#### DR. SYDNE RECORD

ASSOCIATE PROFESSOR

Department of Biology

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## **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

202	20-	Associate Professor of Quantitative Ecology, Bryn Mawr College, Bryn Mawr, PA
20	14-2020	Assistant Professor of Quantitative Ecology, Bryn Mawr College, Bryn Mawr, PA
20	18-	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
20	11-	Founding Board Member and Treasurer of Radnor to River, Nashville, TN
		(https://radnor2river.org)
20	12-2018	Research Associate, Harvard Forest, Harvard University, Petersham, MA
20	13-2014	Postdoctoral Fellow, Department of Forestry, Michigan State University, East
		Lansing, MI
		Advisers: Andrew Finley and Rich Kobe
20	12-2013	Visiting Lecturer, Smith College, Northampton, MA
20	10-2012	Postdoctoral Fellow, Harvard Forest, Harvard University, Petersham, MA
		Advisers: Aaron Ellison, Matthew Fitzpatrick, Kristina Stinson

**Funded grants** (\$695,289 to S. Record; ~ \$3.5 million collaborative total)

\*Undergraduate collaborator

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
2019-2023	for diverse data scientists" (PI: A. Barker-Plotkin, Co-PI: S. Record) 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 tradeoffs 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 <i>Pedicularis lanceolata.</i> " (PI: S. Record)
2007	University of Massachusetts Amherst R.J. Davis Botany Grant (\$1,300), "Core
	and edge populations of <i>Pedicularis lanceolata</i> ." (PI: S. Record)

## Pending grants

2020	National Aeronautics and Space Administration (\$572,657 to Bryn Mawr),
	"Scaling forest diversity across space and time in a non-equilibrial world" (PI: S.
	Record) Deemed selectable and awaiting final decision pending NASA
	budgetary considerations.
2020	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)

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

- 44) Malone, S.L. and **S. Record**. *In press*. Addressing bias in faculty retention. *Ecological Applications*.
- 43) Ellison, A.M., A. Barker-Plotkin, M.V. Patel, and **S. Record**. *In press*. Broadening the ecological mindset. *Ecological Applications*.
- 42) Studies of insect temporal trends must account for the complex sampling histories inherent to many long-term monitoring efforts. 2021. Welti, E., A. Joern, A.M. Ellison, D.C. Lightfoot, **S. Record**, N. Rodenhouse, E.H. Stanley, and M. Kaspari. *Nature Ecology and Evolution*. 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*, 0(0):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. 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. Rijsdijk, 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 retroand 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<sup>\*</sup>, 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 21st 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.
- 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 *Vaccinnium*. *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

- Charney, N.D., **S. Record**, B. Gerstner, C. Merow, P.L. Zarnetske, and B.J. Enquist. *In review*. A test of species distribution model transferability across environmental and geographic space for 108 western North American tree species. *Frontiers in Ecology and Evolution*.
- 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. *Invited resubmission*. Long term ecological research and the pandemic-driven anthropause: A window to understanding the role of human disturbance in ecosystem dynamics. *Ecosphere*.
- Grady, J.M.\*, Q.D. Read\*, **S. Record**, N. Rüger, P.L. Zarnetske, A.I. Dell, S.P. Hubbell, S.T. Michaeletz, A. Shenkin, and B.J. Enquist. *In preparation*. Life history scaling and the division of energy in forests. *Intended submission to Ecology Letters*.
- 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 review*. Ecosystem stability is related to animal dynamics at a continental scale. Slated for special issue on NEON Science Summit in *Ecosphere*.
- Kamoski, A.G., K.M. Dahlin, Q.D. Read, **S. Record**, S.P. Serbin, S.C. Stark, and P.L. Zarnetske. *In preparation*. Mapping multiple dimensions of forest biodiversity with airborne hyperspectral and lidar remote sensing. *Intended submission to Ecography*.
- 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. *In review*. The dual nature of metacommunity variability. *Oikos*.
- 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 review*. Standardized NEON organismal data for biodiversity research. Slated for special issue on NEON Science Summit in *Ecosphere*.
- Nagy, R.C. et al. *In review*. Harnessing the NEON data revolution to advance open environmental science with a diverse and data-capable community. Slated for special issue on NEON Science Summit in *Ecosphere*.
- O'Brien, M., C. Smith, E. Sokol, C. Gries, N. Lany, **S. Record**, M.C.N. Castorani. *In revision*. Creating analysis-ready ecological community survey data. Slated for special issue of *Ecological Informatics*.
- **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*.
- **Record, S.**, M. Jarzyna, B. Hardiman, and A. Richardson. *In review*. Interdisciplinarity and open data contribute to resilient innovation during pandemic. *Frontiers in Ecology and the Environment*.
- 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. *Invited resubmission*. Climate-driven, but dynamic

- and complex? A reconciliation of competing hypotheses for species' distributions. *Ecology Letters*.
- Smith, A.C., K.M. Dahlin, J.K. Costanza, **S. Record**, A.M. Wilson, and P.L. Zarnetske. *In revision*. The *geodiv* R package: tools for calculating gradient surface metrics. *Methods in Ecology and Evolution*.

# 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 1.0. 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 <a href="http://CRAN.R-project.org/package=vegetarian">http://CRAN.R-project.org/package=vegetarian</a>.

# **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 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.

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

2011

Bryn Mawr College (2014 - Present) A \*indicates students from the STEM Posse (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 Summer 2020

Olivares-Mejia

Nia Riggins Summer 2018 – Spring 2020 (Ecological Society of America's

Strategies for Ecology Education, Diversity and Sustainability

(SEEDS) Fellow)

Paola Salas\* Spring 2016 – Spring 2016 Kalaina Thorne\* Spring 2016 – Spring 2018 Ann Tran\* Spring 2015 – Spring 2016 Arya Yue Spring 2019 - 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 14 undergraduates (Alexander Arguello, Elisabete Baker,

Laura Hancock, Kyra Hoerr, Peter Jenkins, Linn Jennings, Tess McCabe, Israel Marquez, Nia Riggins, J. Marcos Rodriguez, Sam Safran, Erin Schaeffer, Colleen Smith, and Kalaina Thorne) 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.

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**

A vision for changing the face of ecology by leveraging the HF Summer Research Program with its network. 31st 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. 29th 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**

- 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: Paleoecological 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

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)

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-Convener (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)

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)

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 coauthors mentored by S. Record, respectively):

- 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. Rassweiller, 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