

Brooke L. Bodensteiner

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EDUCATION

2019-	Ph.D. student	Ecology & Evolutionary Biology; Yale University (PI: Dr. Martha Muñoz)
2017-2019	Ph.D. student	Biological Sciences; Virginia Tech (PI: Dr. Martha Muñoz)
2015-2017	M.S.	Ecology & Evolutionary Bio.; Iowa State University (PI: Dr. Fred Janzen)
2010-2014.	B.S.	Biology; Iowa State University

PUBLICATIONS

[* Denotes an undergraduate under my mentorship; § denotes equal contribution]

IN REVIEW

16. **Bodensteiner BL**, Warner DA, Carter, AL, Iverson JB, Milne-Zelman C, Mitchell TS, Refsnider JM, Voves, KC, and Janzen FJ. Mother knows best: nest-site choice homogenizes embryo thermal environments among populations in a widespread turtle. *Proceeding of the Royal Society B*

PUBLISHED

15. **Bodensteiner BL**, Agudelo-Cantero GA, Arietta AZA, Gunderson AR, Muñoz MM, Refsnider JM, Gangloff EJ (2020) Thermal adaptation revisited: how conserved are thermal traits of reptiles and amphibians? *Journal of Experimental Zoology Part A - Ecological and Integrative Physiology* (accepted pending revision)

14. Domínguez-Guerrero SF§, **Bodensteiner BL**§, Pardo-Ramírez A, Aguillón-Gutierrez DR, Méndez-de la Cruz FR, and Muñoz MM (2020) Thermal physiology responds to interannual temperature shifts in a montane horned lizard, *Phrynosoma orbiculare*. *Journal of Experimental Zoology A: Ecological and Integrative Physiology*, doi.org/10.1002/jez.2403.

13. Murphy KM*, **Bodensteiner BL**, Delaney DM, Strickland JT, and Janzen FJ (2020) Nest temperatures alter survival and emergence of Painted Turtle (*Chrysemys picta*) offspring. *Chelonian Conservation Biology*

12. Warner DA, Mitchell TS, **Bodensteiner BL**, and Janzen FJ (2020) Sex and incubation temperature independently affect embryonic development and offspring size in a turtle with temperature-dependent sex determination. *Physiological and Biochemical Zoology* 93:62-74. doi: 10.1086/706786.
11. Carter AL, **Bodensteiner BL**, Iverson JB, Milne-Zelman CL, Mitchell TS, Refsnider JM, Warner DA, and Janzen FJ (2019) The breadth of the thermal response captures individual and geographic variation in temperature-dependent sex determination. *Functional Ecology* 33:1928-1939. doi: 10.1111/1365-2435.13410.
10. Salazar JC, del Rosario Castañeda M, Londoño GA, **Bodensteiner BL**, Muñoz MM (2019) Physiological evolution during adaptive radiation: A test of the island effect in *Anolis* lizards. *Evolution* 73:1241-1252. doi: 10.1111/evo.13741.
9. **Bodensteiner BL**, Warner DA, Iverson JB, Milne-Zelman C, Mitchell TS, Refsnider JM, and Janzen FJ (2019) Geographic variation in thermal sensitivity of early life traits in a widespread reptile. *Ecology and Evolution* 9:2791-2802. doi: 10.1002/ece3.4956.
8. Muñoz MM and **Bodensteiner BL** (2019) Janzen's Hypothesis meets the Bogert effect: Connecting climate variation, thermoregulatory behavior, and rates of physiological evolution. *Integrative Organismal Biology* 1:oby002. doi: 10.1093/iob/oby002
7. Polich RL, **Bodensteiner BL**, Adams CIM, and Janzen FJ (2018) Effects of augmented corticosterone in painted turtle eggs on offspring development and behavior. *Physiology and Behavior* 183:1-9. doi: 10.1016/j.physbeh.2017.10.004
6. Warner DA, Mitchell TS, **Bodensteiner BL**, and Janzen FJ (2017) The effect of hormone manipulations on sex ratios varies with environmental conditions in a turtle with temperature-dependent sex determination. *Journal of Experimental Zoology Part A: Ecology Genetics and Physiology* 327:172-18. doi: 10.1002/jez.2085.
5. Mitchell SM, **Bodensteiner BL**, Quick JK*, Strickland JT, and Janzen FJ (2016) Effects of habitat alteration on survival rates of the ornate box turtle (*Terrapene ornata*). *Journal of Wildlife Management* 80:1503-1508. doi: 10.1002/jwmg.21142.
4. Telemeco RS, Gangloff EJ, Cordero GA, Mitchell TS, **Bodensteiner BL**, Holden KG, Mitchell SM, Polich RL, and Janzen FJ (2016) Reptile embryos lack the opportunity to thermoregulate by moving within the egg. *American Naturalist* 188:E13-E27. doi: 10.1086/686628.
3. **Bodensteiner BL**, Mitchell TS, Strickland JT, and Janzen FJ (2015) Do hydric conditions during embryonic development in the field influence phenotypes of neonatal reptiles? *Functional Ecology* 29:710-717. doi: 10.1111/1365-2435.12382.

2. Refsnider JM, **Bodensteiner BL**, Reneker JL, and Janzen FJ. (2013) Nest depth may not compensate for sex ratio skews caused by climate change in turtles. *Animal Conservation* 16:481-490. [[cover feature](#) and [featured paper](#)]; doi: 10.1111/acv.12034.

1. Refsnider JM, **Bodensteiner BL**, Reneker JL, and Janzen FJ (2013) Experimental field studies of species' responses to climate change: challenges and future directions. *Animal Conservation* 16:498-499. doi: 10.1111/acv.12084.

IN PREPARATION

Bodensteiner BL, and Muñoz MM. Adaptive radiation in the multidimensional phenotype.

Fondren AM*, **Bodensteiner BL**, Warner DA, Kiriazis N, and Janzen FJ. Experimental look at habitat differences and cues predators exploit to locate and depredate artificial turtle nests.

FELLOWSHIPS AND AWARDS

2021 Charles A. and June R.P. Ross Fellowship Fund, Yale Graduate School	
2020 Doctoral Pilot Award, Yale Institute for Biospheric Studies	\$3,000
2020 Dillon and Mary Ripley Graduate Fellowship Fund, Yale Graduate School	
2019 VT College of Science "Make-a-Difference Scholarship" Finalist [declined]	\$5,000
2018 Company of Biologist, Journal of Experimental Biology Traveling Fellowship	£ 3,000
2018 American Philosophical Society, Lewis and Clark Fund	\$2,000
2018 Noel Krieg Graduate Fellowship, Department of Biological Sciences Virginia Tech	\$600
2017 Research Excellence Award, Iowa State University	
2015 Gerontology Fellowship, Iowa State University	\$9,500
2013 Turtle Survival Alliance Student Travel Grant	\$300
2011 & 2012 Research Experience for Undergraduates, National Science Foundation	

PRESENTATIONS

INVITED SEMINARS:

Bodensteiner BL (2020) Department of Biology, Ohio Wesleyan University in Delaware, OH, USA.
(*postponed due to Covid19*)

Bodensteiner BL (2018) "Examining the impacts of temperature in reptiles at varying scales" Centre National de la Recherche Scientifique (CNRS) Station d'Ecologie Théorique et Expérimentale in Moulis, France.

ORAL PRESENTATIONS:

Bodensteiner BL, Muñoz MM. (2020) "Adaptive radiation in the multidimensional phenotype" **Invited Symposium: Beyond CT_{max} and CT_{min} : Advances in Studying the Thermal Limits of Reptiles and Amphibians. World Congress of Herpetology.

Bodensteiner BL, Muñoz MM. (2019) "Adaptive radiation in the multidimensional phenotype" Virginia Tech Department of Biological Sciences Research Day.

Bodensteiner BL, Muñoz MM. (2019) "Adaptive radiation in the multidimensional phenotype" Society for Integrative and Comparative Biology. **Finalist for the Wake Award for Best Student Presentation.

Bodensteiner BL and Vega JJ (2018) "Evolution and ecology of Hispaniolan anoles, and methodologies in thermal physiology" Museo Nacional de Historia Natural: Prof. Eugenio de Jesus Marcano.

Bodensteiner BL, Warner DA, Iverson JB, Milne-Zelman C, Mitchell TS, Refsnider JM, and Janzen FJ. (2018) "Examining the role of macrogeographic variables in predicting key phenotypes in a widespread reptile: lessons from the lab and field" Society for Integrative and Comparative Biology. **Finalist for the Raymond B. Huey Best Student Presentation Award.

Bodensteiner BL, Warner DA, Iverson JB, Milne-Zelman C, Mitchell TS, Refsnider JM, and Janzen FJ. (2016) "Geographic variation in thermal sensitivity of early life-history traits in a widespread reptile" Society for Integrative and Comparative Biology.

Bodensteiner BL, Mitchell TS, Strickland JS, and Janzen FJ. (2015) "Hydric conditions during incubation influence phenotypes of neonatal reptiles in the field" ISU Graduate and Professional Student Senate Research Symposium.

Bodensteiner BL, Mitchell TS, Strickland JS, and Janzen FJ. (2013) "Do hydric conditions during embryonic development in the field influence phenotypes of neonatal Painted Turtles?" Turtle Survival Alliance.

Bodensteiner BL, Mitchell TS, Strickland JS, and Janzen FJ. (2013) "Do hydric conditions during embryonic development in the field influence phenotypes of neonatal reptiles?" ISU Undergraduate Research Symposium.

Bodensteiner BL, Warner DA, Kiriazis N, and Janzen FJ. (2012) "Cues predators exploit to locate turtle nests." ISU Undergraduate Research Symposium.

POSTER PRESENTATIONS:

Bodensteiner BL, Muñoz MM. (2019) "Adaptive radiation in the multidimensional phenotype" Virginia Tech Interfaces of Global Change Symposium.

Bodensteiner BL, Gangloff, EJ, and Muñoz MM. (2018) "Capacity for physiological change in a montane lizard in a warming climate" Interfaces of Global Change Research Symposium.

Bodensteiner BL, Warner DA, Iverson JB, Milne-Zelman C, Mitchell TS, Refsnider JM, and Janzen FJ. (2017) "Spatial and temporal variation in nest microhabitat of a widespread reptile" Society for Integrative and Comparative Biology.

Bodensteiner BL, and Janzen FJ. (2015) "Reproductive investment and senescence in the painted turtle *Chrysemys picta*." Society for Integrative and Comparative Biology.

Bodensteiner BL, Refsnider JM, Reneker, and Janzen FJ. (2012) "Nest depth does not compensate for sex ratio skews caused by climate change in turtles." World Congress of Herpetology.

Bodensteiner BL, Warner DA, Kiriazis N, and Janzen FJ. (2011) "What cues do predators use to locate turtle (*Chrysemys picta* and *Chelydra serpentina*) nests?" Research Experience for Undergraduates Symposium.

PROFESSIONAL REVIEWING

(1) *Journal of Physiological and Biochemical Zoology*, (2) *Biological Journal of the Linnaean Society*, (1) *Journal of Herpetology*, (4) *Integrative Zoology*, (5) *Journal of Thermal Biology*, (6) *Ichthyology and Herpetology*, (7) *Journal of Animal Ecology*, (8) *Ecology and Evolution*, and (9) *Proceeding of the Royal Society B*

TEACHING

2020 Comparative Physiology, Teaching Fellow

2020 Introduction to Ecology and Evolution, Teaching Fellow

2019 Invertebrate Zoology Teaching Fellow

2018-2019 Principles of Biology Laboratory Teaching Assistant

2016 Herpetology Laboratory Instructor of Record

2015 Herpetology Laboratory Teaching Assistant

2014 Vertebrate Biology Laboratory Teaching Assistant

2013 Herpetology Laboratory Undergraduate Teaching Assistant

2013 Ecology Laboratory Undergraduate Teaching Assistant

Guest lectures:

- 2020 Comparative Physiology, Yale University
- 2016 Herpetology, Iowa State University
- 2015 Herpetology, Iowa State University
- 2015 Wildlife Ecology and Management, Iowa State University

MENTORING

2019 Women In Science At Yale (WISAY) mentor to undergraduates

2014-2017 Program Coordinator Turtle Camp Research and Education in Ecology (TREE)

2011-2012 & 2014-2017 Mentor of Turtle Camp Research and Education in Ecology (TREE)

2016-2015 George Washington Carver summer research diversity program mentor

2016 Honors Mentor

2015 Science with Practice Mentor

SOCIETY INVOLVEMENT

2018 European Society for Evolutionary Biology, student member
2017-2020 Society for the Study of Evolution, student member
2015-2020 Society for Integrative and Comparative Biology, student member
2015-2016 Sigma Xi, student member

OUTREACH

<u>2019</u> - Gilbert Linkous Science Fair	Iowa Statewide Science Fair Judge
<u>2018</u> - Science Research Day- Moulis, France	<u>2014</u> - Field Biology Outreach Experiences
<u>2017</u> - Virginia Science Festival	Science Explorations (in conjunction with
Ask a Scientist- Christiansburg Elementary	Women in Science and Engineering)
Grandma and Me (Youth Education Event)	Grandma and Me (Youth Education Event)
<u>2016</u> - Iowa Statewide Science Fair Judge	<u>2012</u> - Wildlife Care Clinic
Urbandale High School Science Fair Judge	Grandma and Me (Youth Education Event)
Gilbert 3 rd grade STEM program	<u>2011</u> - Science Bound Student Shadow Day
<u>2015</u> - St. Cecilia STEM afterschool program	Sawyer Elementary Science Night
Women in Science and Engineering (WISE)	Wildlife Care Clinic
kickoff	Grandma and Me (Youth Education Event)

LEADERSHIP

2019 Graduate Affiliate for Jonathan Edwards College, Yale University
2018 Vice President: VT Biology Graduate Student Association
2016 & 2017 Treasurer: ISU chapter of the Society for Advancing Chicanos/Hispanics and Native Americans in Science (SACNAS)
2017 Graduate Student Representative Ecology and Evolutionary Biology Recruitment Committee
2015 & 2016 Preparing Future Faculty

- 2016 & 2015 Women in Science and Engineering Program and Student Counseling Services Representative
- Biological Sciences Club; Iowa State University
 - President-2012-2013
 - Vice President- 2011-2012
 - Outreach Officer- 2010-2011