KARA RYAN

School of Biological Sciences
Washington State University
Pullman, WA, 99164
United States

Email: Kara.ryan@wsu.edu

EDUCATION AND TRAINING

2020-Present	**Ph.D. Student,** Washington State University - Pullman, Biology Graduate Certificate in Bioinformatics, May 2022 Advisor: Dr. Joanna Kelley
2020	**M.S.,** American University, Biology Thesis: Transcriptome analysis of subterranean and surface amphipod species *Stygobromus tenuis* and *Crangonyx shoemakeri.* Advisor: Dr. David Carlini
2016	**B.S.,** Biology**,** Le Moyne College, Biology

GRANTS AND FELLOWSHIPS

2022	WSU Carl H. Elling Endowed Fellowship ($2,434)
2021	WSU Carl H. Elling Endowed Fellowship ($2,500)
2020-2022	WSU Golding Family Graduate Fellowship ($3,500/yr)
2020-2025	WSU Graduate Assistantship
2020	Buttonwood Foundation Graduate Scholarship ($5,000)
2019	American University Ella F. Helmlinge Biology Fellowship ($2,000)
2018	Booker Family Graduate Scholarship ($10,000)
2018-2020	American University Graduate Assistantship
2012-2016	Le Moyne College Presidential Scholarship

TEACHING EXPERIENCE

2022	Guest Lecture. Biology of Fishes. WSU
2021	Guest Lecture. Comparative Physiology. WSU
2021	Teaching Assistant. Evolution. WSU
2020 - 2021	Teaching Assistant. Introduction to Organismal Biology. WSU
2019	Instructor. National Leadership Conference: Biotechnology. American University
2018 - 2020	Teaching Assistant. Introduction to Biology. American University

PUBLICATIONS

Asalone KC*, **Ryan KM*,** Yamadi M*, Cohen AL, Farmer WG, George DJ, Joppert C, Kim K, Mughal MF, Said R, Toksoz-Exley M, Bisk E, Bracht JR (2020) Regional sequence expansion or collapse in heterozygous genome assemblies. PLOS Computational Biology 16(7): e1008104. https://doi.org/10.1371/journal.pcbi.1008104

PRESENTATIONS

2022 **Ryan K**, Greenway RS, Landers J, Arias-Rodriguez L, Tobler M, Kelley, JL. Targeted capture sequencing reveals shared patterns of variation in hydrogen sulfide

detoxification genes in extremophile fish P. mexicana [Presentation], Evolution Conference 2022, Cleveland, OH, USA.

2022 **Ryan K,** Greenway RS, Landers J, Arias-Rodriguez L, Tobler M, Kelley, JL. Targeted capture sequencing reveals shared patterns of variation in hydrogen sulfide detoxification genes in extremophile fish *P. mexicana* [Poster], Graduate Research Symposium, School of Biological Sciences, Washington State University

2021 **Ryan K.** How do organisms adapt to extreme environments? Behavior, Ecology, and Evolution of Poeciliid Fishes Virtual Forum

2020 **Ryan K**, Fong D, Carlini, D. Transcriptome analysis of subterranean and surface amphipod species *Stygobromus tenuis* and *Crangonyx shoemakeri.* Graduate Student Research Symposium, American University* *Cancelled due to Covid-19*

SKILLS

Programming: Python (NumPy, SciPy, Pandas, BioPython, Matplotlib), R (ggplot2, tidyverse, dyplr, tidyr, stringr, lubridate, RMarkdown), Git, UNIX/LINUX, Bash, mySQL.
Bioinformatics: High Performance Computing (including SLURM and LSF), Nextflow, Analysis of NGS data (Genomic and Transcriptomic).

OUTREACH AND SERVICE

2021 - 2022	Research Mentor - Undergraduate Project
2021 - 2022	STEM kits – Neill Public Library. Pullman, WA
2021	Skype a Scientist
2020	Panel member, WSU Scientista “What to do during your undergrad”
2018-2020	Biology Representative, Graduate Student Council, American University
2019	College of Arts and Sciences Graduate Student Mentor, American University
2019	Humane Rescue Alliance Volunteer, Washington D.C.
2016-2019	DC Special Olympics Volunteer, Washington D.C.
2016-2019	Friends of Petworth and Brookland Community Clean-Up, Washington D.C.
2019	AAAS Conference Family Day Volunteer, Washington D.C.
2018	Cultivate the City Urban Farm Volunteer, Washington D.C.