

Corey L. Laxson

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Areas of Expertise

- Limnology Well versed in theoretical and applied concepts of freshwater ecology. Highly experienced with standard field and laboratory procedures. Skilled in the quantification and identification of phytoplankton, zooplankton, stream invertebrates, fish, and aquatic macrophytes.
- Water Quality 20 years of experience with standard methodologies used for analyzing and interpreting water chemistry. Skilled in laboratory management, SOP development, QA/QC, sample throughput, and equipment maintenance.
- Watershed Analysis Specialized in the watershed level approach to water resource management, with expertise related to stream monitoring stations, stage-discharge development, segment analysis, pollutant loading, and data logger deployment and management.
- Management Ability to develop, implement, and oversee multiple projects to completion; experience in database management, employee supervision, budget development, and logistic coordination.
- Dissemination Skilled in data analysis and report writing using several platforms including Microsoft suite, Sigma Plot, Minitab, ArcMap, and Program R. Competent public speaker with 16 years of college teaching experience.

Education

- 2002 - M.S. State University of New York, College at Brockport
Major: Aquatic Ecology
Thesis: *Predatory impact of the exotic cladoceran *Cercopagis pengoi* on the lower food web of Lake Ontario.*
Advisor: Joseph Makarewicz
- 2000 – B.S. State University of New York, College at Brockport
Cum Laude
Major: Biology (Zoology)
Senior Thesis: *Zooplankton response to the establishment of *Cercopagis pengoi* in Lake Ontario.*
- 1998 – A.A.S. Paul Smith's College of Arts and Science
Major: Ecology and Environmental Technology
Independent Research: *Development of a regionally specific percent model affinity index for Adirondack Streams.*

Experience

Senior Research Associate, Paul Smith's College Adirondack Watershed Institute. (2005-present).

- Co-development and implementation of multiple research projects related to environmental impacts of road deicers, lake eutrophication and recovery, and the biology and management of non-indigenous aquatic plants.
- Responsible for numerous water quality monitoring contracts, including: Upper Saranac Lake, Rainbow Lake Chain, Blue Mountain Lake, Litchfield Park, Little Simon Pond, Mountain View Lake, Chateaugay Lakes, and the St. Regis Chain of Lakes.
- Significantly improved the quality of the Adirondack Lake Assessment Program (ALAP). A citizen science lake monitoring program with over 75 participating lakes.
- Laboratory Manager for the AWI Environmental Research Lab. Responsible for logistics, supervision, training QA/QC, SOP development, equipment maintenance, sample flow, and management of the Laboratory Information Management System (LIMS).

Instructor, Paul Smith's College Department of Natural Sciences (2002-present)

- Primary teaching responsibilities include Limnology (ENV 361), Aquatic Invertebrates (431), and Mammalogy (BIO 363).
- Over 20 different science classes taught since 2002, including courses such as: Fisheries Management, Stream Ecology, Biology, Chemistry Lab, Ecology, Analytical Methods in Environmental Research, and Environmental Science

Participating Investigator, Adirondack Upland Watershed Project (2003-2005)

- Led a research team of six undergraduate students through 22 backcountry watersheds, where we collected data on watershed characteristics and forest community structure. Project was a NSF funded research collaboration with SUNY Plattsburgh.

M.S. Thesis Research, SUNY Brockport. 2000-2002.

- Conducted a field and laboratory study on the response of the Lake Ontario food web to the establishment of a non-native predatory zooplankton *Cercopagis pengoi*. Investigation focused on the predators effects on zooplankton, phytoplankton, and fish.

Research Assistant, Center for Applied Aquatic Ecology and Aquaculture, SUNY Brockport. 1998-2002.

- Employed in NELAP certified laboratory involved in a wide variety of ecological and environmental research including: nutrient cycling, watershed management, water quality, limnology, fisheries management and biomagnification or persistent organic chemicals.

Peer Reviewed Publications

- Rechlin, M., Laxson, C. Milewski, C., and Stager, C. 2018. Environmental History of Lower St. Regis Lake: Degradation and the Path to Ecological Redemption. *Adirondack Journal of Environmental Studies* – In Review.
- Laxson, C.L., Regalado S.A., and D.L. Kelting. 2018. Evaluating the recovery of Upper Saranac Lake, NY. *Adirondack Journal of Environmental Studies*. 22: 47-64.
- Evans, C, Kelting,D., Holmlund, E., and C. Laxson. 2015. Saving Place: integrating milfoil research, education, and management at the Paul Smith’s College Adirondack Watershed Institute to protect Adirondack Waterways. *Adirondack Journal of Environmental Studies*, 19: 5-10
- Dalinsky, S., Loyla, L., Maguder, J., Pierce, J., Kelting, D., Laxson, C., and D. Patrick. 2014. Comparing the effects of aquatic stressors on model temperate freshwater communities. *Water, Air, and Soil Pollution*, 225 (6): 1-15
- Kelting, D., Laxson, C., and E. Yerger. 2011. Regional analysis of the effect of paved roads on sodium and chloride in lakes. *Water Research*. 46: 2749-2758
- Kelting, D. and C. Laxson. 2010. Cost and effectiveness of hand-harvesting to control Eurasian water milfoil in Upper Saranac Lake, NY. *Journal of Aquatic Plant Management*. 48: 1-5.
- Woodcock, T., Evans, C., Laxson, C., Tucker, R., Allen, J., Mihuc, T., Allen, E., and J. Mihuc. 2008. Land use designation and vegetation community structure in the Adirondack uplands (New York, USA). *Applied Vegetation Science*. 11:509-520.
- Laxson, C.L., McPhedran K., Makaerwicz, J.C., Rivier, I.K. and H.J. MacIssac. 2003. Effects of the nonindigenous cladoceran *Cercopagis pengoi* on the lower food web of Lake Ontario. *Freshwater Biology*. 48 (12) 2094-2106
- Makarewicz, J., Damaske, E., Laxson, C. 2002. Seasonal and vertical distribution, food web dynamics and contaminant biomagnification of *Cercopagis pengoi* in Lake Ontario. *Aquatic Invaders*. 13: 1-6

Recent Technical Reports

- Laxson, C.L., Yerger, E.C., Regalado, S.A., and D.L. Kelting. 2018. Adirondack Lake Assessment Program: 2017 Report. Paul Smith’s College Adirondack Watershed Institute. Report No. PSCAWI 2016-04. 181p. available online at www.adkwatershed.org
- Laxson, C.L. and D.L. Kelting. 2018. Blue Mountain Lake Watershed Monitoring Project: Final Report Report No: PSCAWI 2018-06. 19p
- Laxson, C.L., E.C. Yerger, and D.L. Kelting. 2018. Rainbow Lake Chain: 2017 Limnology and Water Quality Report. Adirondack Watershed Institute of Paul Smith’s College. Report No. PSCAWI 2016-01. 21p.

Laxson, C.L., Regalado, S.M. and D.L. Kelting. 2018. Upper Saranac Lake: 2017 Limnology and Water Quality Report. Adirondack Watershed Institute of Paul Smith's College. Report No. PSCAWI 2018-77. 29p.

Kelting, D.L. and C.L. Laxson. 2010. Review of effects and costs of road de-icing with recommendations for winter road management in the Adirondack Park. Published and distributed by ADKAction.org.

Recent Conference Presentations

Kelting, D., and C. Laxson. 2018. Upper Saranac Lake monitoring program. Northeastern Geological Society of America Meeting. Burlington, VT. 3/18/2018.

Wiltse, B., Laxson, C., and Yerger, E. 2018. Road Salt induced meromixis of Mirror Lake, NY. Lake Champlain Research Conference, Burlington VT. 1/5/2018

Laxson, C., Yerger, E., and Kelting, D. 2018. Road Salt Export from the village of Lake Placid to the Ausable River. Lake Champlain Research Conference, Burlington VT. 1/5/2018

Wiltse, B., Laxson, C., and Yerger, E. 2017. Impact of Road Salt on Mirror Lake, NY. Mirror Lake Water Quality Symposium. Lake Placid, NY. 11/2/2017

Kelting, D.K., and C.L. Laxson. 2017. Salinization of Adirondack lakes by road salt. Mirror Lake Water Quality Symposium. Lake Placid, NY. 11/2/2017

Laxson, C.L., Regalado S.A., and D.L. Kelting. 2015. Evaluating 25 years of recovery in Upper Saranac Lake, NY. 35th annual North American Lake Management Society Symposium. Saratoga Springs, NY. November 18th, 2015

Kelting, D. and C. Laxson. 2013. Road salting influences cation loss from watersheds in the Adirondack Park. Northeastern Ecosystem Research Cooperative. Saratoga Springs, NY. March 2013.

Kelting, D., Laxson, C., and E. Yerger. 2013 Salinization of lakes in the Adirondack Park by road salt. Annual Meeting of the Northeastern Association Environmental Biologists. Lake Placid, NY. March 2013.

Kelting, D. and C. Laxson. 2013. Milfoil Control in Upper Saranac Lake, NY. Annual Meeting of the Northeastern Association Environmental Biologists. Lake Placid, NY. March 2013.

Recent Invited Talks

Limnology of the St. Regis Chain of Lakes. Presentation to the St. Regis Property Owners Association. Kimberly Camp, Spitfire Lake. 8/22 and 8/23, 2018.

Blue Mountain Lake Watershed Monitoring Program. Presented to the community of Blue Mountain. Adirondack Center for the Arts. 8/16/2018.

St. Regis Lake Historical Tour. Presented to the Paul Smith's College Executive Cabinet. 6/20/2018.

Limnology of Blue Mountain Lake. Presentation to the community of Blue Mountain, Adirondack Arts Center, Blue Mountain Lake. 7/26/2017.

Identification of aquatic plants of the Adirondacks. Adirondack Invasive Plant Program- volunteer training session. Paul Smith's College. June 26th, 2016.

Salt: from roadways to waterways. Adirondack Mountain Club, Chateaugay Woods Chapter. WCSC Camp, Chateaugay NY. June 23rd, 2016.

The hidden beauty of lake chemistry. SAM fest: Science, Art and Music Festival. Paul Smith's College Visitors Interpretive Center. April 10th, 2015

Invasion ecology – a theoretical framework for understanding species invasions. 2015. Regional Watershed Stewardship Training Week. Paul Smith's College. May 19th, 2015.

Mammal skulls and skeletons. *Outdoor Adventure Children's Program* at Dewey Mountain Lodge, Saranac Lake NY. July 11th, 2015

Degradation and recovery of Lower St. Regis Lake – an environmental history in progress. Presented to the Paleocology class at Paul Smith's College. February 4th, 2015.

Identification of native and non-indigenous aquatic macrophytes. (May, 2012-2014) Presented a lecture to 75 Lake Stewards from the Adirondacks, Finger Lakes and Catskills on the Identification of aquatic plants. The lecture was followed by a 1 hour hands on workshop with living specimens from around the state of NY. May 2012-2014.

Limnology of the Chateaugay Lakes. Presented to the Chateaugay Lake Association. Lyon Mountain Fire House, Lyon Mountain NY. July 2014

Limnology and Water Quality of Lake Colby. Presented to the Lake Colby Association, Saranac Lake NY. June, 2014.

Student Research Supervised

Favreau, H. 2015. Evaluating surface water sampling techniques employed by volunteer lake monitoring programs.

Frank, R. 2014. Dynamics of a meromictic water body: Marvin Pond, Brighton, NY

Simeck, Z. 2013. Influence on food availability on the composition and diel periodicity of macroinvertebrate drift in an Adirondack Stream.

Audette, C. 2006. Food web dynamics and vertical migration of the *Chaoborus* population in Lower Saint Regis Lake.

Washington, T. 2006. Viability of the Eurasian water-milfoil (*Myriophyllum spicatum*) seed bank in the sediments of Upper Saranac Lake.

Johnson, T. 2005. Effect of lake basin slope and topography on the distribution of brook trout (*Salvelinus fontinalis*) in a small Adirondack pond.

Bratten, E. 2005. Comparison of small mammal abundance and species diversity between riparian and upland habitats of the Smitty Creek Watershed.

Nead, T. 2004. Temporal shifts in the diet composition of yellow perch (*Perca flavescens*) in Lower Saint Regis Lake.

Boss, M. 2004. Toward the creation of a region specific percent model affinity index (PMA) to monitor Adirondack water quality using benthic macroinvertebrates.