Justin John Millar

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Education

University of Florida, Ph. D. Forest Resources and Conservation	2014-present
University of Mississippi, M. Sc. Biology	2012-2013
Michigan State University, B. Sc. Ecology and Evolution	2007-2011

Additional Training

Software/Data Carpentry Instructor Training, Gainesville, FL	2017
Mothur Bioinformatics Workshop, Detroit, MI	2013

Employment

University of Florida, Graduate Research/Teaching Assistant	2014-present
University of Michigan, Lab Manager/Field Technician	2014
University of Mississippi, Graduate Research/Teaching Assistant	2012-2013
Cape Eleuthera Institute, Research Fellowship	2011
Mote Marine Laboratory, REU Internship	2010
Michigan State University, Undergraduate Research/Teaching Assistant	2008-2011

Publications

Payne, Jason T., Justin J. Millar, Colin R. Jackson, and Clifford A. Ochs. 2017. "Patterns of variation in diversity of the Mississippi river microbiome over 1,300 kilometers". PLoS ONE 12(3): e0174890.

Valle, Denis R., Justin J. Millar, and Punam Amratia. 2016. "Spatial heterogeneity can undermine the effectiveness of country-wide test and treat policy for malaria: a case study from Burkina Faso". Malaria Journal 15: 513.

Valle, Denis R., Joanna M. Tucker-Lima, Justin J. Millar, Punam Amratia, and Ubydul Haque. 2015. "Bias in logistic regression due to imperfect diagnostic test results and practical correction approaches". Malaria Journal 14: 434.

Millar, Justin J., Jason T. Payne, Clifford A. Ochs, and Colin R. Jackson. 2015. "Particle-associated and cell-free extracellular enzyme activity in relation to nutrient status of large tributaries of the Lower Mississippi River". Biogeochemistry 124(1-3): 255-271.

Jackson, Colin R., **Justin J. Millar**, Jason T. Payne, and Clifford A. Ochs. 2014. "Free-living and particle-associated bacterioplankton in large rivers of the Mississippi River Basin demonstrate biogeographic patterns". *Applied and Environmental Microbiology* 80(23); 7186-7195.

Jackson, Colin R., Heather L Tyler, and **Justin J. Millar**. 2013. "Determination of Microbial Extracellular Enzyme Activity in Waters, Soils, and Sediments using High Throughput Microplate Assays". *Journal of Visualized Experiments* 80: 50399.

Presentations

External Conferences:

American Society of Tropical Medicine & Hygiene (ASTMH)

"To screen or not to screen: An interactive tool that integrates costs and spatial heterogeneity to determine when mass-screen-and-treat is an effective malaria control strategy". Baltimore, MD, November 2017.

"Identifying malaria risk factors in a hyper-endemic setting using Bayesian model selection". Atlanta, GA, November 2016.

Association for the Sciences of Limnology and Oceanography Meeting (ASLO)

"Microbial nutrient processing via extracellular enzyme activity in major tributaries of the Lower Mississippi River". New Orleans, LA, February 2013.

American Society of Microbiology (ASM)

"Bacterial community structure in major tributaries of the Lower Mississippi River is driven by habitat differences at regional and micro-scales". New Orleans, LA, October 2013.

"Microbial extracellular enzyme activity in large rivers of the Mississippi River Basin". Starkville, MS, October 2012.

Internal Conferences:

Emerging Pathogens Institute Research Day: 2015, 2016, 2017

School of Forest Resources and Conservation Symposium: 2016

Grants and Awards

Graduate Student Council Travel Grant, University of Florida	2017
Grinter Fellowship, University of Florida	2014
ASLO Early Career Travel Grant	2013
Department of Biology Travel Grant, University of Mississippi	2013
Most Outstanding Teaching Assistant in Biology Award	2010

Teaching

Courses (Teaching Assistant)

Introduction to Bayesian Statistics, University of Florida, Spring 2016

Microbiology Lab, University of Mississippi, Spring 2012

Mangrove Ecology, The Island School, Summer 2011

Applied Research Techniques, Michigan State University, Spring 2011

Molecular Biology Lab, Michigan State University, Fall 2010

Workshops

Data Carpentry R Workshop, University of Florida Informatics Institute, August 2017 Statistics for Ecological Research, The Island School, June 2011

Additional Information

Programming experience: R, Python, SQL, ArcGIS, git, bash

University of Florida R Meet-ups: Co-founder/manager, developer and maintainer of the website

Shiny Applications:

In-development:

To screen or not to screen?: An interactive tool that integrates costs and spatial heterogeneity to determine when mass-screen-and-treat is an effective malaria control strategy, lead developer

Comparison of presumptive treatment and test-than-treat scenarios across possible prevalences, lead developer

Completed:

Probability of malaria infection in Burkina Faso, aid developer

Regions for presumptive treatment in Burkina Faso, aid developer

Finding statistics courses across the University of Florida, aid developer

References

Available upon request.

^{*} Updated as of September 24, 2017