American Journal of Botany* 108 (9): 1584-1594. DOI: 10.1002/ajb2.1739
44. Kottler, M.F., E.E. Dickman, J.P. Sexton, N.C. Emery, and S.J. Franks. 2021. Draining the swamping hypothesis: Gene flow and range edge evolution. *Trends in Ecology and Evolutionary Biology* 36 (6): 533-544. DOI: 10.1016/j.tree.2021.02.004
43. *Carscadden, K.A., N.C. Emery, C.A. Arnillas, M.W. Cadotte, M.E. Afkhami, D. Gravel, *S.W. Livingstone and J.J. Wiens. 2020. Niche Breadth: Causes and Consequences for Ecology, Evolution, and Conservation. *Quarterly Review of Biology* 95 (3): 179-214. DOI: 10.1086/710388
42. Angra, A., H.J. Dalgleish, S.M. Chambers, D. Pita D, and N.C. Emery. 2020. Data, distributions, and hypotheses: Exploring diversity and disturbance in the tallgrass prairie. *CourseSource*. 10.24918/cs.2020.19
41. ♯Oldfather, M., *M.M. Kling, S.N. Sheth, N.C. Emery, and D.D. Ackerly. 2020. Range edges in heterogeneous landscapes: Integrating geographic scale and climate complexity into range dynamics. *Global Change Biology* 26 (3): 1055-1067. DOI: 10.1111/gcb.14897
40. Carvajal-Endara, S., A.P. Hendry, N.C. Emery, C.P. Neu, D. Carmona, K.M. Gotanda, T.J. Davies, J.A. Chaves, and M.T. J. Johnson. 2020. The ecology and evolution of seed predation by Darwin's finches on *Tribulus cistoides* on the Galápagos Islands. *Ecological Monographs* 90 (1): e01392. DOI: 10.1002/ecm.1392
39. ˢ Szarek, P., M. B. Lilledahl, N. C. Emery, C. G. Lewis, and D. M. Pierce. 2020. The zonal evolution of collagen-network morphology quantified in early osteoarthritic grades of human cartilage. *Osteoarthritis and Cartilage Open*: 100086. DOI: 10.1016/j.ocarto.2020.100086
38. Emery, N.C. and ♯R.J. La Rosa. 2019. The effects of temporal variation on fitness, functional traits, and species distribution patterns. *Integrative and Comparative Biology.* 59 (3):509-516. DOI: 10.1093/icb/icz113
37. *LaRue, E., N.C. Emery, L. Briley and M.R. Christie. 2019. Geographic variation in dispersal distance facilitates range expansion of a lakeshore plant in response to climate change. *Diversity and Distributions* 25:1429-1440. DOI: 10.1111/ddi.12951
36. *Torres-Martínez, L. and N.C. Emery. 2019. Adaptive potential of an endemic wetland plant species in the face of extreme climate events. *Ecology Letters* 22 (5):866-874. DOI: 10.1111/ele.13244
35. *Tittes, S., *J.F. Walker, *L. Torres-Martínez and N.C. Emery. 2019. Grow where you thrive, or where only you can survive? An analysis of performance curve evolution in a clade with diverse habitat affinities. *American Naturalist* 193 (4):530-544. DOI: 10.1086/701827
Honorable Mention: 2020 American Naturalist Student Paper Award
34. ˢ Santos, S., N.C. Emery, C.P. Neu, and D.M. Pierce. 2019. Propagation of microcracks in collagen networks of cartilage under mechanical loads. *Osteoarthritis and Cartilage* 27 (9):1392-1402. DOI: 10.1016/j.joca.2019.04.017

33. [s] Argote P.F., J.T. Kaplan, A. Poon., X. Xu, L. Cai, N.C. Emery, D.M. Pierce, C.P. Neu (2019). Chondrocyte viability is lost during high-rate impact loading by transfer of amplified strain, but not stress, to pericellular and cellular regions. *Osteoarthritis & Cartilage* 27 (12):1822-1830
32. *Chambers, S.M. and N.C. Emery. 2018. Conserved thermal performance curves across the geographic range of a gametophytic fern. *AoB PLANTS*. DOI: 10.1093/aobpla/ply050
31. *LaRue, E., J.D. Holland and N.C. Emery. 2018. Environmental predictors of dispersal traits in a lakeshore plant species. *Ecology* 99 (8): 1847-1865. DOI: 10.1002/ecy.2402
30. Bruno, J.F., T.A. Rand, N.C. Emery and M.D. Bertness. 2017. Facilitative and competitive interaction components among New England salt marsh plants. *PeerJ* 5:e4049. DOI: 10.7717/peerj.4049
29. Carvajal-Endara, S.S., A.P. Hendry, N.C. Emery, and T.J. Davies. 2017. Habitat filtering not dispersal limitation shapes oceanic island floras: species assembly of the Galapagos Flora. *Ecology Letters* 20 (4): 495-504. DOI: 10.1111/ele.12753
28. *LaRue, E., *S. Chambers, and N.C. Emery. 2017. Eco-evolutionary dynamics in restored communities and ecosystems. *Restoration Ecology* 25 (1): 19-26. DOI: 10.1111/rec.12458
    One of* Restoration Ecology*'s top 20 most downloaded papers of 2017
27. Espeland, E.K., N.C. Emery, K.L. Mercer, S.A. Woolbright, K.M. Kettenring, P.L. Gepts, and J.R. Etterson. 2017. Evolution of plant materials for restoration: Insights from the applied and basic literature. *Journal of Applied Ecology* 54 (1): 102-115. DOI: 10.1111/1365-2664.12739
26. *Torres-Martínez, L., †P. Weldy, M. Levy, and N. C. Emery. 2017. Spatiotemporal heterogeneity in precipitation patterns explain population-level germination strategies in an edaphic specialist. *Annals of Botany* 119 (2): 253-265. DOI: 10.1093/aob/mcw161
25. [s] Kaplan J.T., C.P. Neu, H. Drissi, N.C. Emery, D.M. Pierce. 2017. Cyclic loading of human articular cartilage: the transition from compaction to fatigue. *Journal of the Mechanical Behavior of Biomedical Materials* 65: 734-742. DOI: 10.1016/j.jmbbm.2016.09.040
24. *Van Den Elzen, C.L., *E. LaRue and N.C. Emery. 2016. Oh, the places you'll go! Understanding the evolutionary interplay between dispersal and habitat adaptation as a driver of plant distributions. *American Journal of Botany* 103 (12): 2013-2014. (Invited submission) DOI: 10.3732/ajb.1600312
23. *Torres-Martínez, L. and N. C. Emery. 2016. Genome-wide SNP discovery in the annual herb, *Lasthenia fremontii* (Asteraceae): genetic resources for the conservation and restoration of a California vernal pool endemic. *Conservation Genetics Resources* 8 (2): 145-158. DOI: 10.1007/s12686-016-0524-0
22. *Chambers, S.M. and N.C. Emery. 2016. Local adaptation and countergradient variation across the geographic range of the fern *Vittaria appalachiana* (Pteridaceae). *American Journal of Botany* 103 (1): 86-98. DOI: 10.3732/ajb.1500077
21. *Walker, J.F., R.K. Jansen, M.J. Zanis and N.C. Emery. 2015. Sources of inversion variation in the small single copy (SSC) region of chloroplast genomes. *American Journal of Botany* 102 (11): 1751-1752. DOI: 10.3732/ajb.1500299
20. *Forrestel, E.J., D.D. Ackerly and N.C. Emery. 2015. The joint evolution of traits and habitat: ontogenetic shifts in leaf morphology and wetland specialization in *Lasthenia*. *New Phytologist* 208 (3): 949-959. DOI: 10.1111/nph.13478
19. *Stevens, S.M. and N.C. Emery. 2015. Dispersal limitation and population differentiation in performance beyond a northern range limit in an asexually reproducing fern. *Diversity and Distributions* 21 (10): 1242-1253. DOI: 10.1111/ddi.12323
18. Emery, N.C. and D.D. Ackerly. 2014. Ecological release exposes genetically-based niche variation. *Ecology Letters* 17 (9): 1149-1157. DOI: 10.1111/ele.12321 *Selected Faculty of 1000 Prime*
17. Kraft, N.J.B., G.M. Crutsinger, E.J. Forrestel and N.C. Emery. 2014. Functional trait differences and the outcome of community assembly: an experimental test with vernal pool annual plants. *Oikos* 123 (11): 1391-1399. DOI: 10.1111/oik.01311

16. *Walker, J.F., M.J. Zanis and N.C. Emery. 2014. Comparative analysis of complete chloroplast genome sequence and inversion variation in *Lasthenia burkei* (Madieae, Asteraceae). *American Journal of Botany* 101 (4): 722-729.
15. *Halbur, M.M., C.M. Sloop, M.J. Zanis and N.C. Emery. 2014. The population biology of mitigation: impacts of habitat creation on an endangered plant species. *Conservation Genetics* 15 (3): 679-695.
14. [s] Griebel A., A.B. Trippel, N.C. Emery, C.P. Neu. 2014. Noninvasive assessment of osteoarthritis severity in human explants by multicontrast MRI. *Magnetic Resonance in Medicine* 71 (2): 807-814.
13. Adams, M.T., T. Benjamin, N.C. Emery, S. Brouder, and K.D. Gibson. 2013. The effect of biochar on native and invasive prairie plant species. *Invasive Plant Science and Management* 6 (2): 197-207.
12. Gibson, K.D., Quackenbush, P.M., N.C. Emery, M.A. Jenkins, and E.I. Kladivko. 2013. Invasive earthworms and plants in Indiana old and second growth forests. *Invasive Plant Science and Management* 6 (1): 161-174.
11. Emery, N.C., E.J. Forrestel, G. Jui, M. Park, B.G. Baldwin and D.D. Ackerly. 2012. Niche evolution across spatial scales: climate and habitat specialization in California *Lasthenia* (Asteraceae). *Ecology* 93 (8): S151–S166. (Invited submission for Special Issue)
10. Quackenbush, P.M., *R.A. Butler, N.C. Emery, M.A. Jenkins, E.I. Kladivko, and K.D. Gibson. 2012. *Lumbricus terrestris* prefers to consume Garlic Mustard (*Alliaria petiolata*) seeds. *Invasive Plant Science and Management* 5 (2): 148-152.
9. Emery, N.C., K.J. Rice and M.L. Stanton. 2011. Fitness variation and local distribution limits in an annual plant population. *Evolution* 65 (4): 1011-1020.
8. Tucker, R.C., M. Zanis, N.C. Emery, and K.D. Gibson. 2011. Effects of water depth and seed provenance on the growth of wild rice (*Zizania aquatica*). *Aquatic Botany* 94 (3): 113-118.
7. Sargent, R., S. Kembel, N.C. Emery, E.J. Forrestel and D.D. Ackerly. 2011. Effect of local community phylogenetic structure on pollen limitation in an obligately insect-pollinated plant. *American Journal of Botany* 98 (2): 283-289.
6. Strauss, S.Y., M.L. Stanton, N.C. Emery, †*et al.* (15 undergraduate co-authors). 2009. Cryptic seedling herbivory by nocturnal introduced generalists impacts survival, performance of native and exotic plants. *Ecology* 90 (2): 419-429.
5. Emery, N.C. 2009. Ecological limits and fitness consequences of cross-gradient pollen movement in *Lasthenia fremontii*. *American Naturalist* 174 (2): 221-235.
4. Emery, N.C., M.L. Stanton and K.J. Rice. 2009. Factors driving distribution limits in an annual plant community. *New Phytologist* 181 (3): 734-747.
3. Baack, E.J., N.C. Emery and M.L. Stanton. 2006. Ecological factors limiting the distribution of *Gilia tricolor* in a California grassland mosaic. *Ecology* 87 (11): 2736-2745.
2. Rice, K.J. and N.C. Emery. 2003. Managing microevolution: Restoration in the face of global change. *Frontiers in Ecology and the Environment* 1 (9): 469-478.
1. Emery, N.C., P.J. Ewanchuk and M.D. Bertness. 2001. Competition and salt-marsh plant zonation: Stress tolerators may be dominant competitors. *Ecology* 82 (9): 2471-2485.

Peer-Reviewed Book Chapters

2. *Logan, L.H., *E.M. Karlsson, H.E. Gall, *J. Park, N.C. Emery, P. Owens, D. Niyogi and P.S.C. Rao. 2013. Freshwater Wetlands: Balancing Food and Water Security with Resilience of Ecological and Social Systems. Pp. 105-116 *in* R. Pielke, Sr. and D. Staley, editors. *Climate Vulnerability*, Vol. 2. Elsevier Inc., Academic Press.
1. Emery, N.C., *L.T. Martinez, *E.J. Forrestel, B.G. Baldwin and D.D. Ackerly. 2011. "The ecology, evolution and diversification of the vernal pool niche in *Lasthenia* (Madieae, Asteraceae)." Pp. 39-58 *in* D. G. Alexander and R. A. Schlising, editors. *Research and Recovery in Vernal Pool Landscapes*. Studies from the Herbarium, Vol. 16, Chico State University: Chico, CA.

Non-Technical Publications *(not peer reviewed)*

2. Emery, N.C. and *A.A. Robertshaw. 2012. "Field Notes from the Ross Reserve." Insights Magazine, College of Science, Purdue University. Spring 2012 issue.
1. *Jensen, M. and N.C. Emery. 2010. Conservation & Community Among the Santa Rosa Plain Vernal Pools. *Fremontia* **38** (1): 40-43.

Grants & Research Awards

Awards as Principal Investigator / Primary Author

4/2024 – 3/2027	United States Fish & Wildlife Program, Cooperative Endangered Species Conservation Fund (Section 6), F24AP00507/G2398110. Contract distributed through California Department of Fish & Wildlife. "Assessing Seed Quality, Persistence, and Genetic Diversity to Inform Recovery and Reintroduction of Contra Costa Goldfields and Burke's Goldfields." (PI) co-PI: E. Kottler, University of Colorado Boulder. Total amount awarded: $331,714
12/2022 – 11/2028	National Science Foundation-LTER, DEB #2224439 "LTER: Long-term research on the dynamics of high-elevation ecosystems – a framework for understanding rates of ecological response to climate change." (PI) co-PIs: K. Suding, E. Hinckley, S. Taylor, University of Colorado Boulder; Will Wieder, University Corporation for Atmospheric Research. Total amount awarded: $7,650,000
6/2016 – 5/2021 (no-cost extension through 6/2025)	National Science Foundation, DEB #1553053. "CAREER: Habitat specialization and the evolution of dispersal." (sole PI) Initial amount awarded: $890,000 Career Life Balance supplement awarded 10/2019: $14,682 REU supplement awarded 6/2021: $9,000 COVID supplement awarded 1/2024: $64,264
5/2017 – 1/2022	United States Fish & Wildlife Program, Traditional Section 6 Species Recovery Grant; Contract awarded through California Department of Fish & Wildlife. "Conservation genetics and habitat mitigation for *Lasthenia burkei* (Burke's Goldfields) and *L. conjugens* (Contra Costa Goldfields) in the Bay Delta Region" (sole PI) Total amount awarded: $121,715
9/2014 – 10/2018	National Science Foundation, DEB #1354900. "Plant adaptation in variable environments." (PI). Co-PI: P.S.C. Rao, Purdue University. Total amount awarded: $105,000 REU supplement awarded 6/2015: $6500
7/2014 – 6/2017	Ralph W. and Grace M. Showalter Research Trust. "Linking hydrological variability and plant community organization in natural and managed wetlands." (PI) Co-PI: P.S.C. Rao, Purdue University. Total amount awarded: $62,500
9/2011 – 8/2015	Department of Botany and Plant Pathology Incentive Award, Purdue University. "Biodiversity and climate change in natural and managed landscapes." (sole PI) Total amount awarded: $18,000
6/2013 – 5/2015	Purdue Research Foundation, Purdue University. "Variation in dispersal propensity: implications for gene flow and habitat adaptation." (sole PI) Total amount awarded: 2 years of GRA support for L. Torres-Martínez
12/2014 – 2/2015	Purdue Research Foundation International Travel Grant, Purdue University.

"Effects of diet variation in the Galapagos finches on the structure & evolutionary dynamics of the resident plant communities" (sole PI)
Total amount awarded: $1,000

7/2013 – 8/2014 Showalter Trust Research Award, Purdue University. "Gene flow and dispersal evolution." (sole PI)
Total amount awarded: $8,000 in services from Purdue bioinformatics core facility.

7/2011 – 8/2014 Purdue Climate Change Research Center Seed Grant, Purdue University. "Effects of climate change on phenology and reproductive success in the spring ephemeral herbaceous plant community." (sole PI) Graduate student co-author: A.A. Robertshaw, Purdue University.
Total amount awarded: $5,000

1/2014 – 7/2014 Water Drops Seed Grant Program, Purdue University Water Community. "Hydrological drivers of plant community structure in vernal pool wetlands." (PI) Co-PI: P.S.C. Rao, Purdue University.
Total amount awarded: $6,000

5/2012 – 8/2012 Purdue Research Foundation, Purdue University. "Dispersal variation and the evolution of species ranges." (sole PI)
Total amount awarded: $8,000 (towards summer salary)

1/2007 – 6/2012 National Science Foundation, DEB #0621377. "Niche conservatism, functional trait evolution and the diversification of the California vernal pool flora." (Graduate student co-author) PI: D.D. Ackerly, University of California Berkeley. Co-PI: B.G. Baldwin, University of California Berkeley
Total amount awarded: $525,000 (provided 2007-2008 postdoctoral salary)

5/2011 – 8/2011 Purdue Research Foundation, Purdue University. "Adaptation to climate change: integrating and testing evolutionary theory." (sole PI)
Total amount awarded: $8,000 (towards summer salary)

6/2003 – 12/2005 National Science Foundation, DEB #0309006. "DISSERTATION RESEARCH: Ecology and evolution of distribution patterns in a vernal pool annual plant." (Primary author) Advisor PI: M.L. Stanton, graduate advisor.
Total amount awarded: $12,000

Awards as Co-PI, Senior Personnel, or Major User

[S] *Role is Project Biostatistician*

3/2025 – 2/2029 *pending* National Science Foundation, DEB. "Collaborative Research: Linking evolutionary strategies and functional traits to predict community and ecosystem responses to climate change." (Co-PI, institutional lead for CU Boulder) Co-PI: Katharine Suding, University of Colorado Boulder. PI: Marko Spasojevic, University of California Riverside.
Total amount requested: $1,629,167
Amount requested to CU: $646,967

8/2024–7/2029 [S] NIH R01 AR083379. "Microphysiological joint-on-chip platform for the study of arthritic diseases." (Co-I) MPI: C. Neu and G. Whiting, University of Colorado Boulder
Total amount awarded: $2,991,623.

06/2025 – 5/2028 National Science Foundation, Postdoctoral Fellowship: "PRFB: The influence of adaptation to fine-scale topographic variation on climate-induced range shifts." (Sponsoring Scientist) PI: Dr. Eliza Clark, University of Colorado Boulder.

	Total amount awarded: $240,000
7/2023 – 6/2025	[S] NIH U01 AR082845. "Development and Translation of Granulated Human-Derived Biomaterials for Integrative Cartilage Repair." (CoI).PI: C. Neu, University of Colorado Boulder. Total amount awarded: $1,407,252 (*Includes 1:1 matching in-kind support from AlloSource)*
9/2022 – 8/2025	[S] National Science Foundation, CMMI #2212121. "Biomechanical Regulation of Intranuclear Elastography and Gene Location in Single Cells." (Co-PI) PI: C. Neu, University of Colorado Boulder. Total amount awarded: $462,332
5/2021 – 4/2024	Canada Tri-Agency New Frontiers in Research Fund – Rapid Response 2021. "Distributed experiments to overcome pandemic lockdowns while promoting equity, diversity and global knowledge." (Co-PI) PI: A. Hargreaves, McGill University. Co-PI's: Y. Vargas-Rodrigue, Universidad de Guadalajara; S. Vanderplank, Pronatura Noreste AC, S. Haeussler; Bulkey Vallety Centre for Natural Resources Research & Management; K. Mehltreter, Instituto de Ecologia, A.C.; J. Jankowski, University of British Columbia. Total amount awarded: $237,970 CAN
5/2021 – 4/2024 (no-cost extension through 4/2025)	National Science Foundation. "FIRED UP: An immersive early field experience program to build community, support inclusivity, and foster large-scale research ideas." (Co-PI) PI: V. McKenzie, University of Colorado Boulder. Co-PI's: L. Corwin, S. Taylor, J. Resasco, University of Colorado Boulder. Total amount awarded: $499,997
12/2016 – 11/2022	National Science Foundation-LTER, DEB #1637686. "LTER: Long-term research on the dynamics of high-elevation ecosystems – a framework to understand ecological sensitivity to climate change." (Co-PI) PI: K. Suding, University of Colorado Boulder. Co-PI's: J. Neff, N. Molotch, P. Johnson, University of Colorado Boulder. Total amount awarded: $6,762,000
4/2019 – 3/2024 (no-cost extension through 3/2025)	[S] NIH 2 R01 AR063712-07. "Probing Osteoarthritis Pathogenesis by Noninvasive Imaging of Cartilage Strain" (Co-I) PI: C. Neu, University of Colorado Boulder. Co-I's: R. Frank, CU Anschutz. Total amount awarded: $2,734,124 (summer support)
5/2017 – 8/2021	[S] National Science Foundation, Major Research Instrumentation (MRI) Grant. "MRI: Acquisition of a 4D high-resolution X-ray micro-computed tomography system for the Rocky Mountain Region." (Major User) PI: W. Srubar, University of Colorado Boulder. Co-PI's: V. Ferguson, S. Bryant, M. Hubler, and R. McLeod, University of Colorado Boulder. Total amount awarded: $450,000 (all funds for instrument purchase)
3/2016 – 2/2019	USDA-NIFA, Agriculture and Food Research Initiative Competitive Grant Program. "Farming with phylogenetics: Can evolutionary history inform farm management?" (Co-PI) PI: I. Kaplan, Purdue University. Co-PI: J. Tooker, PennState University. Total amount awarded: $499,613 (summer support)
9/2013 – 8/2018	[S] NIH R01 AR063712. "Probing osteoarthritis pathogenesis by noninvasive imaging of cartilage strain" (Co-I) PI: C. Neu, University of Colorado Boulder. Co-I's: G. Breur and S. Trippel, Purdue University / Indiana University; T. Talavage and A. Wrywicz, Purdue University / Northshore Health System; T. Schmid, Rush University.

Total amount awarded: $1,636,250 (summer support)

6/2016 – 5/2018 [S] NIH R21 AR066665. "Intervertebral disc mechanics measured by dualMRI *in vivo*." (Co-I) PI: C. Neu, University of Colorado Boulder. Co-I's: S. Khan, Ohio State University; E. Neuman, Purdue University
Total amount awarded: $407,789 (summer support)

6/2014 – 5/2016 National Science Foundation, DEB #1407011. "DISSERTATION RESEARCH: Gene flow by seed and pollen: implications for plant adaptation to changing climates." (PI). Graduate student co-author: L. Torres-Martínez, Purdue University.
Total amount awarded: $20,020

4/2014 – 3/2018 [S] NIH R21 AR066230. "Biomechanics of human articular cartilage measured *in vivo*." (Co-I) PI: C. Neu, University of Colorado Boulder. Co-I's: S. Trippel, Purdue / Indiana University; E. Neuman and T. Talavage, Purdue University
Total amount awarded: $402,254 (summer support)

9/2010 – 8/2011 USDA. "Miinikaan (the Place of the Blueberry): Participatory research on a food and medicinal plant on the Lac Courte Oreilles reservation." (Co-PI) PI: D. White, Lac Court Oreilles Ojibwe Community College. Co-PI: K. Gibson, Purdue University.
Total amount awarded: $200,000 (summer support)

Research Presentations

‡postdoctoral researcher co-author, **graduate student co-author;* †*undergraduate co-author*

Invited Seminars

2/2023 Department of Ecology, Evolution, and Organismal Biology, UC Riverside, Riverside, CA

4/2022 Department of Ecology & Evolutionary Biology, UC Davis, Davis, CA

3/2022 El Consejo Superior de Investigaciones Científicas, Estación Biológica Doñana, Sevilla, Spain

2/2022 Departamento de Biologia Vegetal y Ecologia, Universidad de Sevilla, Sevilla, Spain

11/2020 Department of Biology, Fordham University (virtual)

2/2020 Biodiversity Research Centre, University of British Columbia, Vancouver, BC, Canada – annual Evolution Lecture (selected by graduate students)

9/2019 Department of Ecology and Evolutionary Biology, University of Arizona, Tucson, AZ

3/2019 Department of Integrative Biology, University of Colorado Denver, Denver, CO

2/2019 Department of Organismal Biology and Ecology, Colorado College, Colorado Springs, CO

9/2018 Keynote Speaker, Guild of Rocky Mountain Ecologists and Evolutionary Biologists

2/2018 Department of Ecology, Evolutionary Biology and Behavior, Michigan State University, East Lansing, MI

10/2017 Plant Biology and Conservation Program, Northwestern University and Chicago Botanical Garden, Chicago, IL

10/2017 Department of Biology, Willamette University, Salem, OR

9/2017 Department of Plant and Microbial Biology, University of Minnesota, Minneapolis, MN

7/2017 Rocky Mountain Biological Laboratory, Gothic, CO

4/2017 Department of Biology, William H. Telfer Endowed Lectureship, University of Pennsylvania, Philadelphia, PA

3/2016	Bioagricultural Sciences & Pest Management, Colorado State University, Fort Collins, CO
2/2016	Biodiversity Research Centre, University of British Columbia, Vancouver, BC, Canada
2/2015	Department of Ecology & Evolutionary Biology, University of California Los Angeles, Los Angeles, CA
1/2015	Department of Ecology & Evolutionary Biology, University of Colorado at Boulder, Boulder, CO
3/2014	School of Biology, Georgia Tech University, Atlanta, GA
1/2014	Department of Biology, McGill University, Montreal, QC, Canada
1/2014	Kellogg Biological Station, Michigan State University, Hickory Corners, MI
11/2013	Biology Department, Case Western Reserve University, Cleveland, OH
2/2013	Department of Biology, University of Louisville, Louisville, KY
2/2013	Center for the Environment, Purdue University, West Lafayette, IN
1/2013	Department of Biology, Indiana University, Bloomington, IN
10/2012	Department of Biology, Indiana State University, Terra Haute, IN
1/2012	Department of Biology, University of Minnesota Duluth, Duluth, MN
11/2011	Purdue Water Group, Purdue University, West Lafayette, IN
9/2011	The Field Museum - A. Watson Armour Research Seminar Series, Chicago IL
3/2011	Dept. of Horticulture & Landscape Architecture, Purdue University, West Lafayette, IN
4/2010	Department of Biological Sciences, Purdue University Calumet, Hammond, IN
3/2009	Department of Botany & Plant Pathology, Purdue University, West Lafayette, IN
3/2009	Department of Biological Sciences, Purdue University, West Lafayette, IN

Conference Symposia & Working Groups

Emery, N.C. 2024. Turf Transplant Experiment: Southern Rocky Mountains of North America. *TransPlant Network* workshop. Grenoble, France.

Emery, N.C. 2023. Rugged Terrain Shapes Alpine Responses to Climate Change: Long-term Trends and Experimental Insights from the Niwot Ridge LTER. "Prairies & Grasslands" breakout session, Natural Areas Association Conference: The Power of Long-Term Ecological Research (LTER): Informing Natural Areas Management. Virtual.

Waterton, José, J. Lau, K. Whitney, and N.C. Emery. 2023-2024. Selection across scales—merging evolutionary biology and community ecology to understand trait shifts in response to environmental change. Long-Term Ecological Research (LTER) SPARC (Scientific Peers Advancing Research Collaborations) Working Group. Santa Barbara, CA.

Emery, N.C. 2021. Alpine Plant Responses to Climate Variation: Long-Term Trends and Experimental Insights from the Niwot Ridge LTER. Symposium: "The Hills are Alive: Ecology and Evolution of the Intermountain West Flora." *Botany 2021*. Virtual.

Emery, N.C. and M. Spasojevic (co-first authors). 2019. "Data situation and engagement with global agendas & UN conventions in North America: Examples from the Niwot Ridge LTER." *Contribution of Long-Term Social-Ecological Research (LTSER) Programs in Mountains to Global Policy Agendas and UN Conventions.* Champex-Lac, Switzerland.

*Carscadden, K.A., C. Alberto Arnillas, N.C. Emery, M. Cadotte, D. Gravel, M. Afkhami, J.S. MacIvor. 2017. Quantifying niche breadth: Classifying and comparing niche breadth estimators to provide a user guide. American Society of Naturalists. Symposium: "Across the Nth Dimension: Quantitative and Conceptual Advances in the Study of Niche Breadth." *Evolution Meeting*, Portland, OR. (symposium co-organizer)

Emery, N.C. 2015. Evolution of phenotypic plasticity and ecological specialization in temporally varying environments. Organized oral session: "Shifting dimensions: temporal ecology for the next 100 years and beyond." *Ecological Society of America Annual Meeting*, Baltimore, MD.

Emery, N.C. and *L. Torres-Martínez. 2015. Rapid Evolution and Phenotypic Plasticity of Vernal Pool Plants in Response to Climate Change. Symposium: "Best Management Practices for Climate Change Adaptation: A Wetlands Perspective." *Society for Wetland Scientists*, Providence, RI

Emery, N.C. 2012. Managing microevolution: ecological specialization and the evolution of distribution patterns. Symposium: "Evolutionary processes and managed populations: Managing for long-term success." *EcoSummit 2012*. Columbus, OH.

Emery, N.C., E.J. Forrestel, G. Jui, M. Park, B.G. Baldwin and D.D. Ackerly. 2010. Niche evolution and wetland habitat specialization in *Lasthenia*. National Center for Ecological Analysis and Synthesis, Ecophylogenetics working group, Santa Barbara, CA.

TEACHING

Courses Designed & Taught

2024	Graduate Seminar: Ecology, Evolution, and Conservation of *Coffea* (EBIO 6100: Organismal Biology), Department of Ecology & Evolutionary Biology, University of Colorado, Boulder, CO. Spring semester; discussion format, 2 CR.
2015-2018, 2020, 2023	Evolutionary Biology (EBIO 3080), Department of Ecology & Evolutionary Biology, University of Colorado, Boulder, CO. Fall semester 2015, spring semester 2016 & 2017; lecture + lab format, 4 CR. Solo instructor, lecture; co-instructor, lab.
2023	Graduate Seminar: Eco-Evo in Stochastic Environments (EBIO 6200: Population Biology), Department of Ecology & Evolutionary Biology, University of Colorado, Boulder, CO. Spring semester; discussion format, 2 CR. Co-taught with Dr. Daniel Doak.
2021	Graduate Seminar: Life History Theory (EBIO 6200: Population Biology), Department of Ecology & Evolutionary Biology, University of Colorado, Boulder, CO. Spring semester; discussion format, 2 CR. Co-taught with Dr. Daniel Doak.
2016-2019, 2022, 2024	Evolutionary Ecology (EBIO 4600/5600), Department of Ecology & Evolutionary Biology, University of Colorado, Boulder, CO. Fall semester; lecture + lab format, 4 CR. Solo instructor.
2016	Special Topics: Evolutionary Ecology (EBIO 4460/5460), Department of Ecology & Evolutionary Biology, University of Colorado, Boulder, CO. Fall semester; lecture + lab format, 3 CR. Solo instructor.
2008-2011, 2014	Ecology (BIOL 58500), Department of Biological Sciences, Purdue University, West Lafayette, IN. Fall semester; lecture + lab format, 3 CR. Solo instructor in 2014; co-instructor with Dr. Richard Howard in 2008, 2009, 2010 and 2011.
2014	Senior Seminar in Plant Ecology (BIOL 49500), Department of Biological Sciences, Purdue University, West Lafayette, IN. Fall semester; discussion format. 1 CR. Solo instructor.
2013	First Year Research Experience (FYRE) Introductory Biology Lab: The Ecology of Plant Reproduction (BIOL 19500), Department of Biological Sciences, Purdue University, West Lafayette, IN. Fall semester, lecture + lab format, 2 CR. Co-instructor with Ph.D. candidate Sally Chambers.

2010, 2012, 2013	Field Ecology (BIOL 59100), Department of Biological Sciences, Purdue University, West Lafayette, IN. Fall semester, lecture + lab format, 4 CR. Solo instructor in 2012 and 2013, co-instructor with Dr. Kerry Rabenold in 2012)
2009, 2010	Advanced Evolution Discussion (BIOL 65300), Department of Biological Sciences, Purdue University, West Lafayette, IN. Discussion format (1 hr/week). Solo instructor for two discussions in 2010 and one discussion in 2009.
2008, 2010, 2011	Advanced Ecology Discussion (BIOL 65200), Department of Biological Sciences, Purdue University, West Lafayette, IN. Fall semester, 2 CR. Discussion format (1 hr/week). Solo instructor for two discussions/semester in 2010 and 2011 and one discussion in 2008.

Teaching Publications

Saha, S., V. McKenzie, N.C. Emery, J. Resasco, S. Taylor, S. Krishnan, and L. Corwin. 2024. Examining How Student Identities Interact with an Immersive Field Ecology Course and its Implications for Graduate School Education. *CBE—Life Sciences Education* 23:ar44. DOI: 10.1187/cbe.24-02-0080

Angra, A., H.J. Dalgleish, S.M. Chambers, D. Pita D, and N.C. Emery. 2020. Data, distributions, and hypotheses: Exploring diversity and disturbance in the tallgrass prairie. *CourseSource*. 10.24918/cs.2020.19

Teaching Workshop Participation

2019	FLAMEnet (Failure as a part of Learning: a Mindset Education Network) workshop. (Atlanta, GA). This workshop brought STEM instructors, education researchers, psychology researchers, and academic leaders together to: (1) discuss topics related to academic tenacity in STEM and (2) develop and refine interventions for use in college and university STEM classrooms. Topics & activities: Design assessments and interventions. Time commitment: Two full days during the summer.
2017	TRESTLE (Transforming Education, Stimulating Teaching and Learning Excellence) Community Scholars Learning Community. "Exploring course-based undergraduate research experiences. How can I design a course in which students begin to see themselves as scientists?" TRESTLE Project and Center for STEM Learning, CU Boulder. Facilitated by Dr. Lisa Corwin and Dr. Pamela Harvey, University of Colorado Boulder. Topics & activities: Design CURE elements and assessments for existing courses. Time commitment: Biweekly 90-minute meetings during fall semester.
2016	FTEP (Faculty Teaching Excellence Program) Summer Assessment Institute. "Achieving Course Goals: Gathering Evidence About Student Learning." Facilitated by Dr. Daniel Bernstein, University of Kansas. Topics & activities: Learned tools for designing assessments and publishing student learning gains. Time commitment: 1 full week during summer session (8:30-4 pm, 5/9 – 5/13).
2015, 2016	Faculty Learning Community on Pedagogy and Teaching practices in EBIO. Facilitated by Dr. Andrew Martin and Dr. Nichole Barger, Department of Ecology & Evolutionary Biology, University of Colorado Boulder. Topics & activities: Developed and shared active learning modules for existing courses (2015) and designed and initiated a research study to evaluate barriers to student learning in Evolutionary Biology (2016). Time commitment: Biweekly to monthly 1-hour discussions, fall semester of each year.

2015	Faculty Teaching Excellence Program (FTEP) and Leadership Education for Advancement and Promotion (LEAP) Program Event. "Bringing Research into the Classroom." Facilitated by Dr. Elizabeth Fenn, Department of History, University of Colorado Boulder. Topic & activities: Discussed strategies for integrating research into courses to engage students in the scholarly enterprise. Time commitment: One 1-hour discussion during fall semester (10/20/2015).
8/2010 – 9/2011	Howard Hughes Medical Institute Faculty Learning Community at Purdue University. "Integrating Statistical Analysis and Experimental Design into Life Science Education." Facilitated by Dr. James Forney, Department of Biochemistry, Purdue University. Topics & activities: Designed modules for incorporating statistical tools into existing courses. Time commitment: Biweekly 90-minute meetings for one academic year, plus additional time investment to publish teaching module (see Teaching Publications.

MENTORING

Postdoctoral Mentoring

8/2022 – 12/2024	Ezra Kottler, Smith Postdoctoral Fellow, Department of Ecology & Evolutionary Biology, University of Colorado Boulder
1/2024 – 8/2024	Aaron Westmoreland, Postdoctoral Fellow, Department of Ecology & Evolutionary Biology, University of Colorado Boulder
6/2018 – 9/2022	Meagan Oldfather, Department of Ecology & Evolutionary Biology, University of Colorado Boulder. Current position: USGS Biologist, North Central Climate Adaptation Science Center (Boulder, CO)
11/2015 – 1/2019	Raffica La Rosa, Department of Ecology & Evolutionary Biology, University of Colorado Boulder. Current position: Senior Environmental Scientist, Native Plant Program, California Department of Fish & Wildlife (Sacramento, CA)

Graduate Student Mentoring

Primary Advisor or Co-Advisor

Summary: Advisor for 5 Ph.D. students currently in training; 8 Ph.D. and 5 M.S. students graduated

8/2024 – present	Miles Moore, Ph.D. student, Department of Ecology & Evolutionary Biology, University of Colorado Boulder.
8/2024 – present	Katie Bardsley, Ph.D. student, Department of Ecology & Evolutionary Biology and Interdisciplinary Quantitative Biology Program, University of Colorado Boulder.
8/2023 – present	Samantha Rothberg, Ph.D. student, Department of Ecology & Evolutionary Biology, University of Colorado Boulder. (co-advised with Dr. Mike Gil)
8/2023 – present	Joey Lodge, Ph.D. student, Department of Ecology & Evolutionary Biology, University of Colorado Boulder. (co-advised with Dr. Katie Suding)
8/2021 – present	Alec Chiono, Ph.D. student and Ford Foundation Fellow, Department of Ecology & Evolutionary Biology, University of Colorado Boulder.
8/2021 – 12/2023	Aaron Westmoreland, Ph.D. student, Department of Ecology & Evolutionary Biology, University of Colorado Boulder. (co-advised with Dr. Samuel Flaxman) Most Recent Position: Postdoctoral Researcher, University of Colorado Boulder.

8/2018 – 12/2022	William Reed, M.S., Department of Ecology & Evolutionary Biology, University of Colorado Boulder. Current Position: Database Manager, Hewlett-Packard.
8/2017 – 12/2022	Courtney L. Van Den Elzen, Ph.D., Department of Ecology & Evolutionary Biology and Interdisciplinary Quantitative Biology Program, University of Colorado Boulder. Current position: Biostatistician, SEED Health.
8/2016 – 12/2021	Kelly A. Carscadden, Ph.D., Department of Ecology & Evolutionary Biology, University of Colorado Boulder. (Co-advised with Dr. Daniel Doak). Current position: Data Science Specialist, ACRE, McKinsey & Company
6/2017 – 05/2019	Silas Tittes, Ph.D., Department of Ecology & Evolutionary Biology, University of Colorado Boulder. (Co-advised with Dr. Nolan Kane). Current position: Research Associate, University of Oregon.
5/2016 – 05/2018	Margaret Habib, M.S., Department of Ecology & Evolutionary Biology, University of Colorado Boulder. Current position: Professional Research Assistant, University of Colorado Boulder.
8/2012 – 7/2017	Elizabeth A. LaRue, Ph.D., Department of Biological Sciences, Purdue University. Current position: Assistant Professor, Department of Biology, University of Texas at El Paso.
8/2010 – 8/2016	Lorena Torres-Martínez, Ph.D, Department of Biological Sciences, Purdue University. Current position: Assistant Professor, Department of Biology, St. Mary's College of Maryland.
1/2010 – 5/2015	Asya A. Robertshaw, Ph.D., Department of Botany & Plant Pathology, Purdue University. Current position: Mother and primary caretaker for three children.
1/2010 – 12/2014	Sally M. Chambers (formerly Stevens), Ph.D., Department of Botany & Plant Pathology, Purdue University. Current position: Assistant Professor and Herbarium Curator, Department of Biology, Eastern Kentucky University.
6/2012 – 8/2014	Joseph F. Walker, M.S., Department of Botany & Plant Pathology, Purdue University. Current position: Assistant Professor, Biological Sciences, University of Illinois at Chicago.
9/2012 – 5/2013	Lauren H. Logan, M.S., Biological Sciences / Ecological Sciences & Engineering, Purdue University. Current position: Assistant Professor, Civil and Environmental Engineering, Ohio Northern University.
8/2008 – 8/2011	Michelle Halbur (formerly Michelle Jensen), M.S., Department of Botany & Plant Pathology, Purdue University. Current position: Preserve Ecologist, Pepperwood Preserve, Santa Rosa, CA.

Graduate Student Committee Participation

Summary: Served (or currently serving) on 61 Ph.D. committees and 15 M.S. committees
Mentor for 3 rotation students through the Interdisciplinary Quantitative Biology Program at CU Boulder

Undergraduate Mentoring

Summary: Mentor for >75 undergraduate research assistants, 10 Honors thesis students, 5 high school students

Undergraduate Mentoring Program Participation

6/2023– 8/2023	UROP Mentor, University of Colorado Boulder
6/2022– 8/2022	UROP Mentor, University of Colorado Boulder
6/2019– 8/2019	REU Mentor (NSF CAREER supplement), University of Colorado Boulder

6/2019– 8/2019	REU Mentor, Niwot Ridge LTER / Cooperative Institute for Research in Environmental Sciences, University of Colorado Boulder RECCS (Research Experience for Community College Students) program
6/2017– 8/2017	REU Mentor, University of Colorado Boulder Mountain Research Station
6/2017– 8/2017	Faculty Mentor, CU Science Discovery High School Summer Research Program (2 students hosted)
8/2011– 8/2015	Undergraduate Faculty Mentor, Department of Biological Sciences, Purdue University
5/2011 – 8/2011	Faculty Mentor, Department of Botany and Plant Pathology summer internship program, Purdue University
2010, 2013	Faculty Mentor, HORIZONS student support program, Purdue University
8/2009 – 2011	Faculty Research Mentor, NSF FEELS (Food, Environment, Engineering & Life Sciences) program, Purdue University

High School Mentoring

9/2024 – 12/2024	Senior at Legacy High School, Broomfield, CO; career practicum for Legacy 2000 program
1/2023 – 08/2023	Senior at Boulder High School, Boulder, CO; paid internship
8/2017 – 8/2018	Senior at Boulder High School, Boulder, CO; paid internship
7/2017	Host lab, CU Science Discovery STEM Research Experience High School Mentoring Program (hosted 2 students)

SERVICE

Professional Societies

Society Memberships

American Society of Naturalists, Botanical Society of America, British Ecological Society, Ecological Society of America, Society for the Study of Evolution, Sigma Xi Scientific Research Society, Indiana Academy of Science, Northern California Botanists

Society Activities

2020	Evo Ally, Evolution Community Resources for Early Career Researchers (ECR^2) virtual meeting; moderator for Plenary Webinar by Dr. Joseph Graves Jr.: "African Americans in Evolutionary Science: Where We Have Been and What's Next"
2016 – 2019	Co-Chair, Ruth Patrick Award Committee, American Society of Naturalists (best student poster at annual meetings)
2019	Evo Ally, Society for the Study of Evolution annual meeting, Providence, RI
2017	Faculty mentor, Society for the Study of Evolution, student-faculty networking lunch, *Evolution Meeting,* Portland, OR
2016	Judge, Ed Ricketts Student Talk Award (best student oral presentation), American Society of Naturalists, *American Society of Naturalists* standalone meeting, Asilomar Conference Grounds, Pacific Grove, CA
2014	Judge, Student Presentation Awards (oral & poster), Ecology Section, *Botany Meeting,* Boise, ID

2014	Judge, Hamilton Award (best student oral presentation), Society for the Study of Evolution, *Evolution Meeting,* Raleigh, NC
2014	Judge, Ruth Patrick Award (best student poster), American Society of Naturalists, *Evolution Meeting,* Raleigh, NC
2013	Judge, Hamilton Award (best student oral presentation), Society for the Study of Evolution, *Evolution Meeting,* Snowbird, UT

Peer Review Activities

Ad Hoc & Panel Reviews for Federal Granting Agencies

Panelist, National Science Foundation (8 times)
Ad hoc reviewer, National Science Foundation (6 times)
Ad hoc reviewer, National Sciences & Engineering Council of Canada (2 times)

Journal Editorial Activities

1/1/20 – 1/1/23	*American Naturalist*, Associate Editor
1/1/18 – 1/1/21	*Evolution*, Associate Editor
4/2017 – 12/2019	*Journal of Ecology*, Associate Editor
10/2016 – 12/2019	*Ecosphere*, Subject Matter Editor

Journal Referee Activities

Annals of Botany, American Midland Naturalist, American Naturalist, American Journal of Botany, Conservation Biology, Conservation Genetics, Climatic Change, Ecography, Ecological Applications, Ecology, Ecology and Evolution, Ecology Letters, Evolution, Evolution Letters, Heredity, International Journal of Plant Sciences, Journal of Biogeography, Journal of Ecology, Journal of Evolutionary Biology, Journal of Landscape Ecology, Journal of Plant Ecology, Molecular Ecology, Madroño, Nature, Nature Communications, Nature Ecology and Evolution, Nature Reviews Genetics, New Phytologist, Oikos, Plant Biology, Plant Ecology and Diversity, PNAS, Restoration Ecology

University Service

Early Career Faculty Mentor for four pre-tenure faculty

Academic Committees & Program Participation at CU Boulder

8/2024 – present	Early Career Faculty Mentoring Committee, Department of Ecology & Evolutionary Biology
2/2023 – present	Technical Representative for the University of Colorado Boulder, Rocky Mountain Cooperative Ecosystem Studies Unit
12/2022 – present	Lead and PI, Niwot Ridge LTER-8 Program, Institute of Arctic & Alpine Research, University of Colorado Boulder
8/2022 – present	Academic Review and Planning Advisory Committee (ARPAC), University of Colorado Boulder
8/2023 – 8/2024	Merit Committee, Department of Ecology & Evolutionary Biology
8/2022 – 08/2023	Executive Committee, Department of Ecology & Evolutionary Biology
8/2020 – 08/2022	Faculty Affairs Committee, Department of Ecology & Evolutionary Biology
8/2020 – 12/2022	Co-Lead and Co-PI, Niwot Ridge Long-Term Ecological Research-7 Program, University of Colorado Boulder
3/2020	Review Board, Undergraduate Research Opportunity Program (UROP) – individual and team grants

8/2019 – 5/2020	Merit Review Committee, Department of Ecology & Evolutionary Biology
8/2019 – 12/2019	PURC Reappointment Committee for Dr. Scott Taylor, Department of Ecology & Evolutionary Biology
6/2019 – present	Executive Committee, Niwot Ridge Long-Term Ecological Research program, University of Colorado Boulder
1/2019 – 2022	Early Career Faculty Mentoring Committee, Department of Ecology & Evolutionary Biology
8/2018 – present	Faculty Sponsor, EBIO club
8/2015 – 05/2020	Graduate Committee, Department of Ecology and Evolutionary Biology
8/2017 – 5/2018	Merit Review Committee, Department of Ecology & Evolutionary Biology
2/15/2017	Panelist, NSF CAREER Kickoff Workshop, Research & Innovation Office
8/2016 – 8/2017	Executive Committee, Department of Ecology & Evolutionary Biology

Academic Committees & Program Participation at Purdue University

9/2014 – 5/2015	Faculty Search Committee, Center for Molecular Agriculture (5 positions)
8/2014 – 5/2015	Director of the Ross Biological Reserve, Department of Biological Sciences
8/2014 – 5/2015	Qualifying Exam Convener, Ecology, Evolution, and Behavior cluster, Department of Biological Sciences
8/2014 – 5/2015	Undergraduate Studies Committee, Department of Biological Sciences
4/2013 – 5/2015	Faculty Executive Committee, Purdue Climate Change Research Center
10/2012 – 5/2015	Faculty Executive Committee, Purdue Center for the Environment (C4E)
9/2012 – 5/2015	Undergraduate Placement Committee, Department of Biological Sciences
6/2012 – 5/2015	EcoLunch Coordinator, Department of Biological Sciences
8/2011 – 5/2015	Graduate Studies Committee, Department of Biological Sciences
8/2010 – 5/2015	Interdisciplinary Graduate Program Governance Committee, Ecological Science & Engineering
4/2009 – 5/2015	Ross Biological Reserve Committee, Department of Biological Sciences
8/2013 – 4/2014	Faculty Search Committee, Department of Biological Sciences
1/2012 – 9/2014	Purdue campus delegate, Organization for Tropical Studies (OTS)
1/2012 – 8/2012	Organizer, Plant Biology Institute Level 1 Community: Plant Ecology and Evolution in Natural and Managed Landscapes
1/2012 – 5/2014	Daycare Task Force (appointed by Provost)
10/2012 – 5/2013	Faculty Search Committee, Departmental of Biological Sciences
4/2012	Organizing Committee, 2012 Earth Day Symposium: *Linking Biodiversity and Sustainability in Natural and Managed Landscapes*
2011, 2012	Graduate Admissions Committee, Department of Biological Sciences
9/2011	Panel member for the Faculty Advancement, Success and Tenure Professional Development Series, ADVANCE-Purdue and the Center for Faculty Success
4/2010, 2011	Carpenter Scholarship Committee, Department of Biological Sciences

Public Outreach

2022	"Alpine plant responses to changing climate: Long-term trends and experimental insights from the Niwot Ridge LTER." Colorado Native Plant Society Annual Conference. Longmont, CO.
2019	"Going Places: Discovering Seed Dispersal" 3rd grade classrooms, Columbine Elementary, Boulder, CO
2017, 2018, 2019	"Strange Plants" activity, 1st & 2nd grade classrooms, Columbine Elementary, Boulder, CO
2015	Workshop Co-Instructor, *Friends of the Jepson Herbarium*, UC Berkeley. "Native Plants of the UC Merced Vernal Pool Grasslands Reserve," UC Merced Grassland Reserve, Merced, CA
2015	Co-instructor, West Lafayette High School Honor's Biology field trip, Ross Biological Reserve, West Lafayette, IN
2014	Oral presentation, *Indiana Native Plant & Wildflower Society* (West Central Chapter). "Are spring ephemerals threatened by climate change?" Celery Bog Nature Preserve, West Lafayette, IN
2011- 2014	Instructor, *U.S. Biology Olympiad* plant ecology lab practical module, Purdue University and Ross Biological Reserve, West Lafayette, IN
2013	Oral presentation for "Wednesdays in the Wild," *Tippecanoe County Parks & Recreation Department*. "Spring creep and spring flowers: effects of climate change on plant-pollinator interactions." Celery Bog Nature Center, West Lafayette, IN
2013	Oral presentation, Purdue Biological Sciences high school "Focus" day, Purdue University, West Lafayette, IN