

# ARMIN PHILIPP MOCZEK

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# ARMIN PHILIPP MOCZEK

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## DEGREES

- 1992 B.A., Biology, Julius-Maximilians Universität Würzburg, Germany  
1996 M.S., Zoology, Julius-Maximilians Universität Würzburg, Germany  
2002 Ph.D., Biology, Duke University, Durham NC

## APPOINTMENTS

- 2002- 2004 NIH Postdoctoral Excellence in Research and Teaching (PERT) Fellow  
University of Arizona, Center for Insect Science  
2004- 2009 Assistant Professor, Indiana University, Bloomington, IN,  
Department of Biology  
2004- 2009 Fellow, Indiana Molecular Biology Institute (IMBI),  
Bloomington, IN  
2004- present Adjunct Faculty, Center for Integrative Study of Animal Behavior  
(CISAB), Bloomington, IN  
2006- present Adjunct Faculty, Programs in *Cognitive Sciences* and *Neurosciences*  
2009- 2014 Associate Professor, Indiana University, Bloomington, IN,  
Department of Biology  
2014- present Professor, Indiana University, Bloomington, IN, Department of Biology  
2021- present Class of 1955 Endowed Professor  
2024- present Chair, Department of Biology

## FELLOWSHIPS, AWARDS, and HONORS

- 1994 German Academic Exchange Service (DAAD) Scholar
- 2002 NIH Postdoctoral Excellence in Research and Teaching Fellow
- 2004 American Society of Naturalists (ASN) Young Investigator Prize
- 2007 Indiana University Trustees' Teaching Award
- 2008 Indiana University Trustees' Teaching Award
- 2008 National Academy of Sciences Kavli Frontiers of Science, Invited Participant
- 2010 Sabbatical Fellow, National Evolutionary Synthesis Center (NESCent)
- 2011 National Academy of Sciences Kavli Frontiers of Science, Invited Participant
- 2015 Fellow, American Association for the Advancement of Science (AAAS)
- 2016 BioArt Award by the Federation of American Societies for Experimental Biology (FASEB)
- 2017 Fulbright Distinguished Chair in Science, Technology and Innovation (with support from the Commonwealth Scient.Research Org. (CSIRO))
- 2018 Fellow, John Simon Guggenheim Memorial Foundation
- 2018 Phi Beta Kappa, honorary elected member
- 2014, 2016, 2020, 2021 Senior Class Award for Teaching Excellence in Biology & Dedication to Undergraduates
- 2022 Indiana University Trustees' Teaching Award
- 2022 Evolution Education Award, *National Association of Biology Teachers* (NABT) & *National Center for Science Education* (NCSE)
- 2025 Department Executive Officers Program (DEO); IU nominee and invited participant, sponsored by the *Big Ten Academic Alliance*
- 2026 *Alfred M. Boyce Honorary Lecturer in Entomology*, Department of Entomology, University of California, Riverside

## PUBLICATIONS

### (i) PRIMARY RESEARCH PUBLICATIONS

\* = peer reviewed, † = at Indiana University, <sup>U</sup> = undergraduate co-author):

- *prior to joining IU-*

Moczek AP (1998)\*. Horn polyphenism in the beetle *Onthophagus taurus*: diet quality and plasticity in parental investment determine adult body size and male horn morphology. **Behavioral Ecology** 9: 636-641.

Moczek AP (1999)\*. Facultative paternal investment in the polyphenic beetle *Onthophagus taurus*: the role of male morphology and social context. **Behavioral Ecology** 10: 641-647.

Moczek AP, Emlen DJ (1999)\*. Proximate determination of male horn dimorphism in the beetle *Onthophagus taurus* (Coleoptera: Scarabaeidae). **Journal of Evolutionary Biology** 12: 27-37.

Moczek AP, Emlen DJ (2000)\*. Male horn dimorphism in the scarab beetle *Onthophagus taurus*: do alternative reproductive tactics favor alternative phenotypes? **Animal Behaviour** 59: 459-466.

Shafiei M<sup>U</sup>, Moczek AP, Nijhout HF (2001)\*. Food availability controls onset of metamorphosis in the dung beetle *Onthophagus taurus* (Coleoptera: Scarabaeidae). **Physiological Entomology** 26: 173-180.

Moczek AP, Nijhout HF (2002)\*. Developmental mechanisms of threshold evolution in a polyphenic beetle. **Evolution & Development** 4: 252-264.

Moczek AP, Hunt J, Emlen DJ, Simmons LW (2002)\*. Evolution of a developmental threshold in exotic populations of a polyphenic beetle. **Evolutionary Ecology Research** 4: 587-601.

Moczek AP (2002)\*. Allometric plasticity in a polyphenic beetle. **Ecological Entomology** 27: 58-67.

Moczek AP, Nijhout HF (2002)\*. A method for sexing third instar larvae of the genus *Onthophagus* Latreille (Coleoptera: Scarabaeidae). **Coleopterist Bulletin** 56: 279-84

Moczek AP (2003)\*. The behavioral ecology of threshold evolution in a polyphenic beetle. **Behavioral Ecology** 14: 841-854.

Moczek AP, Nijhout HF (2003)\*. Rapid evolution of a polyphenic threshold. **Evolution & Development** 5: 259-268.

Moczek AP, Nijhout HF (2004)\*. Tradeoffs during the development of primary and secondary sexual traits in a dimorphic beetle. **The American Naturalist** 163: 184-191.

Moczek AP, Krell FT, Bruehl C (2004)\*. Gradual and threshold-dependent expression of secondary sexual traits in the same individual: insights from a horned beetle. **Biological Journal of the Linnean Society** 83: 473-480.

- since joining IU Fall 2004-

- 2005/06-

Moczek AP, Nagy LM (2005)\*. Diverse developmental mechanisms contribute to different levels of diversity in horned beetles. **Evolution & Development** 7: 175-85

Moczek AP (2006)\*†. A matter of measurements: challenges and approaches in the comparative analysis of static allometries. **The American Naturalist** 167: 606-611.

Moczek AP, Cochrane J \*† (2006). Intraspecific female brood parasitism in the dung beetle *Onthophagus taurus*. **Ecological Entomology** 31:1-6.

Madewell R<sup>U</sup>, Moczek AP \*† (2006). Horn possession reduces maneuverability in a horn-polyphenic beetle. **Journal of Insect Science** 6.21.

Moczek AP, \*†Rose D, Sewell W, Kesselring BR (2006). Conservation, innovation, and the evolution of horned beetle diversity. **Development Genes and Evolution**. 216: 655-665. (featured on the journal cover)

Moczek AP (2006) \*†. Pupal remodeling and the development and evolution of sexual dimorphism in horned beetles. **The American Naturalist** 168: 711-729. (feature article of the month, most downloaded paper in Dec. 06; featured in NATURE Research Highlights, Discover News, and over 25 science websites)

Moczek AP, Cruickshank TE, Shelby JA<sup>U</sup> (2006) \*†. When ontogeny reveals what phylogeny hides: gain and loss of horns during development and evolution of horned beetles. **Evolution** 60: 2329–2341. (featured in NATURE Research Highlights, Discover News, and over 25 science websites)

- 2007-

Shelby JA<sup>U</sup>, Madewell R<sup>U</sup>, Moczek AP, (2007) \*†. Juvenile hormone mediates sexual dimorphism in horned beetles. **Journal of Experimental Zoology B, Molecular and Developmental Evolution** 308B: 417-427.

Moczek AP (2007) \*†. Pupal remodeling and the development and evolution of alternative male morphologies in horned beetles. **BMC Evolutionary Biology** 7:151.

Moczek AP (2007) \*†. Developmental capacitance, genetic accommodation, and adaptive evolution. **Evolution and Development** 9: 299-305.

- 2008-

Moczek AP (2008) \*†. On the origin of novelty in development and evolution. **Bioessays** 5: 432-447. (featured on the journal cover)

Pizzo A, Roggero A, Palestrini C, Moczek AP, Rolando A (2008) \*†. Rapid shape divergences between natural and introduced populations of a horned beetle partly mirror divergences between species. **Evolution and Development** 10: 166-175.

Shepherd BL<sup>U</sup>, Prange HD, Moczek AP (2008) \*†. Some like it hot: body and weapon size affect thermoregulation in horned beetles. **Journal of Insect Physiology** 54: 604-611.

Parzer HF, Moczek AP (2008) \*†. Rapid antagonistic coevolution between primary and secondary sexual characters in horned beetles. **Evolution** 62: 2423-2428.

--in rank of Associate Professor;

- 2009- <sup>1</sup> denotes corresponding author this point forward--

Tomkins J, Moczek AP (2009) \*†. Patterns of threshold evolution in polyphenic insects under different developmental models. **Evolution** 62: 459-468.

Moczek AP<sup>1</sup>, Rose, DJ (2009) \*†. Differential recruitment of limb patterning genes during development and diversification of beetle horns. **Proceedings of the National Academy of Sciences** 106: 8992-8997. (featured on the journal cover)

Kijimoto T, Costello J, Tang Z, Moczek AP, Andrews J (2009) \*†. EST and microarray analysis of horn development in *Onthophagus* beetles. **BMC Genomics** 10: 504.

- 2010-

Wasik B, Rose DJ, Moczek AP<sup>1</sup> (2010) \*†. Beetle horns are regulated by the Hox gene, *Sex combs reduced*, in a species- and sex-specific manner. **Evolution & Development** 12: 353-362.

Kijimoto T, Andrews J, Moczek AP<sup>1</sup> 2010\*†. Programmed cell death shapes the expression of horns within and between species of horned beetles. **Evolution & Development** 12: 449-458.

Choi J-H, Kijimoto T, Snell-Rood EC, Tae H, Yang Y-I, Moczek AP, Andrews J. (2010) \*†. Gene discovery in the horned beetle *Onthophagus taurus*. **BMC Genomics** 11:703.

Snell-Rood EC, Cash A, Kijimoto T, Andrews J, Moczek AP<sup>1</sup> (2010) \*†. Developmental reprogramming and alternative phenotypes: insights from the transcriptomes of horn-polyphenic beetles. **Evolution** 65: 231-245.

Snell-Rood EC, VanDyken JD, Cruickshank TE, Wade MJ, Moczek AP<sup>1</sup>(2010) \*†. Toward a population genetic framework of developmental evolution: the costs, limits, and consequences of phenotypic plasticity. **BioEssays** 32: 71-81.

Pfennig D, Wund MA, Snell-Rood EC, Cruickshank T, Schlichting CD, Moczek AP (2010). Phenotypic plasticity's impacts on diversification and speciation. **Trends in Ecology and Evolution** 25: 459-467. (highly accessed)

- 2011-

- Moczek AP<sup>1</sup>, Sultan S, Foster S, Ledon-Rettig C, Dworkin I, Nijhout HF, Abouheif E, Pfennig D (2011) \*†. The role of developmental plasticity in evolutionary innovation. **Proceedings of the Royal Society of London** 278: 2705-2713.
- Simonnet F, Moczek AP<sup>1</sup> (2011) \*†. Conservation and diversification of gene function during mouthpart development in *Onthophagus* beetles. **Evolution & Development** 13: 280-289.
- Wasik B, Moczek AP<sup>1</sup> (2011) \*†. *decapentaplegic* (dpp) regulates the growth of a morphological novelty, beetle horns. **Development, Genes and Evolution** 221: 17-27. (featured on the journal cover)
- Macagno, AM, Pizzo A, Palestini C, Rolando A, Moczek AP<sup>1</sup> (2011) \*†. Shape - but not size - codivergence between male and female copulatory structures in *Onthophagus* beetles. **PLoS ONE** 6(12): e28893.

- 2012-

- Wasik B, Moczek AP<sup>1</sup> (2012) \*†. *pangolin* expression influences the development of a morphological novelty: beetle horns. **Genesis** 50: 404-14. (featured on the journal cover)
- Snell-Rood EC, Moczek AP (2012) \*†. Insulin signaling as a mechanism underlying developmental plasticity and trait integration: the role of FOXO in a nutritional polyphenism. **PLoS ONE**. 7(4): e34857.
- Kijimoto T, Moczek AP<sup>1</sup>, Andrews J (2012) \*†. Diversification of *doublesex* function underlies morph-, sex-, and species-specific expression of beetle horns. **Proceedings of the National Academy of Sciences** 109: 20526-31. (featured as NSF *Research Highlight*)
- Moczek AP (2012) \*†. The nature of nurture and the future of evodevo: toward a comprehensive theory of developmental evolution. **Integrative & Comparative Biology** 52: 108-119.

- 2013-

- \*Snell-Rood EC, Troth A, Moczek AP (2013) \*†. DNA Methylation as a mechanism of nutritional plasticity: insights from horned beetles. **Journal of Experimental Zoology** 320: 22-34.
- Estes AM, Hearn DJ, Snell-Rood EC, Feindler M, Feeser K, Abebe T, Dunning JC Hotopp, Moczek AP (2013)\*†. Brood ball-mediated transmission of microbiome members in the dung beetle, *Onthophagus taurus* (Coleoptera: Scarabaeidae). **PLoS ONE** 8(11): e79061.

- 2014-

Stansbury M, Moczek AP (2014) \*†. The function of Hox and appendage patterning genes in the development of a novel organ, the *Photuris* firefly lantern. **Proceedings of the Royal Society of London, Series B** 281: 1471-2954.

Kijimoto T, Snell-Rood EC, Rocha G, Pespeni M, Kafadar K, Moczek AP<sup>1</sup> (2014) \*†. The nutritionally responsive transcriptome of the polyphenic beetle *Onthophagus taurus* and the importance of sex and body region. **Proceedings of the Royal Society of London, Series B**. 281: 2014-2084.

Schwab DB, Moczek AP (2014) \*†. Resource allocation during ontogeny is influenced by genetic, developmental, and ecological factors in the horned beetle *Onthophagus taurus*. **Proceedings of the Royal Society of London, Series B**. 281: 1625.

Laland K, Tobias U, Feldman M, Sterelny K, Müller G, Moczek AP, Jablonka E, Odling-Smee J. (2014) \*†. Does evolutionary theory need a rethink? **Nature** 514: 161-164.

- 2015-

Beckers OM, Anderson W<sup>U</sup>, Moczek AP (2015) \*†. A combination of developmental plasticity, parental effects, and genetic differentiation mediates divergences in life history traits between dung beetle populations. **Evolution & Development** 17: 148–159.

Macagno ALM, Moczek AP (2015) \*†. Appendage-patterning genes regulate male and female copulatory structures in horned beetles. **Evolution & Development** 17: 148–159.

Macagno ALM, Beckers M, Moczek AP (2015) \*†. Differentiation of early ovarian development and the evolution of fecundity in rapidly diverging exotic beetle populations. **Journal of Experimental Zoology Part A**. 323: 679-688.

- 2016-

Ledon-Rettig CC, Moczek AP (2016)\*†. The transcriptomic basis of tissue- and nutrition-dependent sexual dimorphism in the beetle *Onthophagus taurus*. **Ecology and Evolution** 12:1601-1613.

Snell-Rood EC, Burger M<sup>U</sup>, Hutton Q<sup>U</sup>, Moczek AP (2016)\*†. Effects of parental care on the accumulation and release of cryptic genetic variation: review of mechanisms and a case study of dung beetles. **Evolutionary Ecology** 30: 251–265.

Macagno ALM, Moczek AP, Pizzo A (2016)\*†. Concerted differentiation of nesting depth and digging appendages among tunneling dung beetle populations and species. **American Naturalist** 187: E143-151.

Silva DP, Vilela B, Buzatto BA, Moczek AP, Hortal J (2016)\*†. Conservatism and diversification of niche breath: contextualized niche shift upon rapid and repeated invasion by the dung beetle *Onthophagus taurus*. **Biolog. Invasions** 18: 3137-3148.

- Kijimoto T, Moczek AP (2016)\*†. Hedgehog signaling enables nutrition-responsive inhibition of an alternative morph in a polyphenic beetle. **Proceedings of the National Academy of Sciences** 13: 5982-5987.
- Busey HA<sup>U</sup>, Zattara EE, Moczek AP (2016) \*†. Conservation, innovation, and bias: embryonic segment boundaries position posterior, but not anterior, head horns in adult beetles. **Journal of Experimental Zoology B: Molecular and Developmental Evolution** 326: 271-279.
- Zattara, E, Busey HA<sup>U</sup>, Linz D, Tomoyasu Y, Moczek AP (2016)\*†. Neofunctionalization of embryonic head patterning genes facilitates the positioning of novel traits on the dorsal head of adult beetles. **Proceedings of the Royal Society of London B** 283: 20160824.
- Schwab DB, Riggs HE, Newton ILG, Moczek AP (2016)\*†. Developmental and ecological benefits of the maternally transmitted microbiota in a dung beetle. **American Naturalist** 188: 679-692.
- Schwab DB, Moczek AP (2016)\*†. Nutrient stress during ontogeny alters patterns of resource allocation in two species of horned beetles. **Journal of Experimental Zoology Part A: Ecological Genetics and Physiology** 325: 481-490.
- McKenna DD, Scully ED, Pauchet Y...Moczek AP (+65 co-autors) (2016)\*†. Genome of the Asian longhorned beetle (*Anoplophora glabripennis*), a globally significant invasive species, reveals key functional and evolutionary innovations at the beetle-plant interface. **Genome Biology** 17:227.
- 2017-
- Ledon-Rettig CC, Zattara EE, Moczek AP (2017)\*†. Asymmetric interactions between *doublesex* and sex- and tissue-specific target genes mediate sexual dimorphism in beetles. **Nature Communications** 8:14593.
- Pespeni MH, Ladner JT, Moczek AP (2017)\*†. Signals of selection in conditionally expressed genes in the diversification of three horned beetles species. **Journal of Evolutionary Biology** 30: 1644-1657.
- Beckers O, Kijimoto T, Moczek AP (2017)\*†. The transcription factor *doublesex* alters aggressiveness as a function of social context and sex in *Onthophagus taurus*. **Animal Behavior** 132: 261-269.
- Schwab DB, Casasa A, Moczek AP (2017)\*†. Evidence for developmental niche construction in dung beetles: effects on growth, scaling, and reproductive success. **Ecology Letters** doi: 10.1111/ele.12830.
- Zattara EE, Macagno ALM, Busey H, Moczek AP (2017)\*†. Development of functional ectopic compound eyes in scarabaeid beetles by knockdown of *orthodenticle*. **Proceedings of the National Academy of Sciences**, 114: 12021-12026.

- 2018-

- Parzer H, Polly D, Moczek AP (2018)\*†. The evolution of size and shape: insights from the genitalia of dung beetles. **Development, Genes and Evolution** 228: 83-93.
- Casasa S, Moczek AP (2018)\*†. The role of ancestral phenotypic plasticity in evolutionary diversification: population density effects in the horned beetle *Onthophagus taurus*. **Animal Behaviour** 137: 53-61.
- Macagno ALM, Zattara EE, Ezeakudo O, Moczek AP, Ledon-Rettig CC (2018)\*†. Adaptive maternal behavioral plasticity and developmental programming mitigate the transgenerational effects of temperature in dung beetles. **Oikos**: 10.1111/oik.05215.
- Ledon-Rettig CC, Moczek AP, Ragsdale EJ (2018)\*†. *Diplogastrellus* nematodes are sexually transmitted mutualists that alter the bacterial and fungal communities of their beetle host. **Proceedings of the National Academy of Sciences** 115: 10696-10701.
- Parker E, Dury G, Moczek AP (2018)\*†. Transgenerational developmental effects of species-specific, maternally transmitted microbiota in *Onthophagus* dung beetles\*†. **Ecological Entomology** 10.1111/een.12703.
- Casasa S, Moczek AP (2018)\*†. Insulin signaling's role in mediating tissue-specific nutritional plasticity and robustness in the horn-polyphenic beetle *Onthophagus taurus*. **Proceedings of the Royal Society of London B**, 285: 20181631.
- Peppler KA, Thompson N, Danish J, Moczek AP, Han S (2018)\*†. Indoor positioning technology and enhanced engagement in early elementary systems thinking and science learning. **Proceedings of the International Society of the Learning Sciences** 2018: 1077-1080.
- Peppler KA, Thompson N, Danish J, Moczek AP (2018)\*†. In the hive: designing for emergence when teaching complex systems in early childhood. **Proceedings of the International Society of the Learning Sciences** 2018: 584-591.
- Peppler KA, Thompson N, Danish J, Moczek AP, Corrigan S (2018)\*†. Comparing first- and third-person perspectives in early elementary learning of honeybee systems. **Proceedings of the International Society of the Learning Sciences** 2018: 512-519.

- 2019-

- Linz D, Hu Y, Moczek AP (2019)\*†. The origins of novelty from within the confines of homology: the developmental evolution of the digging tibia of dung beetles. **Proceedings of the Royal Society B**. rspb.2018.2427.
- Newsom KD <sup>U</sup>, Moczek AP, Schwab DB (2019)\*†. Serotonin signaling differentially affects morph-specific behavior in two rapidly diverging populations of the horn polyphenic beetle, *Onthophagus taurus*. **Behavioural Ecology**  
doi:10.1093/beheco/arz192
- Hu Y, Linz D, Moczek AP (2019)\*†. Beetle horns evolved from wing serial homologs. **Science** 366 1004-1007.

- 2020-

Crabtree JR <sup>U</sup>, Macagno ALM, Moczek AP, Rohner PT, Hu Y (2020)\*<sup>†</sup>. Notch signaling patterns head horn shape in the bull-headed dung beetle *Onthophagus taurus*. **Development Genes and Evolution** 230: 213–225.

Dury G, Moczek AP, Schwab DB (2020)\*<sup>†</sup>. Maternal and larval niche construction interact to shape development, survival, and population divergence in the dung beetle, *Onthophagus taurus*. **Evolution & Development** 22: 358–369.

Linz D, Moczek AP\*<sup>†</sup>(2020). Integrating evolutionarily novel horns within the deeply conserved insect head. **BMC Biology** 18: 41.

Casasa S, Zattara EE, Moczek AP (2020)\*<sup>†</sup>. Nutrition-responsive gene expression and the developmental evolution of polyphenic horn growth. **Nature Ecology & Evolution** 4: 970–978.

Parker E, Moczek AP, Newton I (2020) \*<sup>†</sup>. (My microbiome) would walk 10,000 miles: Maintenance and turnover of microbial communities in introduced dung beetles. **Microbial Ecology** 80: 435-446.

Rohner PT, Moczek AP\*<sup>†</sup> (2020). Rapid differentiation of plasticity in life history and morphology during invasive range expansion and concurrent local adaptation in the horned beetle *Onthophagus taurus*. **Evolution** 10.1111/evo.14045.

Rohner P, Macagno ALM, Moczek AP\*<sup>†</sup> (2020). Evolution and plasticity of morph-specific integration in the bull-headed dung beetle *Onthophagus taurus*. **Ecology & Evolution** 10: 10558–10570.

Peppler KA, Thompson N, Danish J, Moczek AP\*<sup>†</sup>, Corrigan S (2020). Comparing first- and third-person perspectives in early elementary learning of honeybee systems. **Instructional Science** 48: 291–312.

Parker E, Moczek AP\*<sup>†</sup> 2020. *Don't stand so close to me*: microbiota-facilitated enemy release dynamics in introduced *Onthophagus taurus* dung beetles. **Ecology & Evolution** 10.1002/ece3.6836.

Schwab DB, Newsom KD <sup>U</sup>, Moczek AP\*<sup>†</sup> (2020). Serotonin signaling suppresses the nutrition-responsive induction of an alternate male morph in horn polyphenic beetles. **Journal of Experimental Zoology Part A: Ecological Genetics and Physiology** 333: 660–669.

Mahmoudzadeh NH, Fitt AJ, SchwabDB, Martenis WE, Nease LM, Owings CG, Brinkley GJ, Li H, Karty JA, Sudarshan S, Hardy RW, Moczek AP\*<sup>†</sup>, Picard CJ, Tennessen JM, \*<sup>†</sup> (2020). The oncometabolite L-2-hydroxyglutarate is a common product of Dipteran larval development. **Insect Biochemistry & Molecular Biology** 127: 103493.

- 2021-

- Pespeni M, Moczek AP\*<sup>†</sup> (2021). Signals of selection beyond bottlenecks between exotic populations of the bull-headed beetle *Onthophagus taurus*. **Evolution & Development**, *in press*.
- Hu Y, Moczek AP\*<sup>†</sup> (2021). Wing serial homologs and the diversification of insect outgrowths: insights from the pupae of scarab beetles. **Proceedings of the Royal Society B** 288: 20202828.
- Macagno ALM, Edgerton TJ<sup>U</sup>, Moczek AP\*<sup>†</sup> (2021). Incipient hybrid inferiority between recently introduced, diverging dung beetle populations. **Biological Journal of the Linnean Society** 132: 931–944.
- Parker ES, Moczek AP\*<sup>†</sup>, Macagno ALM (2021). Reciprocal microbiome transplants differentially rescue fitness in two syntopic dung beetle sister species (Scarabaeidae: *Onthophagus*). **Ecological Entomology** 10.1111/een.13031.
- Rohner PT, Linz DM, Moczek AP\*<sup>†</sup>(2021). *Doublesex* mediates context-dependent exaggeration of size and shape: implications for intralocus conflict. **Proceedings of the Royal Society London Series B** 10.1098/rspb.2021.0241.
- Rohner PT, Moczek AP\*<sup>†</sup>(2021). Evolutionary and plastic variation in larval growth and digestion reveal the complex underpinnings of size and age at maturation in dung beetles. **Ecology & Evolution** 10.1002/ece3.8192.

- 2022-

- Lamouret T, Hanna L, Mirth CK, Moczek AP, Nijhout HF, Abouheif E (2022) \*<sup>†</sup>. Confirming an old truth: final adult size in holometabolous insects is set by the end of larval development. **Journal of Experimental Zoology Part B: Molecular and Developmental Evolution** doi.org/10.1002/jez.b.23165.
- Rohner PT, Hu Y, Moczek AP (2022)\*<sup>†</sup> Developmental bias in the evolution and plasticity of beetle horn shape. **Proceedings of the Royal Society of London Series B** doi.org/10.1098/rspb.2022.1441.
- Zhang JL, Chen SJ, Liu XY, Moczek AP (2022)\*<sup>†</sup>, Xu HJ. The transcription factor *Zfh1* acts as a wing-morph switch in planthoppers. **Nature Communications** 13, 5670.
- Macagno ALM, Moczek AP (2022)\*<sup>†</sup>. Between-partner concordance of vertically transmitted gut microbiota diminishes reproductive output in the dung beetle *Onthophagus taurus*. **Physiological Entomology** doi.org/10.1111/phen.12398.

- 2023-

Rohner PT, Moczek AP (2023)\*<sup>†</sup>. Allometric plasticity and the evolution of environment-by-environment (E×E) interactions during a rapid range expansion of a dung beetle. **Evolution** 77: 682-689.

Nadolski EM, Moczek AP (2023)\*<sup>†</sup>. Promises and limits of an agency perspective in evolutionary developmental biology. **Evolution & Development** 6: 371-392.

Rohner PT, Casasa S, Moczek AP (2023)\*<sup>†</sup>. Assessing the evolutionary lability of insulin signaling in the regulation of nutritional plasticity across traits and species of horned dung beetles. **Journal of Evolutionary Biology**, *in press*.

Rohner PT, Moczek AP (2023)\*<sup>†</sup>. Vertically inherited microbiota and environment-modifying behaviors indirectly shape the exaggeration of secondary sexual traits in the gazelle dung beetle. **Ecology & Evolution** 10.1002/ece3.10666.

- 2024-

Rohner PT, Hu Y, Moczek AP (2024)\*<sup>†</sup>. Utilizing geometric morphometrics to investigate gene function during organ growth: insights through the study of beetle horn formation. **Evolution & Development** doi.org/10.1111/ede.12464.

Davidson PL, Moczek AP (2024)\*<sup>†</sup>. Genome evolution underlies nutrition-responsive regulatory development in horned dung beetles. **PLOS Biology** doi.org/10.1371/journal.pgen.1011165

Burdine LW<sup>U</sup>, Moczek AP, Rohner PT (2024)\*<sup>†</sup>. Sexually transmitted mutualist nematodes promote host growth across dung beetle species. **Ecology & Evolution** doi.org/10.1002/ece3.11089 .

Rohner PT, Moczek AP (2024)\*<sup>†</sup> Vertically inherited microbiota and environment modifying behaviors conceal genetic variation in dung beetle life history. **Proceedings of the Royal Society** doi.org/10.1098/rspb.2024.0122.

Hu Y, Crabtree J<sup>U</sup>, Macagno AML, Moczek AP (2024)\*<sup>†</sup> . Histone deacetylases regulate organ-specific growth in a horned beetle. **EvoDevo** 15:4.

Sestric K, Moczek AP (2024)\*<sup>†</sup>. Eye development influences horn size but not patterning in horned beetles. **Evolution & Development** 10.1111/ede.12479.

- 2025-

Moczek AP, Milks KJ, Brown Cloud F, Andrews L (2025)\*<sup>†</sup>. Investigating “humanity”: reconstructing human evolution using skulls, maps, tools, and the history of science. **The American Biology Teacher** 10.1525/abt.2025.87.2.103.

Jones JA, Newton IG, Moczek AP (2025)\*<sup>†</sup>. Microbiome composition and turnover in the face of complex life cycles and bottlenecks: insights through the study of dung beetles. **Applied and Environmental Microbiology** 91, 1.

Mitchell L <sup>U</sup>, Moczek AP, Nadolski EM (2025)\*<sup>†</sup>. A conserved somatic sex determination cascade instructs trait-specific sexual dimorphism in horned dung beetles. **Evolution & Development** 27:e70004.

Nadolski EM, Manley IG <sup>U</sup>, Gill S <sup>U</sup>, Moczek AP (2025)\*<sup>†</sup>. Divergent Hox cluster collinearity in horned beetles reveals adult head patterning function of *labial*. **Developmental Biology**, 526, 70-81.

Jones JA, Moczek AP, Newton I (2025)\*<sup>†</sup>. Metagenomes and metagenome-assembled genomes from *Onthophagus taurus*. **Microbiology Resource Announcements**, doi.org/10.1128/mra.00457-25.

Jones JA, Moczek AP, Newton I (2025)\*<sup>†</sup>. The dung beetle microbiome complements host metabolism and nutrition. **mSystems**, 01172-25.

- 2026-

Nadolski EM, Choi Y, Jones J, Moczek AP, Davidson P. Chromosome-level sex-specific genome assemblies of *Onthophagus binodis* provide insight into scarab sex chromosomes. **Genome Biology & Evolution** doi.org/10.1093/gbe/evag023.

Milks KJ, Brown Cloud F, and Moczek AP. Biodiversity in the Anthropocene: Leveraging guided inquiry into island biogeography to engineer plans for environmental resilience. **The Science Teacher**, *in press*.

Pedagogy &  
Curriculum  
Development

**(ii) MANUSCRIPTS SUBMITTED, IN REVIEW OR IN REVISION**

Davidson P, Manley I <sup>U</sup>, Moczek AP. Modularity of gene regulatory networks enables rapid diversification of an evolutionary novelty. **PLoS Genetics**, *in review*

Martínez LE, Macagno ALM, Moczek AP, Zattara EE. Divergent genomic paths to rapid adaptation in parallel invasions of the bull-headed dung beetle, *Onthophagus taurus*. **Molecular Ecology**, *in review*

Liao M, Chen X, Zhao D, Yuan D, Huang D, Yan Z, Ni J, Ma Q, Pan Y, Hu Y, Moczek AP, Zhang W, Ren C, Li S. Rewiring the DSX-E93 axis underlies recurrent female-specific wing regression in insects. **Nature Ecology & Evolution**, *in revision*

Jones JA, Newton I, Moczek AP. Microbiome-mediated immunity: limited support from the gazelle dung beetle. **Ecological Entomology**, *in revision*

Moczek AP. Navigating the death and post-mortem of a department. **The Department Chair**, *in revision*.

Academic  
Leadership

### (iii) REVIEWS

Moczek AP (2005)\*†. The evolution and development of novel traits, or how beetles got their horns. **BioScience** 11: 935-951. (featured on the journal cover)

Moczek AP (2006)\*†. Integrating micro- and macroevolution of development through the study of horned beetles. **Heredity** 97: 168-178.

Moczek AP, Andrews J, Kijimoto T, Yerushalmi Y, Rose D (2007)\*†. Emerging model systems in evo-devo: horned beetles and the origins of diversity. **Evolution & Development** 9: 323-328.

Moczek AP (2009)\*†. The origin and diversification of complex traits through micro- and macro-evolution of development: Insights from horned beetles. **Current Topics in Developmental Biology (CTDB)** 86: pp 135-162.

Moczek AP (2010)\*†. Phenotypic plasticity and diversity in insects. **Philosophical Transactions of the Royal Society London, Series B**. 365: 593-603.

Valena S, Moczek AP<sup>1</sup> (2012)\*†. Epigenetic mechanisms underlying developmental plasticity in horned beetles. In: *The Epigenetics of Emerging and Nonmodel Organisms*. **Genetics Research International**. 2012: 576303.

Kijimoto T, Pespeni M, Beckers O, Moczek AP<sup>1</sup> (2012)\*†. Beetle horns and horned beetles: emerging models in developmental evolution and ecology. **WIREs Interdisciplinary Reviews in Developmental Biology**: 10.1002/wdev.81 .

Moczek AP, Kijimoto T (2014)\*†. Development and evolution of insect polyphenisms: novel insights through the study of sex determination mechanisms. **Current Opinion in Insect Science** 1: 52-58.

Moczek AP (2015)\*†. Re-evaluating the environment in developmental evolution **Frontiers in Ecology and Evolution** 3: 7.

Moczek AP (2015)\*†. Developmental plasticity and evolution - *quo vadis?* **Heredity** 115, 302-305.

Moczek AP, Sears, KE, Stollewerk A, Wittkopp PJ, Diggle P, Dworkin I, Ledon-Rettig C, Matus DQ, Roth S, Abouheif E, Brown FD, Chiu C, Cohen CS, De Tomaso AW, Gilbert SF, Hall B, Love A, Lyons DC, Sanger T, Smith J, Specht C, Vallejo-Marin M, Extavour CG (2015)\*†. The significance and scope of evolutionary developmental biology: a vision for the 21st century. **Evolution & Development** 17: 198-219.

Laland KN, Uller T, Feldman M, Sterelny K, Müller GB, Moczek AP, Jablonka E, Odling-Smee J (2015)\*†. *Darwin Review*: The extended evolutionary synthesis: its structure, assumptions, and predictions. **Proceedings of the Royal Society of London, Series B**. 282: 20151019.

Casasa S, Schwab DB, Moczek AP (2017)\*†. Developmental regulation and evolution of scaling: novel insights through the study of *Onthophagus* beetles. **Current Opinion in Insect Science** 19: 52–60.

- Uller T, Moczek AP, Watson R, Brakefield P, Laland K (2018)\*<sup>†</sup>. Developmental bias and evolution: a regulatory network perspective. **Genetics** 209: 949-966.
- Schwab DB, Casasa S, Moczek AP (2019) \*<sup>†</sup>. On the reciprocally causal and constructive nature of developmental plasticity and robustness. **Frontiers in Genetics** 10.3389.
- Casasa AS, Moczek AP (2019)\*<sup>†</sup>. Scaling relationships in the evolution of, and via developmental plasticity. **Integrative & Comparative Biology** 59: 1346–1355.
- Hu Y, Linz DM, Parker ES, Schwab DB, Casasa S, Macagno ALM, Moczek AP (2020)\*<sup>†</sup>. Developmental bias in horned dung beetles and its contributions to innovation, adaptation, and resilience. **Evolution & Development** 10.1111/ede.12310
- Sultan SE, Moczek AP, Walsh D (2022)\*<sup>†</sup>. Bridging the Explanatory Gaps: What can we learn from a biological agency perspective? **BioEssays** 44:2100185.
- Rohner PT, Jones JA, Moczek AP (2024)\*<sup>†</sup>. Plasticity, symbionts, and niche construction interact in shaping dung beetle development and evolution. **Journal of Experimental Biology**, doi.org/10.1242/jeb.245976
- Davidson PL\*, Nadolski EM\*, Moczek AP (2024)\*<sup>†</sup>. Gene regulatory networks underlying the development and evolution of plasticity in horned beetles. **Current Opinion in Insect Science**, doi.org/10.1016/j.cois.2023.101114 \*co-first authors

#### (iv) BOOK CHAPTERS

- Moczek AP (2009)\*<sup>†</sup>. Developmental plasticity and the origins of diversity: a case study on horned beetles. In: *Insects and phenotypic plasticity: mechanisms and consequences*. Ed. by: TN Ananthakrishnan & D Whitman. Science Publishers, Inc. Plymouth,UK, pp 81-134.
- Moczek AP (2009)\*<sup>†</sup>. On the origins of novelty and diversity in development and evolution: a case study on beetle horns. In: *Cold Spring Harbor Annual Symposium Volume 74, Evolution: The Molecular Landscape*. Cold Spring Harbor Lab. Press. 74: 289-296
- Moczek AP (2011)\*<sup>†</sup>. Evolution and development: *Onthophagus* beetles and the evolutionary developmental genetics of innovation, allometry, and plasticity. In: *Dung Beetle Ecology and Evolution*, edited by Leigh W. Simmons & James Ridsdill-Smith; Wiley-Blackwell, pp. 126-151.
- Stansbury M, Moczek AP (2013)\*<sup>†</sup>. The evolvability of arthropods. In: *Arthropod Biology and Evolution: Molecules, Development, Morphology*; edited by A. Minelli, G Boxshall and G Fusco. Springer Verlag, Berlin, pp. 479-493.
- Snell-Rood EC, Moczek AP (2013)\*<sup>†</sup>. Horns and the role of development in the evolution of beetle contests. In: *Animal Contests*. Ed. by: ICW Hardy & M Briffa. Cambridge University Press, UK.

Moczek AP, Kijimoto T, Snell-Rood EC, Rocha G, Pespeni M, Kafadar K (2014)\* †. Evolutionary and ecological genomics of plasticity: novel approaches and first insights from the study of horned beetles. In: *Ecological Genomics, Advances in Experimental Medicine and Biology*; edited by C. Landry and N. Aubin-Horth. Springer Verlag, Berlin.

Moczek AP (2014)\* †. Toward a theory of development through a theory of developmental evolution. In: *Toward a Theory of Development*; edited by A. Minelli & T. Pradeu, Oxford University Press; pp. 218-226.

Moczek AP (2019)\* †. The shape of things to come: *evo devo* perspectives on causes and consequences in evolution. In: *Evolutionary Causation: Biological and Philosophical Reflections*; edited by T. Uller and K. Laland. Vienna Series in Theoretical Biology, MIT Press.

Philosophy  
of Science

Moczek AP (2019)\* †. An evolutionary biology for the 21st century. In: Perspectives on Evolutionary and Developmental Biology. Essays for Alessandro Minelli, edited by Giuseppe Fusco. Padova University Press.

Schwab DB, Moczek AP (2021)\* †. *Evo devo* and niche construction. In: *Evolutionary Developmental Biology - A Reference Guide*, edited by Laura Nuño de la Rosa and Gerd B. Müller. Springer, doi.org/10.1007/978-3-319-32979-6.

Moczek AP (2022)\* †. When the end modifies its means: the origins of novelty and the evolution of innovation. **Biological Journal of the Linnean Society**, doi.org/10.1093/biolinnean/blac061.

Philosophy  
of Science

Zattara E, Moczek AP (2023)\* †. The role of Hox genes in the origins and diversification of beetle horns. In: *Hox modules in Evolution and Development*, edited by D. Ferrier. CRC Press / Taylor & Francis.

Nadolski EM, Davidson PL, Jone JA, Westwick RR, Moczek AP (2025)\* † Insects in their environments: eco-devo and evo-devo perspectives. In: **Comprehensive Molecular Insect Science**, edited by B Sinclair, Elsevier, *in press*

#### (vi) COMMENTARIES, PERSPECTIVES, OBITUARIES, & EDITORIALS

Moczek AP, Snell-Rood EC (2008)\* †. The basis of bee-ing different: the role of gene silencing in plasticity. **Evolution & Development** 10: 511-513.

Moczek AP (2011). The origins of novelty. **Nature** 473: 34-35

Moczek AP, Henry JJ, Byrne M (2019). Rudolf A. Raff. **Evolution & Development** DOI: 10.1111/ede.12290

Moczek AP (2020)\* †. Biases in the study of developmental bias. **Evolution & Development**, 10.1111/ede.12325.

Linz DM, Hu Y, Moczek AP (2020)\* †. From descent with modification to the origins of novelty. **Zoology**, 10.1016/j.zool.2020.125836

Moczek AP, Sultan SE (2023)\*†. Agency in living systems. **Evolution & Development** 6: 331-334.

Moczek AP (2025)\*†. Taking flight! **Developmental Biology** 10.1016/j.ydbio.2024.09.004 (SI on *Publications that transformed biology*)

**(vii) BOOK REVIEWS**

Moczek AP 2002. - BOOK REVIEW- How complexity pervades biology. A review of *Signs of Life: How Complexity Pervades Biology*, by Ricard Sole and Brian Goodwin, Basic Books Publishers, **Complexity** 7: 16-17

Moczek AP 2006. - BOOK REVIEW- The origins of diversity: A review of *Evolution of the Insects*, by David Grimaldi and Michael S. Engel. **Evolution & Development** 8: 111-112.

Moczek AP 2009. - BOOK REVIEW - Endless forms most strange: A review of *The superorganism: the beauty, elegance, and strangeness of insect societies*. **Evolution & Development** 11: 754-756.

Moczek AP 2010. - BOOK REVIEW - *In the Light of Evolution, vol. 1: Adaptation and Complex Design*, edited by John C. Avise and Francisco Ayala. **National Center for Science Education** 30: 40-42.

Moczek AP, Valena S 2012. - BOOK REVIEW - *Epigenetics: Linking Genotype and Phenotype in Development and Evolution*, edited by B Hallgrímsson and BK Hall. University of California Press. **Quarterly Review of Biology**.

Moczek AP 2012. - BOOK REVIEW - Endless brains most beautiful: A review of *Arthropod Brains: Evolution, Functional Elegance and Historical Significance*, by Nicholas Strausfeld. Harvard University Press. **Evolution & Development**.

Moczek AP and Ledón Rettig C 2015. - BOOK REVIEW - *Advances in Evolutionary Developmental Biology*, edited by J. Todd Streebman; Wiley-Blackwell. **Quarterly Review of Biology** 90: 340-341.

Sofía Casasa, Moczek AP 2016. - BOOK REVIEW - *Ecological Developmental Biology: the Environmental Regulation of Development, Health, and Evolution*, 2nd edition, by Scott F. Gilbert and David Epel, Sinauer. **Quarterly Review of Biology** 91: 513 – 514

Linz D, Moczek AP 2017. - BOOK REVIEW - Homology is dead! Long live homology! A review of *Deep Homology?* **Evolution & Development** 19: 277–279.

Moczek AP 2020. - BOOK REVIEW - *Invertebrate Embryology and Reproduction*, by Fatwa El-Bawab. **Quarterly Review of Biology** 95: 344.

Moczek AP 2021. - BOOK REVIEW - *The Biology of Reproduction*; by Giuseppe Fusco and Alessandro Minelli. **Quarterly Review of Biology** 96: 149 – 150

Moczek AP 2023. – BOOK REVIEW - *The Ministry for the Future: A Novel*; by Kim Stanley Robinson. **The American Biology Teacher** 85, 234.

Moczek AP 2025. - BOOK REVIEW - Biological Organization; by Leonardo Bich.  
**Quarterly Review of Biology** 100: 234-235.

Moczek AP 2026. - BOOK REVIEW - Organismic Animal Biology: an evolutionary approach; by Ariel D. Chipman. **Quarterly Review of Biology** *in press*.

(viii) BOOKS, EDITED BOOKS & EDITED SPECIAL JOURNAL ISSUES

**Evolution & Development** 2020, Volume 22, Issue 1-2, Pages: 1-217  
Special Issue dedicated to *Developmental Bias in Evolution*; solicited, organized the review of, and coordinated publication of 18 manuscript contributions

**Evolution & Development** 2023, Volume 26, Issue 6, Pages: 329-469  
Special Issue dedicated to *Agency in Living Systems*; 9 manuscript contributions; guest edited jointly with Sonia Sultan, Wesleyan University

(ix) INDEPENDENT PUBLICATIONS FROM LAB MEMBERS

Gilbert SF, Bosch TCG, Ledón-Rettig CC. 2015. Ecological Developmental Evolutionary Biology: Eco-Evo-Devo as a New Worldview. **Nature Reviews Genetics**. 16: 611-622

Marcellini S (...) Zattara EE, Casasa S, *et al.* 2016. Evolutionary Developmental Biology (Evo-Devo) Research in Latin America. **Journal of Experimental Zoology B: Molecular and Developmental Evolution** 328: 5-40.

Rohner PT 2021. A role for sex determination genes in life history evolution? Doublesex mediates sexual size dimorphism in the gazelle dung beetle. **Journal of Evolutionary Biology** 34: 1326-1332.

## GRANTS

### Primary Grants: *Completed*

(1) Funding Agency: National Science Foundation (NSF)

Title: *Development and evolution of beetle horns*

PI: A.P. Moczek

Program: Evolution of Developmental Mechanisms

Total amount: **\$395,000** (direct and indirect); Duration: 01/01/05-12/31/07

(2) Funding Agency: METACyt Initiative Indiana University, MEDB Node

Title: *Evolution and Development of Novelty and Diversity in Horned Beetles*

PI: A.P. Moczek; CoPI: Justen Andrews

Total amount: **\$50,000**; Duration: 01/01/06-12/31/06

(3) Funding Agency: METACyt Initiative Indiana University, MEDB Node

Title: *Evolution and Development of Novelty and Diversity in Horned Beetles*

PI: A.P. Moczek; CoPI: Justen Andrews

Total amount: **\$55,000**; Duration: 01/01/07-12/31/07

(4) Funding Agency: METACyt Initiative Indiana University, MEDB Node

Title: *Developmental Plasticity and Evolution*

PI: A.P. Moczek

Total amount: **\$50,000**; Duration: 09/01/07-08/31/09

(5) Funding Agency: Eli Lilly and Company Foundation

Title: *Holland Summer Enrichment Program: Second Year Experience*

PI: A.P. Moczek; most of the effort involved in securing this grant came from Eva Allen and Jeremy Bennet

Total amount: **\$115,500** (direct only); Duration: 06/01/08-06/31/09

(6) Funding Agency: National Institutes of Health (NIH)

Title: *National Research Postdoctoral Service Award: Modularity of gene expression and tradeoffs in the evolution of plasticity.*

PI: A.P. Moczek (on behalf of EC Snell-Rood, a postdoc in the Moczek-Lab)

Total amount: **\$138,000** (direct only); Duration: 01/01/08-12/31/10

(7) Funding Agency: US-Israel Binational Science Foundation (BSF)

Title: *Proteome Profiling of the Horned Beetle *Onthophagus taurus**

PI: A.P. Moczek, CoPI: Yoram Yerushalmi

Total amount: **\$120,000** (direct and indirect); Duration: 06/01/08-05/31/11

(8) Funding Agency: National Science Foundation (NSF)

Title: *Evolution, Development, and Diversification of Beetle Horns*

PI: A.P. Moczek; Program: Developmental Systems

Total amount: **\$538,111** (direct and indirect); Duration: 01/01/08-06/30/12

- (9) Funding Agency: National Science Foundation (NSF)  
*Phenotypic integration during development and evolution of beetle horns*  
PI: A.P. Moczek; Program: Physiological and Structural Systems  
Total amount: **\$472,914** (direct and indirect); Duration: 07/01/08-12/31/13
- (10) Funding Agency: National Science Foundation (NSF)  
*The Jim Holland Summer Science Research Program*  
PI: Armin Moczek; Program: Developmental Systems  
Total amount: **\$17,381**; Duration: 01/01/13 - 12/31/13
- (11) Funding Agency: Society for Integrative and Comparative Biology  
*SICB 2012 Society-Wide Symposium: The Impacts of Developmental Plasticity on Evolutionary Innovation and Diversification*  
PI: Matthew Wund; CoPI: A.P. Moczek; Program: Developmental Systems;  
Total amount: **\$6,037**
- (12) Funding Agency: Indiana University Faculty Research Support Program  
*Developmental plasticity studied through metabolomic profiling*  
PI: Michael Wade; CoPI: A.P. Moczek, Milos Novotny  
Total amount: **\$60,000** (direct only); Duration: 01/01/12-12/31/13
- (13) Funding Agency: National Science Foundation (NSF)  
*National Science Foundation Postdoctoral Fellowship in Biology: Mechanisms of diversification: integrating comparative genomics, transcriptomics, and functional developmental approaches in horned beetles*  
PI: A.P. Moczek (on behalf of M. Pespeni, a postdoc in the Moczek-Lab)  
Total amount: **\$189,000** (direct only); Duration: 10/01/11-09/30/14
- (14) Funding Agency: Ostrom Foundation, Indiana University  
*Development, application, and dissemination of teaching resources to K12 educators in South-Central Indiana*  
PI: Armin Moczek; Total amount: **\$7,500** 01/01/14-12/31/15
- (15) Funding Agency: National Science Foundation (NSF)  
*Integrating evolution and development of novelty and diversity through the study of horned beetles*  
PI: A.P. Moczek; Program: Developmental Systems  
Total amount: **\$617,000** (direct and indirect); Duration: 01/01/12-12/31/16
- (16) Funding Agency: National Science Foundation (NSF)  
*BioSim: Developing a Wearable Toolkit for Teaching Complex Science Through Embodied Play*  
PI: K. Peppler; CoPI: A.P. Moczek; Program: Cyberlearning: Transforming Education  
Total amount: **\$ 999,989** (direct and indirect); Duration: 01/01/14-12/31/18

(17) Funding Agency: Ostrom Foundation, Indiana University  
*Institutionalizing K-12 Science Outreach in South-Central Indiana and beyond: Resource development, teacher training, and mentoring the next generation of principal investigators*; PI: Armin Moczek; Total amount: **\$ 8,000** 01/01/16-12/31/17

(18) Funding Agency: Johnson Center for Innovation and Translational Research  
*Indoor Positioning System*; PI: Kylie Peppler; CoPI: Armin Moczek  
Total amount **\$24,882**. Duration: 09/01/16-08/30/17

(19) Funding Agency: National Science Foundation (NSF)  
Dissertation Research (on behalf of D. Schwab): *Investigating the role of the maternally-inherited microbiota in dung beetle development and niche construction*  
PI: Armin Moczek; Program: Population and Community Ecology  
Total amount: **\$18,720**; Duration: 06/01/17-05/31/19

(20) Funding Agency: John Templeton Foundation  
*Putting the Extended Evolutionary Synthesis to the Test*  
PI: K. Laland, University of St. Andrews, Scotland; IU TeamLeader: A.P. Moczek  
Total amount **\$8,718,903** (direct and indirect);  
Indiana University Component: **\$ 1,125,178**; Duration: 09/01/16-05/30/19

(21) Funding Agency: National Science Foundation (NSF)  
*Origin, diversification, and integration of sex- and nutrition-dependent development in horned beetles.*  
PI: Armin Moczek; Program: Developmental Systems  
Total amount: **\$750,071** (direct and indirect); Duration: 09/15/13 - 08/30/19

(22) Funding Agency: John Templeton Foundation  
*Agency in living systems: How organisms actively generate adaptation, resilience and innovation at multiple levels of organization*  
PI: Armin Moczek; CoPIs: S. Sultan (Wesleyan), J. Jernvall (Helsinki), D. Gordon (Stanford), D. Walsh (Toronto)  
Total amount **\$2,123,563** (direct and indirect);  
Indiana University Subcontract: **\$ 1,286,651**; Duration: 09/01/19-04/15/23

(23) Environmental Resilience Institute, Indiana University  
*Biodiversity in the Anthropocene: Teacher training, resource development, and mentoring the next generation of principal investigators*  
PI: Armin Moczek; CoPIs: Karen Jepson-Innes Director, *WonderLab Museum*; Dr. Kirstin Milks, *Bloomington High School South*  
Total amount **\$9,950** (direct and indirect);  
Duration: 09/01/21-08/31/23

**(24) Funding Agency:** National Science Foundation (NSF)  
*GEMS: Genomics and eco-evolution of multi-scale symbioses;*  
*Subaward in support of the James Holland Summer Programs*  
PI: Armin Moczek; Total amount: **\$40,000** (direct and indirect);  
Duration: 01/01/23 - 12/31/23

**(25) Funding Agency:** National Science Foundation (NSF)  
*Origin and diversification of evolutionary novelties: insights through*  
*the study of beetle horns, insect wings, and bilaterian heads*  
PI: Armin Moczek; Program: Developmental Systems  
Total amount: **\$861,412** (direct and indirect);  
Duration: 06/01/19 - 05/31/25

**Primary Grants: *Current***

**(26) Funding Agency: National Science Foundation (NSF)**  
*Cis-regulation and conditional chromatin remodeling in development and*  
*evolution of nutrition- and sex-specific ontogenies in horned beetles*  
PI: Armin Moczek; Program: Developmental Systems  
Total amount: **\$950,000** (direct and indirect);  
Duration: 09/01/23 - 08/31/27

**(27) Funding Agency:** National Science Foundation (NSF)  
*National Science Foundation Postdoctoral Fellowship in Biology (PRFB) to Rebecca*  
*Westwick; title: Multi-level integration of behavior and brain transcriptomic variation*  
*in a polyphenic insect with biparental care.*  
Total amount: **\$270,000** (direct only); Duration: 10/15/25-10/14/28

**(28) Funding Agency:** Sam Shine Foundation  
*Rare Plant Profiles;* PI: Armin Moczek in collaboration with Rich Hull and the IU  
Herbarium; Total amount: **\$20,000** (direct and indirect); Duration: 11/01/26 - 02/31/28

***Total external funding secured as PI or CoPI to date: \$17,121,931***

**Primary Grants: *Pending***

**(29) Funding Agency:** Raymond Foundation  
*The Biology Summer Institute;* PI: Armin Moczek in collaboration with IU Biology  
Outreach; Total amount: **\$29,568** (direct and indirect); Duration: 06/01/26 - 05/31/29

***Additional Grants prior to joining IU Biology in Fall 2004***

1999-02: National Science Foundation (NSF) Dissertation Improvement Grant  
IBN 9972567; \$10,000

2002-04: National Institutes of Health (NIH) Postdoctoral Excellence in Research and  
Teaching Grant, Center for Insect Science, University of Arizona (\$138,000)

## INVITED SYMPOSIA AND CONFERENCE TALKS

- 2004 ASN Young Investigator Award Symposium, American Society of Naturalists, Fort Collins, CA
- 2004 International Congress of Entomology (ICE), Brisbane, Australia Symposium on Insect Morphometrics
- 2005 European Society for Evolutionary Biology Bi-Annual Conference, Krakow, Poland. Symposium on Funcional Evo-Devo
- 2006 National Evolutionary Synthesis Center (NESCent) Catalysis Meeting, *Integrated studies of genetic networks: A new evolutionary synthesis.* Keys, FL
- 2006 International Darwin Day, Eastern Illinois University *-declined-*
- 2006 Symposium Conference on *Animal Behavior and Diversity*, Department of Ethology, Kyoto, Japan
- 2006 IGERT Symposium on the *Evolution of Novel Features*, Department of Biology, Bloomington, IN
- 2007 India Academy of Sciences Annual Meeting, Symposium title: *Phenotypic and Developmental Plasticity*; Trivandrum, Kerala, India, December 16-20 2007 *-declined-*
- 2008 Integrating Evolution, Development, and Genomics (IEDG) bi-annual meeting, UC Berkeley (invitation on behalf of the Graduate Students in Integrative Biology and Molecular and Cell Biology, UC Berkeley)
- 2008 PLENARY speaker, Canadian Society of Zoologists Annual Meeting on Comparative Morphology & Development; Symposium title: *Innovation in Development & Evolution*, Mount St. Vincent University Halifax, Nova Scotia, May 2008
- 2008 Ontario Ecology and Ethology Colloquium; *Geometric Morphometrics: Applications in Ecology and Evolution*. Guelph, April 2008. (due to scheduling conflicts this presentation was co-authored and delivered by graduate student Harald Parzer)
- 2008 International Congress of Entomology, (ICE); Double Invitation:  
**(i)** Reproduction and Development section; Symposium on *Evolution and Development of Integrated Phenotypes*.  
**(ii)** Physiology and Biochemistry section, Symposium on *Juvenile Hormone in Adult Physiology and Behavior: The Roads Less Traveled*. Durban, South Africa, July 2008 (due to scheduling conflicts both presentation were co-authored and delivered by postdoctoral associate Emilie Snell-Rood)
- 2008 European Society for Evolutionary Developmental Biology, Symposium on *From polyphenism to complex life cycles*, Ghent, Belgium, July 2008.
- 2008 Santa Fe Institute Workshop; workshop title: *Principles of repurposing*. Santa Fe, July 2008. *-declined-*

INVITED SYMPOSIA AND CONFERENCE TALKS - *continued* -

- 2008 National Academy of Sciences & Centre National de la Recherche Scientifique; France-U.S. Kavli Frontiers of Science Symposium, Roscoff, France, November 20-22, 2008. *-declined-*
- 2009 74th Cold Spring Harbor Laboratory Symposium on Quantitative Biology - *Evolution: The Molecular Landscape*. Cold Spring Harbor, New York, May-June 2009
- 2009 Symposium on *Advances in Evolution since Darwin*; University of Guelph, Ontario, Canada, May 20-21 2009. *-declined-*
- 2009 Royal Entomological Society 2009, Sheffield, UK, July 15-15 2009 *-declined-*
- 2009 European Society for Evolutionary Biology (ESEB); Symposium on *The origins of novelty in development and evolution*, Turin, Italy, August 24-29 2009; (due to scheduling conflicts this presentation was co-authored and delivered by postdoctoral associate Emilie Snell-Rood)
- 2010 European Society of Evolutionary Developmental Biology (EED); Triple Invitation: Symposia on **(i)** *Segmentation and Head Patterning in Arthropods*; **(ii)** *The Molecular and Developmental Mechanisms Underlying Phenotypic Diversification*; **(iii)** *Adaptation in Real Time* July 6-9; Paris, France.
- 2010 International Union for the Study of Social Insects (IUSI); Keynote speaker for Symposium on *Evolution of morphological novelty in social insects*, August 8-14; Copenhagen, Denmark.
- 2011 International Congress of Systematics and Evolutionary Biology; Symposium on *Tempo and mode of change: Reconstructing morphological evolution in the light of the current debate on evolutionary process*; Feb. 21-27; Berlin Germany.
- 2011 Society for Molecular Biology and Evolution (SMBE); Symposium on *Molecular mechanisms governing morphological divergence of arthropod appendages: insights from case studies*. Kyoto, Japan *- declined -*
- 2011 Entomological Society of America; Symposium titled: *Epigenetics, Phenotypic Plasticity, and Insect Evolution: First Insights from an Emerging Field*, Reno, NV, November 13-16, 2011.
- 2011 National Academy of Sciences Kavli Frontiers of Science Symposium; jointly organized with the Chinese Academy of Sciences, Shenzhen, China, Nov. 5-7, *- declined -*
- 2012 Society for Integrative and Comparative Biology (SICB), society-wide symposium on *The Impacts of Developmental Plasticity on Evolutionary Innovation and Diversification*, January 2012, Charleston, SC.
- 2012 PLENARY speaker; European Society of Evolutionary Developmental Biology (EED); July 2012 Lisbon, Portugal.

INVITED SYMPOSIA AND CONFERENCE TALKS - *continued* -

- 2012 International Conference on Evo-Devo, Weizmann Institute of Science, April 1-3, 2012, Rehovot, Tel Aviv, Israel; invited by the graduate students and postdocs
- 2012 International Congress of Entomology (ICE), Double Invitation: Symposia titled **(i)** *Mechanisms of regulation of growth rate and size and shape in insects* and **(ii)** *Evolution and Development of Integrated Phenotypes* to be held August 19-24, 2012; Daegu, Korea; - *declined* -
- 2012 Society for Systematic Biology (SSB) Symposium on *Origins of Evolutionary Innovations*; joint meeting of the American and Canadian Societies for the Study of Evolution; July 6-10, Ottawa, Canada. - *decl.*-
- 2012 PLENARY speaker; Lund University, Symposium on *Phenotypic Plasticity – Variation, Alteration and Speciation*. November 2012, Lund, Sweden, - *declined* -
- 2012 EcoGenes/European Commission project symposium on *Global Change in the Mediterranean*, November 15-16, 2012, Sevilla, Spain,
- 2013 Society for Integrative and Comparative Biology (SICB), Symposium on *Ecological Epigenetics*, January 2013, San Francisco, CA.
- 2013 KEY NOTE SPEAKER; International Darwin Day, Eastern Illinois University, Charleston, IL.; February 2013
- 2013 KEY NOTE SPEAKER; Dutch Entomological Society 25<sup>th</sup> Annual Meeting, Leiden University, The Netherlands; December 2013 - *decl.*-
- 2014 PLENARY speaker; Volkswagen Symposium on *Size and Shape - Integration of Morphometrics, Mathematical Modeling, Developmental Biology and Evolution*, Schloss Herrenhausen, Hannover, Germany, April 2-4, 2014.
- 2014 PLENARY speaker; 7th Internal Symposium on Molecular Insects Science, Amsterdam, The Netherlands; July 12-16, 2014
- 2014 PLENARY speaker; Midwest Ecology and Evolution Conference (MEEC), hosted by the University of Dayton (UD)
- 2014 KEY NOTE SPEAKER, 3<sup>rd</sup> International Congress of Invertebrate Morphology; Berlin, Germany, August 3-7
- 2014 PLENARY SPEAKER, Deutschen Zoologische Gesellschaft; Göttingen, Germany; September 10-13
- 2014 International Symposium on RNAi and Genome Editing Research March 14 - 16, 2014; University of Tokushima, Japan - *decl.*-
- 2014 International Conference on *Frontiers in Niche Construction: From Theory to Application in the Biological and Social sciences*, Santa Fe Institute; Santa Fe NM; November 2014, - *decl.*-

INVITED SYMPOSIA AND CONFERENCE TALKS - *continued* -

- 2014 PLENARY SPEAKER, Symposium on *Molecular Frontiers in Ecology and Evolution*; Max Planck Institute for Developmental Biology, Tuebingen, Germany. May 2014.
- 2015 University of Arizona Center for Insect Science *Hexapodium*, Sonoran Desert Museum, March 2<sup>nd</sup> 2015
- 2014 University of Minnesota Developmental Biology Center (DBC) Symposium; *The role of environment in development*; October 2014.
- 2015 9<sup>th</sup> Annual Arthropod Genomics Consortium Symposium, Kansas State University, Manhattan, Kansas, June 2015
- 2015 57<sup>th</sup> Phylogenetische Symposium, Nov. 2015, Rostock, Germany - *decl.*
- 2015 Entomological Society of America, Entomology 2015; Symposium: *Developmental Synergy between Genome Regulation and Environmental Stimuli: From Phenotypic Plasticity to Disease Response* November 15-18, Minneapolis, MN
- 2015 KEY NOTE speaker; URPP Symposium *Evolution in Action*; invited by the graduate students of the Department of Biology, October 21 2015, Zurich, Switzerland
- 2016 Animal Behavior Conference, Indiana University Bloomington; Symposium: *Changing paradigms*; Spring 2016
- 2016 PLENARY speaker; European Society of Evolutionary Developmental Biology (EED); July 2016 Uppsala, Sweden.
- 2016 PLENARY speaker; Annual Meeting British Ecological Society, Liverpool, December 11-14, *declined*
- 2017 PLENARY speaker; PanAmerican Society for Evolutionary Developmental Biology, Calgary, Canada, August 2017, *declined*
- 2017 KEY NOTE speaker; International Congress on Invertebrate Morphology, Moscow State University, Moscow, Russia, August 18-23
- 2017 KEY NOTE speaker; Genetics Society of Australasia, July 3-5 2017 Dunedin, New Zealand.; *declined*
- 2017 Gordon Research Conference in Ecological and Evolutionary Genomics, Binneford, Maine, July 16-21 2017; *declined*
- 2017 PLENARY speaker; International Joint Conference on Neural Networks Workshop on *Developmental Plasticity and Evolutionary Robotics*, Anchorage, Alaska, May 14–19, *declined*
- 2017 PLENARY speaker , 7th Congress of the Italian Society for Evolutionary Biology (SIBE), Rome, August 28-31, *declined*
- 2018 XI European Congress of Entomology in Napoli (Italy) (2-6 July 2018), Symposium on *Evo-devo perspectives on insect morphology*; *declined*

INVITED SYMPOSIA AND CONFERENCE TALKS - *continued* -

- 2019 International Society for the History Philosophy and Social Studies of Biology (ISHPSSB); symposium on *The concept of the environment in biology: Historical, philosophical and sociological perspectives*; Oslo, Norway, 7–12 July 2019; *declined*.
- 2019 KEY NOTE: *Evolution Evolving*; international conference, Cambridge UK, April 1-5, 2019.
- 2019 KEY NOTE: Midwestern Ecology & Evolution Conference (MEEC); Terre Haute IN
- 2021 *Evolution ‘On Purpose’: Teleonomy in Living Systems*; Linnean Society Conference, 28/29 June 2021, *virtual*
- 2021 International Conference of Insect Science (ICIS2021), Baoding, China 2-6 July 202, and 5th International Conference of Insect Genomics (ICIG) and, 8th International Symposium on Insect Physiology, Biochemistry and Molecular Biology (IPBMB): joint Symposium on *Insect Development and Evolution*.
- 2021 European Society for Evolutionary Developmental Biology, Webinar, Nov 30th; *On the origins of novelty and diversity in development and evolution* <https://www.evodevonapoli.eu/webinars/>
- 2022 European Society for Evolutionary Biology (ESEB); Symposium on *Tug of war between the sexes: The transcriptomic architecture of sex-linked traits*, Prague, Czech Republic, August 2022; (postponed from 2021 due to the COVID-19 pandemic)
- 2023 Journal of Experimental Biology Symposium on *Developmental Plasticity: From Mechanisms to Evolutionary Processes*, March 11-15, 2023, Tenuta il Cicalino, Massa Marittima, Italy
- 2023 Entomological Society of America Annual Conference; Symposium entitled *Beetles getting it dung: current research in Scarabaeinae and other dung-associated beetles*; National Harbor Nov. 1-5 2023, *declined*
- 2023 Symposium on *Non-Traditional Arthropod Model Systems*, Bowdoin College, August 1-4 2023, *declined*
- 2024 Keynote: *Darwin-Day Symposium*, Department of Biological Sciences, University of Delaware, February 13 2024
- 2024 Society of Developmental Biology (SDB) symposium on *Evolutionary Conservation, Divergence and Regulatory Networks*; July 14-17, 2024, Atlanta, GA
- 2024 European Society for Evolutionary Developmental Biology Biannual Meeting, Symposium on *General principles of evo devo*, Helsinki, Finland, June 23-29

- 2024 Summit Meeting; *Agency, Directionality, and Function Consortium*, University of Minnesota, Minneapolis, July 8-10; *declined*
- 2025 Alfred M. Boyce Honorary Lecturer in Entomology, Department of Entomology, University of California, Riverside, June 11, 2025

#### WORKSHOPS

- 2010 Association of Science and Technology Centers, RAP-workshop ("Roundtables Advancing the Profession"); Invited presentation on *How to develop a successful collaboration between museums and their local universities* (co-presented with Karen Jepson-Innes, Associate Director *WonderLab*-Museum; Muncie, IN; April 17, 2010.
- 2012 National Center for Evolutionary Synthesis. Two-day workshop on the future of the National Evolutionary Synthesis Center titled: *Addressing Fundamental Challenges in Evolutionary Science*. Invited Participant. May 24-25, 2012; Durham, NC.
- 2013 Co-organizer and invited participant of NSF funded workshop on *The future of EvoDevo*; held at the National Evolutionary Synthesis Center, Durham NC, December 11-13.
- 2014 Invited participant; workshop on *The causal factors of robustness and plasticity in living systems*. Cognitive Sciences Program, Indiana University, Bloomington, December 5, 2014.
- 2016 Minnesota Center for Philosophy of Science, workshop on *Integrating genetic and generic explanatory approaches to development, evolutionary novelty, and evolvability*. Outing Lodge, Stillwater MN, April 21-24, 2016
- 2017 KEY NOTE speaker and workshop participant; Workshop on *Phenotypic plasticity and cryptic genetic variation*, University of Münster, Germany; May 2017; *declined*
- 2017 Co-organizer and invited speaker; Workshop on *Cause and Process in Evolution*, Konrad Lorenz Institute, Vienna, Austria, May 2017
- 2018 KEY NOTE speaker and workshop participant; organized by the European Molecular Biology Organization (EMBO) on *Size and shape*; September 4-8 2018, Bangalore, India
- 2018 Invited speaker; Workshop on *Developmental Biases in Evolution*, Santa Fe Institute, Santa Fe, New Mexico, November 2018
- 2019 National Science Foundation Summit on *The Rules of Life* June 24-28, 2019, *Mathematical Biology Institute* Ohio State University, Columbus OH; plenary speaker and panelist

- 2019 National Association of Biology Teachers (NABT) Professional Development Conference, Chicago Nov. 14-17 2019; Joint presentation with Dr. Kistin Milks, BHSS, titled *Investigating “humanity:” A holistic, hands-on guided inquiry approach to reconstructing human evolution.*
- 2020 XXXIII Congresso Brasileiro de Zoologia (33rd Brazilian Congress of Zoology), Águas de Lindóia, March 2020, Symposium on *The future of Zoology*; *declined*
- 2020 Invitation to deliver a 5-day workshop on *Current Topics in Ecological and Evolutionary Developmental Biology*, issued by the graduate students in the Department of Genetics and Evolutionary Biology, University of São Paulo, Brazil; *declined*
- 2022 Invited participant and speaker, workshop on *Evolution and Core Processes in Gene Expression*, hosted at the Stowers Institute for Medical Research, July 21st-24th, 2022; *declined*
- 2022 Invited participant, National Science Foundation Research Coordination Network Workshop June 12-15, Mountain Research Station, Denver CO; *declined*
- 2022 Invited participant, International workshop on *Agency in living systems: challenges and opportunities*; Konrad Lorenz Institute Vienna June 2022
- 2022 Invited participant and presenter, *National Center for Science Education*, Teacher Training Workshop on the teaching of Human Evolution, Fort Collins CO, July 2022
- 2022 National Association of Biology Teachers (NABT) Professional Development Conference, Indianapolis Nov. 10-13 2022; Joint presentation with Dr. Kistin Milks, BHSS, titled *Investigating “humanity:” A holistic, hands-on guided inquiry approach to reconstructing human evolution.*
- 2023 Invited participant, National Science Foundation Research Coordination Network Workshop June 12-16; Archbold Biological Station FL, *declined*
- 2023 National Association of Biology Teachers (NABT) Professional Development Conference, Baltimore Nov. 2-5 2023; Joint presentation with Dr. Kistin Milks, BHSS, titled *Biodiversity in the Anthropocene: A Guided Inquiry Into Climate Resilience Through Island Biogeography*
- 2025 Max Planck Institute for Evolutionary Biology, Plön, Germany. International Workshop on *Concepts in Evolutionary Biology*. February 10-13.

## OTHER MEETING TALKS

- 1999 Society for the Study of Evolution, Madison, WI.
- 1999 Conference on the Evo-Devo Insect Color Patterns. Madison, WI.
- 2000 International Society for Behavioral Ecology, Zürich.
- 2000 Society for the Study of Evolution, Bloomington, IN.
- 2000 Society for Integrative Biology, Atlanta, GA.
- 2001 Society for the Study of Evolution, Knoxville, TN.
- 2002 IGERT Symposium on the Microevolution of Development, Bloomington, IN.
- 2003 Society for the Study of Evolution, Chico, CA.
- 2004 Society for the Study of Evolution, Fort Collins, CA.
- 2006 Society for the Study of Evolution, Stony Brook, NY.

## INVITED SEMINARS

- 2000 University of Würzburg, Department of Tropical Ecology and Sociobiology, Germany
- 2000 University of Leiden, Institute of Evolutionary and Ecological Sciences, Holland
- 2001 University of North Carolina, Department of Biology, Greensboro, NC
- 2001 University of Georgia, Department of Entomology, Athens, GA
- 2001 Western Carolina University, Department of Biology, NC
- 2002 University of Arizona, Department of Entomology, Tucson, AZ
- 2002 University of Arkansas, Dept. of Biological Sciences, Fayetteville, AS
- 2002 University of Arizona, Department of Ecology and Evolutionary Biology, Tucson,
- 2003 University of Puerto Rico, Department of Biology, San Juan, PR
- 2003 University of New Mexico, Department of Biology, Albuquerque, NM
- 2004 Indiana University, Center for Integrative Studies in Animal Behavior, CISAB, IN
- 2004 Indiana University, Department of Biology, MCDB Research Seminar Series, IN
- 2004 ASN Young Investigator Award Symposium, American Society of Naturalists, Fort Collins, CA
- 2004 Indiana University, Department of Biology, Bloomington, IN
- 2004 Rice University, Department of Biology, Houston, TX
- 2004 Lehigh University, Department of Biology, Bethlehem, PA
- 2004 Swarthmore College, Department of Biology, Swarthmore, PA
- 2004 Center for Integrative Studies in Animal Behavior, CISAB,
- 2004 Indiana University, IN
- 2004 MCDB Research Seminar Series, Department of Biology, Indiana University, IN
- 2004 University, IN
- 2005 Jim Holland Lecture Series for High School Minority Students, Indiana University
- 2005 Biocomplexity Seminar Series, Institute for Biocomplexity, Indiana University, IN
- 2005 University of Toronto, Canada; Department of Ecology and Evolutionary Biology (Graduate Student invitation)
- 2006 University of North Carolina, Chapel Hill; Department of Biology
- 2006 University of Colorado, Boulder, Department of Biology
- 2006 Purdue University, Department of Biological Sciences
- 2006 Jim Holland Lecture Series for High School Minority Students, Indiana University
- 2007 University of Oklahoma, Norman; Department of Ecology and Evolutionary Biology (Graduate Student invitation)
- 2007 University of California, Irvine, Department of Ecology and Evolutionary Biology, Irvine, CA (*postponed*)
- 2007 Jim Holland Lecture Series for High School Minority Students, Indiana University
- 2007 Washington University, Department of Biology, St. Louis, MO

INVITED SEMINARS - *continued* -

- 2007 Stanford University, Hopkins Marine Station, Pacific Grove, CA  
(Graduate Student invitation)
- 2008 Iowa State University, Department of Ecology, Evolution, and  
Organismal Biology, Ames, IA
- 2008 DePauw University, Department of Biology, Greencastle, IN
- 2008 University of Maryland, College Park, joint invitation by (i) Department  
of Entomology & (ii) Department of Molecular and Cell Biology;  
College Park, MD (*declined*)
- 2008 Jim Holland Lecture Series for High School Minority Students,  
Indiana University
- 2008 Biocomplexity Seminar Series, Institute for Biocomplexity, Indiana  
University, IN
- 2008 Julius Maximilians University (LMU) Munich, Department of Biology.  
Munich, Germany
- 2008 University of Basel, Department of Biology, Switzerland (*declined*)
- 2008 Mountain Lake Biological Station, University of Virginia,  
Charlottesville, VA
- 2008 Indiana State University, Department of Biology, Terre Haute, IN
- 2009 University of California, St. Barbara, Department of Ecology, Evolution  
and Marine Biology, St. Barbara, CA (*declined*)
- 2009 University of California, Davis, Department of Evolution and Ecology,  
Davis, CA (*declined*)
- 2009 University of Illinois at Urbana-Champaign, Program in Ecology,  
Evolution and Conservation Biology, Urbana, IL (*postponed*)
- 2010 University of Chicago, Lecture Series on Evolutionary Morphology,  
Chicago, IL. (*declined*)
- 2010 University of Illinois at Urbana-Champaign, Department of Entomology,  
Biology, Urbana, IL
- 2010 University of Dayton, Department of Biology, Dayton, OH.
- 2010 Indiana State University, Darwin Keynote Speaker, Department of  
Biology, Terre Haute, IN.
- 2010 University of Nebraska-Lincoln, School of Biological Sciences,  
Lincoln, NE (Graduate Student invitation)
- 2010 University of Connecticut, Department of Ecology and Evolutionary  
Biology, Storrs, CT (Graduate Student invitation)
- 2010 University of Florida, Department of Biology, Gainesville, FL
- 2010 Duke University, Department of Biology, Durham, NC
- 2010 National Evolutionary Synthesis Center (NESCent), Durham, NC
- 2011 University of California, Davis, Department of Evolution and Ecology,  
Davis, CA
- 2011 Duke University, EvoDevo Seminar Series, Department of Biology,  
Durham, NC
- 2011 University of North Carolina, Greensboro, Department of Biology,  
Greensboro, NC

INVITED SEMINARS - *continued* -

- 2011 North Carolina State University, *joint invitation*: (i) Department of Biology and (ii) Department of Entomology, Raleigh, NC.
- 2012 Yale University, Department of Ecology and Evolutionary Biology, New Haven, CT. - *postponed* -
- 2012 Wayne State University, Department of Biological Sciences, Detroit, MI - *postponed* -
- 2012 Wesleyan University, Department of Biology, Middleton, CT.
- 2012 Brown University, Department of Ecology and Evolutionary Biology Providence, RI.
- 2012 Indiana University-Perdue University, Indianapolis, Department of Biology, Indianapolis, IN
- 2012 University of Chicago, Lecture Series on Evolutionary Morphology, Chicago, IL.
- 2012 Universität Regensburg, Department of Biology, sponsored by the Universitätsstiftung Regensburg
- 2012 University of Arizona, Tucson, invited by the *Postdoctoral Excellence in Research and Teaching Program (PERT)*
- 2013 Max Planck Institute for Developmental Biology, Tübingen, Germany
- 2014 *Joan Marsden Lecture in Organismal Biology*, McGill University, Department of Biology, Montreal, Canada
- 2014 University of Oklahoma, Norman; Department of Ecology and Evolutionary Biology (invited by the graduate student council; double seminar)
- 2014 University of Minnesota, Department of Ecology, Evolution, and Behavior, St. Paul, MN
- 2015 Syracuse University, Department of Biology, Syracuse NY
- 2015 University of Cincinnati, Department of Biology, Cincinnati, OH
- 2015 Oberlin College, Department of Biology, Oberlin, OH
- 2015 University of Tennessee, Department of Ecology & Evolutionary Biology, Knoxville, TN
- 2016 Department of Biology, University of Western Ontario, London, Canada
- 2016 University of Illinois at Urbana-Champaign, Department of Entomology, Biology, Urbana, IL
- 2016 Indiana University-Perdue University, Indianapolis, Department of Biology, Indianapolis, IN
- 2016 Butler University, Department of Biology, Indianapolis, IN
- 2017 University of Guelph, Department of Biology, Guelph, Canada
- 2017 Earlham College, Department of Biology, Richmond Indiana
- 2017 Department of History and Philosophy of Science, Indiana University Bloomington, USA
- 2017 Auburn University, Department of Biology, Auburn, Alabama
- 2018 Australian Natl. University, Research School of Biology, Canberra ACT
- 2018 University of Queensland, School of Biological Sciences, Brisbane QLD

INVITED SEMINARS - *continued* -

- 2018 University of New South Wales, School of Biological, Earth, and Environmental Sciences, Sydney NSW, Australia
- 2018 Commonwealth Scientific and Industrial Research Organization Seminar Series, April 2018, Canberra ACT, Australia
- 2018 Questacon Science and Technology Centre Canberra, May 2018  
Canberra ACT, Australia
- 2018 Indiana University School of Optometry Seminar Series, Nov. 2, 2018
- 2019 University of Colorado, Boulder, Department of Evolution, Ecology, and Organismal Biology, Boulder CO
- 2020 University of California San Diego, Department of Evolution, Behavior, and Ecology, March 12 2020 (*2 seminars delivered virtually*)
- 2020 Marine Biology Laboratory (MBL) Embryology Course Woods Hole, Mass., organized by the University of Chicago (*cancelled due to COVID -19*)
- 2020 *MEEGene*: Museum seminar in Evolutionary and Environmental Genomics, Alexander Koenig-Leibniz-Institut für Biodiversität der Tiere Bonn, Germany; Sept. 22 2020 (*delivered virtually*)
- 2021 Marine Biology Laboratory (MBL) Embryology Course Woods Hole, Mass., organized by the University of Chicago, June 1<sup>st</sup> 2021 (*virtually*)
- 2022 Department of Microbiology and Immunology, University of British Columbia, on *Host microbiome biology & DEIJ initiatives*
- 2022 Department of Biological Sciences, University of Utah, Salt Lake City, double invitation, jointly sponsored by SACNAS (Advancing Chicanos/Hispanics & Native Americans in Science, and DASL (Diversity & Science Lecture Series)
- 2022 Department of Natural Sciences, Baruch College, New York, double invitation (research seminar & DEIJ initiatives)
- 2022 Department of Biology, Murray State University, Murray, Kentucky
- 2023 Department of Biological Sciences, Utah State University, April 4 2023, *virtual visit*
- 2023 Department of Systems Biology, Harvard Medical School, Boston, April 2023
- 2024 Center for Evolutionary & Organismal Biology, Zhejiang University, Hangzhou, China, *postponed to 2025*
- 2024 Institute of Systems Biology, Southwest University, Chongqing, China, *postponed to 2025*
- 2024 Department of Biological Sciences, Farleigh Dickinson University, Madison New Jersey, *declined*
- 2025 Department of Biology, Oklahoma State University, Stillwater, OK
- 2025 Technische Universitaet Munich, Germany, Department of Biology

## CONFERENCE, SYMPOSIUM, AND WORKSHOP ORGANIZER

- 2008 Co-organized by David Pfennig (UNC Chapel Hill) and Armin Moczek (IU Bloomington); Symposium sponsored by the Animal Behavior Society for the 2008 International Meeting, Snowbird, UT. Symposium title: Pathways to novelty and diversity: the causes and consequences of polyphenism
- 2009-2011 Co-organized by David Pfennig (UNC Chapel Hill) and Armin Moczek (IU Bloomington); National Evolutionary Synthesis Center (NESCent) Working-group (15 participants, 4 meetings over 2 years) on: Evolution and development of polyphenism: pathways to innovation and diversification
- 2009 Organized by Armin Moczek and Emilie Snell-Rood; Symposium sponsored by the 12th Congress of the European Society for Evolutionary Biology (ESEB); Symposium title: The origins of novelty in development and evolution, Turin, Italy, August 24-29 2009
- 2012 Co-organized by Armin Moczek and Matthew Wund (College of New Jersey), Symposium sponsored by the Society for Integrative and Comparative Biology (SICB) and selected as the society-wide symposium for the January 2012 meeting in Charleston, SC; Symposium title: The Impacts of Developmental Plasticity on Evolutionary Innovation and Diversification.
- 2013 Co-organized by Cris Ledon-Rettig, Armin Moczek, and others; Society for Integrative and Comparative Biology (SICB), Symposium on Ecological Epigenetics, January 2013, San Francisco, CA.
- 2019 Co-organizer of *Evolution Evolving*; international conference, Cambridge UK, Churchill College April 1-5, 2019.
- 2022 Co-organized by Sonia Sultan and Armin Moczek, conference on *Agency in living systems: challenges and opportunities*; international conference at the Konrad Lorenz Institute Vienna June 2022
- 2023 Co-organizer and invited presenter, *BIPOC Faculty Retention Symposium*, College of Arts & Sciences IU Bloomington, May 10 2023; in collaboration with DeWitt Kilgore (IU English), Minjeong Kim (IU Art & Design), and Steve Tait (IU Chemistry)
- 2024 Co-organizer and Co-leader, full day workshop titled *Teaching Tomorrow's Ecology: Fostering Student Innovation in Biodiversity Solutions*, in collaboration with IU Environmental Resilience Institute, September 21, 2014

## TEACHING, TRAINING, AND CURRICULUM DEVELOPMENT

### STUDENTS AND POSTDOCS TRAINED

#### Past Graduate Students (and where are they now):

Bronwyn Heather Bleakley	Ph.D (EEB), 2007 (Assoc. Prof & Chair, Biology, Stonehill College)
Bethany Wasik (Kesselring)	Ph.D (DCMB), 2010 (Editor, Cornell U. Press)
Matthew Stansbury	Ph.D (EEB), 2011 (Associate Professor Mesa Colorado University)
Tami Cruickshank	Ph.D (EEB), 2011 (co-advised by Mike Wade)
Sophie Valena	Ph.D (EEB; withdrew from program in '12)
Harald F. Parzer	Ph.D (EEB), 2013 (Associate Professor, Farleigh Dickinson University)
Guillaume Dury	Ph.D (EEB); transitioned to Wade/Lau labs in '18)
Daniel Schwab	Ph.D (EEB), 2018 (Science & Technology Policy Advisor, US Department of Energy)
Sofia Casasa	Ph.D (EEB), 2018 (Assistant Professor, Boston University)
Erik Parker	Ph.D (EEB), 2019 (Biostatistician, Dept. Epidemiology & Biostat., IU)
Kat Sestrick	Ph.D (EEB; transitioned to Polly lab in '23)
Kenzie Givens	M.S. (EEB), 2024
Joshua Jones	Ph.D (EEB), 2025

#### Current Graduate Students:

Erica Nadolski	Ph.D (GCDB)
Yonsoo Choi	Ph.D (EEB)
Caroline Assum	Ph.D (GCDB)
Laurel Eddins	Ph.D (EEB, starting Fall 2026)

#### Graduate Student Rotations:

Bethany Kesselring	Fall 2004
Nicole Crown	Spring 2005
Rhea Datta	Summer 2005
Matthew Stansbury	Fall 2006
Wenli Li	Spring 2007
Amy Cash	Fall 2007
LaDonna Jones	Spring 2008
Amy Dapper	Spring 2010
Mikus Abolins-Abols	Spring 2012
Erica Nadolski	Spring 2021

Service on Graduate Advisory Committees:

Current Graduate Advisory Committees:

Giohan Jayasinghe	Ph.D (EEB)
Wenting Han	Ph.D (EEB)
Dante Nesta	Ph.D (EEB)
Hal Terry	Ph.D (EEB)
Stephen Dreyer	Ph.D (EEB)
Allison Bormet	Ph.D (Geology)

Past Graduate Advisory Committees:

Atalanta Ritter	Ph.D (EEB)
Sierra Lopezalles	Ph.D (EEB)
Eleni Katsougia	Ph.D (EEB)
Sonia Messar	Ph.D (EEB)
Nicholas Gabry	Ph.D (Biology, Indiana State University)
Audrey Parish	Ph.D (EEB)
Delaney Miller	Ph.D (Micro)
Ariella Rink	Ph.D (Biology, U Cape Town, S-Africa)
Nicholas Levis	Ph.D (UNC Chapel Hill)
Spencer Hellert	Ph.D (Geology)
Joe Biddle	MS (EEB)
Mikus Abolins-Abols	Ph.D (EEB)
Amy Dapper	Ph.D (EEB)
Lauren Young	Ph.D (EEB)
Luke Hoekstra	Ph.D (EEB)
Brandon Cooper	Ph.D (EEB)
Helena Mendes Soares	Ph.D (EEB)
Amy Cash (IGERT Co-advisor)	Ph.D (MCDB)
Benjamin Kerr Blackman	Ph.D (EEB)
Stephan Goodwin	Ph.D (EEB)
Cameron Turner	Ph.D (EEB)
Lelena Avila	Ph.D (EEB)
Jamie Kostyun	Ph.D (EEB)
Melissa Horton	Ph.D (Micro)
Xulong Liang	Ph.D (MCDB)
Bronwyn Heather Bleakley	Ph.D (EEB)
James David VanDyken	Ph.D (EEB)
Timothy James Greives	Ph.D (EEB)
Jennifer Raff	Ph.D (ANTR & MCDB)
Kate Charles	Ph.D (EEB)
Amy McElhinney	Ph.D (MCDB)
Douglas Drury	Ph.D (MCDB)
Christine Bergeon	Ph.D (EEB)

Current Postdoctoral Researchers:

Rebecca Westwick	August 2023 - present
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Past Postdoctoral Researchers (and where are they now):

Emilie Snell-Rood	October 2007 - December 2010 (Professor U Minnesota)
Franck Simonnet	October 2009 - May 2011 (Senior Researcher, Univ. Paris-Sud, Orsay, France)
Melissa Pespeni	October 2011 - June 2014 (Associate Professor U Vermont)
Oliver Beckers	January 2012 - July 2014 (Associate Professor Murray State U)
Teiya Kijimoto	January 2006 - December 2014 (Associate Professor Eastern Caroline University)
Cristina Ledon-Rettig	September 2014 - December 2016 (Assistant Professor Indiana University)
Eduardo Zattara	October 2014 - December 2016 (Professor, Universitario Bariloche, Universidad Nacional del Comahue)
Barbara Vreede	August 2016 - July 2017 (Senior Research Software Engineer, eScience Center, The Netherlands)
Daniel Schwab	May 2018 – October 2019 (US Department of Energy, Science and Technology Policy Advisor, Office of International Science and Technology Cooperation and Trusted Research)
David Linz	August 2017 – January 2020 (Oak Ridge Institute for Science & Education Post-Doctoral fellow, Environmental Protection Agency)
Yonggang Hu	August 2017 – May 2021 (Professor, Chonqing University, China)
Anna Macagno	September 2012 – December 2022 (Biostatistician, Dept. Epidemiology & Biostat., IU)
Patrick Rohner	August 2018 – July 2023 (Assistant Professor, Dept. of Biology, UC San Diego)
Phil Davidson	August 2021 – June 2025 (Assistant Professor, Dept. of Biology, Mississippi State University)

## UNDERGRADUATE RESEARCH MENTORED

### Undergraduate Research and Creative Activity Partnership

Morgan Peters Spring 2005

### Undergraduate Research Experience for Introductory Biology Students

Richard Madewell Fall 2004 - Spring 2005

### L490 Undergraduate Research Experience for Introductory Biology Students

Andrew Shelby Spring 2005  
Richard Madewell Spring 2006  
Melanie O'Day Summer 2006  
John Tyler (JT) Means Spring 2007  
Ashley Troth Fall 2009 & Spring 2010  
Austin Dicken Spring/Summer 2010  
Melissa Burger Summer/Fall 2010  
Becky Rice Fall 2010  
Greg Specht Spring 2012  
Michael Andreas Spring 2012  
Keegan O'Conner Spring 2012  
Alexander Neufeld Spring 2012  
Jacob Weaver Spring 2013  
Melanie Stamper Summer 2013  
Hailey Riggs Spring 2015

### HHMI Capstone Undergraduate Research Experience

Andrew Shelby Spring 2005  
Richard Madewell Spring 2006  
John Tyler (JT) Means Spring 2007

### HHMI Undergraduate Summer Research Experience

Andrew Shelby Summer 2005

### Undergraduate Honors Research (Advisor)

Andrew Shelby Fall 2005  
Brittany Shepperd Spring-Fall 2006  
Ashley Troth Fall 2010-Spring 2011  
Isabel Manley Fall 2023 - present  
Eve Pieri Fall 2023 - present

Undergraduate Honors Research (Committee member)

Ian Gelarden	Spring 2014
Alexander Neufeld	Fall 2014
Zachary Rokop	Fall 2014

STARS/IFLE Undergraduate Research Mentorship

Hannah Busey	Fall 2014 - Spring 2018
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High School Senior Internship

Corinne Innes, Nov. 2007- May 2008, Bloomington High School South;

*Mentored research on the Behavioral Ecology of horned beetles*

Hannah Busey, Fall 2013 - Summer '14, Bloomington High School North;

*Mentored research on life history trait evolution in horned beetles.*

Emma DiLavore, Fall 2016 - Summer '17: Bloomington High School South;

*Mentored research on evo devo and behavioral ecology of horned beetles*

Levi Burdine, Fall 2018 - Summer '19: Bloomington High School South;

*Mentored research on evo devo of horned beetles*

OTHER TRAINING

Spring 2008: Rita Knox-Larsen (IU Education MS Student); Independent Study:

*Collaboration on the development of teaching modules for local Middle Schools focusing on Insect Biology and EvoDevo*

## CLASSROOM TEACHING

<u>Course:</u>	<u>Enrollment:</u>	<u>Semester:</u>	<u>Year:</u>
<i>-- pre-tenure with an expected teaching load (ETL) of 1 course / year--</i>			
Z620 Phenotypic Plasticity	10	Fall	2004
Z373 Entomology	24 (+11 waitlisted)	Fall	2005
Z620 Dev. Plasticity & Evolution	11	Spring	2006
<i>-- pre-tenure with an expected teaching load (ETL) of 1.5 courses / year--</i>			
Z373 Entomology	24 (+3 waitlisted)	Fall	2006
L433 Tropical Biology (Co-Instructor)	16	Spring	2007
Z620 Dev. Plasticity & Evolution	9	Spring	2007
Z373 Entomology	24 (+2 waitlisted)	Fall	2007
L433 Tropical Biology (Co-Instructor)	16	Spring	2008
Z620 Dev. Plasticity & Evolution	8	Spring	2008
Z373 Entomology	24 (+8 waitlisted)	Fall	2009
Z620 Dev. Plasticity & Evolution	5	Spring	2010
<i>-- post-tenure with an expected teaching load (ETL) of 1 course / year--</i>			
Z373 Entomology	24 (+12 waitlisted)	Fall	2011
Z373 Entomology	28 (+11 waitlisted)	Fall	2013
Z373 Entomology	28 (+7 waitlisted)	Fall	2014
Z373 Entomology	30 (+9 waitlisted)	Fall	2015
Z373 Entomology	28 (+5 waitlisted)	Fall	2019
Z373 Entomology	24 (+5 waitlisted)	Fall	2019
Z620 Entomology (for graduate students)	1	Fall	2019
Z373 Entomology	24 (+4 waitlisted)	Fall	2020
Z620 Entomology (for graduate students)	3	Fall	2020
Z373 Entomology	24 (+2 waitlisted)	Fall	2021
Z620 Entomology (for graduate students)	2	Fall	2021
Z373 Entomology	24 (+2 waitlisted)	Fall	2022
Z620 Entomology (for graduate students)	2	Fall	2022
Z373 Entomology	24 (+2 waitlisted)	Fall	2023
Z620 Entomology (for graduate students)	1	Fall	2023

## GUEST LECTURES

<u>Course:</u>	<u>Instructor:</u>	<u>Semester:</u>	<u>Year:</u>
Z620 Hormones & Animal Social Behavior	Ketterson	Fall	2005
L505 Evolution and Development	Raff	Fall	2005
L104 Biology of the Senses	Mojonnier	Spring	2006
ABEH 501 Integr. Study of Animal Behav.	Ketterson	Fall	2006
L104 Biology of the Senses	Mojonnier	Spring	2007
L104 Biology of the Senses	Mojonnier	Fall	2007
L104 Biology of the Senses	Mojonnier	Spring	2008
Z620 Evolution of Novelty	Raff	Fall	2009
L307 Biodiversity	Clay	Fall	2014
Z620 Evolution and Development	Ragsdale	Fall	2016
L311 Evolution (2)	Mojonnier	Spring	2019
A401 Animal Behavior	Smith	Spring	2019
L311 Evolution (2)	Mojonnier	Spring	2020
L311 Evolution (2)	Mojonnier	Spring	2021
A401 Animal Behavior	Smith	Spring	2021
L311 Evolution (2)	Mojonnier	Fall	2021
S318 Honors Evolution (2)	Ledon-Rettig	Spring	2022
ABEH 501 Integr. Study of Animal Behav.	Hurley	Fall	2022
L311 Evolution (2)	Mojonnier	Fall	2023
S318 Honors Evolution (2)	Ledon-Rettig	Spring	2023
L350 Biodiversity (2)	Mojonnier	Fall	2024
S318 Honors Evolution (2)	Ledon-Rettig	Spring	2024
ABEH 501 Integr. Study of Animal Behav.	Rosvall	Spring	2025
L350 Biodiversity	Mojonnier	Fall	2025

Graduate Guest Seminar at Australian Natl. University, Research School of Biology, Canberra ACT January – May 2018, titled: *The Extended Evolutionary Synthesis – Structure, Assumptions, Predictions*

## CURRICULUM DEVELOPMENT and related

### HIGH SCHOOL

- 2015 - present: Developed teaching module on *Human evolution* for the public High School curriculum; disseminated locally via teacher training workshops organized in collaboration with *Wonderlab Museum*, Bloomington and (since 2022) nation-wide via incorporation into the *National Center of Science Education (NCSE)* Next Generation Science Teaching Standards, teacher training workshops, and online resources
- 2021 - 2024: Developed teaching module on *Biodiversity in the Anthropocene* for the public High School curriculum; disseminated regionally via teacher training workshop through IUs *Environmental Resilience Institute* and (since 2023) nation-wide via workshop presentation at the annual meetings of the *American Association for Biology Teachers (NABT)*

### INDIANA UNIVERSITY

Designed professional development activities for members of the Moczek-lab and affiliated research teams (Newton, Ledon-Rettig, Ragsdale)

- 2019 Fall *Applying, interviewing, and getting the job you want in academia*
- 2021 Fall *AFRISNET: Exposing Students from Disadvantaged Backgrounds to Scientific Research*; in collaboration with Gabriel Gihana
- 2022 Spring *Sexual Harrassment in Academia*, in collaboration with IU Title IX office
- 2022 Fall *Grad student-initiated DEI initiatives at the University of Utah*; in collaboration with Univ of Utah student SACNAS chapter
- 2023 Spring *A primer of the reviewing manuscript review process*
- 2023 Spring *The grant review process at the National Science Foundation*
- 2023 Fall *Applying, interviewing, and getting the job you want in academia*
- 2024 Spring *The financial management of a research laboratory*
- 2024 Fall *Orientation to Psychological First Aid*, in collaboration with IU Emergency Management

## UNIVERSITY, COLLEGE, AND DEPARTMENTAL SERVICE

### UNIVERSITY AND COLLEGE SERVICE:

2012 - 2018	IU College Academic Fairness Committee
2013 - 2019	IU Diversity Recruitment Committee
2014 - present	IU College Science Outreach Faculty Advisory Committee
2015 - present	IU School of Education; Center for Research on Learning and Technology Advisory Board
2013 - present	College Graduate Academic Fairness Committee
2015	Chair of Search Committee for Office of Community and School Partnerships (OCSP) Director position; OVP for Diversity, Equity and Multicultural Affairs
2020 – present	IU Campus Sustainability Advisory Board, Transportation Working Group, Faculty Co-Chair
2020 – 2023	Member: IU Bloomington Campus Promotion Advisory Committee
2021 – 2023	Member: Diversity & Inclusion Advisory & Action Comm. (DIAAC)
2022 – 2024	Member: Indiana University W.T. Patten Foundation Committee
2023 – 2024	Walter Center Advisory Committee
2025 – present	College Commitments Project Team
2026	Member: Search Committee for the position of Assistant Dean of College Finance and Budgetary Affairs
2026	External Review Committee, Department of Biology, University of Oregon, Eugene OR
2026	Member: Search Committee for the position of Provost and Executive Vice Chancellor, IU Bloomington

### DEPARTMENTAL SERVICE:

2006	EEB Graduate Admissions Committee
2006 - 2007	EEB Faculty Search Committee
2006 - 2008	EEB Website Committee
2004 - 2011	IGERT Steering Committee
2007 - present	Indiana Molecular Biology Institute (IMBI) Executive Committee
2007 - present	Library Committee, IU Life Sciences Library
2008 - present	Co-Director and Faculty Representative for Jim Holland Summer Enrichment Program
2008 - present	Co-Director and Faculty Representative for Jim Holland Summer Science Research Program (SSRP)
2009 - 2013	Director, Graduate Program in Evolution, Ecology and Behavior
2010 - 2015	Genetics, Cellular and Molecular Sciences Training Grant Committee
2011	EEB Faculty Search committee
2012 - 2014	Tenure Committee, Andrew Zelhof
2014 - 2019	Tenure Committee Chair, Eric Ragsdale
2013 - 2014	EEB Faculty Search committee chair
2013 - 2016	Director, Masters of the Arts for Teachers in Biology (MAT) program

2015 - present	Co-Director and Faculty Representative for Jim Holland Research Initiative in STEM Education (RISE) Program
<i>- DEPARTMENTAL SERVICE continued-</i>	
2016 Spring	Interim Associate Chair for Teaching
2019 - present	Distinguished IU Biology Alumni selection committee
2019 - present	Departmental Graduate Awards selection committee
2019	Search Committee, Director of Biology Outreach
2019	EEB Graduate Admissions Committee
2020 - present	Co-Chair: Departmental Diversity, Equity and Inclusion Committee
2022 - present	Lecturer Promotion Committee Chair, Alyssa Anderson
2022 - present	Tenure Committee, Lesley Weaver
2023	Faculty of 100 Microbiome Search committee
2024 - present	Biology Outreach Steering Committee
2024 - present	Department Chair

#### PEER REVIEWS OF TEACHING

Soni Lacefield (2015)  
 Laura Hurley (2018)  
 Alyssa Anderson (2022)  
 Lesley Weaver (2023)  
 Nancy Magill (2023)  
 Troy Smith (2023)

## PROFESSIONAL SERVICE

### (A) SERVICE IN SUPPORT OF RECRUITMENT AND RETENTION

#### (1) Administrative and organizational service

**Program Director**, *James Holland Summer Enrichment Program (SEP, 2008-present); Summer Science Research Program (SSRP, 2008-present); Research Initiative in STEM Education (RISE, 2016- present): design and plan activities, recruit faculty, postdoctoral researchers and graduate students across College, secure funding, manage personnel, disseminate outcomes, write annual reports, report to College and other stakeholders, write NSF Broader Impact Sections for contributing faculty*

**Co-Chair**: Biology Committee on Departmental Community, Department of Biology, **2020-present**: *attend relevant meetings across College, network with initiatives across Bloomington campus, report to department members, help design community-building strategy for Department of Biology*

**Board of Directors**: AFRISNet (Africa STEM Network, [afrisnet.org](http://afrisnet.org)), **2018- present**  
*NonProfit organization focused on creating an international network of students, professors, and professionals to advance research and scholarship in science, technology, engineering, and mathematics in Africa*

**Member**: *Evolution & Development, Wiley Publishers Assessment Committee , 2020-present mission: develop, design, and implement assessment measures to determine and address biases occurring during recruitment and reviewing of journal submissions*

**Member**: DIAAC Committee, College of Arts & Sciences, Indiana University, **2021-2023**: *researched and developed action plans to (i) enhance hiring and retention of faculty and (ii) reevaluate recognition criteria in faculty tenure and promotion*

#### (2) Teaching and Mentoring

##### **Postdoctoral Researchers** (and where are they now?)

Melissa Pespeni	2011-2014 (Associate Professor Univ. of Vermont)
Cristina Ledon-Rettig	2014-2016 (Assistant Professor Indiana University)
Eduardo Zattara	2014-2016 (Professor, Universitario Bariloche,

##### **Graduate students**

Sofia Casasa	Ph.D, 2013-2018 (Assistant Professor, Boston University)
Joshua Jones	Ph.D, 2018-2025 (Postdoctoral Researcher, U. Minnesota)
Kenzie Givens	Ph.D, 2022-2025

##### **High School students**

- 2008 – present: Mentoring of 2 students each summer as part of the week-long *James Holland Summer Science Research Program (SSRP)*
- 2016 – present: Day-long workshop showcasing the field of *Evolutionary Developmental Biology* to a cohort of 10 students each summer as part of the *James Holland Research Initiative in STEM Education Program (RISE)*

*Teaching and Mentoring - continued*

**Special education students**

- 2014 – present: Design and dissemination of three teaching modules specifically targeted for (i) students with learning disabilities, (ii) student with multiple cognitive and physical disabilities, and (iii) autism-spectrum students

**(3) Dissemination of resources and lessons learned**

**Invited seminars focused on Science Outreach and recruitment of students from diverse demographics into STEM fields**

- 2014 University of Oklahoma, Norman; Department of Ecology and Evolutionary Biology
- 2016 Department of Biology, University of Western Ontario, London, Canada
- 2019 University of Colorado, Boulder, Department of Evolution, Ecology, and Organismal Biology, Boulder CO
- 2020 University of California San Diego, Department of Evolution, Behavior, and Ecology, March 12 2020
- 2022 University of British Columbia, School of Biomedical Engineering, February 2022
- 2022 University of Utah, School of Biological Sciences, February 2022, jointly hosted by SACNAS (Advancing Chicanos/Hispanics & Native Americans in Science, and DASL (Diversity and Science Lecture Series)
- 2022 Baruch College, Department of Natural Sciences, New York, May 2022
- 2024 University of Delaware, Department of Biology, February 2024

**Workshops and Collaborations**

- 2005 – 2021 Organized and delivered 20 Teacher Training Workshops to date, in collaboration with *WonderLab* Museum, 411 participants to date, presentation of so far 12 teaching modules developed to support *Indiana Science Teaching Standards* in Biology and *Next Generation Science Teaching Standards* in Biology
- 2019 Organized and delivered workshop on *Reconstructing 6 Million years of human evolution using diverse data sets* at the annual meeting of the *2019 National Association of Biology Teachers (NABT)*, November 16 2019; Chicago; ~42 educators participated.
- 2021 – present: Ongoing collaboration with the *National Center for Science Education (NCSE)* to integrate module on *Reconstructing 6 Million years of human evolution using diverse data sets* within the newest edition of the *Next Gen Science Teaching Standards* for Middle & HS Biology

- 2021 Discussion Panelist, 2 Day workshop titled *Critical Conversations on Anti-Blackness* (CCAB), May 18-19, 2021, organized by the Indiana University College of Arts and Sciences
- 2023 Co-organizer and invited presenter, *BIPOC Faculty Retention Symposium*, College of Arts & Sciences IU Bloomington, May 10 2023; in collaboration with DeWitt Kilgore (IU English), Minjeong Kim (IU Art & Design), and Steve Tait (IU Chemistry)

**(4) Nomination of scientists from underrepresented demographics for national and international recognition (bold denotes successful nominations)**

- 2020 **American Association for the Advancement of Science (AAAS)**
- 2021 **AAAS; Distinguished Professor University of Maryland**  
Alexander Kowalevsky Medal for extraordinary achievements in evolutionary developmental biology
- 2022 **American Association for the Advancement of Science (AAAS),**  
Alexander Kowalevsky Medal  
**Pan American Society for Evolutionary Developmental Biology**  
**Pioneer Award and Early Career Award**
- 2023 Alexander Kowalevsky Medal
- 2024 Alexander Kowalevsky Medal

**(5) Grant writing assistance**

- Assist faculty in and outside of the Biology Department in design and writeup of broader impact statements as part of *National Science Foundation* grant applications (~10 applications / academic year)

**(6) Other:**

- secured *two graduate fellowships per year* (2016-2022) from the IU Graduate School and the IU College of Arts & Sciences as matching funds for two consecutive John Templeton Foundation Research awards; these matching funds have so far supported 10 Biology Department graduate students from underserved demographics
- led petition effort to lobby IU to rename Jordan Hall in honor of Dr. James Holland, the first African American faculty member in the IU Dept. of Biology
- successfully lobbied the IU College of Arts & Sciences and the Office of Diversity Equity and Multicultural Affairs to fund a fulltime position of *Director of James Holland Programs*
- Trained independent scholar Frank Brown Cloud (<https://fcbrowncloud.com>) in *Reconstructing 6 Million years of human evolution* module to deliver to inmates in the Monroe County Jail every other month of the year

## **(B) EDITORIAL SERVICE**

### REVIEWER:

#### **(1) Scientific Journals (past 5 years)**

Acta Oecologica, Animal Behavior, American Naturalist, Arthropod Structure and Development, Behavioral Ecology, Bioscience, Biological Journal of the Linnean Society, BMC Evolution, Coleopterists Bulletin, Complexity, Developmental Biology, Ecological Entomology, Ecology, Ecological Entomology, European Journal of Entomology, Evolutionary Ecology, Evolution, Evolution & Development, evo&devo, Evolutionary Ecology Research, Infection, Genetics and Evolution, Genetic Research International, Insect Biochemistry and Molecular Biology, Journal of Molecular Biology, Journal of Bioscience, Journal of Zoology, Journal of Experimental Zoology, Journal of Ethology, J. Visualized Experiments, Journal of Insect Behavior, Journal of Insect Physiology, Journal of Insect Science, Mechanisms of Development, Molecular Ecology, Molecular Phylogenetics & Evolution, Nature, Non-genetic Inheritance, Oecologia, Oikos, Philosophies, PloS ONE, PLoS Biology, Proceedings of the Royal Society of London, Psyche, Science, Philosophical Transactions of the Royal Society of London, Proceedings of the National Academy of Sciences, Zoology, The Year in Evolutionary Biology, Zoologischer Anzeiger, Zoologia

#### **(2) Funding Agencies (external reviewer, past 5 years):**

National Science Foundation, Natural Environment Research Council UK, California Department of Agriculture, Netherlands Organisation for Scientific Research, German Research Foundation, Czech Science Foundation, European Research Council, Antwerp Research Council, Netherlands Organisation for Scientific Research, Portuguese Foundation for Science & Technology, Israel Science Foundation, Austrian Science Foundation, Marsden Funding Program (New Zealand Science Foundation), Swiss National Science Foundation

#### **(3) Funding Agencies (panel participant; past 5 years):**

National Science Foundation, Developmental Mechanisms Panel  
National Science Foundation, Physiological & Structural Systems Panel  
Deutsche Forschungsgemeinschaft (DFG; German Science Foundation)

#### **(4) External reviewer of Tenure Dossiers:**

2011: University of California, Davis, Department of Biology  
2012: University of Arizona, Tucson, Department of Entomology  
2015: University of Minnesota, Depart. of Ecology, Evolution, & Behavior  
2021: University of Wisconsin, Department of Integrative Biology  
2023: Chinese University of Hong Kong, Biology Division  
2023: University of Utah, School of Biological Sciences

**(5) External reviewer of Promotion Dossiers:**

- 2016: University of Utah, Department of Biology
- 2016: Wayne State University, Department of Biological Sciences
- 2018: Virginia Tech, Department of Biomedical Engineering and Mechanics, *decl.*
- 2019: University of Massachusetts Amherst, Department of Biology
- 2021: University of Pittsburgh, Department of Biological Sciences
- 2023: University of Massachusetts Dartmouth, Department of Biology

**ASSOCIATE EDITOR:**

- 2007-09               Journal of Insect Science
- 2012-14               Frontiers in Zoology
- 2013-17               Frontiers in Ecology and Evolution
- 2012 - 2020           Proceedings of the Royal Society of London, Biological Sciences
- 2020 - 2024           Evolution & Development

**EDITORIAL BOARD MEMBER:**

- 2011 - present       Evolution & Development
- 2013 - present       Journal of Experimental Zoology A: Ecol.Genetics & Physiology
- 2013 - present       Journal of Experimental Zoology B: Mol. & Developm. Evolution
- 2013 - 2024         Current Opinion in Insect Science
- 2015 - present       Biological Theory

**GUEST EDITOR**

- 2019 - 2020         Evolution & Development, Special Issue dedicated to  
*Developmental Bias in Evolution*; 18 manuscript contributions
- 2022 - 2023         Evolution & Development, Special Issue dedicated to *Agency in  
Living Systems*; 9 manuscript contributions

(C) COMMUNITY SERVICE  
(i) SCIENCE OUTREACH

2005

- Participant in the Howard Hughes Summer Research Institute Program; hosted 2 High School teachers for 2 weeks and integrated them into lab research activities
- Participant and Lecturer for the Jim Holland Lecture Series for minority high school students
- One-day teacher workshop taught at *Wonderlab*, Bloomington March 16, 2006 on *Insects all around: Use of Insects as teaching tools in the Classroom*; Participants: 15 local school teachers grade 1-5.

2006

- Consultant and resource for local school teachers on Entomology throughout 2006 including specimens and insect biodiversity, use of basic entomological equipment, and assembly of student collections
- Participant in the Howard Hughes Summer Research Institute Program; hosted 2 High School teachers for 2 weeks and integrated them into lab research activities
- Participant and Lecturer for the Jim Holland Summer Enrichment Program for minority high school students
- One-day teacher workshop taught at *Wonderlab*, Bloomington December 8, 2006 on *Insects all around: Use of Insects as teaching tools in the Classroom*; Participants: 20 local and regional school teachers grade 1-5. (front page feature article in Herald Times Dec. 9th 2006)

2007

- One-day teacher workshop taught at *Wonderlab*, Bloomington June 8, 2007 on *Animals and plants: teaching modules K-3*; Participants: 23 local and regional school teachers grade K-3.
- Participant in the Howard Hughes Summer Research Institute Program; hosted 2 High School teachers for 2 weeks and integrated them into lab research activities
- Participant and Lecturer for the Jim Holland Lecture Series for minority high school students
- Consultant and resource for local school teachers on Entomology throughout 2007 including specimens and insect biodiversity, use of basic entomological equipment, and assembly of student collections
- One-day teacher workshop taught at *Wonderlab*, Bloomington Nov. 9, 2007 on *Insects all around: Use of Insects as teaching tools in the Classroom*; Participants: 25 local school teachers grade K-5.

2008

- Preparing Future Faculty Symposium Speaker on *The RIGHT Job: How to Get It and What to Expect When You Do.*,
- Supervising independent graduate study by Rita Knox-Larsen (Education Ms Student); Collaboration on the development of teaching modules for local Middle Schools focusing on Insect Biology and EvoDevo
- One-day teacher workshop taught at *Wonderlab*, Bloomington June 2, 2008 on *Animals and plants: teaching modules K-3*; Participants: 30

2009

- One-day teacher workshop taught at *Wonderlab* June 9, 2009 as part of *Wonderlab's* Summer Science Institute Bloomington on Insects in the K-6 classroom; Participants: 30
- Lecturer for Indiana University's *MINI University '09 Continuing Education Program* on the Biology of Insects; Participants: 45
- Co-director and participant in the Lilly Scholars Program; hosted two High School minority students for one week and integrated them into lab research activities
- Co-director and Lecturer for the Jim Holland Summer Enrichment Program for minority high school students
- One-day teacher workshop taught in collaboration with Laura Mojonier and Peggy Schultz on Insect Ecology in the K-6 science classroom; Participants: 6
- Sassafras Audubon Society, Lecturer for Blatchley weekend celebration Oct. 1. 2009
- One-day teacher workshop taught at *Wonderlab*, Bloomington, Nov. 6, 2009 on *Insects all around: Use of Insects as teaching tools in the Classroom*; Participants: 25 local school teachers grade K-8.

2010

- Science immersion for pre-service science teachers: hosted and integrated 12 pre-service science teachers in research activities (one afternoon per student pair) to become familiar with what it means to do science and how scientists work - organized in collaboration with Dr Gayle Buck (IU School of Education)
- Introduction to the Biology of Insects, German School Bloomington; March 27, 2010 (K-8); Participants: 23 students, 4 teachers
- Generated entomological resources (collections, guides, simple equipment) for exploring Indiana insect diversity for Hoosier Courts Nursery School
- Generated skull collection and guide for exploring the morphology of skulls and Indiana vertebrate diversity for Hoosier Courts Nursery school.
- All-day workshop taught at *Wonderlab* June 7, 2010 as part of *Wonderlab's* Summer Science Institute on (a) Insects in the K-6 classroom and (b) the teaching of Evolution in middle and high schools; Participants: 25 local and regional K-12 teachers
- Co-director and participant in the Lilly Scholars Program; hosted two High School minority students for one week and integrated them into lab research activities
- Co-director and Lecturer for the Jim Holland Summer Enrichment Program for minority high school students
- Presentation on *Introduction to the natural history of dung beetles*; Bloomington Learning Center; Participants: 10 children (preschool)
- Presentation on *Introduction to the natural history of dung beetles*; Arlington Elementary School: Science Night. Participants: ~ 150 students, parents and teachers
- Presentation on *Introduction to the natural history of dung beetles*, Summit Elementary School: Summit Science Spectacular. Participants: ~ 300 students, parents and teachers

2011

- Taught three insect-focused teaching modules (one afternoon each) at Carrboro Elementary, NC to 28 K-2 students
- Outreach presentation in the context of an international meeting of the *Association for the Study of Literature and Environment* at IU Bloomington; introduced diverse faculty to morphological and molecular studies with a focus on species concepts and diversity
- Adventures in Animal Behavior, *WonderLab*, Bloomington; hands-on presentation of *research into the behavioral ecology of dung beetles* to children and their parents. Participants: 540 children and parents
- Lecturer for the Jim Holland Summer Enrichment Program for minority high school students
- *Introduction to the Biology of Insects and Plants*, German School Bloomington (K-8); Participants: 20 students, 4 teachers

2012

- Outreach presentation on the biology of insects in general and dung beetles in particular at Templeton Elementary; organized as reward for a class which successfully worked on behavior and discipline challenges over the course of the semester. Participants: 25 students.
- Taught three hands-on modules to groups of 4<sup>th</sup> grad students from diverse schools interested in science and technology; modules focused on (i) predator-prey interactions, defense and mimicry, (ii) skull development and evolution, and (iii) insect communication.
- One-day workshop taught at *Wonderlab* June 11, 2012 as part of *Wonderlab's* Summer Science Institute, focused on the Indiana Science Teaching Standards for grade 4; Participants: 25 local and regional Elementary School Teachers.
- Lecturer for the Jim Holland SEP for minority high school students
- Collected, sorted, and packaged termites for use in Bloomington and Bedford public schools to introduce the scientific method. Participants: 24 classes (~ 600 students)
- Outreach presentations to two 5<sup>th</sup> grade classes and one 2<sup>st</sup> grade class at Childs Elementary focused on *Introduction to the Scientific Method using Trail Following Behavior in Termites*; Participants: 85 students
- Outreach presentation insect biology to the *Arden Place Neighborhood Association*, Bloomington IN; Participants: 24 adults
- Outreach presentations to three 5<sup>th</sup> grade classes at Clear Creek Elementary focused on the *Natural History of Skulls and Teeth*; Participants: 75 students
- Outreach presentation to 10 in part severely handicapped Special Education Students at Grandview Elementary focused on the *Natural History of Skulls and Teeth*
- Outreach presentations to 16 K-6 students at Highland Park Elementary as part of the After-School-Enhancement-Program for Title 1-schools focused on *The biology of dung beetles*.

2013

- Secured funding for the 2013 installment of the *Jim Holland Summer Science Research Program* (formerly *Lilly Scholars Program*) from the National Science Foundation; see teaching statement for details.
- Participated in *Real Life Science: Anyone Can Be a Scientist*, a Martin Luther King, Jr. Day Event at *Wonderlab*, with a presentation titled *Horned beetle diversity, behavior, and life history*.
- Gave outreach presentations to two 7<sup>th</sup> grade classes (integrated traditional and special needs students) at Owen Valley Middle School, Spencer IN focused on the *Natural History of Skulls and Teeth*; Participants: 72 students
- Outreach presentations to three 1<sup>st</sup> grade classes at Clear Creek Elementary focused on *Introduction to the Scientific Method using Trail Following Behavior in Termites*; Participants: 78 students
- Outreach presentations to two 5<sup>th</sup> grade classes at Childs Elementary on *Mystery Skulls: the Natural History of Skulls and Teeth*; Participants: 54 students
- Outreach presentations to 12 K-6 students at Templeton Elementary as part of the After-School-Enhancement-Program for Title 1-schools focused on *The biology of dung beetles*.
- Outreach presentation to a 2<sup>nd</sup> grade class at Childs Elementary focused on *Insect life cycles and adaptations*; Participants: 28 students
- Outreach presentations to three 1<sup>st</sup> grade classes at Clear Creek Elementary focused on *Insect life cycles and metamorphosis*; Participants: 82 students
- Outreach presentations to four 9<sup>th</sup> and 10<sup>th</sup> grade classes at Bloomington High School South focused on *Mystery Skulls: the Natural History of Skulls and Teeth*; Participants: 118 students and 6 teachers
- *throughout Spring 2013*: developed and organized mammalian skull collection consisting of 35 diverse skulls; this collection will be housed at *WonderLab* Museum starting Fall 2013, curated by APM, and loanable to regional schools together with lesson plans, online resources, and volunteer assistants; this effort is funded through a grant to APM from the *Ostrom Foundation*; see teaching statement for details.
- presented experimental teaching module to 10 students (grades K-3) integrating (i) continental drift, (ii) basic functional skull morphology, and (iii) convergent evolution of placental and marsupial skull phenotypes.
- participated in *Bug Fest* at the *Hilltop Garden and Nature Center* Bloomington, June 22; organized and presented material on the natural history of dung beetles.
- participated in *Girls Inc.*, a week-long summer camp for low income girls; taught functional morphology of skulls and teeth of farm animals to 15 participants
- participated in *Science Olympiad Residential Camp* for middle schoolers; gave lecture to 48 participants (*Aliens among us - the biology of insects*) and organized two sets of small group activities); July 2013
- participated in *Weird Nature Camp* in collaboration with *WonderLab*; organized and presented material on the natural history of dung beetles twice for 21 students each; June and July 2013.
- participated in *Science Olympiad Residential Camp* for high schoolers; gave lecture to 48 participants (*Aliens among us - the biology of insects*)

2013 - *continued* -

- Outreach presentation *Jim Holland Summer Enrichment Program* for minority high school students; July 2013
- presented module on insect diversity and dung beetle ecology at Harmony School, IN to 13 K-4 students and two 9th grade students (11/4).
- presented module on the functional morphology and evolution of mammal skulls at Harmony School, IN to 13 K-4 students and two 9th grade students (11/18).
- assisted in the development of *Nature's vampires*, an interactive exhibit focused on the biology of blood-sucking creatures (bed bugs, ticks, fleas, lice, etc) at *WonderLab* Museum

2014

- Participated in Martin Luther King, Jr. Day at *Wonderlab*, with a presentation titled *Horned beetle diversity, behavior, and life history*; participants: 465 visitors
- trained four *Science Olympiad* teams in basic Insect Biology and Identification; January 2014; participants: 30 students (8-10 grade); 5 teachers
- throughout Spring 2014; developed new teaching module on human bone structure and function relationships; this module will target both traditional and special needs classrooms
- presented module on the functional morphology and evolution of mammal skulls and human bones for the *Indiana University Saturday Science School*: participants: 28 students (K-2)
- secured funding for the 2014 *Jim Holland Summer Science Research (SSRP)* program from IU's Office for *Diversity, Equity, and Multicultural Affairs (DEMA)*
- throughout Spring 2014: coached *Bloomington Academy Science Olympiad* team in basic Insect Biology and Identification
- Outreach presentation to two special education classes at Grandview Elementary focused on the *Functional Diversity of Human Bones* (March 5) and *Natural History of Skulls and Teeth* (March 12); Participants: 24 students + 2 teachers and 8 therapists for each session
- Outreach presentations to three 5<sup>th</sup> grade classes and one combined 3rd/4th grade class at Childs Elementary March 25th and 27th on *Mystery Skulls: the Natural History of Skulls and Teeth*; Participants: 122 students
- organized and presented two full-day workshops at *Wonderlab* April 11 & 12 to present and further disseminate teaching modules focused on (i) *Natural History of Skulls and Teeth* and (ii) the *Functional Diversity of Human Bones* in support of Indiana Science Teaching Standards for general and special education classrooms; Participants: 21 Teachers.
- throughout Spring 2014: organized, trained, and coordinated the *Skeleton Crew* consisting of 8 IU Biology graduate students across all three programs ; this effort trains graduate students in effective outreach design, supports current outreach initiatives at local schools, while keeping individual time investment manageable
- Outreach presentation to two 2<sup>nd</sup> grade classes at Childs Elementary April 22, focused on *Insect life cycles and adaptations*; Participants: 58 students

2014 - *continued* -

- Outreach presentations to four 2<sup>nd</sup> grade classes at Marlin Elementary April 29th on *Mystery Skulls: the Natural History of Skulls and Teeth*; Participants: 128 students
- Outreach presentations to two special education classes (mixed grades, 15 participants) and two 5<sup>th</sup> grade classes (68 participants) at Templeton Elementary May 13th on *Mystery Skulls: the Natural History of Skulls and Teeth*
- Outreach presentations to seven high school freshmen classes at Bloomington High School South May 19th on *Mystery Skulls: the Natural History of Skulls and Teeth* (approx. 160 participants)
- organized and coordinated additional presentations at Bloomington High School South May 20 and 21<sup>st</sup> on the same topic and run by graduate student volunteers as part of an outreach training program for IU Biology graduate students (participants: 6 graduate students and five 9<sup>th</sup> grade classes)
- taught all day workshop at *Wonderlab* June 6, 2014 as part of *Wonderlab's* Summer Science Institute focused on generating meaningful science education resources for the 5<sup>th</sup> grade science curriculum; Participants: 25 local and regional K-12 teachers
- Lecturer for Indiana University's *MINI University '14 Continuing Education Program* on *Mystery Skulls: The Natural History of Skulls and Teeth*; Participants: 61 adults.
- participated in *Bug Fest* at the *Hilltop Garden and Nature Center* Bloomington, June 22; organized and presented material on the natural history of dung beetles.
- participated in *Girls Inc.*, a week-long summer camp for low income girls; taught two sessions on (i) *Introduction to the scientific method* and (ii) *Functional morphology of skulls and teeth of farm animals*; 16 participants
- Outreach presentations to four 3<sup>rd</sup> - 5<sup>th</sup> grade classes at Summit Elementary Bloomington, August 19 focused on the *Evolutionary morphology of skulls and teeth*; Participants: 118 students
- Outreach presentations to two 2<sup>nd</sup> grade classes at Parkview Primary School, Bedford, IN, September 24 focused on *Insect life cycles*; Participants: 44 students
- participated in Science Day at IU; organized display and presentation on *Skulls and teeth* and on *Snake Biology*; participants: ~ 370 visitors.
- Assisted in outreach presentation on insect diversity and developmental biology at Bloomington Christian Schoolhouse, Bloomington, IN, Oct. 17, 2014. Participants: 25 1st-8th grade students.
- Assisted in outreach presentation on the functional ecology and morphology of mammal skulls at Bedford Public Library, Bedford, IN, Oct. 23, 2014. Participants: 15-20 1st-5th grade students and their parents.
- Outreach presentations to two 5<sup>th</sup> grade classes at McCormick Elem. Spencer IN, October 30 focused on *Evolutionary morphology of skulls and teeth*; Participants: 48 students
- throughout Fall 2014: provided termites and additional supplies to approximately 40 classes in Bloomington and Bedford to execute a teaching module designed to illustrate and apply the scientific method.
- Outreach presentations to four classes (5<sup>th</sup>-8<sup>th</sup> grade) at St. Vincent de Paul School in Bedford, IN, December 4<sup>th</sup>; focused on *Evolutionary morphology of skulls and teeth*; Participants: 92 students, 4 teachers, 2 postdocs and 1 graduate student

2014 - *continued* -

- throughout Spring and Fall 2014: provided funding to defray participation costs for local and regional classes to visit *WonderLab* and participate in hands on lab sessions (taught by WonderLab personnel as well as Biology graduate students) on *Mystery Skulls: The Natural History of Skulls and Teeth*; Participants: 26 classes as of September '14 (~ 780 students)

2015

- presented at 2015 Summit Science & Technology Spectacular Science Night February 11; dual language (Spanish, English) module on the *Evolutionary morphology of skulls and teeth*; Participants ~ 280 students and their families
- Outreach presentations to three mixed 5/6<sup>th</sup> grade classes (86 participants) and two special education classes (mixed grades, 15 participants) at Templeton Elementary January 13, 2015 focused on *Evolutionary morphology of skulls and teeth*
- Bedford, IN and Oolitic, IN Elementary School tour (two 5<sup>th</sup> and two 3<sup>rd</sup> grade classes, 108 participants total); February 9th, 2015 focused on *Mystery Skulls: The Natural History of Skulls and Teeth*
- organized and presented two full-day workshops at *Wonderlab* April 9 & 10 to present and further disseminate teaching modules focused on in support of Indiana Science Teaching Standards for general education, special education, and *English Language Learners*; Participants: 26 Teachers.
- Panel Participant, Panel Discussion on *Best Practices in Science Outreach*, Midwestern Ecology and Evolution Conference (*MEEC*), March 2015
- presented at the 2015 (April 22<sup>nd</sup>) Science Night at the Bloomington Projects School on the *Evolutionary morphology of skulls and teeth*; Participants ~ 110 students and their families
- assisted in presenting a hands-on exhibit on the functional morphology of mammal skulls at Harmony School's Math and Science Expo. Bloomington, IN; Participants ~50 K-12 students.
- assisted in presenting a hands-on exhibit on beetle biology at Harmony School's Math and Science Expo. Bloomington, IN; Participants ~50 K-12 students.
- Outreach presentations to six high school freshmen classes at Bloomington High School South May 13th on the *Evolutionary morphology of skulls and teeth*; (approx. 160 participants)
- organized and coordinated additional presentations at Bloomington High School South May 14 and 15 on the same topic and run by graduate student and postdoc volunteers as part of the Moczek-Lab Science Outreach Initiative (participants: 3 graduate students, 3 postdocs and nine 9<sup>th</sup> grade classes; total participation approx. 200 students)
- Outreach presentation to three 2<sup>nd</sup> grade classes at Childs Elementary May 26, focused on *Insect life cycles and adaptations*; Participants: 72 students
- Outreach presentation at Unionville Elementary April 30th on the *Evolutionary morphology of skulls and teeth*; (approx. 30 participants)
- Outreach presentation to two AP Biology classes at Bloomington High School South; *Reconstructing 6 Million years of human evolution using diverse data sets*; September 2015; 64 participants

2015 - *continued* -

- October 2015, two week night classes at Meadowood Retirement Community; 30 participants per class: Class 1: *Evolutionary morphology of skulls and teeth*; Class 2: *Reconstructing 6 Million years of human evolution using diverse data sets*.
- Outreach presentations to three mixed 5/6<sup>th</sup> grade classes (93 participants) and one special education classes (mixed grades, 6 participants) at Templeton Elementary October 28, 2015 focused on *Exploring the scientific method using trail-following behavior in termites*
- assisted in presenting a hands-on exhibit on skulls and teeth for Science Fest at Indiana University; Participants >380 visitors from the Bloomington community.

[Σ34 class visits in 2015]

2016

- Outreach presentation to 5 Biology classes at Columbus High School East on *Reconstructing 6 Million years of human evolution using diverse data sets*; April 2016; 104 participants; also trained 5 teachers in the same module who subsequently taught an additional 10 classes on their own
- Outreach presentation to three 3rd grade classes at Binford Elementary on April 27th on the *Evolutionary morphology of skulls and teeth*; (75 participants)
- Outreach presentations to 5 high school freshmen classes at Bloomington High School South May 16 on the *Evolutionary morphology of skulls and teeth*; (approx. 130 participants); also trained 5 teachers during in the same module who then independently taught an additional 10 classes during the week's remainder.
- Outreach presentation to three 2<sup>nd</sup> grade classes at Childs Elementary May 20, focused on *Insect life cycles and adaptations*; Participants: 76 students
- Lecturer for Indiana University's *MINI University '16 Continuing Education Program on The Exuberance of Insect Biology in South-Central Indiana*; Participants: 55 adults.
- participated in *Bug Fest* at the *Hilltop Garden and Nature Center* Bloomington, June 25; helped organize and present material on the natural history of dung beetles.
- Outreach presentation to two 8th grade classes at Columbus Central Middle School September 29 on the *Evolutionary morphology of skulls and teeth*; (62 participants)
- assisted in presenting a hands-on exhibit on evolutionary ecology of mammal skulls for *Science Fest* at Indiana University; Participants >300 visitors from the Bloomington community.
- Represented the IU Biology Department in the annual *Science Slam* competition

[Σ18 class visits in 2016]

2017

- Outreach presentations to 4 high school freshmen classes at Bloomington High School South February 10th on the *Evolutionary morphology of skulls and teeth*; (approx. 120 participants).
- Outreach presentation to 6 Biology classes at Columbus High School East on *Reconstructing 6 Million years of human evolution using diverse data sets*; April 2016; 134 participants; also trained 5 teachers in the same module who subsequently taught an additional 12 classes on their own
- Outreach presentations to all high school freshmen classes at Bloomington High School South May 18-22 *Evolutionary morphology of skulls and teeth*; 4 classes taught by APM, 4 by teachers with help from outreach team members, and 4 by teachers trained in previous years; total participants: 12 classes, ~ 330 students)
- Outreach presentation to three 2<sup>nd</sup> grade classes at Childs Elementary May 19, focused on *Insect life cycles and adaptations*; Participants: 75 students
- organized and presented a full-day workshop as part of the 2017 Summer Science Institute June 15th 2017 at *Wonderlab*; presented teaching modules in support of Indiana Science Teaching Standards for middle and high school; Participants: 20 Teachers and two postdoctoral researchers.
- Outreach presentation to two groups of Chinese middle school students visiting Indiana University as part of the Boy Scout of America International Student Ambassadors Program, focused on the evolutionary ecology of mammal skulls; July 21 2017; Participants: 24 students
- Outreach presentations to 4 middle school classes at Franklin Township Middle School, Indianapolis, August 2017, on the *Evolutionary morphology of skulls and teeth*; (approx. 120 participants).
- Outreach presentations to 4 middle school classes at Center Grove Middle School Central, Greenwood IN, August 2017, on the *Evolutionary morphology of skulls and teeth*; (approx. 115 participants).
- Outreach presentations to 3 middle school classes at Center Grove Middle School North, Greenwood IN, August 2017, on the *Introducing the Scientific Method using Termite Behavior*; (approx. 95 participants).
- October 2017, evening class at Meadowood Retirement Community on the *Exuberance of insect biology in South-Central Indiana*; 30 participants.
- Outreach presentation to the Stinesville cub scouts on the *Evolutionary morphology of skulls and teeth*; (approx. 12 participants) November 2017
- Outreach presentations to 18 home schooled children from the Nashville IN area on *Introducing the Scientific Method using Termite Behavior* and the *Biology of chemical defenses and mimicry*.
- assisted in presenting a hands-on exhibit on evolutionary ecology of mammal skulls for *Science Fest* at Indiana University; Participants >1,200 visitors from the Bloomington community. [Σ40 class visits in 2017]

2018

- Panelist for panel discussion on *Careers in Academia*. Organized by the Commonwealth Scientific and Industrial Research Organization, Canberra, ACT, Australia, February 4<sup>th</sup> 2018
- *Master Class on Science Communication*, QUESTACON Canberra, Australia, June 20, 2018; 20 participants
- Outreach presentation to three 8th grade classes at Columbus Central Middle School on the *Evolutionary morphology of skulls and teeth*; (85 participants)
- October 2018, introduced 28 seniors at Meadowood Retirement Community to the *Evolutionary morphology of skulls and teeth*
- Collected, sorted, and packaged termites for use in 10 classes at Bloomington High School South serving > 300 students
- Outreach presentation to two AP Biology classes at Bloomington High School South; *Reconstructing 6 Million years of human evolution using diverse data sets*; October 29 2018; 62 participants
- presented hands-on exhibit on skulls and teeth for Science Fest at Indiana University; Participants >1280 visitors from the Bloomington community; Oct. 27. 2018
- Outreach presentation to the Stinesville cub scouts on the *Evolutionary morphology of skulls and teeth*; (6 participants) Dec. 2. 2018
- Outreach presentation to 4 classes at Bloomington High School North; *Reconstructing 6 Million years of human evolution using diverse data sets*; December 10 2018; 122 participants
- Provided teaching materials to previously trained teachers at Columbus High School to teach module on *Reconstructing 6 Million years of human evolution using diverse data sets*; April 2018; 154 students participated. [Σ9 class visits in 2018]

2019

- Outreach presentation to 5 AP Biology classes at Mooresville High Indianapolis on the *Evolutionary morphology of skulls and teeth*; (125 participants) Feb. 25 2019
- Staff Training Workshop at WonderLab Museum on content and delivery of new module on *Reconstructing 6 Million years of human evolution using diverse data sets*; Feb. 26 2019
- Outreach presentation to 3 classes at Jackson Creek Middle School Bloomington; on the *Evolutionary morphology of skulls and teeth*; (77 participants) March 1. 2019.
- Assisted in presentation at 2019 Summit Science & Technology Spectacular Science Night February 28; dual language (Spanish, English) module on the *Evolutionary morphology of skulls and teeth* and *The Biology of Dung Beetles*; Participants ~ 300 students and their families.
- Shearing Day Marble Hill Farm Monroe Co; presented informational booth of dung beetle and general insect biology; April 13 2019
- Outreach presentation to two 8th grade classes at Columbus Central Middle School on *Reconstructing 6 Million years of human evolution using diverse data sets*; (58 participants).

2019 - *continued* -

- Provided teaching materials to previously trained teachers at Columbus High School to teach module on *Reconstructing 6 Million years of human evolution using diverse data sets*; April 2019; 182 students participated.
- Collected, sorted, and packaged termites for use in 12 classes at Bloomington High School South serving > 300 students; September 2019
- Outreach presentation to two 8th grade classes at Columbus Central Middle School on *Evolutionary morphology of skulls and teeth*; (56 participants).
- Hosted AP Environmental Biology class and teacher from Columbus High School North in the PIs laboratory for a morning introduction to Evolutionary Developmental Biology
- Collected, sorted, and packaged termites for use in 8 classes at Bloomington High School South serving ~240 students; November 2019
- delivered workshop on *Reconstructing 6 Million years of human evolution using diverse data sets* at the annual meeting of the *2019 National Association of Biology Teachers (NABT)*, November 16 2019; Chicago; ~42 educators participated.
- Outreach presentation to 2 classes at Bloomington High School North; *Reconstructing 6 Million years of human evolution using diverse data sets*; December 3 2019; 59 participants

[Σ14 class visits in 2019]

2020

- Outreach presentation to 2 Biology classes at Harmony School Bloomington *Reconstructing 6 Million years of human evolution using diverse data sets*; Feb 19 2020; 35 participants
- Provided teaching materials to previously trained teachers at Columbus High School to teach module on *Reconstructing 6 Million years of human evolution using diverse data sets*; March 2020; 179 students participated.
- ZOOM presentation and discussion with *American Heritage Girls Troop Indianapolis* on the Biology and Study of Insects; 15 participants
- Collected, sorted, and packaged termites for use in 12 classes at Bloomington High School South during virtual learning periods serving ~260 students; August 2020
- Webinar on *Getting you into graduate school*, organized by Afrisnet – Africa STEM Network, panelist; 54 participants from mostly African nations

[all remaining events scheduled for Spring, Summer and Fall 2020 had to be cancelled due to COVID-19]

2021

- Staff Training Workshop at WonderLab Museum on Periodical Cicada Biology and the mass emergence of Brood X in 2021; May 3<sup>rd</sup> 2021
- *Lunch & Learn, Office of the Vice President and Chief Financial Officer (IU VPCFO), Seminar of IU Employees on Cicada Biology*
- Evening outreach presentation at Meadowood Retirement Community titled *Natural History and lingering mysteries of the magical cicadas*; May 10<sup>th</sup> 2021
- Outreach presentation on the *Evolutionary Developmental Biology and Horned Beetles*; Field Museum Science and Digital Learning Camp for High School Students, Field Museum of Natural History, Chicago, virtual
- Collected, sorted, and packaged termites for use in 12 classes at Bloomington High School South (first trimester), serving ~260 students; August 2021; repeated for the second trimester November 2021, this time serving 8 classes
- Contributed to Teacher Training Workshop organized through the *National Center for Science Education (NCSE)* to virtually train 30 High School Science teachers in module on *Reconstructing 6 Million years of human evolution using diverse data sets*, August 5<sup>th</sup> 2021
- Outreach presentation to 2 AP Biology classes at Bloomington High School South on *Reconstructing 6 Million years of human evolution using diverse data sets*; Aug 24 2021; 60 participants
- workshop titled *Aliens among us: the exuberance of insect biology in South-Central Indiana* taught as part of the *Monroe County Master Naturalist Course*, September 9 2021, Karst Farm Park, Bloomington
- presented hands-on exhibit on evolutionary ecology of mammal skulls for *Science Fest* at Indiana University; Participants >900 visitors from the Bloomington community
- Outreach presentations to 19 3<sup>rd</sup> grade students at Childs Elementary on *Introducing the Scientific Method using Termite Behavior*
- Outreach presentation to High School students at Harmony School Bloomington on *Reconstructing 6 Million years of human evolution using diverse data sets*; Dec 9 2021

2022

- Outreach presentation to two AP Biology classes at Bloomington High School South; *Biodiversity in the Anthropocene*; April 11 2022; 54 participants
- Evening workshop on *Insect biology in South-Central Indiana* taught as part of the Monroe County Master Naturalist Course organized by the Indiana Geological and Water Survey; May 10 2022 6-930PM; 30 participants
- Guest lecture for *James Holland Summer Enrichment Program* on *Aliens among us: the exuberance of insect biology and how it helps us understand the world around us*, July 2022
- Invited participant and presenter, *National Center for Science Education*, Teacher Training Workshop on the teaching of Human Evolution, Fort Collins CO, July 2022; participants: 30 teachers representing 20 US states

2022 - *continued* -

- Collected, sorted, and packaged termites for use in 11 classes at Bloomington High School South August 2022, serving ~250 students
- Outreach presentation to 2 AP Biology classes at Bloomington High School South on *Reconstructing 6 Million years of human evolution using diverse data sets*; Aug 23 2023; 60 participants
- workshop titled *Aliens among us: the exuberance of insect biology in South-Central Indiana* taught as part of the *Monroe County Master Naturalist Course*, September 16 2022, Karst Farm Park, Bloomington
- Outreach presentation to 5<sup>th</sup> and 6<sup>th</sup> grade classes at Templeton Elementary Bloomington on the *Evolutionary morphology of skulls and teeth*; (59 participants)
- participated in *Bug Fest* at the *Hilltop Garden and Nature Center* Bloomington, June 25; helped organize and present material on the natural history of dung beetles; >2,100 visitors registered for this event
- presented hands-on exhibit on the *Evolutionary Ecology of Mammal Skulls* for *Science Fest* at Indiana University; Participants >1,000 visitors from the Bloomington community
- delivered workshop on *Investigating 'humanity' using skulls, hands, feet, maps, tools, and the nature of science* at the annual meeting of the *2022 National Association of Biology Teachers (NABT) Professional Development Conference*, November 11-13 2022; Indianapolis; 30 educators participated.
- Outreach presentation to members of the *Youth Emergency Shelter of Monroe County* on mammal skulls, 7 participants and 2 counselors

2023

- Outreach presentation to 9 AP Biology classes at Bloomington High School South on *Reconstructing 6 Million years of human evolution using diverse data sets*; May 12, 2023; 245 participants
- Trained independent scholar Frank Brown Cloud (<https://fcbrowncloud.com>) in *Reconstructing 6 Million years of human evolution* module to deliver to inmates in the Monroe County Jail every other month of the year
- Evening workshop on *The Exuberance of Insect biology in South-Central Indiana* taught as part of the *Monroe County Master Naturalist Course* organized by the Indiana Geological and Water Survey; May 17 2023 6-9PM; 26 participants
- Interactive Lecture Presentation on Insect Biology to the participants of the *James Holland Summer Enrichment Program (SEP)* for minority high school students; July 2013
- Hosted one student for one week as part of the *James Holland Summer Science Research Program (SSRP)* for minority high school students; July 2023
- workshop titled *Aliens among us: the exuberance of insect biology in South-Central Indiana* taught as part of the *Monroe County Master Naturalist Course*, August 17 2023, Karst Farm Park, Bloomington; 22 participants
- Collected 87 adult invasive praying mantis from prairie restoration project at Rogers Family Park, Bloomington, and rehomed them as pets with community partners

- installed light trap setup in collaboration with *Eco Logic LLC* as part of an open house celebrating ecological restoration projects in South Central Indiana

## 2024

- presented hands-on exhibit on the *Evolutionary Ecology of Mammal Skulls* for *Science Fest* at Indiana University; Participants >4,000 (!) visitors from the Bloomington community; April 2024
- facilitated outreach presentation to two AP Biology classes at the *Academy of Science and Entrepreneurship* Bloomington on *Reconstructing 6 Million years of human evolution using diverse data sets*; 22 participants
- helped organize hands-on exhibit on the *Evolutionary Ecology of Mammal Skulls* for *Science Fest* at Science Night at Summit Elementary, Bloomington; ~ 200 participants; May 9 2024
- co-led (with L. Mojonnier) outreach presentations to 18 home schooled children and their parents from the Brown County IN area on *The evolution of mammal skulls* and the *Biology of Plants*
- remote mentored four high school teachers (Rebecca Brower, Troy, MI; Jennifer Broo, Cincinnati, OH; David Upegui, Central Falls, RI; David Degenhardt, Columbia, SC) in the successful implementation of a teaching module on *Reconstructing 6 Million years of human evolution using diverse data sets*
- Interactive Lecture Presentation on Insect Biology to the participants of the *James Holland Summer Enrichment Program (SEP)* for minority high school students; July 2024
- Collected 35 adult invasive praying mantis from prairie restoration project at Rogers Family Park, Bloomington, and rehomed them as pets with community partners
- Co-organizer and Co-presenter with Dr. Kistin Milks, Bloomington High School South; full day workshop titled *Teaching Tomorrow's Ecology: Fostering Student Innovation in Biodiversity Solutions*, in collaboration with IU Environmental Resilience Institute, September 21, 2014; 24 teachers participating
- Interactive Lecture Presentation on Insect Biology to the members of the Bloomington Chapter of the *Future Farmers of America (FFA)*; September 24, 2024; 42 participants

## 2025

- Interactive Lecture Presentation on the evolutionary morphology of skulls and teeth; in collaboration with IU Community and School Partnerships and IU Biology Outreach; April 9th; 32 participants from Brown Country High School
- New Works Premiere Performances, May 31 2025 at the Tarkington, Carmel IN, contributed to multimedia art performance on firefly biology in Indiana (link [here](#)), in collaboration with Mitch Korelev, Emma Hedrick, and Roger Hangarter
- Interactive Lecture Presentation on Insect Biology to the participants of the *James Holland Summer Enrichment Program (SEP)* for minority high school students; July 2025

2025 - *continued* -

- Invited panel participant: *Orientation for new department chairs*; organized by the Office of the Vice Provost for Faculty & Academic Affairs; August 11, 2025
- Collected, sorted, and packaged termites for use in 16 classes at Bloomington High School South August 2025, serving ~280 students
- Collected 139 adult invasive praying mantis from prairie restoration project at Rogers Family Park, Bloomington, and rehomed them as pets with community partners
- participated in *Bug Fest* at the *Karst Farm Park* September 13; organized and presented material on the natural history of dung beetles
- organized hands-on exhibit on the *Functional Morphology of Mammal Skulls* for *Science Fest* November 1, serving ~500 visitors
- Presentation as part of the *Science Out Loud* seminar series of science-focused seminars for the public titled *Aliens among us: the exuberance of insect biology in South-Central Indiana*, Monroe County Public Library, Nov. 13 2025

2026

- evening class at Meadowood Retirement Community on the *Exuberance of insect biology in South-Central Indiana*; serving ~50 participants; March 2, 2026,
- guided tour of IU Biology Greenhouse for staff of the Office of Vice Provost for Faculty Academic Affairs (VPFAA); 12 participants; March 27, 2026
- in collaboration with IU Biology Science Outreach; presentation on *Evolutionary Ecology of Mammal Skulls* to a visiting class from Randolph South Highschool, IN; 26 students, 3 teachers; March 31, 2026

**(C) COMMUNITY SERVICE**  
**(ii) PUBLIC CONSULTANT**

- 2004 - present Identification of insects and spiders for the public; Average 1 inquiry per week by phone or email
- 2004 - present Consultant for A MOMENT IN SCIENCE (AMOS) radio show. Helped with the development of scripts on topics related to insect biology, developmental biology and evolution. Average 5 inquiries per year
- 2004 - present Consultant for HOTLINE column in HERALD TIMES newspaper for reader inquiries related to insects and spiders. Average 1 inquiry/month
- July 2010 Consultant for WFIU-TV *The Weekly Special* on The biology of fireflies
- May 2013 Consultant for BLOOM Magazine for a special issue devoted to *Bugs in Bloomington*
- Spring/Summer 2021: Consultant on Periodical Cicada (Brood X) Mass Emergence for local and regional media including *Indiana Daily Student*, *WFHB*, *WEHT/WTVW*, *FOX59 News*

**(D) COMMUNITY BOARD MEMBERSHIPS**

- 2018 - present Advisory Board Member, Monroe County Community School Corporation (MCCSC)
- 2019 - present Member of the Board of Directors, AFRISNet (Nonprofit organization focused on creating an international network of students, professors, and professionals with a common goal of advancing research and scholarship in science, technology, engineering, and mathematics in Africa.)
- 2019 - present Concerned Scientists @ IU; Member of the Steering Committee

**(E) SERVICE TO NATIONAL & INTERNATIONAL SOCIETIES & FOUNDATIONS**

- 2023 & 2025 National Association of Biology Teachers (NABT) Awardee Evaluation Committee
- 2024 John Simon Guggenheim Foundation, Awardee Evaluation Committee