

Liza Mitchem

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EDUCATION

- 2017-2021 Ph.D, Ecology and Evolutionary Biology; University of Virginia; Advisor: Dr. Edmund D. Brodie III
- 2017 M.S., Ecology, Ethology and Evolution; University of Illinois Urbana-Champaign; Advisor: Dr. Rebecca C. Fuller
- 2014 B.S., Biology: Emphasis in Ecology/Field Biology; Minor: Environmental Studies; University of Wisconsin-Whitewater; Cum-Laude

PUBLICATIONS

Mitchem, L.D., Formica, V.A, Homer, DE[†], Debray, R., & Brodie, E.D. III (*in review*). Females do not behave competitively during intrasexual interactions in the presence of a fungal resource in a mycophagous beetle species, *Bolitotherus cornutus*.

Vilella-Pacheco, Z.*[†], **Mitchem, L.D.***, Formica, V.A., & Brodie, E.D. III. 2021. Male competition reverses female preference for male chemical cues. *Ecology and Evolution*, 00:1–10. DOI: 10.1002/ece3.7348.

Kastle, M., Kapfer, J., Kuhns, A., Graser, W., Glowacki, G., Ibach, A., **Mitchem, L.**, Mozuch, J., Rudolph, N., Rutzen, K., & King, R. (*in press*). Blanding's turtle hatchling survival and movements following natural vs. artificial incubation. *Journal of Herpetology*.

Mitchem, L.D., Debray, R., Formica, V.A., & Brodie, E.D. III (2019). Contest interactions and outcomes: relative body size and aggression independently predict contest status. *Animal Behavior*, 157:43-49. DOI: 10.1016/j.anbehav.2019.06.031.

Mitchem, L.D., Stanis, S., Zhou, M., Loew, E., Epifanio, J.M., and Fuller, R.C. 2018. Seeing red: color vision in the largemouth bass. *Current Zoology*, 65:43-52. DOI: 10.1093/cz/zoy019.

Mitchem, L.D., Stanis, S., Sutton, N.S., Turner, Z., and Fuller, R.C. 2018. The pervasive effects of lighting environments on sensory drive in bluefin killifish: an investigation into male/male competition, female choice, and predation. *Current Zoology*, 64:499-512. DOI: 10.1093/cz/zoy038.

† undergraduate author

*Co-authors contributed equally

PUBLICATIONS CONTINUED

Rutzen, K., **Mitchem, L.**, Rudolph, N., Katovich, K., and Kapfer, J.M. 2015. *Emydoidea blandingii* (Blanding's Turtle): Juvenile Diet. *Herpetological Review*, 46:79-80.

Kapfer, J.M., Lorch, J.M., Wild, E.R., Brown, D.J., **Mitchem, L.**, Rudolph, N., Rutzen, K., and Vogt, R. 2015. Distribution records for amphibians and reptiles from Wisconsin, USA. *Herpetological Review*, 46:587-590.

TEACHING AND MENTORSHIP

Instructor

- 2021 Evolution in the Media; University of Virginia
- 400 level, discussion-based course focused on teaching scientific literacy and writing by debunking common evolutionary misconceptions perpetuated by the media.

Curriculum Design and Pedagogical Consultant

- Present Teaching consultant; Center for Teaching and Learning; University of Virginia
- Consulted with faculty and graduate students on improving various aspects of their courses including effective instruction, hands-on activities, and syllabus design
- 2017 Curriculum developer; Progressing through the Ages: Global change, Evolution, and Societal well-being (PAGES); University of Illinois at Urbana-Champaign; project advisors – Dr. Becky Fuller and Dr. Barbara Hug
- Developed inquiry-based evolution curriculum for high school classrooms
- 2014 Curriculum design intern; University of Wisconsin – Whitewater; project advisor – Dr. Anneke Lisberg
- Restructured introductory biology labs to focus on inquiry-based learning

Graduate Teaching Assistant

- 2020 Biodiversity and Conservation; University of Virginia
- 300-level, discussion-based course. Assisted in developing in-class activities and exam questions, and graded written exams.
- 2020 Introduction to Biology – Organismal and Evolutionary Biology; University of Virginia
- Lecture TA – assisted in developing interactive activities and exam materials for large, lecture course.
- 2019 Introduction to Biology – Organismal and Evolutionary Biology; University of Virginia
- 2018 Introduction to Biology – Cell Biology and Genetics; University of Virginia

- 2017 Introduction to Biology – Cell Biology and Genetics; University of Virginia
- 2016 Ecology; University of Illinois at Urbana-Champaign
- Writing-intensive course; provided feedback and graded multiple drafts of two, 20-page research papers for approximately 60 students
 - Ranked as Outstanding (top 10% of teaching assistants) by students
- 2015 Organismal and Evolutionary Biology; University of Illinois at Urbana-Champaign
- Ranked as Outstanding (top 10% of teaching assistants) by students

Advancements in personal pedagogy

- 2017 Graduate Teacher Certificate; Center for Innovation in Teaching and Learning; University of Illinois at Urbana-Champaign
- Completed workshops focused on teaching development, inclusive and equitable teaching, and curriculum development
- 2019-2021 Tomorrow's Professors Today; Center for Teaching Excellence; University of Virginia
- Graduate teaching development program focusing on personal pedagogy and inclusive and equitable teaching.

Mentorship

- 2019-Present Zorimar Vilella-Pacheco: Mountain Lake Biological Station REU
Females discern the outcome of male combat using chemical cues
- 2018-Present Dana Homer; Swarthmore College
*Repeatability of female-female interactive behaviors in *Bolitotherus cornutus**
- 2019-2020 Dawson Little; University of Virginia
How do females use sensory cues to guide decisions about potential mates?
- 2018-2020 Austin Barlow; University of Virginia
*How environmental context affects male-male interactions in *Bolitotherus cornutus**
- 2018 Arielle Wimmer; University of Virginia
*Sex-specific effects of testosterone on display behaviors in *Anolis sagrei**

INVITED TALKS

- 2017 “Getting the Most Out of Your Teaching Assistantship.” Midwest Ecology and Evolution Conference, Urbana

CONFERENCE PARTICIPATION

Oral Presentations

- 2020 “Females Change Preference for the Chemical Cues of Aggressive, Winning Males After Competition.” Society for Integrative and Comparative Biology, Austin, TX.
- 2018 “The causes and consequences of male-male interactions in a sexually dimorphic beetle species.” SouthEastern Population Ecology and Evolutionary Genetic, Pembroke, VA.
- 2017 “Why so blue? The effect of lighting environment on sexual selection in bluefin killifish (*Lucania goodei*).” Midwest Ecology and Evolution Conference, Urbana, IL.

GRANTS AND AWARDS

External Research Grants and Awards

- 2016 Student Research Grant; Animal Behavior Society; Awarded \$1000

Internal Research Grants and Awards

- 2020 Distinguished Teaching Fellowship; Biology Department; University of Virginia; Awarded semester stipend for lead instructor of own course.
- 2019 Distinguished Graduate Mentorship Fellowship; Biology Department; University of Virginia; Awarded semester stipend and \$2000 in research funds.
- 2019 Jefferson Scholars Foundation Research Prize; University of Virginia; Awarded \$1500
- 2017 Thomas Frazzetta Award for Outstanding Teaching in Animal Biology; Department of Animal Biology; University of Illinois at Urbana-Champaign
- 2016 R. Weldon Larimore Scholarship; Illinois Natural History Survey; Awarded \$1200
- 2016 Odem-Kendeigh Research Award; Department of Animal Biology; University of Illinois at Urbana-Champaign; Awarded \$1000
- 2016 Francis M. and Harlie M. Clark Research Support Grant; School of Integrative Biology; University of Illinois at Urbana-Champaign; Awarded \$1000

OUTREACH

- 2019-2020 Teaching as a Graduate Student Workshop; session facilitator for new graduate teaching assistants

OUTREACH CONTINUED

- 2019 Research weekend at Mountain Lake Biological Station with the Environmental Studies Academy at Western Albemarle High School
*Guided high school students through a two-day workshop that included the development and implementation of small research projects at Mountain Lake Biological Station.
- 2018-2019 Science fair judge; Virginia Piedmont Regional Science Fair; Charlottesville, VA
- 2017 Conference volunteer and moderator; Midwest Ecology and Evolution Conference; Urbana, IL
- 2016 PAGES Summer Workshop; Urbana, IL
*Assisted K-12 teachers in developing ecology and evolution curriculum.

PROFESSIONAL AFFILIATIONS

Society for Integrative and Comparative Biology, Animal Behavior Society, Society for the Study of Evolution, The International Society for Behavioural Ecology