CAITLIN C. MOTHES, PH.D.

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EDUCATION

2016-2021 **Ph.D. Conservation Ecology**
University of Miami
2016-2018 **Graduate Certificate in Geospatial Technology**
University of Miami
2012-2016 **B.S. Zoology**
B.S. Fisheries, Wildlife and Conservation Biology
North Carolina State University, *Summa Cum Laude*

Professional Development Courses

2019 Managing Ecological Data in R, Smithsonian-Mason School of Conservation
2018 Software Carpentry Python Workshop, University of Miami
2017 Conservation Genomics Workshop, UCLA La Kretz Center for California Conservation Science

TECHNICAL SKILLS

Programming: R (*Advanced*), Git, HTML, Markdown, Matlab, Python
Software: ArcGIS (*Advanced*), IDRISI, JMP

PUBLICATIONS († = Joint First Author, * = Undergraduate Mentee)

2020 **Caitlin C. Mothes**, Leyna R. Stemle, Theresa N. Fonseca*, Stephanie L. Clements, Hunter J. Howell, Christopher A. Searcy. Protect or perish: quantitative analysis of state-level protection supports preservation of the Endangered Species Act. ***Conservation Letters***, e12761.

2020 **Caitlin C. Mothes**, Hunter J. Howell, Christopher A. Searcy. Habitat suitability models for the imperiled Wood Turtle (*Glyptemys insculpta*) raise concerns for the species' persistence under future climate change. ***Global Ecology and Conservation***, 24: e01247.

2020 James T. Stroud†, **Caitlin C. Mothes†,** Winter Beckles, Robert J. P. Heathcote, Colin M. Donihue, Jonathan B. Losos. Community-wide convergence in cold tolerance following an extreme cold selection event. ***Biology Letters***,16: 20200625. https://doi.org/10.1098/rsbl.2020.0625. **† indicates co-first authors**

2020 Stephanie L. Clements, Emily A. Powell, **Caitlin C. Mothes**, Christopher A. Searcy. Assessing the conservation risk of *Sphaerodactylus notatus*, the U.S. herpetofaunal species most vulnerable to sea level rise. ***Biodiversity and Conservation***. https://doi.org/10.1007/s10531-020-02080-9.

2020 **Caitlin C. Mothes.** *Anolis cristatellus* (Puerto Rican crested anole) and *Hemidactylus mabouia* (Tropical house gecko). Diet and Predation. ***Herpetological Review***, 51(2): 325.

2019 **Caitlin C. Mothes**, Stephanie L. Clements, Dishane K. Hewavithana, Hunter J. Howell, Aaron S. David, Nicole D. Leventhal*, Christopher A. Searcy. Use of standardized methods to improve extinction-risk classification. ***Conservation Biology***, 34(3): 754-761.

2019 Hunter J. Howell, **Caitlin C. Mothes**, Stephanie L. Clements, Shantel V. Catania, Betsie B. Rothermel, Christopher A. Searcy. (2019). Amphibian responses to livestock use of wetlands: new empirical data and a global review. ***Ecological Applications***, 29(8): e01976.

2019 **Caitlin C. Mothes,** James T. Stroud, Stephanie L. Clements, Christopher A. Searcy. Evaluating ecological niche model accuracy in predicting biotic invasions using South Florida's exotic lizard community. ***Journal of Biogeography,*** 46(2): 432-441.

2019 **Caitlin C. Mothes,** James T. Stroud, Stephanie L. Clements, Christopher A. Searcy. Predicting the invasion dynamics of anoles (and other lizards) using ecological niche modeling. ***Anolis Newsletter VII***, p. 194-205. Eds. Stroud, J.T., Geneva, A.J., Losos, J.B. Washington University, St. Louis MO

ORAL PRESENTATIONS (* = Invited Presentation)

2020 *Quantitative review of U.S. state imperiled species acts: assessing state-level coverage of the IUCN Red List and the Endangered Species Act.* UM Biology Graduate Student Symposium, Coral Gables, FL
****Awarded Best Talk**

2019 *Using iNaturalist in the Classroom: results from the University of Miami Ecology Lab.* UM Biology Department Seminar

2019 *Amphibian responses to livestock use of wetlands: new empirical data and a global review.* Florida Herpetology Conference, Gainesville, FL

2018 *Investigating the impacts of cattle on amphibian communities.* UM Biology Department Seminar

2018 *Evaluating Maxent's ability to accurately predict biotic invasions using South Florida's exotic lizard community.* Florida Herpetology Conference, Gainesville, FL

2018 *Using South Florida's exotic lizard community to evaluate the use of ecological niche models in predicting biotic invasions.* Anolis Symposium*****, Coral Cables, FL

2018 *Evaluating invasion predictions using South Florida's exotic lizard community.* UM Biology Graduate Student Symposium, Coral Gables, FL

2017 *Evaluating Invasion Predictions with Physiological Data.* UM Biology Department Seminar

Invited Lectures and Workshops

2019 *Talks: The Do's and Don'ts for giving a great presentation*, BIL 675 – First Year Graduate Student Professional Skills Course, University of Miami

2018 *Climates and Ecological Niche Model Applications*, BIL 330 – Ecology, University of Miami

2018 *Applying Ecological Niche Models to Invasive Species Management*, Biological Invasions and Modern Applications Workshop, Southeastern Ecology and Evolution Conference, Miami, FL

2018 *Biogeochemical Cycles*, BIL 330 - Ecology, University of Miami

POSTER PRESENTATIONS

2019 *California's imperiled herpetofauna illustrate the importance of standardized methods for classifying extinction risk.* Florida Herpetology Conference, Gainesville, FL

2019 *The importance of standardized methods for classifying extinction risk in imperiled species: a case study of California's threatened herpetofauna.* UM Biology Graduate Student Symposium, Coral Gables, FL

2018 *Historic and future impacts of urbanization and climate change on suitable habitat for the imperiled Wood Turtle,* Glyptemys insculpta. Southeastern Ecology and Evolution Conference, Miami, FL
****Awarded Honorable Mention**

2017 *Climate Change Impacts on Reptile and Amphibian Distributions.* GIS Day, Miami, FL
****Awarded Best Poster**

2017 *Evaluating Invasion Predictions with Florida's Exotic Lizard Community.* International Urban Wildlife Conference, San Diego, CA

2017 *Validation of Ecological Niche Models.* UM Biology Graduate Student Symposium, Fairchild Tropical Botanical Gardens, Coral Gables, FL

FELLOWSHIPS, GRANTS, AND AWARDS

2020	Best Talk, Biology Graduate Student Symposium, University of Miami; $100
2019	Outstanding Teaching Assistant, University of Miami Department of Biology
2018-19	Kushlan Fund; $1900
2018	Honorable Mention Poster Award, Southeastern Ecology and Evolution Conference
2016-18	Holmes Fellowship; $10,000
2017	First Place Poster Award, GIS Day, University of Miami; $300
2017	GAFAC Travel Award; $375
2017	Kriloff Travel Fund; $250

LEADERSHIP POSITIONS

2019-20	Executive Board Member, UM Biology Graduate Student Organization
2018	Faculty Search Committee (Graduate Representative), UM Department of Biology
2018	Graduate Activity Fee Allocations Committee, UM College of Arts and Sciences Representative
2017-18	Organization Committee Member, Southeastern Ecology and Evolution Conference
2017-18	Graduate Academic Admissions Committee (Graduate Representative), UM Department of Biology

TEACHING POSITIONS

Spring 2017-21	BIL 331-Ecology Lab, *Lead TA since Fall 2018*, University of Miami ****Awarded 2019 *Outstanding Teaching Assistant*** by the Department of Biology
Spring 2020	BIL 163-HHMI Integrated Biology and Chemistry Lab, University of Miami
Fall 2016	BIL 151-General Biological Laboratory, University of Miami

RESEARCH POSITIONS

2017	**Research Assistant,** Impacts of livestock on amphibian communities. *MacArthur Agro-ecology Research Center*, Lake Placid, FL, PI: Dr. Chris Searcy
2016	**Research Assistant,** Dispersal patterns of pond-breeding amphibians. *Koffler Scientific Reserve*, Toronto, ON, PI: Dr. Christopher Searcy
2015-16	**Undergraduate Independent Research,** Comparative genomics of southern flounder populations. *North Carolina State University*, Raleigh, NC, PI: Dr. Martha Burford Reiskind
2014-16	**Research Assistant,** Various mammal tracking projects. *North Carolina Museum of Natural Sciences,* Raleigh, NC, PI: Dr. Roland Kays
2014	**Research Internship**, Captive Japanese Macaque behavioral research. *Minnesota Zoo,* Apple Valley, MN

REVIEWER FOR:

Biological Invasions
Diversity and Distributions
Ecology and Evolution
Hydrobiologica

OUTREACH AND MENTORSHIP

2019-20	Undergraduate Research Assistant- Theresa Fonseca (University of Chicago)
2017-19	BioReach Youth Education Program, University of Miami, Miami, FL
2018	BioBlitz Reptile and Amphibian Educator, Deering Estate, Miami, FL
2017-18	BioBlitz Reptile and Amphibian Educator, Vizcaya Museum and Gardens, Miami, FL
2017	Graduate Student Peer Mentorship Program
2017	Undergraduate Research Assistant-Giacomo Delgado (University of Miami)
2016-17	Undergraduate Research Assistant-Jessica Cothern (University of Miami)