

Hannah P. Kania

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RESEARCH STATEMENT

I apply genetic and genomic tools to understand how micro-scale changes in genes can lead to macroevolutionary changes between species over time. I am focused on speciation genomics and conservation, and I am committed to sharing my research through effective science communication and outreach.

EDUCATION

Doctoral Student, Duke University Department of Biology	Durham, NC 2022-2028
B.A. University of California, Berkeley Bachelor of Arts in Molecular and Cell Biology, Developmental Genetics Department Honors and Distinction in Scholarship GPA: 3.796	Berkeley, CA May 14, 2021 May 14, 2021

RESEARCH EXPERIENCE

Integrative Evolutionary Genetics and Conservation Biology Lab of Dr. Anne Yoder <i>Graduate Student; Duke University</i> <ul style="list-style-type: none">Speciation Genomics, Cryptic Species, Conservation Biology, Transposable Elements	Durham, NC 2022-Present
Molecular, Developmental, and Evolutionary Biology Lab of Dr. Patricia Wittkopp <i>NSF Research Intern and Lab Manager; University of Michigan</i> <ul style="list-style-type: none">Evolution of Gene Expression, Yeast Antimicrobial Peptide Production	Ann Arbor, MI 2021-2022
Evolution, Ecology, and Global Change Biology Lab of Dr. Erica Bree Rosenblum <i>Undergraduate Researcher; University of California Berkeley</i> <ul style="list-style-type: none">Conservation-Based Landscape Genetics	Berkeley, CA 2019-2021
Cardiovascular Research Institute (CVRI) Lab of Dr. Guo Huang <i>Undergraduate Researcher; University of California, San Francisco</i> <ul style="list-style-type: none">Cardiomyocyte Regeneration in Mice Models	San Francisco, CA 2018

PROGRAMMING PROFICIENCIES

- Linux, Python, R/Markdown, GitHub, NCBI, FlowJo
- Systematics Course with Dr. François Lutzoni, *Duke University Biology Department*
 - Mesquite, PAUP, IQ-TREE, Mr. Bayes, PAML, DeCIFR, FigTree

WORKSHOP ATTENDANCE

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| <ul style="list-style-type: none">ComSciCon-Triangle, NC State UniversityGenome Sequencing and Assembly Workshop, UConn Institute for Systems GenomicsAlignment Workshop, Earth BioGenome Project | January 2023
Virtual, May 2022
Virtual, June 2022 |
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FUNDING

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| <ul style="list-style-type: none">Graduate Research Fellowship, National Science FoundationJames B. Duke Fellowship, Duke UniversityUniversity Scholars Fellowship, Duke UniversityResearch Experience for Post-Baccalaureate Students, National Science Foundation | 2024-2027 (\$138,000)
2022-2026 (\$20,000)
2022 (\$25,500)
2021-2022 (\$45,940) |
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AWARDS & HONORS

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| <ul style="list-style-type: none">Duke Biology Grants in Aid of ResearchEvent Financial Support from the Dean, Duke UniversityProfessional Development Award, Science Communicators of North Carolina#SciCommMake Project Award, Sigma Xi & Association of Science Communicators | 2023 (\$1,000)
2023 (\$1,000)
2023 (\$1,000)
2022 (\$1,000) |
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PUBLICATIONS

* Indicates co-first authors

- Byrne, A.Q.*, Rothstein, A.P.*, Smith, L.L., **Kania, H.P.**, Knapp, R.A., Boiano, D.M., Briggs, C.J., Backlin, A.R., Fisher, R.N., & Rosenblum, E.B. (2022). *Revisiting conservation units using multiple genomic methods for the endangered mountain yellow-legged frog species complex (*Rana muscosa*, *Rana sierrae*)*. Manuscript accepted for publication.

ORAL PRESENTATIONS

Science Talk

Portland, OR

April 7, 2023

- Currier, R., Gibson, C., & **Kania, H.P.** *The Bloom of Doom: Communicating the Science of the Florida Red Tide to a Young Audience*. (Invited Talk)

Population, Evolutionary, and Quantitative Genetics (PEQG)

Monterey, CA

June 2022

- **Kania, H.P.**, Siddiq, M.A., Brown, N., & Wittkopp, P.J. *Uncovering how three core metabolic enzymes evolved antimicrobial activity in *Saccharomyces cerevisiae**. (Poster)

MCB Honors Virtual Poster Session

Berkeley, CA

April 2021

- **Kania, H.P.** *An Open-Source Platform for Genotyping *Batrachochytrium dendrobatidis**. (Poster)

COMMUNICATION & OUTREACH

NASW David Perlman Mentorship Program

Participant

Virtual

Summer 2023

- Virtual student mentorship program to network with science journalism professionals. Includes writing a reported news piece for consideration by the NASW student newsroom and partner publications.

The Art of a Scientist

Contributing Artist

Durham, NC

July 2023

- Science and art collaboration to increase Duke research accessibility across the Durham community through a free, public art exhibition at Duke's Smith Warehouse.

Science Video-Making Workshop

Organizer

Durham, NC

August 2023

- Plan and execute a two-day graduate-student workshop focused on demystifying graduate student research through effective short storytelling and videography: *Translating Your Research into Short Video*.

#SciCommMake, Sigma Xi & Association of Science Communicators

Funded Participant

Virtual

2022-2023

- International collaboration between scientists, artists, and science communicators for accessibility of public health research.
- Generated a series of four Instagram Reels highlighting the science behind the red tide algal bloom in Florida.

F.E.M.M.E.S

Connect Coordinator and Lead Volunteer

Ann Arbor, MI

March 26, 2022

- Designed and led a 1-hour scientific workshop for students in grades 6-8 on evolutionary tree-building skills using morphological traits and genetic features.

Advance Coordinator and Lead Volunteer

February 5, 2022

- Designed and led a 30-minute scientific workshop for students in grades 9-12 to explore human evolutionary history using COVID-19 and Neanderthal genomic contributions as a case study.

University of Michigan Mentorship Program

Staff Mentor Volunteer

Ann Arbor, MI

2021

- Staff contact for undergraduate student groups to ensure new students from all backgrounds are well-supported.