

Diana K. Guzmán-Colón

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SUMMARY

I aim to use both direct field observation and molecular data to demonstrate how landscape patterns can shape the genetic structure of an invasive species by allowing or restricting gene flow. This relationship might be a crucial factor explaining invasive species population success and persistence in the islands of the Caribbean. Additionally, I aim to infer the role of mongooses in the food web of a newly invaded system. I will serve as an educator in Puerto Rico with the objective of providing undergraduate students the tools to be exceptional scientists and instill in them the values of scientific research.

ACADEMIC EXPERIENCE

UNIVERSITY OF WISCONSIN-MADISON (2013-PRESENT)

Forest and Wildlife Ecology - PhD student

- Dissertation topic: “Landscape-level factors driving the population genetic structuring of an invasive carnivore in the Caribbean”
- Advanced Opportunity Fellowship - SciMed Graduate Research Scholar
- Integrative Graduate Education and Research Traineeship (IGERT) Program Fellow
- SciMed GRS outreach committee - Materials Coordinator
- Graduate Woman in Science - Beta Chapter

MICHIGAN STATE UNIVERSITY (2011-2013)

Fisheries and Wildlife - MS Degree

- Thesis Topic - “Population estimates and habitat preferences of mongooses in El Yunque National Forest, Puerto Rico”
- Funded by USDA Forest Service via Michigan State University - University of Puerto Rico partnership
- Fisheries and Wildlife Graduate Student Organization Symposium organizer
- Graduate Women in Science - Sigma Delta Epsilon Chapter
- College Ambition Program - Science, Math and Spanish tutor for middle school

DUKE UNIVERSITY (2008)

- Organization for Tropical Studies study abroad program in South Africa
- Research Projects: “Physicochemical effects on community structure in intertidal pools at the Western Cape Province, South Africa” ; “Elephant utilization of riparian trees species and the use of Thresholds for Potential Concerns in Mapungubwe National Park”

UNIVERSIDAD DE PUERTO RICO AT BAYAMÓN (2005-2010)

Biology - BSc Degree

- Leading Initiative for Future Ecologists - Steering Committee Member
- BioBlitz (species census in campus) activity organizer
- Ecological Society of America -Strategies for Ecology Education, Diversity and Sustainability - Student campus representative
- Participation in research projects: “Distribution of land hermit crabs and gastropod shell usage in mainland Puerto Rico”; “Citizen-Science program at Hacienda La Esperanza: Crustacean Watch Program”

PROFESSIONAL HISTORY

Cellular and Molecular Biology Teaching Assistant

2012-2013

Michigan State University

Biological Technician

2011-2012

USDA Forest Service

El Yunque National Forest

Field Technician

2010-2011

Strategic Environmental Research and Development Program

Ft. Bragg, North Carolina

Laboratory Technician

2009-2010

University of Puerto Rico at Rio Piedras

UPR Nanoscience and Nanotechnology Research Lab

Investigator - “The roles of floral resource proximity to nesting substrate in wild bee nest-site selection”

2008

Research Experience for Undergraduates - National Science Foundation

Blandy Experimental Farm, Boyce, Virginia

PUBLISHED RESEARCH

Guzmán-Colón, D., Roloff, G., Montgomery, R. (2015). Environmental features associated with trapping success of the mongoose (*Herpestes auropunctatus*) in eastern Puerto Rico. Manuscript in preparation.

Guzman-Colon, D. K., and G. J. Roloff. (2014). Small Indian mongoose (*Herpestes auropunctatus*) population abundance and effects of habitat features on trapping success in protected areas of eastern Puerto Rico. *Caribbean Naturalist* 19:1–12.

PRESENTATIONS

SciMed Graduate Research Scholars Annual Poster Session. Wisconsin Institute for Discovery, Madison, WI. September 2014. "Landscape-level factors influencing population dynamics of an invasive carnivore in the Caribbean"

Ecological Society of America's Annual Meeting at Sacramento, CA. August 2014. "The influence of localized habitat features on mongoose (*Herpestes auro-punctatus*) trapping success in eastern Puerto Rico"

Ecological Society of America's Annual Meeting at Minneapolis, MN. August 2013. "Mongoose in the rainforest: Analyzing population estimates and habitat attributes for a better management strategy in El Yunque National Forest"

8 th Annual Graduate Student Organization Symposium. Michigan State University. February 2013. "Mongoose in the rainforest: Analyzing population estimates and habitat attributes for a better management strategy in El Yunque National Forest"

Ecological Society of America's Annual Meeting at Portland, OR. August 2012. "Historic land-use effects on ant species distribution"

Ecological Society of America's Annual Meeting at Albuquerque, NM. August 2009 "The roles of floral resource proximity to nesting substrate in wild bee nest-site selection"

The Puerto Rico Louis Stokes Alliance for Minority Participation's Annual Best Practices Conference on Teaching and Learning. Ponce, Puerto Rico. November 2009 "Bacterial Behavior of *E. Coli* and *C. Xerosis* on Micro and Nano Diamond Surfaces, and Carbon Nanotubes"

Ana G. Mendez University System's XX Undergraduate Research Symposium at San Juan, Puerto Rico. November 2009. "The roles of floral resource proximity to nesting substrate in wild bee nestsite selection"

Ecological Society of America's Annual Meeting at Milwaukee. August 2008. "ESA sowing SEEDS of sustainability in Chiapas"