

Curriculum Vitae

Kevin J. Gauthier

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Education

M.S. Biology, December 2022

Idaho State University College of Science and Engineering

Co-Advisors: Dr. Rebecca Hale and Dr. Colden Baxter

Cumulative GPA: 3.74/4.0

Thesis: Local Conditions and Upstream Inputs Structure the Metabolism of a Small Urban Stream

B.S. Environmental Science, Focused Electives in Ecology -- 2020

University of Wisconsin-Madison College of Agriculture and Life Sciences

Cumulative GPA: 3.2/4.0

Research Experience

Idaho State University Department of Biological Sciences

- Stormwater Monitoring Technician: Idaho State University's Socio-Eco-Hydrology Lab and the City of Pocatello (September 2020-Present)
 - Utilized environmental sensors and water chemistry analysis to quantify sediment, nutrient, and chloride loads in a watershed spanning urban, agricultural, and rural land uses
 - Collected dissolved oxygen and stream habitat data to investigate the magnitude and drivers of reach-scale stream metabolism
- Field Technician: Idaho State University's Stream Ecology Center (September 2022-Present)
 - Surveyed aquatic macroinvertebrate and fish assemblages and characterized physical stream habitat in wilderness ecosystems of Yellowstone National Park

University of Wisconsin-Madison Center For Limnology

- Limited Term Employment: University of Wisconsin-Madison Center For Limnology (May 2020-August 2020)
 - Conducted a survey of spatial water chemistry characteristics of >30 lakes in northern Wisconsin using the Fast Limnological Automated Measurements (FLAMe) system of environmental sensors developed by the University of Wisconsin
 - Routinely monitored water chemistry characteristics, chlorophyll concentrations, and zooplankton communities within two experimental lakes at the University of Notre Dame Environmental Research Center (UNDERC) through field sampling and laboratory techniques as well as the deployment of environmental sensing buoys
- North Temperate Lakes Long Term Ecological Research Sensor Technician (May 2019-August 2019)
 - Assisted in maintenance, construction, and deployment of environmental sensing buoys on northern Wisconsin lakes

- Designed, constructed, and tested an open-sourced, cost-effective water temperature sensor string
- Directed Studies in Zoology: Spatial Variability in Nutrient Levels in the Yahara River Estuary (September 2018-December 2018)
 - Utilized water chemistry sensors and collected water samples to quantify spatial variability in Nitrogen and Phosphorus levels and potential denitrification in a stretch of the mouth of the Yahara River
- Fast Limnological Automated Measurements Technician (May 2018-August 2018)
 - Conducted a survey of spatial water chemistry characteristics of >30 lakes in northern Wisconsin using the FLAMe system
 - Assisted in baseline measurements on whole-ecosystem manipulation lakes at UNDERC, using the FLAMe system as part of a collaboration to investigate spatial indicators of ecosystem regime shifts
 - Independently investigated relationships between spatial water chemistry data and Wisconsin Department of Natural Resources macrophyte distribution data from northern Wisconsin lakes
- Directed Studies in Zoology: Greenhouse Gas Emissions in Madison, WI Area Agricultural Streams (January 2018-May 2018)
 - Gathered and processed carbon dioxide and methane gas flux data and water chemistry data from streams to analyze within- and between-stream, as well as temporal, variability in greenhouse gas fluxes
- Limnology Technician (May 2017-August 2017)
 - Assisted with research on spatial water chemistry and light attenuation in lakes using the FLAMe system
 - Installed in-situ sensors and independently collected and analyzed stream water samples as part of a continent-wide, collaborative project quantifying stream metabolism
 - Communicated scientific principles and techniques through demonstrations to the general public at open house outreach events

Posters/Presentations

Gauthier, K., R. Hale, I. Martinez. 2022. Local Conditions and Upstream Inputs Structure the Metabolism of a Small Urban Stream. Joint Aquatic Sciences Meeting, Grand Rapids, MI.

Gauthier, K., R. Hale, I. Martinez. 2022. Local Conditions and Upstream Inputs Structure the Metabolism of a Small Urban Stream. Idaho State University Graduate Research Symposium, Pocatello, ID.

Gauthier, K., R. Hale, I. Martinez. 2021. Exploring Longitudinal Variation in Nutrient Inputs and Biological Productivity in Pocatello Creek. Biological Sciences Research Committee Research Roundup, Pocatello, ID.

Gauthier, K., P. Schramm. 2020. Design and Development of an Open-Sourced, Cost Effective Water Temperature Sensor String. Wisconsin American Fisheries Society State Chapter Annual Meeting, Eau Claire, WI.

Gauthier, K., P. Schramm. 2019. Design and Development of an Open-Sourced, Cost Effective Water Temperature Sensor String. Water@UW-Madison Fall Poster Session and

Reception, Madison, WI.

Gauthier, K., P. Schramm. 2019. Design and Development of an Open-Sourced, Cost Effective Water Temperature Sensor String. Great Plains Limnology Conference, Iowa State University, Ames, Iowa.

Gauthier, K., P. Schramm, N. Lottig. 2019. Design and Development of an Open-Sourced, Cost Effective Water Temperature Sensor String. Wisconsin Lakes Partnership Meeting, Trout Lake Station, Boulder Junction, Wisconsin.

Blackburn, S., **K. Gauthier**, and E. Stanley. 2018. Winter Methane Flux from Agricultural Streams. Association for the Sciences of Limnology and Oceanography Summer Meeting, Victoria, Canada.

Teaching Experience

Teaching Assistant

BIOL 1101: Introductory Biology, Idaho State University, Pocatello, ID (Spring and Fall 2022)

BIOL 2227: Introduction to Human Anatomy and Physiology, Idaho State University, Pocatello, ID (Fall 2021 and Fall 2022)

BIOL 1100: Introductory Biology (for non-Biology majors), Idaho State University, Pocatello, ID (Spring 2021)

Awards/Fellowships

2021 Center for Ecological Research and Education, Research Grant, Idaho State University, \$3,500

2021 Idaho State University Biological Sciences Graduate Student Research Fund, Idaho State University Biological Sciences Research Committee, \$1,000

2019 E.T. and Jean Juday Award in Limnology, University of Wisconsin-Madison Center For Limnology Trout Lake Station, \$5,500

Relevant Graduate Coursework

Advanced Ecology of Streams and Rivers, Environmental Data Management and Programming, Geomorphology, Soils and Critical Zone Processes, Watershed Hydrology

Skills

Proficiency in Microsoft Office software, ArcGIS, ENVI, GitHub, and the programming language R

Experience with deployment, calibration, maintenance, and repair of sampling equipment for freshwater science applications (Hobo, Turner Designs, PME, YSI, Hydrolab, Satlantic, Los Gatos Research, Campbell)

Experience with laboratory chemical, spectroscopic, and fluorometric analytical methods used in freshwater science

Educational Activities

Portneuf Subunit of American Fisheries Society -- Secretary 2021-2022

UW-Madison Environmental Sciences Organization -- Officer 2017-2020

UW-Madison Chapter of American Fisheries Society -- Secretary/Treasurer 2019-2020

Professional Memberships

Society for Freshwater Science -- Member since 2021

Association for the Sciences of Limnology and Oceanography -- Member since 2020

American Fisheries Society -- Member since 2019