**Anna Rose Willoughby**

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**EDUCATION**

**Doctor of Philosophy Student** August 2018 - present

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

**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; South Africa August - December 2013

Introduction to Tropical Studies; Costa Rica July 2013

**RESEARCH EXPERIENCE**

**EcoHealth Alliance**

Modeling & Analytics Research Assistant; New York, NY September 2015 - June 2018

• Perform statistical analyses, literature reviews, assemble and curate datasets for the USAID PREDICT project

• Assist in regular development of new analytical projects; participate in weekly science and project implementation meetings

• Assist in grant writing and submission of funding applications to Dept of Defense DTRA, NSF and NIH

• Coordinate and co-mentor Modeling interns, visiting fellows, and thesis students

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

Team Member; Durham, NC and Sambava, Madagascar January - July 2015

• Collected general health, dental, and sleep data in a subsistence-farming community in Madagascar

• Met weekly to develop five health projects advised by Dr. Charles Nunn and Dr. Daniel Schmitt

• 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

• Presented results to panels of professors and peers

• 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

**Altizer Lab, University of Georgia**

Odum School of Ecology Lab Volunteer; Athens, GA July 2014

• 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

**PEER-REVIEWED PUBLICATIONS**

**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.

Olival KJand **Willoughby AR**. (2017) "Prioritizing the Dormant Flaviviruses". *EcoHealth*. doi:10.1007/s10393-017-1220-6.

Vasquez D, **Willoughby A**, & Davis AK. (2015). “Fighting While Parasitized: Can Nematode Infections Affect the

Outcome of Staged Combat in Beetles?” *PloS* ***One*, 10(4), e0121614.**

**PRESENTATIONS**

**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*. 27 Sep. Atlanta, GA. (poster)

**Willoughby AR**, Ross N, Rosenthal C, Basaraba C, Zambrana-Torrelio 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*. 10 June. Paris, France.

**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-Torrelio 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-Torrelio 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*.

30 June. Ft. Collins, CO.

Olival KJ, **Willoughby AR**, Rosenthal C, Weins K, Basaraba C, Zambrana-Torrelio 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)

**AWARDS**

Interdisciplinary Ecology Across Scales Graduate Fellowship, National Science Foundation, 2018 - 2020

Plotly in R, PlotCon. Supported by Women in Machine Learning & Data Science (WiMLDS). New York, NY, 18-19 Nov 2017.

**Duke** University Undergraduate Support Research Grant, Fall 2014

**INTERNSHIP AND VOLUNTEER EXPERIENCE**

**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

**SKILLS**

**Computer:** Intermediate R, including proficiency in tidyverse, plotly, sp, igraph

MS Office/Excel/Access, JMP, qGIS, Primer, Observer XT, Maya, MakerBot, EndNote,

Adobe Photoshop/Illustrator/InDesign/Lightroom

**Languages:** Proficient in Spanish

**Certifications:** Wilderness First Responder, CPR certified

**PROFFESIONAL ORGANIZATIONS**

Center for the Ecology of Infectious Diseases, 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