Daniel E. Shaw, PhD

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PRFOESSIONAL APPOINTMENTS

2026- Assistant Professor. Department of Veterinary Integrative Biosciences, Center for Comparative Genomics, Texas A&M University, College Station, TX.

2023-2026 Postdoctoral Researcher, Division of Biological Sciences, University of Montana, Missoula, MT. Supervisor: Jeff Good.

EDUCATION

2017-2022 PhD (Genetics), Department of Genetics, University of Georgia, Athens, Georgia. Advisor: Mike White. Dissertation title: Evolution of sex-linked gene expression in threespine stickleback fish.

2012-2016 B.S. (Genetics), Department of Genetics and Biochemistry, Clemson University, Clemson, South Carolina.

PUBLICATIONS

In prep

2026 **Shaw, DE.,** Kopania, EEK., Good, JM. Non-coding evolution and RNA stability underlie differences in spermatid transcript sharing in mouse and human spermatogenesis. In prep.

Published

2026 Liphardt, S., Bautista, NM., Quiroga-Carmona, M., Herrera, ND., Blumer, LM., Opazo, JC., Hoffmann, FG., Saleem, R., Somo, DA, Llancaqueo, FDB., Thurman, TJ., Wheeler, TB., **Shaw, DE.,** Harter, TS., McClelland, GB., Scott, GR., Sabat, P., Cheviron, ZA., D'Elia, GD., Good, JM., Storz, JF. Adaptation across an extreme elevational gradient in Andean leaf-eared mice, the world's highest dwelling mammal. *Science,* Vol 393, Issue 6807, July 2026 DOI:10.1126/science.aec8347

2026 Sui M., Teh J., Fort K., **Shaw DE.**, Sudmant P., Koide T., Good JM, Vazquez JM, Brem RB. Elevated lysosomal mass and enzyme activity in fibroblasts of the Mediterranean mouse Mus spretus. *Biology Letters.* Volume 22, Issue 2, February 2026.

2025 **Shaw DE**., Ross WD., Lambert AV., White MA. Single cell RNA-sequencing reveals no evidence for meiotic sex chromosome inactivation in the threespine stickleback fish. *PLoS Genetics* Volume 21, Issue 9, September 2025.

2024 **Shaw, DE**., Naftaly, AS., White, MA. Positive selection drives cis-regulatory evolution across the threespine stickleback Y chromosome. *Molecular Biology and Evolution,* Volume 41, Issue 2, February 2024.

2022 **Shaw, DE**., White, MA. The evolution of gene regulation on sex chromosomes. *Trends in Genetics*. Volume 38, Issue 8, August 2022.

2021 Nath S., **Shaw DE**., White MA. Improved contiguity of the threespine stickleback genome using long-read sequencing, *G3 Genes*|*Genomes*|*Genetics*, Volume 11, Issue 2, February 2021.

RESEARCH FUNDING

2022 Awardee. American Genetics Association Evolutionary, Ecological, and Conservation Genomics (EECG) Research Award. Amount: $6000

2019-2020 Awardee. NIH T32 training grant. Amount: $30,000

2019-2020 Awardee. University of Georgia Graduate School GRO fellowship. Amount: 30,000

2019 Awardee. Society for the Study of Evolution Graduate Research Excellence Grant- R.C. Lewontin Early Award. Amount: $2500

AWARDS

2026 Genetics Society of America DeLill Nasser Award for Professional Development. Amount: $1000

2024 Outstanding Presentation Award. International Mammalian Genome Society. 37th International Mammalian Genome Conference part of The Allied Genetics Conference 24. Washington D.C. Amount: $250

2024 NSF Rising Scientist Award. Provided travel funds and registration to The Allied Genetics Conference 24.

2022 Best Graduate Student Presentation Award. International Conference on Stickleback Behavior and Evolution. Holar, Iceland.

2022 Graduate Student Presentation Award. South Eastern Population Ecology and Evolutionary Genetics Conference, Eatonton, Georgia.

2021 Finalist. W. D. Hamilton Award for Outstanding Graduate Student Presentation. Society for the Study of Evolution.

2021 Mary Case Award for Excellence in Teaching. UGA Department of Genetics. Amount $1000

2019 Robin Hightower Award for Innovative Research. UGA Department of Genetics. Amount: $667

2019 UGA Genetics Graduate Student Association Travel Award for Professional Development. Amount: $1000

2019 University of Georgia Graduate School Travel Award. Amount: $450
2019 Poster award 3rd Place, Genetics Department Retreat, University of Georgia. Amount: $50
2019 Society for the Study of Evolution Public Policy Fellowship. Amount: $1113
2018 UGA Genetics Graduate Student Association Travel Award for Professional Development. Amount: $1000

PRESENTATIONS/POSTERS

Invited talks

2025 **Shaw, DE** (December 2025) Comparative and functional genomics of adaptive and selfish evolution across vertebrates. Center for Comparative Genomics Recruitment Symposium. Texas A&M University.

2025 **Shaw, DE** (February 2025) On the origin of sex; causes and consequences of sex chromosome evolution. Carroll College. Helena, Montana. Darwin Day Keynote Seminar.

2022 **Shaw, DE** (June 2022) Identifying signatures of sex chromosome regulatory evolution in stickleback fish. University of Rochester. Rochester, New York. Department of Biology.

Oral Presentations

2026 **Shaw, DE.**, Liphardt, S., Bautista, NM., Wheeler, TB., D'Elía, G., Storz, JF., Cheviron, ZA., Good, JM. (June 2026). Y chromosome evolution shapes male reproduction in the world's highest dwelling mammal. Population, Evolutionary, and Quantitative Genetics Conference. Pacific Grove, CA.

2025 **Shaw, DE.**, Liphardt, S., Herrera, ND., Wheeler, TB., D'Elía, G., Storz, JF., Cheviron, ZA., Good, JM. (June 2025). Novel sex-linked gene amplification in the world's highest dwelling mammal reveals signatures of conflict and adaptation in male reproduction. Evolution 2025. Athens, GA.

2024 **Shaw, DE.**, Good, JM. (March 2024) Signatures of selection and conflict associated with haploid biased transcript exchange in murine round spermatids. The Allied Genetics Conference. Washington D.C. *Outstanding presentation award

2023 **Shaw, DE.** (November 2023) Molecular signatures of sex dependent regulatory evolution and genomic conflict. University of Montana. Ecology and Evolution Seminar.

2023 **Shaw, DE.,** White, MA. (June 2023) *Single-cell gene expression of spermatogenesis reveals evolution of post-meiotic gene repression and activation of amplicons on the threespine stickleback fish Y chromosome.* Society for Molecular Biology and Evolution 2023. Ferrara, Italy. Symposium: Molecular evolutionary patterns under sex-dependent selection and sexual conflict.

2023 **Shaw, DE.,** White, MA. (June 2023) *Single-cell gene expression of spermatogenesis reveals evolution of post-meiotic gene repression and activation of amplicons on the threespine stickleback fish Y chromosome.* Mayosis 2023. Virtual Symposium.

2022 **Shaw, DE.**, White, MA. (March 2022) *Signatures of positive selection throughout regulatory elements on the threespine stickleback Y chromosome.* International Conference on Stickleback Behavior and Evolution. Holar, Iceland.

2022 **Shaw, DE.**, White, MA. (March 2022) *Signatures of positive selection on Y chromosome cis-regulatory elements in stickleback fish.* South Eastern Population Ecology and Evolutionary Genetics Conference, Eatonton, Georgia.

2021 **Shaw, DE.**, White, MA. (October 2021) *Elucidating the role of natural selection in sex chromosome regulatory evolution.* University of Georgia. EDGE seminar.

2021 **Shaw, DE**., White, MA. (July 2021) *Positive selection of regulatory regions drives gene expression evolution on recently evolved sex chromosomes in threespine stickleback fish.* Society for Molecular Biology and Evolution 2021. Symposium: The evolution of regulatory elements and its role in phenotypic variability and speciation.

2021 **Shaw, DE**., White, MA. (June 2021) *Positive selection of regulatory regions drives gene expression evolution on recently evolved sex chromosomes in threespine stickleback fish.* Evolution 2021. *Finalist for W.D. Hamilton Award for Outstanding Graduate Student Presentation.

2019 **Shaw, DE.,** Shanfelter, AF., White, MA. (October 2019*) Differential accessibility and expression on recently evolved sex chromosomes.* South Eastern Population Ecology and Evolutionary Genetics Conference, Clemson, South Carolina

2019 **Shaw, DE.,** Shanfelter, AF., White, MA. (June 2019) *Evolution of chromatin accessibility on sex chromosomes.* Evolution 2019, Providence, Rhode Island

2018 **Shaw, DE.**, White, MA. (October 2018) *Meiotic sex chromosome inactivation in threespine stickleback fish.* South Eastern Population Ecology and Evolutionary Genetics Conference, Pembroke, Virginia

Posters

2022 **Shaw, DE.**, White, MA. (April 2022) *Stage specific gene expression reveals lack of meiotic silencing and relaxed constraint in threespine stickleback spermatogenesis.* Department of Genetics Retreat. Athens, Georgia.

2021 **Shaw, DE.**, White, MA. (April 2022) *Lack of meiotic silencing on recently evolved sex chromosomes of stickleback fish.* University of Georgia Developmental Biology Alliance Retreat. Athens, Georgia.

2021 **Shaw, DE.**, White, MA. (May 2021) *Stage-specific gene expression reveals active transcription of recently evolved sex chromosomes in meiosis.* University of Georgia Developmental Biology Alliance Retreat. Athens, Georgia.

2019 Jones, W., **Shaw DE.**, White, MA. (October 2019) *Characterizing meiotic gene expression in threespine stickleback fish.* South Eastern Population Ecology and Evolutionary Genetics Conference, Clemson, South Carolina

2019 **Shaw, DE.**, White, MA. (August 2019) *Differential chromatin accessibility on the recently evolved sex chromosomes of stickleback fish.* Genetics department retreat, University of Georgia, Athens, Georgia

2018 **Shaw, DE**., White, MA. (August 2018) *Evolution of the chromatin landscape across the young threespine stickleback Y chromosome*. Genetics department retreat, University of Georgia, Athens, Georgia

2018 **Shaw, DE**., White, MA. (July 2018) *Evolution of the chromatin landscape across the young threespine stickleback Y chromosome*. International Conference on Stickleback Behavior and Evolution, Kyoto, Japan

2018 **Shaw, DE**., White, MA. (May 2018) *Evolution of the chromatin landscape across the young threespine stickleback Y chromosome.* Population Evolutionary and Quantitative Genetics Conference, Madison, Wisconsin

RESEARCH MENTORING

2019-2020 Undergraduate Thesis Mentor. Department of Genetics. Student: William Jones
Thesis Title: *Characterizing meiotic gene expression in threespine stickleback fish.*

TEACHING EXPERIENCE

Course development and instruction

2025 Data Science for Biology. University of Montana.

Guest lecturer

2026 Genomics (BIOB 486). Division of Biological Sciences. University of Montana. 2 lectures. *Module on Transcriptomics and single cell genomics
2025 Genomics (BIOB 486). Division of Biological Sciences. University of Montana. 2 lectures. *Module on Transcriptomics and single cell genomics
2024 Genomics (BIOB 486). Division of Biological Sciences. University of Montana. 2 lectures. *Module on Transcriptomics and single cell genomics
2022 Evolutionary Biology Lab. Department of Genetics University of Georgia. 4 lectures.
2021 Honors Evolutionary Biology. Department of Genetics. University of Georgia. 2 lectures.
2021 Evolutionary Biology Lab. Department of Genetics. University of Georgia 1 lecture.

Teaching Assistant

2022 Evolutionary Biology Lab (GENE4230). Writing Intensive Program Teaching Assistant. Fall Semester. University of Georgia. Instructor rating: n/a
2022 Introductory Biology Lab (BIOL 1108L). Teaching Assistant. Spring Semester. University of Georgia.
Instructor rating: 4.96/5
2021 Evolutionary Biology Lab (GENE 4230). Writing Intensive Program Teaching Assistant. Fall Semester. University of Georgia. Instructor rating: n/a
2021 Honors Evolutionary Biology (GENE 3000H). Writing Intensive Program Teaching Assistant. Fall Semester. University of Georgia. Instructor rating: n/a
2021 Introductory Biology Lab (BIOL1108L). Teaching Assistant. Spring Semester. University of Georgia. Instructor rating: 4.933/5
2020 Introductory Biology Lab (BIOL1108L). Teaching Assistant, Fall Semester. University of Georgia. Instructor rating: 4.92/5
2019 Genetics (GENE 3200). Teaching Assistant. Spring semester. University of Georgia. Instructor rating: n/a

OUTREACH/SERVICE

2025	Darwin Day Keynote Speaker. Carroll College. Helena, Montana.
2022	STEM Fair booth representative. Clarke Middle School. Athens, Georgia.
2022	Volunteer. Diversity Preview Weekend. Integrated Plant Sciences. University of Georgia.
2021-2022	President. Graduate Students and Postdocs in Science. University of Georgia.
2021	Lead Organizer. Graduate Student Career Panel.
2021	STEM Fair booth representative. Clarke Middle School. Athens, Georgia.
2021	Vice President. Graduate Students and Postdocs in Science. University of Georgia.
2021	Volunteer. Athens Clarke-County community highway cleanup.
2020	Special Award Judge. Georgia Science and Engineering Fair.
2019-2020	Co-President. Genetics Graduate Student Association.
2019	Organizer and volunteer. UGA STEMzone community outreach booth.
2019-2020	Organizer and volunteer. Athens Clarke-County community highway cleanup.
2019	Society for Study of Evolution Representative at American Institute of Biological Sciences Congressional Visits Day in Washington D.C.
2018-2019	Volunteer. Athens Tutorial Program.
2018-2019	Judge. Georgia Science and Engineering Fair.
2018-2019	Paper reader and judge. Georgia Junior Science & Humanities Symposium.
2018	Travel grant committee member. Genetics Graduate Student Association.

WORK EXPERIENCE

2016-2017	Greenwood Genetic Center, Molecular Laboratory Technologist
2014-2015	Clemson University, Undergraduate Research Assistant. PI: Rajandeep Sekhon

PROFESSIONAL DEVELOPMENT

2021-2022	Certificate in Diversity and Inclusion. Office of Institutional Diversity. University of Georgia. 15 Training Hours.
2020-2021	University of Georgia Graduate School Emerging Leaders Program
2020	UGA Innovation Gateway, NSF Innovation-Corp Start-up Co-Entrepreneurial Lead.
2019	American Institute of Biological Sciences Policy Bootcamp
2018	ComSciCon Atlanta. Science communication workshop.

PROFESSIONAL MEMBERSHIPS

2021-Current Society of Systematic Biologists

2020-Current Society for Molecular Biology and Evolution
2019-Current Society for the Study of Evolution
2018-Current Genetics Society of America