360.608.2508
kate.perkins2@gmail.com
www.krperkins.com

KAITLIN PERKINS

EDUCATION

MASTER OF SCIENCE IN SYSTEMS ECOLOGY, UM BRIDGES TRAINEESHIP

University of Montana, Missoula, Montana
Graduation: November 2020

BACHELOR OF SCIENCE IN BIOLOGY, MINORS IN ENVIRONMENTAL SCIENCE AND MATHEMATICS

Fall 2013 – May 2017
Washington State University Vancouver, Vancouver, Washington
GPA: 3.74, with honors and certificate in Quantitative Biology

RESEARCH EXPERIENCE

ECOSYSTEMS LAB, UNIVERSITY OF MONTANA

Graduate Research Assistant, August 2017 - present

Pursuing Master's in Systems Ecology under the mentorship of Dr. Ben Colman focused on investigating the role of size and particle interactions in metal transport in the Upper Clark Fork River, Montana. Responsibilities include regular sample collection and analysis using size fractionation and dynamic light scattering. Training in field flow fractionation, acid digestion, inductively coupled plasma optical emission spectrometry (ICP-OES), tangential flow fractionation, spectrofluorometric analysis, and benthic sample collections.

AQUATIC ECOLOGY LAB, WASHINGTON STATE UNIVERSITY VANCOUVER

Undergraduate Researcher, August 2015 – August 2017

Investigating the vertical distribution of phytoplankton in relation to hypoxia in Lacamas Lake under the mentorship of Dr. Gretchen Rollwagen-Bollens. Conduced study on the vertical distribution of phytoplankton in a heavily managed reservoir. Sampled phytoplankton with a Van Dorn trap and size fractionated with vacuum filtration. Field efforts included launching a boat and sampling late into the night. Chlorophyll extractions were completed, and samples were analyzed on a spectrofluorometer. The project began as an NSF Research Experience for Undergraduates (REU) Fellowship position and was later continued with the University Scholars Honors Program. The study has been published by *Lake and Reservoir Management.*

DIRECTED OCEANOGRAPHIC RESEARCH, SEA SEMESTER, WOODS HOLE & NEW ZEALAND

Student Researcher, September 2014 – December 2014

Conducted study of micro and macroplastics density in the ocean waters of New Zealand while learning sail training and leadership. Designed and carried out the project with two other students under the guidance of mentor Deb Goodwin. Used bucket sampler to collect microplastics and tow nets to collect macroplastics. Described plastics using microscopy and material keys while at sea, in addition analyzing and reporting these data. Also conducted bird and marine mammal surveys, tow net surveys with organism identification and counts, and regular data logging of outputs from on-board instruments. Sail training included navigation, ship maintenance, and line management. Given that the vessel was always under sail, all activities occurred at any time of the day or night.

WORK EXPERIENCE

NATURALIST AND DECKHAND, THE SCHOONER ZODIAC, BELLINGHAM, WA

May 2017 – August 2017

Provide educational materials and assistance for species identification and give presentations about marine ecology and stewardship. Teach passengers sail technique, theory, and navigation. Assist with sailing operations, including ship maintenance, sail handling, navigation, passenger support, and safety.

NATURAL RESOURCE SPECIALIST ASSISTANT, CLARK COUNTY ENVIRONMENTAL SERVICES

January 2016 – February 2017

Work in Clean Water Division addressing stream and stormwater contamination and pollutants. Conduct stream monitoring including water and macroinvertebrate sampling. Stormwater work including monitoring using autosamplers, infrastructure inspections including bioswales and belowground systems, data analysis, and report generation. Clean water outreach and education including a local Earth Day event. Project lead in oil/water separator inventory and GIS mapping project as part of Local Source Control.

TRAINING

UM BRIDGES TRAINEE, WATER-ENERGY-FOOD NEXUS GRADUATE CERTIFICATE

University of Montana, 2017 – present

NSF-funded graduate training program that focuses on applied science at the nexus of food, energy, and water. Training complements thesis research through applied and interdisciplinary skills development. Engaged in classes and workshops focused on science communication, policy, bridging science and practice, and complex issues at the food-energy-water nexus.

CONFERENCE PRESENTATIONS & PUBLICATIONS

PUBLICATIONS

Perkins, K. R. et al. Lake and Reservoir Management Variability in the vertical distribution of chlorophyll in a spill-managed temperate reservoir. Lake and Reservoir Management. 0, 1–8 (2019).

PRESENTATIONS

Perkins, K, Montaño, M, Colman, B. Poster Presentation, Examining the Abundance and Composition of Submicron Particles in a Mine-waste Contaminated Intermountain West River. EPSCoR National Conference, Columbia, SC, October 2019.

Perkins, K, Montaño, M, Colman, B. Poster Presentation, Examining the Abundance and Composition of Submicron Particles in a Mine-waste Contaminated Intermountain West River. Montana American Water Resources Association, Red Lodge, MT, October 2019.

Perkins, K, Montaño, M, Colman, B. Poster Presentation, Prospecting for Submicron Metal Particles in a Mine Waste Contaminated. Society for Freshwater Sciences conference, Salt Lake City, UT, May 2019.

Perkins, K, Montaño, M, Colman, B. Poster Presentation, Size, associations, and distribution of mining contaminants in the Upper Clark Fork River, Montana. Montana Aquatic Research Consortium conference, April 2019.