

NICOLE SOLANO

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EDUCATION

University of Georgia, Odum School of Ecology **2017 – Present**
Ph.D. Student, Interdisciplinary Disease Ecology Across Scales (IDEAS) Program
Advisors: John M. Drake, Courtney C. Murdock

National Science Foundation 2-year fellowship; \$68,000
IDEAS training fellowship

Agnes Scott College **2013 – 2017**
B.A. Dance & Biology (magna cum laude)
Advisor: Bridget Roosa

Goizueta Foundation Scholarship given to one Latina in every class
Scholarship who has excelled in academics, leadership, and
personal achievements; \$208,000

RESEARCH EXPERIENCE

***Aedes albopictus* sugar-feeding behavior across land use in Athens, GA** **2018**
Murdock laboratory, University of Georgia
“Does the proportion of sugar fed *Aedes albopictus* mosquitoes vary across land use?”
Collected *Aedes albopictus* mosquitoes across rural, suburban, and urban sites across Athens-Clarke county and ran colorimetric sugar assays to measure relative sugar content per mosquito.

Effectiveness and performance of a heartworm preventative: Vectra3D® **2018**
Ceva Animal Health
Modeling how varying coverage of treated dogs in a neighborhood could influence mosquito population dynamics and heartworm disease transmission.

Microclimate and density dependent effects on *Aedes albopictus* ecology **2017**
Murdock laboratory, University of Georgia
Conducting semi-field experiments to examine the relative importance of both abiotic and biotic influence on mosquito traits that are important for mosquito fitness and arbovirus transmission.

Population Biology of Infectious Disease REU Program **2016**
Murdock laboratory, University of Georgia
“Does variation in microclimate affect *Aedes albopictus* wing length across land use?”
Classified nine sites in Athens, GA as different land uses (rural, suburban, urban) using an impervious surface map. Recorded microclimate and conducted adult and larval surveys at each site. Mounted female wings and used a mixed effects model to determine if body size varied across land use.

Population Biology of Infectious Disease REU Program

2015

Drake laboratory, University of Georgia

“Mapping the potential for autochthonous transmission of Chikungunya Virus in the United States”
Created a relative risk map using county level data on human West Nile Virus, human meningitis and encephalitis, socio-economic covariates, and *Aedes albopictus* presence/absence.

RESEARCH INTERESTS

- Mosquito-borne diseases
- Mosquito behavior
- Population ecology
- Science communication
- Modeling infectious diseases
- Health education

PRESENTATIONS

Alyssa Slicko*, **Nicole Solano**, Courtney C. Murdock. “How does the proportion of sugar fed *Aedes albopictus* mosquitoes vary across land use?”. University of Georgia Population Biology of Infectious Diseases REU Program Poster Symposium. July 2018. *Poster*

Nicole Solano, John Drake, Andrew Park, Courtney C. Murdock. “Effectiveness and performance of heartworm preventative Vectra3D®”. Center for the Ecology of Infectious Disease Annual Retreat. April 2018. *Poster*

Nicole Solano. “Effectiveness of heartworm disease preventative: Vectra3D®”. University of Georgia Student Chapter of Wildlife Disease Association (UGAscWDA) Symposium. April 2018. *Oral presentation*

Nicole Solano, Michelle V. Evans, Courtney C. Murdock. “Does variation in microclimate affect *Aedes albopictus* wing length across land use?”. Agnes Scott College Spring Annual Research Conference. April 2017. *Poster*

Michelle V. Evans, **Nicole Solano**, Justine Shiau, Courtney C. Murdock. “Urban microclimate and dengue vector competence of the invasive asian tiger mosquito, *Aedes albopictus*”. Annual Meeting of the American Society of Tropical Medicine and Hygiene. November 2016. *Poster*

Nicole Solano, Michelle V. Evans, Courtney C. Murdock. “Does variation in microclimate affect *Aedes albopictus* wing length across land use?”. University of Georgia Population Biology of Infectious Diseases REU Program Poster Symposium. July 2016. *Poster*

Nicole Solano, John M. Drake. “Mapping autochthonous transmission potential of Chikungunya Virus in the United States”. Agnes Scott College Spring Annual Research Conference. April 2016. *Poster*

Nicole Solano, John M. Drake. “Mapping autochthonous transmission potential of Chikungunya Virus in the United States”. University of Georgia Population Biology of Infectious Diseases REU Program Poster Symposium. July 2015. *Poster*

*undergraduate mentee

PUBLICATIONS

Evans, M. V., Shiau, J. C., **Solano, N.**, Brindley, M. A., Drake, J. M., & Murdock, C. C. (2018). Carry-over effects of urban larval environments on the transmission potential of dengue-2 virus. *Parasites & Vectors*, 11. <https://doi.org/10.1186/s13071-018-3013-3>

SKILLS

Entomology	adult and larval mosquito surveys, adult identification, wing mounts, blood feeding, mosquito husbandry
Biology	animal dissections; serial dilutions; colorimetric assays
Programming	basic R
Language	fluent Spanish, intermediate Mandarin Chinese, basic Twi

AFFILIATIONS

- Center for the Ecology of Infectious Diseases (CEID), University of Georgia
- Center for Tropical & Emerging Global Diseases (CTEGD), University of Georgia
- STEMZone, University of Georgia
- Women in Science, University of Georgia
- English Language Partner, University of Georgia
- Beta Beta Beta