Quentin D. Read

Using big open data to understand how humans influence the natural world

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Professional appointments

Agricultural Research Service, U.S. Department of Agriculture, Raleigh, NC 2021–
Applied consulting statistician, 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

National Socio-Environmental Synthesis Center (SESYNC), Annapolis, MD 2018-2021
Data scientist (2019-2021); *Postdoctoral fellow* (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
Postdoctoral researcher, 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)

- Ten first-authored publications in journals including *PNAS, Resources Conservation & Recycling, Science of the Total Environment, Ecography,* and *Biology Letters*
- Thirty-five 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

Software

- Co-developer, *epi2me2r*: R package that helps users import Nanopore data into R 2022
- 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 programming, geospatial data, and git 2020-2021
- Co-instructor of graduate seminar course in ecology at MSU 2017
- Mentored 17 undergraduates; two published first-author research papers 2012-2020