

Anna Rose Willoughby

GRADUATE STUDENT • DISEASE ECOLOGY • CONSERVATION BIOLOGY

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EDUCATION

Doctor of Philosophy Student

August 2018 - present

Odum School of Ecology, University of Georgia, Athens, GA

Advisors: Dr. Sonia Altizer and Dr. John Drake

Bachelor of Science: Evolutionary Anthropology (*with distinction*) and Biology

May 2015

Duke University, Durham, NC

GPA: 3.5/4.0

Thesis: Trade-offs between health, reproduction, and activity
in female wild chacma baboons (*Papio ursinus*)

Organization of Tropical Studies

African Ecology and Conservation; Kruger National Park, South Africa

August - December 2013

Introduction to Tropical Studies; La Selva Biological Station, Costa Rica

July 2013

RESEARCH EXPERIENCE

EcoHealth Alliance

September 2015 - June 2018

Modeling & Analytics Research Assistant; New York, NY

- Performed statistical analyses, literature reviews, assembled datasets for the USAID PREDICT project
- Assisted in regular development of new analytical projects; participated in weekly meetings
- Assisted in grant writing and submission of applications to Dept of Defense DTRA, NSF and NIH
- Coordinated and co-mentored Modeling interns, visiting fellows, and thesis students

Bass Connections: Shining Evolutionary Light on Global Health Issues, Duke University

January - July 2015

Team Member; Durham, NC and Sambava, Madagascar

- Collected general health, dental, and sleep data in a subsistence-farming community in Madagascar
- Conducted a literature review and wrote final paper on how *evolutionary mismatch* explains a shift from infectious to chronic disease burden in developing countries

Pusey Lab, Duke University

Department of Evolutionary Anthropology Thesis Candidate; Durham, NC

August 2014 - May 2015

- Designed and produced an original research project and written thesis advised by Dr. Steffen Foerster
- Performed statistical analyses on and visualized data from NSF-funded Tokai Baboon Sociality Project

Research Assistant; Durham, NC

January - May 2014

- Managed, inputted, and structured a large data set of wild primate behavioral data
- Coordinated with an international team of laboratory staff, field technicians, and principal investigators

Altizer Lab, University of Georgia

July 2014

Odum School of Ecology Lab Volunteer; Athens, GA

- Maintained lab inventory, cleaned lab equipment, and assisted rearing of lab monarch butterfly population
- Performed microscopy work to identify protozoan spores from butterfly abdomen samples

PUBLICATIONS

- Willoughby AR**, Altizer S, Hernandez S, Drake J. Human viewing effects on wildlife ecology and health. *In preparation to be submitted to Trends in Ecology and Evolution*.
- Willoughby AR**. Cacomistle species distribution, behavioral activities, and human interactions. *In preparation to be submitted to Journal of Animal Ecology*.
- Willoughby AR**, Phelps KL, PREDICT Consortium, Olival KJ. (2017). A comparative analysis of viral richness and viral sharing in cave-roosting bats. *Diversity*, 9(3), 35. doi: 10.3390/d9030035. <https://www.mdpi.com/1424-2818/9/3/35>
- Olival KJ and **Willoughby AR**. (2017) Prioritizing the Dormant Flaviviruses. *EcoHealth*. doi:10.1007/s10393-017-1220-6.
- Vasquez D, **Willoughby AR**, & Davis AK. (2015). Fighting While Parasitized: Can Nematode Infections Affect the Outcome of Staged Combat in Beetles? *PloS One*, 10(4), e0121614. doi: 10.1371/journal.pone.012614.

PRESENTATIONS

- Willoughby AR**. (2019) Social media as a digital data source for wildlife ecology studies. *3rd Annual Digital Data in Biodiversity Research Conference*. New Haven, CT. 11 Jun.
- Willoughby AR**, Hagan E, Kerwin J, Olival KJ. (2019) A systematic review of environmental survival across 25 viral families. Graduate Student Symposium, Odum School of Ecology. Athens, GA. 25 Jan.
- Willoughby AR**, Hagan E, Kerwin J, Olival KJ. (2018) A systematic review of environmental survival across 25 viral families. *International Conference of Emerging Infectious Diseases*. Atlanta, GA. 27 Sep. (poster)
- Willoughby AR**, Ross N, Rosenthal C, Basaraba C, Zambrana-Torrel C, Daszak P, Olival KJ (2018). The multilayer networks of the flavivirus community. *Networks in Disease Ecology Satellite Symposium, International School and Conference on Network Science*. Paris, France. 10 June.
- Willoughby AR** (2017). Using networks to study zoonotic pathogens. *International Association for Ecology and Health Webinar*. 18 Dec.
- Willoughby AR**, Phelps KL, PREDICT Consortium, Olival KJ (2017). A comparative analysis of viral richness and viral sharing in cave-roosting bats. *47th Annual Symposium of Bat Research*, North American Society for Bat Research. Knoxville, TN. 21 Oct.
- Willoughby AR**, Ross N, Zambrana-Torrel C, Olival KJ. Viral Sharing in the Bat Metacommunity (2017). *AMNH Student Conference on Conservation Science*. 11 Oct. New York, NY. (poster)
- Olival KJ, Ross N, Eskew EE, **Willoughby AR**, Zambrana-Torrel C, Daszak P, PREDICT Consortium (2017). Estimating viral richness in bats: integrating previously-published and newly acquired field data. *2nd International Symposium on Infectious Diseases of Bats*. Ft. Collins, CO. 30 June.
- Olival KJ, **Willoughby AR**, Rosenthal C, Weins K, Basaraba C, Zambrana-Torrel C, Ross N, Daszak P (2016). Identifying the next Zika: an analysis of zoonotic potential in Flaviviridae. *International Meeting on Emerging Diseases and Surveillance*. Vienna, Austria. 5 Nov. (poster)
- Sobel A, Ajayi T, Clarke R, Manus M, Samson D, Schmitt D, Trentadue T, **Willoughby A**, Yu J, Nunn C. (2015) Shining Evolutionary Light on Global Health Challenges: Assessing Human Health in Rural Madagascar. *Global Health Showcase*, Duke Global Health Institute. Durham, NC. 26 Oct. (poster)
- Olival K, Apakupakul K, **Willoughby A**, Sintunawa C, Duengkae P, Wacharapluesadee S. (2015). Monitoring a Bat Population in Thailand Using Long-Term Guano Harvest Records. *45th Annual Symposium of Bat Research*, North American Society for Bat Research. Monterey, CA. 29 Oct. (poster)

HONORS

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| IDEAS Small Grant, University of Georgia, May 2019 | \$298 |
| Innovative and Interdisciplinary Research Grant, University of Georgia, April 2019 | \$1,750 |
| Interdisciplinary Ecology Across Scales Graduate Fellowship (IDEAS), University of Georgia; National Science Foundation, 2018 (2 Yrs Funding) | \$68,000 |
| Plotly in R Workshop at PlotCon 2017 | |
| Women in Machine Learning & Data Science (WiMLDS), November 2017 | \$1,299 |
| Undergraduate Support Research Grant, Duke University, Fall 2014 | \$600 |

OUTREACH

EcoReach, University of Georgia Outreach Volunteer; Athens, GA	September 2018 - Present
STEMZone, University of Georgia Outreach Volunteer; Athens, GA	September 2018 - Present
Medical Intensive Care Unit, Duke University Medical Center Pre-Health Volunteer; Durham, NC	September 2014 - April 2015
Duke Campus Farm, Duke University Undergraduate Intern; Durham, NC	August 2011 - May 2013
Georgia Aquarium Biologist Assistant; Atlanta, GA	August 2009 - May 2011

MENTORING

2019 Zoe Boyles , University of Georgia, <i>CURO Program</i>	Athens, GA
2017 Jordan Kerwin , Brooklyn College, <i>EcoHealth Alliance Internship</i>	New York, NY
2017 Dr. Richard Su-irre , Ghana Wildlife Division, <i>USAID PREDICT2 Fellow</i>	New York, NY
2016 Helen Chen , Columbia University, <i>EcoHealth Alliance Internship</i>	New York, NY
2016 Kristen Weins , New York University, <i>EcoHealth Alliance Internship</i>	New York, NY
2016 Cionna Rosenthal , Trinity College, <i>EcoHealth Alliance Internship</i>	New York, NY
2016 Aingorn Chaiyes , Kasetsart University, <i>USAID PREDICT2 Fellow</i>	New York, NY

SKILLS

Computer: Intermediate R, including proficiency in tidyverse, plotly, sp; qGIS, Maya, MakerBot, EndNote, Adobe Photoshop/Illustrator/InDesign, ObserverXT, Primer, MS Office/Access, JMP

Art: Pottery, Installation

Languages: Proficient in Spanish

Certifications: Wilderness First Responder, CPR certified

Society Membership: UGA Women in Science, 2018 - Present

Center for the Ecology of Infectious Diseases, 2018 - Present

Friends of the Georgia Museum of Natural History, 2018 - Present

Society for Young Network Scientists, 2018 - Present

North American Society for Bat Research, 2017 - 2018

500 Women Scientists, 2016 - Present

International Association for Ecology and Health, 2015 - Present