

Lauren E. Johnson

PRONOUNS: she, her, hers

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EDUCATION

- 2021-present [Ph.D. in Evolution, Ecology & Population Biology](#)
Washington University in St. Louis, Missouri
Thesis: TBD
Advisor: Jonathan B. Losos
- 2021 [B.S. in Biology with Honors | Minor in Chemistry](#)
Trinity University, San Antonio, Texas
Summa Cum Laude
3.97 Cumulative GPA
Thesis: *Does testosterone facilitate dynamic relationships in lizard behavior, morphology, and physiology?*
Advisor: Michele A. Johnson
- 2019 [Semester in Environmental Science](#)
Marine Biological Laboratory, Woods Hole, Massachusetts
Courses: Aquatic & Terrestrial Ecosystems, Microbial Methods, Independent Research, and Science Writing
Project: *Effects of excess nutrients on the carbon metabolism of the macroalga Ulva.*
Advisor: Javier Lloret

PUBLICATIONS

- 2022 van der Velde M, Borger MJ, **Johnson LE**, Murphy TG, Komdeur J (2022). No genetic evidence for parent-offspring relatedness in post-breeding social groups of Black-crested Titmouse. *Wilson Journal of Ornithology*.
- 2020 Borger MJ, **Johnson LE**, Salazar NO, Dreghorn CL, Komdeur J, Murphy TG. (2020). The influence of social-grouping on territorial defense behavior in the black-crested titmouse (*Baeolophus atricristatus*). *Behavioral Ecology and Sociobiology* 74, 141.

PRESENTATIONS

- 2022 **Johnson LE**, Ladner JT, Singhal S, Losos JB, Johnson MA. Does lizard display behavior follow the principles of signal efficacy? Society for Integrative and Comparative Biology 2022 Annual Meeting. Phoenix, AZ. [Oral Presentation]
- 2021 **Johnson LE**, Ivanov BM, Johnson MA. Does testosterone facilitate dynamic relationships in lizard behavior, morphology, and physiology? Goldwater Scholar Community 2021 Symposium. Virtual. [Oral Presentation]
- 2021 **Johnson LE**, Ivanov BM, Johnson MA. Does testosterone facilitate dynamic relationships in lizard behavior, morphology, and physiology? Trinity University Biology Seminar. Virtual. [Oral Presentation]
- 2021 **Johnson LE**, Ivanov BM, Johnson MA. Does testosterone facilitate dynamic relationships in lizard behavior, morphology, and physiology? Society for Integrative and Comparative Biology 2021 Annual Meeting. Virtual. [Oral Presentation]
- 2020 **Johnson LE**, Ivanov BM, Johnson MA. Does testosterone facilitate dynamic relationships in lizard behavior, morphology, and physiology? The 57th Annual Conference of the Animal Behavior Society. Virtual. [Lighting Talk]
- 2020 **Johnson LE**, Ivanov BM, Johnson MA. Does testosterone facilitate dynamic relationships in lizard behavior, morphology, and physiology? Trinity University 2020 Summer Symposium. Virtual. [Round Table Talk]
- 2020 **Johnson LE**, Treible LM. Synergistic effects of UVA and UVB radiation on moon jellyfish proliferation and potential coping mechanisms. Society for Integrative and Comparative Biology 2020 Annual Meeting. Austin, TX. [Poster]
- 2019 **Johnson LE**, Lloret J. Effects of excess nutrients on the carbon metabolism of the macroalga *Ulva*. Semester in Environmental Science Independent Research Symposium. Woods Hole, MA. [Oral Presentation]
- 2019 Treible LM, **Johnson LE**. Synergistic effects of UVA and UVB radiation on moon jellyfish proliferation and potential coping mechanisms. Coastal and Estuarine Research Federation (CERF) 25th Biennial Conference. Mobile, AL. [Oral Presentation]
- 2019 **Johnson LE**, Treible LM. Synergistic effects of UVA and UVB radiation on moon jellyfish proliferation and potential coping mechanisms. Research Experiences for Undergraduates Symposium. Arlington, VA. [Poster]
- 2019 **Johnson LE**, Treible LM. Synergistic effects of UVA and UVB radiation on moon jellyfish proliferation and potential coping mechanisms. Georgia Southern University NSF REU Symposium. Statesboro, GA. [Poster]
- 2018 Dregghorn C, **Johnson LE**, Salazar N, Feng J, Borger M, Murphy T. Pay to Stay: juvenile participation in antipredator behavior in the bird the black-crested titmouse. Trinity University Summer Research Conference. San Antonio, TX. [Poster]

- 2018 Borger M, Dreghorn C, **Johnson LE**, Salazar N, Murphy T. Sizing up opponents' status signals: Crest length is not used alone in estimating territory threats in the black-crested titmouse. Trinity University Summer Research Conference. San Antonio, TX. [Poster]
- 2017 **Johnson LE**, Xu Z, Bajaj M, Edwards K, Cusick-Wetta T, Harris M. Health Benefits of n-3 Fatty Acids. Poster session presented at: 25th Annual University of Kansas School of Medicine – Wichita Research Forum. Wichita, KS. [Poster]

SCHOLARSHIPS, FELLOWSHIPS, AWARDS

- 2021 NSF Graduate Research Fellow (GRF), \$138,000
- 2021 Phi Beta Kappa, Trinity University
- 2021 Outstanding Senior Biology Student Award, Trinity University
- 2020 Barry Goldwater Scholar, \$7,500
- 2020 Biology Summer Undergraduate Research Fellow, Trinity University, \$4,500
- 2019 Associates Prize for Excellence in Independent Research, Marine Biological Laboratory, \$100
- 2019 NSF Research Experience for Undergraduates (REU) Fellow, Georgia Southern University, \$5,750
- 2018 Murchison Research Fellow, Trinity University, \$6,000
- 2019-2021 Trinity University Scholar, \$2,000
- 2018-2021 McCall Endowed Music Scholar, Trinity University, \$3,000
- 2017-2021 Murchison Scholar, Trinity University, \$96,000
- 2017 Trinity Tower Award, \$1,000

RESEARCH EXPERIENCE

- 2020-2021 **Senior Thesis**
 Trinity University, San Antonio, Texas
 Advisor: Dr. Michele Johnson
- Using a series of controlled laboratory behavioral observations and muscle tissue samples, we investigated whether testosterone facilitated seasonal behavior changes in anole lizards through changes in muscle morphology and physiology.
- 2019 **Semester in Environmental Science Independent Research Project**
 Marine Biological Laboratory, Woods Hole, Massachusetts
 Advisor: Javier Lloret
- Using a field study, we discovered that both carbon and nitrogen stable isotopes of the macroalga *Ulva lactuca* can be used to identify eutrophic environments.
 - Using a laboratory experiment, we determined that carbon diffusion limitation can partially explain why carbon stable isotopes of *Ulva lactuca* shift in eutrophic environments.
- 2019 **Research Experience for Undergraduates Project**

Georgia Southern University, Statesboro, Georgia

Advisor: Dr. Laura Treible

- Using a laboratory experiment, we determined that moon jellyfish polyps (*Aurelia aurita*) can cope with damaging ultraviolet B radiation by itself. However, they cannot cope with the combined intensity of ultraviolet B and ultraviolet A radiation.
- We also determined that moon jellyfish polyps do not have either chemical (mycosporine-like amino acids or carotenoids) or behavioral (migration) mechanisms to cope with ultraviolet radiation. Thus, the settlement of planula stage jellyfish may be critical for the success of the benthic polyp stage.

2018-2020 Behavioral Ecology of the Black-Crested Titmouse

Trinity University, San Antonio, Texas

Advised: Dr. Troy Murphy

- During a series of field studies in 2018, we determined that adult male territory owners were more likely to attack an intruder with a longer crest (which we assumed represented a greater threat) when juvenile titmice were present during the encounter.
- To address the higher-than-expected unrelatedness between juveniles and their territory owner, I led our team in establishing 20 feeders and 100 nest boxes at a new field site to begin a study addressing relatedness among social groups and how relatedness of social groups affects territorial defense.

TEACHING

2021	Education and Outreach Volunteer, Gordon Lab taught Girl Scout Troop how to conduct ecological experiments using our mesocosms at Tyson Research Center, Eureka, Missouri
2021	Peer Tutor, Trinity University, BIOL 1311 – Integrative Biology
2020	Peer Tutor, Trinity University, BIOL 3413 – Genes, Phenotypes, and Evolutionary Dynamics
2018	Education and Outreach Volunteer, Bamberger Ranch Preserve, Johnson City, Texas, Murphy Lab taught campers how to capture and measure birds in the wild

RESEARCH MENTORSHIP (1 – undergraduate student)

2021	Courtney Lasserre ¹	Washington University in St. Louis
2021	Lauren Renna ¹	Washington University in St. Louis
2021	Avika Kasubhai ¹	Washington University in St. Louis
2020-2021	Swathi Ravi ¹	Trinity University
2020-2021	Taylor Black ¹	Trinity University

COMMUNITY INVOLVEMENT

- 2021-present [Community Engagement Chair](#), Division of Biology & Biomedical Sciences Women in STEM (WiSTEM) Washington University in St. Louis, Missouri
- Leading a committee that organizes monthly outreach opportunities and asynchronous science communication activities for members
 - Collaborating with executive board to execute the mission of WiSTEM
- 2017-2021 [Clarinetist](#), Trinity University Symphonic Wind Ensemble
- 2018-2021 [Clarinetist](#), Trinity University Symphony Orchestra
- 2019-2021 [Mentor](#), Trinity Women in Science and Technology (TWIST)
- 2018-2019 [Community Partner Coordinator](#), Homelessness Outreach Pursuing Education (HOPE) Residence Hall Trinity University, San Antonio, Texas
- Coordinated large and small weekly volunteer events for 1 year with the following partners: Haven for Hope, San Antonio; San Antonio Catholic Worker House; San Antonio Children's Shelter; San Antonio Metropolitan Ministries; Travis Park; and Christian Assistance Ministry
- 2017-2019 [Volunteer \(2 hours/week\)](#), Haven for Hope, San Antonio; San Antonio Catholic Worker House; San Antonio Children's Shelter; San Antonio Metropolitan Ministries

Science Communication

- 2021 [Society for Integrative and Comparative Biology \(SICB\) Mangu Photojournalist](#)
- Produced 2 "Meet a Scientist" videos highlighting symposium speakers for SICB 2021
 - <https://youtu.be/YhpMY9LI5yk>
 - <https://youtu.be/7Q5JphdLkbw>

Media Coverage

- 2022 Online Article, Madeline Freeman. ["Class of '21 Making Their Mark"](#) **Trinity University** (11 March)
- 2021 Online Article, Madison Semro. ["Seven Tigers Win National Science Foundation Graduate Awards"](#) **Trinity University** (27 April)
- 2020 Online Article, Jeremiah Gerlach. ["You've Got Goldwater"](#) **Trinity University** (3 April)
- 2020 Online Article. [Lauren Johnson earns MBL Associates Prize for Excellence](#) **The Well: MBL News from the Source** (26 February)