

Quentin D. Read

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

SESYNC
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Professional experience

National Socio-Environmental Synthesis Center (SESYNC), Annapolis, MD 2018-present

Data scientist (50% time); Postdoctoral fellow (50% time), beginning September 2019

Postdoctoral Fellowship: “Food waste and the environment”

Mentor: Dr. Mary Muth (RTI International, Research Triangle Park, NC)

Michigan State University (MSU), East Lansing, MI 2016-2018

Department of Forestry; Ecology, Evolutionary Biology, & Behavior Program

“Intraspecific trait variation and community structure at a continental scale”

Advisors: Dr. Phoebe Zarnetske (MSU) and Dr. Sydne Record (Bryn Mawr College)

Education

University of Tennessee (UT), Knoxville, TN 2011-2016

Ph.D., Ecology and Evolutionary Biology

Dissertation: “Individual variation in plant traits drives species interactions, ecosystem functioning, and responses to global change”

Advisor: Dr. Nathan Sanders

University of North Carolina, Chapel Hill, NC 2005-2009

B.S. with highest distinction, Environmental Science

Skills

Data processing, visualizing, and analysis in R, including tidyverse and Rmarkdown

Bayesian modeling with Stan and JAGS

Spatial analysis and modeling with GDAL and GIS libraries in R

Working knowledge of Python

High-performance parallel computing using Linux server

Using GitHub for version control and remote collaborations

Synthesizing data and theory, both in ecology and beyond

Fluent in spoken and written German; communicate effectively in spoken and written Spanish

Grants

Macrosystems Biology, NEON-Enabled Science (National Science Foundation; \$536,800)

Role: senior personnel, co-writer of grant

2019-2024

Publications and presentations

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

Six first-authored publications in *Ecography*, *Biology Letters*, *Journal of Plant Ecology*, *Journal of Vegetation Science*, *Oikos*, and *Functional Ecology*

Two publications first-authored by undergraduates whom I mentored, in *Ecology* and *Oecologia*

Eleven other co-authored publications in journals including *Science of the Total Environment*, *Global Ecology and Biogeography*, *PNAS*, and *PLoS One*

Conference presentations

U.S. Society for Ecological Economics, Louisville, KY 2019
International Association of Landscape Ecology, Chicago, IL 2018
Ecological Society of America, Baltimore, MD; Portland, OR 2015, 2017

Invited research talks

Commission for Environmental Cooperation, Arlington, VA 2018
National Ecological Observatory Network, Boulder, CO 2017
MSU Department of Forestry, Hanover Forest Science Seminar Series, East Lansing, MI 2016
University of Notre Dame biology education seminar, Notre Dame, IN 2015
Rocky Mountain Biological Laboratory seminar, Gothic, CO 2014
Oak Ridge National Laboratory, Environmental Sciences Division, Oak Ridge, TN 2014

Teaching and mentoring

Teaching

Co-instructor of graduate course at MSU 2017
Graduate teaching assistant for eight semesters at UT 2011-2016
Delivered four guest lectures in undergraduate courses at UT 2013-2015

Curriculum development and course design

Designed graduate teaching module at MSU 2018
Designed and led workshop on R and ggplot2 2015
Designed and led workshop on statistical analyses in R 2014
Served on panel developing and reforming undergraduate biology curriculum at UT 2013-2014
Surveyed biology instructors on current professional development opportunities for graduate teaching assistants, creating recommendations to improve TA training 2013

Mentoring

Mentored 4 undergraduates through Summer Research Opportunities Program and High Performance Computing Center, MSU 2017-2018
Mentored 8 summer research undergraduates, Rocky Mtn. Biological Laboratory 2012-2015
Mentored 3 undergraduate laboratory assistants, UT 2013-2015

Selected honors and awards

Science Alliance award, for exemplary accomplishments as a graduate student, UT 2015
Outstanding Outreach and Community Service award, UT Department of Ecology and Evolutionary Biology (awarded for leadership of Darwin Day) 2014
Dr. Jean H. Langenheim Endowed Graduate Fellowship in the Ecology and Evolution of Plants, Rocky Mountain Biological Laboratory 2013-2014
Dr. Lee R. G. Snyder Memorial Fellowship, Rocky Mountain Biological Laboratory 2012

Professional outreach

Peer reviewer for 30 manuscripts in 23 different journals 2013-2019
Review panelist, SESYNC immersion postdoctoral fellowship program 2019
Gave public research talks on climate change and citizen science, MSU 2017, 2018
Volunteered at kids' science education events in TN, CO, and NC 2011-2015
Organized Darwin Day, a campus-wide science education event, UT 2014

Selected work experience

Jim Clark Lab, Duke University, Durham, NC
Research technician 2008; 2010-2011
North Carolina Botanical Garden, Chapel Hill, NC
Conservation and Land Management intern 2009