**Kerry Leigh McGowan**

Email: [kerry.mcgowan@wsu.edu](mailto:kerry.mcgowan@wsu.edu), Website: [kerrymcgowan.github.io](https://kerrymcgowan.github.io/)

**SUMMARY**

Ph.D. Candidate at Washington State University in Pullman, WA, with 4+ years of experience in computational biology examining evolution and population genetics. I develop pipelines to analyze terabytes of multi-omics data to visualize patterns and test hypotheses about adaptation.

**TECHNICAL SKILLS**

* High-performance computing
* Implementation of command line software
* Singularity containers
* Bash, R, Python
* ggplot2, tidyverse, matplotlib, Seaborn, sklearn
* Data cleaning (tidy data) and visualization
* Statistics (Frequentist and Bayesian)
* Unsupervised clustering (PCA, MDS, hierarchical)
* Version control with Git and GitHub
* RNA/DNA extraction, quantification, library preparation

**WORK EXPERIENCE**

**Lead Researcher, School of Biological Sciences, Washington State University, Pullman, WA, 2017-present**

Conducted population genetics analyses on extremophile fish, led research team of undergraduates.

***Results:*** Lead author publication, $16,100 in awards and scholarships, presented at 14 conferences.

**Intern, Departments of Entomology and Invertebrate Zoology, Smithsonian National Museum of Natural History, Washington, D.C., 2016**

Examined treehopper insect morphology and catalogued specimens of freshwater bivalves.

***Results:*** Described almost 300 species of treehopper insects, fragile bivalve specimens properly stored.

**NSF Research Experience for Undergraduates Participant, Integrative Biology and Ecology of Marine Organisms, Friday Harbor Laboratories,** **University of Washington, Friday Harbor, WA, 2014**

Conducted a self-designed study examining epibiotic communities on intertidal molluscs.

***Results:*** Lead author publication, presented at 2 conferences.

**EDUCATION**

**Washington State University, School of Biological Sciences, Pullman, WA, 2017-present**

Ph.D. Candidate in Biology with Graduate Certificate in Bioinformatics, GPA: 4.0

**Muhlenberg College**, **Allentown, PA, 2011-2015**

B.S. in Biology, *summa cum laude*

**SELECTED PUBLICATIONS (out of 5 total)**

**McGowan KL**, Passow CN, Arias-Rodriguez L, Tobler M, Kelley, JL. 2019. Expression analyses of cave mollies (*Poecilia mexicana*) reveal key genes involved in early-stage eye regression. *Biology Letters*. 15(10). DOI: 10.1098/rsbl.2019.0554

Brown AP, **McGowan KL**, Schwarzkopf EJ, Greenway RS, Rodriquez LA, Tobler M, Kelley JL. 2019. Local ancestry analysis reveals genomic convergence in extremophile fishes. *Philosophical Transactions of the Royal Society B*. 374(1777). DOI: 10.1098/rstb.2018.0240

**McGowan KL**, Iyengar EV. 2017. The difference between a rock and a biological hard place: epibionts in the rocky intertidal. *Marine Biology.* 164(109). DOI: 10.1007/s00227-017-3131-z