Nathaniel Robinson

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: 406-207-2405

Education

PhD in Forestry and Conservation Sciences — December 2017
W.A. Franke College of Forestry and Conservation
University of Montana, Missoula, MT

MSc in Environmental Studies — May 2009
University of Montana, Missoula, MT

BSc in Environmental Science — December 2004
Wheaton College, Wheaton, IL

Work Experience

Research Scientist — January 2018 - present
Numerical Terradynamic Simulation Group
University of Montana, Missoula, MT

Geospatial Research Consultant — April 2018 - Present
Independant Evaluation Office
Global Environment Facility
Washington DC

Geospatial Research Consultant — 2016 - Present
The Nature Conservancy
Africa Program

Geospatial Research Consultant — 2015 - Present
Panthera
New York, NY

Geospatial Research Consultant — 2014 - 2015
International Food Policy Research Institute
Washington DC

Executive Director — 2012 - 2013
The Maa Trust
Maasai Mara, Kenya

Project Manager — 2011
Encounter Mara
Maasai Mara, Kenya

Project Manager — 2009 - 2010
Africa Exchange
Nairobi, Kenya

Research Assistant 2007 - 2008
Univeristy of Montana
Missoula, MT

Environmental Scientist 2005 - 2006
Malewa Trust
Gilgil, Kenya

Fiel Researcher 2003 - 2004
African Wildlife Foundation
Lake Manyara, Tanzania

Publications

Published

11. Campos-Taberner, M., A. Moreno, F.J. Garcia-Haro, G. Camps-Valls, **N. Robinson**, J. Kattge, S.W. Running. 2018. Global estimation of biophysical variables from Google Earth Engine Platform. *Remote Sensing* doi:10.3390/rs10081167

10. **Robinson, N.**, B.W. Allred, W.K. Smith, M.O. Jones, A. Moreno, T.A. Erickson, D.E. Naugle, and S.W. Running. 2018. Landsat 30 m and MODIS 250 m derived terrestrial primary production for the conterminous United States. *Remote Sensing in Ecology and Conservation*. doi:10.1002/rse2.74

9. Moreno, A., G. Camps-Valls, J. Kattge, **N. Robinson**, M. Reichstein, P. Bodegom, K. Kramer, J.H.C. Cornellissen, P. Reich, M. Bahn, U Niinemetsh, J. Penuelas, J. Craine, B.E.L. Cerabolini, V. Minden, D.C. Laughlin, L. Sack, B.W. Allred, C. Baraloto, C. Byun, N.A. Soudzilovskaia, and S.W. Running. 2018. Global maps of plant traits using remote sensing and climate data. *Remote Sensing of Environment*.

8. Parks, S.A., L.M. Holsinger, M.A. Voss, R. Loehman, **N. Robinson**. 2018. Mean composite fire severity metrics computed with Google Earth Engine offer improved accuracy and expanded mapping potential. *Remote Sensing*. doi:10.3390/rs10060879

7. Jedrzejewski, W., H.S. Robinson, M. Abarca, K.A. Zeller, G. Velasquez. E. Paemelaere, J.F. Goldberg, E. Payan, R. Hoogesteijn, E.O. Boede, K. Schmidt, M. Lampo, A.L. Viloria, R. Carreno, **N. Robinson**, P.M. Lukacs, J.J. Nowak, R. Salom-Perez. F. Castanada, V. Boron, and H. Quigley. 2018. Estimating large carnivore populations at global scale based on spatial predictors of density and distribution—application to the jaguar (*Panthera onca*). *PlosOne*. doi:10.1371/journal.pone.0194719

6. Jones. M.O., S.W. Running, J.S. Kimball, **N. Robinson**, and B.W. Allred. 2018. Terrestrial primary productivity indicators for inclusion in the National

Climate Indicators System. *Climate Change*. doi:10.1007/s10584-018-2155-9

5. **Robinson, N.**, B.W. Allred, M.O. Jones, A. Moreno, J.S. Kimball, D.E. Naugle, T.A. Erickson, and A.D. Richardson. 2017. A dynamic Landsat derived normalized difference vegetation index (NDVI) for the conterminous United States. *Remote Sensing* 9:83. doi:10.3390/rs9080863

4. Petracca, L.S., J.L. Frair, J.B. Cohen, A.P. Calderon, J. Carazo-Salazar, F. Castaneda, D. Corrales-Gutierrez, R.J. Fosters, B. Harmsen, S. Hernandez-Potosme, L. Herrera, M. Olmos, S. Pereira, H.S. Robinson, N. Robinson, R. Salom-Perez, Y. Urbina, K.A. Zeller, and H. Quigly. 2017. Robust inference on large-scale species habitat use with interview data: The status of jaguars outside protected areas in Central America. *Journal of Applied Ecology* 00:1–12. doi: 10.1111/1365-2664.12972

3. Rich L.N., C.L. Davis, Z.J. Farris, D.A.W. Miller, J.M. Tucker, S. Hamel, M.S. Farhadina, R. Steenweg, M.S.D. Bitetti, K. Thapa, M.D. Kane, S. Sunarto, **N. Robinson**, A. Paviolo, P. Cruz, Q. Martins, N. Gholikhani, A. Taktehrani, J. Whittington, F.A. Widodo, N.G. Yoccoz, C. Wultsch, B.J. Harmsen, and M.J. Kelley. 2017. Assessing global patterns in mammalian carnivore occupancy and richness by integrating local camera trap surveys. *Global Ecology and Biogeography* 26:8. doi:10.11/geb.12600

2. Page, L.K., S.D. Gehrt, and **N. Robinson**. 2008. Land-use effects on prevalence of raccoon roundworm (Baylisascaris procyonis). *Journal of Wildlife Diseases* 44:3. doi:10.7589/0090-3558-44.3.594

1. Page, L.K., S.D. Gehrt, K.K. Titcombe, and **N. Robinson**. 2005. Measuring prevalence of raccoon roundworm (Baylisascaris procyonis): a comparison of common techniques. *Wildlife Society Bulletin* 33:4. doi: 10.2193/0091-7648(2005)33[1406:MPORRB]2.0.CO;2

In Review

1. **Robinson, N.**, B.W. Allred, M.O. Jones, D.E. Naugle. In Review. Patterns of rangeland productivity and land ownership: implications for conservation and management. *Ecological Applications*.

In Preparation

1. Leisher, C., **N. Robinson**, M. Brown, D. Kujirakwinja, S. Maxwell, M.C. Schmitz, M. Wieland, and D. Wilkie. In Review. Prioritizing the direct threats to biodiversity in Sub-Saharan Africa.

Reports

2. Hess. S., C. Leisher, E. Kinsey, **N. Robinson** and D. Kelly. 2016. Summary of the baseline and ecological assessments for the Endangered Ecosystems

of Northern Tanzania Project of the Northern Tanzania Rangelands Initiative. *USAID Project Report*.

1. **Robinson, N.**, C.M. Cox, and J. Koo. 2016. Harnessing net primary productivity data for monitoring sustainable development of agriculture. IFPRI Discussion Paper 01584.

Presentations

Magical Web Scraping with rvest
Invited Talk: Baltimore R Ladies Group (slides)
May 2018

Joint Preprocessing of Samples Improves Power in Differential Analysis for Mass Spectrometry-Based Metabolomics
Invited Talk: JHU Biophysics
December 2017

Shiny Applications for Teaching and Dungeons and Dragons
Invited Talk: Baltimore UseR Group (slides)
September 2017

A Method for Joint Processing of Mass Spectrometry-Based Metabolomics Data for Improved Differential Analysis
Poster: ENAR, Washington D.C.
March 2017

Software

yamss: Tools for the analysis of high-throughput metabolomics data. An R package released through the Bioconductor project.
https://www.bioconductor.org/packages/yamss

mpra: Tools for the analysis of data from massively parallel reporter assays. An R package released through the Bioconductor project.
https://www.bioconductor.org/packages/mpra

Teaching

Johns Hopkins Bloomberg School of Public Health

Instructor

- Statistical Thinking for Informed Decision Making (2 semesters)
  I developed this course as part of the Gordis Teaching Fellowship, a school-wide award that provides funds to design and teach an undergraduate class. A news article-motivated introduction to major biostatistical areas, including causal inference, survey sampling, and survival analysis.

Teaching Assistant

- Public Health Biostatistics (3 semesters)
- Introduction to R for Public Health Researchers (1 course)
- Statistical Methods in Public Health (3 quarters)
- Data Analysis Workshop (2 courses)
- Statistics for Genomics (1 quarter)
- Statistics for Laboratory Scientists (2 quarters)

- Summer Institute: Statistical Reasoning in Public Health (2 courses)

Tutor

- Statistical Methods in Public Health (2 quarters)
- Mentor for Center for Talented Youth Cogito Research Award Recipient (3 months)

Johns Hopkins University
Teaching Assistant

- Introduction to Java (1 semester)

Awards

Helen Abbey Award May 2017
Johns Hopkins Bloomberg School of Public Health
Excellence in teaching (website)

Service

- 2018: Referee - BiOverlay
- 2018: Referee - American Journal of Epidemiology
- 2017: Referee - Observational Studies