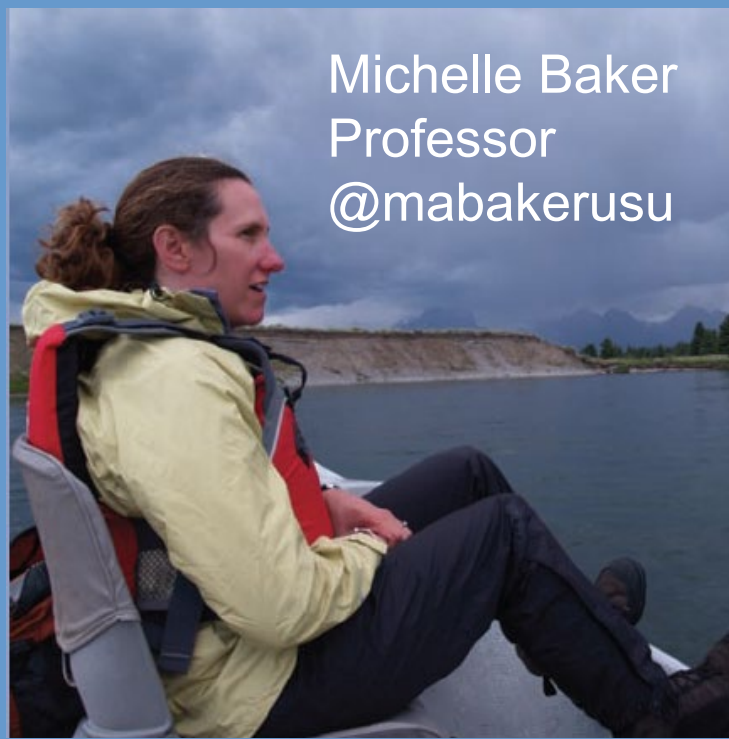
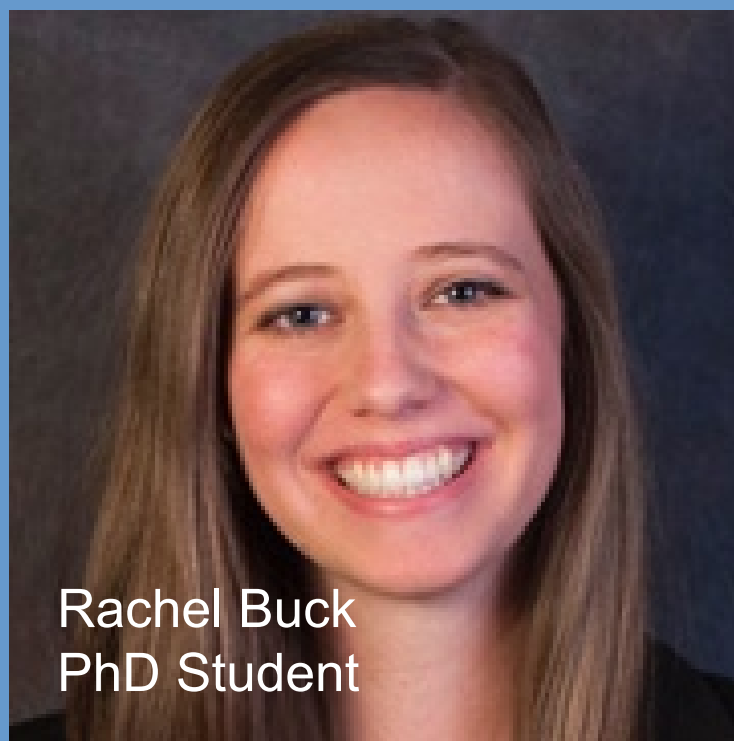


WHO WE ARE



Michelle Baker
Professor
@mabakerusu



Rachel Buck
PhD Student



Ally Marris
MS Student



Ellie Smith-Eskridge
MS Student

Not pictured: Lisa Ward, Curtis White, Ally Smith, Tacy Petersen

WATER is our “study organism.”

Our research focuses on the physical, chemical, and biological processes that maintain water quality. This is important because clean water is an ecosystem service upon which life depends. Our work aims to understand and protect healthy freshwater ecosystems.

CURRENT PROJECTS

GRADIENTS ALONG MOUNTAIN TO URBAN TRANSITIONS

The goal of this project is to understand how land use changes affect structure and function of stream ecosystems along the Wasatch Front.

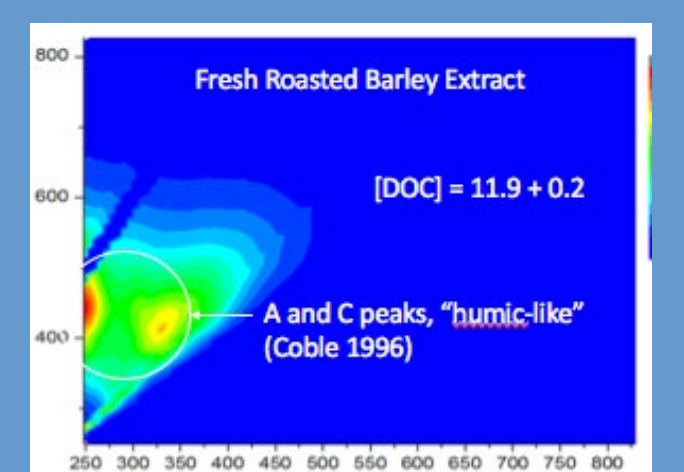


NUTRIENT CRITERIA IN WETLANDS

As human populations explode across the Intermountain West, water quality suffers. We are providing scientifically defensible tools to set limits for allowable nutrient levels for Great Salt Lake wetlands.

MECHANISMS CONTROLLING ORGANIC CARBON TRANSPORT AND FATE

Streams and rivers transport massive amounts of organic C from the land to the sea, but half of terrestrial inputs are respired. We want to understand how this happens.



FROM FIELD TO LAB...



We use a combination of observational, experimental, and modeling tools from ecology, hydrology, microbiology, and geochemistry to understand nutrients in water. Mostly we get paid to play in mud. Visit our website for analytical services available through the Aquatic Biogeochemistry Lab.

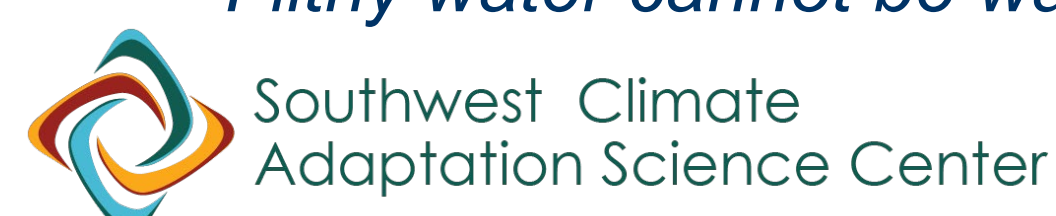
MILESTONES

- 2020 – Beth Ogata joins faculty at Cornell!
- 2018 – Julie Kelso graduates and earns ORISE postdoctoral fellowship
- 2018 – Beth Ogata welcomes baby girl
- 2018 – New NSF grant to study carbon cycling and USGS grant to enhance regional climate adaptation science
- 2017 – Rachel Buck welcomes baby boy

RECENT PUBLICATIONS

- Kelso, J.E., and M.A. Baker. 2020. Organic matter is a mixture of terrestrial, autochthonous, and wastewater effluent in an urban river. *Frontiers in Environmental Science*.
- Ogata, E.M., M.A. Baker, E.J. Rosi, T.B. Smart, D. Long, Z.T. Aanderud. 2020. Nutrients and pharmaceuticals structure the bacterial core communities in urban and montane stream biofilms. *Frontiers in Microbiology*.

Thanks to these organizations for their support.



“Filthy water cannot be washed.” ~ African proverb