

NATHAN MOREHOUSE

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PROFESSIONAL HISTORY

Director, Institute for Research in Sensing (IRiS) September 2020 – Present
Associate Professor September 2019 – Present
Assistant Professor January 2017 – August 2019
Department of Biological Sciences
University of Cincinnati, Cincinnati, OH

Assistant Professor September 2011 – December 2016
Department of Biological Sciences
University of Pittsburgh, Pittsburgh, PA

European Union Marie Curie International Incoming Fellow June 2009 – June 2011
Institut de Recherche sur la Biologie de l'Insecte
Université de Tours, Tours, France
Project Title: *Nutritional Ecology and Seasonal Color Polyphenism in a Butterfly*
Major Collaborator: Jérôme Casas

Ph.D. Biology August 2002 – May 2009
School of Life Sciences
Arizona State University, Tempe, AZ
Dissertation Title: *Limiting Nutrients, Female Choice, and Male Color*
Major Advisor: Ronald L. Rutowski
Committee: John Alcock, J. Marty Anderies, Jon Harrison, Kevin J. McGraw

B.S. Biological Sciences, Distinction in Research August 1996 – May 2000
College of Agriculture and Life Sciences
Cornell University, Ithaca, NY
Research Thesis Title: *Sexual Dimorphism and Visual Tracking in Sarcophagid Flies*
Research Thesis Advisor: Cole Gilbert

RESEARCH INTERESTS

Coevolutionary dynamics of reproductive traits, visual and behavioral ecology, evolution of sensory systems, color vision and learning, optical physics of animal coloration, reproductive protein evolution, nutritional ecology and physiology, hormonal and genetic regulation of nutrient allocation, quantitative genetics, life history evolution, sexual selection theory

AWARDS AND DISTINCTIONS

Faculty Excellence Award, Office of the Executive Vice President for Academic Affairs and Provost, University of Cincinnati, 2020

AWARDS AND DISTINCTIONS (CONT.)

Transdisciplinary Research Leadership Fellowship, University of Cincinnati, 2019-2020
Dean of Arts & Sciences Rising Star Award, University of Cincinnati, 2018
Warder Clyde Allee Award, Animal Behavior Society, 2010
Council of Graduate Schools/University Microfilms International Distinguished
Dissertation Award Nominee, 2009
Frank Alois Pitelka Prize, International Society for Behavioral Ecology, 2008
Mentorship Award, Graduate and Professional Students Association, Arizona State
University, 2006
Teaching Excellence Award Nominee, Graduate and Professional Students Association,
Arizona State University, 2005, 2006
Partners Paving Pathways Honoree, National Science Teachers Association, 2003
Distinction in Research, Cornell University, 2000
Dean's List, Cornell University, 1997-2000
National Merit Scholarship, 1996
Xerox Award for Excellence in the Humanities and Social Sciences, 1996
Valedictorian, C.G. Finney High School, 1996

RESEARCH FUNDING AND FELLOWSHIPS (\$3,195,905 to date)

Current, PI Status (\$1,726,914)

University of Cincinnati, Office of the President, Next Lives Here Research2030 Funding
*Institute for Research in Sensing (IRiS): Launch Funding for a New Transdisciplinary Research
Institute.* Role: PI; \$598,478; Status: Awarded; Funding period: 2021-2024

NSF IOS Behavioral Systems, IOS-1831767, *Collaborative Research: Repeated Evolution of Color
Vision in Jumping Spiders: An Integrated Approach to Understanding Diversification of Visual
Systems and Signals.* Role: Lead PI; Individual award: \$1,028,734, Total award: \$1,979,834;
Status: Awarded; Funding period: 2018-2023

NSF IOS Animal Behavior, IOS-2010768, *Conference: Spatio-Temporal Dynamics in
Communication: A Workshop and Symposium at Consecutive SICB Meetings.* Role: PI; \$89,702;
Status: Awarded; Funding period: 2020-2021

University of Cincinnati, College of Arts & Sciences, College Structures Funding
*Institute for Research in Sensing (IRiS): Initial Planning Support for a New Transdisciplinary
Research Institute.* Role: PI; \$5,000; Status: Awarded; Funding period: 2019-2020

Center for Public Engagement with Science: Developing Curricular Offerings for Science Outreach
Role: Co-PI; \$5,000; Status: Awarded; Funding period: 2019-2020

Current, Senior Personnel Status (\$307,798)

NSF Division of Biological Infrastructure, DBI-2050772, *REU Site: Sensory Ecology: An
Integrative Approach.* Role: Senior Personnel; \$307,798; Status: Awarded; Funding period:
2021-2024

Past (\$1,161,193)

NSF IOS Animal Behavior, IOS-1933714, *NSF INTERN Supplement to IOS-1734291 to
Support Collaboration Between Sebastian Echeverri and the Cincinnati Museum Center.* Role: PI;
\$35,193; Status: Awarded; Funding period: 2020

NSF IOS Behavioral Systems, IOS-1557549/1734291, *Female Gaze, Retinal Specializations, and
the Evolution of Complex Male Courtship Displays in Habronattus Jumping Spiders.* Role: PI;
\$710,000; Status: Awarded; Funding period: 2016-2021

RESEARCH FUNDING AND FELLOWSHIPS (CONT.)

Past (cont.)

NSF IOS Behavioral Systems, *Flexibility in sexual appetites: Can learned food preferences alter patterns of mate choice?* Role: Senior personnel (collaborator), PI: Lisa Taylor; Status: Awarded; Funding period: 2016-2020

Office of the Provost's Year of the Humanities in the University funding for "What Does It Mean to Be Curious?" interdisciplinary discussion series, \$5,200, 2015-2016, [link](#)

Experiment.com crowdfunding (90 public backers), \$7,357, 2015, [link](#)

PERT Postdoctoral Fellowship, Center for Insect Science, University of Arizona, funding offered, 2011

Gaylord Donnelly Postdoctoral Environmental Fellowship, Yale Institute for Biospheric Studies, Yale University, nominated, 2010

Miller Research Fellowship, Miller Institute for Basic Research in Science, University of California, Berkeley, nominated, 2010

Marie Curie International Incoming Fellowship, European Union Seventh Research Framework Programme, 172,168€, 2009-2011

International Research Fellowship, National Science Foundation, funding offered, 2009

Travel grants from various sources, including the International Society for Behavioral Ecology, the Center for Insect Science at the University of Arizona, and the Graduate College, School of Life Sciences, Center for Environmental Studies, and Graduate and Professional Students Association at Arizona State University, \$5,514, 2003-2008

Division of Graduate Studies Dissertation Fellowship, ASU, \$19,000, 2007-2008

Student Research Grant, Animal Behavior Society, \$1,000, 2007

Grant in Aid of Research, Sigma Xi, ASU Chapter, \$400, 2007

University Graduate Fellowship, Arizona State University, \$15,000, 2007

Doctoral Dissertation Improvement Grant, National Science Foundation, \$12,000, 2007

Division of Graduate Studies Workshop Grant, ASU, \$2,000, 2007

Frontiers in Life Sciences Workshop Grant, School of Life Sciences, ASU, \$30,000, 2007

Graduate and Professional Students Association Research Grant, ASU, \$2,000, 2006

Faculty Emeriti Fellowship, Preparing Future Faculty Program, ASU, \$1,500, 2006

University Graduate Fellowship, Arizona State University, \$15,000, 2006

Grant In Aid of Research Award, Sigma Xi, \$500, 2006

NSF GK-12 Fellowship, Arizona State University, \$15,000, 2005-2006

NSF Graduate Research Fellowship, Honorable Mention, 2004

NSF GK-12 Fellowship, Arizona State University, \$27,500, 2003-2004

Grant in Aid of Research, Vision Research Award, Sigma Xi, \$2,000, 2003

University Graduate Scholarship, Arizona State University, \$10,500, 2002-2005

Howard Hughes Undergraduate Research Fellowship, Cornell University, \$3,500, 1999

PUBLICATIONS (45 publications, 1649 citations, *undergraduate authors)

- In revision/review/press Echeverri, S.A., Zurek, D.B., and **Morehouse, N.I.** In revision. *Male Habronattus pyrithrix jumping spiders adjust their attention-grabbing courtship display based on spatial and environmental context.*
- Winsor, A.M., **Morehouse, N.I.**, and Jakob, E.M. In review. *Distributed vision in spiders. Distributed Vision - From Simple Sensors to Sophisticated Combination Eyes*, Editors: Michael Bok and Elke Buschbeck, Springer Nature
- 2022 Glenszczyk, M., Outomuro, D., Gregorič, M., Kralj-Fišer, S., Schneider, J.M., Nilsson, D.-E., **Morehouse, N.I.**, and Tedore, C. 2022. *The jumping spider Saitis barbipes lacks a red photoreceptor to see its own sexually dimorphic red coloration. The Science of Nature*, 109:6. doi:10.1007/s00114-021-01774-6
- 2021 Hoke, K.L., Hensley, N.M., Kanwal, J.K., Wasserman, S., and **Morehouse, N.I.** 2021. *Spatio-temporal dynamics in animal communication: A special issue arising from a unique workshop-symposium sequence. Integrative and Comparative Biology*, 61(3):783-786. doi:10.1093/icb/icab151

PUBLICATIONS (CONT., *undergraduate authors)

- Echeverri, S.A., Miller, A.E., Chen, J., McQueen, E.W., Plakke, M.S., Spicer, M., Hoke, K.L., Stoddard, M.C., and **Morehouse, N.I.** In press. *How signaling geometry shapes the efficacy and evolution of animal communication systems*. **Integrative and Comparative Biology**, 61(3):787-813. doi: 10.1093/icb/icab090
- Sung, J.Y., Harris, O.K., Hensley, N.M., Chemero, A.P., and **Morehouse, N.I.** In press. *Beyond cognitive templates: re-examining template metaphors used for animal recognition and navigation*. **Integrative and Comparative Biology**, 61(3):825-841. doi: 10.1093/icb/icab040
- Robledo-Ospina, L.E., **Morehouse, N.I.**, Escobar, F., Falcón-Brindis, A., Jiménez, M.L., Rao, D. 2021. *Prey colour biases of araneophagic mud-daubing wasps*. **Animal Behaviour**, 172:25-33. doi:10.1016/j.anbehav.2020.11.015
- LeCroy, K.A., Arceo-Gómez, G., Koski, M.H., **Morehouse, N.I.**, and Ashman, T.-L. 2021. *Floral color properties of serpentine seep assemblages depend on community size and species richness*. **Frontiers in Plant Science**, 11:2107. doi:10.3389/fpls.2020.602951
- 2020 **Morehouse, N.I.** 2020. *Spider vision*. **Current Biology**, 30:R963-983. doi:10.1016/j.cub.2020.07.042
- Ren, A., Day, C.R., Hanly, J.J., Counterman, B.A., **Morehouse, N.I.**, and Martin, A. 2020. *Convergent evolution of broadband reflectors underlies metallic coloration in butterflies*. **Frontiers in Ecology and Evolution**, 8:206. doi:10.3389/fevo.2020.00206
- Morehouse, N.I.**, Raubenheimer, D., Kay, A., and Bertram, S.M. 2020. *Integrating nutritional and behavioral ecology: Mutual benefits and new frontiers*. **Advances in the Study of Behavior**, 52:29-63. doi:10.1016/bs.asb.2020.01.002
- 2019 Plakke, M.S., Walker, J.L., Lombardo, J.B.*, Goetz, B.J.*, Pacella, G.N.*, Durrant, J.D., Clark, N.L., and **Morehouse, N.I.** 2019. *Characterization of female reproductive proteases in a butterfly from functional and evolutionary perspectives*. **Physiological and Biochemical Zoology**, 92(6):579-590. doi:10.1086/705722
- Hill, J.A., Rastas, P., Hornett, E.A., Neethiraj, R., Clark, N., **Morehouse, N.I.**, de la Paz Celorio-Mancera, M., Cols, J.C., Dirksen, H., Meslin, C., Keehnen, N., Pruißcher, P., Sikkink, K., Vives, M., Vogel, H., Wiklund, C., Woronik, A., Boggs, C., Nylin, S., Wheat, C. 2019. *Unprecedented reorganization of holocentric chromosomes provides insights into the enigma of lepidopteran chromosome evolution*. **Science Advances**, 5(6):eaau3648. doi:10.1101/233700
- Goté, J.T.*, Butler, P.M., Zurek, D.B., Buschbeck, E.K., and **Morehouse, N.I.** 2019. *Growing tiny eyes: How juvenile jumping spiders retain high visual performance in the face of size limitations and developmental constraints*. **Vision Research**, 160:24-36. doi:10.1016/j.visres.2019.04.006
- Press: [Scientific American](#), [UC Magazine](#), [Mother Nature Network](#), [ZME Science](#)
- Morehouse, N.I.** and Outomuro, D. 2019. *Visual signals using incident light*. **Encyclopedia of Animal Behavior**, 2nd Ed. Editor-in-Chief: Jae Choe, Elsevier, Academic Press, 1:500-507.
- 2018 Nallu, S., Hill, J., Don, K., Sahagun, C., Zhang, W., Meslin, C., Snell-Rood, E., Clark, N.L., **Morehouse, N.I.**, Bergelson, J., Wheat, C.W., and Kronforst, M.R. 2018. *The molecular genetic basis of herbivory between butterflies and their host-plants*. **Nature Ecology & Evolution**, 2:1418-1427. doi:10.1038/s41559-018-0629-9
- Press: [Nature Plants](#), [Nature Ecology & Evolution Blog](#)
- Sandre, S-L., Kaart, T., **Morehouse, N.I.**, Tammaru, T. 2018. *Weak and inconsistent associations between melanic darkness and fitness related traits in an insect*. **Journal of Evolutionary Biology**, 31(12):1959-1968. doi: 10.1111/jeb.13387

PUBLICATIONS (CONT., *undergraduate authors)

- McQueen, E.W. and **Morehouse, N.I.** 2018. *Rapid divergence of pheromone profiles between subspecies of the butterfly *Pieris rapae**. **Journal of Insect Science**, 18(2):33. doi:10.1093/jisesa/iey026
- 2017 Meslin, C., Cherwin, T.S.*, Plakke, M.S., Hill, J., Small, B.S.*, Goetz, B.J.*, Wheat, C.W., **Morehouse, N.I.**, and Clark, N.L.† 2017. *Structural complexity and molecular heterogeneity of a butterfly ejaculate reflect a complex history of selection*. **Proceedings of the National Academy of Sciences of the United State of America**, 114(27):E5406-E5413. doi:10.1073/pnas.1707680114 †Co-senior authorship
- Press: [Science](#), [The Atlantic](#), [Newsweek](#), [New York Post](#), [I F-ing Love Science](#), [UC Magazine](#), [BioTechniques](#), [Axios](#)
- Echeverri, S.A., **Morehouse, N.I.**, and Zurek, D.B. 2017. *Control of signaling alignment during the dynamic courtship display of a jumping spider*. **Behavioral Ecology**, 28(6):1445-1453. doi:10.1093/beheco/arx107
- Press: [Popular Science](#)
- Morehouse, N.I.**, Buschbeck, E.K., Zurek, D.B., Steck, M., and Porter, M.L. 2017. *Molecular evolution of spider vision: New opportunities, familiar players*. **Biological Bulletin**, 233:21-38. doi: 10.1086/693977
- Press: [The Discovery Files](#), [UC Magazine](#)
- 2016 Limeri, L.B., and **Morehouse, N.I.** 2016. *The evolutionary history of the 'alba' polymorphism in the butterfly sub-family Coliadinae (Lepidoptera: Pieridae)*. **Biological Journal of the Linnean Society**, 117(4):716-724. doi: 10.1111/bij.12697
- Taylor, L.A., Amin, Z.*, Maier, E.B.*, Byrne, K.J.*, and **Morehouse, N.I.** 2016. *Flexible color-learning in an invertebrate predator: Habronattus jumping spiders can learn to prefer or avoid the color red when foraging*. **Behavioral Ecology**, 27(2):520-529. doi:10.1093/beheco/arv182
- Press: [Nature World News](#), [Science Daily](#), [Lab Manager](#)
- 2015 Snell-Rood, E., Cothran, R., Espeset, A., Jeyasingh, P., Hobbie, S. and **Morehouse, N.I.** 2015. *Life history evolution in the anthropocene: Effects of increasing nutrients on traits and tradeoffs*. **Evolutionary Applications**, 8(7):635-649. doi: 10.1111/eva.12272
- Zurek, D.B., Cronin, T.W., Taylor, L.A., Byrne, K.*, Sullivan, M., and **Morehouse, N.I.** 2015. *Spectral filtering enables trichromatic vision in colorful jumping spiders*. **Current Biology**, 25(10):R403-404. doi: 10.1016/j.cub.2015.03.033
- Press: [National Geographic](#), [Science](#), [Smithsonian](#), [LA Times](#), [Scientific American](#), [Natural History Magazine](#), [ScienceDaily](#), [Science World Report](#), [EurekAlert!](#), [Spiegel Online \(German\)](#), [Neue Zürcher Zeitung \(German\)](#), [Die Welt \(German\)](#), [人民网 \(Chinese\)](#), [N+1 \(Russian\)](#), [SINC \(Spanish\)](#), [Vozpópuli \(Spanish\)](#), [n-tv \(German\)](#), [The Scientist](#), [I F-ing Love Science](#), [Examiner.com](#), [NYC Today](#), [Phys.org](#), [Digital Journal](#), [Futurity](#), [Sci-News](#), [redOrbit](#), [Pitt News](#)
- Plakke, M.S., Deutsch, A.B.*, Meslin, C., Clark, N.L.† and **Morehouse, N.I.**† 2015. *Dynamic digestive physiology of a female reproductive organ in a polyandrous butterfly*. **Journal of Experimental Biology**, 218:1548-1555. doi: 10.1242/jeb.118323 †Co-senior authorship
- Press: [Inside JEB](#), [Discover Magazine](#), [Throb](#), [Mental Floss](#)

PUBLICATIONS (CONT., *undergraduate authors)

- Meslin, C., Plakke, M.S, Deutsch, A.B.*, Small, B.S.*, **Morehouse, N.I.**†, and Clark, N.L.† 2015. *Digestive organ in the female reproductive tract borrows genes from multiple organ systems to adopt critical functions*. **Molecular Biology and Evolution**, 32(6):1567-1580. doi:10.1093/molbev/msv048 †Co-senior authorship
- 2014 **Morehouse, N.I.** 2014. *Condition-dependent ornaments, life histories, and the evolving architecture of resource-use*. **Integrative and Comparative Biology**, 54(4):591-600. doi:10.1093/icb/icu103
- Limeri, L.B. and **Morehouse, N.I.** 2014. *Sensory biases and the maintenance of color polymorphisms: Viewing the Colias 'alba' polymorphism through the male visual system*. **Functional Ecology**, 28(5):1197-1207. doi: 10.1111/1365-2435.12244
- Ligon, R.A., Dolezal, A.G., Hicks, M.R., Butler, M.W., **Morehouse, N.I.** and Ganesh, T.G. 2014. *Using ants, animal behavior, and the learning cycle to investigate scientific processes*. **American Biology Teacher**, 76:525-534. doi:10.1525/abt.2014.76.8.6
- Taylor, L.A., Maier, E.B.*, Byrne, K.J.*, Amin, Z.* and **Morehouse, N.I.** 2014. *Colour use by tiny predators: Jumping spiders show colour biases during foraging*. **Animal Behaviour**, 90:149-157. doi: 10.1016/j.anbehav.2014.01.025
- Press: [SciLogs](#)
- 2013 Hua, J., **Morehouse, N.I.** and Relyea, R. 2013. *Pesticide resistance in amphibians: Induced resistance in susceptible populations, constitutive tolerance in tolerant populations*. **Evolutionary Applications**, 6(7):1028-1040. doi: 10.1111/eva.12083
- Press: [Discovery News](#), [Biome](#), [ScienceDaily](#), [Science Newsline](#), [EurekAlert!](#), [Phys.org](#), [Futurity](#)
- Morehouse, N.I.**, Mandon, N., Christides, J.P., Body, M., Bimbard, G. and Casas, J. 2013. *Seasonal selection and resource dynamics in a seasonally polyphenic butterfly*. **Journal of Evolutionary Biology**, 26:175-185. doi: 10.1111/jeb.12051
- 2011 Meadows, M.G., **Morehouse, N.I.**, Rutowski, R.L., Douglas, J.M. and McGraw, K.J. 2011. *Quantifying iridescent coloration in animals: A method for improving repeatability*. **Behavioral Ecology and Sociobiology**. 65(6):1317-1327. doi: 10.1007/s00265-010-1135-5
- Van Gossum, H., Bots, J, Van Heusden, J, Hammers, M., Katleen, H. and **Morehouse, N.I.** 2011. *Reflectance spectra and morph mating frequencies support intraspecific mimicry in the female colour polymorphic damselfly Ischnura elegans*. **Evolutionary Ecology**. 25(1):139-154. doi: 10.1007/s10682-010-9388-z
- 2010 **Morehouse, N.I.** and Rutowski, R.L. 2010. *In the eyes of the beholders: Female choice and avian predation risk associated with an exaggerated male butterfly color*. **American Naturalist**, 176(6):768-784. doi:10.1086/657043
- Press: [Science](#)
- Morehouse, N.I.**, Nakazawa, T., Booher, C.M., Jeyasingh, P.D. and Hall, M.D. 2010. *Sex in a material world: Why the study of sexual reproduction and sex-specific traits should become more nutritionally-explicit*. **Oikos**, 119(5):766-778. doi:10.1111/j.1600-0706.2009.18569.x
**Invited article
- Morehouse, N.I.** and Rutowski, R.L. 2010. *Developmental responses to variable diet composition in the cabbage white butterfly, Pieris rapae: the role of nitrogen, carbohydrates and genotype*. **Oikos**, 119(4):636-645. doi:10.1111/j.1600-0706.2009.17866.x

PUBLICATIONS (CONT., *undergraduate authors)

- Lindstedt, C., **Morehouse, N.I.**, Pakkanen, H., Casas, J., Christides, J.P., Kemppainen, K., Lindström, L. and Mappes, J. 2010. *Characterizing the pigment composition of a variable warning signal of *Parasemia plantaginis* larvae.* **Functional Ecology**, 24(4):759-766. doi: 10.1111/j.1365-2435.2010.01686.x
- 2009 **Morehouse, N.I.** and Rutowski, R.L. 2009. *Comment on “Floral iridescence, produced by diffraction optics, acts as a cue for animal pollinators.”* **Science**, 325:1072-d. doi:10.1126/science.1173324
- Meadows, M.G., Butler, M.W., **Morehouse, N.I.**, Taylor, L.A., Toomey, M.B., McGraw, K.J. and Rutowski, R.L. 2009. *Iridescence: views from many angles.* **Journal of the Royal Society Interface**, 6:S107-113. doi:10.1098/rsif.2009.0013.focus
**Introduction to thematic journal issue organized by authors (including publication below)
- Shawkey, M.D., **Morehouse, N.I.** and Vukusic, P. 2009. *A protean palette: colour materials and mixing in birds and butterflies.* **Journal of the Royal Society Interface**, 6:S221-S231. doi:10.1098/rsif.2008.0459.focus
- 2007 **Morehouse, N.I.**, Vukusic, P. and Rutowski, R.L. 2007. *Pterin pigment granules are responsible for both broadband light scattering and wavelength selective absorption in the wing scales of pierid butterflies.* **Proceedings of the Royal Society of London B**, 274:359-366. doi:10.1098/rspb.2006.3730
- Press: [Chemistry World](#)
- McGraw, K.J., Toomey, M.B., Nolan, P.M., **Morehouse, N.I.**, Massaro, M. and Jouventin, P. 2007. *A description of unique fluorescent yellow pigments in penguin feathers.* **Pigment Cell Research**, 20:301-304. doi:10.1111/j.1600-0749.2007.00386.x
- Rutowski, R.L., Macedonia, J., Merry, J., **Morehouse, N.I.**, Yturralde, K., Taylor-Taft, L., Gaalema, D.*, Kemp, D.J. and Papke, R.S., 2007. *Iridescent ultraviolet signaling in the Orange Sulphur butterfly (*Colias eurytheme*): Spatial, temporal and spectral properties.* **Biological Journal of the Linnean Society**, 90:349-364. doi:10.1111/j.1095-8312.2007.00749.x
- 2006 Merry, J., **Morehouse, N.I.**, Yturralde, K., and Rutowski, R.L., 2006. *Eyes of a patrolling butterfly: Visual field and eye structure in the Orange Sulphur, *Colias eurytheme* (Lepidoptera, Pieridae).* **Journal of Insect Physiology**, 52(3):240-248. doi:10.1016/j.jinsphys.2005.11.002
- Rutowski, R.L., Macedonia, J., **Morehouse, N.I.** and Taylor-Taft, L., 2005. *Pterin pigments amplify iridescent ultraviolet signal in males of the orange sulphur butterfly, *Colias eurytheme*.* **Proceedings of the Royal Society of London B**, 272:2329-2335. doi:10.1098/rspb.2005.3216
**Cover article

INVITED PRESENTATIONS (75 total)

- 2022 Centre for Ecology and Conservation seminar, University of Exeter, Penryn, UK, February, 2022.
- 2021 **Morehouse, N.I.** *The evolution of looking and seeing: New insights from colorful jumping spiders.* Plenary talk, 6th Asian Society of Arachnology Conference, Kochi, India, December, 2021.
- Department of Biology seminar, University of Louisville, Louisville, KY, September, 2021.
- World Wide Neuro, Sussex Vision Series seminar, Host: Baden Lab, University of Sussex, Brighton, UK, April, 2021, [video link](#)

INVITED PRESENTATIONS (CONT.)

- Morehouse, N.I. *Colors as life history traits: Insights from the pigment-based coloration of two butterfly species*. Invited symposium presentation, *The Integrative Biology of Pigment Organelles Symposium*, Annual meeting, Society for Integrative and Comparative Biology, virtual meeting, January, 2021.
- Echeverri, S.A., Miller, A.E., Chen, J., McQueen, E.W., Plakke, M.S., Spicer, M., Hoke, K.L., Stoddard, M.C., and Morehouse, N.I. *How signaling geometry shapes the efficacy and evolution of animal communication systems*. Invited symposium presentation, *Spatio-Temporal Dynamics of Animal Communication Symposium*, Annual meeting, Society for Integrative and Comparative Biology, virtual meeting, January, 2021.
- 2020 Department of Biology seminar, Rutgers University, Camden, NJ, October, 2020.
- 2019 Morehouse, N.I., Zurek, D.B., Taylor, L.A., Cronin, T., Kunte, K., and Outomuro, D. *The evolution of color vision in jumping spiders*. Invited oral presentation, 4th International Conference on Invertebrate Vision, Bäckaskog Castle, Sweden, August, 2019.
- Department of Biological Sciences seminar, National University of Singapore, Singapore, June, 2019.
- Integrated Behavioral Research Group seminar, Princeton University, Princeton, NJ, May, 2019.
- Center for the Integrative Study of Animal Behavior seminar, Indiana University, Bloomington, IA, April, 2019.
- Division of Biological Sciences seminar, University of Montana, Missoula, MT, February, 2019.
- Darwin Day keynote speaker, Department of Biology, Indiana State University, Terre Haute, IN, February, 2019.
- 2018 Department of Biological Sciences seminar, Kent State University, Kent, OH, October, 2018.
- Department of Biology seminar, Wright State University, Dayton, OH, September, 2018.
- Department of Biology seminar, Duke University, Durham, NC, April, 2018.
- Department of Biology seminar, McGill University, Montreal, Canada, March, 2018.
- 2017 Institute seminar, National Centre for Biological Sciences, Tata Institute of Fundamental Research, Bangalore, India, December, 2017.
- Organismic and Evolutionary Biology seminar, University of Massachusetts, Amherst, MA, November, 2017.
- Department of Astronomy colloquium, University of Washington, Seattle, WA, October, 2017.
- Department of Biology/Genome Sciences joint seminar, University of Washington, Seattle, WA, October, 2017.
- Department of Entomology seminar, University of Kentucky, Lexington, KY, October, 2017.
- Department of Biology seminar, Miami University, Oxford, OH, September, 2017.

INVITED PRESENTATIONS (CONT.)

- Department of Biology seminar, Case Western Reserve University, Cleveland, OH, March, 2017.
- Featured speaker, University of Pittsburgh School of Medicine Winter Academy, Naples, FL, February, 2017.
- 2016 Department of Biology seminar, Wayne State University, Detroit, MI, December, 2016.
- Department of Biological Sciences seminar, Purdue University, West Lafayette, IN, November, 2016.
- Department of Biology seminar, Stephen F. Austin State University, Nacogdoches, TX, October, 2016.
- Graduate-student-invited department seminar, Department of Ecology, Evolution and Behavior, University of Minnesota, Twin Cities, Saint Paul, MN, October, 2016.
- Art-Science special seminar, Department of Ecology, Evolution and Behavior, University of Minnesota, Twin Cities, Saint Paul, MN, October, 2016.
- Department of Biology seminar, John Carroll University, Cleveland, OH, September, 2016.
- Morehouse, N.I., Zurek, D.B., Taylor, L.A., and Cronin, T. *Repeated evolution of color vision underlies rapid diversification of salticid male coloration*. Invited oral presentation, *Visual Information Acquisition, Processing, and Cognition Symposium*, 20th International Congress of Arachnology, Golden, CO, July, 2016.
- Senior Vice Chancellor's Research Seminar, University of Pittsburgh, June, 2016.
- Morehouse, N.I. *The evolution of seeing*. Art-science plenary, Evolution 2016, Austin, TX, June, 2016.
- Graduate Student Association of Biological Sciences invited seminar speaker, Department of Biological Sciences, University of South Carolina, Columbia, SC, March, 2016.
- Department of Biology seminar, College of Wooster, Wooster, OH, March, 2016.
- Department of Biological Sciences seminar, University of Cincinnati, Cincinnati, OH, February, 2016.
- 2015 Public science lecture, Ecology Center, Utah State University, Logan, UT, December, 2015.
- Department seminar, Ecology Center, Utah State University, Logan, UT, December, 2015.
- Invited seminar, VisCog group, Carnegie Mellon University, Pittsburgh, PA, November, 2015.
- Department of Biology seminar, Carleton University, Ottawa, Canada, November, 2015.
- Morehouse, N.I. *Colors, choices and conflict: Evolutionary insights from the reproductive biology of butterflies*. Tupper Seminar, Smithsonian Tropical Research Institute, Panama City, Panama, March, 2015.
- Morehouse, N.I. *In the eyes of a tiger: Color vision and color signaling in jumping spiders*. Bambi Seminar, Smithsonian Tropical Research Institute, Barro Colorado Island, Panama, March, 2015.

INVITED PRESENTATIONS (CONT.)

- 2014
- Department of Biological Sciences seminar, Duquesne University, Pittsburgh, PA, November, 2014.
- Department of Entomology seminar, Pennsylvania State University, State College, PA, October, 2014.
- Morehouse, N.I. *Male ejaculates and female reproductive adaptations in the polyandrous butterfly, Pieris rapae*. Oral presentation, *Integrating Pre- and Post-Copulatory Sexual Selection in the Lepidoptera: New Insights and Future Directions Symposium*, 7th International Conference on the Biology of Butterflies, Türku, Finland, August 2014.
- Morehouse, N.I., Taylor, L.A. and Zurek, D.B. *Visual ecology of terrestrial invertebrates: A discussion*. Oral presentation. *Color Signals in Terrestrial Invertebrates: Integrating Senders and Receivers Symposium*, 15th International Behavioral Ecology Congress, International Society for Behavioral Ecology, New York City, New York, August 2014.
- Department of Biological Sciences seminar, Mississippi State University, Mississippi State, MS, April, 2014.
- Morehouse, N.I. *Colors, choices and conflict: Pre- and post-copula sexual selection in a butterfly*. Keynote address, 30th Annual Graduate Association of Biological Sciences Symposium, University of Maryland, Baltimore County, Baltimore, MD, March, 2014.
- Morehouse, N.I. *Nutritional stress and the evolution of sexual ornamentation: A life history perspective*. Invited presentation. *Stress, Condition and Ornamentation Symposium*, Annual meeting, Society for Integrative and Comparative Biology, Austin, TX, January 2014.
- 2013
- Biology Department seminar, Slippery Rock University of Pennsylvania, Slippery Rock, PA, November 2013.
- Morehouse, N.I. *Good genes, limiting nutrients and female choice: Evolution of exaggerated male coloration in the cabbage white butterfly, Pieris rapae*. Invited presentation, *New Insights into the Evolution of Insect Coloration Symposium*, Annual meeting, Entomological Society of America, Austin, TX, November, 2013.
- Morehouse, N.I. *Two to tango: Conflict, cooperation and choice in butterfly reproduction*. Science 2013, University of Pittsburgh, Pittsburgh, PA, October, 2013.
- Morehouse, N.I. *Flying colors: Innovation and evolution in butterfly coloration*. University-wide lecture, Science and Mathematics Department, Mount Aloysius College, Cresson, PA, October, 2013.
- Department of Zoology seminar, Oklahoma State University, Stillwater, OK, September, 2013.
- Morehouse, N.I. *Color sense: Color vision and coloration in animal decision making*. Keynote speaker, Psi Chi Induction Ceremony, University of Pittsburgh, Pittsburgh, PA, March 2013.
- 2012
- Morehouse, N.I. *Flying colors: New insights into the evolution of butterfly coloration*. Summer research seminar, Pymatuning Laboratory of Ecology, University of Pittsburgh, Linesville, PA, June, 2012.
- Department of Ecology, Evolution and Behavior seminar, University of Minnesota, Saint Paul, MN, March, 2012.
- Jugatae Seminar Series seminar, Department of Entomology, Cornell University, Ithaca, NY, February, 2012.

INVITED PRESENTATIONS (CONT.)

- 2011
- Biology Department seminar, University of Akron, Akron, OH, November, 2011.
- Department seminar, Université catholique de Louvain, Louvain-la-Neuve, Belgium, October 2011.
- Morehouse, N.I. *Dynamiques écologique et évolutif dans une polyphénisme saisonniers de couleur*. Kikikose Seminar Series, Université de Tours, Tours, France, October, 2011.
- Department of Biological Sciences seminar, University of Pittsburgh, Pittsburgh, PA, February 2011.
- 2010
- Morehouse, N.I. *Trip the light fantastic: Evolution and innovation in butterfly color optics*. 17th Annual “Blodbad”, Stockholm University, Tovetorp, Sweden, November, 2010.
- Morehouse, N.I. and Rutowski, R.L. *Genic capture by a nitrogen-rich color ornament in a nitrogen-limited butterfly*. Oral presentation, *Integrating Nutritional and Behavioral Ecology: Recent Insights and Future Directions Symposium*, 13th International Behavioral Ecology Congress, International Society for Behavioral Ecology, Perth, Australia, October, 2010.
- Morehouse, N.I. *Co-évolution entre la coloration des mâles et le choix des femelles chez un papillon*. Kikikose Seminar Series, Université de Tours, Tours, France, September, 2010.
- Morehouse, N.I. and Rutowski, R.L. *Limiting nutrients, bright colors and male genetic quality: Why female Pieris rapae prefer colorful mates*. Oral presentation, *Color Signals and Cues in the Lives of Butterflies: Perception, Learning and Function Symposium*, 6th International Conference on the Biology of Butterflies, Edmonton, Canada, June, 2010.
- Morehouse, N.I. *L'écologie de la nutrition et l'évolution de la couleur polyphénisme saisonniers dans un papillon*. Journée IRBI, Université de Tours, Tours, France, June 2010.
- 2009
- Morehouse, N.I. *Nature: the illustrative past and bright future of design*. Oral presentation representing Autodesk and the Biomimicry Institute, *Design and Sustainability Symposium*, Congress on the Future of Engineering Software 2009, Scottsdale, AZ, April, 2009.
- 2007
- Morehouse, N.I. *The nutrient ecology of bright butterfly colors: Currencies, costs and evolutionary considerations*. Oral presentation, *Evolution and Development of Colour Patterns Symposium*, 5th International Conference on the Biology of Butterflies, Rome, Italy, July, 2007.
- Morehouse, N.I. *Flying colors: Towards an evolutionary understanding of bright wing coloration in pierid butterflies*. Kikikose Seminar Series, Université de Tours, Tours, France, May, 2007.
- 2006
- Morehouse, N.I. *Innovation on the wing: The fascinating world of butterfly colors*. Seminar Series, Department of Neurobiophysics, Rijksuniversiteit Groningen, Groningen, The Netherlands, August, 2006.
- Morehouse, N.I. and Ramakrishna, B. *Sustainable partnerships between graduate and K-12 education: Science mentoring outreach as a case study*. Oral presentation, *Partnerships Between STEM Research and K-12 Classrooms Symposium*, AAAS-SWARM 81st Annual Meeting, Tulsa, OK, April, 2006.
- 2004
- Morehouse, N.I. *Ephemeral beauty: Age-related degradation of butterfly coloration*. Oral presentation, *Hexapodium*, Center for Insect Science, University of Arizona, Tucson, AZ, November, 2004.
- Morehouse, N.I. *Inquiry-based approaches to local insect populations*. Invited poster presentation, Annual meeting, Western Association of Graduate Schools, Phoenix, AZ, April, 2004.

CONTRIBUTED PRESENTATIONS (34 total, 3 received awards)

- 2019 **Morehouse, N.I.**, Goté, J.T., Butler, P.M., Zurek, D.B., and Buschbeck, E.K. *How juvenile jumping spiders retain high visual performance in the face of size limitations and developmental constraints*. Oral presentation, Sensorium 2019, University of Illinois, Champaign-Urbana, IL, October, 2019.
- Morehouse, N.I.**, Zurek, D.B., Taylor, L.A., Cronin, T., Dharmaraaj, B., Kunte, K., and Outomuro, D. *The evolution of color vision in jumping spiders*. Oral presentation, Color Vision: Circuits and Behavior, HHMI Janelia Research Campus, Ashburn, VA, April, 2019.
- Morehouse, N.I.**, Echeverri, S.A., Bruce, M., Long, S., Jakob, E. and Zurek, D.B. *Managing distraction: How male courtship displays attract and retain female visual attention in a jumping spider*. Oral presentation, annual meeting, Society for Integrative and Comparative Biology, Tampa, FL, January, 2019.
- 2018 **Morehouse, N.I.**, Echeverri, S.A., Bruce, M., Long, S., Jakob, E. and Zurek, D.B. *Managing distraction: How male courtship displays attract and retain female visual attention in a jumping spider*. Oral presentation, Sensorium 2018, West Lafayette, IN, November, 2018.
- Morehouse, N.I.**, Echeverri, S.A., Bruce, M., Long, S., Jakob, E. and Zurek, D.B. *Managing distraction: How male courtship displays attract and retain female visual attention in a jumping spider*. Poster presentation, International Congress of Neuroethology, Brisbane, Australia, July, 2018.
- Morehouse, N.I.**, Meslin, C., Plakke, M.S., and Clark, N.L. *Coevolution of male and female reproductive proteins in the Cabbage White butterfly, Pieris rapae*. Oral presentation, 8th International Conference on the Biology of Butterflies, Bangalore, India, June, 2018.
- Morehouse, N.I.**, Buschbeck, E.K., Zurek, D.B., Steck, M., and Porter, M.L. *The molecular basis of spider vision: New opportunities, familiar players*. Oral presentation, Annual Meeting, Society for Integrative and Comparative Biology, San Francisco, CA, January, 2018.
- 2017 **Morehouse, N.I.** *Color vision, female gaze, and the evolution of complex visual displays in jumping spiders*. Oral presentation, 1st Annual Sensorium: An Annual Symposium of Sensory Biology and Ecology, Cincinnati, OH, September, 2017.
- Morehouse, N.I.**, Zurek, D.B., Taylor, L.A., and Cronin, T. *Repeated evolution of color vision underlies rapid diversification of salticid male coloration*. Oral presentation, Annual Meeting, Society for Integrative and Comparative Biology, New Orleans, LA, January, 2017.
- 2016 **Morehouse, N.I.**, Saleh, N.W., Silverman, M.B., Hanss, C., Cherwin, T., Kirkby, C., *Striking a balance: Immune challenge elicits sex-specific trade-offs in reproductive investment in the cabbage white butterfly*. Oral presentation, Evolution 2016, Austin, TX, June 2016.
- Morehouse, N.I.**, Cronin, T.W., Taylor, L.A., Byrne, K., Sullivan, M.G., and Zurek, D.B. *Spectral filtering enables trichromatic vision in the principal eyes of Habronattus jumping spiders*. Oral presentation, Annual Meeting, Society for Integrative and Comparative Biology, Portland, OR, January 2016.
- 2015 **Morehouse, N.I.**, Meslin, C., Plakke, M.S., Deutsch, A.B., Small, B.S. and Clark, N.L. *Digestive organ in the female reproductive tract adopts critical functions by borrowing genes from multiple organ systems*. Evolution 2015, Guarujá, Brazil, June 2015.
- 2013 **Morehouse, N.I.**, Bartoch, C.M., Luna, E.N., Roberts, N.S. and Saleh, N.W. *Gifts, colors and the vagina dentata: Phenotypic plasticity, honest signaling and sexual conflict in a gift-giving butterfly*. 14th Congress of the European Society for Evolutionary Biology, Lisbon, Portugal, August, 2013.

CONTRIBUTED PRESENTATIONS (CONT.)

- Morehouse, N.I.**, Bartoch, C.M., Luna, E.N., Roberts, N.S. and Saleh, N.W. *Food, nuptial gifts and vaginae dentatae: Phenotypic plasticity and sexual conflict in a gift-giving butterfly*. Oral presentation, Annual Meeting, Society for Integrative and Comparative Biology, San Francisco, CA, January, 2013.
- 2012 **Morehouse, N.I.** and Casas, J. *Ecological resource dynamics of a seasonal color polyphenism*. Oral presentation, Evolution 2012, First Joint Congress on Evolutionary Biology, Ottawa, Canada, July, 2012.
- Morehouse, N.I.** and Casas, J. *Ecological resource dynamics of a seasonal color polyphenism*. Oral presentation, Annual meeting, Animal Behavior Society, Albuquerque, NM, June 2012.
- 2011 **Morehouse, N.I.**, Giraldo, M., Rutowski, R.L. and Vukusic, P. *Diverse photonics underlie mimetic convergence of blue butterfly coloration*. Oral presentation, Behavior 2011, joint meeting of the Animal Behavior Society and the International Ethological Conference, Bloomington, IA, July, 2011.
- 2010 **Morehouse, N.I.** and Rutowski, R.L. *The risks and rewards of resplendence: Viewing male butterfly color ornaments through the eyes of females and predators*. Oral presentation, 13th International Behavioral Ecology Congress, International Society for Behavioral Ecology, Perth, Australia, October, 2010.
- Morehouse, N.I.** *Female choice, limiting nutrients, genic capture and male butterfly colors*. Oral presentation, Warner Clyde Allee Session, Annual meeting, Animal Behavior Society, Williamsburg, VA, July, 2010.
**Awarded the Warder Clyde Allee Award
- 2008 **Morehouse, N.I.** and Rutowski, R.L. *Female choice for a nitrogen-rich color ornament in a nitrogen limited butterfly*. Oral presentation, 12th International Behavioral Ecology Congress, International Society for Behavioral Ecology, Ithaca, NY, August, 2008.
**Awarded the Frank Alois Pitelka Prize for Best Student Spoken Paper.
- Morehouse, N.I.**, Butler, M.W. and Webber, A. *Community outreach as a core training experience in graduate education*. Poster presentation, Center for the Integration of Research, Teaching, and Learning Forum 2008, University of Wisconsin, Madison, June, 2008.
- Morehouse, N.I.**, Giraldo, M.A., Rutowski, R.L. and Stavenga, D.G. *Diverse color production mechanisms are responsible for convergent blue structural coloration in a butterfly mimicry complex*. Oral presentation, Iridescence: More Than Meets the Eye, International conference, Tempe, AZ, February, 2008.
- Morehouse, N.I.**, Giraldo, M.A., Rutowski, R.L. and Stavenga, D.G. *Convergent evolution of blue structural coloration in a butterfly mimicry complex*. Oral presentation, 9th Annual Symposium, Graduates in Earth, Life and Social Sciences, Tempe, AZ, February, 2008.
**Awarded Best Oral Presentation Prize.
- 2007 **Morehouse, N.I.**, Rutowski, R.L. and Vukusic, P. *Innovative optics of bright wing colors in pierid butterflies: morphological determinants and implications for use as visual signals*. Oral presentation, Society for Integrative and Comparative Biology, Phoenix, AZ, January, 2007.
- Morehouse, N.I.**, and Davis, J.R. *A science mentoring model for partnerships between graduate research communities and public school classrooms*. Poster presentation, Annual Meeting, Society for Integrative and Comparative Biology, Phoenix, AZ, January, 2007.
- 2006 **Morehouse, N.I.**, Rutowski, R.L. and Vukusic, P. *Pigments as structural colors: Optical properties and evolutionary implications of pterin deposition in pierid butterflies*. Oral presentation, 11th International Behavioral Ecology Congress, International Society for Behavioral Ecology, Tours, France, July, 2006.

CONTRIBUTED PRESENTATIONS (CONT.)

- Morehouse, N.I.**, Rutowski, R.L. and Vukusic, P. *Pigments as structural colors: Optical properties and evolutionary implications of pterin deposition in pierid butterflies*. Oral presentation, 7th Annual Symposium, Graduates in Earth Life and Social Sciences, Tempe, AZ, February, 2006.
- Morehouse, N.I.**, Davis, J.R. and Ramakrishna, B. *Sustainable partnerships between graduate and K-12 education: Science mentoring outreach as a case study*. Oral presentation, 7th Annual Symposium, Graduates in Earth Life and Social Sciences, Tempe, AZ, February, 2006.
- 2005 **Morehouse, N.I.**, Rutowski, R.L. and Vukusic, P. *Pigments as structural colors: Optical properties and evolutionary implications of pterin deposition in pierid butterflies*. Oral presentation, Annual meeting, Animal Behavior Society, Snowbird, UT, August 2005.
- Morehouse, N.I.** and Rutowski, R.L. *Age-related degradation of butterfly coloration*. Poster session, Annual conference, Arizona Imaging and Microanalysis Society, Tempe, AZ, March, 2005.
- Morehouse, N.I.** and Rutowski, R.L. *Age-related degradation of butterfly coloration: Causes and implications*, Oral presentation, 6th Annual Symposium, Graduates in Earth Life and Social Sciences, Tempe, AZ, February, 2005.
- 2004 **Morehouse, N.I.** and Rutowski, R.L. *Age-related degradation of butterfly coloration*. General poster session, 10th International Behavioral Ecology Congress, International Society for Behavioral Ecology, Jyväskylä, Finland, July 2004.
- Morehouse, N.I.** *Local buggers: An inquiry-based approach to local insect populations*. Education poster session, Annual meeting, American Association for the Advancement of Science, Seattle, WA, February 2004.
- 2003 **Morehouse, N.I.** and Rutowski, R.L. *Age-related degradation of visual signals in the Alfalfa Butterfly (Colias eurytheme)*. General poster session, Annual meeting, Animal Behavior Society, Boise, ID, July 2003.

PRESENTATIONS TO LAY AUDIENCES (29 total)

- 2021 **Morehouse, N.I.** *The evolution of looking and seeing*, Scarabs: The Bug Society, Seattle, WA, October, 2021.
- Morehouse, N.I.** *Colors, choices, and conflict: Evolutionary insights from the reproductive biology of butterflies*. Washington Butterfly Association, Seattle, WA, May, 2021.
- 2019 **Morehouse, N.I.** *How do animals see the world? and Bioluminescence and animal communication*. STEM Girls Academy, Cincinnati Museum Center, Cincinnati, OH, September, 2019.
- Morehouse, N.I.** *How do spiders see the world?* REC Kids Camp, University of Cincinnati, June, 2018.
- Morehouse, N.I.** *How do spiders see the world?* 6th Annual Biology Day with Hughes High School, University of Cincinnati, May, 2019.
- Morehouse, N.I.** *What can colorful jumping spiders teach us about seeing the world?* Public lecture series, Center for Field Studies, University of Cincinnati, May, 2019.
- 2018 **Morehouse, N.I.** *How do spiders see the world?* 5th Annual Biology Day with Hughes High School, University of Cincinnati, May, 2018.
- Morehouse, N.I.** *The evolution of looking and seeing*. Cincinnati Wildflower Preservation Society, Cincinnati, OH, February, 2018.

PRESENTATIONS TO LAY AUDIENCES (CONT.)

- 2016
- Morehouse, N.I.** *How do animals see color?* Elementary school classroom visits, Kentucky Avenue School, Pittsburgh, PA, April, 2016.
- Morehouse, N.I.** *How do animals see color?* Pitt World of Possibilities recruitment program, University of Pittsburgh, April, 2016.
- Morehouse, N.I.** *In the eyes of a (fly) tiger: Vision, predation, and complex courtship signaling in jumping spiders.* Middle school science classroom, Saltsburg Middle High School, Saltsburg, PA, March 2016.
- Morehouse, N.I.** *Singing, dancing, colors and cleverness: What animals have to tell us about attracting mates.* Public lecture, “The Birds and the Bees...After Dark” Event, Carnegie Museum of Natural History, Pittsburgh, PA, February, 2016.
- 2015
- Morehouse, N.I.** *Colors, choices and conflict: Evolutionary insights from the reproductive biology of butterflies.* Tri Beta Biological Honor Society, University of Pittsburgh, October, 2015.
- Morehouse, N.I.** *All about ants.* Kindergarten classroom, Environmental Charter School, Pittsburgh, PA, October, 2015.
- Morehouse, N.I.** *Colors on the wing and in the undergrowth: How do butterflies and jumping spiders use color?* Kindergarten classroom, Dillworth Elementary School, Pittsburgh, PA, May, 2015.
- Morehouse, N.I.** *Colors, choices and conflict: Evolutionary insights from the reproductive biology of butterflies.* Pitt Ecology Club, University of Pittsburgh, Pittsburgh, PA, April, 2015.
- Morehouse, N.I.** *How do jumping spiders see the world?* Assemble After-School Program, Pittsburgh, PA, April, 2015.
- 2014
- Morehouse, N.I.** *In the eyes of a tiger: Color vision and color signaling in jumping spiders.* Pitt Biology Club, University of Pittsburgh, Pittsburgh, PA, October, 2014.
- Morehouse, N.I.** *Colors, choices and conflict: The weird, wonderful world of butterfly reproduction.* Outside the Classroom Curriculum, University of Pittsburgh, Pittsburgh, PA, April 2014.
- 2013
- Morehouse, N.I.** *Light play: New insights from the colorful world of butterflies and spiders* Cloverwood Senior Living, Rochester, NY, December 2013.
- Morehouse, N.I.** *Flying colors: Innovation and evolution in butterfly coloration.* Café Scientifique, Carnegie Science Center, Pittsburgh, PA, May 2013.
- Morehouse, N.I.** *Evolution on the wing.* Pitt Ecology Club, University of Pittsburgh, Pittsburgh, PA, March 2013.
- Morehouse, N.I.** *Evolution on the wing.* Pitt Biology Club, University of Pittsburgh, Pittsburgh, PA, February 2013.
- 2012
- Morehouse, N.I.** *Flying colors.* The Children’s School, Carnegie Mellon University, Pittsburgh, PA, May, 2012.
- 2007
- Morehouse, N.I.** *Bling on the wing: The colorful world of butterflies.* Valley View School, Phoenix, AZ, March, 2007.
- Morehouse, N.I.** *Flying colors: New insights in to the world of bright butterfly coloration.* Emeritus College Colloquia Series, Arizona State University, February, 2007.
- 2006
- Morehouse, N.I.** *Innovation on the wing: the fascinating world of butterfly wing colors.* Ecology Explorers seminar, Global Institute of Sustainability, Arizona State University, July, 2006.

PRESENTATIONS TO LAY AUDIENCES (CONT.)

2004 **Morehouse, N.I.** *Insects in the classroom*. Oral presentation, Ecology Explorers seminar, Center for Environmental Studies, Arizona State University, Tempe, AZ, July, 2004.

ART-SCIENCE COLLABORATIONS

Current **Alloy Series, Institute for Research in Sensing** September 2021-present
University of Cincinnati, Cincinnati, OH

Conceived and directed a series of interdisciplinary discussions on cutting edge topics in sensing, perception, and sensor technology development, called the Alloy Series. Alloy events center around a discussion involving invited voices from both STEM disciplines as well as the humanities, social sciences, fine and performing arts. These events also feature live exhibitions by artists, poets, musicians, and other performers. Funding for the Alloy Series comes from the University of Cincinnati's Research2030 initiative, and a College of Arts & Sciences College Structures grant.

Nexus, College of Arts & Sciences September 2020-present
University of Cincinnati, Cincinnati, OH

Nexus is part social experiment, part conceptual construct, and part physical reality. Conceived of as hybrid between a 'third place' (*sensu* Oldenberg) and an innovation accelerator, the Nexus project seeks to create a physical space inside the heart of the College of Arts & Sciences at the University of Cincinnati where people of all backgrounds, roles, and commitments can gather to imagine, exchange ideas, and encounter the new. The project has drafted a manifesto, collaborated with architecture and design students on prototypes for the physical space, and is currently working to develop a sustainable plan to bring Nexus into reality. The Nexus project emerged from the A&S 21st Century Task Force Structures Subcommittee, commissioned by Dean Valerio Ferme in 2020.

2018 **What Does It Mean to Be Curious?** November 2015 – 2018
University of Pittsburgh, Pittsburgh, PA

Conceived and co-directed a series of [interdisciplinary discussions](#) on curiosity in the arts and sciences with artist/librarian Kate Joranson (Frick Fine Arts Library, University of Pittsburgh) as part of the Year of the Humanities in the University initiative. Conversations included philosophers, artists, scientists, digital humanists, musicians, and educators ([link](#)), with \$5,200 in funding from the Provost's Office, Humanities Center, University Library System, Department of Biological Sciences, and the Carnegie Museum of Natural History.

2018 **Scientific Consultant, Kecksburg (film, released 2019)** 2016-2018
Served as a scientific consultant on alien biology and visual appearance for a feature film about the Kecksburg UFO incident, including discussions regarding alien skin appearance under UV and IR light.

2016 **Art-Science Plenary at Evolution 2016** June 2016
Art.Science.Gallery and Austin Convention Center, Austin, TX

As part of the art-science programming associated with the international conference Evolution 2016, I was invited to give a special plenary combining evolutionary biology with the arts. In my presentation, I wove the deep evolutionary history of vision with two more modern stories: Darwin's life and the contemporaneous development of early photography. I gave this talk at Art.Science.Gallery in East Austin, and a second time at the convention center where Evolution 2016 was hosted. Both lectures were open to the general public.

All Around Us: Installations and Experiences Inspired by Bugs April 2016
Wood Street Galleries, Pittsburgh, PA

Live streaming of audio and video footage of male courtship displays in the jumping spider *Habronattus pyrrithrix*, filmed during the gallery opening on an architectural stage built by collaborator and show curator Ali Momeni (School of Art, Carnegie Mellon University). Permanent installation of projected high resolution video footage of *H. pyrrithrix* courtship.

ART-SCIENCE COLLABORATIONS (CONT.)

- Evolution – Musical Compositions Inspired by Morehouse Lab Research** April 2016
Music Preparatory School, School of Music, Carnegie Mellon University, Pittsburgh, PA
Musical collaboration with three Creative Expressions composition classes taught by Jennie Dorris at the Music Preparatory School at Carnegie Mellon. The three classes wrote multi-movement compositions inspired by our research on jumping spider courtship, butterfly coloration, and butterfly life history. These compositions were performed, with visual media I developed, during the Music Preparatory School's Spring Showcase.
- 2008 **Iridescence-Inspired Art and Fashion Show** February 2008
Arizona State University, Tempe, AZ
Conceived and co-organized an art show and fashion show as events during an international conference on the topic of iridescence in nature, titled *Iridescence: More than Meets the Eye*. This involved collaborations with national artists and local fashion designers in the Design School at Arizona State University.

RESEARCH TRAINING EXPERIENCE

- European Union Marie Curie International Incoming Fellow** June 2009 – June 2011
Institut de Recherche sur la Biologie de l'Insecte, Université de Tours, France
- Division of Graduate Studies Dissertation Fellow** August 2007 – May 2008
School of Life Sciences, Arizona State University, Tempe, AZ
- Graduate Research Assistant** January – August 2006
School of Life Sciences, Arizona State University, Tempe, AZ
- University Graduate Scholar** Summers, 2003-2005
School of Life Sciences, Arizona State University, Tempe, AZ
- Independent Research/ Honors Thesis** May 1999 – May 2000
Professor Cole Gilbert, Dept. of Entomology, Cornell University, Ithaca, NY
- Field/Research Assistant** October 1998 – July 1999, January 2000
Professor Alison Power, Dept. of Ecology, Cornell University, Ithaca, NY

TEACHING EXPERIENCE

- Courses Taught as Faculty at Undergraduate Level**
BIOL 3041 – Biology of Sex, University of Cincinnati Spring 2018, 2019, Fall 2020, 2021
BIOSC 1445 – Animal Communication, University of Pittsburgh Spring 2013-2016
- Courses Taught as Faculty at Graduate Level**
BIOL 8050 – Current Topics in Sensory Biology and Behavior Spring 2021
BIOL 8001 – Data Analysis, University of Cincinnati Fall 2017, 2018, 2020
BIOL 9004 – Research Progress, University of Cincinnati Spring 2017
BIOSC 2500 – Visual Ecology, University of Pittsburgh Fall 2016
BIOSC 2450 – Seminar in Ecology, University of Pittsburgh Spring 2015
BIOSC 2351 – Advanced Evolution, University of Pittsburgh Fall 2012
- Guest Lectures**
Visual Ecology of Jumping Spiders, Animal Behavior, College of Wooster 2016
Ecology, Sexual Selection, and Speciation, Advance Ecology, University of Pittsburgh 2015
Sexual Selection I & II, Advanced Evolution, University of Pittsburgh 2014
Visual Signaling in Butterflies, Animal Communication, University of Puerto Rico 2013
Sexual Selection in Butterflies, Insect Behavior, Cornell University 2012

TEACHING EXPERIENCE (CONT.)

Student Workshops

Ethics and Academic Integrity Spring 2013, 2014; Summer 2013
Office of Undergraduate Research, Scholarship, and Creative Activity
School of Arts & Sciences, University of Pittsburgh

The Craft of Undergraduate Research Proposals Spring 2015, 2016; Fall 2015, 2016
Office of Undergraduate Research, Scholarship, and Creative Activity
School of Arts & Sciences, University of Pittsburgh

Teacher Workshops

Using Technology Effectively in the Classroom Summer 2018
Teaching with Technology Course Design Institute
Center for the Enhancement of Teaching and Learning, University of Cincinnati

Disrupting the Lecture: Games, Technology, and People Spring 2018
Graduate Association for Teaching Enhancement's Models of Teaching Excellence
Center for the Enhancement of Teaching and Learning, University of Cincinnati

Disrupting the Lecture: Games, Technology, and Translations Spring 2018
Teaching and Learning Liaison Luncheon
Department of Biological Sciences, University of Cincinnati

Public Workshops

Spider Behavior September 2019
Advanced Naturalist Workshops
Richard & Lucile Durrell Edge of Appalachia Preserve System, OH

Graduate Teaching Assistant August – December 2008
IND 464: Collaborative Design and Development I
Innovation Space, College of Design, Arizona State University, Tempe, AZ

Graduate Teaching Assistant May – August 2008
School of Life Sciences Undergraduate Research Program
Arizona State University, Tempe, AZ

Faculty Associate August 2006 – May 2007
Center for Research on Education in Science, Mathematics, Engineering and Technology
Arizona State University, Tempe, AZ

NSF GK-12 Fellow

Graduate Partners in Science Education, Program Coordinator August 2005 – May 2006
Phoenix Preparatory Academy, Phoenix, AZ
Desert Eagle Secondary School, 7th and 8th Grade Science June 2003 – May 2004
Salt River Pima Maricopa Indian Community, AZ

Graduate Teaching Assistant January – May 2005
Bio 100: Introductory Biology for Non-Majors August 2002 – May 2003
Bio 415: Biometry August – December 2004
School of Life Sciences, Arizona State University, Tempe, AZ

Substitute Science Teacher January – June 2001
Wilson Magnet High School
Rochester City School District, Rochester, NY

Faculty (career/teaching mentorship)

Latonya Jackson, University of Cincinnati, 2020-present

Postdoctoral Fellows (6 total, 4 *in lab, †career/teaching mentorship support)

Neşe Devenot*, Institute for Research in Sensing, University of Cincinnati, 2021-present

David Outomuro Priede*, University of Cincinnati, 2017-2021

Daniel Zurek*, University of Pittsburgh/Cincinnati, 2014-2018, now Data Analyst at Apple

Camille Meslin†, University of Pittsburgh, 2012-2016, now researcher at INRA Paris, France

Alison Hale†, University of Pittsburgh, 2013, now Program Manager for Science and Research at Carnegie Mellon University

Lisa Taylor*, University of Pittsburgh, 2012-2013, now faculty at U Florida, Gainesville

Doctoral Students (33 total, 8 *in lab, ‡completed degree, ◊currently matriculating)

Claire O'Connell◊, *Dissertation Committee Member*, University of Cincinnati, 2021-present

Xavier Francis◊, *Dissertation Committee Member*, University of Cincinnati, 2021-present

Drielly Queiroga*◊, *Visiting PhD Student Mentor*, University of São Paulo, Brazil, 2021-present

Sophia Anner◊, *Dissertation Committee Member*, University of Louisville, 2021-present

Morgan Chaney◊, *Dissertation Committee Members*, Purdue University, 2021-present

Abigail Nienaber◊, *Dissertation Committee Member*, University of Louisville, 2020-present

Deniz Korman*◊, *Dissertation Advisor*, University of Cincinnati, 2020-present

Yi-Ting (Jenny) Sung*◊, *Dissertation Advisor*, University of Cincinnati, 2018-present

Olivia Harris*◊, *Dissertation Advisor*, University of Cincinnati, 2018-present

David Morris*◊, *Dissertation Advisor*, University of Cincinnati, 2017-present

Souvik Chakraborty◊, *Dissertation Committee Member*, University of Cincinnati, 2020-present

Sanjay Prasher◊, *Dissertation Committee Member*, University of Cincinnati, 2020-present

Justine Samuel◊, *Dissertation Committee Member*, University of Cincinnati, 2019-present

Shubham Rathore◊, *Dissertation Committee Member*, University of Cincinnati, 2019-present

Luis Robledo-Ospina◊, *Dissertation Committee Member*, Instituto de Ecología (INECOL), Xalapa, México, 2017-present

Andréia Figueiredo Dexheimer‡, *Dissertation Committee Member*, University of Missouri, St. Louis, 2019-2021

David Stella‡, *Dissertation Opponent*, Charles University, Prague, Czech Republic, October, 2020

Amanda Corris‡, *Dissertation Committee Member*, Department of Philosophy, University of Cincinnati, 2019-2020

Sebastian Echeverri*‡, *Dissertation Advisor*, University of Pittsburgh, 2014-2016

Dissertation Committee Member, University of Pittsburgh, 2016-2020

Melissa Plakke*‡, *Dissertation Advisor*, University of Pittsburgh, 2013-2016

Dissertation Committee Member, University of Pittsburgh, 2016-2019

Lisa Limeri*‡, *Dissertation Advisor*, University of Pittsburgh, 2012-2016

Sara Berk‡, *Dissertation Committee Member*, University of Montana, 2014-2019

Layla Freeborn‡, *Dissertation Committee Member*, University of Pittsburgh, 2015-2020

Michelle Spicer‡, *Dissertation Committee Member*, University of Pittsburgh, 2015-2016

Yu-San Yang‡, *Dissertation Committee Chair*, University of Pittsburgh, 2015-2016

Eric Griffin‡, *Dissertation Committee Member*, University of Pittsburgh, 2015-2016

Nana Zhang‡, *Dissertation Advisor*, University of Pittsburgh, 2014-2016

Alannie-Grace Grant‡, *Dissertation Committee Member*, University of Pittsburgh, 2014-2015

Nathan Brouwer‡, *Dissertation Committee Member*, University of Pittsburgh, 2011-2015

Matthew Koski‡, *Dissertation Committee Member*, University of Pittsburgh, 2011-2015

RJ Bendis‡, *Dissertation Committee Chair*, University of Pittsburgh, 2011-2015

Eden McQueen‡, *Research Rotation Advisor*, University of Pittsburgh, 2014

Primoz Pirih‡, *Zeegeleerde Opponent*, Promotie, Academieggebouw, Rijksuniversiteit Groningen, The Netherlands, March, 2011

Masters Students (15 total, 1 *in lab, ‡completed degree, ◊currently matriculating)

Jered Nathan◊, *Masters Committee Member*, University of Cincinnati, 2018-present

Alexis Dodson*‡, *Thesis Advisor*, University of Cincinnati, 2017-2021

Rose Conley‡, *Masters Committee Member*, University of Cincinnati, 2019

Masters Students (cont.)

Madeline Owens‡, *Masters Committee Member*, University of Cincinnati, 2019
Madeline Lallo‡, *Masters Committee Member*, University of Cincinnati, 2017-2019
Trinity Walls‡, *Masters Committee Member*, University of Cincinnati, 2017-2018
Robert Tunison‡, *Masters Committee Member*, University of Cincinnati, 2017
Michael Czapinski‡, *Masters Committee Chair*, University of Pittsburgh, 2016
Paul Crawford‡, *Masters Committee Member*, University of Pittsburgh, 2014-2015
Sarah Hansen‡, *Masters Committee Member*, University of Maryland, Baltimore County, 2014-2015
Andrew Lariviere‡, *Masters Committee Member*, University of Pittsburgh, 2012-2015
Katherine LeCroy‡, *Research Rotation Advisor*, University of Pittsburgh, 2012-2013
Alexandre Depoilly‡, *Project Mentor*, Université de Tours, Tours, France, 2011
Elise Gilliard‡, *Project Mentor*, Université de Tours, Tours, France, 2010
Corentin Paillusson‡, *Project Mentor*, Université de Tours, Tours, France, 2010

Postgraduate Research Technicians

Nicholas Saleh, *Research Technician/Lab Manager*, University of Pittsburgh, 2012-2014

Postgraduate Students (2 total, 1 *in lab)

Patrick Butler*, *Continuing Education Research Assistant*, University of Pittsburgh, 2014-2017
Shaniqua Gladney, *Mentorship Committee*, Hot-Metal Bridge Program Diversity Initiative, University of Pittsburgh, 2016

Undergraduate Students (87 total, all in lab, †capstone students at UC)

Imogen Watts, *Undergraduate Research Co-Op Student*, University of Cincinnati, 2022-present
Chani Shelton, *Undergraduate Research Assistant*, University of Cincinnati, 2021-present
Nuthara Jayasinghe†, *Undergraduate Research Assistant*, University of Cincinnati, 2021-present
Himashree Chandru†, *Undergraduate Research Assistant*, University of Cincinnati, 2021-present
Jala Reed, *Undergraduate Research Assistant*, University of Cincinnati, 2020-present
Leigha Brown†, *Undergraduate Research Assistant*, University of Cincinnati, 2019-present
Jack Fogle†, *Undergraduate Research Assistant*, University of Cincinnati, 2019-present
Halli Lindamood†, *Undergraduate Research Assistant*, University of Cincinnati, 2019-present
Brielle Robbins, *Undergraduate Research Assistant*, University of Cincinnati, 2020-2021
Maria Congelli, *Undergraduate Research Assistant*, University of Cincinnati, 2019-2021
Drew Costa†, *Undergraduate Research Assistant*, University of Cincinnati, 2019-2020
Sarah Lynch†, *Undergraduate Research Assistant*, University of Cincinnati, 2019-2021
Haylie Kinman†, *Undergraduate Research Assistant*, University of Cincinnati, 2019-2021
Kristen Snowdent†, *Undergraduate Research Assistant*, University of Cincinnati, 2018-2021
Megan Hepker, *Undergraduate Research Assistant*, University of Cincinnati, 2018-2021
Kaitlyn Cyncynatus†, *Undergraduate Research Assistant*, University of Cincinnati, 2017-2020
Taylor Riebel†, *Undergraduate Research Assistant*, University of Cincinnati, 2019
Stephen Fox, *Undergraduate Research Assistant*, University of Cincinnati, 2018-2019
Sammy Sahota, *Undergraduate Research Assistant*, University of Cincinnati, 2018-2019
Luke Tefend, *Undergraduate Research Assistant*, University of Cincinnati, 2018-2019
Sohaib Ahmed, *Undergraduate Research Assistant*, University of Cincinnati, 2018
Maggie Kaelin, *Undergraduate Research Assistant*, University of Cincinnati, 2018
Rhyann McCoy, *Undergraduate Research Assistant*, University of Cincinnati, 2018
Ana Wiatr, *NSF Sensory Ecology REU Fellow*, University of Cincinnati, 2018
Sylvana Ross†, *Undergraduate Research Assistant*, University of Cincinnati, 2018
Ian Lang, *Undergraduate Research Assistant*, University of Cincinnati, 2018
Isabella Geeding, *Undergraduate Research Assistant*, University of Cincinnati, 2017-2018
Varna Harrison, *Undergraduate Research Assistant*, University of Cincinnati, 2017
Alexis Lowe, *Undergraduate Research Assistant*, University of Cincinnati, 2017-2018
Julia Kerstetter, *Undergraduate Research Assistant*, University of Pittsburgh, 2016
Stanton Young, *Undergraduate Research Assistant*, University of Pittsburgh, 2016
Ciara Kernan, *Undergraduate Research Assistant*, University of Pittsburgh, 2015-2016
John Goté, *Undergraduate Research Assistant*, University of Pittsburgh, 2015-2017
Nicholas Russo, *Undergraduate Research Assistant*, University of Pittsburgh, 2016

Undergraduate Students (cont.)

Zachary Zimmer, *Undergraduate Research Assistant*, University of Pittsburgh, 2015-2016
Nicholas Bernstein, *Undergraduate Research Assistant*, University of Pittsburgh, 2016
Taha Ahmed, *Undergraduate Research Assistant*, University of Pittsburgh, 2016
Corey Forman, *Undergraduate Research Assistant*, University of Pittsburgh, 2016
Cecile Truong, *Undergraduate Research Assistant*, University of Pittsburgh, 2016
Katherine Tressel, *Undergraduate Research Assistant*, University of Pittsburgh, 2016
Allison Gerber, *Undergraduate Research Assistant*, University of Pittsburgh, 2016
Abigail Jarrett, *Undergraduate Research Assistant*, University of Pittsburgh, 2016
Jeffrey Lombardo, *Undergraduate Research Assistant*, University of Pittsburgh, 2016
Gina Pacella, *Undergraduate Research Assistant*, University of Pittsburgh, 2016
Kaitlyn Dodson, *Undergraduate Research Assistant*, University of Pittsburgh, 2016
Chidera Uzowihe, *Undergraduate Research Assistant*, University of Pittsburgh, 2016
Kevin Zedack, *Undergraduate Research Assistant*, University of Pittsburgh, 2015-2016
Keith Thomas, *Undergraduate Research Assistant*, University of Pittsburgh, 2015-2016
Sinjon Bartel, *Undergraduate Research Assistant*, University of Pittsburgh, 2014-2015
Margaret Mass, *Undergraduate Research Assistant*, University of Pittsburgh, 2014-2015
Sean Harrington, *Undergraduate Research Assistant*, University of Pittsburgh, 2015-2016
Kaylee Beckinger, *Undergraduate Research Assistant*, University of Pittsburgh, 2014-2016
Matthew Huff, *Undergraduate Research Assistant*, University of Pittsburgh, 2014-2016
Emma Schanzenbach, *Undergraduate Research Assistant*, University of Pittsburgh, 2014-2016
Tamara Cherwin, *Undergraduate Research Assistant*, University of Pittsburgh, 2013-2016
Kelly Dulin, *Undergraduate Research Assistant*, University of Pittsburgh, 2015-2016
Breanna Goetz, *Undergraduate Research Assistant*, University of Pittsburgh, 2013-2015
Amina Sobic, *Undergraduate Research Assistant*, University of Pittsburgh, 2015
Ellen Gerasimek, *Undergraduate Research Assistant*, University of Pittsburgh, 2015
Margaret Stack, *Undergraduate Research Assistant*, University of Pittsburgh, 2015
Allison Faust, *Undergraduate Research Assistant*, University of Pittsburgh, 2015
Caroline Kirkby, *Undergraduate Research Assistant*, University of Pittsburgh, 2014-2015
Alex Jordan, *Undergraduate Research Assistant*, Westminster College, 2014-2015
Riley Timbs, *Undergraduate Research Assistant*, University of Pittsburgh, 2014-2015
Erin Moss, *Undergraduate Research Assistant*, University of Pittsburgh, 2014-2015
Kristen Tobin, *Undergraduate Research Assistant*, University of Pittsburgh, 2013-2015
Zarreen Amin, *Undergraduate Research Assistant*, University of Pittsburgh, 2012-2014
Molly Silverman, *Undergraduate Research Assistant*, University of Pittsburgh, 2013-2014
Abigail Riley, *Undergraduate Research Assistant*, University of Pittsburgh, 2014
Nishant Singh, *Undergraduate Teaching Assistant*, University of Pittsburgh, 2014
Irtaza Asar, *Undergraduate Research Assistant*, University of Pittsburgh, 2011-2014
Kevin Byrne, *Undergraduate Research Assistant*, University of Pittsburgh, 2012-2014
Emily Maier, *Undergraduate Research Assistant*, University of Pittsburgh, 2012-2014
Aaron Deutsch, *Undergraduate Research Assistant*, University of Pittsburgh, 2013-2014
Celia Hanss, *Undergraduate Research Assistant*, University of Pittsburgh, 2013-2014
Ashley O'Connor, *Undergraduate Research Assistant*, University of Pittsburgh, 2011-2014
Abel Amare, *Undergraduate Research Assistant*, University of Pittsburgh, 2013
Cassandra Bartoch, *Undergraduate Research Assistant*, University of Pittsburgh, 2011-2013
Elizabeth Luna, *Undergraduate Research Assistant*, University of Pittsburgh, 2012-2013
Natalie Roberts, *Undergraduate Research Assistant*, University of Pittsburgh, 2011-2012
Swetha Patel, *Undergraduate Research Assistant*, Arizona State University, 2006-2009
Sumaya Sidique, *Undergraduate Research Assistant*, Arizona State University, 2008-2009
Kiran Thaker, *Undergraduate Research Assistant*, Arizona State University, 2008-2009
Joseph Nuñez, *Undergraduate Research Assistant*, Arizona State University, 2008-2009
Ian Sandoe, *Undergraduate Research Assistant*, Arizona State University, 2006-2007
Adam Scow, *Undergraduate Research Assistant*, Arizona State University, 2004-2005
Christina Murillo, *Undergraduate Research Assistant*, Arizona State University, 2003-2004

MENTORSHIP (CONT.)

High School Students (5 total, all in lab)

Tanvi Jadhav, *High School Research Intern, NSF ITEST*, University of Cincinnati, 2021-present
Peter Mischler, *High School Research Intern*, University of Pittsburgh, 2016
Abi Sekhar, *High School Research Intern*, University of Pittsburgh, 2016
Rosa Loewenstein, *High School Research Intern*, University of Pittsburgh, 2016
Mohit Bhide, *High School Research Intern*, University of Pittsburgh, 2014-2015

SERVICE

Diversity and Inclusion Committee, Chair	2020 – present
Member	2018 – 2020
Department of Biological Sciences, University of Cincinnati	
Associate Editor	2021-present
<i>The American Naturalist</i>	
Workshop + Symposium Coordinator	2019 – present
Spatiotemporal dynamics in communication Society for Integrative and Comparative Biology, January 2020 and 2021	
Nominating Committee, Member	2019 – present
American Society of Naturalists	
Chief Arbiter of the Circus Arts	2018 – present
Circus Trick Requirement Nowicki Lab, Department of Biology, Duke University	
Symposium Co-Founder/Organizer	2017 – present
Sensorium: An Annual Symposium of Sensory Biology and Ecology Department of Biological Sciences, University of Cincinnati	
Greenhouse Manager Head Search Committee, Member	2021
Department of Biological Sciences, University of Cincinnati	
21st Century Task Force	2020 – 2021
College of Arts & Sciences, University of Cincinnati	
Strategic Hiring Plan Committee, Member	2020
Department of Biological Sciences, University of Cincinnati	
Center for Field Studies Steering Committee, Member	2017 – 2021
College of Arts & Sciences, University of Cincinnati	
Faculty Hiring Practices Ad Hoc Committee, Member	2019 – 2020
Department of Biological Sciences, University of Cincinnati	
IT Governance, Research & Development Committee, Member	2018 – 2020
IT@UC, University of Cincinnati	
Graduate Affairs and Curriculum Committee, Member	2017 – 2020
Department of Biological Sciences, University of Cincinnati	
College Structures Committee, Member	2019 – 2020
College of Arts & Sciences, University of Cincinnati	
Outreach and Community Relations Committee, Chair	2018 – 2020
Department of Biological Sciences, University of Cincinnati	

SERVICE (CONT.)

Graduate Recruitment and Admissions Committee, Member Department of Biological Sciences, University of Cincinnati	2017 – 2018
Department Head Search Committee, Member Department of Biological Sciences, University of Cincinnati	2018
Department Seminar Series Coordinator Department of Biological Sciences, University of Cincinnati	2017 – 2018
Graduate Curriculum and Assessment Committee, Member Department of Biological Sciences, University of Pittsburgh	2014 – 2016
Pymatuning Laboratory of Ecology Oversight Committee, Member Department of Biological Sciences, University of Pittsburgh	2015 – 2016
Senior Recognition Ceremony Committee, Member Department of Biological Sciences, University of Pittsburgh	2013 – 2016
Colleges Against Cancer, Faculty Advisor University of Pittsburgh Chapter, Pittsburgh, PA	2014 – 2016
Ecology and Evolution Faculty Search Committee (3 positions) Department of Biological Sciences, University of Pittsburgh	2015 – 2016
Sustainability Faculty Search Committee, Member Department of Biological Sciences, University of Pittsburgh	2015 – 2016
Select Committee on the Chair, Member Department of Biological Sciences, University of Pittsburgh	2015 – 2016
Department Annual Retreat Committee, Member Department of Biological Sciences, University of Pittsburgh	2011 – 2013, 2015
Department Advisory Committee, Member Junior Faculty Member, Department of Biological Sciences, University of Pittsburgh	2013 – 2015
Symposium Coordinator Color Signals in Terrestrial Invertebrates: Integrating Senders and Receivers 15 th International Behavioral Ecology Congress, New York City, USA, August, 2014	November 2013 – August 2014
Symposium Coordinator Integrating Pre- and Post-Copulatory Sexual Selection in the Lepidoptera: New Insights and Future Directions 7 th International Conference on the Biology of Butterflies, Türku, Finland, August, 2014	September 2013 – August 2014
Research Presenter/Display SciTech Festival, Carnegie Science Center, Pittsburgh, PA, November, 2012	2012 – 2015
Grand Awards Judge Intel International Science and Engineering Fair, Pittsburgh, PA, May, 2012	May 2012
Symposium Coordinator Integrating Nutritional and Behavioral Ecology: Recent Insights and Future Directions 13 th International Behavioral Ecology Congress, ISBE, Perth, Australia, October, 2010	November 2009 – October 2010
WoodStoich 2009 Steering Committee Member Tohoku University, Sendai, Japan	August 2008 – August 2009

SERVICE (CONT.)

Program Consultant August 2007 – May 2009
Program Co-Founder/Director October 2004 – August 2007
Graduate Partners in Science Education (GPSE)
School of Life Sciences, Arizona State University
gpse.asu.edu

“Ask a Biologist” Science Outreach Program, Correspondent August 2003 – May 2009
School of Life Sciences, Arizona State University

Webmaster, Rutowski Lab January 2003 – May 2009
School of Life Sciences, Arizona State University

Web Advisory Committee, Committee Member
October 2005 – May 2008
School of Life Sciences, Arizona State University

Conference Organizer February 2007 – February 2008
[Iridescence: More Than Meets the Eye](#), February 6-9, 2008
Frontiers in Life Sciences Conference Series
School of Life Sciences, Arizona State University

Grant Reviewer September 2007
Graduate and Professional Students Association Research Grant Competition
Graduate and Professional Students Association, Arizona State University

Campus Health Services Advisory Committee, Member July 2006 – August 2007
Arizona State University

Health and Counseling Student Action Committee, Member July 2006 – August 2007
Arizona State University

Graduate Student Body President May 2006 – May 2007
Graduate Scholars in the School of Life Sciences
School of Life Sciences, Arizona State University

Undergraduate Programs Committee, Member January – May 2007
School of Life Sciences, Arizona State University

Committee Chair January – May 2007
Campus Health Advisory Board, Graduate and Professional Students Association
Arizona State University

Graduate Programs Committee, Member August 2006 – May 2007
School of Life Sciences, Arizona State University

Student Mentor/Event Judge January 2004 – April 2007
Central Arizona Regional Science and Engineering Fair
Phoenix Public Schools, Phoenix, AZ

Founder and Coordinator January 2005 – May 2006
Sexual Selection Reading Group
School of Life Sciences, Arizona State University

Symposium Coordinator October 2005 – April 2006
Partnerships between STEM Research and K-12 Classrooms
AAAS-SWARM 81st Annual Meeting, Tulsa, OK, April, 2006

SERVICE (CONT.)

Committee Member August 2002 – August 2006
Graduates in Earth, Life and Social Sciences Annual Symposium
Graduates in Earth, Life and Social Sciences, Arizona State University

Graduate Student Seminar Series Coordinator/Webmaster August 2003 – May 2004
School of Life Sciences, Arizona State University

Curriculum/Professional Development June – August 2003
NSTA Partners Paving Pathways Program, Butterfly Life Cycle Curriculum Development
Gilbert Elementary School District, Gilbert, AZ

CAREER DEVELOPMENT

Selected Fellow August 2019 – May 2020
Transdisciplinary Research Leadership Fellowship Program
Office of Research, University of Cincinnati, Cincinnati, OH

Selected Participant June 2008
Aligning the Preparation of Graduate Students for STEM Early Faculty Careers
CIRTL Forum 2008, University of Wisconsin, Madison, WI

Selected Participant August 2005 – May 2007
Preparing Future Faculty Program
Division of Graduate Studies, Arizona State University, Tempe, AZ

PEER REVIEW SERVICE

Advances in Insect Physiology
Advances in the Study of Behavior
African Zoology
American Naturalist
Animal Behaviour
Animal Cognition
Biological Journal of the Linnean Society
Biology Letters
Behavioral Ecology
Behavioral Ecology and Sociobiology
BMC Biology
Canadian Journal of Zoology
Current Biology
Current Zoology
Evolution
Evolutionary Biology
Ecological Entomology
Functional Ecology
Insect Science
Journal of Arachnology
Journal of Comparative Neurology
Journal of Comparative Physiology A – Neuroethology, Sensory, Neural, and Behavioral Physiology
Journal of Ecology
Journal of Evolutionary Biology
Journal of Experimental Biology
Journal of Insect Behavior
Journal of Insect Physiology
Journal of Neuroscience Methods
Journal of the Royal Society Interface

PEER REVIEW SERVICE (CONT.)

<i>Naturwissenschaften</i>	
<i>New Phytologist</i>	
<i>Oecologia</i>	
<i>Physiological and Biochemical Zoology</i>	
<i>Physiological Entomology</i>	
<i>PLoS One</i>	
<i>Proceedings of the Royal Society of London B – Biological Sciences</i>	
<i>Science</i>	
<i>Scientific Reports</i>	
Animal Behavior Society	
<i>Ad hoc</i> grant review for student research grants	2013
Biotechnology and Biological Sciences Research Council, UK	
<i>Ad hoc</i> grant review	2013
Czech Science Foundation, Czech Republic	
<i>Ad hoc</i> grant review	2017
European Research Council	
<i>Ad hoc</i> grant review	2019
Leverhulme Trust	
<i>Ad hoc</i> grant review	2020
Marsden Fund, New Zealand	
<i>Ad hoc</i> grant review	2015
National Science Foundation	
<i>Ad hoc</i> full proposal grant review	2012, 2015, 2018
Doctoral Dissertation Improvement Grant panelist (IOS)	2015
Full proposal panelist (DEB)	2015
Full proposal panelist (IOS)	2019
Sloan Foundation Science + Tech Pilot Script Competition	2020
University of Pittsburgh	
McKinley/Pape/Darbaker grant review	2015, 2016
Office of Undergraduate Research, Semester Undergraduate Research Awards grant review	2016
University of Cincinnati	
Weiman-Benedict grant review	2017, 2019
Office of Research Faculty Bridge Program grant review	2018
Office of Research PILOTS Program grant review	2018

PROFESSIONAL SOCIETY MEMBERSHIPS

American Society of Naturalists
Animal Behavior Society
International Society for Behavioral Ecology
International Society of Arachnology
Lepidopterists' Society
Sigma Xi, The Scientific Research Society
Society for Integrative and Comparative Biology