





Tad Dallas

Assistant professor, U of South Carolina, Biological Sciences

theory + ecology
2026

 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. A Pignatelli, T Dallas. **2026**. Community Synchrony in Aquatic Macroinvertebrates Is Unrelated to Environmental Variability but Differs Among Functional Feeding Groups. *Ecology and Evolution* . doi: 10.1002/ece3.72999
2. C Ten Caten, T Dallas. **2026**. Demography and dispersal influence the relationship between habitat suitability and population density. *Ecography* . doi: 10.1002/ecog.08299
3. T Dallas, LA Holian, C Ten Caten. **2025**. Landscape structure and species life history effects on abundance-occupancy relationships. *Ecology* . doi: 10.1002/ecy.70258
4. G Foster, TA Dallas. **2025**. Comparing the power of phylogenetic, trait and network structure information to predict plant-frugivore interactions. *Oikos* . doi: 10.1002/oik.11156
5. AW Park, CE Cressler, TA Dallas, MJ Farrell, S Huang, AB Pedersen, RM Varney. **2025**. Costs of parasite generalism revealed by abundance patterns across mammalian hosts . *Proceedings of the Royal Society B* . doi: 10.1098/rspb.2025.1157
6. T Dallas, Michael Krabbe Borregaard. **2025**. Dependencies, archivals, and package development in the R ecosystem. *BioScience* . doi: 10.1093/biosci/biaf148
7. JL Pick, et al.. **2025**. The SORTEE Guidelines for Data and Code Quality Control in Ecology and Evolutionary Biology. *EcoEvoRxiv* . doi: 10.32942/X24P8S
8. 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
9. 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
10. 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
11. 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
12. 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
13. C Ten Caten, T Dallas. **2024**. Latitudinal specificity of plant-avian frugivore interactions. *Journal of Animal Ecology* . doi: 10.1111/1365-2656.14116
14. T Dallas, LA Holian, C Ten Caten. **2024**. Geographic and temporal distance-decay relationships across taxa. *Oikos* . doi: 10.1111/oik.10269
15. 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
16. 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
17. C Ten Caten, T Dallas. **2023**. Thinning presence points does not improve species distribution model performance. *Ecosphere* . doi: 10.1002/ecs2.4703

18. 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:
19. 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
20. 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
21. 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
22. 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
23. 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
24. 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
25. C Ten Caten, L Holian, T Dallas. **2022**. Effects of occupancy estimation on abundance-occupancy relationships. *Biology Letters* . doi: 10.1098/rsbl.2022.0137
26. 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: 10.1038/s41558-022-01381-x
27. 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
28. 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
29. CJ Carlson, RJ Gibb, GF Albery, L Brierley, RP Connor, T Dallas, EA Eskew, AC Fagre, MJ Farrell, HK Frank, RL Muyaert, 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
30. 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
31. T Dallas, P Jordano. **2022**. Parasite species richness and host range are not spatially conserved. *Global Ecology and Biogeography* . doi: 10.1111/geb.13452
32. 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
33. D Becker, GF Albery, AR Sjödin, 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
34. 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 Sjödin, EM Sorrell, CJ Carlson. **2021**. The science of the host-virus network. *Nature Microbiology* . doi: 10.1038/s41564-021-00999-5
35. T Dallas, A Kramer. **2021**. Temporal variability in population and community dynamics. *Ecology* . doi: 10.1002/ecy.3577
36. T Dallas, P Jordano. **2021**. Spatial variation in species roles in host-helminth networks. *Philosophical Transactions B* . doi: 10.1098/rstb.2020.0361
37. 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
38. 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
39. CJ Carlson, et. al.. **2021**. The future of zoonotic risk prediction. *Philosophical Transactions B* . doi: 10.1098/rstb.2020.0360
40. 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
41. 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
42. 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

43. 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
44. 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
45. T Dallas, D Becker. **2020**. Taxonomic resolution affects host-parasite association model performance. *Parasitology* . doi: 10.1017/S0031182020002371
46. 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
47. 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
48. 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
49. T Dallas, L Holian, G Foster. **2020**. What determines parasite species richness across host species?. *J Animal Ecology* . doi: 10.1111/1365-2656.13276
50. T Dallas, L Santini. **2020**. The influence of stochasticity, landscape structure, and species traits on abundant-centre relationships. *Ecography* . doi: 10.1111/ecog.05164
51. 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
52. 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
53. 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>
54. 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
55. 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
56. 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
57. 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
58. 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 Lehtikainen, 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
59. 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
60. 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
61. 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
62. 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
63. 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
64. 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
65. 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
66. T Dallas, Gehman, AL, Farrell, MJ. **2018**. Variable Bibliographic Database Access Could Limit Reproducibility. *BioScience* . doi: 10.1093/biosci/biy074
67. 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
68. 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:

69. T Dallas, Krkosek, M, Drake, J. **2018**. Experimental evidence of pathogen invasion threshold. *Royal Society Open Science* . doi: 10.1098/rsos.171975
70. T Dallas, Poisot, T. **2017**. Compositional turnover in host and parasite communities does not change network structure. *Ecography* . doi: 10.1111/ecog.03514
71. 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
72. 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
73. 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
74. 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
75. 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
76. T Dallas, Park, AW, Drake, JM. **2017**. Predicting cryptic links in host-parasite networks. *PLoS Computational Biology* . doi: 10.1371/journal.pcbi.1005557
77. 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
78. M Evans, Dallas, T, Han, B, Murdock, CC, Drake, JM. **2016**. Data-driven identification of potential Zika virus vectors. *eLife* . doi:
79. 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
80. T Dallas, Drake, JM. **2016**. Fluctuating temperatures alter environmental pathogen transmission in a Daphnia-pathogen system. *Ecology and Evolution* . doi: 10.1002/ece3.2539
81. 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
82. T Dallas. **2016**. helminthR: An R interface to the London Natural History Museum's Host-Parasite Database. *Ecography* . doi: 10.1111/ecog.02131
83. T Dallas, Hall, R, Drake, JM. **2016**. Competition-mediated feedbacks in experimental multi-species epizootics. *Ecology* . doi: 10.1890/15-0305.1
84. T Dallas, Holtackers, M, Drake, JM. **2016**. Costs of resistance and infection by a generalist pathogen. *Ecology and Evolution* . doi: 10.1002/ece3.1889
85. 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
86. 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
87. 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
88. T Dallas, Drake, JM. **2014**. Relative Importance of Environmental, Geographic, and Spatial Variables on Zooplankton Metacommunities. *Ecosphere* . doi: 10.1890/ES14-00071.1
89. T Dallas. **2014**. metacom: an R package for the analysis of metacommunity structure. *Ecography* . doi: 10.1111/j.1600-0587.2013.00695.x
90. 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
91. 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
92. T Dallas, Drake, JM. **2013**. Nitrate enrichment alters a Daphnia-microparasite interaction through multiple pathways. *Ecology and Evolution* . doi: 10.1002/ece3.925
93. 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

94. 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 Elder, 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

- 2025, February **Invited Keynote (University of Georgia)**
Hosted by Graduate student symposium.
- 2025, August **Invited seminar speaker (Georgia Tech)**
Hosted by Ben Freeman.
- 2024, September **CEID vector-borne disease working group (University of Georgia)**
- 2024, September **Guest lecture in Infectious Disease Modeling (EPID 394) (Arnold School of Public Health)**
Hosted by Melissa Nolan.
- 2024, March **Invited seminar speaker (CU Boulder)**
Hosted by Laura Dee.
- 2024, March **Ecological Society of Japan meeting (Japan)**
- 2024, June **American Society of Limnology and Oceanography (Wisconsin)**
- 2024, February **Big Data Health Science Conference (U of SC)**
- 2024, August **Ecological Society of America meeting (California)**
- 2023, October **Invited seminar (U of Georgia)**
Hosted by John Drake.
- 2023, October **Octoberbest teaching symposium (U of SC)**
- 2023, November **Invited seminar (University of South Florida)**
Hosted by Andrew Kramer.
- 2022, September **Invited seminar (Duke University)**
Hosted by Jean-Philippe Gibert.
- 2022, November **Departmental seminar (U of SC)**
- 2022, June **Ecology and Evolution of Infectious Disease (virtual)**
- 2022, July **British Ecological Society; Macroecology group (UK)**
- 2022, August **Ecological Society of America meeting (Montreal)**

2022, April	Invited seminar (U of SC) Hosted by “Mathematical Foundations of Data Science” group.
2021, October	Invited seminar (U of SC) Hosted by Tammi Richardson.
2021, May	Science and Spirits (invited seminar) (LSU)
2021, December	Invited seminar (Truman State University)
2019, July	Invited seminar (International University of Rijeka) Hosted by Danijel Krismanic.
2018, October	Invited seminar (McGill University) Hosted by Rowan Barrett.
2018, November	Invited seminar (Osnabruck University) Hosted by Frank Hilker.
2018, November	Invited seminar (University of Arkansas) Hosted by John David Wilson.
2018, December	Invited seminar (Louisiana State University) Hosted by Bret Elder.
2018, August	Invited seminar (University of California – Los Angeles) Hosted by Jamie Lloyd-Smith.
2017, July	Society for Mathematical Biology (Utah)
2016, April	Dissertation defense (Georgia) Hosted by John Drake.
2015, August	Ecological Society of America meeting ()
2014, July	Ecology and Evolution of Infectious Disease (Colorado)
2014, August	Ecological Society of America meeting (California)
2012, May	98th annual American Society for Microbiology (Georgia)

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 (ESIL)	\$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 U of SC Aspire (track 1)	\$15,000
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	Alexander Barth	Doctoral Dissertation 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)
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

2025-2026	Magellan research grant (Haley Hair)	\$2500
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