

# Justin John Millar

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Graduate Student, School of Forest Resources and Conservation

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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

*Ecological Forecasting*, Boston, MA 2018

*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

*Working:*

**Justin Millar**, Paul Psychas, Ben Abuaku, Punam Amratia, Kwadwo Koram, Kok Ben Toh, Denis Valle. 2018. Assessing and projecting the role of distance from local health facilities on early childhood malaria: a case example from northern Ghana. *in progress*

**Justin Millar**, Kok Ben Toh, Denis Valle. 2018. To screen or not to screen: an interactive framework for comparing cost-effectiveness of mass screening and treatment of malaria. *Malaria Journal. in progress*

Punam Amratia, Paul Psychas, Benjamin Abuaku, Collins Ahorlu, **Justin Millar**, Samuel Oppong, Kwadwo Koram, and Denis R Valle. 2018. Using a Bayesian geostatistical model to characterize local-scale heterogeneity of malaria risk in Bunkpurugu-Yunyoo district in northern Ghana. *Am. J. Trop. M. Hyg.. In progress*

**Justin Millar**, Paul Psychas, Punam Amratia, Benjamin Abuaku, Collins Ahorlu, Kwadwo Koram, Samuel Oppong, and Denis Valle. 2018. Detecting Risk Factors for Residual Malaria using Bayesian Model Averaging. *Malaria Journal*. *In review*

*Completed:*

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.

*CarpentryCon*

"A Carpentries culture at the University of Florida". Dublin, Ireland, May 2018.

*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, 2018

School of Forest Resources and Conservation Symposium: 2016, 2018

UF/IFAS Workshop on Improving Nutrition and Food Security in Sub-Saharan Africa: 2018

### **Grants and Awards**

UF Carpentry Club Special Travel Grant, University of Florida	2018
Informatics Institute Travel Grant, University of Florida	2017-18
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 Applied Statistics, University of Florida, Spring 2018

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*

Software and Data Carpentry Workshops, University of Florida Informatics Institute, 2017-18

UF R Meetup, University of Florida Marston Science Library, 2017-18

R Workshop, Undergraduate Statistics Club, University of Florida, 2017-18

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:*

[Projecting the impact of new facilities on childhood malaria in Bunkpurungu-Yunyoo, Ghana](#), lead developer

[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-then-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 May 09, 2018