

# MICHELE A. JOHNSON

Trinity University, Department of Biology  
One Trinity Place, San Antonio, Texas 78212  
[mjohnso9@trinity.edu](mailto:mjohnso9@trinity.edu); twitter: @LizardMichele  
<https://www.johnsonlizardlab.org>

## EDUCATION

---

- 2001-2007 Washington University, St. Louis, Missouri  
Evolution, Ecology and Population Biology; Ph.D., 2007  
Advisors: Dr. Jonathan B. Losos and Dr. Alan R. Templeton
- 1997-2001 Wake Forest University, Winston-Salem, North Carolina  
B.S., Honors in Biology; minors in Chemistry and German

## PROFESSIONAL EXPERIENCE

---

- 2020-present Professor, Department of Biology, Trinity University, San Antonio, Texas
- 2015-2020 Associate Professor, Department of Biology, Trinity University, San Antonio, Texas
- 2009-2015 Assistant Professor, Department of Biology, Trinity University, San Antonio, Texas
- 2007-2009 Postdoctoral Fellow, Michigan State University, Department of Zoology  
Fellowship from Office of the Provost, MSU; Advisor: Dr. Juli Wade

## PUBLICATIONS

---

\* indicates undergraduate co-author

### a. Peer-reviewed articles

- Horr, D.M.\*, A.A. Payne\*, K.D. McEntire, **M.A. Johnson**. *In review*. Sexual dimorphism in dynamic body color in the green anole lizard.
- Taylor, L.A.\*, C.J. Thawley, O.R. Pertuit\*, A.J. Dennis\*, I.R. Carson\*, C. Tang\*, **M.A. Johnson**. 2022. Artificial light at night alters diurnal and nocturnal behavior and physiology in green anole lizards. *Physiology & Behavior* 257: 113992. [10.1016/j.physbeh.2022.113992](https://doi.org/10.1016/j.physbeh.2022.113992)
- Schwanz, L.E., A. Gunderson, M. Iglesias-Carrasco, **M.A. Johnson**, J.D. Kong, J. Riley, N.C. Wu. 2022. Best practices for building and curating databases for comparative analyses. *Journal of Experimental Biology* 8;225(Suppl\_1):jeb243295. DOI: [10.1242/jeb.243295](https://doi.org/10.1242/jeb.243295)
- Johnson, M.A.**, A. Kamath, R. Kirby\*, C.C. Fresquez\*, S. Wang\*, C.M. Stehle\*, A.R. Templeton, J.B. Losos. 2021. What determines paternity in wild lizards? Spatiotemporal analyses of behavior and morphology. *Integrative and Comparative Biology* 61: 634-642.  
<https://doi.org/10.1093/icb/icab115>
- McEntire, K., M. Gage, R. Gawne, M.G. Hadfield, C. Hulshof, **M.A. Johnson**, D.L. Levesque, J. Segura, N. Pinter-Wollman. 2021. Understanding drivers of variation and predicting variability across levels of biological organization. *Integrative and Comparative Biology* icab160.  
<https://doi.org/10.1093/icb/icab160>
- Higham, T.E., L.A. Ferry, L. Schmitz, D.J. Irschick, S. Starko, P.S.L. Anderson, P.J. Bergmann, H.A. Jamniczky, L.R. Monteiro, D. Navon, J. Messier, E. Carrington, S.C. Farina, K.L. Feilich, L.P. Hernandez, **M.A. Johnson**, S.M. Kawano, C.J. Law, S.J. Longo, C.H. Martin, P.T. Martone, A. Rico-Guevara, S.E. Santana, K.J. Niklas. 2021. Linking ecomechanical models and functional traits to

- understand phenotypic diversity and responses to environmental change. *Trends in Ecology and Evolution* 36: 860-873. <https://doi.org/10.1016/j.tree.2021.05.009>
- Husak J.F, M.J. Fuxjager, **M.A. Johnson**, M.N. Vitousek, J.W. Donald, C.J. Francis, W. Goymann, M. Hau, B.K. Kircher, R. Knapp, L.B. Martin, E.T. Miller, L.A. Schoenle, T.D. Williams. 2021. Life history and environment predict variation in testosterone across vertebrates. *Evolution* 75:1003-1010. <https://doi.org/10.1111/evo.14216>
- Martin, K.S., A.F. Karhl, B.M. Ivanov, **M.A. Johnson**. 2021. Use it and bruise it: Copulation rates are associated with muscle inflammation across anole lizard species. *Journal of Zoology* 314:187-193. <https://doi.org/10.1111/jzo.12880>
- Injaian, A.S., C.D. Francis, J.Q. Ouyang, D.M. Dominoni, J.W. Donald, M.J. Fuxjager, J.F. Husak, W. Goymann, M. Hau, **M.A. Johnson**, B.K. Kircher, R. Knapp, L.A. Schoenle, T.D. Williams, M.N. Vitousek. 2020. Baseline and stress-induced corticosterone levels across birds and reptiles do not reflect urbanization levels. *Conservation Physiology* 8: coz110 <https://doi.org/10.1093/conphys/coz110>
- Karhl, A.F., **M.A. Johnson**, R.M. Cox. 2019. Rapid evolution of testis size relative to sperm morphology suggests that postcopulatory sexual selection targets sperm number in *Anolis* lizards. *Journal of Evolutionary Biology* 32: 302-309. <https://doi.org/10.1111/jeb.13414>
- Vitousek, M.N., **M.A. Johnson**, C.J. Downs, E.T. Miller, L.B. Martin, C.D. Francis, J.W. Donald, M.J. Fuxjager, W. Goymann, M. Hau, J.F. Husak, B.K. Kircher, R. Knapp, L.A. Schoenle, T.D. Williams. 2019. Macroevolutionary patterning in glucocorticoids suggests different selective pressures shape baseline and stress-induced levels. *American Naturalist* 193:866-880. <https://doi.org/10.1086/703112>
- Casagrande S., L.Z. Garamszegi, W. Goymann, J.W. Donald, C.D. Francis, M.J. Fuxjager, J.F. Husak, **M.A. Johnson**, B.K. Kircher, R. Knapp, L.B. Martin, E.T. Miller, L.A. Schoenle, M.N. Vitousek, T.D. Williams, J. Wingfield, M. Hau. 2018. Do seasonal glucocorticoid changes depend on reproductive investment? A comparative approach in birds. *Integrative and Comparative Biology* 58:739-750.
- Francis, C.D., J.W. Donald, C.J. Downs, M.J. Fuxjager, W. Goymann, M. Hau, J.F. Husak, **M.A. Johnson**, B.K. Kircher, R. Knapp, L.B. Martin, E.T. Miller, L.A. Schoenle, M.N. Vitousek, T.D. Williams. 2018. Metabolic scaling of stress hormones in vertebrates. *Integrative and Comparative Biology* 58:729-738.
- Garamszegi L.Z., J.W. Donald, C.D. Francis, M.J. Fuxjager, W. Goymann, M. Hau, J.F. Husak, **M.A. Johnson**, B.K. Kircher, R. Knapp, L.B. Martin, E.T. Miller, L.A. Schoenle, M.N. Vitousek, T.D. Williams. 2018. Species-specific means and within-species variance in glucocorticoid hormones and speciation rates in birds. *Integrative and Comparative Biology* 58:763-776.
- Johnson, M.A.**, C.D. Francis, E.T. Miller, C.J. Downs, M.N. Vitousek. 2018. Detecting bias in large-scale comparative analysis: Methods for expanding the scope of hypothesis-testing with HormoneBase. *Integrative and Comparative Biology* 58:720-728.
- Martin, L.B., M.N. Vitousek, J.W. Donald, T. Flock, M.J. Fuxjager, W. Goymann, M. Hau, J.F. Husak, **M.A. Johnson**, B.K. Kircher, R. Knapp, E.T. Miller, L.A. Schoenle, T.D. Williams, C.D. Francis. 2018. IUCN conservation status does not predict glucocorticoid concentrations in reptiles and birds. *Integrative and Comparative Biology* 58:800-813.
- Miles, M.C., M.N. Vitousek, J.F. Husak, **M.A. Johnson**, L.B. Martin, C.C. Taff, C. Zimmer, M.B. Lovern, M.J. Fuxjager. 2018. Standing variation and the capacity for change: are endocrine phenotypes more variable than other traits? *Integrative and Comparative Biology* 58:751-762.
- Vitousek, M.N., **M.A. Johnson**, J.F. Husak. 2018. Illuminating endocrine evolution: The power and potential of large-scale comparative analyses. *Integrative and Comparative Biology* 58:712-719.
- Vitousek, M.N.<sup>1</sup>, **M.A. Johnson**<sup>1</sup>, J.W. Donald, C.D. Francis, M.J. Fuxjager, W. Goymann, M. Hau, J.F. Husak, B.K. Kircher, R. Knapp, L.B. Martin, E.T. Miller, L.A. Schoenle, J. Uehling\*, T.D. Williams.

2018. HormoneBase, a population-level database of steroid hormone levels across vertebrates. *Scientific Data* 5:180097. <sup>1</sup>Indicates shared first authorship.
- Karhl, A.F., B.M. Ivanov, K.C. Wollenberg Valero, **M.A. Johnson**. 2018. Ecomorphological variation in three species of cybotoid anoles. *Herpetologica* 74:29-37.
- Johnson, M.A.**, B.K. Kircher, D.J. Castro\*. 2018. The evolution of androgen receptor expression and behavior in *Anolis* lizard forelimb muscles. *Journal of Comparative Physiology A* 204: 71-79. *Special issue: Hormonal Control of Behavior*. <https://doi.org/10.1007/s00359-017-1228-y>
- Stehle, C.M.\*, A.C. Battles\*, M.N. Sparks\*, **M.A. Johnson**. 2017. Prey availability affects territory size, but not territorial display behavior, in green anole lizards. *Acta Oecologica* 84: 41-47.
- Kircher, B.K., **M.A. Johnson**. 2017. Why do curly tail lizards (genus *Leiocephalus*) curl their tails? An assessment of displays toward conspecifics and predators. *Ethology* 123:342-347.
- Muralidhar, P., **M.A. Johnson**. 2017. Sexual selection and sex ratios in *Anolis* lizards. *Journal of Zoology* 302:178-183.
- Bush, J.M.\*, M.M. Quinn\*, E.C. Balreira, **M.A. Johnson**. 2016. How do lizards determine dominance? Applying ranking algorithms to animal social behavior. *Animal Behaviour* 118: 65-74.
- Lailvaux, S.P., J. Leifer, B.K. Kircher, **M.A. Johnson**. 2015. The incredible shrinking dewlap: skin elasticity and secondary sexual signal size in the green anole lizard (*Anolis carolinensis*). *Ecology and Evolution* 5: 4400-4409.
- Simpson, R.K.\*, **M.A. Johnson**, T.G. Murphy. 2015. Migration and the evolution of sexual dichromatism: evolutionary loss of female coloration with migration among wood-warblers. *Proceedings of the Royal Society of London: B* 282: 20150375. *Media coverage: Science, Nature, IFLS, phys.org, richarddawkins.net, helpinus.net*
- Robinson, C.D.\*, M.S. Patton\*, B.M. Andre, **M.A. Johnson**. 2015. Convergent evolution of brain morphology and communication modalities in lizards. *Current Zoology* 61: 281-291. *Special issue: The Evolution of Behavioural Mechanisms*.
- Johnson, M.A.**, M.V. Lopez\*, T.K. Whittle, B.K. Kircher, A.K. Dill\*, D. Varghese\*, J. Wade. 2014. The evolution of copulation frequency and the mechanisms of reproduction in male *Anolis* lizards. *Current Zoology* 60:768-777. *Special issue: Ecological and Evolutionary Connections between Morphology, Behavior, and Physiology*.
- Robinson, C.D.\*, B.K. Kircher, **M.A. Johnson**. 2014. Communal nesting in the Cuban twig anole (*Anolis angusticeps*) from South Bimini, Bahamas. *Reptiles & Amphibians: Conservation and Natural History* 21:71-72.
- Kircher, B.K., C.D. Robinson\*, **M.A. Johnson**. 2014. Herbivory in the Northern curly-tailed lizard (*Leiocephalus carinatus*). *Caribbean Herpetology* 50:1-2.
- Cook, E.G.\*, T.G. Murphy, **M.A. Johnson**. 2013. Colorful displays signal male quality in a tropical anole lizard. *Naturwissenschaften* 100: 993-996.
- Dill, A.K.\*, T.J. Sanger, A.C. Battles\* **M.A. Johnson**. 2013. Sexual dimorphisms in habitat-specific morphology and behavior in the green anole lizard. *Journal of Zoology* 290: 135-142.
- Battles, A.C.\*, T.K. Whittle, C.M. Stehle\*, **M.A. Johnson**. 2013. Effects of human land use on prey availability and body condition in the green anole lizard, *Anolis carolinensis*. *Herpetological Conservation and Biology* 8: 16-26.
- Hilliard, T.J., G.T. Salmon, **M.A. Johnson**. 2012. *Anolis carolinensis* (Green anole). Attempted saurophagy. *Herpetological Review* 43: 640-641.
- Johnson, M.A.**, R.E. Cohen, J.R. Vandecar\*, J. Wade. 2011. Relationships between testosterone, reproductive morphology and behavior in a natural population of the green anole lizard. *Physiology & Behavior* 104: 437-445.
- Johnson, M.A.**, J.L. Caton\*, R.E. Cohen, J.R. Vandecar\*, J. Wade. 2010. The burden of motherhood: the effect of reproductive load on female lizard locomotor, foraging, and social behavior. *Ethology* 116: 1217-1225. *Article highlighted in Current Research, Herpetological Review, June 2010*.

- Johnson, M.A.**, J. Wade. 2010. Behavioral display systems across nine *Anolis* lizard species: sexual dimorphisms in structure and function. *Proceedings of the Royal Society of London: B* 277:1711-1719.
- Johnson, M.A.**, L.J. Revell, J.B. Losos. 2010. Behavioral convergence and adaptive radiation: effects of habitat use on territorial behavior in *Anolis* lizards. *Evolution* 64: 1151-1159.  
*Article highlighted in Current Research, Herpetological Review, March 2010.*
- Johnson, M.A.**, M. Leal, L.R. Schettino, A.C. Lara, L.J. Revell, J.B. Losos. 2008. A phylogenetic perspective on foraging mode evolution and habitat use in West Indian *Anolis* lizards. *Animal Behaviour* 75: 555-563.
- Sanger, T.J., P.M. Hime, **M.A. Johnson**, J. Diani, J.B. Losos. 2008. Laboratory protocols for husbandry and embryo collection of *Anolis* lizards. *Herpetological Review* 39:58-63.
- Revell, L.J., **M.A. Johnson**, J.A. Schulte, II, J.J. Kolbe, J.B. Losos. 2007. A phylogenetic test for adaptive convergence in rock-dwelling lizards. *Evolution* 61: 2898-2912.
- Singhal, S.\*, **M.A. Johnson**, J.T. Ladner\*. 2007. The behavioral ecology of sleep: Natural sleeping site choice for three species of *Anolis* lizards. *Behaviour* 144: 1033-1052.
- Glor, R.E., **M.A. Johnson**, A. Larson. 2007. Polymorphic microsatellite loci for the Puerto Rican crested anole (*Anolis cristatellus*) and their amplification in related Puerto Rican species. *Conservation Genetics* 8: 1491-1493.
- Johnson, M.A.**, R. Kirby\*, S. Wang\*, J.B. Losos. 2006. What drives habitat use by *Anolis* lizards: habitat availability or selectivity? *Canadian Journal of Zoology* 84: 877-886.
- Johnson, M.A.** 2005. A temporary method of marking lizards. *Herpetological Review* 36: 277-279.
- Browne, R.A., D.J. Anderson, M.D. White, **M.A. Johnson**. 2003. Evidence for low genetic divergence among Galápagos *Opuntia* cactus species. *Noticias de Galápagos* 62: 11-15.

#### **b. Book chapters and articles by invitation**

- Johnson, M.A.**, R.E. Cohen, J. Wade. *Forthcoming*. Neuroendocrinology of reptilian reproductive behavior. In: *Hormones and Reproduction of Vertebrates, Volume 3, Reptiles, 2<sup>nd</sup> edition*. D.O. Norris and K.H. Lopez, eds.
- Johnson, M.A.**, E.G. Cook, B.K. Kircher. 2019. Phylogeny and ontogeny of lizard display behavior. In: *Behavior of Lizards: Evolutionary and Mechanistic Perspectives*. V. Bels and A. Russell, eds. CRC Press. Pp. 259-288.
- Johnson, M.A.**, J. Wade. 2011. Neuroendocrinology of reptilian reproductive behavior. In: *Hormones and Reproduction of Vertebrates, Volume 3, Reptiles*. D.O. Norris and K.H. Lopez, eds. Elsevier. Pp. 39-61.

#### **c. Popular articles and reviews**

- Gage, M., C. Hulshof, **M. Johnson**, D. Levesque, and K. McEntire. 2020. Finding the signal in the noise: predicting variability across the scales of life. Reintegrating Biology Vision Paper.
- Johnson, M.A.** 2019. The potential for large-scale behavioral studies: A call to *Anolis* field biologists. *Anolis Newsletter VII*. Edited by J.T. Stroud, J.B. Losos. Washington University.
- Lyons, K., D. Ribble, **M. Johnson**, and T. Murphy. 2013. Commentary: Cats undermine natural heritage. San Antonio Express-News (9 April).
- Johnson, M.A.** 2010. The evolution of anole behavior: ecological and physiological approaches. *Anolis Newsletter VI*. Edited by D.L. Mahler, A. Herrel, and J.B. Losos. Museum of Comparative Zoology, Harvard University. Pp. 71-74.
- Lailvaux, S.P., A. Herrel, and **M.A. Johnson**. 2010. The evolution of testes size in Caribbean *Anolis* lizards. *Anolis Newsletter VI*. Edited by D.L. Mahler, A. Herrel, and J.B. Losos. Museum of Comparative Zoology, Harvard University. Pp. 94-100.

**d. Published photographs**

- Photograph of *Anolis cristatellus*, and photograph of *Anolis carolinensis*, published in *Feats of Strength: How Evolution Shapes Animal Athletic Abilities*, by Simon Lailvaux, Yale University Press, 2018.
- Two photographs of *Anolis carolinensis*, published in documentary, Days Edge Productions, 2017.
- Photograph of *Anolis valencienni*, published in *Wild Life* by Robert Trivers, Biosocial Research, 2015.
- Photograph of *Anolis carolinensis*, published as cover photo of *Ecology & Evolution*, Volume 5, issue 19, October 2015.
- Photograph of *Leiocephalus carinatus*, published as cover photo of *Current Zoology*, Volume 61, issue 2, 2015.
- Photograph of *Anolis carolinensis*, published as cover photo of *Hormones and Reproduction of Vertebrates, Volume 3, Reptiles*, Edited by D.O. Norris and K.H. Lopez, Elsevier, 2011.
- Photograph of copulating *Anolis carolinensis*, published in "Sculpting reproductive circuits: Relationships among hormones, morphology and behavior in anole lizards" by Juli Wade, *General and Comparative Endocrinology*, Volume 176, 2012.
- Photographs of displaying, copulating, and fighting *Anolis carolinensis*, published in "Relationships among hormones, brain and motivated behaviors in lizards" by Juli Wade, *Hormones and Behavior*, Volume 59, issue 5, 2011.
- Photograph of *Anolis carolinensis*, published as cover photo of *Physiology & Behavior*, Volume 104, issue 3, September 2011.
- Photograph of *Anolis carolinensis*, published as cover photo of *Proceedings of the Royal Society of London: B*, Volume 277, issue 1688, 07 June 2010.
- Photograph of *Anolis evermanni*, published in *Lizards in an Evolutionary Tree* by Jonathan Losos, University of California Press, 2009.

**INVITED SEMINARS**

---

- Johnson, M.A.** 27 Oct 2022. Lizards as a model for studying the mechanisms of behavior. Joint Avian Biology Research Group, Roslin Institute, University of Edinburgh.
- Johnson, M.A.** 10 Sept 2021. The physiology of sex: evolution of behavioral convergence in Caribbean lizards. Texas A&M University, San Antonio. Biology Seminar Series.
- Johnson, M.A.** 13 Oct 2020. The physiology of sex: evolution of behavioral convergence in Caribbean lizards. St. Edward's University, Biology Seminar Series.
- Johnson, M.A.** 4 Sept 2020. The physiology of sex: evolution of behavioral convergence in Caribbean lizards. Keck Science Department, Claremont McKenna College, Seminar Series.
- Johnson, M.A.** 21 Feb 2020. The physiology of sex: evolution of behavioral convergence in Caribbean lizards. St. Mary's University Department of Biological Sciences, Jose Miguel Cimadevilla Memorial Seminar Series.
- Johnson, M.A.** 25 Nov 2019. Studying the evolution of hormones across vertebrates: The power and potential of HormoneBase. Trinity University, Department of Biology.
- Johnson M.A.** 7 June 2019. Behavioral ecology of South Texas lizards. Friedrich Wilderness Area, San Antonio.
- Johnson, M.A.** 2 May 2018. The physiology of sex: evolution of behavioral convergence in Caribbean lizards. Sam Houston State University, Department of Biology.
- Johnson, M.A.** 4 Apr 2018. Undergraduates as collaborators: Studying the physiology of social behavior in lizards. Regis University, University Research & Scholarship Council Symposium, keynote speaker.
- Balreira, E.C. and **M.A. Johnson**. How do lizards determine dominance? Applying ranking algorithms to

- social behavior. 23 Feb 2017. Faculty Research Dinner, Trinity University.
- Johnson, M.A.** Physiological mechanisms underlying behavioral convergence in Caribbean lizards. 26 Jan 2017. Washington University in St. Louis, Evolution, Ecology, and Population Biology.
- Johnson, M.A.** Physiological mechanisms underlying behavioral convergence in Caribbean lizards. 29 Nov 2016. University of Missouri, Department of Biology. (Graduate student-invited speaker)
- Johnson, M.A.** The physiology of sex: Brain, brawn, and breeding behaviors in lizards. 11 Nov 2016. Stephen F. Austin State University, Department of Biology.
- Johnson, M.A.** What lizard sex can teach us about behavioral evolution. 31 Oct 2016. New Horizons in Science/ScienceWriters2016.
- Johnson, M.A.** Physiological mechanisms underlying behavioral convergence in Caribbean lizards. 26 Feb 2016. University of Virginia, Department of Biology.
- Johnson, M.A.** Mentoring undergraduate research. 2 Dec 2015. Trinity University, Collaborative for Learning and Teaching, High Noon Luncheon series.
- Johnson, M.A.** Physiological mechanisms underlying behavioral convergence in Caribbean lizards. 20 Nov 2015. Texas State University, San Marcos, Department of Biology.
- Johnson, M.A.** Physiological mechanisms underlying behavioral convergence in Caribbean lizards. 13 Nov 2015. Baylor University, Department of Biology.
- Johnson, M.A.** Behavioral convergence in Caribbean lizards: morphological and physiological mechanisms. 2 Mar 2015. University of Texas, Austin, Population Biology seminar series.
- Johnson, M.A.** Integrating field and lab research with lizards: the evolution of behavior and physiology. 2 Jul 2014. El Verde Field Station, Rio Grande, Puerto Rico.
- Johnson, M.A.** What's the big idea? Genomics and personalized medicine. 30 Mar 2013. San Antonio Public Library, Parnam Branch.
- Johnson, M.A.** *Anolis* lizards: a model system for integrative studies of behavior. 11 Feb 2013. Trinity University, Department of Biology.
- Johnson, M.A.** The evolution of reproductive behavior in Caribbean lizards. 14 Apr 2012. Austin Herpetological Society, Austin, Texas.
- Johnson, M.A.** The evolution of reproductive behavior in Caribbean lizards: size isn't everything. 29 Nov 2011. Faculty Research Dinner, Trinity University.
- Sanger, T.J and **M.A. Johnson.** *Anolis* lizards of Hispaniola: development and behavior. 08 July 2011. Parque Zoológico Nacional, Santo Domingo, Dominican Republic.
- Johnson, M. A.** The evolution of lizard social behavior: ecological and physiological approaches. 23 Feb 2010. University of Texas, San Antonio.
- Johnson, M. A.** The evolution of lizard social behavior: ecological and physiological approaches. 18 Sept 2009. University of New Orleans.
- Johnson, M. A.** The burden of motherhood: the effect of reproductive load on female lizard behavior. Ecology, Evolutionary Biology, and Behavior Colloquium. 19 Mar 2009. Michigan State University.
- Johnson, M. A.** The evolution of reproductive behavior in Caribbean *Anolis* lizards: ecological and physiological approaches. 09 Dec 2008. University of North Carolina, Asheville.
- Johnson, M. A.** The evolution of reproductive behavior in Caribbean *Anolis* lizards: ecological and physiological approaches. 20 Nov 2008. Trinity University.
- Johnson, M. A.** The evolution of reproductive behavior in Caribbean *Anolis* lizards. Fall Colloquium, Dept of Natural Sciences. 31 Oct 2008. University of Michigan-Dearborn.
- Johnson, M. A.** The evolution of reproductive behavior in Caribbean *Anolis* lizards: ecological and physiological approaches. 16 Oct 2008. University of Arkansas, Little Rock.
- Johnson, M. A.** The evolution of reproductive behavior in Caribbean *Anolis* lizards. Biology Department Seminar. 18 Sept 2008. Central Michigan University.
- Johnson, M. A.** A comparative approach to reproductive behavior in *Anolis* lizards. Behavioral Biology

Seminar. 15 Feb 2008. Michigan State University.

**Johnson, M. A.** Territoriality and microhabitat use in lizards: predicting the evolution of behavior. 10 Oct 2006. Harvard University.

**Johnson, M. A.** Territoriality and microhabitat use in lizards: predicting the evolution of behavior. Behavioral Biology Seminar. 06 Oct 2006. Michigan State University.

**Johnson, M. A.** Habitat specialization in Caribbean *Anolis* lizards: A behavioral perspective. Herpetology Group. 14 Dec 2005. Washington University.

## PRESENTATIONS

---

\* indicates undergraduate co-author. SICB = Society of Integrative and Comparative Biology. THS = Texas Herpetological Society.

### 2023

Anderson, G.E.\* , S. Afshari\* , J. Vega\* , N.D. Koehler\* , L.E. Johnson\* , B.M. Ivanov, **M.A. Johnson**. How does testosterone change muscle fiber type? An experiment in two lizard species. SICB, Austin (poster)

Black, T.N.\* , T.J. Sanger, **M.A. Johnson**. The evolution of lizard dentition: Long and short faced *Anolis* lizards. SICB, Austin (poster). *Karem Liel Award, Best Student Presentation, Division of Vertebrate Morphology*

Blackburn, J.M.\* , M. Kholy\* , A. Ranjit\* , G.E. Anderson\* , T.N. Black\* , **M.A. Johnson**. How can you tell if an animal is stressed? Behavioral and physiological correlates of stress in captive green anole animals. SICB, Austin (poster)

Husak, J.F., R.M. Belanger, **M.A. Johnson**, K.B. Karsten, M.K. LeFauve, J.C. Macrander, T.J. Sanger, K.R. Taylor-Burt, L.B. Whitenack. Integrative biology at Primarily Undergraduate Institutions. SICB, Austin (poster)

Izquierdo, D.J.\* , M.G. Sorlin, C. Vargas\* , S. Odum\* , G.M.J. Beaudoin III, S.P. Lailvaux, **M.A. Johnson**. Exercise-induced plasticity in gray matter composition of green anole lizard brains. SICB, Austin (poster)

Kholy, M.K.\* , G.E. Anderson\* , T.N. Black\* , J.M. Blackburn\* , A. Ranjit\* , **M.A. Johnson**. The role of the third eye in lizard reproductive physiology and behavior. SICB, Austin (poster)

Odum, S.\* , L.E. Johnson\* , B.M. Ivanov, G.M.J. Beaudoin III, **M.A. Johnson**. The relationship between circulating testosterone and androgen receptor expression in lizard muscles. SICB, Austin (poster)

Ranjit, A.\* , M. Patton, A. Sotiriades\* , S. Ravi\* , **M.A. Johnson**. Lateralization in the social and visual regions of the green anole lizard brain. SICB, Austin (poster)

Rodriguez, A.G.\* , E. Bailey\* , A.A. Payne\* , E.C. Balreira, **M.A. Johnson**. Complexity of post-autotomy lizard tail movement. SICB, Austin (poster)

### 2022

**Johnson, M.A.**, A. Payne, A. Rodriguez, E.C. Balreira, E. Bailey, D. Horr. Shake, wiggle, and curl: How and why lizards move their tails, before and after tail autotomy. Association for the Study of Animal Behavior, Winter Meeting, Edinburgh, Scotland. (invited talk)

**Johnson, M.A.** Convergent evolution in behavior and physiology in *Anolis* lizards. Animal Behavior Society, San Jose, Costa Rica. Bridging Brain and Behavior in the Americas (invited symposium talk)

Husak, J.F., R.M. Belanger, **M.A. Johnson**, K.B. Karsten, M.K. LeFauve, J.C. Macrander, T.J. Sanger, K.R. Taylor-Burt, L.B. Whitenack. Integrative biology (and beyond) at Primarily Undergraduate Institutions. SICB, Phoenix (poster)

- Johnson, L.E.\* , J.T. Ladner, S.Singhal, J.B. Losos, **M.A. Johnson**. Does lizard display behavior follow the principles of signal efficacy? SICB, Phoenix (talk)
- Kircher, B.K., **M.A. Johnson**, M.N. Vitousek, M.J. Fuxjager, HormoneBase Consortium. Sexual differences in adult steroid hormones, body size, and reproductive life history in tetrapods. SICB (virtual talk).

## 2021

- Johnson, L.E.\* , B.M. Ivanov, **M.A. Johnson**. Does testosterone facilitate dynamic relationships in *Anolis* lizard behavior, morphology, and physiology? SICB Virtual (6 min talk)
- Johnson, M.A.**, R. Kirby\*, C.C. Fresquez\*, S. Wang\*, C.M. Stehle\*, A.R. Templeton, J.B. Losos, A. Kamath. Field studies of lizard copulation: from physiological mechanisms of mating to behavioral correlates of paternity. SICB Virtual. Physical Mechanisms of Behavior (invited symposium talk)
- Johnson, L.E.\* , B.M. Ivanov, **M.A. Johnson**. Testosterone regulates male *Anolis* lizard social display behaviors in a context-dependent fashion. Goldwater Scholars Virtual Conference. (talk)

## 2020

- Johnson, L.\* , B.M. Ivanov, **M.A. Johnson**. Does testosterone facilitate dynamic relationships in lizard behavior, morphology, and physiology? Animal Behavior Society, virtual (3 min video)
- Carson, I.R.\* , H.R. Hall\*, A.F. Kahrl, **M.A. Johnson**. Intraspecific variation in lizard sperm and testis morphology. SICB, Austin (poster)
- Dennis, A.J.\* , L.A. Taylor\*, O.R. Pertuit\*, I.R. Carson\*, T.J. Sanger, **M.A. Johnson**. Oviposition site choice in the brown anole lizard, *Anolis sagrei*. SICB, Austin (poster)
- Taylor, L.A.\* , O.R. Pertuit\*, I.R. Carson\*, C. Tang\*, A.J. Dennis\*, C.J. Thawley, **M.A. Johnson**. Artificial light at night (ALAN): An anthropogenic challenge for urban lizard behavior and physiology. SICB, Austin (poster)
- Sorlin, M.V., J.R. Marks, **M.A. Johnson**, J.F. Husak, S.P. Lailvaux. Effect of exercise training on brain allometry and cognitive abilities in *Anolis carolinensis*. SICB, Austin (talk)

## 2019

- Dennis, A.J.\* , L.A. Taylor\*, O.R. Pertuit\*, I.R. Carson\*, T.J. Sanger, **M.A. Johnson**. Female nesting site choice and implications for development in the brown anole lizard, *Anolis sagrei*. THS, Alpine (poster)
- Taylor, L.A.\* , O.R. Pertuit\*, I.R. Carson\*, T. Tang\*, A.J. Dennis\*, C.J. Thawley, **M.A. Johnson**. Artificial light at night (ALAN): Impacts on urban lizard behavior and physiology. THS, Alpine (poster)
- Carson, I.R.\* , H.R. Hall\*, A.F. Kahrl, **M.A. Johnson**. Intraspecific variation in sperm and testis morphology in lizards: The building blocks of reproductive success in non-model species. Texas Conservation Symposium, Georgetown. (talk; First Place, Undergraduate Presentation)
- Horr, D.M.\* , B.M. Ivanov, A.A. Payne\*, M. Rouzbehani\*, J. Vega\*, X. Wang, **M.A. Johnson**. Behavioral repeatability in the bark anole, *Anolis distichus*, across social contexts. SICB, Tampa. (poster)
- Irwin, S.J.\* , T.J. Sanger, **M.A. Johnson**. Social and exploratory behaviors of thermally-stressed lizard hatchlings. SICB, Tampa. (poster)
- Payne, A.A.\* , D.M. Horr\*, **M.A. Johnson**. Tail autotomy in lizards not associated with tail use behaviors or energy storage. SICB, Tampa. (poster)

## 2018

- Afshari, S.\* , J. Vega\*, B.M. Ivanov, **M.A. Johnson**. Anoles on steroids: The effects of testosterone on behavior and muscle architecture. THS, Del Rio. (poster)
- Horr, D.M.\* , A.A. Payne\*, **M.A. Johnson**. The ecology of dynamic color change in the green anole. THS, Del Rio. (talk)



- Payne, A.A.\* , D.M. Horr\*, **M.A. Johnson**. Tail autotomy in lizards not associated with tail use behaviors or energy storage. THS, Del Rio. (poster)
- Johnson, M.A.** The evolution of muscle physiology underlies behavioral convergence in anole lizards. International Society of Behavioral Ecology, Minneapolis. (talk) *Moderator of session: Physiological Mechanisms.*
- Johnson, M.A.** Physiological mechanisms underlying behavioral convergence in Caribbean anoles. *Anolis* Meeting, Miami. (talk)
- Casagrande, S., L.Z. Garamszegi, M. Hau, W. Goymann, **HormoneBase Consortium**. Glucocorticoid changes across life history stages: A comparative approach. SICB, San Francisco. (symposium talk)
- Francis, C.D., **HormoneBase Consortium**. Metabolic scaling of stress hormones across birds and mammals. SICB, San Francisco. (symposium talk)
- Fuxjager, M., E.T. Miller, **HormoneBase Consortium**. Macroevolutionary patterning of androgen and glucocorticoid levels across the vertebrate phylogeny. SICB, San Francisco. (symposium talk)
- Garamszegi, L.Z, **HormoneBase Consortium**. Phylogeny and diversification: Levels of glucocorticoid hormones and speciation rates in birds. SICB, San Francisco. (symposium talk)
- Hall, H.R.\* , A.F. Kahrl, **M.A. Johnson**. The evolution of testis and sperm morphology in *Anolis* lizards. SICB, San Francisco. (poster)
- Horr, D.M.\* , A.A. Payne, **M.A. Johnson**. Sex-specific effects of temperature and social behavior on the dynamic body color of the green anole lizard. SICB, San Francisco. (poster)
- Ivanov, B.M., G.M.J. Beaudoin III, M.A. Webber\*, **M.A. Johnson**. Evolution of androgen receptor distribution in *Anolis* lizard muscles. SICB, San Francisco. (talk)
- Johnson, M.A.**, J.F. Husak, M.N. Vitousek, R. Knapp, HormoneBase Consortium. The evolution of endocrine system variation: A large-scale comparative analysis of androgens. SICB, San Francisco. (symposium talk)
- Martin, K.S., A.F. Kahrl, B.M. Ivanov, **M.A. Johnson**. Copulation rates in anole lizards are correlated with muscle damage. SICB, San Francisco. (talk)
- Martin, L.B., T. Flock, M.N. Vitousek, **HormoneBase Consortium**. Vertebrate glucocorticoid regulation varies with introduction history. SICB, San Francisco. (symposium talk)
- Payne, A.A.\* , D.M. Horr\*, **M.A. Johnson**. Use it and lose it? Behavioral and energetic costs of lizard tail autotomy. SICB, San Francisco. (poster)
- Rouzbehani, M.\* , D.M. Horr\*, B.M. Ivanov, A.A. Payne\*, J. Vega\*, H. Wang\*, **M.A. Johnson**. Physiological traits predict behavioral activity in female lizards. SICB, San Francisco. (poster)
- Vega, J.\* , B.M. Ivanov, **M.A. Johnson**. The evolution of muscle size: Fiber number, fiber size, and behavior in anole lizards. SICB, San Francisco. (poster)
- Vitousek, M.N., **M.A. Johnson**, E.T. Miller, C.J. Downs, L.B. Martin, M. Hau, HormoneBase Consortium. Glucocorticoid evolution: A comparative analysis across vertebrates. SICB, San Francisco. (symposium talk).
- Zeb, A.J.\* , A.A. Payne\*, **M.A. Johnson**. Evolution of neuromuscular junction size and muscle use in *Anolis* lizards. SICB, San Francisco. (poster)

## 2017

- Horr, D.M.\* , A.A. Payne\*, **M.A. Johnson**. Sex-specific body color in green anole lizards: Effects of social behavior and temperature. THS, Bryan. (poster)
- Ivanov, B.M., G.M.J. Beaudoin III, M.A. Webber\*, **M.A. Johnson**. Evolution of androgen receptor distribution in *Anolis* lizard muscles. THS, Bryan. (talk)
- Payne, A.A.\* , D.M. Horr\*, **M.A. Johnson**. Use it or lose it? Behavioral and energetic costs of lizard tail autotomy. THS, Bryan. (talk)

- Vega, J.\*, B.M. Ivanov, **M.A. Johnson**. The evolution of muscle size: Fiber number, fiber size, and behavior in anole lizards. THS, Bryan. (poster)
- Zeb, A.\*, A.A. Payne\*, **M.A. Johnson**. The evolution of neuromuscular junction size and muscle use in *Anolis* lizards. THS, Bryan. (poster)
- Johnson, M.A.**, D.M. Horr\*, E.G. Cook, and B.K. Kircher. The phylogeny of lizard display: An analysis of color, motion, and sound in communication. Joint Meeting of Ichthyologists and Herpetologists, Austin. (talk)
- Deckard, F.M.\* and **M.A. Johnson**. Muscle physiology and social behavior in Caribbean anole lizards: How do muscle fiber type and size interact? SICB, New Orleans. (poster)
- Hall, H.R.\*, A.F. Kahrl, **M.A. Johnson**. Sexual selection and testis morphology in Caribbean *Anolis* lizards. SICB, New Orleans. (poster)
- Ivanov, B.M., T.G. Murphy, **M.A. Johnson**. Green anoles, brown bodies: Does the “loser effect” influence dorsal coloration in lizards? SICB, New Orleans. (talk)
- Jaramillo, M.A.\*, M.A. Webber\*, C.N. Stein\*, **M.A. Johnson**. Visual processing of social displays in the lizard brain. SICB, New Orleans. (poster)
- Johnson, M.A.**, B.M. Ivanov, B.K. Kircher. Structure size, not behavioral use, is associated with the evolution of muscle fiber size in anole lizards. SICB, New Orleans. (talk)
- Kahrl, A.F., **M.A. Johnson**, R.M. Cox. Both pre- and postcopulatory selection shape the evolution of sperm morphology among *Anolis* lizards. SICB, New Orleans. (talk)
- Webber, M.A.\* and **M.A. Johnson**. Brain vs. brawn: Hormonal mechanisms of behavior in Caribbean lizards. SICB, New Orleans. (poster)
- Zeb, A.J.\*, A.A. Payne\*, **M.A. Johnson**. The evolution of social behavior and neuromuscular junctions in Caribbean anole lizards. SICB, New Orleans. (poster)

## 2016

- Deckard, F.M.\* and **M.A. Johnson**. Muscle physiology and social behavior in Caribbean anole lizards: How do muscle fiber type and size interact? THS, Stephenville. (poster)
- Hall, H.R.\*, A.F. Kahrl, **M.A. Johnson**. Resource allocation in *Anolis* sperm and testis morphology. THS, Stephenville. (poster)
- Ivanov, B.M., T.G. Murphy, **M.A. Johnson**. Green anoles, brown bodies: The influence of a “loser effect” on the dorsal coloration of lizards. THS, Stephenville. (poster)
- Jaramillo, M.A.\*, M.A. Webber\*, C.N. Stein\*, **M.A. Johnson**. Neural processing of visual information: An analysis of brain and behavior in green anole lizards. THS, Stephenville. (talk)
- Webber, M.A.\* B.M. Ivanov, and **M.A. Johnson**. Anole blood: How environment influences physiology. THS, Stephenville. (talk)
- Zeb, A.J.\*, A.A. Payne\*, **M.A. Johnson**. A mechanism of social behavior: Neuromuscular junction size in anole lizard muscles. THS, Stephenville. (poster)
- Ivanov, B.M., T.G. Murphy, **M.A. Johnson**. Green anoles, brown bodies: Does the “loser effect” influence dorsal coloration in lizards? Annual Biomedical Research Conference for Minority Students (ABRCMS), Tampa. (poster)
- Sanger, T.J. E. Sherrett, **M.A. Johnson**. Why (and how) the long face? The evolutionary and developmental bases of *Anolis* facial diversity. International Congress of Vertebrate Morphology, Washington, DC. (talk)
- Ivanov, B.M., L.A. Selznick\*, **M.A. Johnson**. What does it mean to be green? Body color and social interaction in the green anole lizard. SICB, Portland. (talk)
- Johnson, M.A.**, M.E. Oberndorf\*, F.M. Deckard\*, C.D. Robinson. Endurance vs. speed: The evolution of muscle physiology and behavior in lizards. SICB, Portland. (talk)
- Selznick, L.A.\* and **M.A. Johnson**. Evolution of lizard jaw morphology in association with diet and social behavior. SICB, Portland. (poster)

- Stercula, J.M.\*, J.L. Roberts, **M.A. Johnson**. Temperature influences lipid composition and membrane fluidity in lizard brains. SICB, Portland. (poster)
- Webber, M.A.\*, B.M. Ivanov, **M.A. Johnson**. Interspecific variation in blood physiology in Caribbean *Anolis* lizards. SICB, Portland. (poster)

## 2015

- Deckard, F.M.\* and **M.A. Johnson**. Muscle fiber type, size, and social behavior in Dominican anole lizards. THS, San Marcos. (poster)
- Hall, H.R.\*, A.F. Kahrl, **M.A. Johnson**. Sexual selection in lizards: Analysis of sexual dimorphism, testis morphology, and sperm development. THS, San Marcos. (poster)
- Ivanov, B.M., L.A. Selznick\*, **M.A. Johnson**. What does it mean to be green? Body color and social interaction in the green anole lizard. THS, San Marcos. (talk)
- Selznick, L.A.\* and **M.A. Johnson**. Evolution of lizard jaw morphology in association with diet and social behavior. THS, San Marcos. (poster)
- Stercula, J.M.\*, J.L. Roberts, **M.A. Johnson**. Brain membrane fluidity in *Anolis* lizards is regulated by temperature and lipid composition. THS, San Marcos. (talk)
- Webber, M.A.\*, B.M. Ivanov, **M.A. Johnson**. Blood physiology of Caribbean *Anolis* lizards. 2015 THS, San Marcos. (poster)
- Zeb, A.J.\* and **M.A. Johnson**. The mechanisms of social behavior: Neuromuscular junction size and density in Dominican anoles. THS, San Marcos. (poster)
- Stercula, J.M.\*, J.L. Roberts, **M.A. Johnson**. Temperature influences lipid composition and membrane fluidity in lizard brains. University of Texas Health Science Center, Undergraduate Neuroscience Symposium, San Antonio, Texas. (poster)
- Robinson, C.D.\*, M.S. Patton\*, B.A. Andre, **M.A. Johnson**. Convergent evolution of brain morphology and communication modalities in lizards. Missouri Herpetological Association, Steeleville. (talk)
- Davis, L.M.\*, C.D. Robinson\*, B.M. Andre, **M.A. Johnson**. What makes a lizard invasive? Behavioral and neural correlates of invasion success. SICB, West Palm Beach. (poster)
- Fink, A.A.\*, **M.A. Johnson**, D.O. Ribble. The value of corridors in conservation: Genetic diversity in urban lizard populations. SICB, West Palm Beach. (poster)
- Kircher, B.K., D.J. Castro\*, C.D. Robinson\*, **M.A. Johnson**. Androgen receptor expression in *Anolis* lizard muscles: the evolution of endocrine mechanisms of social behavior. SICB, West Palm Beach. (poster)
- Lailvaux, S.P., B.K. Kircher, J. Leifer, **M.A. Johnson**. The incredible shrinking dewlap: skin elasticity and secondary sexual signal size in male *Anolis carolinensis* lizards. SICB, West Palm Beach. (talk)
- Murray, J.D.\*, M.E. Oberndorf\*, B.K. Kircher, J.M. Stercula\*, **M.A. Johnson**. Higher blood glucose levels linked to increased activity in wild lizards. SICB, West Palm Beach. (poster)
- Oberndorf, M.E.\*, B.K. Kircher, **M.A. Johnson**. Static and dynamic visual displays in anole lizards. SICB, West Palm Beach. (poster)
- Quinn, M.M.\*, J.L. Neuwald, B.K. Kircher, E.R. Congdon, **M.A. Johnson**. Resource allocation in female lizards: reproduction vs. growth after tail autotomy. SICB, West Palm Beach. (poster)
- Stercula, J.M.\*, M.S. Patton\*, L.A. Selznick\*, **M.A. Johnson**. The role of myoblast fusion in the evolution of muscle fiber size in *Anolis* lizards. SICB, West Palm Beach. (poster)

## 2014

- Fink, A.A.\*, **M.A. Johnson**, D.O. Ribble. Do corridors maintain genetic diversity? A study of urban Texas spiny lizard populations. Beckman Scholars Symposium, Irvine (poster).
- Fink, A.A.\*, **M.A. Johnson**, D.O. Ribble. Do corridors influence genetic diversity in Texas spiny lizard populations? THS, San Marcos. (talk)

- Murray, J.D.\* , M.E. Oberndorf\*, B.K. Kircher, J.M. Stercula\*, **M.A. Johnson**. Higher blood glucose levels correlated with increased activity in Puerto Rican lizards. THS, San Marcos. (poster)
- Oberndorf, M.E.\* , B.K. Kircher, **M.A. Johnson**. Static and dynamic signaling in crested anoles. THS, San Marcos. (poster)
- Quinn, M.M.\* , J.L. Neuwald, B.K. Kircher, E.R. Congdon, **M.A. Johnson**. Do gravid female *Anolis sagrei* lizards experience a resource trade-off after tail autotomy? THS, San Marcos. (talk)
- Stercula, J.M.\* , M.S. Patton\*, L.A. Selznick\*, **M.A. Johnson**. Muscle fiber development causes variability in fiber size in *Anolis* lizards. THS, San Marcos. (poster)
- Bush, J.M.\* , M.M. Quinn\*, E.C. Balreira, **M. A. Johnson**. Mathematical analysis of social dominance in the green anole lizard. Joint Mathematics Meeting, Baltimore. (poster)
- Bush, J.M.\* , M.M. Quinn\*, E.C. Balreira, **M. A. Johnson**. Mathematical analysis of social dominance in the green anole lizard. SICB, Austin. (poster)
- Davis, L.M.\* and **M.A. Johnson**. The behavioral and neural correlates of invasive ability in lizards. SICB, Austin. (poster)
- Fink, A.A.\* , **M.A. Johnson**, D.O. Ribble. Do corridors maintain genetic diversity? A study of urban Texas spiny lizard populations. SICB, Austin. (poster).
- Johnson, M.A.** The evolution of muscle physiology and social behavior in Caribbean *Anolis* lizards. SICB, Austin. (talk).
- Kircher, B.K. and **M.A. Johnson**. Why does the curly tail lizard (*Leiocephalus*) curl its tail? An assessment of social and predatory interactions. SICB, Austin. (poster)
- Quinn, M.M.\* , J.M. Bush\*, A.K. Dill, E.C. Balreira, **M.A. Johnson**. Mathematical model of the dynamic energy budget of the green anole lizard. SICB, Austin. (poster)
- Robinson, C.D.\* , M.S. Patton\*, **M.A. Johnson**. Evolution of communication modalities and brain morphology in lizards. SICB, Austin. (poster)

### 2013

- Cook, E.G.\* , T.G. Murphy, **M.A. Johnson**. Parasite-mediated sexual selection in lizards: Is color an honest signal of male quality? Beckman Scholars Symposium, Irvine. (invited talk)
- Johnson, M.A.** The evolution of muscle physiology and social behavior in Caribbean *Anolis* lizards. Winter Conference of the Association for the Study of Animal Behaviour: The Evolution of Behavioural Mechanisms, London. (talk)
- Bush, J.M.\* , M.M. Quinn\*, E.C. Balreira, **M.A. Johnson**. Dominance in the green anole: a novel application of ranking algorithms. Texas Undergraduate Mathematics Conference. St. Mary's University, San Antonio. (talk)
- Johnson, M.A.** Evaluating student success in an integrative introductory biology curriculum. American Association for the Advancement of Science (AAAS) Vision and Change conference, Washington, DC. (poster)
- Patton, M.S.\* , T. Megahed\*, **M.A. Johnson**. Lateralization of aggressive behavior and brain morphology in the green anole lizard (*Anolis carolinensis*). San Antonio Mind Science Foundation. (poster)
- Patton, M.S.\* , T. Megahed\*, **M.A. Johnson**. Lateralization of aggressive behavior and brain morphology in the green anole lizard (*Anolis carolinensis*). Brain, Behavior, and Evolution Symposium, University of Texas, Austin. (poster)
- Blackmon, T.N.\* and **M.A. Johnson**. Temperature-dependent behaviors in the Texas spiny lizard (*Sceloporus olivaceus*). SICB, San Francisco. (poster)
- Castro, D.J.\* , C.D. Robinson\*, **M.A. Johnson**. The effect of variation in endocrine mechanisms on natural display behavior in Caribbean *Anolis* lizards. 2013 SICB, San Francisco. (poster) *Travel supported by Charlotte Mangum Student Support Award.*

- Cook, E.G.\*, M.M. Muñoz, A.E. Conover, I.H. Shields\*, K.E. Boronow, T.G. Murphy, **M.A. Johnson**. Is dewlap color an honest indicator of health in *Anolis* lizards? An analysis of population differences in body condition and parasite load. SICB, San Francisco. (talk)
- Patton, M.S.\*, T. Megahed\*, **M.A. Johnson**. Lateralization of aggressive behavior and brain morphology in the green anole lizard (*Anolis carolinensis*). SICB, San Francisco. (poster) *Travel supported by Charlotte Mangum Student Support Award.*
- Robinson, C.D.\*, T.J. Sanger, A.C. Battles\*, **M.A. Johnson**. Sexual dimorphisms in behavior in two long-snouted *Anolis* lizard species. SICB, San Francisco. (poster) *Travel supported by Charlotte Mangum Student Support Award.*

## 2012

- Blackmon, T.N.\* and **M.A. Johnson**. Temperature-dependent behaviors in the Texas spiny lizard. THS, McKinney. (poster)
- Bush, J.M.\*, M.M. Quinn\*, A.K. Dill, E.C. Balreira, **M.A. Johnson**. Mathematical model of the dynamic energy budget of the green anole lizard (*Anolis carolinensis*). THS, McKinney. (poster)
- Cook, E.G.\*, M.M. Muñoz, A.E. Conover, I.H. Shields\*, K.E. Boronow, T.G. Murphy, **M.A. Johnson**. Does display coloration indicate lizard health? An investigation of differences in body condition, parasite load, and dewlap color in different populations of Caribbean *Anolis* lizards. THS, McKinney. (talk)
- Patton, M.S.\*, T. Megahed\*, **M.A. Johnson**. Lateralization of aggressive behavior and brain morphology in the green anole lizard (*Anolis carolinensis*). THS, McKinney. (poster)
- Johnson, M.A.** and J. King. Predictors of student success in an integrative introductory biology curriculum. Integrative STEM Learning: Pedagogy and Partners Conference, San Antonio. (talk)
- Cook, E.G.\*, T.G. Murphy, **M.A. Johnson**. Highly-parasitized Caribbean lizards (*Anolis brevirostris*) exhibit less colorful, less frequent social displays. SICB, Charleston. (poster) *Travel supported by Charlotte Mangum Student Support Award and Council on Undergraduate Research, Biology Division.*
- Khozein, R.T.\*, D.J. Castro\*, N.M. McCarther\*, J. Wade, **M.A. Johnson**. Evolution of muscle physiology and reproductive behavior in *Anolis* lizards. SICB, Charleston. (poster) *Travel supported by Charlotte Mangum Student Support Award.*
- Johnson, M.A.**, T.J. Sanger, M.N. Sparks\*, J.B. Losos. Sexual dimorphisms in *Anolis* lizard behavior and morphology: the result of niche partitioning or sexual selection? SICB, Charleston. (talk) *Moderator of session, Sexual Selection in Herps.*

## 2011

- Castro, D.J.\*, and **M.A. Johnson**. The effect of variation in endocrine mechanisms on natural display behavior in Caribbean *Anolis* lizards. THS, Austin. (poster)
- Khozein, R.T.\*, D.J. Castro\*, N.M. McCarther\*, J. Wade, **M.A. Johnson**. Evolution of muscle physiology and reproductive behavior in *Anolis* lizards. THS, Austin. (poster)
- Megahed, T.\* and **M.A. Johnson**. Reproductive behavior and brain morphology across four *Anolis* lizard species. THS, Austin. (poster)
- Varghese, D.\*, P.W. Shin\*, E.C. Balreira, **M.A. Johnson**. Measurement and modeling of energy flow in the green anole lizard. THS, Austin. (poster)
- Megahed, T.\* and **M.A. Johnson**. Reproductive behavior and brain morphology across four *Anolis* lizard species. San Antonio Mind Science Foundation Meeting. (poster)
- Megahed, T.\* and **M.A. Johnson**. Reproductive behavior and brain morphology across four *Anolis* lizard species. Society for Neuroscience San Antonio Chapter Meeting. (poster)

- Shin, P.W.\* , D. Varghese\*, E.C. Balreira, **M.A. Johnson**. Measurement and modeling of energy flow in the green anole lizard. International Conference on Math Modeling and Analysis, San Antonio. (poster)
- Simpson, R.K.\* , **M.A. Johnson**, T. G. Murphy. The loss of female ornamentation: does the cost of migration favor sexual dichromatism in wood warblers? Meeting of the Animal Behavior Society, Bloomington, Indiana. (poster)
- Dill, A.K.\* and **M.A. Johnson**. Plasticity in limb development in the green anole lizard, *Anolis carolinensis* . Texas Undergraduate Day at the Capitol, Austin. (poster)  
*Alisa Dill served as Trinity University's representative at this event.*
- Dill, A.K.\* and **M.A. Johnson**. Plasticity in limb development in the green anole lizard, *Anolis carolinensis* . SICB, Salt Lake City. (poster) *Travel supported by Charlotte Mangum Student Support Award.*
- Johnson, M.A.**, M.V. Lopez\*, T.K. Whittle, J. Wade. Reproductive morphology and behavior in *Anolis* lizards: A comparative analysis. SICB, Salt Lake City. (talk) *Moderator of session, Reproductive Behavior: Evolution.*
- Lewis, C.M.\* , A. C. Battles\*, M.N. Sparks\*, **M.A. Johnson**. Food supply affects territory size, but not social display behavior in green anole lizards (*Anolis carolinensis*). SICB, Salt Lake City. (poster)  
*Travel supported by Charlotte Mangum Student Support Award.*
- Sparks, M.N.\* , C.M. Lewis\*, **M.A. Johnson**. Ectoparasite load and territorial behavior in green anole lizards (*Anolis carolinensis*).SICB, Salt Lake City. (talk) *Travel supported by Charlotte Mangum Student Support Award.*
- Whittle, T.K., A.C. Battles\*, **M.A. Johnson**. At which scale? Macrohabitat, not microhabitat, influences parasite load in green anole lizards (*Anolis carolinensis*). SICB, Salt Lake City. (talk)

## 2010

- Battles, A.C.\* T.K. Whittle, C.M. Lewis\*, A.K. Dill\*, **M.A. Johnson**. Land use and lizard density: access to perches vs. prey. Student Conference on Conservation Science, American Museum of Natural History, New York. (poster)
- Camp, M.G.\* , T.K. Whittle, **M.A. Johnson**. A proposal to study the effect of social experience on the development of brain regions and behaviors associated with reproduction in lizards. San Antonio Chapter Meeting, Society for Neuroscience, San Antonio. (poster)
- Johnson, M.A.**, R.E. Cohen, J.R. Vandecar\*, J. Wade. Variation in reproductive morphology in a natural population of the green anole lizard, *Anolis carolinensis*. Society of Behavioral Neuroendocrinology, Toronto. (poster)
- Lopez, M.V.\* , T.K. Whittle, J. Wade, **M.A. Johnson**. Evolution of morphological structures associated with copulatory behavior in *Anolis* lizards. Society of Behavioral Neuroendocrinology, Toronto. (poster)
- Lopez, M.V.\* and **M.A. Johnson**. Evolution of morphological structures associated with copulatory behavior in *Anolis* lizards. Southwestern Association of Naturalists Meeting, Junction, Texas. (poster)
- Johnson, M.A.** R.E. Cohen, J.R. Vandecar\*, J. Wade. Variation in reproductive morphology in alternative male morphs of the green anole, *Anolis carolinensis*. Southwestern Association of Naturalists, Junction, Texas. (talk)

## 2009 and earlier

- Johnson, M. A.** and J. Wade. Physiological mechanisms of *Anolis* reproductive behavior: a phylogenetic approach. 2009 *Anolis* Symposium, Harvard University. (talk)

- Johnson, M.A.**, R.E. Cohen, J. Wade. The neuromuscular mechanisms of reproductive behavior in *Anolis* lizards. 2008 Animal Behavior Society. Snowbird. (talk) *Moderator of session, Physiological Mechanisms.*
- Johnson, M.A.**, R.E. Cohen, J. Wade. Behavioral evolution and the mechanisms of reproduction in Caribbean *Anolis* lizards. 2008 Evolution Meeting. Minneapolis. (talk) *Moderator of session, Behavior and Social Evolution III.*
- Johnson, M.A.** and J. Wade. Sexual dimorphism in courtship and copulatory neuromuscular systems of *Anolis* lizards. 2008 SICB, San Antonio. (talk)
- Johnson, M. A.** Territorial behavior in Caribbean *Anolis* lizards: A comparative approach. 2007 Joint Meeting of Ichthyologists and Herpetologists, St. Louis, Missouri. (talk)
- Johnson, M. A.** Does territory defense confer a fitness advantage to males? A paternity study in the Caribbean lizard, *Anolis cristatellus*. 2007 SICB, Phoenix. (talk)
- Johnson, M. A.** Are territorial strategies in lizards determined by microhabitat structure? 2006 Midwest Ecology and Evolution Conference, St. Louis. (talk)
- Singhal, S. \*, **M. A. Johnson**, J. T. Ladner\*, J. B. Losos. Where do lizards sleep? A comparison of nocturnal perches of three Jamaican *Anolis* species. 2006 Midwest Ecology and Evolution Conference, St. Louis. (poster)
- Johnson, M. A.** Does where an animal live determine its behavior? The role of microhabitat in lizard territoriality. 2006 SICB, Orlando. (talk)
- Johnson, M. A.**, R. Kirby\*, S. Wang\*. Microhabitat use in *Anolis* lizards: The importance of perch choice. 2005 Midwest Ecology and Evolution Conference, Carbondale. (talk)
- Kirby R. \*, **M. A. Johnson**, S. Wang\*. Influence of microhabitat on territorial behavior in three Puerto Rican lizards. 2005 Midwest Ecology and Evolution Conference, Carbondale. (talk)
- Johnson, M. A.** and J. H. Knouft. A preliminary analysis of the role of habitat structure in territorial behavior in Caribbean *Anolis* lizards. 2004 Joint Meeting of Ichthyologists and Herpetologists, Norman. (talk)
- Knouft, J. H., **M. A. Johnson**, D. Ullman\*. Morphological and behavioral characteristics associated with niche partitioning between *Anolis cristatellus* and *A. gundlachi* on Puerto Rico. 2004 Joint Meeting of Ichthyologists and Herpetologists, Norman. (talk)
- Johnson, M. A.** The role of habitat structure in territorial behavior of Puerto Rican *Anolis* lizards. 2004 Midwest Ecology and Evolution Conference, South Bend. (talk)
- Johnson, M. A.** and J. M. Chase. Community age and species composition: invisibility and turnover in natural zooplankton assemblages. 2003 Ecological Society of America, Savannah. (talk)

## **GRANTS RECEIVED**

---

- 2022-2028 Processes and methods to foster institutional change toward more inclusive and equitable introductory STEM education Howard Hughes Medical Institute, Inclusive Excellence 3 program. PI: Michele Johnson. \$531,600.
- 2021-2023 Inclusive Excellence Learning Grant. Howard Hughes Medical Institute. 2021 IE3LC, ref GT15234. PI: Michele Johnson. \$30,000.
- 2023 Evolution of the third eye: How do lizards perceive light? Texas Ecolab. \$5,940.
- 2022 How does lizard tail musculature control tail movement after autotomy? Texas Ecolab. \$3,600.
- 2020 The effect of testosterone on lizard muscle physiology. Faculty summer stipend award, Trinity University. \$9,000
- 2019 The ecology of dynamic color change in green anole lizards. Texas Ecolab. \$8,477.

- 2018 Symposium: Illuminating the evolution of endocrine system variation through large-scale comparative analyses. PI: Maren Vitousek, co-PIs Michele Johnson and Jerry Husak. Company of Biologists. £3,000.
- 2018 The coevolution of muscles and behavior in lizards. Faculty summer stipend award, Trinity University. \$7,000.
- 2018 Use it and lose it? Behavioral and energetic influences on lizard tail autotomy. Texas Ecolab. \$13,177.
- 2013-2018 RUI: Behavioral convergence in Caribbean lizards: morphological and physiological mechanisms. National Science Foundation. IOS 1257021. \$515,500.
- 2017 Nonapeptides and social behavior in lizards: Do mesotocin and vasotocin facilitate all modes of communication? Texas Ecolab. \$13,240.
- 2016 Social display behaviors in *Cophosaurus texanus*: How does a “zebra-tailed” lizard use its tail? Texas Ecolab. \$9,026.
- 2015 Hot brains vs. cool brains: How does body temperature affect brain cell communication in lizards? Texas Ecolab. \$13,500.
- 2014 Genetic variability in natural and urban populations of the Texas spiny lizard, *Sceloporus olivaceus*. Texas Ecolab. \$5,102.
- 2013 Fitness implications of lizard tail loss. Faculty summer stipend award, Trinity University. \$7,000.
- 2013 Thermal and behavioral ecology of Texas lizards: How do parasitized lizards regulate body temperature? Texas Ecolab. \$9,616.
- 2012-2013 Behavioral and ecological effects of parasitism in natural communities of Texas lizards. Texas Ecolab. \$11,212.
- 2011-2012 Sex, sleep, and parasitism: variation in activity and metabolic rates in lizards. Texas Ecolab. \$8,852.
- 2010-2011 The ecology of animal health: effects of habitat and parasite diversity on the physiology of Texas Lizards. Texas Ecolab. \$20,852.
- 2010 Physiology of lizard social behavior: The role of the physical environment. Faculty summer stipend award, Trinity University. \$7,000.
- 2006 Territorial behavior in Caribbean *Anolis* lizards: A comparative approach. American Association of University Women Educational Foundation (Dissertation Fellowship). \$20,000.
- 2006 Territoriality in Caribbean lizards: Does habitat direct behavioral evolution? The Explorer’s Club (Exploration Fund). \$1,200.
- 2006 Territorial behavior in Caribbean *Anolis* lizards: A comparative approach. Association for Women in Science (Educational Foundation Predoctoral Award). \$1,000.
- 2004 Male territory overlap and defensive behaviors in *Sceloporus undulatus*. Crescent Hills Research Grant, Tyson Research Center. \$600.
- 2003-2006 National Science Foundation Graduate Research Fellowship
- 2000 Genetic variation of *Opuntia* cactus in Galapagos Islands and coastal Ecuador. Richter Grant, Wake Forest University. \$5,000.
- 2000 Genetic variation of *Opuntia* cactus in Galapagos Islands and coastal Ecuador. Environmental Studies Grant, Wake Forest University. \$3,000.
- 1998-1999 Biophysical properties of frog mucus. Wake Forest Research Fellowship Grant. \$2,000.

## TEACHING EXPERIENCE

---

### PROFESSOR, TRINITY UNIVERSITY

**Integrative Biology** (2021, online; 2022; team-taught with G. Beaudoin) – lecture course for 200 undergraduates



**The Darwinian Revolution** (2020) –seminar course for non-science majors for 12 undergraduates  
**Vertebrate Biology** (2020) – lecture and laboratory course for 13 undergraduates  
**Evolution** (2021) – lecture and laboratory course for 14 undergraduates

#### **ASSOCIATE PROFESSOR, TRINITY UNIVERSITY**

**Integrative Biology** (2015-2018, 20, team-taught with J. Shinkle, G. Beaudoin, K. Lyons) – lecture course for 200 undergraduates  
**Introductory Biology Laboratory** (2018) – laboratory section for 24 undergraduates  
**The Darwinian Revolution** (2015-2016, 2018) – developed seminar course for non-science majors for Interdisciplinary Cluster “The Spirit of Our Age: Nineteenth Century Science and Culture”; 16 undergraduates  
**Evolution** (2019) – updated lecture and laboratory course for 9 undergraduates  
**Vertebrate Biology** (2017, team-taught with D. Ribble; 2018, redesigned course) – lecture and laboratory course for 8-30 undergraduates

#### **ASSISTANT PROFESSOR, TRINITY UNIVERSITY**

**Evolution** (2010-2015) – developed lecture and laboratory course for 20-30 undergraduates  
**Integrative Biology I** (2009-2014, team-taught with D. Ribble, K. Lyons, J. King, J. Shinkle) – lecture course for 200 undergraduates  
**Introductory Biology Laboratory** (2009-2014) – laboratory section for 15-24 undergraduates  
**Organization for Tropical Studies** (Fall 2013) – invited to lead one week of lecture and research activities for study abroad course in Costa Rica

#### **INSTRUCTOR, MICHIGAN STATE UNIVERSITY**

**Animal Behavior** (2008) – developed lecture course for 180 undergraduates  
**Animal Behavior, Honors Option** (2008) – developed course research supplement for 14 honors students; two presented their work at MSU’s 2009 Undergraduate Research & Arts Forum

- Virginia Heinen – Migratory restlessness in wild-living passerines. *First place award in Agriculture and Animal Science.*
- Kaitlin Lonc – Effects of urbanization and human activity on *Sciurus carolinensis* behavior: Case study at Michigan State University.

#### **TEACHING ASSISTANT, WASHINGTON UNIVERSITY**

**Population and Community Ecology** (2004), **Behavioral Ecology** (2003), **Conservation Biology** (2003)

#### **SERVICE ACTIVITIES**

---

#### **JOURNAL AND GRANT REVIEWS**

- Associate Editor, *Zoology* (2022-present)
- Associate Editor, *Frontiers for Young Minds, Biodiversity* (2016-2021)
- Ad-hoc manuscript reviewer for *American Naturalist, Amphibia-Reptilia, Animal Behavior and Cognition, Animal Behaviour, Australian Journal of Zoology, Behavioral Ecology, Behaviour, Biological Journal of the Linnean Society, Biological Invasions, Biology Letters, Biotropica, BMC Evolutionary Biology, Breviora, Caribbean Journal of Science, Current Zoology, Ecology and Evolution, Ecology Letters, Environmental Pollution, Ethology, Evolution, Frontiers in Zoology, Functional Ecology, General and Comparative Endocrinology, Herpetologica, Herpetological Conservation and Biology, Herpetological Journal, Herpetological Review, Hormones and*

*Behavior, Integrative Organismal Biology, Journal of Comparative Physiology – B, Journal of Evolutionary Biology, Journal of Experimental Zoology Part A (Ecological Genetics and Physiology), Journal of Herpetology, Journal of Urban Ecology, Journal of Zoology, Physiology & Behavior, PLoS one, Proceedings of the Royal Society B; Russian Journal of Herpetology, Science, Science of the Total Environment, Sleep Medicine Reviews, Southeastern Naturalist, South American Journal of Herpetology, The Science of Nature, Zoology*

- Current Research Editor for *Herpetological Review* (2004-2008)
- Panelist for National Science Foundation, Division of Integrative Organismal Systems (2011; 2014 (2 panels); 2021; 2022), Division of Environmental Biology (2022)
- Ad-hoc grant reviewer for Animal Behavior Society; French National Research Agency (Agence Nationale de la Recherche); Graduate Women in Science; Louisiana Board of Regents; National Geographic Society; National Research, Development and Innovation Office, Hungary; National Science Foundation; St. Mary's University of San Antonio, Office of Academic Research; Texas Herpetological Society; University of St. Thomas Faculty Development Center
- Ad-hoc proposal reviewer for Council on Undergraduate Research "Posters on the Hill" program
- Textbook chapter reviewer for Roberts and Company Publishers; book reviewer for Johns Hopkins University Press

## **MENTORING**

### Trinity University

2022-present Akshaya Ranjit. Laterality in brain and behavior in anoles.

2022-present Nathan Koehler. Invasiveness and the lizard brain.

2022-present Grace Anderson. Expression of extra-ocular opsins in lizards. Biology Summer Undergraduate Research Fellowship (\$4,000)

2022-present Mia Kholy. The parietal eye and lizard reproductive physiology. Murchison Fellowship (\$5,000)

2022-present Jeremy Blackburn. Captive lizard stress and welfare.

2021-present Shauna Odum. Androgen receptor expression in lizard muscles.

2020-present Taylor Black. Measures of muscle architecture in anoles. Biology Summer Undergraduate Research Fellowship (\$4,000)

2020-present Alex Rodriguez. Modeling curvature in autotomized lizard tails.

2020-2021 Swathisri Ravi. Laterality in lizard brain and behavior.

2020-2021 Carolina Vargas. Exercise, cognition, and brain morphology in lizards.

2019-present Isaac Agumadu. Evolution of the parietal eye in lizards.

2019-present David Izquierdo. Exercise, cognition, and brain morphology in lizards.

2018-2021 Isabela Carson. Intraspecific variation in testis morphology in anoles.

2020-2021 Lauren Johnson. Testosterone, behavior, and muscle physiology in anoles. Goldwater Scholar. Biology Summer Undergraduate Research Fellowship (\$4,000). Honors thesis in Biology.

2018-2021 Ethan Bailey. Evolution of lizard tail musculature.

2019-2020 Laura Taylor. Artificial light at night and lizard behavior. Murchison Fellowship (\$4,000). Honors thesis in Biology.

2019-2020 Abigail Dennis. Egg oviposition site choice in anoles. Biology Summer Undergraduate Research Fellowship (\$4,000). Honors thesis in Biology.

2018-2020 Shelby Irwin. Thermal stress and social behavior in hatchling anole lizards. Biology Summer Undergraduate Research Fellowship (\$4,000).

2018-2019 Bailey Charles. Testosterone and muscle physiology in anole lizards.

2017-2019 Sam Afshari. Muscle physiology in anole lizards.

2017-2019 Daisy Horr. Sexual dimorphism in body color in green anole lizards. McNair Scholar,

- Goldwater Scholar. Honors thesis in Biology.
- 2016-2019 Jesus Vega. Testosterone and muscle physiology in anole lizards.
- 2016-2019 Amy Payne. Tail movements in lizard display. Honors thesis in Biology.
- 2015-2018 Hannah Hall. Evolution of testis and sperm morphology in *Anolis* lizards. McNair Scholar. Honors thesis in Biology.
- 2015-2018 Faith Deckard. Muscle fiber type and size in *Anolis* lizards. McNair Scholar. Explorers Club Youth Activity Fund grant (\$750).
- 2015-2018 Adam Zeb. Neuromuscular junction size and density in anole muscles.
- 2016-2017 Marzieh Rouzbehani. Evolution of lizard jaw musculature.
- 2015-2017 Miguel Webber. Androgen receptor expression in lizard brain and muscles. Honors thesis in Biology. Mach Fellow (\$3,000).
- 2014-2017 Maria Jaramillo. Visual information processing in the lizard brain. Honors thesis in Neuroscience. Murchison Fellow (\$6,000); Sigma Xi GIAR (\$1,000).
- 2014-2016 Leah Selznick. Jaw muscle morphology and diet in lizards.
- 2014-2016 Jake Stercula. Lizard temperature and brain lipid composition.
- 2013-2016 Jamal Murray. Comparative reproductive physiology of green anoles.
- 2013-2015 Lauren Davis. Behavioral and neural correlates of invasion success in lizards. HHMI Undergraduate Fellow (\$5,550), Mach Fellow (\$2,500), and Sigma Xi fellow (\$900). Honors thesis in Biology.
- 2013-2015 Alyssa Fink (co-advised with David Ribble) Population genetic diversity of Texas spiny lizards. Beckman Scholar (\$19,300). Honors thesis in Biology.
- 2013-2015 Michelle Oberndorf. Muscle fiber type in lizard forelimbs.
- 2012-2015 McKenzie Quinn. (co-advised with Cabral Balreira) Mathematically modeling lizard metabolism (through Trinity's NSF-funded Integrated Research in Biology and Mathematics program; \$8,000).
- 2012-2014 Jordan Bush (co-advised with Cabral Balreira) The use of ranking algorithms to assess lizard dominance relationships (through Trinity's NSF-funded Integrated Research in Biology and Mathematics program; \$8,000; Mach Fellow, \$1,000). Honors thesis in Biology.
- 2012-2014 Terrin Blackmon. Thermal ecology of lizard behavior. McNair Scholar.
- 2012-2013 Michael Patton. Laterality of visual aggressive behavior in lizards. HHMI Undergraduate Fellow (\$5,550).
- 2011-2014 Chris Robinson. Brain morphology and communication modality in lizards. HHMI Undergraduate Fellow (\$5,550), Mind-Science Foundation grant recipient (\$625), and Sigma Xi Fellow (\$400). Honors thesis in Biology.
- 2011-2013 Ellee Cook. The effect of parasites on dewlap color in *Anolis* lizards. Beckman Scholar (\$19,300), HHMI Undergraduate Fellow (\$5,550), Sigma Xi Fellow (\$1,000), Explorer's Club grant (\$1,490). Honors thesis in Biology.
- 2011-2012 Divina Varghese. Mathematically modeling lizard metabolism. (through Trinity's NSF-funded Integrated Research in Biology and Mathematics program; \$4,000).
- 2011 Patrick Shin. Mathematically modeling lizard metabolism. (through Trinity's NSF-funded Integrated Research in Biology and Mathematics program; \$8,000).
- 2010-2013 Diego Castro. Androgen receptor protein expression and display behavior in anoles. HHMI Undergraduate Fellow (\$5,550), Explorer's Club (\$1,480) and Mind Science Foundation (\$500) grant recipient. Honors thesis in Biology.
- 2010-2013 Chelsea Lewis/Stehle. Effects of food supply on intrasexual behavior of *Anolis carolinensis*. HHMI Undergraduate Fellow (\$5,550).
- 2011-2012 Noria McCarther. Evolution of muscle fiber types in muscles associated with courtship and copulation in *Anolis* lizards.
- 2010-2012 Andrew Battles. Effects of human land use on lizard abundance and body condition. HHMI

Undergraduate Fellow (\$5,550).

2010-2012 Roxana Khozein. Evolution of muscle fiber types in *Anolis* lizards.

2010-2011 Mary Camp. Development of neuroendocrine traits in *Anolis* lizards.

2010-2011 Alisa Dill. Lizard morphological and behavioral development across habitats.

2010-2011 Tarick Megahed. Evolution of brain and behavior in *Anolis* lizards. Mind Science Foundation grant recipient (\$350).

2010-2011 Michelle Sparks. Associations between parasite abundance and territory size in lizards. Sigma Xi Fellow (\$730).

2009-2010 Veronica Lopez. Evolution of copulatory neuromuscular morphology in *Anolis* lizards.

Michigan State University (in Juli Wade's laboratory)

2008-2009 Jessica Caton. Female reproductive load and locomotor behavior in anoles.

2008-2009 Joe Vandecar. Intraspecific variation in reproductive morphology and behavior in the green anole. McNair/SROP Scholar (\$4,800), MSU.

Washington University (in Jonathan Losos' laboratory)

2006 Annie Chen. Sexual dimorphism in size and behavior in Dominican Republic *Anolis* lizards.

2006 Taylor Ramsey. Why do curly tail lizards (*Leiocephalus* spp.) curl their tails?

2005-2006 Kyra Burraston. Reproductive skew in a natural population of *Anolis krugi*. (First-year graduate student rotation)

2005-2006 Carla Fresquez. Sperm precedence in *Anolis cristatellus*.

2005-2006 James Shaw. Habitat use of juvenile *Anolis* lizards in the Dominican Republic. HHMI Undergraduate Fellow (\$3,500).

2004-2005 Jason Ladner. Dewlap size and aggressive behavior in Jamaican *Anolis* lizards. Israelrow Fellow (\$2,500).

2004-2006 Sonal Singal. *Anolis* lizard sleeping behavior in Jamaica. WU Undergraduate Research Fellow (\$2,770), and Sigma Xi Fellow (\$1,000).

2003-2005 Rebecca Kirby. *Anolis* lizard behavior in Puerto Rico. HHMI Undergraduate Fellow (\$3,500).

2003-2004 Su Wang. Puerto Rican rainforest insect abundance and diversity.

## UNIVERSITY SERVICE

### Trinity University

2019-present Program Director, Howard Hughes Medical Institute Inclusive Excellence 3

2022-present Inclusive Excellence Advisory Council

2021, 2022 Search committee member, Animal Research Facility Coordinator

2020-2022 Faculty Senate. Chair of Contingent Faculty Committee, Chair of working group on faculty office hours.

2020 President's Task Force on Teaching and Learning

2020 President's Task Force on Diversity and Inclusion, Advisory Group.

2020 Search committee member, Director of Student Diversity and Inclusion

2018-2020 Interdisciplinary Cluster Committee

2013-present Phi Beta Kappa, President of Trinity University Chapter (2015-2018), Vice President of Trinity University Chapter (2013-2015)

2012-present Major Scholarships and Fellowships Committee (NSF liaison)

2010-present TWIST; Trinity Women in Science and Technology, faculty advisor

2010-present Health Professions Advisory Committee

2009-present Darwin Day Planning Committee

2017 Search committee member, Mental Health Counselor

- 2016 Search committee member, Associate Vice President of Academic Affairs – Student Academic Issues
- 2013-2016 NSF-funded FASTER (Financial Aid for Science & Technology Students Enhanced with Research) grant advisory committee
- 2012 Committee for Curricular Revision
- 2011 Colleagues in Teaching program
- 2010-2012 Advocate for Survivors of Sexual Assault
- 2010-11, 2013 New Faculty Orientation Committee
- 2010-2013 Faculty Gold Room Committee
- 2009-2013 Neuroscience Steering Committee

### Michigan State University

- 2008-2009 Coordinator of Behavioral Biology Group, interdisciplinary seminar series
- 2009 Invited speaker: Planning, Managing, and Funding the Research Project. The Graduate School.

### Washington University

- 2006 Co-developed workshop on genotyping protocols and data analysis for Biology Dept
- 2005 Member of faculty-student committee to redesign qualifying exams, Evolution, Ecology, and Population Biology
- 2004-2007 Graduate student representative to Department of Biology; coordinator of departmental graduate student social events
- 2003-2005 Graduate student representative to Evolution, Ecology, and Population Biology Program faculty steering committee
- 2003-2007 Member of Women's Forum, a group of Washington University graduate students in Evolution, Ecology, and Population Biology working to aggressively recruit and support female prospective students and underrepresented minorities

### **SERVICE TO PROFESSIONAL SOCIETIES**

- 2020-2024 Secretary-Elect (2020) and Secretary (2021-2024), Society of Integrative and Comparative Biology
- 2017-2021 Editor, Texas Herpetological Society
- 2018 Judge for Grants-in-Herpetology, Texas Herpetological Society
- 2015-2018 Secretary, Division of Animal Behavior, Society for Integrative and Comparative Biology
- 2014-2017 Education Council, Society for Integrative and Comparative Biology
- 2011-2018 Judge for Student Presentation Award, Division of Animal Behavior, Society of Integrative and Comparative Biology
- 2011-2015 Board member, Texas Herpetological Society
- 2010 Judge for Wilks' Student Presentation Award, Southwestern Association of Naturalists
- 2005-2006 Planning committee for Midwest Ecology and Evolution Conference, St. Louis
- 2005-2007 Secretary of Association for Women in Science, St. Louis Chapter

### **SCIENCE OUTREACH AND COMMUNITY EDUCATION**

- 2013-present Develop and coordinate lizardsandfriends.org, science outreach website and blog for children
- 2019 Presenter ("role model") in KLRN's SciGirls summer program
- 2011-2016 Trinity University's Science Teaching Institute: Coordinator (2014-2016), Life Science Instructor (2011-2016)

- 2011-present* Contributor to the Anole Annals; research blog for the community of anole biologists
- 2011* Public presentation on local herpetofauna, Parque Zoológico Nacional, Santo Domingo, Dominican Republic
- 2007-2009* Established partnership between Michigan State University, East Lansing Public Libraries, and St. Ann Parish Libraries in St. Ann, Jamaica; presented information to Jamaican schoolchildren and Michigan community members on local herpetofauna
- 2005* Visiting scientist at Discovery Bay Marine Lab's Eco-Camps for local children, St. Ann, Jamaica
- 2001-2007* Volunteer with Young Scientist Network Evolution/Genetics Teaching Teams, Washington University, teaching basic science principles to urban students

**OTHER**

- 2019* Selected participant in Reinvigorating Biology jumpstart meeting, Austin.
- 2019* Invited participant in NSF-funded working group, Reciprocal illumination of Ecology and Biomechanics: Evolution, Integration, and Constraint, Portland, Oregon
- 2019* Panelist, Weaving the Future of Animal Behavior symposium: May 2019, Phoenix; July 2019, Chicago
- 2016 -2017* Invited participant in NSF-funded working group, Increasing the Accessibility of Behavioral Data, Ithaca, New York
- 2011* Selected participant in WEBS (Women Evolving in Biological Sciences) conference, National Evolutionary Synthesis Center, Durham, North Carolina
- 2009-2011* Certification in Wilderness First Aid and Adult/Child CPR, AED, and Airway Management, Wilderness Medical Institute, National Outdoor Leadership School

**HONORS AND AWARDS**

---

- 2022* Trinity University's "Trinity Tomorrow" Award, for efforts toward inclusive pedagogy
- 2019* Trinity University's "Best of the Best" Faculty Achievement Award
- 2018* President's Award for Excellence in Student Advocacy (inaugural award), Trinity University
- 2015* Junior Faculty Award for Distinguished Teaching and Research, Trinity University
- 2014* Outstanding Mentor Award, Early Career, Council on Undergraduate Research, Biology Division
- 2007* Teaching Citation for enhanced pedagogical training and skills from Washington University's Graduate School of Arts and Sciences and The Teaching Center
- 2005* Washington University Association of Women Faculty Graduate Student Award
- 2003* National Science Foundation Graduate Research Fellowship
- 2001* Phi Beta Kappa, Wake Forest University
- 2001* Wake Forest Undergraduate Research Award, Carolina Biological Supply
- 2001* Omicron Delta Kappa (national leadership honor society), Wake Forest University
- 1998* BBB National Biological Honor Society, Wake Forest University

**PROFESSIONAL SOCIETIES**

---

- American Association for the Advancement of Science (AAAS)
- Animal Behavior Society (ABS)
- Association for Women in Science (AWIS)
- Organization for Tropical Studies (OTS)
- Sigma Xi, The Scientific Research Society

Society for Behavioral Neuroendocrinology (SBN)  
Society of Integrative and Comparative Biology (SICB)  
Society for the Study of Amphibians and Reptiles (SSAR)  
Society for the Study of Evolution (SSE)  
Texas Herpetological Society (THS)