

ERICA NADOLSKI

Department of Biology
Indiana University - Bloomington
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EDUCATION

- 2020-Present **Ph.D. in Genome, Cell, and Developmental Biology**
Indiana University Bloomington
Minors in (i) Evolution and (ii) History & Philosophy of Science
In progress
Advisor: Dr. Armin Moczek; Committee Members: Drs. Ryan Bracewell,
Luke Nikolov, Erik Ragsdale, Ann Sophie Barwich
- 2016-2020 **B.S. with Honors, *summa cum laude***
University of Oklahoma, Department of Biology
Minors in (i) Chemistry and (ii) History of Science
Advisor: Dr. J. P. Masly
Thesis: The Genetic Basis of a Newly-Evolved Reproductive Structure in
Drosophila

RESEARCH EXPERIENCE

- 2020-Present **IU Department of Biology, Genome, Cell, and Developmental Biology**
Research: The evolutionary developmental biology of sexual dimorphisms and evolutionary innovations in the beetle tribe Onthophagini; ongoing
PI: Dr. Armin Moczek, Professor of Biology, IU, Bloomington, IN
- 2018-2020 **OU Department of Biology, Honors Undergraduate Research**
Research: Investigated the genetic basis of the origin and evolution of novel secondary sexual reproductive structures in *Drosophila*
PI: Dr. J. P. Masly, Professor of Biology, OU, Norman, OK
- 2017-2020 **Oklahoma Biological Survey, Undergraduate Research Assistant**
Research: Studied phylogenetic relationships among groups of native and invasive species subject to priority effects and along drought gradients
PI: Dr. Lara Souza, Director of the Oklahoma Biological Survey, Norman, OK

PUBLICATIONS

In press

Nadolski, E.M., Moczek, A.P. The promise and limits of an agency perspective in evolutionary developmental biology. *Evolution & Development*. <https://doi.org/10.1111/ede.12432>

Nadolski, E.M.,* Davidson, P. L.,* Moczek, A.P. Condition-dependent chromatin remodeling in the evolution and development of insect plasticity. (in press, *Current Opinion in Insect Science*) * co-first authors

In preparation

Harper, A. R., McCrory, J., **Nadolski, E.M.**, Afkhami, M., Masly, J.P. A novel gene specifies species-specific morphology of a sexually selected trait in *Drosophila* (aimed for submission to *PLoS Biology*)

CONFERENCE PRESENTATIONS

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| 2023 | EMBO/FEBS Venice summer school in evolutionary developmental biology: The future of evo devo systems biology. <i>Invited participant</i> . |
| 2022 | EMBO/FEBS Venice summer school: The character concept in metabolic, physiological, and developmental evolution. <i>Invited participant</i> . |
| 2022 | Agency in Living Systems workshop. Konrad Lorenz Institute for Evolution and Cognition Research, Austria. <i>Invited participant</i> . |
| 2020 | The Genetic Basis of a Newly-Evolved Reproductive Structure in <i>Drosophila</i> . OU Undergraduate Research Day. Talk . |
| 2020 | A novel gene specifies species-specific morphology of a sexually-selected trait in <i>Drosophila</i> . The Allied Genetics Conference. Poster . |
| 2020 | The Genetics of Sex-Specific Reproductive Traits in <i>Drosophila</i> . The Allied Genetics Conference. Talk . |

GRANTS AND FELLOWSHIPS

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| 2023-24 | IU-NIH "Common Themes in Reproductive Diversity" Predoctoral Fellowship |
| 2022-23 | IU College of Arts and Sciences Kindig Research Fellowship |
| 2021 | NSF Graduate Research Fellowship – Honorable Mention |
| 2020-21 | IU College of Arts and Sciences Graduate Fellowship |
| 2019 | OU Honors College Undergraduate Research Grant |

AWARDS

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| 2023 | IU CISAB Hanna Kolodziejski fellowship award |
| 2022 | IU Provost's Travel Award for Women in Science |
| 2020 | Genetics Society of America TAGC 2020 Undergraduate Travel Award |
| 2020 | OU Undergraduate Research Day 2020 Distinguished Presenter Award |
| 2020 | OU Honors College Dean's Leadership Award for Reading Group Moderators |
| 2019 | OU Nominee for the University of Cambridge Churchill Scholarship |
| 2017-2020 | OU College of Arts and Sciences Dean's List, President's Honor Roll |
| 2016 | National Merit Scholar |

TEACHING EXPERIENCE

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| 2023 | "Entomology," Associate Instructor, BIOL-Z373; with Prof. Armin Moczek |
| 2022 | "Eco Evo Devo: Thinking about Evolution," Journal Club organizer and Facilitator, BIOL-Z620 |
| 2022 | "Introductory Biology: The Biology of the Senses," Associate Instructor, BIOL-L 104; with Prof. Laura Mojonnier |
| 2022 | Guest Lecture "From candidate gene to functional analysis using RNAi," ABEH-A 501 'Techniques in reproductive diversity' |

SERVICE

Departmental

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| 2022-Present | Biology Department Diversity, Equity, and Inclusion Committee, Student Rep. |
| 2022-2023 | Biology Department Graduate Recruitment Weekend, Food Committee Chair |
| 2021-2022 | GCDB Graduate Student Association, Secretary |
| 2021-2022 | Biology Department Graduate Recruitment Weekend, Activities Committee |
| 2020-2023 | BioLGBTQ Student Association, member |
| 2021 | Created the BioLGBTQ Safe Space Training workshop for the Biology department, ran training during orientation |

Professional

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| 2023 | Manuscript Review – Evolution & Development |
| 2022 | Manuscript Review – Evolution & Development |
| 2021 | Manuscript Review – Seminars in Cell and Developmental Biology |

Community Outreach

- 2023 **Reconstructing 6 million years of human evolution using diverse data sets**
Outreach module with five AP Biology class periods at Bloomington High School South; 240 participants
- 2022 **Mammalian Skull Evolution**
Outreach module taught to teens from the Bloomington Youth Shelter. Dec. 6th Bloomington, IN; 6 students
- 2022 **Science Fest**
“Mammalian Skull Evolution” outreach module displayed at IU event. Oct. 22nd Bloomington, IN
- 2022 **Mammalian Skull Evolution**
Outreach module taught to a 5th grade class at Templeton Elementary School. Oct. 11th. Bloomington, IN; 22 students
- 2022 **BugFest 2022**. Oct. 1st. Presented on horned beetle biology and diversity in Bloomington, IN.
- 2021 **Introduction to the Scientific Method using Termite Behavior**
Outreach module taught to a 3rd grade class at Childs Elementary School. Bloomington, IN; ~20 students
- 2021 **Reconstructing 6 million years of human evolution using diverse data sets**
Outreach module with two AP Biology classes at Bloomington High School South; 60 participants
- 2021 **BugFest 2021**. Presented on horned beetle biology and diversity in Bloomington, IN.
- 2020 **Tiny Fruit Flies Answer Big Scientific Questions**
Animated video describing Masly Lab research at a grade-school level
<https://www.youtube.com/watch?v=zJB7bortvOw&t=58s>

MENTORING EXPERIENCE

- 2023 **Isabel Manley**, IU student - Bachelor of Science in Biology
Undergraduate research project (2 semesters)
- 2023 **Gabriel Ruiz**, high school student
IU James Holland Summer Programs - Research Program (1 week)
- 2023 **Cohort** of 9 high school students
IU James Holland Summer Programs - Research Exposure (1 day)
- 2022 **Sukhmani Gill**, high school student
IU GROUPS Summer Research Experience (6 weeks)