ERICA M. NADOLSKI

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EDUCATION

Ph.D.	Indiana University, Genome, Cell, and Developmental Biology Dissertation: "Innovation and diversification of and through sexual dimorphism in horned beetles"	June 2026
B.S.	University of Oklahoma, Biology, *summa cum laude* Honors Thesis: "Uncovering the genetic basis of a newly-evolved reproductive structure in *Drosophila*"	May 2020

APPOINTMENTS

2026-present	Postdoctoral Research Associate Department of Integrative Biology	University of Wisconsin Madison
2020-2026	Graduate Research Assistant Department of Biology	Indiana University
2018-2020	Undergraduate Research Assistant Department of Biology	University of Oklahoma
2017-2020	Undergraduate Research Assistant	Oklahoma Biological Survey

PUBLICATIONS

* undergraduate coauthor

† co-first authors

Nadolski EM, Moczek AP. Trait-specific chromatin architectures channel pleiotropic genes toward sexually dimorphic development in the bull-headed dung beetle. (in review) *PNAS*.

Nadolski EM, Choi Y, Jones JA, Moczek AP, Davidson PL. 2026. Chromosome-level sex specific genome assemblies of *Onthophagus binodis* provide insight into scarab sex chromosomes. *Genome Biol. Evol.*

Nadolski EM, Manley IG,* Gill S,* Moczek AP. 2025. Divergent *Hox* cluster collinearity in horned beetles reveals adult head patterning function of *labial*. *Dev. Biol.*

Nadolski EM, Jones J, Westwick RR, Davidson PL, Moczek AP. 2025. Insects in their environments: eco-devo and evo-devo perspectives. *Comprehensive Molecular Insect Science, 2nd edition*. Edited by B. Sinclair, Elsevier.

Mitchell LC,* Moczek AP, **Nadolski EM.** 2025. A conserved somatic sex determination cascade instructs trait-specific sexual dimorphism in horned dung beetles. *Evol. Dev.*

Nadolski EM,† Davidson PL,† Moczek AP. 2023. Gene regulatory networks underlying the development and evolution of plasticity in horned beetles. *Curr. Opin. Insect Sci.*

Nadolski EM, Moczek AP. 2023. The promise and limits of an agency perspective in evolutionary developmental biology. *Evol. Dev.*

-in preparation-

Nadolski EM, Davidson PL, Zink CL, Lankenau LO, Moczek AP. Sexual dimorphisms as stepping stones in the origin and diversification of novel traits in horned beetles.

Argaez EM, **Nadolski EM**, Casasa S, Moczek AP, Rohner PT. Macroevolution and developmental underpinnings of sex-specific allometry in the forelegs of dung beetles

GRANTS & FUNDING

2025-26	IU College of Arts and Sciences Dissertation Research Fellowship, sum: $24,000
2023-24	IU-NIH T32"Common Themes in Reproductive Diversity" Fellowship, $27,144
2022-23	IU College of Arts and Sciences Kindig Research Fellowship, $25,000
2021	NSF Graduate Research Fellowship – Honorable Mention
2020-21	IU College of Arts and Sciences Graduate Fellowship, $25,000
2019	OU Honors College Undergraduate Research Grant, $800

AWARDS

2025	PASEDB 2025 Meeting Best Student Talk Award
2025	IU Animal Behavior Program William J. Rowland Mentoring Award, $800
2024	IU Biology Dona G. Graam Fellowship Award, $4500
2024	Executive Dean's Travel Award for Women in STEM, $1000
2024	SICB Division of Evolutionary Developmental Biology Best Poster Award
2023	IU Animal Behavior Program Hanna Kolodziejski Service Award, $1500
2022	IU Provost's Travel Award for Women in Science, $1000
2020	Genetics Society of America TAGC 2020 Undergraduate Travel Award
2020	OU Undergraduate Research Day Distinguished Presenter Award

PRESENTATIONS

2026 "The Roles of Organismal Agency in Biological Practice" Center for Interdisciplinary Research, Bielefeld University, Germany. **Invited Speaker.**

2026 "Micro-Evo-Devo in horned beetles". EuroEvoDevo 2026 Meeting, Glasgow, Scotland. **Invited Speaker.**

2025 Innovation and diversification of and through sexual dimorphism: insights from horned beetles. *Pan-American Society of Evolutionary Developmental Biology Meeting*. **Awarded Best Student Talk.**

2024 Evolution, development, and trait-specificity: the gene regulatory basis of sexual dimorphism in horned beetles. *European Society of Evolutionary Developmental Biology Meeting*. **Poster.**

2024 Contributions of sex-biased gene expression and chromatin accessibility to the evolution of sexual dimorphism in horned beetles. *IU Animal Behavior Conference*. **Poster.**

2024 Innovation of and through sexual dimorphism: insights from horned beetles. *Society of Integrative and Comparative Biology*. **Awarded Runner-up for Division of Evolutionary Developmental Biology Best Student Talk**

2024 Evolutionary novelties, segmental boundaries, and Hox gene expression in the insect head. Society of Integrative and Comparative Biology. **Awarded Division of Evolutionary Developmental Biology Best Student Poster**

2023 EMBO/FEBS Venice summer school in evolutionary developmental biology: The future of evo devo systems biology. *Invited participant*.

2022 EMBO/FEBS Venice summer school: The character concept in metabolic, physiological, and developmental evolution. *Invited participant*.

2020 The Genetic Basis of a Newly-Evolved Reproductive Structure in *Drosophila*. OU Undergraduate Research Day. **Talk.**

2020 The Genetics of Sex-Specific Reproductive Traits in *Drosophila*. The Allied Genetics Conference. **Talk.**

TEACHING

2026 **BIOL-L318 Evolution,** Associate Instructor; with Prof. Cristina Ledón-Rettig

2025 **BIOL-Z373 Entomology,** Associate Instructor; with Prof. Megan Murphy
Developed three guest lectures, set up laboratory exercises, led weekly collecting trips.

2023 **BIOL-Z373 Entomology,** Associate Instructor, BIOL-Z373; with Prof. Armin Moczek

Set up laboratory exercises, led collecting trips, graded exams and pinned collections.

2022 **BIOL-Z620 Eco Evo Devo: Thinking about Evolution,** Journal Club organizer

2022 **BIOL-L104 Introductory Biology: The Biology of the Senses,** Associate Instructor; with Prof. Laura Mojonnier

2022 **ABEH-A 501 Techniques in reproductive diversity,** Guest lecture; From candidate gene to functional analysis using RNAi

MENTORING

2026	**Logan Lankenau***, IU student - Bachelor of Science in Molecular Life Sciences
	Undergraduate research project (2 semesters)
2026	**Cora Zink*,** IU student - Bachelor of Science in Biology
	Undergraduate research project (2 semesters)
2024	**London Mitchell*,** Bloomington High School South senior
	BHSS Senior Internship Program (12 weeks)
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)
2022	**Sukhmani Gill***, high school student
	IU GROUPS Summer Research Experience (6 weeks)

** Mentee included as co-author on a publication*

DEPARTMENTAL SERVICE

2022-2024	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 & ran BioLGBTQ “Safe Space Training Workshop” for Biology Dept.

OUTREACH

2026 **Mammalian Skull Evolution** Outreach module. Taught to 100 elementary school students and parents from Bloomington, IN. February 26th

2025 **IU Science Fest**
"Mammalian Skull Evolution" module displayed at IU Outreach event. Nov. 1st

2025 **Mammalian Skull Evolution**
Outreach module. Taught to 30 high school students from Brown County, IN. April 9th

2024 **BugFest 2024**. Aug. 24th. Presented on horned beetle biology and diversity in Bloomington, IN.

2024 **IU Science Fest**
"Mammalian Skull Evolution" module displayed at IU Outreach event. April 6th.

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; 6 students. Taught to a 5th grade class at Templeton Elementary School. Oct. 11th.; 22 students; Bloomington, IN

2022 **IU Science Fest**
"Mammalian Skull Evolution" outreach module displayed at IU event. Oct. 22nd

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=zJB7b0rtvOw&t=58s

PEER REVIEW

2025 *Insect Science*

2024 *eLife, Evolution & Development*

2023 *Evolution & Development*

2022 *Evolution & Development*

2021 *Seminars in Cell and Developmental Biology*

SOCIETY MEMBERSHIPS

Pan-American Society for Evolutionary Developmental Biology

European Society for Evolutionary Developmental Biology

Society for Integrative and Comparative Biology