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**DR. SYDNE RECORD**


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ASSOCIATE PROVOST & ASSOCIATE PROFESSOR OF BIOLOGY

Bryn Mawr College

Park Science Building, Room 209

Bryn Mawr, Pennsylvania 19010

srecord@brynmawr.edu

Website: <https://sydnerecord.blogs.brynmawr.edu>

### Education

- 2010 University of Massachusetts Amherst  
 Ph.D. Plant Biology  
 Dissertation: Conservation while under invasion – Insights from a rare hemiparasitic plant, Swamp Lousewort (*Pedicularis lanceolata* Michx.)  
 Adviser: Aaron Ellison
- 2003 University of Puget Sound  
 B.S. Biology (Honors)  
 Thesis: Vascular plant biodiversity at Spray Park, Mount Rainier National Park  
 Adviser: Katherine Glew

### Professional appointments

- 2021- Associate Provost of Curricular Assessment and Sustainability, Bryn Mawr College, Bryn Mawr, PA
- 2020- Associate Professor of Biology, Bryn Mawr College, Bryn Mawr, PA
- 2014-2020 Assistant Professor of Biology, Bryn Mawr College, Bryn Mawr, PA
- 2018- Visiting Scholar and Co-Director of the Harvard Forest Summer Research Program in Ecology, Department of Organismic and Evolutionary Biology & Harvard Forest, Harvard University, Petersham, MA
- 2011- Founding Board Member and Treasurer of Radnor to River, Nashville, TN  
<https://radnor2river.org>
- 2012-2018 Research Associate, Harvard Forest, Harvard University, Petersham, MA
- 2013-2014 Postdoctoral Fellow, Department of Forestry, Michigan State University, East Lansing, MI  
 Advisers: Andrew Finley and Rich Kobe
- 2012-2013 Visiting Lecturer, Smith College, Northampton, MA
- 2010-2012 Postdoctoral Fellow, Harvard Forest, Harvard University, Petersham, MA  
 Advisers: Aaron Ellison, Matthew Fitzpatrick, Kristina Stinson

**Funded grants** (\$1.6 million to S. Record)

\*Undergraduate collaborator

- 2021-2024 National Aeronautics and Space Administration (\$555,650 to Bryn Mawr College) "Scaling Forest Diversity Across Space and Time in a Non-Equilibrium World" (PI: S. Record, Co-I: N. Charney)
- 2021-2025 National Science Foundation (\$317,708 to Bryn Mawr out of \$1.4 million total), "Collaborative Research: MRA: Modeling and forecasting phenology across spatiotemporal and taxonomic scales using NEON, USA-NPN, and mobilized digital herbarium data" (PIs: Susan Mazer, Sydne Record, Charles Davis)
- 2021-2022 National Science Foundation (\$59,270 to Bryn Mawr) "Research Experience for Post-Baccalaureate Supplement: Collaborative Proposal: MRA: Connecting local, regional, and continental scale drivers to biodiversity across NEON through the lens of intraspecific trait variation and disturbance" (PI: S. Record)
- 2020 National Science Foundation (\$99,770 to Bryn Mawr College) "Macrosystems Biology and NEON enabled science investigator meeting" (PI: S. Record)
- 2020-2022 National Science Foundation (\$534,595 to Harvard University) "REU Site: Summer Research Program in Ecology at Harvard Forest: Diverse data networks for diverse data scientists" (PI: A. Barker-Plotkin, Co-PI: S. Record)
- 2019-2023 National Science Foundation (\$368,331 total award to Bryn Mawr out of \$1.5 million) "Collaborative Proposal: MRA: Connecting local, regional, and continental scale drivers to biodiversity across NEON through the lens of intraspecific trait variation and disturbance" (Co-PIs: S. Record, P. Zarnetske, B. Baiser, A. Strecker)
- 2018 Tri-Co Mellon Seed Grant (\$600), "Ecology collaborations across the Tri-Co" (PI: S. Record)
- 2018 Bryn Mawr College International Curricular Grant (\$5,000), "Demographic trade-offs in parasitic plants: cheating towards success?" (PIs: S. Record, K. Hoerr\*, O. Jones, R. Salguero-Gomez)
- 2018 National Science Foundation (\$10,963 total award to Bryn Mawr), "REU Supplement: EAGER-NEON: Using intra-specific trait variation to understand processes structuring continental-scale biodiversity patterns" (PI: S. Record)
- 2016-2018 National Aeronautics and Space Administration (\$150,441 total award; \$27,558 Bryn Mawr sub-award), "Connecting biodiversity, geodiversity, and remote sensing across scales" (PI: P. Zarnetske, Co-Is: S. Record, Kyla Dahlin)
- 2015-2017 National Science Foundation (\$300,000 total award; \$124,577 Bryn Mawr), "Collaborative Research: EAGER-NEON: Using intra-specific trait variation to understand processes structuring continental-scale biodiversity patterns" (PI: S. Record, Collaborators: P. Zarnetske, B. Baiser, A. Strecker)
- 2015 National Science Foundation (\$791,983 total award), "A forest full of Big Data: the Harvard Forest Summer Research Program in Ecology 2015-2019" (PI: A.M. Ellison, Senior Personnel: S. Record)

- 2015 Howard Hughes Medical Institute New Directions Grant (\$22,000), “Genomic distribution models” (PI: S. Record)
- 2015 Tri-Co Mellon Seed Grant (\$600), “Ecology collaborations across the Tri-Co” (PI: S. Record)
- 2012-2014 British Ecological Society (\$8,000), “Demographic tradeoffs in parasitic plants: Cheating towards success?” (PI: O. Jones, co-Is: R. Salguero-Gómez, M. Crawley, S. Record)
- 2012-2013 Long Term Ecological Research Network Office (\$9,225), “A guide to successful graduate student socio-ecological research: Insights from the Long Term Ecological Research Network” (PI: S. Record)
- 2009-2011 Long Term Ecological Research Network Office (\$8,100), “Identifying the benefits and barriers to graduate student urban cross-site socio-ecological research” (PI: M. Romolini, co-Is: J.M. Grove, L. Ogden, S. Record, S. Geiger, Y. Marusenko)
- 2011 Nantucket Biodiversity Initiative (\$500, “Leaf mines and galls of Nantucket and Tuckernuck Islands.” (PI: C.S. Eiseman, Co-Is: S. Record, N.D. Charney)
- 2009-2010 National Science Foundation, Division of Biological Sciences (\$12,715), “Doctoral Dissertation Improvement Grant: Testing the effects of priors on prediction error in Bayesian demographic models” (PI: A.M. Ellison, Co-I: S. Record)
- 2007-2010 Massachusetts Natural Heritage and Endangered Species Program (\$8,000), “Conservation while under invasion: Insights from a rare hemiparasitic plant, *Pedicularis lanceolata*. (PI: S. Record)
- 2009 New England Botanical Club (\$1,000), “*Pedicularis lanceolata* in Massachusetts.” (PI: S. Record)
- 2007 University of Massachusetts Natural History Collections (\$1,500), “Core and edge populations of *Pedicularis lanceolata*.” (PI: S. Record)
- 2007 University of Massachusetts Amherst R.J. Davis Botany Grant (\$1,300), “Core and edge populations of *Pedicularis lanceolata*.” (PI: S. Record)

### Pending grants

- 2021 National Science Foundation (\$1 million to Bryn Mawr out of \$20 million total) “National Center for Environmental Data Synthesis (NCEDS)” (PI: M. Dietze, Senior Personnel: S. Record, J. McLachlan, M. Kenney, D. Dalbotten) – Invited for virtual site visit in January 2022.


**Publications** (A \* and + indicate undergraduate and postdoctoral co-authors mentored by S. Record, respectively):

- 56) Li, D., **S. Record**, E. Sokol, M.E. Bitters, M.Y. Chen, A. Chung, M. Helmus, R. Jaimes, L. Jansen, M.A. Jarzyna, M.G. Just, J.M. LaMontagne, B. Melbourne, W. Moss, K. Norman, S. Parker, N. Robinson, B. Seyednasrollah, C. Smith, S. Spaulding, T. Surasinghe, S. Thomsen, and P. Zarnetske. *In press*. Standardized NEON organismal data for biodiversity research. Slated for special issue on NEON Science Summit in *Ecosphere*.

- 54) Gaiser, E.E., M.R. Downs, J.S. Kominoski, D.M. McKnight, C.A. Bahlai, C. Cheng, **S. Record**, W. Wollheim, K.R. Christianson, P.A. Hawman, S.J. Holbrook, A. Kumar, D. Mishra, N.P. Molotch, R.B. Primack, A. Rassweiler, R.J. Schmitt, and L. Sutter. *In press*. Long term ecological research and the pandemic-driven anthropause: A window to understanding the role of human disturbance in ecosystem dynamics. *Ecosphere*.
- 53) Jarzyna, M., K. Norman, J. LaMontagne, M. Helmus, D. Li, S. Parker, M. Perez Rocha, **S. Record**, E. Sokol, P.L. Zarnetske, and T. Surasinghe. *In press*. Ecosystem stability is related to animal dynamics at a continental scale. Slated for special issue on NEON Science Summit in *Ecosphere*.
- 52) **Record, S.**, M. Jarzyna, B. Hardiman, and A. Richardson. *In press*. Interdisciplinarity and open data contribute to resilient innovation during pandemic. *Frontiers in Ecology and the Environment*. doi:10.1002/fee.2468
- 51) Schultz, E.L., L. Hulsmann, M.D. Pillet, F. Hartig, D.B. Breshears, **S. Record**, J.D. Shaw, R.J. DeRose, P.A. Zuidema, and M.E.K. Evans. 2022. Climate-driven, but dynamic and complex? A reconciliation of competing hypotheses for species' distributions. *Ecology Letters* 25(1):38-51.
- 50) Nagy, R.C. et al. 2021. Harnessing the NEON data revolution to advance open environmental science with a diverse and data-capable community. Special issue on NEON Science Summit in *Ecosphere* 12(12):e03833.
- 49) Lamy, T., N. Wisonowski, A. Riley, M.C.N. Castorani, A. Compagnoni, N. Lany, L. Marazzi, **S. Record**, C. Swan, J. Tonkin, S. Wang, N. Voelker, P.L. Zarnetske, and E. Sokol. 2021. The dual nature of metacommunity variability. *Oikos* 00:1-15. doi: 10.1111/oik.08517. *Editor's Choice*.
- 48) O'Brien, M., C.A. Smith, E.R. Sokol, C. Gries, N. Lany, **S. Record**, and M.C.N. Castorani. 2021. ecocomDP: A flexible data design pattern for ecological community survey data. *Ecological Informatics*, 64:101374.
- 47) Smith, A.C., K.M. Dahlin, J.K. Costanza, **S. Record**, A.M. Wilson, and P.L. Zarnetske. 2021. The *geodiv* R package: tools for calculating gradient surface metrics. *Methods in Ecology and Evolution* 0:1-7.
- 46) Bittleston, L.S., Z.B. Freedman, J.R. Bernardin, J.J. Grothjan, E.B. Young, **S. Record**, B. Baiser, and S.M. Gray. 2021. Exploring microbiome functional dynamics through space and time with trait-based theory. *Msystems*, 6(4):e00530-21.
- 45) Charney, N.D., **S. Record**, B. Gerstner, C. Merow, P.L. Zarnetske, and B.J. Enquist. 2021. A test of species distribution model transferability across environmental and geographic space for 108 western North American tree species. *Frontiers in Ecology and Evolution* 8:479.
- 44) Malone, S.L. and **S. Record**. 2021. Addressing bias in faculty retention. *Ecological Applications*, 31(6):e02346.
- 43) Ellison, A.M., A. Barker-Plotkin, M.V. Patel, and **S. Record**. 2021. Broadening the ecological mindset. *Ecological Applications*, 31(6):e02347.
- 42) Welti, E., A. Joern, A.M. Ellison, D.C. Lightfoot, **S. Record**, N. Rodenhouse, E.H. Stanley, and M. Kaspari. 2021. Studies of insect temporal trends must account for the complex sampling histories inherent to many long-term monitoring efforts. *Nature Ecology and Evolution*, 5:589-591. doi: 10.1038/s41559-021-01424-0

- 41) Freedman, Z., A. McGrew, B. Baiser, M. Besson, D. Gravel, T. Poisot, **S. Record**, L. Trotta, and N. Gotelli. 2021. Environment-host microbial interactions shape the *S. purpurea* microbiome at the continental scale. *Ecology*, 102(5):e03308
- 40) **Record, S.**, N.M. Voelker, P.L. Zarnetske, N.I. Wisnoski, J.D. Tonkin, C. Swan, L. Marazzi, N. Lany, T. Lamy, A. Compagnoni, M.C.N. Castorani, R. Andrade, and E.R. Sokol. 2021. Novel insights to be gained from applying metacommunity theory to long-term, spatially replicated biodiversity data. *Frontiers in Ecology and Evolution*, 8:1-10.
- 39) Jones, J., P. Groffman, J. Blair, F. Davis, H. Dugan, E. Euskirchen, S. Frey, T. Harms, E. Hinckley, M. Kosmala, S. Loberg, S. Malone, K. Novick, **S. Record**, A. Rocha, B. Ruddell, E. Stanley, C. Sturtevant, A. Thorpe, T. White, W. Wieder, L. Zhai, and K. Zhu. 2020. Synergies among environmental science research and monitoring networks: a research agenda. *Earth's Futures*, 9:e2020EF001631.
- 38) Jevon, F.V., **S. Record**, J.M. Grady<sup>†</sup>, A.K. Lang, D.A. Orwig, M.P. Ayres, and J. Hatala Matthes. 2020. Seedling survival declines with increasing conspecific density in a common temperate tree. *Ecosphere* 11(11):e03292.
- 37) **Record, S.** K. Dahlin, P.L. Zarnetske, **Q. Read**<sup>†</sup>, S.L. Malone, K. Gaddis, **J.M. Grady**<sup>†</sup>, J. Costanza, M. Hobi, A. Latimer, S. Pau, A.M. Wilson, A. Finley, S. Ollinger. 2020. Remote sensing of geodiversity as a link to biodiversity. Chapter in: Remote Sensing of Biodiversity: Using spectral signals of to understand the biology and biodiversity of plants, communities, ecosystems and the tree of life. Springer Remote Sensing/Photogrammetry Series. Editors: Jeannine Cavender-Bares, John Gamon, Phil Townsend. pp 225-253.
- 36) Li, D., J.D. Olden, J.L. Lockwood, **S. Record**, M.L. McKinney, and B. Baiser. 2020. Changes in taxonomic and phylogenetic diversity in the Anthropocene. *Proceedings of the Royal Society B* 287(1929):20200777.
- 35) Read, Q.D.\* , P.L. Zarnetske, **S. Record**, K.M. Dahlin, J.K. Costanza, A.O. Finley, K.D. Gaddis, J.M. Grady\*, M.L. Hobi, A.M. Latimer, S.L. Malone, S.V. Ollinger, S. Pau, and A.M. Wilson. 2020. Beyond counts and averages: relating geodiversity to dimensions of biodiversity. *Global Ecology and Biogeography* 29(4):696-710.
- 34) Degrassi, A.L., S. Brantley, C.R. Levine, J. Mohan, **S. Record**, D.F. Tomback, and A.M. Ellison. 2019. Loss of foundation species revisited: Conceptual framework with lessons learned from eastern hemlock and whitebark pine. *Ecosphere* 10:e11.
- 33) Dahlin, K.M., P.L. Zarnetske, and **S. Record**. 2019. Hear every voice – working groups that work. *Frontiers in Ecology and the Environment* 17(9):493-494.
- 32) Schrodt, S., J.J. Bailey, W.D. Kissling, K.F. Rijdsdijk, A.C. Seijmonsbergen, D. van Ree, J. Hjort, R.S. Lawley, C.N. Williams, M. Anderson, P. Beier, P. van Beukering, D.S. Boyd, J. Brilha, L. Carcavilla, K.M. Dahlin, J.C. Gill, J.E. Gordon, M. Gray, M. Grundy, M.L. Hunter, J.J. Lawler, M. Monge-Ganuzas, K.R. Royse, I. Stewart, **S. Record**, W. Turner, and P.L. Zarnetske. 2019. To advance sustainable stewardship, we must document not only biodiversity but geodiversity. *Proceedings of the National Academy of Sciences* 116(33):16155-16158.
- 31) Grady, J.M.<sup>†</sup>, B.S. Maitner, A.S. Winter, K. Kaschner, D.P. Tittensor, **S. Record**, F.A. Smith, A.M. Wilson, A.I. Dell, P.L. Zarnetske, H.J. Wearing, B. Alfaro, and J.H. Brown. 2019. Metabolic asymmetry and the global diversity of marine predators. *Science* 363(6425):eaat4220.

- 30) Zarnetske, P., Q. Read<sup>†</sup>, **S. Record**, K. Gaddis, S. Pau, M Hobi, S. Malone, J. Costanza, K. Dahlin, A. Latimer, A. Wilson, J. Grady<sup>†</sup>, S. Ollinger, and A. Finley. 2019. Connecting biodiversity and geodiversity across scales with satellite remote sensing. *Global Ecology and Biogeography* D.O.I.:10.1111/geb.12887.
- 29) **Record, S.**, T.D. McCabe\*, B. Baiser, and A.M. Ellison. 2018a. Are foundation tree species effects different from those of dominant species? A case study with North American ant assemblages. *Ecosphere* 9(3):e01239.
- 28) **Record, S.**, A. Strecker, M. Tuanmu, L. Beaudrot, P.L. Zarnetske, J. Belmaker, and B. Gerstner. 2018b. Does scale matter? Incorporating biological realism when predicting changes in species distributions. *PLOS One* 13(4):e0194650.
- 27) Read, Q.D.<sup>†</sup>, J.M. Grady<sup>†</sup>, P.L. Zarnetske, **S. Record**, B. Baiser, J. Belmaker, M.-N. Tuanmu, A. Strecker, and L. Beaudrot. 2018a. Among-species overlap in rodent body size distributions predicts species richness along a temperature gradient. *Ecography* 41(10):1718-1727.
- 26) Read, Q.D.<sup>†</sup>, B. Baiser, J.M. Grady<sup>†</sup>, P.L. Zarnetske, **S. Record**, and J. Belmaker. 2018b. Tropical bird species have narrower body-size niches. *Biology Letters* 14:20170453.
- 25) Stinson, K.A., J.A. Wheeler, **S. Record**, and L. Jennings. 2018. Regional variation in timing, duration, and production of flowers by allergenic ragweed. *Plant Ecology* 219(9): 1081-1092.
- 24) Babst, F., P. Bodesheim, N. Charney, A.D. Friend, M.P. Girardin, S. Klesse, D.J.P. Moore, K. Seftigen, J. Bjorklund, O. Bouriaud, A. Dawson, R.J. DeRose, M.C. Dietze, A.H. Eckes, B. Enquist, D.C. Frank, MD. Mahecha, B. Poulter, **S. Record**, V. Trouet, R.H. Turton, Z. Zhang, and M.E.K. Evans. 2018. When tree rings go global: challenges and opportunities for retro- and prospective insight. *Quaternary Science Reviews* 197:1-20.
- 23) Grady, J.M.<sup>†</sup>, Q.D. Read<sup>†</sup>, **S. Record**, P. Zarnetske, B. Baiser, K. Thorne\*, and J. Belmaker. 2018. Size, niches, and the latitudinal diversity gradient. *Teaching Issues and Experiments in Ecology*, 14:e2.
- 22) Zarnetske, P.L., B. Baiser, A. Strecker, **S. Record**, J. Belmaker, and M.N. Tuanmu. 2017. The interplay between landscape structure and biotic interactions. *Current Landscape Ecology Reports* 2(1):12-29.
- 21) Charney, N.D., F. Babst, B. Poulter, **S. Record**, V.M. Trouet, D. Frank, B.J. Enquist, and M.E.K. Evans. 2016. Observed forest sensitivity to climate change implies large changes in 21<sup>st</sup> century North American forest growth. *Ecology Letters* 19(9):1119-1128.
- 20) Charney, N.D. and **S. Record**. 2016. Combining incidence and demographic modelling approaches to evaluate metapopulation parameters for an endangered riparian plant. *AoB Plants* 8:plw044. *Editor's Choice*.
- 19) Evans, Margaret E.K., C. Merow, **S. Record**, S. McMahon, and B.J. Enquist. 2016. Towards process based range modeling of many species. *Trends in Ecology and Evolution* 31(11):860-871.
- 18) Goring, S.J., D.J. Mladenoff, C.V. Cogbill, **S. Record**, C.J. Paciorek, S.T. Jackson, M.C. Dietze, A. Dawson, J. Hatala Matthes, J.S. McLachlan, and J.W. Williams. 2016. Novel and lost forests in the Upper Midwestern United States, from new estimates of settlement-era composition, stem density, and biomass. *PLOS One* 11(12):e0151935.
- 17) **Record, S.**, R.K. Kobe, C.F. Vriesendorp, and A.O. Finley. 2016a. Woody seedling survival responses to conspecific density, soil nutrients, and irradiance vary with age in a wet tropical forest. *Ecology* 97(9):2406-2415.

- 16) **Record, S.** and N.D. Charney. 2016. Modeling species ranges. *Chance* 29(2):31-37.
- 15) **Record, S.**, P.F.B. Ferguson, E. Beneviste, R.A. Graves, V.W. Pfeiffer, M. Romolini, C. Yorke, and B. Beardmore. 2016b. Graduate students navigating social-ecological research: Insights from the Long Term Ecological Research Network. *Ecology and Society* 21(1):7.
- 14) Belmaker, J., P. Zarnetske, M. Tuanmu, S. Zonneveld, **S. Record**, A. Strecker, and L. Beaudrot. 2015. Empirical evidence for the scale-dependence of biotic interactions. *Global Ecology and Biogeography* 24:750-761. 
- 13) Smith, D., C.S. Eiseman, N.D. Charney, and **S. Record**. 2015. A new Nearctic *Scolioneura* (Hymenoptera: Tenthredinidae) mining leaves of *Vaccinium*. *Journal of Hymenoptera Research* 43:1-8.
- 12) Visser, M.D., S.M. McMahon, P. Dixon, C. Merow, **S. Record**, and E. Jongejans. 2015. Speeding up ecological and evolutionary computations in R. *PLoS Computational Biology* 11(3), e1004140. 
- 11) Lee, S.Y., J.H. Primavera, F. Dahdouh-Guebas, K. McKee, J.O. Bosire, S. Cannicci, K. Diele, F. Fromard, N. Koedam, C. Marchand, I. Mendelssohn, N. Mukherjee, and **S. Record**. 2014. Redefining the ecological roles and services of tropical mangrove ecosystems. *Global Ecology and Biogeography*, 23(7):726-743.
- 10) Merow, C., J.P. Dahlgren, C.J.E. Metcalf, D. Childs, M.E.K. Evans, E. Jongejans, **S. Record**, M. Rees, R. Salguero-Gomez, and S.M. McMahon. 2014. Advancing population ecology with Integral Projection Models: a practical guide. *Methods in Ecology and Evolution*, 5:99-110.
- 9) Charney, N.D. and **S. Record**. 2013. Performing a population viability analysis from data students collect on a local plant. *Teaching Issues and Experiments in Ecology*, 9(2).
- 8) Romolini, M., **S. Record**, R. Garvoille, R.S. Geiger, and Y. Marusenko. 2013. The next generation of scientists: Examining the experiences of graduate students in network-level science. *Ecology and Society*, 18(3):42.
- 7) Labich, W.G., E. Hamin, and **S. Record**. 2013. Regional conservation partnerships in New England. *Journal of Forestry*, 111(5):326-334.
- 6) **Record, S.**, N.D. Charney, R.M. Zakaria, and A.M. Ellison. 2013a. Projecting global mangrove species and community distributions. *Ecosphere*, 4(3):34.
- 5) **Record, S.**, M.C. Fitzpatrick, A.O. Finley, S.D. Veloz, and A.M. Ellison. 2013b. Should species distribution models account for spatial autocorrelation? A test across eight millennia of climate change. *Global Ecology and Biogeography*, 22(6):760-771.
- 4) Baiser, B., J. Olden, **S. Record**, J. Lockwood, and M. McKinney. 2012. Pattern and process of biotic homogenization in the New Pangaea. *Proceedings of the Royal Society B* 279:4772-4777.
- 3) **Record, S.** 2011. Plant species associated with a regionally rare hemiparasitic plant, *Pedicularis lanceolata* (Orobanchaceae), throughout its geographic range. *Rhodora* 113:125-159.
- 2) Sackett, T.E, **S. Record**, S. Bewick, B. Baiser, N.J. Sanders, and A.M. Ellison. 2011. Response of macroarthropod communities to the loss of hemlock (*Tsuga canadensis*), a foundational species. *Ecosphere* 2:1-16.
- 1) Ellison, A.M., **S. Record**, A. Arguello\* and N.J. Gotelli. 2007. Rapid inventory of the ant assemblages in a temperate hardwood forest: Species composition and sampling methods. *Environmental Entomology* 36:766-775.

### Works in preparation, review, or revision

- Grady, J.M.\*, Q.D. Read\*, **S. Record**, N. Rüger, P.L. Zarnetske, A.I. Dell, S.P. Hubbell, S.T. Michaelletz, A. Shenkin, and B.J. Enquist. *In preparation*. Life history scaling and the division of energy in forests. *Ecology Letters*.
- Halpern, B.S., et al. *In review*. Priorities for synthesis in ecology and environmental science. *Frontiers in Ecology and the Environment*.
- Jevon, F.\*, D. de la Cruz\*, A. Lang, J. LaManna, D. Orwig, **S. Record**, P. Kouba, M. Ayres, and J. Matthes. *In revision*. Experimental and observational evidence of negative conspecific density dependence in temperate ectomycorrhizal trees. *Ecology*.
- Kamoski, A.G., K.M. Dahlin, Q.D. Read, **S. Record**, S.P. Serbin, S.C. Stark, and P.L. Zarnetske. *In revision*. Mapping multiple dimensions of forest biodiversity with airborne hyperspectral and lidar remote sensing. *Global Ecology and Biogeography*.
- Record, S.**, C. Chillcutt\*, K. Hoerr\*, H.-J. Wei, P. Zarnetske, B. Baiser, B. Gerstner, Q.D. Read, A. Yue, A. Strecker, and K. Thibault. *In preparation*. The importance of ecological memory to insights from the National Ecological Observatory Network. *Intended submission to Frontiers in Ecology and the Environment*.
- SanClements, M., **S. Record**, K. Rose, A. Donnelly, S. Chong, K. Duffy, A. Hallmark, J. Heffernan, J. Liu, J. Mitchell, D. Moore, K. Naithani, C. O'Reilly, E. Sokol, K. Stack Whitney, and D. Yang. *In revision*. People, infrastructure, and data: A pathway to an inclusive and diverse ecological Network of Networks. *Ecosphere*.

### Popular press, book reviews, technical reports, white papers

- Record, S.** 2021. COVID-19 Impacts of Macrosystems Biology and NEON-Enabled Science Investigators. White paper submitted to the National Science Foundation.
- Record, S.** K. Dahlin, P.L. Zarnetske, **Q. Read**<sup>†</sup>, S.L. Malone, K. Gaddis, **J.M. Grady**<sup>†</sup>, J. Costanza, M. Hobi, A. Latimer, S. Pau, A.M. Wilson, A. Finley, S. Ollinger. 2019. Forecasting biodiversity across scales and data sources. White paper submitted to the NASA Biodiversity and Ecological Forecasting Program Advanced Planning Team.
- Latimer, A., **S. Record**, K. Dahlin, P.L. Zarnetske, **Q. Read**<sup>†</sup>, S.L. Malone, K. Gaddis, **J.M. Grady**<sup>†</sup>, J. Costanza, M. Hobi, S. Pau, A.M. Wilson, A. Finley, S. Ollinger. 2019. Detecting early signals and drivers of ecosystem change. White paper submitted to the NASA Biodiversity and Ecological Forecasting Program Advanced Planning Team.
- Record, S.** 2011. A world of opportunists, the parasitic plants. *Massachusetts Wildlife Magazine*. 3: 4-11.
- Record, S.**, K. Schwarz, E.M. Cook, and G. Losada. 2010. Making interdisciplinary research work. Long Term Ecological Research Network News.
- Record, S.** 2009. Rare plant fact sheets for Bristly Buttercup (*Ranunculus pennsylvanicus*), Philadelphia Panic Grass (*Panicum philadelphicum*), and Swamp Lousewort (*Pedicularis lanceolata*). Natural Heritage and Endangered Species Program, Massachusetts Division of Fisheries and Wildlife.
- Record, S.** 2009. A world of opportunists, the parasitic plants. (Book review) *Ecology* 90: 857-858.



Farnsworth, E.J., K. Frost, P. Somers, and **S. Record**. 2007. Management plan for *Pedicularis lanceolata* Michx. Natural Heritage and Endangered Species Program, Massachusetts Division of Fisheries and Wildlife.

### Software

Read, Q.D., Y. Yue\*, I.E. Fluck, B. Baiser, J.M. Grady, P.L. Zarnetske, and **S. Record**. 2020.

Ostats: O-statistics, or pairwise community-level niche overlap statistics. R package version 0.1.1. Online at <https://github.com/NEON-biodiversity/Ostats>.

Charney, N.D. and **S. Record**. 2009. Vegetarian: Jost Diversity Measures for Community Data. R package version 1.1. Online at <http://CRAN.R-project.org/package=vegetarian>.

### Teaching experiences

2014- Present Bryn Mawr College, Bryn Mawr, PA

BIO 111 – Biological Explorations (Introductory Biology course)

BIO 115 – Computing Through Biology (Dual Introductory Biology and Computer Science course taught in Python)

BIO 225 – Biology and Ecology of Plants \*As part of a 360-course cluster *Eurasia in the Anthropocene*

BIO 230 – Ecological Exiles and Sustainability

BIO 250 – Computational Methods in the Sciences and laboratory (taught in R)

BIO330 – Ecological Modeling (taught in R)

BIO 390 – Senior Seminar in Ecology (Non-research senior thesis)

BIO 398 – Senior Seminar: Science and Society (Non-research senior thesis)

BIO 399 – Senior Seminar in Laboratory Investigations (Research senior thesis)

Teaching Learning Initiative Pedagogy Seminar for Faculty (Participant)

2019- Present Environmental Data Science workshops in R for the Harvard Forest Summer Program in Ecology, Petersham, MA

2012-2013 Lecturer Smith College, Northampton, MA

BIO 154 - Biodiversity, Ecology, and Conservation two semesters (introductory undergraduate core course for science and non-science majors), BIO 154 –

Biodiversity, Ecology, and Conservation Laboratory two semesters, and BIO 507 – Seminar: Advances and Problems in Biological Sciences one semester (graduate student seminar).

2011 Instructor, Mixed Models Workshop, Harvard Forest, Petersham, MA

Taught faculty and postdocs from around the world about mixed models and integral projection demographic models. Led in collaboration with Elizabeth Crone.

2011 Adjunct Professor, Keene State College, Keene, NH

BIO 363 – Plant Biology one semester (upper division undergraduate course with integrated lectures and laboratories).

2005-2009 Graduate Teaching Assistant, University of Massachusetts Amherst, MA

BIO 100 & BIO 101 Laboratory – Introductory Biology I and II (introductory undergraduate core course for science majors and non-science majors) four

semesters, BIO103 – Plant Biology Laboratory one semester (introductory undergraduate course for science majors), and BIO 485 – Aquatic Vascular Plants one semester (field-based upper division undergraduate course with integrated lectures and laboratories focused on wetland delineation).

2006 Organizer along with Dr. Paul Sievert, University of Massachusetts Amherst, MA  
NRC 697B – Biostatistics Journal Club one semester (discussion-based graduate student course).

## Mentoring

Bryn Mawr College (2014 - Present) A \*indicates students from the STEM Posse ([www.possefoundation.org](http://www.possefoundation.org))

### *Undergraduates*

Annie Belgam	Fall 2015 – Spring 2016
Carol Bowe*	Summer 2015
Kyra Hoerr	Spring 2017 – Spring 2020
Frankie Leech	Fall 2015 – Spring 2016
Tess McCabe	Fall 2014 – Spring 2016
Jasmine Mirfattah	Fall 2018 – Spring 2019
Sofia Oleas	Fall 2014 – Spring 2015
Samantha Olivares-Mejia	Summer 2020, Summer 2021-Present
Camile Pastrana	Summer 2021
Nia Riggins	Summer 2018 – Spring 2020 (Ecological Society of America's Strategies for Ecology Education, Diversity and Sustainability (SEEDS) Fellow)
Frances Romero	Fall 2021 – Present
Paola Salas*	Spring 2016 – Spring 2016
Kalaina Thorne*	Spring 2016 – Spring 2018
Ann Tran*	Spring 2015 – Spring 2016
Arya Yue	Spring 2019 - Present

### *Post-baccaulaureate Researcher*

Danaiijah Vilsaint Fall 2021 – Present

### *Postdoctoral Researchers*

John Grady Fall 2016 – Fall 2018 (co-mentored with Phoebe Zarnetske)  
Quentin Read Summer 2016 – Summer 2018 (co-mentored with Phoebe Zarnetske)

2006 - Present Primary mentor for 16 undergraduates (Alexander Arguello, Elisabete Baker, Laura Hancock, Kyra Hoerr, Peter Jenkins, Linn Jennings, Samantha Olivares-Mejia, Tess McCabe, Israel Marquez, Nia Riggins, J. Marcos Rodriguez, Sam

Safran, Erin Schaeffer, Colleen Smith, Kalaina Thorne, and Joseph Toman) through the Harvard Forest Research Experiences for Undergraduates Program, Petersham, MA. Of these, six were from traditionally under-represented groups and one was an ESA SEEDS Fellow.

- 2009 Supervised two undergraduate students (Amy Mays and Bronwyn Murre) assisting with greenhouse and field research for grant projects at the University of Massachusetts Amherst.
- 2009 Supervised a high school student (Jacob Trombley) who was assisting with grant projects at Harvard Forest, Petersham, MA.

### **Fellowships and Awards**

- 2013 Ecological Society of America Scaling Up Early Career Scientist Travel Award (\$600)
- 2012 Harvard University Postdoctoral Development Award, \$1,000.
- 2009-2010 University of Massachusetts Amherst Gilgut Fellowship, \$30,000
- 2006-2007 University of Massachusetts Amherst Gilgut Fellowship, \$30,000.

### **Invited seminars & guest lectures**

- ecocomDP: A flexible data design pattern for ecological community survey data. NEON-LTAR Complex Landscapes Virtual Workshop (2021)
- Expanding the ecological tent with data science. Ecological Forecasting Initiative Inclusive Pedagogy Virtual Workshop (2021)
- The relationship between biodiversity and geodiversity along gradients of geodiversity stress. University of Maine Department of Wildlife, Fisheries, and Conservation Biology. Virtual seminar (2020)
- A vision for changing the face of ecology by leveraging the HF Summer Research Program with its network. 31<sup>st</sup> Annual Harvard Forest Ecology Virtual Symposium, Petersham, Massachusetts (2020)
- Scaling up biotic interactions. Bi-Co Bryn Mawr/Haverford Math Symposium, Bryn Mawr, Pennsylvania (2020)
- Climate change and species distributions. China House virtual lecture with >300 participants tuning in from China. (2020)
- Scaling up from local to global communities. Mount Holyoke College Department of Environmental Studies, South Hadley, Massachusetts (2019)
- The importance of ecological memory to forecasting: Insights from LTER-NEON synergies. National Center for Atmospheric Research, Boulder, Colorado (2019)
- To conserve nature should we focus on the actors or the stage? Bryn Mawr College, Tom Mozdzer's Ecology Class, Bryn Mawr, Pennsylvania (2019)
- The value of long-term experiments. 29<sup>th</sup> Annual Harvard Forest Ecology Symposium, Petersham, Massachusetts (2018)
- To conserve nature should we focus on the actors or the stage? Bowdoin College Biology Department, New Brunswick, Maine (2017)

To conserve nature should we focus on the actors or the stage? Clark University Biology Department, Worcester, Massachusetts (2017)

To conserve nature should we focus on the actors or the stage? University of Alabama Biology Seminar Series, Tuscaloosa, Alabama (2017)

Scaling up plant ecology: from ice age forests to New England bogs. Hampshire College, Amherst, Massachusetts (2017)

Infusing natural history into ecological models. Yale School of Forestry, New Haven, Connecticut (2016)

Moving beyond correlative species distribution models. Villanova University Biology Department Seminar Series, Villanova, Pennsylvania (2016)

Moving beyond correlative species distribution models. University of Vermont Plant Biology Marvin Seminar Series (2015)

The future of our forests. Bryn Mawr College Board of Trustees, Bryn Mawr, Pennsylvania (2015)

The future of our forests. Bryn Mawr College Environmental Studies seminar, Bryn Mawr, Pennsylvania (2014)

Population ecology, Bryn Mawr College Ecology course, Bryn Mawr, Pennsylvania (2014)

Bayesian Statistics in Ecology, Bryn Mawr College Data Science course, Bryn Mawr, Pennsylvania (2014)

Towards more process-based species distribution models. Michigan State University's Hanover Seminar Series, East Lansing, Michigan (2013)

Approaches to scaling up ecological data. National Ecological Observatory Network, Boulder, Colorado (2013)

How not to get lost in the woods. Harvard Forest Summer Research Experiences for Undergraduates Program, Petersham, Massachusetts (June 2010-2013)

Grad School 101, Smith College Life Sciences Lunch Bag Seminar Series, Northampton, Massachusetts (2012)

An integral projection model for a metapopulation. Max Planck Institute for Demographic Research, Rostock, Germany (2012)

Climate change and species distributions: From ancient forests to mangrove swamps. Smith College, Department of Biological Sciences (2012)

Conservation, invasion, and hemiparasitic plants. Lecture for Hampshire College Rare Species course, Amherst, Massachusetts (2011)

Best management practices for Swamp Lousewort. Massachusetts Natural Heritage and Endangered Species Program, Westborough, Massachusetts (2010)

Conservation while under invasion. University of Massachusetts Amherst, Plant Biology Program (2008)

Seed dispersal: Implications for forest regeneration. University of Massachusetts Amherst Plant Biology Program (2005)

Vascular plants and lichens of Spray Park, Mount Rainier, Washington. Mount Rainier National Park Headquarters (2003)

### **Invited working groups**

Landscape Exchange Network (LENS), NSF Research Coordination Network, (2021-2026)  
*Steering Committee Member*

Terrestrial Responses to Emerging Environments through Time (TREETIME), virtual workshop  
(2021) *Participant*

NEON-LTAR Complex Landscapes Workshop, Virtual (2021) *Participant*

Ecological Forecasting Initiative meeting to Empower Development of the Next Generation of  
Educational Materials for Forecasting, virtual workshop (2021) *Participant*

Ecological Forecasting Initiative Inclusive Pedagogy Virtual Workshop (2021) *Participant*

Predicting Life in the Earth System – Linking the Geosciences and Ecology, National Center for  
Atmospheric Research, Boulder, Colorado (2019-2020) *Participant*

Remote Sensing of Plant Biodiversity Working Group, National Institute for Mathematical and  
Biological Synthesis, Knoxville, Tennessee (2018) *Participant*

New Phytologist Carnivorous Plants Trait Working Group, Harvard Forest, Petersham,  
Massachusetts (2018) *Participant*

NASA: Linking Geodiversity to Biodiversity Using Remote Sensing, National Center for  
Ecological Analysis and Synthesis, Santa Barbara, California (2017-2018) *Organizer*

Long Term Ecological Research Network – National Ecological Observatory Network Synergies,  
National Center for Ecological Analysis and Synthesis, Santa Barbara, California (2017-2018)  
*Participant*

Environmental Data Initiative Synthesis of Community Ecology Data, University of New  
Mexico, Albuquerque, New Mexico (2017) *Participant*

Long Term Ecological Research Synthesis of Metacommunities, National Center for Ecological  
Analysis and Synthesis, Santa Barbara, California (2016-Present) *Participant*

The Ecological Society of America’s Scaling Up workshop for early career scientists, Baltimore,  
Maryland (2013) *Participant*

Identifying best practices for graduate student social-ecological research, Coweeta Long Term  
Ecological Research Site, Otto, North Carolina (2013) *Organizer*

Identifying best practices for graduate student social-ecological research, All Scientist Meeting  
of the Long Term Ecological Research Network, Estes Park, Colorado (2012) *Organizer*

Mangrove Management and Function working group at the Small Fisheries Federation of  
Pambalaw-Chilaw Lagoon, Sri Lanka (2012) *Participant*

Integral Projection Models working group at the Max Planck Institute for Demographic  
Research, Rostock, Germany (2012) *Participant*

PALEON: Paleocological Observation Network working group at University of Wisconsin  
Madison, Madison, Wisconsin (2011, 2013); University of California Berkeley, Berkeley,  
California (2012); Harvard Forest, Petersham, Massachusetts (2011) *Participant*

Spatial autocorrelation in ecological models group at University of Hamburg, Hamburg,  
Germany (2010) *Participant*

Likelihood methods in ecology group at Institute for Ecosystem Studies, Millbrook, New York  
(2006) *Participant*

### **Academic Service**

*Bryn Mawr College Service*

Associate Provost of Curricular Assessment and Sustainability (Summer 2021-Present). Tasks include developing a sustainability strategic plan for the College, organizing assessments of campus-wide senior capstone and general education courses, organizing departmental external reviews (Departments of Philosophy and History and the Teaching and Learning Institute), and leading College through Middle States Reaccreditation Follow Up Reporting Process.

Co-convenor of Campus Sustainability Leadership Group (Fall 2021-Present)

Co-convenor of Campus Partnership for Equity and Anti-Racism Assessment Working Group (Fall 2021-Present)

Panelist for Junior Faculty Orientation on Work-Life Balance (Summer 2021)

Organizer of Biology Department seminar series (Fall 2018-Fall 2019)

Search committee for Data Science Program Director (Spring 2020)

Data Science Steering Committee Spring 2018 - Present

Committee on Undergraduate Awards and Fellowships (Fall 2018 – Spring 2020)

Accessibility Leadership Committee (Fall 2018 – Spring 2019, Fall 2021)

Data Science Steering Committee (Fall 2018 – Present)

Search committee for successful tenure-track hire in Immunology (Fall 2018)

Panelist for admissions recruiting session on Global Bryn Mawr (Spring 2019)

Speaker and organizer of regional Women in Data Sciences Conference at SAP Headquarters (Spring 2017)

Co-PI on NSF-INCLUDES institutional grant for broadening participation in data sciences at all women colleges (Spring 2016)

Junior Faculty Co-Convenor (Fall 2015 – Spring 2016)

Search committee for successful tenure-track hire in Computer Science (Fall 2015)

Athena Computer Cluster Steering Committee (Fall 2014 – Present)

Environmental Studies Steering Committee (Fall 2014 – Spring 2017) – during this time, we transitioned from a minor in Environmental Studies to a major

Panelist for admissions recruiting session on women in STEM fields (Spring 2015)

Chair of search committee for a Consortium for Faculty Diversity postdoctoral fellow at Bryn Mawr College (2014)

Contributed to discussion leading up to a successfully funded grant from the Sherman Fairchild foundation (\$300,000) to promote student career development

### ***Professional Service***

Associate Editor for *Methods in Ecology and Evolution* (2018-Present)

Co-Director of the Harvard Forest Summer Research Program in Ecology (2018-Present)

Reviewer of NASA Biological Diversity and Ecological Forecasting: Current State of Knowledge and Considerations for the Next Decade Report (2021)

Harvard Forest 5-year Strategic Planning Committee (2020)

Organizer of National Science Foundation's Macrosystem Biology Annual Principal Investigator Meeting (2020-2021)

Organizer of an Inspire session entitled 'Innovations in data science across coordinated research networks' at the Ecological Society of America's Annual Virtual Meeting (2020)

Mentor for an Ecological Society of America's Strategies for Ecology Education, Diversity and Sustainability (SEEDS) Fellow (2018-2020)

Organizer of a workshop entitled 'Synthesizing long-term community data: questions, challenges and advances' at the Long Term Ecological Research Network's All Scientist Meeting in Pacific Grove, California (2018)

Organizer of an Organized Oral Session entitled 'Challenges and opportunities for investigating ecological communities across space and time: Insights from coordinated research networks' at the Ecological Society of America's Annual Meeting in Portland, Oregon (2017)

Organizer of an Ignite Session entitled 'Connecting remote sensing to biodiversity science in the Anthropocene' at the Ecological Society of America's Annual Meeting in Portland, Oregon (2017)

Organizer of a Special Session entitled 'How can current and future satellite missions advance biodiversity science? A discussion of current tools and future ideas' at the Ecological Society of America's Annual Meeting in Portland, Oregon (2017)

Organizer of an Organized Oral Session entitled 'Advances in process-based species distribution modeling' at the Ecological Society of America's Annual Meeting in Sacramento, California (2014)

Student Councilor of the New England Botanical Club, Cambridge, Massachusetts (2009-2010)

Reviewer of manuscripts submitted to: *American Journal of Botany* (2), *American Naturalist* (1), *Basic and Applied Ecology* (1), *Biological Conservation* (1), *Biological Invasions* (1), *Biotropica* (1), *Diversity* (1), *Diversity and Distributions* (1), *Ecography* (2), *Ecology* (3), *Ecology Letters* (2), *Ecological Monographs* (4), *Journal of Biogeography* (1), *Journal of Ecology* (4), and *Rhodora* (1).

Reviewer of grant proposals submitted to the National Science Foundation and the Research Council of Norway

### **Community Service / Outreach**

Co-founder of and Treasurer for Radnor to River, a non-profit organization dedicated to land conservation in Nashville, Tennessee ([www.radnor2river.org](http://www.radnor2river.org))

Duggan Middle School Forest Park Bioblitz, Springfield, Massachusetts (2010)

Activity leader for Ecological Society of America's Strategies for Ecology Education, Diversity and Sustainability (SEEDS) visit to Harvard Forest (2008)

### **Professional affiliations**

American Statistical Association, Ecological Society of America, Long Term Ecological Research Network, the New England Botanical Club, and the Philadelphia Botanical Club

**Presentations at scientific conferences** (A \* and + indicate undergraduate and postdoctoral co-authors mentored by S. Record, respectively):

**S. Record**, J. Van doninck, A. Smith, J. Knott, P. Bills, S. Olivares-Mejia\*, J. Toman\*, A. Yue\*, B. Baiser, A. Strecker, P.L. Zarnetske. Impacts of disturbance regime on biodiversity varies by taxa: Insights from Landsat, NEON, and historical records. American Geophysical Union Annual Meeting. Virtual - Oral presentation.

- J. Van doninck, C. Hart, A.C. Smith, P. Bills, **S. Record**, S. Olivares-Mejia\*, J. Toman\*, A. Yue\*, and P.L. Zarnetske. Improving disturbance detection over NEON sites based on Landsat time series clustering. 2021. American Geophysical Union Annual Meeting. Virtual - Oral presentation.
- D. Li, **S. Record**, et al. Tidy NEON data for biodiversity research. 2021. Ecological Society of America Meeting – Virtual. Oral presentation.
- J. Van doninck, J. Knott, P.L. Zarnetske, A.C. Smith, P. Bills, **S. Record**, B. Baiser, and A.L. Strecker. 2021. Combining open NEON and Landsat data to connect biodiversity and disturbance regime. Ecological Society of America Meeting – Virtual. Oral presentation.
- M.A. Jarzyna, K.E.A. Norman, J. LaMontagne, M.R. Helmus, D. Li, S. Parker, **S. Record**, E.R. Sokol, P.L. Zarnetske, and T. Surasinghe. 2021. Ecosystem stability is related to animal community dynamics at a continental scale. Ecological Society of America Meeting – Virtual. Oral presentation.
- B. Baiser, Q.D. Read, **S. Record**, A.L. Strecker, M.W. Tingley, and P.L. Zarnetske. 2021. The relationship between intraspecific variation in body size and diversity for three vertebrate taxa across North America. Ecological Society of America Meeting – Virtual. Oral presentation.
- J. Van doninck, A. Smith, J. Knott, S. Record, and P.L. Zarnetske. Explaining patterns of biodiversity across NEON sites using Landsat-based disturbance metrics. 2021. International Geoscience and Remote Sensing Symposium – Virtual. Oral presentation.
- S. Record, P.L. Zarnetske, B. Baiser, K. Hoerr\*, C. Chillcut\*, H. Wei, B. Gerstner, A.L. Strecker, K.M. Thibault, J. Knott, and J. Vandonink. The importance of ecological memory: Insights from LTER-NEON data synergies. 2020. British Ecological Society Annual Meeting – Virtual. Oral presentation.
- J. Van doninck, A. Smith, J. Knott, Q. Read, S. Record, B. Baiser, A. Strecker, K.M. Thibault, and P.L. Zarnetske. Explaining patterns of biodiversity across spatial scales with improved detection and attribution of disturbances. 2020. American Geophysical Union Annual Meeting – Virtual. Oral presentation.
- K. Dahlin, A. Kamoske, Q.D. Read, S. Record, S. Serbin, S.C. Stark, and P.L. Zarnetske. Mapping dimensions of biodiversity in forested ecosystems with lidar and imaging spectroscopy fusion. 2020. American Geophysical Union Annual Meeting – Virtual. Oral presentation.
- S. Record, P.L. Zarnetske, B. Baiser, K. Hoerr\*, C. Chillcut\*, H. Wei, B. Gerstner, A.L. Strecker, K.M. Thibault, J. Knott, and J. Vandonink. The importance of ecological memory: Insights from LTER-NEON data synergies. 2020. Ecological Society of America Annual Meeting – Virtual. Oral presentation.
- S. Record and A.A. Barker-Plotkin. Building networks of diverse ecological data scientists through team science. 2020. Ecological Society of America Annual Meeting – Virtual. Oral presentation.
- C. Chilcutt\*, K. Hoerr\*, H. Wei, B. Gerstner, P.L. Zarnetske, S. Record, and B. Baiser. Disturbance effects on species richness within and across co-located NEON-LTER sites: A cross-site REU Project. 2018. LTER All Scientists Meeting, Asilomar, CA. Poster presentation.
- S. Record, C., Chilcutt\*, K. Hoerr\*, H. Wei, B. Gerstner, P.L. Zarnetske, S. Record, B. Baiser. 2018. A cross-site LTER REU project. Invited panel presentation.



- S. Record, P.L. Zarnetske, K.M. Dahlin, J.K. Costanza, A.O. Finley, K. Gaddis, J.M. Grady<sup>†</sup>, M.L. Hobi, A.M. Latimer, S. Malone, S. Ollinger, S. Pau, Q.D. Read<sup>†</sup>, W. Turner, and A.M. Wilson. 2018. Connecting biodiversity, geodiversity, and remote sensing across scales – an update. NASA’s Biodiversity and Ecological Forecasting Team Meeting, Washington, DC. Oral presentation.
- S. Record. 2018. The relationship between biodiversity and geodiversity along gradients of geodiversity stress. Ecological Society of America’s Annual Meeting, New Orleans, Louisiana. Oral presentation.
- K. Thorne\*, C. Smith\*, J. Grady<sup>†</sup>, and S. Record. 2017. Seedling dynamics and energy equivalence. Alliance for Diversity in Science and Engineering Young Researcher’s Conference, College Park, Maryland. Poster presentation.
- S. Record. 2017. Data science at all women colleges. American Statistical Association’s 3<sup>rd</sup> Women in Data Science Conference, La Jolla, California, Panelist.
- S. Record, T. McCabe\*, B. Baiser, and A.M. Ellison. 2017. Are foundation species effects different than those of dominant species? A case study of North American ant assemblages. Ecological Society of America’s Annual Meeting, Portland, Oregon. Oral presentation.
- S. Record, P.L. Zarnetske, K.M. Dahlin, J.K. Costanza, A.O. Finley, K. Gaddis, J.M. Grady<sup>†</sup>, M.L. Hobi, A.M. Latimer, S. Malone, S. Ollinger, S. Pau, Q.D. Read<sup>†</sup>, W. Turner, and A.M. Wilson. 2017. Connecting biodiversity, geodiversity, and remote sensing across scales. Ecological Society of America’s Annual Meeting, Portland, Oregon. Ignite presentation.
- S. Record, P.L. Zarnetske, K.M. Dahlin, J.K. Costanza, A.O. Finley, K. Gaddis, J.M. Grady<sup>†</sup>, M.L. Hobi, A.M. Latimer, S. Malone, S. Ollinger, S. Pau, Q.D. Read<sup>†</sup>, W. Turner, and A.M. Wilson. 2017. Connecting biodiversity, geodiversity, and remote sensing across scales. NASA’s Biodiversity and Ecological Forecasting Team Meeting. Washington, DC. Oral presentation.
- J.M. Grady<sup>†</sup>, P.L. Zarnetske, Q.D. Read<sup>†</sup>, and S. Record. 2017. Size-energy rules in closed forests. Hanover Forest Science Seminar Series. Michigan State University, East Lansing, MI. Oral presentation.
- Q.D. Read<sup>†</sup>, J. Grady<sup>†</sup>, P.L. Zarnetske, S. Record, B. Baiser, J. Belmaker, M.-N. Tuanmu, A.L. Strecker, L. Beaudrot, and K.M. Thibault. 2017. Intraspecific trait variation reflects rodent community assembly across the National Ecological Observatory Network. Ecological Society of America Meeting, Portland, Oregon. Oral presentation.
- J.M. Grady<sup>†</sup>, P.L. Zarnetske, Q.D. Read<sup>†</sup>, and S. Record. 2017. Size-energy rules in closed forests and remote sensing. Ecological Society of America Meeting, Portland, Oregon. Oral presentation.
- Sokol, E.R., N.I. Wisnowski, C.M. Swan, R. Andrade, H.L. Bateman, A.G. Hope, J.S. Kominoski, N.K. Lany, L. Marazzi, S.J. Presley, A. Rassweiler, S. Record, M. Willig, P.L. Zarnetske. 2017. The role of long-term ecological research programs for testing metacommunity theory and understanding biodiversity patterns. Ecological Society of America Meeting, Portland, Oregon. Oral presentation.
- P.L., Zarnetske, S. Record, Q.D. Read<sup>†</sup>, B. Baiser, A. Strecker, J. Belmaker, M.-N. Tuanmu, L. Beaudrot. 2016. Intraspecific trait variation at a continental scale. Ecological Society of America Meeting, Fort Lauderdale, Florida. Oral presentation.

- S. Record, T. McCabe\*, A. Contosta, S. Frey, and A.M. Ellison. 2015. Ant community level response to soil warming and nitrogen addition in a temperate forest. All Scientist Meeting of the Long Term Ecological Research Network, Estes Park, Colorado. Poster presentation.
- T. McCabe\*, A.M. Ellison, S.D. Frey, A.R. Contosta, and S. Record. 2015. Ant community level response to soil warming and nitrogen addition in a temperate forest. Ecological Society of America Meeting, Baltimore, Maryland. Poster presentation.
- S. Record, R.K. Kobe, C.F. Vriesendorp, and A.O. Finley. 2015. Woody seedling survival responses to conspecific density, soil nutrients, and irradiance vary with age in a wet tropical forest. Ecological Society of America's Annual Meeting, Baltimore, Maryland. Oral presentation.
- S. Record, J. Belmaker, P. Zarnetske, M.-N. Tuanmu, S. Zonneveld, A. Strecker, and L. Beaudrot. 2015. Empirical evidence for the scale-dependence of biotic interactions. Bryn Mawr College Global Change Symposium, Bryn Mawr, PA. Oral presentation.
- S. Record, J. Belmaker, P. Zarnetske, M. Tuanmu, S. Zonneveld, A. Strecker, and L. Beaudrot. 2014. Empirical evidence for the scale-dependence of biotic interactions. Ecological Society of America's Annual Meeting, Sacramento, California. Oral presentation.
- S. Record, M. Romolini, R. Garvoille, R.S. Geiger, and Y. Marusenko. 2012. The next generation of scientists: Examining the experiences of graduate students in network-level science. All Scientist Meeting of the Long Term Ecological Research Network, Estes Park, Colorado. Poster presentation.
- S. Record, N.D. Charney, R.M. Zakaria, and A.M. Ellison. 2012. Projecting global mangrove distributions in response to climate change. 3<sup>rd</sup> Meeting on Mangrove Ecology, Functioning, and Management, Galle, Sri Lanka. Oral presentation.
- S. Record, J.L. Jennings, and K.A. Stinson. 2012. Variation in the vital rates of Ragweed (*Ambrosia artemisiifolia* L.) along an urban-rural and temperature gradient. Ecological Society of America Annual Meeting, Portland, Oregon. Oral presentation.
- S. Record, M.C. Fitzpatrick, A.O. Finley, A.M. Ellison, and S. Veloz. 2011. Exploring spatial autocorrelation and spatial random effects in tree species distribution models. Ecological Society of America Annual Meeting, Austin, Texas. Oral presentation.
- S. Record and N.D. Charney. 2010. Projecting from the past to test the effects of informative priors on forecasts of extinction risk made by Bayesian demographic models. Ecological Society of America Annual Meeting, Pittsburgh, Pennsylvania. Oral presentation.
- S. Record and N.D. Charney. 2010. Projecting from the past to test the effects of informative priors on forecasts of extinction risk made by Bayesian demographic models. International Society for Conservation Biologists Annual Meeting, Edmonton, Alberta, Canada. Oral presentation.
- S. Record, T.E.S. Sackett, S. Bewick, B. Baiser, N.J. Sanders, and A.M. Ellison. 2009. Response of macroarthropod communities to the loss of hemlock (*Tsuga canadensis*), a foundational species. Harvard Forest Annual Symposium, Petersham, Massachusetts. Oral presentation.
- S. Record, S.D. Frey, A.R. Contosta, and A.M. Ellison. 2009. Soil warming and nitrogen deposition in a northeastern forest. Long Term Ecological Research Network All Scientists Meeting, Estes Park, Colorado. Poster presentation.

- S. Record, A.M. Ellison, and N.J. Gotelli. 2009. The influence of informed versus uninformed priors on forecasts of growth rates and extinction risks of a New England population of northern pitcher plants (*Sarracenia purpurea* L.). Ecological Society of America Annual Meeting, Santa Fe, New Mexico. Poster presentation.
- S. Record. 2008. Conservation while under invasion. Harvard Forest Annual Symposium, Petersham, Massachusetts. Poster presentation.
- S. Record, A.M. Ellison, A. Arguello, and N.J. Gotelli. 2007. Rapid inventory of the ant assemblages in a temperate hardwood forest: species composition and assessment of sampling methods. Black Rock Forest Consortium Symposium, Cornwall, New York. Oral presentation.
- S. Record, A.M. Ellison, and A. Arguello. 2006. Ant biodiversity at the Simes Tract of Harvard Forest, Petersham, Massachusetts. Long Term Ecological Research Network All Scientists Meeting, Estes Park, Colorado. Poster presentation.
- S. Record. 2003. Vascular plants and lichens of Spray Park, Mount Rainier, WA. Murdock Undergraduate Research Symposium, Walla Walla, Washington. Oral presentation.

**Languages:** Spanish, R, C, Python. Learning Java