Michelle V. **Evans**

Maladies Infectieuses et Vecteurs : Ecologie, Génétique, Evolution et Contrôle
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Education

Ph.D Integrative Conservation and Ecology — *Athens, GA*
University of Georgia, Odum School of Ecology — *2015-2020*

- *Advisors:* John Drake & Courtney Murdock
- Graduate Certificate in Geographic Information Science

B.A. Environmental Studies (Ecology) & African Studies — *St. Louis, MO*
Washington University in St. Louis — *2007-2011*

- awarded *magna cum laude* honors
- *Honors Thesis:* The relative strength of top-down and bottom-up trophic dynamics in the context of habitat isolation

Professional Appointments

Institut de Recherche pour le Développement — *France*
Post-doctoral Researcher — *May 2021 - Present*

Pivot — *Madagascar*
Research Intern — *March - May 2019*

University of California - Santa Cruz — *Browns Valley, CA*
West Nile Virus Research Technician — *June - Sept. 2014*

Peace Corps — *Guinea, West Africa*
Agroforestry Advisor — *Nov. 2011 - Feb. 2014*

Publications

Undergraduate Researchers*, Co-lead Authors†

15. Evans, Michelle V.. Siddharth Bhatnagar, John M. Drake, Courtney C. Murdock, Shomen Mukherjee. 2022. Socio-ecological dynamics in urban systems: An integrative approach to mosquito-borne disease in Bengaluru, India. *People and Nature*. In press.

14. Russell, Marie C.†, Catherine M. Herzog†, Zachary Gajewski, Chloe Ramsay, Fadoua El Moustaid, Michelle V. Evans, Tishna Desai, Nicole L. Gottdenker, Sara L. Hermann, Alison G. Power, Andrew C. McCall. 2022. Both consumptive and non-consumptive effects of predators impact mosquito populations and have implications for disease transmission. *ELife* e71503. doi: 10.7554/eLife.71503.

13. Evans, Michelle V., John M. Drake, Lindsey Jones*, Courtney C. Murdock. 2021. Assessing temperature-dependent competition between two invasive mosquito species. *Ecological Applications* e02334. doi:10.1002/eap.2334.

12. Evans, Michelle V., Matthew H. Bonds, Laura F. Cordier, John M. Drake, Felana Ihantamalala, Justin Haruna, Ann C. Miller, Courtney C. Murdock, Marius Randriamanambtsoa, Estelle M. Raza-Fanomezanjanahary, Bénédicte R. Razafinjato, Andres C. Garchitorena. 2021. Socio-demographic,

not environmental, risk factors explain fine-scale spatial patterns of diarrhoeal disease in Ifanadiana, rural Madagascar. *Proceedings of the Royal Society B* 288:20202501. doi:10.1098/rspb.2020.2501.

11. Wimberly, Michael, Justin K. Davis, Michelle V. Evans, Andrea Hess, Philip M. Newberry, Nicole Solano-Asamoah, Courtney C. Murdock. 2020. Land cover affects microclimate and temperature suitability for arbovirus transmission in an urban landscape. *PLoS Neglected Tropical Diseases* 14(9):e008614. doi:10.1371/journal.pntd.0008614.

10. Evans, Michelle V., Andres Garchitorena, Rado J.L. Rakotonanahary, John M. Drake, Benjamin Andriamihaja, Elinambinina Rajaonarifara, Calistus N. Ngonghala, Benjamin Roche, Matthew H. Bonds, Julio Rakotonirina. 2020. Reconciling model predictions with low reported cases of COVID-19 in Sub-saharan Africa: Insights from Madagascar. *Global Health Action* 13(1):1816044. doi:10.1080/16549716.2020.1816044.

9. Evans, Michelle V. , Philip M. Newberry, Courtney C. Murdock. 2020. Carry-over effects of the larval environment in mosquito-borne disease systems. In: J. M. Drake, M. Strand, M. Bonsall (Eds.), *Population Biology of Vector-Borne Diseases.* Oxford University Press. *Book Chapter*.

8. Reitmayer, Christine M., Michelle V. Evans, Kerri L. Miazgowicz, Philip M. Newberry, Nicole Solano-Asamoah, Blanka Tesla, and Courtney C. Murdock. 2020. Mosquito-virus Interactions. In: J. M. Drake, M. Strand, M. Bonsall (Eds.), *Population Biology of Vector-Borne Diseases.* Oxford University Press. *Book Chapter*.

7. Evans, Michelle V., Carl W. Hintz*, Lindsey Jones*, Justine Shiau, Nicole Solano, John M. Drake, Courtney C. Murdock. 2019. Microclimate and larval habitat density predict adult *Aedes albopictus* abundance in urban areas. *The American Journal of Tropical Medicine and Hygiene*. doi:10.4269/ajtmh.19-0220.

6. Kaul, RajReni B.†, Michelle V. Evans†, Courtney C. Murdock, John M. Drake. 2018. Spatio-temporal spillover risk of yellow fever in Brazil. *Parasites & Vectors* 11:488. doi: 10.1186/s13071-018-3063-6.

5. Evans, Michelle V., Justine C. Shiau, Nicole Solano*, Melinda A. Brindley, John M. Drake, Courtney C. Murdock. 2018. Carry-over effects of urban larval environments on the transmission potential of dengue-2 virus. *Parasites & Vectors* 11:426. doi:10.1186/s13071-018-3013-3.

4. Evans, Michelle V., Courtney C. Murdock, John M. Drake. 2018. Anticipating emerging mosquito-borne flaviviruses in the USA: What comes after Zika? *Trends in Parasitology* 34(7):544. doi:10.1016/j.pt.2018.02.010

3. Murdock, Courtney C., Michelle V. Evans, Taylor McClanahan*, Kerri Miazgowicz, and Blanka Tesla. 2017. Fine-scale variation in microclimate across an urban landscape changes the capacity of *Aedes albopictus* to vector arboviruses. *PLoS Neglected Tropical Diseases* 11(5)e0005640:, doi:10.1371/journal.pntd.0005640.

2. Mordecai, Erin, Jeremy Cohen, Michelle V. Evans, Prithvi Gudapati, Leah R. Johnson, Catherine A. Lippi, Kerri Miazgowicz, et al. 2017. Detecting the impact of temperature on transmission of Zika, dengue and chikungunya using mechanistic models. *PLoS Neglected Tropical Diseases* 11(4):e0005568, doi:10.1101/063735.

1. Evans, Michelle V., Tad A. Dallas, Barbara A. Han, Courtney C. Murdock, and John M. Drake. 2017. Data-driven identification of potential Zika virus vectors. *eLife* 6: e22053. doi:10.7554/eLife.22053.

Service

Outreach

2016 - 18	**EcoReach**, Volunteer	*Athens, GA*
2016 - 18	**Experience UGA**, Volunteer	*Athens, GA*
2017	**STEMZone**, Volunteer	*Athens, GA*
2016	**Center for Undergraduate Research Opportunities**, Volunteer	*Athens, GA*

Mentoring

2017	**Lindsey Jones**, Population Biology of Infectious Diseases REU Program	*Athens, GA*
2017	**Abigail Lecroy**, Dept. of Infectious Diseases Undergraduate Researcher	*Athens, GA*
2016	**Nicole Solano**, Population Biology of Infectious Diseases REU Program	*Athens, GA*

Departmental Leadership

2019	**Webmaster**, Odum School of Ecology Graduate Student Organization	*Athens, GA*
2018	**Co-Chair**, Odum School of Ecology Graduate Student Symposium	*Athens, GA*
2017	**Chair**, Organized ICON Network & Cooperative (OINC)	*Athens, GA*
2017	**Peer Instructor**, Data Carpentry for Ecologists	*Athens, GA*
2016	**Seminar Representative**, Odum School of Ecology Graduate Student Organization	*Athens, GA*
2016	**Secretary**, Organized ICON Network & Cooperative (OINC)	*Athens, GA*

Journal Refereeing

Acta Tropica, Communications Biology, Ecology Letters, EcoHealth, Ecosphere, Journal of Applied Ecology, Parasites and Vectors, PLoS One, PLoS Neglected Tropical Diseases

Honors

Awards

2019	**Graduate Education Advancement Board Fellowship**, University of Georgia Graduate School	*Athens, GA*
2019	**Agile Scientist Award**, Integrative Conservation Program	*Athens, GA*
2018	**2nd Place PhD Presentation**, Odum School of Ecology Graduate Student Symposium	*Athens, GA*
2017	**3rd Place PhD Presentation**, Odum School of Ecology Graduate Student Symposium	*Athens, GA*
2016	**1st Place Rapid Fire Talk**, Odum School of Ecology Graduate Student Symposium	*Athens, GA*

Grants & Fellowships

2017	**$877.00**, Odum Small Grants	*Athens, GA*
2016	**$1,416.00**, Odum Small Grants	*Athens, GA*
2016	**$138,000.00**, NSF Graduate Research Fellowship (3 Yrs Funding)	*Athens, GA*
2015	**$131,625.00**, UGA Graduate School Presidential Fellowship (5 Yrs Funding)	*Athens, GA*
2013	**$198.26**, Small Project Assistance Grant	*Guinea, West Africa*
2010	**$4,500.00**, Summer Undergraduate Research Fellowship	*St. Louis, MO*
2010	**$1,000.00**, Teagle Foundation ExxonMobil Scholarship	*St. Louis, MO*
2007	**$1,000.00**, Teagle Foundation ExxonMobil Scholarship	*St. Louis, MO*

Selected Presentations

- Evans, Michelle V. September 2019. "An integrative approach to mosquito-borne disease in urban areas". Azim Premji University Science Seminar Series, Bengaluru, India. *Invited speaker.*

- Evans, Michelle V. November 2018. "Mapping mosquitoes: Using community mapping and OSM to identify disease hotspots". State of the Map Asia 2018. Bengaluru, India.
- Evans, Michelle V., RajReni B. Kaul, Courtney C. Murdock, John M. Drake. August 2018. "What can predictive mapping tell us about the ecology of vector-borne diseases?". MPE 2013+ Workshop on Global Change and Vector-borne Diseases: Mapping Emerging Infectious Diseases, Fairfax, VA. *Invited speaker.*
- Evans, Michelle V., Nicole Solano, Justine Shiau, John M. Drake, Courtney C. Murdock. October 2017. "Fine-scale microclimate variation across an urban landscape shapes both mosquito population dynamics and arbovirus transmission potential". Annual Meeting of the Entomological Society of America, Denver, CO.
- Evans, Michelle V. and Courtney C. Murdock. October 2017. "Urban microclimate and mosquito dynamics". Georgia Mosquito Control Association Annual Meeting, Athens, GA.
- Evans, Michelle V., Nicole Solano, Justine Shiau, Courtney C. Murdock. August 2017. "Urban microclimate influences dengue dynamics in the invasive mosquito, *Aedes albopictus*". Annual Meeting of the Ecological Society of America, Portland, OR.
- Evans, Michelle V. Nicole Solano, Justine Shiau, Courtney C. Murdock. November 2016. "Urban microclimate and dengue vector competence of the invasive Asian tiger mosquito, *Ae. albopictus*". Annual Meeting of the American Society of Tropical Medicine and Hygiene. Atlanta, GA. *Poster.*
- Evans, Michelle V. and Courtney C. Murdock. October 2016. "Microclimate and mosquitoes in Athens, GA". Georgia Mosquito Control Association Annual Meeting, Athens, GA.
- Evans, Michelle V., K. Miazgowicz, B. Tesla, Courtney C. Murdock. June 2016. "Microclimate and mosquitoes across an urban gradient". Ecology and Evolution of Infectious Disease 14th Annual Meeting, Ithaca, NY. *Poster.*