

JEANETTE (JEN) B. MOSS

jbmoss@illinois.edu • ORCID ID: 0000-0002-7207-5955

683 Morrill Hall, 505 S Goodwin Ave, Urbana, IL 61801

[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, JP Tumulty, and EK Fischer. (2023). Evolution of acoustic signals associated with cooperative parental behavior in a poison frog. *Proceedings of the National Academy of Science* 120 (17) e2218956120. <https://doi.org/10.1073/pnas.2218956120>

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

<https://doi.org/10.1086/724381>

- 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

Podraza, ME*, JB Moss, and EK Fischer. No evidence for preferential association with partner calls in a monogamous poison frog. *In Preparation*.

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 Conference Bloomington, IN, USA Oral 2023
Animal Behavior Society Virtual Oral 2022
Society for Integrative and Comparative Biology Virtual (SICB+) Oral 2022
9th World Congress on Herpetology 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?" <i>Honorable Mention, Nature, Life, and Environmental Change, UI Undergraduate Research Symposium</i>	Present
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." <i>First-place recipient, Downer Undergraduate Research Award, MSU Biology Undergraduate Research Symposium.</i>	2017
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

Science at the Library	Champaign, IL	2023
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

MEDIA COVERAGE

Article: "Poison frog call to feed tadpole evolutionarily derived from other calls, research finds"	IGB Newsletter	2023
#ABSTakeover	Twitter	2023
Article: "MSU researchers part of iguana hatchling discovery in Cayman Islands"	MSU Newsroom	2016

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

Eva Fischer, Ph.D.
 Assistant Professor, EEB
 University of Illinois, Urbana Champaign
 +1 (303) 669-3101
 efischer@illinois.edu

Allen Moore, Ph.D.
 NSF DEB Program Director;
 Professor of Entomology
 University of Georgia
 +1 (706) 542-2151
 AJMoore@uga.edu

Mark Welch, Ph.D.
Professor, Biological Sciences
Mississippi State University
+1 (662) 325-7564
Welch@biology.msstate.edu

Geoffrey While, Ph.D.
Senior Lecturer, Zoology
University of Tasmania
+61 (0) 3 6226 7822
Geoffrey.While@utas.edu.au