

JEANETTE (JEN) B. MOSS

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[Google Scholar Profile](#); [Personal Website](#)

EDUCATION

- Ph.D.** Mississippi State University, Biological Sciences 2019
Dissertation: "Behavioral ecology and conservation genetics of the Sister Islands Rock Iguana."
Dissertation Advisors: Mark Welch, Ph.D., and Glenn Gerber, Ph.D.
- B.A.** Hood College, Biological Sciences, Global Studies Minor 2013
Honors, Cum Laude, Tischer Scholar

PROFESSIONAL APPOINTMENTS

- NSF Postdoctoral Research Fellow in Biology** 2021–Present
Department of Evolution, Ecology, and Behavior, University of Illinois, Urbana, IL, USA
Supervisor: Eva Fischer, Ph.D.
- Postdoctoral Researcher** 2020–2021
Department of Entomology, University of Georgia, Athens, GA, USA
Supervisor: Allen Moore, Ph.D.
- Endeavour Research Leadership Program Postdoctoral Fellow** 2019–2020
Department of Zoology, University of Tasmania, Hobart, Australia
Supervisor: Geoffrey While, Ph.D.

GRANTS AND FELLOWSHIPS

<i>NSF Postdoctoral Fellowship in Biology</i>	\$138,000	2020
<i>Endeavor Research Leadership Award</i>	AU\$23,000	2019
<i>Rufford Booster Grant</i>	£10,000	2017
<i>MSU Zernickow Fellowship for Field Research</i>	\$1,000	2017
<i>International Iguana Foundation Research Grant</i>	\$7,835	2016
<i>Second Rufford Starter Grant</i>	£4,975	2016
<i>MSU Biology Faculty Fund Research Award</i>	\$500	2015
<i>International Iguana Foundation Research Grant</i>	\$9,150	2015
<i>Rufford Starter Grant</i>	£4,620	2015
<i>Mohamed bin Zayed Species Conservation Fund Grant</i>	\$8,500	2015
<i>International Iguana Foundation Research Grant</i>	\$4,350	2014
<i>Sigma Xi Grant-in-Aid of Research</i>	\$500	2012

PUBLICATIONS

* = undergraduate author; † = non-university affiliated author

Moss, JB, Z Borthwick, E Wapstra, and GM While. (Accepted) Thermal plasticity in behavioral traits mediates mating and reproductive dynamics in an ectotherm. *American Naturalist*.

<https://doi.org/10.32942/osf.io/mjtbk>

Westrick, SE, JB Moss, and EK Fischer. (In Press) Who cares? An integrative approach to understanding the evolution of behavioural plasticity in parental care. *Animal Behaviour*.

<https://doi.org/10.1016/j.anbehav.2022.10.005>

- Moss, JB**, KJ MacLeod. (In Press) A quantitative synthesis of and predictive framework for studying winter warming effects in reptiles. *Oecologia*. <https://doi.org/10.1007/s00442-022-05251-3>
- Moss, JB**, CB Cunningham, EC McKinney, and AJ Moore (2022) Gene expression underlying parenting and being parented shows limited plasticity in response to different ambient temperatures. *Molecular Ecology* 31(20):5326–5338. <https://doi.org/10.1111/mec.16649>
- Moss, JB**, GM While (2021) The thermal environment as a moderator of social evolution. *Biological Reviews* 96(6):2890–2910. <https://doi.org/10.1111/brv.12784>
- Moss, JB**, AJ Moore (2021) Constrained flexibility of parental cooperation limits evolutionary response to harsh conditions. *Evolution* 75(7):1835–1849. <https://doi.org/10.1111/evo.14285>
- Hui, N, E Lo, **JB Moss**, GP Gerber[†], ME Welch, C Schurgers, R Kastner (2021) A more precise way to localize animals using drones. *Journal of Field Robotics* 38(6):917–928. <https://doi.org/10.1002/rob.22017>
- Andreason, SA, EA Shelby, **JB Moss**, PJ Moore, AJ Moore, AM Simmons (2020) Whitefly endosymbionts: Biology, evolution, and plant virus interactions. *Insects* 11(11):775. <https://doi.org/10.3390/insects11110775>
- Shelby, EA, **JB Moss**, SA Andreason, AM Simmons, AJ Moore, PJ Moore (2020) Debugging: Strategies and considerations for efficient RNAi-mediated control of the whitefly, *Bemisia tabaci*. *Insects* 11(11):723. <https://doi.org/10.3390/insects11110723>
- Moss, JB**, GP Gerber, T Laaser[†], T Oyog[†], and ME Welch (2020) Conditional female strategies influence hatching success in a communally-nesting iguana. *Ecology and Evolution* 10(7):3424–3438. <https://doi.org/10.1002/ece3.6139>
- Moss, JB**, GP Gerber[†], M Goetz[†], JE Haakonsson[†], JL Harvey[†], T Laaser[†], ME Welch (2020) Contrasting patterns of movement across life stages in an insular iguana population. *Journal of Herpetology* 54(1):67–77. <https://doi.org/10.1670/18-113>
- Moss, JB**, GP Gerber[†], ME Welch (2019) Heterozygosity-fitness correlations reveal inbreeding depression in neonatal body size in a critically endangered rock iguana. *Journal of Heredity* 110(7):818–823. <https://doi.org/10.1093/jhered/esz060>
- Moss, JB**, A Schwirian*, AC Jackson*, GP Gerber[†], ME Welch. Evidence for dominant males but not choosy females in an insular rock iguana (2018) *Behavioral Ecology* 30(1):181–193. <https://doi.org/10.1093/beheco/ary131>
- Moss, JB**, ME Welch, FJ Burton[†], MV Vallee[†], EW Houlcroft[†], T Laaser[†], and GP Gerber[†] (2018) First evidence for crossbreeding between invasive *Iguana iguana* and the native rock iguana (Genus *Cyclura*) on Little Cayman Island. *Biological Invasions* 20:817–823. <https://doi.org/10.1007/s10530-017-1602-2>
- Carney, SC, DM McVeigh, **JB Moss***, D Ferrier, and JF Morissey (2017) Insights on mitochondrial Genetic variation in Chesapeake Bay summer-resident Cownose Rays. *Transactions of the American Fisheries Society* 146(3):478–484. <https://doi.org/10.1080/00028487.2017.1285350>

PREPRINTS AND WORKS IN PROGRESS

- Moss, JB**, JP Tumulty, and EK Fischer. Co-option of ancestral signal elements in the evolution of a cooperative parental behavior. *In Review*. <https://doi.org/10.1101/2022.10.10.511585>

PRESENTATIONS

GUEST LECTURES

"Behavioral Ecology"; Instructor: Dr. Geoff While	University of Tasmania	2020
"Ecosystems"; Instructor: Dr. Brandon Barton	Mississippi State University	2019

INVITED SEMINARS

Animal Behavior Seminar Series	University of Minnesota	2021
Evolution, Ecology, and Behavior Colloquium Series	University of Illinois Urbana-Champaign	2021
Entomology Seminar Series	University of Georgia	2020
Biological Sciences Seminar Series	University of Tasmania	2020
EDGE Seminar	University of Georgia	2019

CONFERENCE & SYMPOSIUM PRESENTATIONS

Animal Behavior Society	Virtual	Oral	2022
Society for Integrative and Comparative Biology	Virtual (SICB+)	Oral	2022
9 th World Congress on Herpetology Evolution	Dunedin, New Zealand	Oral	2020
Evolution	Providence, RI, USA	Oral	2019
II Joint Congress on Evolutionary Biology	Montpellier, France	Poster	2018
Iguana Specialist Group Meeting	Fort Worth, TX, USA	Oral	2018
3-Minute Thesis Competition	Mississippi State, MS, USA	Oral	2018
Joint Meeting of Ichthyologists and Herpetologists	Rochester, NY, USA	Oral	2018
Biology Graduate Student Symposium	Mississippi State, MS, USA	Oral	2018
Iguana Specialist Group Meeting	Veradero, Cuba	Oral	2017
Joint Meeting of Ichthyologists and Herpetologists	Austin, TX, USA	Oral & Poster	2017
Iguana Specialist Group Meeting	Malolo Lailai, Fiji	Oral	2016
SE Population Ecology and Evolutionary Genetics	Madison, FL, USA	Poster	2016
Iguana Specialist Group Meeting	St. Augustine, FL, USA	Oral	2015
Tischer Scholars Departmental Honors Symposium	Frederick, MD, USA	Oral	2013
Undergraduate Research Symposium at UMBC	Baltimore, MD, USA	Poster	2012

TEACHING EXPERIENCE

Mississippi State University, Department of Biological Sciences

- Laboratory instructor for *Comparative Anatomy* (2014-18), *Anatomy and Physiology* (2015-17), *Human Physiology* (2018), *Introductory Biology* (2019), and *Animal Diversity* (2019)

Hood College, Department of Biology

- Biology 203: Introduction to Cell Biology and Genetics (2012)

MENTORING EXPERIENCE

* = first-generation student; † = Caymanian student

UNDERGRADUATE RESEARCHERS

Molly Podraza	"Do monogamous poison frogs prefer the calls of their mates over those of strangers?"	Present
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	<i>Honorable Mention, Nature, Life, and Environmental Change, UI Undergraduate Research Symposium</i>	
Blaklie Mitchell*	"Forensic analysis of <i>Iguana iguana</i> in Cayman Islands provides warning of invasion on Little Cayman."	2019
Mikayla Murphree*	"Flourishing or fading: an analysis of gene flow and population structure in Sister Islands Rock Iguanas."	2018
Anna Jackson	"Please do not feed the animals: an analysis of the effect of anthropogenic stresses on mating behaviors displayed by the Sister Islands Rock Iguana."	2017
	<i>First-place recipient, Downer Undergraduate Research Award, MSU Biology Undergraduate Research Symposium.</i>	
David Herz	"Investigations into the hybridization of Grand Cayman Blue Iguana (<i>Cyclura lewisi</i>) founders."	2017
Aumbriel Schwirian*	"Multiple paternity in <i>Cyclura nubila caymanensis</i> ."	2017

HONOURS/MS RESEARCHERS

Shannon Harris*	"Does resource competition prime males for paternal care?"	2021
Zachary Borthwick	"How does climate influence patterns of social behaviour in a family-living skink?"	2020

FIELD VOLUNTEERS

TayVanis Oyog [†] , Jill Jollay, Elaine Powers		2015
Tanja Laaser, Michael Kartje, Giuliano Colosimo, Anna Jackson, David Herz, George Waters, Chris Savell, Gretchen Moss, Jill Jollay, Elaine Powers		2016
TayVanis Oyog [†] , Tanja Laaser, Vaughn Bodden [†] , Kelsey Bodden [†] , Giuliano Colosimo, Kevin Moore, Hanne-Marie Christensen, Andrew Cassels, Kristen Reints, Graham Gorgas, Jack Hildebrand, Ruth Smith, Beth Chafin, Tiago Peixoto, Katie Correia, Nick Ebanks, Jill Jollay, Chelsea Richardson		2017

OUTREACH AND COMMUNICATION

PUBLIC PRESENTATIONS AND COMMUNITY SERVICE

Sister Islands Rock Iguana Species Action Plan Update Workshop	Grand Cayman, Cayman Islands	2017
Southern Cross Club Scientific Outreach Night	Little Cayman, Cayman Islands	2017
Green Iguana B'Gonna night surveys	Little Cayman, Cayman Islands	2016–17
National Trust Meeting updates	Little Cayman, Cayman Islands	2015–17

EDUCATIONAL OUTREACH

American Frog Day	Chicago, IL	2022
Elementary School Science Class	Urbana, IL	2022
Science at the Market	Urbana, IL	2022
Scovill Zoo Amphibian Chats	Decatur, IL	2022
Middle School Science Class	Mohomet, IL	2021
High School Science Club	Rantoul, IL	2021
Genome Day	University of Illinois, Urbana, IL	2021

WORKSHOPS AND FIELD COURSES

- Center for Innovation in Teaching and Learning 2021, 2022
 - Master Course in Online Teaching
 - Faculty Series on Teaching & Learning
- IUCN Red List Assessor Training 2015, 2018
- Mississippi State University 'MississiPy' Workshop in Python 2018
- UCLA/La Kretz Center Conservation Genomics Workshop 2017
- Summer Institute for Statistical Genetics 2015
- Neotropical Natural History in Costa Rica 2013
- Ecological Field Study in Peru 2011

ACADEMIC SERVICE

- Society Memberships:
 - Society of Integrative and Comparative Biology
 - Society for the Study of Evolution
 - Animal Behavior Society
 - Society for the Study of Amphibians and Reptiles
- Peer Reviewer for the following journals: *Scientific Reports, Evolution, Biological Invasions, Evolution, Ecology and Evolution, Journal of Evolutionary Biology, Biological Journal of the Linnaean Society*
- IUCN Red List Assessor – *Iguana Specialist Group Meeting*

REFERENCES

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