

Amanda Stromecki

1645 Old Pioneer Way Fairbanks, AK 99709 | 703-945-9670 | astromec@vt.edu | github.com/astromecki

Education

MASTER OF SCIENCE | AUG 2020 | WESTERN WASHINGTON UNIVERSITY

- Marine and Estuarine Science Program, Biology Department, College of Science and Engineering. G.P.A. 4.0/4.0
- Graduate thesis: Community Structure of Benthic Microbial Mats at Hydrothermal Springs in Crater Lake, OR

BACHELOR OF SCIENCE | DEC 2013 | VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY

- Biological Sciences, Biology Department, College of Science and Engineering. G.P.A. 3.4/4.0

Experience

RESEARCH PROFESSIONAL | UNIVERSITY OF ALASKA FAIRBANKS IAB | JAN 2022—PRESENT

- Microbiome research on toxin tolerance in herbivores, microbial methylation of mercury in copepod microbiome, fieldwork on greater sage-grouse in eastern Idaho and moose in Alaska, bioinformatics on 16S and metagenome data
- National Center for Genome Resources Virtual Bioinformatics Workshop – 31 Jan – 4 Feb 2022
- University of Alaska Fairbanks Data Science Workshop on Python, NumPy and Pandas – 4, 12 Apr 2022

SCIENTIFIC TECHNICIAN | WASHINGTON DEPT. OF FISH AND WILDLIFE | AUG 2021—NOV 2021

- Monitoring wild salmonid fishery on Skagit River: creel surveys, interviewing anglers, collecting morphological data

ASSAY DEVELOPMENT/MOLECULAR TECHNICIAN | NORTHWEST LABORATORY | MAR 2020—AUG 2021

- Clinical assay development including SARS-CoV-2 qPCR, resulting, client relations, team supervision, training

GRADUATE TEACHING ASSISTANT | WESTERN WASHINGTON UNIVERSITY | SEP 2017—MAR 2020

- 300-level Microbiology lab. course: developed and gave intro. lectures, demonstrated lab. techniques, provided tutoring

RESEARCH ASSISTANT | ARIZONA STATE UNIVERSITY | JUNE—NOV 2016

- Conducted field research on Northern Mexican garter snake: manual VHF telemetry, PIT tagging, habitat assessment

AVIAN FIELD TECHNICIAN | UNIVERSITY OF IDAHO | APR—JUNE 2016

- Conducted field research on Yuma's Ridgway Rail: trapping, netting, banding, ARGOS satellite and radio telemetry

ECO. RESTORATION INTERN | TURTLE ISLAND RESTORATION NETWORK | OCT 2015—APR 2016

- Conducted salmonid surveys in Lagunitas Creek, led habitat restoration projects and nature walks, community engagement, advocacy, wrote State of CA Wildlife Conservation Board Grant proposal for instream flow study

LABORATORY TECHNICIAN/MANAGER | UNIVERSITY OF UTAH | OCT 2014—OCT 2015

- Conducted research on GPI-anchored proteins in Neurobiology and Anatomy lab.: maintained experimental mouse colony, performed PCR for genotyping, DNA/RNA extractions, plasmid generation, neuronal cell culture, audited 500-level Neuroscience course, gave research talks

MOLECULAR DIAGNOSTICS/INFECTIOUS DISEASES INTERN | QUEST DIAGNOSTICS | JUNE—AUG 2012

- Assisted with clinical PCR laboratory in infectious diseases department: logged incoming specimens, organized specimens by assay, cleaned and prepped PCR instruments, assisted with various lab. organization tasks, updated patient databases

Skills

MOLECULAR AND MICROBIOLOGY

- DNA/RNA extraction, PCR, qPCR, amplicon sequencing library preparation, gel electrophoresis, bacterial cell culture, neuronal cell culture, HEK cell culture, plasmid generation, primer design, media preparation, protocol design and optimization, extensive undergraduate mentorship and training, equipment maintenance

FIELDWORK

- Spawner surveys on critically endangered California central coast coho salmon, manual VHF telemetry on northern Mexican garter snake, satellite telemetry on Yuma's Ridgway rails, mammal, bird, and reptile trapping, handling, banding, bleeding, and collecting morphological data, vegetation surveys, wildlife and plant identification in the field

BIOINFORMATICS

- 16S sequence data processing using mothur, QIIME2 pipelines, metagenome data processing using SqueezeMeta and centrifuge pipelines, community structure analysis in R, scripting in BASH, Python, R, Linux, Mac, Windows O/S, command line interface, using remote analytical server, optimizing pipelines, training undergraduates in mothur, QIIME2

Publications

UNEXPECTED DIVERSITY FOUND WITHIN BENTHIC MICROBIAL MATS AT HYDROTHERMAL SPRINGS IN CRATER LAKE, OREGON

- *Frontiers in Microbiology*, *in review*, submitted 15 Feb 2022

COMMUNITY STRUCTURE OF BENTHIC MICROBIAL MATS AT HYDROTHERMAL SPRINGS IN CRATER LAKE, OREGON

- WWU Graduate School Collection, 2020

Grant proposals

FLOODPLAIN ACTIVATION FLOW STUDY FOR JUVENILE COHO SALMON IN LAGUNITAS WATERSHED

- California Wildlife Conservation Board, funded Mar 2017

Student mentees

MICHELLE RAMIREZ

- Biomedical Learning and Student Training (BLaST) Scholar, Sept 2022—present

HELEN SARRIMANOLIS

- Genomes Underlying Toxin Tolerance (GUTT) undergraduate research fellow, Summer 2022

RYA BERRIGAN

- Undergraduate Senior Capstone Research Project: Microbial Community Structure of Allerton Floodplain Sediments using Amplicon Sequencing, Winter—Spring 2022

DAPHNE MUELLER

- Undergraduate Senior Capstone Research Project: Microbial Community Structure of Chena River Sediments using Amplicon Sequencing, Winter—Spring 2022

Invited lectures

REPRODUCIBLE RESEARCH BASICS

- Computational Skills in Biology (BIOL F694), University of Alaska Fairbanks, 2022

Volunteer work

INTERIOR ALASKA CENTER FOR NON-VIOLENT LIVING | PREVENTION, ADVOCACY | APR 2022—PRESENT

GOLDEN HEART ACADEMY, VARIOUS | SCIENCE OUTREACH THROUGH UAF | FEB 2022—PRESENT

NORTH CASCADES AUDUBON SOCIETY | DESIGN, CLASS FACILITATION | MAR 2021—PRESENT

SAN GERONIMO FOOD BANK | FOOD DISTRIBUTION | OCT 2015—APR 2016

Awards

GENOMES UNDERLYING TOXIN TOLERANCE (GUTT) RII TRACK-2 FEC FELLOW | JAN 2022—PRESENT

GORDON H. AND ALICE C. FRASER ENDOWMENT FELLOWSHIP | SUMMER 2018

STATE OF CALIFORNIA WILDLIFE CONSERVATION BOARD RESTORATION GRANT | MAR 2017