

CURRICULUM VITAE

Nancy C. Emery, Ph.D.

CONTACT INFORMATION

Address: Department of Ecology & Evolutionary Biology
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EDUCATION & TRAINING

01/2007 – 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 & Assoc. Environmental Consulting, Davis, CA

LEAVE

2/2010 – 5/2010 Parental leave, Purdue University

10/2005 – 12/2005 Parental leave, University of California Davis

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

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|-------------|---|
| 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, <i>Magna cum laude</i> , Brown University |
| 1998 | James F. Kidwell Prize in Population Biology and Genetics, Brown University |

RESEARCH

Publications

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

53. ‡Oldfather, 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. 2023. 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.
52. *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. 2023. *Evolution Letters*. Available online. DOI: 10.1093/evlett/quad063.
51. * Carscadden, K.A., ‡M. 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>.
50. *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.
49. Schneider 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. (Provided statistical support)
48. *Scott 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 (Provided statistical support)
47. *K.A. Carscadden, 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. *Wilson R.L., N.C. Emery, D.M. Pierce, C.P. Neu CP. 2022. Spatial Gradients of Quantitative MRI as Biomarkers for Early Detection of Osteoarthritis: Data From Human Explants and the

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- Osteoarthritis Initiative. *Journal of Magnetic Resonance Imaging*. DOI: 10.1002/jmri.28471 (Provided statistical support)
45. *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
44. ‡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
43. *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
42. *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
41. 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
40. ‡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
39. *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
38. *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 (Provided statistical support)
37. 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
36. *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
35. *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
34. *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
33. *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 (Provided statistical support)
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

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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. Kettingring, 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. 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 (Provided statistical support)
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. *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. (Provided statistical support)
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.

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12. Gibson, K.D., *Quackenbush, P.M., N.C. Emery, M.A. Jenkins, and E.I. Kladvko. 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. Forrester, *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. Kladvko, 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. Forrester 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.

Submitted / In Review / In Revision

2. *Westmoreland, A. and N.C. Emery. Asynchronous life histories generate uneven arms races and impact the maintenance of mutualisms. *Revisions requested from American Naturalist*.
1. *Reed, W., K. N. Suding, D.F. Doak, W. Bowman, and N.C. Emery. Fine-scale temporal variation predicts community composition and species distributions across an alpine catchment. *Revisions in review for Ecology*.

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. Forrester, 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.

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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

- 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
- 7/2016 – 6/2021 National Science Foundation, DEB #1553053. “CAREER: Habitat specialization and the evolution of dispersal.” (sole PI)
(no-cost extension through 6/2024)
Total amount awarded: \$890,000
Career Life Balance supplement awarded 10/2019: \$14,682
REU supplement awarded 6/2021: \$9,000
- 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
- 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
- 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.

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- 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

- 9/2022 – 8/2025 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-PIs: Y. Vargas-Rodrigue, Universidad de Gualalajara; S. Vanderplank, Pronatura Noreste AC, S. Haeussler; Bulkey Valley 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 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-PIs: 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-PIs: J. Neff, N. Molotch, P. Johnson, University of Colorado Boulder.
Total amount awarded: \$6,762,000
- 4/2019 – 3/2024 NIH 2 R01 AR063712-07. “Probing Osteoarthritis Pathogenesis by Noninvasive

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- Imaging of Cartilage Strain” (Co-I) PI: C. Neu, University of Colorado Boulder. Co-PIs: R. Frank / CU Anschutz.
Total amount awarded: \$2,734,124 (summer support)
- 5/2017 – 8/2021 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-PIs: 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 NIH R01 AR063712. “Probing osteoarthritis pathogenesis by noninvasive imaging of cartilage strain” (Co-I) PI: C. Neu, University of Colorado Boulder. Co-PIs: 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 NIH R21 AR066665. “Intervertebral disc mechanics measured by dualMRI *in vivo*.” (Co-I) PI: C. Neu, University of Colorado Boulder. Co-PIs: S. Khan, Ohio State University; E. Neuman, Purdue University
Total amount awarded: \$407,789 (summer support)
- 4/2014 – 3/2018 NIH R21 AR066230. “Biomechanics of human articular cartilage measured *in vivo*.” (Co-I) PI: C. Neu, University of Colorado Boulder. Co-PIs: 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 Biología Vegetal y Ecología, 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

CURRICULUM VITAE

Nancy C. Emery

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| 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. 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 title: "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

CURRICULUM VITAE

Nancy C. Emery

- *Carscadden, K.A. and N.C. Emery. 2017. Co-organizer. American Society of Naturalists Symposium: “Across the Nth Dimension: Quantitative and Conceptual Advances in the Study of Niche Breadth.” *Evolution Meeting*, Portland, OR
- *Carscadden, K.A., *C. Alberto Arnillas, N.C. Emery, M. Cadotte, D. Gravel, M. Afkhami, J.S. MacIvor. Quantifying niche breadth: Classifying and comparing niche breadth estimators to provide a user guide. American Society of Naturalist Symposium: “Across the Nth Dimension: Quantitative and Conceptual Advances in the Study of Niche Breadth.” *Evolution Meeting*, Portland, OR
- 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 title: “Best Management Practices for Climate Change Adaptation: A Wetlands Perspective.” *Society for Wetland Scientists*, Providence, RI
- Emery, N.C. 2014. Niche evolution and habitat specialization in variable environments: Implications for conservation and restoration. *Plant Ecology, Evolution, and Conservation: A Celebration of Big Science*. University of California at Davis, Davis, CA
- Emery, N.C. 2014. Species interactions and niche conservatism determine ecological distributions in vernal pool species. Symposium: “Insights into classic ecological questions gained from phylogenetic historical approaches.” *Conference of the American Society of Naturalists*. Asilomar Conference Center, Pacific Grove, CA
- *Torres-Martínez, L. and N.C. Emery. 2014. Germination and Dormancy Variation in Fremont’s Goldfields: Implications for Vernal Pool Plant Responses to Climate Change. *Northern California Botanists Symposium*. California State University, Chico, CA
- *Stevens, S.M. and N.C. Emery. 2013. No place like home? Testing for local adaptation and dispersal limitation in *Vittaria appalachiana*. Colloquium: “Frontiers in fern gametophyte research,” *Botany 2013*. New Orleans, LA
- 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
- *Carscadden, K. *C. Arnillas, N.C. Emery, M. Cadotte, D. Gravel, M. Afkhami, and S. MacIvor. Niche breadth measures yield different estimates: Classifying and comparing measures from across ecology and evolutionary biology. Oral Presentation, *American Society of Naturalists*. Pacific Grove, CA
- *Tittes, S. and N.C. Emery. A novel Bayesian inference method to model tolerance curves. Oral Presentation, *American Society of Naturalists*. Pacific Grove, CA
- *Van Den Elzen, C. and N.C. Emery. 2018. Dispersal traits correlate with microhabitat adaptation in wind-dispersed vernal pool congeners. Oral Presentation, *American Society of Naturalists*. Pacific Grove, CA
- ‡La Rosa, R.J. and N.C. Emery. 2018. Plasticity, specialization, and species distributions across environmental gradients. Lightning Presentation, *American Society of Naturalists*. Pacific Grove, CA
- Emery, N.C. and ‡R.J. La Rosa. 2017. Plasticity and specialization in variable environments: Adaptation in vernal pool goldfields. Oral Presentation, *Evolution Meeting*. Portland, OR
- *Van Den Elzen, C.L., N.C. Emery, S.L. Flaxman and B.A. Melbourne. 2017. Not all those who wander are lost: A model of evolutionary interplay between dispersal and niche evolution in plants. Poster Presentation, *Evolution Meeting*. Portland, OR
- ‡La Rosa, R.J. and N.C. Emery. 2016. Plant adaptation to hydrologically variable environments. Oral Presentation, *Botanical Society of America Annual Meeting*. Savannah, GA
- *LaRue, E.A., M.R. Christie and N.C. Emery. 2016. Incorporating geographic variation in dispersal to better predict a species’ distribution under climate change. Oral Presentation, *Ecological Society of America Annual Meeting*. Fort Lauderdale, FL

CURRICULUM VITAE

Nancy C. Emery

- *LaRue, E.A., M.R. Christie, J. Holland and N.C. Emery. 2016. Incorporating geographic variation in dispersal in order to better predict species' distributions. Oral Presentation, *U.S. Regional Association of the International Association for Landscape Ecology*. Asheville, NC
- *Robertshaw, A.A. and N.C. Emery. 2014. Effects of climate change on plant reproductive success in the Indiana spring ephemeral community. Oral Presentation, *Botany Meeting*. Boise, ID
- Emery, N.C. and E.J. Forrestel. 2014. The evolutionary interplay between dispersal traits and habitat adaptation. Oral Presentation, *Evolution Meeting*. Raleigh, NC
- *Logan, L.H., N.C. Emery and A.S. Stillwell. 2014. The science not yet behind wetland policy: ecology, hydrology, public perception, and conservation. *World Environmental and Water Resources Congress 2014*. Portland, OR
- *Robertshaw, A.A. and N.C. Emery. 2013. Effects of temperature, resources, and pollinator interactions on the reproductive success of *Claytonia virginica* (Montiaceae). Oral Presentation, *Ecological Society of America Annual Meeting*. Minneapolis, MN
- Emery, N.C., *L. Torres-Martínez and †M. Madden. 2013. Reaction norm evolution and habitat specialization in California goldfields (*Lasthenia*, Asteraceae). Oral Presentation, *Evolution Meeting*. Snowbird, UT
- *Robertshaw, A.A. and N.C. Emery. 2012. Effects of temperature, resources, and plant-pollinator interactions on reproductive success in *Claytonia virginica* (Portulacaceae). Oral Presentation, *Botany 2012*. Columbus, OH
- *Stevens, S.M. and N.C. Emery. 2012. Stuck between a rock and a hot place: the role of climate in driving population and species boundaries in an endemic Appalachian fern species. Poster Presentation, *Botany Meeting*. Columbus, OH
- Emery, N.C. and D.D. Ackerly. 2011. Release from competition reveals additive genetic variation in the ecological niche. Poster presentation, *European Research Networking Programme Frontiers of Speciation Research: Niche Theory and Speciation Workshop*, Keszthely, Hungary
- Dagleish, H.J., *S.M. Stevens and N.C. Emery. 2011. Creating active learning modules to incorporate statistics and experimental design across life science curricula through a Faculty Learning Community. Poster Presentation, *Ecological Society of America Annual Meeting*. Austin, TX
- †Walker, J.F., *S.A. Walker, *R.C. Tucker, P.K. Morton, N.C. Emery, K.D. Gibson, and M.J. Zanis. 2010. The Evolution and biogeography of *Zizania* sp. based on chloroplast, mitochondrial, and nuclear gene sequence data. Poster presentation, *Botany 2010*. Providence, RI
- *E.J. Forrestel, D.D. Ackerly and N.C. Emery. 2010. Niche evolution and functional trait convergence in vernal pool endemics of the genus *Lasthenia*. Oral presentation, *Botany Meeting*. Providence, RI
- Sargent, R.S., S. Kembel, N. Emery and D. Ackerly. 2009. No evidence for a correlation between local species diversity and pollination service in a California vernal pool endemic. Oral presentation, *Ecological Society of American Annual Meeting*. Albuquerque, NM
- Emery, N.C., R. Solan and D.D. Ackerly. 2009. Selection, genetic variation and niche conservatism in *Lasthenia fremontii*. Oral presentation, *Ecological Society of America Annual Meeting*. Albuquerque, NM
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CURRICULUM VITAE

Nancy C. Emery

TEACHING

Courses Designed & Taught

- 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.
- 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.
- 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 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

- Angra, A., H.J. Dagleish, 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](https://doi.org/10.24918/cs.2020.19)

CURRICULUM VITAE

Nancy C. Emery

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 FTPE (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 (FTPE) 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 – 7/2011 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).
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CURRICULUM VITAE

Nancy C. Emery

MENTORING

Postdoctoral Mentoring

- 8/2022 – present Ezra Kottler, Smith 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 8 Ph.D. and 5 M.S. students graduated; 3 Ph.D. students currently in training

Mentor for 3 rotation students through the Interdisciplinary Quantitative Biology Program at CU Boulder

- 8/2023 – present Joey Lodge, Ph.D. student, Department of Ecology & Evolutionary Biology, University of Colorado Boulder. (co-advised with Dr. Katie Suding)
- 8/2023 – present Samantha Rothberg, Ph.D. student, Department of Ecology & Evolutionary Biology, University of Colorado Boulder. (co-advised with Dr. Mike Gil)
- 8/2021 – present Alec Chiono, Ph.D. student and Ford Foundation Fellow, Department of Ecology & Evolutionary Biology, University of Colorado Boulder.
- 8/2021 – 12/2022 Aaron Westmoreland, Ph.D. student, Department of Ecology & Evolutionary Biology, University of Colorado Boulder. (co-advised with Dr. Samuel Flaxman)
Current Position: Postdoctoral Research, 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: Quantitative Biologist & 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.

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Nancy C. Emery

- 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 59 Ph.D. committees and 15 M.S. committees

Undergraduate Mentoring

Summary: Mentor for >70 undergraduate research assistants

Primary Advisor for 9 students that conducted research towards honor's degree

Undergraduate Mentoring Program Participation

- 6/2023– 8/2023 UPROP Mentor, University of Colorado Boulder
- 6/2022– 8/2022 UPROP 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

Summary: research mentor for 4 local high school students

SERVICE

Professional Societies

CURRICULUM VITAE

Nancy C. Emery

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 (ECR²) 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

- NSF Panelist (8 times)
NSF *Ad hoc* Reviewer (6 times)
NSERC *Ad hoc* Reviewer (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

CURRICULUM VITAE

Nancy C. Emery

Early Career Faculty Mentor for three pre-tenure faculty

Primary Unit Evaluation Committee member for one tenure case and two reappointments

Academic Committees & Program Participation at CU Boulder

- 2/2023 – present Technical Representative for the University of Colorado Boulder, Rocky Mountain Cooperative Ecosystem Studies Unit
- 12/2022 – present Co-Lead and PI, Niwot Ridge LTER Program, Institute of Arctic & Alpine Research, University of Colorado Boulder
- 8/2023 – present Merit Committee, Department of Ecology & Evolutionary Biology
- 8/2022 – present Academic Review and Planning Advisory Committee (ARPAC), University of Colorado Boulder
- 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 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 – present 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)

CURRICULUM VITAE

Nancy C. Emery

- 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, Department 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