CAITLIN C. MOTHES

Ph.D. Candidate, Department of Biology
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EDUCATION

2016-Present **University of Miami**
Ph.D. Candidate, Department of Biology, Christopher Searcy Lab
2016-2018 **University of Miami**
Graduate Certificate in Geospatial Technology
2012-2016 **North Carolina State University**, *Summa Cum Laude*
B.S. Zoology
B.S. Fisheries, Wildlife and Conservation Biology; Concentration in Conservation Biology

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, Matlab, Python
Software: ArcGIS (*Advanced*), IDRISI, JMP

PUBLICATIONS († = Joint First Author)

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.* (Under Review at Proceedings of the Royal Society B).

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.* (Under Review at Conservation Letters).

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*. (Under Review at Global Ecology and Conservation).

2020 Stephanie L. Clements, Emily A. Powell, **Caitlin C. Mothes**, Christopher A. Searcy. *Assessing the conservation risk of the U.S. herpetofaunal species most vulnerable to sea level rise.* (Under Review at Biodiversity and Conservation).

2020 **Caitlin C. Mothes.** Anolis cristatellus *(Puerto Rican crested anole) and* Hemidactylus mabouia *(Tropical house gecko). Predatory-prey interaction*. Herpetological Review (*In Press*).

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, doi:10.1111/cobi.13421.

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, 0(0): e01976.

2019 **Caitlin C. Mothes,** James T. Stroud, Stephanie L. Clements, and 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, and 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
**Best Talk Award

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
**Honorable Mention Poster Award

2017 *Climate Change Impacts on Reptile and Amphibian Distributions.* GIS Day, Miami, FL
**First Place Poster Award

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

TEACHING POSITIONS

Spring 2020	BIL 163-HHMI Integrated Biology and Chemistry Lab, University of Miami
Spring 2017-Fall 2019	BIL 331-Ecology Lab, *Lead TA Fall 2018-Fall 2019*, University of Miami **Awarded 2019 *Outstanding Teaching Assistant* by the Department of Biology
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. Christopher 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
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)