Tad Dallas

Assistant professor, U of South Carolina, Biological Sciences

theory + ecology

taddallas.github.io
he/him
tad.a.dallas@gmail.com
taddallas

Experience

Dates	Position	Institution	Location
2022–	**Assistant Professor**	*Dept of Biological Sciences*, University of South Carolina	Columbia, SC
2019–2021	**Assistant Professor**	*Dept of Biological Sciences*, Louisiana State University	Baton Rouge, LA
2018	**Visiting Researcher**	*Department of Mathematics*, Int Uni of Rijeka	Rijeka, Croatia
2015	**Analytics intern**	HP Vertica - Big Data Platform Dev Team.	Boston, MA.

Education

Institution	Mentor	Location	Degree or Position	Completion Date
Truman State University	–	Kirksville, MO.	Biology. B.Sc.	2009
Truman State University	Stephanie Fore	Kirksville, MO.	Biology. M.Sc.	2010
University of Georgia	John Drake	Athens, GA	Ecology Ph.D	2016
University of California	Alan Hastings	Davis	Postdoctoral Researcher	2018
University of Helsinki	Otso Ovaskainen	Finland	Postdoctoral Researcher	2019

Publications

1. T Dallas, Michael Krabbe Borregaard. **2025**. Dependencies, archivals, and package development in the R ecosystem. *BioScience* . doi: 10.1093/biosci/biaf148
2. JL Pick, et al.. **2025**. The SORTEE Guidelines for Data and Code Quality Control in Ecology and Evolutionary Biology. *EcoEvoRxiv* . doi: 10.32942/X24P8S
3. P Somervuo, et. al.. **2025**. Human contributions to global soundscapes are less predictable than the acoustic rhythms of wildlife. *Nature Ecology & Evolution* . doi: 10.1038/s41559-025-02786-5
4. C Ten Caten, LA Holian, T Dallas. **2025**. The influence of geographic ranges, climatic niches, and temperature fluctuations on population variability. *Proceedings of the Royal Society B* . doi: 10.1098/rspb.2025.0818
5. T Dallas, C Ten Caten. **2025**. Linking geographic distribution and niche through estimation of niche density. *Journal of Animal Ecology* . doi: 10.1111/1365-2656.70052
6. L Carneiro, et al.. **2025**. Typology of the ecological impacts of biological invasions. *Trends in Ecology & Evolution* . doi: 10.1016/j.tree.2025.03.010
7. C Ten Caten, T Dallas. **2025**. Population variability across geographic ranges: perspectives and challenges. *Proceedings of the Royal Society B* . doi: 10.1098/rspb.2024.1644
8. C Ten Caten, T Dallas. **2024**. Latitudinal specificity of plant-avian frugivore interactions. *Journal of Animal Ecology* . doi: 10.1111/1365-2656.14116
9. T Dallas, LA Holian, C Ten Caten. **2024**. Geographic and temporal distance-decay relationships across taxa. *Oikos* . doi: 10.1111/oik.10269
10. J McKee, T Dallas. **2024**. Structural network characteristics affect epidemic severity and prediction in social contact networks. *Infectious Disease Modeling* . doi: 10.1016/j.idm.2023.12.008
11. T Dallas, C Ten Caten, LA Holian. **2024**. Temporal variability of carabid beetles as a function of geography, environment, and species. *Theoretical Ecology* . doi: 10.1007/s12080-023-00573-1
12. C Ten Caten, T Dallas. **2023**. Thinning presence points does not improve species distribution model performance. *Ecosphere* . doi: 10.1002/ecs2.4703
13. L Holian, C Ten Caten, T Dallas. **2023**. Exploring species diversity across space and time with data from the National Ecological Observatory Network. *Teaching Issues and Experiments in Ecology* . doi:

14. T Dallas, B Elderd. **2023**. Mean-variance scaling and stability in commercial sex work networks. *Social Network Analysis and Mining* . doi: 10.1007/s13278-023-01071-2
15. CA Cleveland, T Dallas, S Vigil, DG Mead, JL Corn, AW Park. **2023**. Vector communities under global change may exacerbate and redistribute infectious disease risk. *Parasitology Research* . doi: 10.1007/s00436-023-07799-2
16. T Dallas, C Carlson, P Stephens, SJ Ryan, D Onstad. **2022**. insectDisease: programmatic access to the Ecological Database of the World's Insect Pathogens. *Ecography* . doi: 10.1111/ecog.06152
17. T Dallas, D Kramer. **2022**. A latitudinal signal in the relationship between species geographic range size and climatic niche area. *Ecography* . doi: 10.1111/ecog.06349
18. G Foster, BD Elderd, RL Richards, T Dallas. **2022**. Estimating R0 from early exponential growth: Parallels between 1918 influenza and 2020 SARS-CoV-2 pandemics. *PNAS Nexus* . doi: 10.1093/pnasnexus/pgac194
19. T Dallas, G Foster, RL Richards, BD Elderd. **2022**. Epidemic time series similarity is related to geographic distance and age structure. *Infectious Disease Modeling* . doi: 10.1016/j.idm.2022.09.002
20. C Ten Caten, L Holian, T Dallas. **2022**. Effects of occupancy estimation on abundance-occupancy relationships. *Biology Letters* . doi: 10.1098/rsbl.2022.0137
21. LH Antão, B Weigel, G Strona, M Hällfors, E Kaarlejärvi, T Dallas, et al.. **2022**. Climate change reshuffles northern species within their niches. *Nature Climate Change* . doi: 0.1038/s41558-022-01381-x
22. C Ten Caten, LA Holian, T Dallas. **2022**. Weak but consistent abundance-occupancy relationships across taxa, space, and time. *Global Ecology and Biogeography* . doi: 10.1111/geb.13472
23. RL Richards, LA Holian. **2022**. Infectious disease: Dog diets may drive transmission cycles in human Guinea worm disease. *Current Biology* . doi: 10.1016/j.cub.2022.01.005
24. CJ Carlson, RJ Gibb, GF Albery, L Brierley, RP Connor, T Dallas, EA Eskew, AC Fagre, MJ Farrell, HK Frank, RL Muylaert, T Poisot, AL Rasmussen, SJ Ryan, SN Seifert. **2022**. The Global Virome in One Network (VIRION): an Atlas of Vertebrate-Virus Associations. *mBio* . doi: 10.1128/mbio.02985-21
25. L Fuzessy, G Sobral, D Carreira, DC Rother, G Barbosa, M Landis, M Galetti, T Dallas, VC Cláudio, L Culot, P Jordano. **2022**. Functional roles of frugivores and plants shape hyper-diverse mutualistic interactions under two antagonistic conservation scenarios. *BioTropica* . doi: 10.1111/btp.13065
26. T Dallas, P Jordano. **2022**. Parasite species richness and host range are not spatially conserved. *Global Ecology and Biogeography* . doi: 10.1111/geb.13452
27. O-P Smolander et al.. **2022**. Improved chromosome-level genome assembly of the Glanville fritillary butterfly (Melitaea cinxia) integrating Pacific Biosciences long reads and a high-density linkage map. *GigaScience* . doi: 10.1093/gigascience/giab097
28. D Becker, GF Albery, AR Sjodin, T Poisot, T Dallas, EA Eskew, MJ Farrell, S Guth, BA Han, NB Simmons, CJ Carlson. **2022**. Optimising predictive models to prioritise viral discovery in zoonotic reservoirs. *Lancet Microbe* . doi: 10.1016/S2666-5247(21)00245-7
29. GF Albery, DJ Becker, L Brierley, CE Brook, R Christofferson, L Cohen, T Dallas, EA Eskew, A Fagre, MJ Farrell, E Glennon, AL Rasmussen, SJ Ryan, S Seifert, AR Sjodin, EM Sorrell, CJ Carlson. **2021**. The science of the host–virus network. *Nature Microbiology* . doi: 10.1038/s41564-021-00999-5
30. T Dallas, A Kramer. **2021**. Temporal variability in population and community dynamics. *Ecology* . doi: 10.1002/ecy.3577
31. T Dallas, P Jordano. **2021**. Spatial variation in species roles in host-helminth networks. *Philosophical Transactions B* . doi: 10.1098/rstb.2020.0361
32. MJ Farrell, AW Park, C Cressler, T Dallas, S Huang, N Mideo, I Morales-Castilla, TJ Davies, P Stephens. **2021**. The ghost of hosts past: impacts of host extinction on parasite specificity. *Philosophical Transactions B* . doi: 10.1098/rstb.2020.0351

33. I Morales-Castilla, P Pappalardo, MJ Farrell, AA Aguirre, S Huang, ALM Gehman, T Dallas, D Gravel, TJ Davies. **2021**. Forecasting parasite sharing under climate change. *Philosophical Transactions B* . doi: 10.1098/rstb.2020.0360
34. CJ Carlson, et. al.. **2021**. The future of zoonotic risk prediction. *Philosophical Transactions B* . doi: 10.1098/rstb.2020.0360
35. R Gibb, GF Albery, DJ Becker, L Brierley, R Connor, T Dallas, EA Eskew, MJ Farrell, AL Rasmussen, SJ Ryan, A Sweeny, CJ Carlson, T Poisot. **2021**. Data proliferation, reconciliation, and synthesis in viral ecology. *BioScience* . doi: 10.1093/biosci/biab080
36. T Dallas, BA Melbourne, G Legault, A Hastings. **2021**. Initial abundance and stochasticity influence competitive outcome in communities. *Journal of Animal Ecology* . doi: 10.1111/1365-2656.13485
37. T Poisot, G Bergeron, K Cazelles, T Dallas, D Gravel, A MacDonald, B Mercier, S Vissault. **2021**. Global knowledge gaps in species interaction networks data. *Journal of Biogeography* . doi: 10.1111/jbi.14127
38. T Dallas, P Jordano. **2021**. Species-area and network-area relationships in host-helminth interactions. *Proceedings of the Royal Society B* . doi: 10.1098/rspb.2020.3143
39. T Dallas, M Saastamoinen, O Ovaskainen. **2020**. Exploring the dimensions of metapopulation persistence: a comparison of structural and temporal measures. *Theoretical Ecology* . doi: 10.1007/s12080-020-00497-0
40. T Dallas, D Becker. **2020**. Taxonomic resolution affects host-parasite association model performance. *Parasitology* . doi: 10.1017/S0031182020002371
41. T Dallas, L Santini, R Decker, A Hastings. **2020**. Weighing the evidence for the abundant-centre hypothesis. *Biodiversity Informatics* . doi: 10.17161/bi.v15i3.11989
42. C Carlson, AJ Phillips, T Dallas, LW Alexander, A Phelan, S Bansal. **2020**. What would it take to describe the global diversity of parasites?. *Proceedings of the Royal Society B* . doi: 10.1098/rspb.2020.1841
43. T Dallas, B Melbourne, A Hastings. **2020**. Community context and dispersal stochasticity drive variation in spatial spread. *J Animal Ecology* . doi: 10.1111/1365-2656.13331
44. T Dallas, L Holian, G Foster. **2020**. What determines parasite species richness across host species?. *J Animal Ecology* . doi: 10.1111/1365-2656.13276
45. T Dallas, L Santini. **2020**. The influence of stochasticity, landscape structure, and species traits on abundant-centre relationships. *Ecography* . doi: 10.1111/ecog.05164
46. T Dallas, L Santini. **2020**. The abundant-centre is not all that abundant: a comment to Osorio-Olvera et al. 2020. *bioRxiv* . doi: 10.1101/2020.02.27.968586
47. T Dallas, LH Antao, J Pöyry, R Leinonen, O Ovaskainen. **2020**. Spatial synchrony is related to the rate of environmental change in Finnish moth communities. *Proceedings of the Royal Society B* . doi: 10.1098/rspb.2020.0684
48. E Van Bergen, T Dallas, M Dileo, AO Kahilainen, A Mattila, MS Luoto, M Saastamoinen. **2020**. Summer drought decreases the predictability of local extinctions in a butterfly metapopulation. *Conservation Biology* . doi: http://dx.doi.org/10.1111/cobi.13515
49. T Dallas, M Saastamoinen, T Schulz, O Ovaskainen. **2019**. The relative importance of local and regional processes to metapopulation dynamics. *Journal of Animal Ecology* . doi: 10.1111/1365-2656.13141
50. T Dallas, CJ Carlson, T Poisot. **2019**. Testing predictability of disease outbreaks with a simple model of pathogen biogeography. *Royal Society Open Science* . doi: 10.1098/rsos.190883
51. T Dallas, A-L Laine, O Ovaskainen. **2019**. Detecting parasite associations within multi-species host and parasite communities. *Proceedings of the Royal Society B* . doi: 10.1098/rspb.2019.1109
52. T Dallas, J Pöyry, R Leinonen, O Ovaskainen. **2019**. Temporal sampling and abundance measurement influences support for occupancy–abundance relationships. *Journal of Biogeography* . doi: 10.1111/jbi.13718

53. A Norberg, N Abrego Antia, F Guillaume Blanchet, FR Adler, BJ Anderson, J Anttila, MB Araújo, T Dallas, D Dunson, J Elith, S Foster, R Fox, J Franklin, W Godsoe, A Guisan, B O'Hara, NA Hill, RD Holt, FKC Hui, M Husby, JA Kålås, A Lehikoinen, M Luoto, HK Mod, G Newell, I Renner, TV Roslin, J Soininen, W Thuiller, JP Vanhatalo, D Warton, M White, NE Zimmermann, D Gravel, OT Ovaskainen. **2019**. A comprehensive evaluation of predictive performance of 33 species distribution models at species and community levels. *Ecological Monographs* . doi: 10.1002/ecm.1370
54. Cornelius Ruhs, E, Borden, DM, T Dallas, Pitman, E. **2019**. Do feather traits convey information about bird condition during fall migration?. *Wilson Journal of Ornithology* . doi: 10.1676/18-174
55. T Dallas, Gehman, AL, Aguirre, AA, Budischak, SA, Drake, JM, Farrell, MJ, Ghai, R, Huang, S, Morales-Castilla, I. **2019**. Contrasting latitudinal gradients of body size in helminth parasites and their hosts. *Global Ecology and Biogeography* . doi: 10.1111/geb.12894
56. T Dallas, Han, BA, Nunn, CL, Park, AW, Stevens, PR, Drake, JM. **2019**. Host traits associated with species roles in parasite sharing networks. *Oikos* . doi: 10.1111/oik.05602
57. T Dallas, Melbourne, BA, Hastings, A. **2018**. When can competition and dispersal lead to checkerboard distributions?. *Journal of Animal Ecology* . doi: 10.1111/1365-2656.12913
58. T Dallas, Hastings, A. **2018**. Habitat suitability estimated by niche models is largely unrelated to species abundance. *Global Ecology and Biogeography* . doi: 10.1111/geb.12820
59. T Dallas, Aguirre, AA, Budischak, S, Carlson, C, Ezenwa, VO, Han, BA, Huang, S, Stevens, PR. **2018**. Gauging support for macroecological patterns in helminth parasites. *Global Ecology and Biogeography* . doi: 10.1111/geb.12819
60. T Dallas, Decker, R, Hastings, A. **2018**. Multiple data sources and freely available code is critical when investigating species distributions and diversity: a response to Knouft (2018). *Ecology Letters* . doi: 10.1111/ele.13105
61. T Dallas, Gehman, AL, Farrell, MJ. **2018**. Variable Bibliographic Database Access Could Limit Reproducibility. *BioScience* . doi: 10.1093/biosci/biy074
62. AW Park, Farrell, MJ, Schmidt, JP, Huang, S, T Dallas, Pappalardo, P, Drake, JM, Stephens, PR, Poulin, R, Nunn, CL, Davies, TJ. **2018**. Characterizing the phylogenetic specialism-generalism spectrum of mammal parasites. *Proceedings of the Royal Society B* . doi: 10.1098/rspb.2017.2613
63. C Carlson, Burgio, K, Dallas, T, Bond, AL. **2018**. Spatial extinction date estimation: a novel method for reconstructing spatiotemporal patterns of extinction and identifying potential zones of rediscovery. *in review* . doi:
64. T Dallas, Krkosek, M, Drake, J. **2018**. Experimental evidence of pathogen invasion threshold. *Royal Society Open Science* . doi: 10.1098/rsos.171975
65. T Dallas, Poisot, T. **2017**. Compositional turnover in host and parasite communities does not change network structure. *Ecography* . doi: 10.1111/ecog.03514
66. T Dallas, Decker, R, Hastings, A. **2017**. Species are not most abundant in the center of their geographic range or climatic niche. *Ecology Letters* . doi: 10.1111/ele.12860
67. C. Carlson, Muellerklein, O, Phillips, AJ, Burgio, KR, Castaldo, G, Cizauskas, CA, Cumming, GS, Dallas, T, Dona, J, Harris, N, Jovani, R, Miao, Z, Proctor, H, Yoon, HS, Getz, W. **2017**. The Parasite Extinction Assessment and Red List – an open-source, online biodiversity database for neglected symbionts. . doi: 10.1101/192351
68. C Carlson, Burgio, K, Dallas, T, Getz, W. **2017**. The mathematics of extinction across scales – from populations to the biosphere. *Mathematics of Planet Earth – Quantitative Approaches to Issues of Current Interest* . doi: 10.7287/peerj.preprints.3367v1
69. C Carlson, Burgio, KR, Dougherty, ER, Phillips, AJ, Bueno, VM, Clements, CF, Castaldo, G, Dallas, T, Cizauskas, CA, Cumming, GS, Doña, J, Harris, NC, Jovani, R, Mironov, S, Muellerklein, OC, Proctor, HC, Getz, WM. **2017**. Parasite biodiversity faces extinction and redistribution in a changing climate. *Science Advances* . doi: 10.1126/sciadv.1602422

70. T Dallas, Huang, S, Nunn, CL, Park, AW, Drake, JM. **2017**. Estimating parasite host range. *Proceedings of the Royal Society B* . doi: 10.1098/rspb.2017.1250
71. T Dallas, Park, AW, Drake, JM. **2017**. Predicting cryptic links in host-parasite networks. *PLoS Computational Biology* . doi: 10.1371/journal.pcbi.1005557
72. T Dallas, Park, AW, Drake, JM. **2017**. Predictability of helminth parasite host range using information on geography, host traits and parasite community structure. *Parasitology* . doi: 10.1017/S0031182016001608
73. M Evans, Dallas, T, Han, B, Murdock, CC, Drake, JM. **2016**. Data-driven identification of potential Zika virus vectors. *eLife* . doi:
74. T Dallas, Kramer, A, Zokan, M, Drake, JM. **2016**. Ordination obscures the influence of environment on plankton metacommunity structure. *Limnology and Oceanography Letters* . doi: 10.1002/lol2.10028
75. T Dallas, Drake, JM. **2016**. Fluctuating temperatures alter environmental pathogen transmission in a Daphnia-pathogen system. *Ecology and Evolution* . doi: 10.1002/ece3.2539
76. P. Stephens, Altizer, S, Smith, K, Aguirre, A, Brown, J, Budischak, S, Byers, J, Dallas, T, Davies, J, Drake, J, Ezenwa, V, Farrell, M, Gittleman, J, Han, B, Huang, S, Hutchinson, R, Johnson, P, Nunn, C, Onstad, D, Park, A, Vazquez-Prokopec, G, Schmidt, J, Poulin, R. **2016**. The Macroecology of Infectious Diseases: A New Perspective on Global-scale Drivers of Pathogen Distributions and Impacts. *Ecology Letters* . doi: 10.1111/ele.12644
77. T Dallas. **2016**. helminthR: An R interface to the London Natural History Museum's Host-Parasite Database. *Ecography* . doi: 10.1111/ecog.02131
78. T Dallas, Hall, R, Drake, JM. **2016**. Competition-mediated feedbacks in experimental multi-species epizootics. *Ecology* . doi: 10.1890/15-0305.1
79. T Dallas, Holtackers, M, Drake, JM. **2016**. Costs of resistance and infection by a generalist pathogen. *Ecology and Evolution* . doi: 10.1002/ece3.1889
80. AW Park, Cleveland, C, Dallas, T, Corn, J. **2015**. Vector species richness increases hemorrhagic disease prevalence through functional diversity modulating the duration of seasonal transmission. *Parasitology* . doi: 10.1017/S0031182015000578
81. T Dallas, Cornelius, E. **2015**. Co-extinction in a host-parasite network: identifying key hosts for network stability. *Nature Scientific Reports* . doi: 10.1038/srep13185
82. SJ Presley, Dallas, T, Klingbeil, BT, Willig, MR. **2015**. Phylogenetic signals in host-parasite associations for Neotropical bats and Nearctic desert rodents. *Biological Journal of the Linnean Society* . doi: 10.1111/bij.12601
83. T Dallas, Drake, JM. **2014**. Relative Importance of Environmental, Geographic, and Spatial Variables on Zooplankton Metacommunities. *Ecosphere* . doi: 10.1890/ES14-00071.1
84. T Dallas. **2014**. metacom: an R package for the analysis of metacommunity structure. *Ecography* . doi: 10.1111/j.1600-0587.2013.00695.x
85. T Dallas, Presley, SJ. **2014**. Relative importance of host environment, transmission potential, and host phylogeny to the structure of parasite metacommunities. *Oikos* . doi: 10.1111/oik.00707
86. HJ Kim, Cavanaugh, JE, Dallas, T, Fore, S. **2014**. Model selection criteria for count data with overdispersion and its application to the host-parasite relationship. *Environmental and Ecological Statistics* . doi: 10.1007/s10651-013-0257-0
87. T Dallas, Drake, JM. **2013**. Nitrate enrichment alters a Daphnia-microparasite interaction through multiple pathways. *Ecology and Evolution* . doi: 10.1002/ece3.925
88. T Dallas, Fore, S. **2013**. Chemical attraction of Dermacentor variabilis ticks parasitic to Peromyscus leucopus based on host body mass and sex. *Experimental and Applied Acarology* . doi: 10.1007/s10493-013-9690-x

89. T Dallas, Fore, S, Kim, HJ. **2013**. Modeling the influence of Peromyscus leucopus body mass, sex and habitat on immature Dermacentor variabilis burdens. *Journal of Vector Ecology* . doi: 10.1111/j.1948-7134.2012.00236.x

Book chapters

2025 **Biotic Interactions across Gradients and Scales: Towards a Synthesis on the Organization of the Web of Life**
Multitrophic Interactions Involving Parasitism and Pathogens (Tad Dallas and Kevin Lafferty)

2024 **Handbook of Visual, Experimental and Computational Mathematics**
Preparing for the Next Pandemic: Learning Lessons from the Recent Past (Bret Elderd, Tad Dallas, Grant Foster, Robert Richards)

Software

metacom **Analysis of metacommunity structure (CRAN)**
http://cran.r-project.org/web/packages/metacom/

insectDisease **Access to the Ecological Database of the World's Insect Pathogens (CRAN)**
https://github.com/viralemergence/insectDisease

helminthR **Portal to London Natural History Museum host-helminth database (GitHub)**
https://github.com/ropensci/helminthR

Hmsc **Hierarchical modeling of species communities (CRAN)**
https://cran.r-project.org/web/packages/Hmsc/index.html

spatExtinct **Spatially interpolated extinction date estimation (GitHub)**
http://github.com/cjcarlson/spatExtinct

Presentations

September, 2024 **CEID vector-borne disease working group (University of Georgia)**

September, 2024 **Guest lecture in Infectious Disease Modeling (EPID 394) (Arnold School of Public Health)**
Hosted by Melissa Nolan.

September, 2022 **Invited seminar (Duke University)**
Hosted by Jean-Philipe Gibert.

October, 2023 **Invited seminar (U of Georgia)**
Hosted by John Drake.

October, 2023 **Octoberbest teaching symposium (U of SC)**

October, 2021 **Invited seminar (U of SC)**
Hosted by Tammi Richardson.

October, 2018 **Invited seminar (McGill University)**
Hosted by Rowan Barrett.

November, 2023 **Invited seminar (University of South Florida)**
Hosted by Andrew Kramer.

November, 2022 **Departmental seminar (U of SC)**

November, 2018 **Invited seminar (Osnabruck University)**
Hosted by Frank Hilker.

November, 2018 **Invited seminar (University of Arkansas)**
Hosted by John David Wilson.

May, 2021 **Science and Spirits (invited seminar) (LSU)**

May, 2012 **98th annual American Society for Microbiology (Georgia)**

March, 2024 **Invited seminar speaker (CU Boulder)**
Hosted by Laura Dee.

March, 2024 **Ecological Society of Japan meeting (Japan)**

June, 2024 **American Society of Limnology and Oceanography (Wisconsin)**

June, 2022 **Ecology and Evolution of Infectious Disease (virtual)**

July, 2022 **British Ecological Society; Macroecology group (UK)**

July, 2019 **Invited seminar (International University of Rijeka)**
Hosted by Danijel Krismanic.

July, 2017 **Society for Mathematical Biology (Utah)**

July, 2014 **Ecology and Evolution of Infectious Disease (Colorado)**

February, 2025 **Invited Keynote (University of Georgia)**
Hosted by Graduate student symposium.

February, 2024 **Big Data Health Science Conference (U of SC)**

December, 2021 **Invited seminar (Truman State University)**

December, 2018 **Invited seminar (Louisiana State University)**
Hosted by Bret Elderd.

August, 2025 **Invited seminar speaker (Georgia Tech)**
Hosted by Ben Freeman.

August, 2024 **Ecological Society of America meeting (California)**

August, 2022 **Ecological Society of America meeting (Montreal)**

August, 2018 **Invited seminar (University of California – Los Angeles)**
Hosted by Jamie Lloyd-Smith.

August, 2015 **Ecological Society of America meeting ()**

August, 2014 **Ecological Society of America meeting (California)**

April, 2022 **Invited seminar (U of SC)**
Hosted by “Mathematical Foundations of Data Science” group.

April , 2016 **Dissertation defense (Georgia)**
Hosted by John Drake.

Teaching

2025	**Biological data science (biol 599)**	18 students
2025	**Parasitology (biol 531/epid 661/enhs 661)**	17 students
2024	**Ecology and Evolution (biol 301)**	24 students
2024	**Parasitology (biol 531/epid 661/enhs 661)**	12 students
2023	**Ecoinformatics (biol 599)**	8 students
2023	**Website development (graduate seminar)**	20 students
2023	**Theoretical ecology (biol 599/765)**	15 students
2022	**Reproducible research in R (biol 599)**	12 students
2020	**Vector-borne disease (graduate seminar)**	10 students
2020	**Reproducible research in R (biol 4800)**	15 students
2019, 2021	**Principles of ecology (biol 4253)**	35; 80 students

Funding

2025-2027	**popClimVar: Climatic variability and fluctuating populations** Environmental Data Science Innovation and Impact Lab (ESIIL)	$62,800
2024-2027	**NSF CISE "Towards a wormier world: Augmenting and georeferencing the largest host-helminth database"** National Science Foundation	$792,000
2024-2026	**NSF DEB "Linking environmental variability and species-environment relationships to understand fluctuating populations"** National Science Foundation	$199,000
2023-2027	**Infectious Disease Translational Research Institute** U of SC center grant	$2,000,000
2023-2024	**NIH R25 Big Data Health Science training grant** NIH-R25 (AI164581-02)	$30,000
2023-2024	**SEC Faculty Travel Grant**	$1,200
2023-2024	**Belle W. Baruch Foundation Visiting Scholar Grants**	$4,990
2023-2024	**McCausland Innovation Fund**	$15,683
2022-2023	**Establishing a pigmented yeast microcosm system to understand ecological communities** $15,000 U of SC Aspire (track 1)	
2021-2025	**Actively engaging students in hardware and software development** LSU Foundation and LSU College of Science	$44,000
2020-2025	**NSF-Macrosystems MSA: Understanding spatial patterns of abundance and occupancy in terms of taxa, traits, and space** NSF Macrosystems and NEON-enabled science	$274,542
2020-2022	**NSF RAPID: Epidemic control strategies for COVID-19 in age-structured populations: A multi-model approach** NSF RAPID	$200,000
2020-2022	**NSF BII-Design: Exploring the ecology and evolution of the global virome with big data and machine learning** NSF Bio Institute - Design	$166,189

Academic service

2025	**Big Data Health Science Conference** Poster judge
2025	**National Science Foundation** Panel reviewer
2025	**CEES Sponsored Summer Internship Program** Mentor
2024	**Response Diversity Working Group** invited participant
2024	**NSF** Panel reviewer
2024	**Society for Open, Reliable, & Transparent Ecology & Evolutionary Biology** Invited panel member
2024	**National Institutes of Health** Panel reviewer
2024	**National Science Foundation** Ad hoc reviewer
2023-	**Proceedings of the Royal Society B** Editor

2023- **MIDAS collaboration network**
Member

2023 **European Biodiversity Partnership (BIODIVMON)**
Ad hoc reviewer

2023 **Environmental Data Science Innovation & Inclusion Lab**
Summit and workshop

2023 **InvaPact: Biological Invasions Working Group**
invited participant

2020- **Ecology Letters**
Editor and data editor

2019-2023 **Ecosphere**
Editor- disease track

2019-2020 **LIFEPLAN: A planetary inventory of life**
Sampling site (Baton Rouge, LA)

2019- **GitHub Education**
Campus Advisor

2019- **The Carpentries**
Instructor

Community engagement

2021-2022 **Futures Fund**
Coding instructor

2021-2021 **LSU Science and Spirits podcast**
Research talk plus associated interview/podcast

2019-2022 **Front Yard Bikes**
Volunteer

Mentoring

2025-	**Briar Ownby-Connolly**	Doctoral Dissertation Committee (U of SC, SEOE)
2025-	**Evan See**	Honor's thesis advisor (U of SC)
2024-	**Genevieve Triplett**	Masters thesis committee (U of SC)
2023-2024	**Sophia Vrh**	Honor's thesis 2nd reader (U of SC)
2023-	**Gabriel Dansereau**	Doctoral Dissertation Committee (Université de Montréal)
2023-	**Laurent Duverglas**	Doctoral Dissertation Committee (U of SC)
2023-	**Anthony Pignatelli**	Doctoral Dissertation Committee (U of SC)
2022-2024	**Caitlyn Mettetal**	Masters thesis committee (U of SC)
2022-2024	**Nayan Mallick**	Doctoral Dissertation Committee (U of SC, SEOE)
2022-2023	**Kayla Bramlett**	Masters thesis committee (U of SC, Arnold School of Public Health)
2022-	**Alexander Barth**	Doctoral Dissertation Committee (U of SC)
2021-2024	**Victoria Chebotaeva**	Doctoral Dissertation Committee (U of SC, Math)
2021-	**Birch Lazo-Murphy**	Doctoral Dissertation Committee (U of SC, SEOE)
2021-	**Wissam Jawad**	Doctoral Dissertation Committee (LSU)
2021-	**Lauren Holian**	Doctoral Dissertation Committee (U of SC)
2020-	**Grant Foster**	Doctoral Dissertation Committee (U of SC)
2019-2025	**Cleber Ten Caten**	Doctoral Dissertation Committee (U of SC)
2019-	**Jason Janeaux**	Doctoral Dissertation Committee (LSU)

Undergraduate research

2025-	**Maven Rose Busby**	()
2025-	**Riley O'Hare**	()
2025-	**Madeline Ronningen**	()
2025-	**Cheyenne Chen**	()
2025-	**Addy Rose McClure**	()
2025-	**Jaden Conner**	()
2025-	**Joshua Nolan**	()
2025-	**Haley Hair**	(Biology)
2025-	**Evan See**	(Biology)
2025-	**Jackson Carpenter**	(Biology)
2025-	**Dani Schmidt**	(Biology)
2025	**Jordan Maybank**	(Biology)
2024-2025	**Anthony Maione**	(Biology)
2024-	**Nicholas Christov**	(Biology)
2024-	**Aiden Seibers**	(Biology)
2023-2025	**Cayden Scruggs**	(Computer science)
2023-2024	**Sarah Pence**	(Public health)
2022-2025	**Hilde Tollfesen**	(Biology)
2022-2025	**Nabeeha Baig**	(Public health)
2022-2024	**Aaron Kucinski**	(Biology)
2022-2023	**Sayi Sathish Kumar**	(Biology)
2022-2023	**Bailey Kane**	(Biology)
2020-2024	**Anandita Verma**	(Biology)
2020-2022	**Daniel Vilchez**	(Data Science)
2020-2021	**Tivon Eugene**	(Biology)
2020	**Jaylon Braxton**	(Biology)

Undergraduate and graduate researcher funding

2024-2025	**Magellan research grant (Anthony Maione)**	$2500
2024-2025	**Magellan research grant (Hilde Tolfeson)**	$2500
2023-2025	**Magellan Guarantee Grant (Cayden Scruggs)**	$4000
2023-2025	**Magellan Guarantee Grant (Nabeeha Baig)**	$4000
2023-2023	**Theme semester grant (Sayi Sathish Kumar)**	$500