Faye Romero

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EDUCATION

2021-Present **PhD Biology—Evolution, Ecology, Genetics, and Genomics**
University of Rochester. *Rochester, NY*
Supervisor: Dr. Nancy Chen

2016-2020 **BS Molecular Environmental Biology**
University of California, Berkeley. *Berkeley, CA*
Supervisor: Dr. Noah Whiteman

PUBLICATIONS

2025 Alexandre N.M.*, **Romero, F.G.***, English, S.G.*, E. Grames, F. Garzón-Agudelo, K. Epperly, T. Barnes, D.R. Powers, A.E. Smith, Z. Migicovsky, L. Stein, S. Akalu, H. Sridhar, G. Montross, E. Collins, A. Rico-Guevara. Supplemental Feeding as a Driver of Population Expansion and Morphological Change in Anna's Hummingbirds. *Global Change Biology*, 31(5):e70237. DOI: 10.1111/gcb.70237. **Equal contribution*

2024 **Romero, F.G.,** F.E.G. Beaudry, E. Hovmand Warner, T.N. Nguyen, J.W. Fitzpatrick, N. Chen. A new high quality genome assembly for the threatened Florida Scrub-Jay (*Aphelocoma coerulescens*). *G3: Genes, Genomes, Genetics*, jkae232. DOI: 10.1093/g3journal/jkae232.

2023 Porter, C.K., **F.G. Romero**, D. Adams, R.C.K. Bowie, E. Riddell. Adaptive and non-adaptive convergent evolution in feather reflectance of Channel Islands songbirds. *Proceedings of the Royal Society B*, 290:20231914. DOI: 10.1098/rspb.2023.1914.

2023 Mason, N.M., E.A. Riddell, **F.G. Romero**, C. Cicero, R.C.K. Bowie. Plumage balances camouflage and thermoregulation in horned larks (*Eremophila alpestris*). *The American Naturalist,* 201:2, E23-E40. DOI: 10.1086/722560.

HONORS and AWARDS

2025	$3,500	Frank M. Chapman Memorial Fund. *American Museum of Natural History*
2025	$300	Open Scholarship Award. *University of Rochester*
2025	$6,000	Robert K. Wayne Award in Evolutionary, Ecological, or Conservation Genomics. *American Genetics Association*
2024	$2,500	Student Research Award. *American Ornithological Society*
2023		Presidential Membership Award. *Genetics Society of America*
2023	$2,500	R. C. Lewontin Early Award. *Society for the Study of Evolution*
2023-2028	$147,000	NSF Graduate Research Fellowship. *National Science Foundation*
2021-2024	$6,000	Ernst Caspari Fellowship in Evolutionary, Developmental and Molecular Genetics. *University of Rochester*

2022	$500	Graduate Student Travel Award. *University of Rochester*
2022		Student Membership Award. *American Ornithological Society*

PRESENTATIONS

Invited seminars

Dec 2023 **Romero, F.G**. "The genetic architecture of inbreeding depression in a wild population of Florida Scrub-Jays." *Graduate Research Excellence Grants Seminar Series (virtual). Society for the Study of Evolution* (oral)

Contributed Conference Presentations

April 2025 **Romero, F.G**., J. Summers, D.N. Seidman, J. Schmidt, J.W. Fitzpatrick, S. Barve, N. Chen. "The genetics of inbreeding and immigration in a wild population of Florida Scrub-Jays." *Department of Biology E2G2 Seminar Series. University of Rochester, NY* (oral)

Oct 2024 **Romero, F.G**., J. Summers, D.N. Seidman, J. Schmidt, J.W. Fitzpatrick, N. Chen. "The genetic architecture of inbreeding depression in a wild population of Florida Scrub-Jays." **Abstract-selected talk. American Genetics Association 2024. Granlibakken, Tahoe, CA* (oral)

April 2024 **Romero, F.G.**, E. Hovmand Warner, F.E.G. Beaudry, T.N. Nguyen, E.J. Cosgrove, A.G. Clark, R. Bowman, J.W. Fitzpatrick, N. Chen. "Comparative genomic analyses reveal variation in avian microchromosomes." *Department of Biology E2G2 Seminar Series. University of Rochester, NY* (oral)

Aug 2023 **Romero, F.G.**, E. Hovmand Warner, F.E.G. Beaudry, T.N. Nguyen, E.J. Cosgrove, A.G. Clark, R. Bowman, J.W. Fitzpatrick, N. Chen. "Comparative genomic analyses reveal variation in avian microchromosomes." *Great Lakes Annual Meeting of Evolutionary Genomics (GLAM-Evogen). Cornell University, NY* (poster)

Aug 2023 **Romero, F.G.**, E. Hovmand Warner, F.E.G. Beaudry, T.N. Nguyen, E.J. Cosgrove, A.G. Clark, R. Bowman, J.W. Fitzpatrick, N. Chen. "Comparative genomic analyses reveal variation in avian microchromosomes." *American Ornithological Society & Society of Canadian Ornithologists Joint Conference. London, Ontario, CA* (poster)

Sept 2022 **Romero, F.G.**, S. Boutin, D.W. Coltman, B. Dantzer, J.E. Lane, A.G. McAdam, N. Chen. "Food supplementation and lifetime reproductive success in a wild population of squirrels." *Arts, Sciences, & Engineering Graduate Research Day. University of Rochester, NY* (oral)

Aug 2022 **Romero, F.G.**, S. Boutin, D.W. Coltman, B. Dantzer, J.E. Lane, A.G. McAdam, N. Chen. "Food supplementation and lifetime reproductive success in a wild population of squirrels." *Great Lakes Annual Meeting of Evolutionary Genomics (GLAM-Evogen). Buffalo, NY* (oral)

June 2022 **Romero, F.G.**, S. Boutin, D.W. Coltman, B. Dantzer, J.E. Lane, A.G. McAdam, N. Chen. "Food supplementation and lifetime reproductive success in a wild population of squirrels." *Evolution Conference. Cleveland, OH* (oral)

May 2022 **Romero, F.G.** "Modeling the demographic history of two Solomon Island endemics." *Dept of Biology PhD Student Research Symposium. University of Rochester, NY* (oral)

Feb 2022 **Romero, F.G.**, S. Boutin, D.W. Coltman, B. Dantzer, J.E. Lane, A.G. McAdam, N. Chen. "Food supplementation and lifetime reproductive success in a wild population of squirrels." *Dept of Biology PhD Student Research Symposium. University of Rochester, NY* (oral)

Dec 2021 **Romero, F.G.**, S. Hamazaki, T. Zhou, K. Yehle, N. Samanta. "Comparison of thermoregulatory-associated genomic regions across six geographically unique populations of D. melanogaster." *Applied Genomics Poster Symposium. University of Rochester, NY* (poster)

Nov 2021 **Romero, F.G.** "Comparison of *de novo* genome assembly methods using *D. melanogaster*." *Dept of Biology PhD Student Research Symposium. University of Rochester, NY* (oral)

RESEARCH EXPERIENCE

2021-present **PhD Candidate. *Supervisor: Dr. Nancy Chen*. University of Rochester, NY**
Investigating the genetic architecture and fitness consequences of inbreeding depression in the Florida Scrub-Jay using long-term pedigree and genetic data

2022 **Rotating PhD Student. *Supervisor: Dr. Al Uy.* University of Rochester, NY**
Modeled the demographic history of two bird species endemic to the Solomon Islands in order to examine the dynamics of reproductive isolation and secondary contact

2021 **Rotating PhD Student. *Supervisor: Dr. Amanda Larracuente.* University of Rochester, NY**
Compared *de novo* genome assemblers to streamline a heterochromatin-enriched pipeline for repeat-rich region assembly of Drosophila melanogaster genomes

2018-2020 **Undergraduate Researcher. *Supervisor: Dr. Noah Whiteman*. University of California, Berkeley, CA**
Explored the phenotypic consequences of the Anna's Hummingbird's range expansion into urban environments by measuring museum specimens and conducting statistical analyses

2017-2018 **Research & Preparation. Museum of Vertebrate Zoology. University of California, Berkeley, CA**
• Compared thermal reflectance in bird feathers across island and mainland Californian populations
• Responsible for dissecting and preparing specimens for the collections through the MVZ prep lab

TEACHING

2022 **Teaching Assistant. "Applied Population Biology", University of Rochester, NY *Instructor: Dr. Nancy Chen***
Assisted with laboratory exercises in landscape ecology and population genetics, supervised independent research projects

2022 **Teaching Assistant. "Computational Biology", University of Rochester, NY *Instructor: Dr. Justin Fay***
Led laboratory sections on computational analysis of genomes, gave lectures on the genetics of pedigrees, graded labs and exams

2020-2021 **Tutor. Wyzant Tutoring Company. Pleasanton, CA**
• Tutored high school and college students in biology and programming

• Composed and executed high-quality individualized lessons, both for virtual and in-person instruction.

MENTORSHIP

2023-present **Undergraduates**
University of Rochester, NY
• Conall Spaur (population genomic data analyses, independent research)
• Jenna Savino (comparative genomic data analyses, DNA extraction and quantification, independent research)
• Alexandra Gaston (comparative genomic data analyses, independent research)
• Eyvind Hovmand Warner (genomic data analyses, independent research)

LEADERSHIP and SERVICE

2024-present **Member. Multimedia Subcommittee, Early Career Leadership Program, Genetics Society of America.**
Create multimedia content (podcast, infographics, etc.) to communicate and disseminate current genetics research to a broad scientific audience

2023-present **Founder & Graduate Student Representative. Office of Student Relations, Department of Biology. University of Rochester, NY**
Develop and execute resources, events, and lines of communication to increase undergraduate participation in biological research and department events

2022-2024 **Field Assistant. Braddock Bay Bird Observatory. Rochester, NY**
• Assist with mist-netting, handling live birds, and bird banding
• Educate visitors to the banding station on research goals and the trapping process

2022-2023 **Founder & Member. Graduate Student Recruitment Committee. University of Rochester, NY**
Planned and executed events surrounding new graduate student recruitment, including interview week and orientation

OUTREACH

2023-present **Press Release Writer. American Society of Naturalists.**
Write press releases for forthcoming papers in the academic journal *The American Naturalist*
https://www.amnat.org/an/newpapers/June-2023-Gokcekus-et-al..html

2022-present **STEM Professional. Letters to a Pre-Scientist.**
Exchange letters with middle and high school students from low-income schools in order to demystify STEM career pathways and inspire students to pursue a future in STEM

2023-2024 **Co-instructor. Upward Bound. University of Rochester, NY**
Created and co-led a hands-on workshop introducing the genetics of evolution to low-income/first-generation high school students from Rochester City School District.

2018-2020 **Dance Instructor. The Breakaway Swing Dance. Oakland, CA**
• Developed and implemented lessons for 50-person classes, mentored swing dancers of all ages and skill levels
• Promoted and presented on the diverse history of jazz and swing dance in the United States

MEDIA COVERAGE

2025 **"Hummingbirds Rapidly Evolved Longer Beaks to Slurp More Nectar from Yard Feeders, New Study Suggests".** Audubon*,* 29 May 2025. Coverage of: Alexandre, Romero, & English et al., *Global Change Biology*, 2025.
https://www.audubon.org/magazine/hummingbirds-rapidly-evolved-longer-beaks-slurp-more-nectar-yard-feeders-new-study

2025 **"Hummingbirds Are Evolving to Adapt to Life With Humans".** *Wired,* 29 May 2025. Coverage of: Alexandre, Romero, & English et al., *Global Change Biology*, 2025.
https://www.wired.com/story/hummingbirds-are-evolving-to-adapt-to-life-with-humans/

2025 **"California's Hummingbirds Have Changed Their Beaks in Response to Backyard Feeders, Study Finds".** *Smithsonian* Magazine*,* 27 May 2025. Coverage of: Alexandre, Romero, & English et al., *Global Change Biology*, 2025.
https://www.smithsonianmag.com/smart-news/californias-hummingbirds-have-changed-their-beaks-in-response-to-backyard-feeders-study-finds-180986693/

2025 **"Berkeley research finds feeders literally reshaped Calif. hummingbirds".** *SFGATE,* 27 May 2025. Coverage of: Alexandre, Romero, & English et al., *Global Change Biology*, 2025.
https://www.sfgate.com/local/article/former-berkeley-feeders-calif-bird-evolution-20343347.php

2025 **"Backyard feeders changed the shape of hummingbird beaks, scientists say".** National Public Radio (NPR), 23 May 2025. Coverage of: Alexandre, Romero, & English et al., *Global Change Biology*, 2025.
https://www.npr.org/2025/05/23/nx-s1-5409073/annas-hummingbird-backyard-feeders

2025 **"California hummingbird beaks transformed by feeders: 'more tapered and longer'".** *The Guardian,* 23 May 2025. Coverage of: Alexandre, Romero, & English et al., *Global Change Biology*, 2025.
https://www.theguardian.com/environment/2025/may/23/california-hummingbird-beak-study

2025 **"Bird feeders have caused a dramatic evolution of California hummingbirds".** News from *Science*, 21 May 2025. Coverage of: Alexandre, Romero, & English et al., *Global Change Biology*, 2025.
science.org/content/article/bird-feeders-have-caused-dramatic-evolution-california-hummingbirds

2023 **"Filipinas in STEM: Faye Romero**." Interview by Swastika Issar through the Science Corps Education & Research Fellowship and the Central Visayan Institute Foundation, Bohol, Philippines.
cvifbohol.com/filipinas-in-stem-faye-romero

PROFESSIONAL MEMBERSHIPS

Genetics Society of America
American Genetic Association
American Society of Naturalists
Society for the Study of Evolution
American Ornithological Society

SKILLS

Programming languages, software
R, Bash, cloud computing (AWS), Git, ImageJ, Adobe Photoshop/Illustrator, Microsoft Office Suite

Technical
Genotype imputation, variant calling from next-generation sequencing (NGS) data, population genomic analysis (incl. with pedigree data and large-scale population data), inter/intraspecies comparative genomic analysis, *de novo* genome assembly

Laboratory
DNA extraction and quantification, spectroradiometer, museum specimen preparation, database management