

Quentin D. Read

Stats and data science to sustainably feed the world

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Professional appointments

Agricultural Research Service, U.S. Department of Agriculture , Raleigh, NC	2021–
<i>Applied consulting statistician</i> , Southeast Area (located at North Carolina State University)	
• Support USDA researchers by designing experiments, processing and visualizing data, and doing statistical analyses using R, Stan, SAS, and Python	
• Design and teach statistics and data science lessons and workshops to USDA researchers	
• Assist researchers with git for collaborations and high-performance computing using Linux	
• Pursue a research program modeling the impacts of the food system on human and natural communities, using techniques from ecology, environmental science, and economics	
• Received 2024 Southeast Area award for customer service and technical expertise	
National Socio-Environmental Synthesis Center (SESYNC) , Annapolis, MD	2018-2021
<i>Data scientist</i> (2019-2021); <i>Postdoctoral fellow</i> (2018-2020)	
• Provided data science consulting for socio-environmental research teams	
• Maintained and wrote content for SESYNC's cyberhelp website using Markdown and Jekyll	
• Developed and taught lessons for data science curriculum	
• Modeled impacts of food waste and benefits of food waste reduction interventions	
• Obtained \$130,000 NSF fellowship for SESYNC's postdoctoral immersion training program	
• Research featured in multiple media outlets (list)	
Michigan State University (MSU) , East Lansing, MI	2016-2018
<i>Postdoctoral researcher</i> , Department of Forestry	
• Compiled, analyzed, and processed environmental and biodiversity datasets in R	
• Designed spatial Bayesian models; did GIS analysis in R and GDAL	

Education

Ph.D., Ecology & Evolutionary Biology , University of Tennessee, Knoxville, TN	2016
B. S., Environmental Science , University of North Carolina, Chapel Hill, NC	2009

Publications (for full list see [Google Scholar](#))

- 10 first-authored publications in journals including *PNAS*, *Resources Conservation & Recycling*, *Science of the Total Environment*, *Ecography*, and *Biology Letters*
- >90 co-authored publications in journals including *Science*, *Ecology*, *Science of the Total Environment*, and *Global Ecology and Biogeography*

Selected invited talks

- N.C. State University, Plant & Microbial Biology department seminar, Raleigh, NC 2022
- Duke University, University Program in Ecology Seminar Series, Durham, NC 2020
- Commission for Environmental Cooperation, Arlington, VA 2018

Selected software

- Lead developer, [Ostats](#): R package for trait analysis of ecological communities 2021
- Co-developer, [ggalluvial](#): R package adding functionality to ggplot2 2020
- Co-developer, [rslurm](#): R package for running R code in parallel 2019

Selected teaching and mentoring experience

- Mentored student team that won grand prize in a 75-team data science competition 2021
- Designed and taught workshops on R, omics, mixed models, geospatial data, and git 2020-2025
- Taught undergraduate and graduate courses in biology and ecology 2012-2017
- Mentored 17 undergraduates; two published first-author research papers 2012-2020