

## MOLLY SCHAUFFLER

### Professional Preparation

NSF Post-Doc Fellow	STEM Education (PFSMETE)	Postdoc, 1999-2003
University of Maine	Climate Change Institute	Postdoc, 1998-1999
University of Maine	Plant Science, Paleoecology	Ph.D. December 1998
University of Maine	Botany and Plant Pathology	M.S. December 1993
University of Massachusetts	Botany	B.S. May 1978

### Appointments

**University of Maine Assistant Research Professor**, Current appointments: School of Earth and Climate Sciences, University of Maine Center for Research in STEM Education (RiSE), and University of Maine Climate Change Institute. (2003 – present)

**Consultant, STEM Data Literacy Specialist**, [Tuvalabs.com](http://Tuvalabs.com), online data visualization platform and data literacy education company. (2016 to present).

**National Science Foundation Post-doctoral Research Fellow**, Science, Math, Engineering, and Technology Education (PFSMETE). *Using community-based environmental research as a tool for reforming science education in small communities in Maine.* (1999 - 2003)

**Post-doctoral Research Associate**: George Mitchell Center for Environmental and Watershed Studies and Institute for Quaternary Studies, University of Maine. Paleo-vegetational reconstructions for a collaborative study: *Inferring regional patterns and responses in N and Hg biogeochemistry using two sets of gauged paired-watersheds in Acadia National Park.* (1998 – 1999)

**Graduate Teaching Assistant**, Biology, University of Maine (1991-1993)

**Secondary life sciences teacher**, Sandy Spring Friends School, Sandy Spring, MD (1978 – 1980)

### Publications

i. Project-related:

Zoellick, B., Schauffler, M., Flubacher, M., Weatherbee, R., Webber, H., 2016. Data Literacy: Assessing Student Understanding of Variability in Data. Paper presented at the annual Meeting of the National Association for Research in Science Teaching (NARST), April 14-17, 2016, Baltimore, MD.

Webber, H., Nelson, S.J., Weatherbee, R., Zoellick, B., and Schauffler, M., 2014. The Graph Choice Chart: A tool to help students turn data into evidence. *The Science Teacher*, November 2014: 37-43 (National Science Teacher's Association).

Zoellick, W., Nelson, S.J., Schauffler, M., 2012. Participatory Science and Participatory Education: Bringing Both Views into Focus. *Frontiers in Ecology and Environment* 10(6): 310-313. (*Invited paper for special issue on citizen science*).

ii: Other

Schauffler, M., S. Vidito, S., Johnson, K., G. L. Jacobson, Jr., J. S. Kahl, 2005. Paleocological history of forest disturbance in two upland watersheds in Acadia National Park. Chapter in *Establishing paired gauged watersheds at Acadia National Park for long-term research on acidic deposition, nitrogen saturation, forest health, and mercury biogeochemistry (1998-2002)*, J. S. Kahl et al., Eds.

Schauffler, M. and G. L. Jacobson Jr., 2002. Persistence of coastal spruce refugia during the Holocene in northern New England, USA, detected by stand-scale pollen stratigraphies, *Journal of Ecology* 90: 235-250.

Schauffler, M., G. L. Jacobson, Jr., S. A. Norton, A. L. Pugh IV. 1996. Capture of road-salt aerosols in an acidic peatland in central Maine. *Ecological Applications* 6: 263.

Davis, R. B., D. S. Anderson, S. S. Dixit, M. Schauffler, P. G. Appleby, 2005. Responses of two New Hampshire (USA) lakes to human impacts in recent centuries. *Journal of Paleolimnology*, in press.

Lindbladh, M., G. L. Jacobson, Jr., M. Schauffler 2003. The postglacial history of three *Picea* species in New England, USA. *Quaternary Research*

### **Synergistic Activities**

1. Consultant with Tuvalabs, Inc, online digital platform for visualizing data and building data literacy in K-12. I develop datasets, data activities, instructional materials and professional development in data literacy for science teachers. ([tuvalabs.com](http://tuvalabs.com))
2. Thesis Advisor for Masters of Science in Teaching graduate students. Related MS student theses include:
  - Assessing improvements in students' data and graphing literacy before and after participation in a citizen science project monitoring snowpack in Maine. (Schlager, 2017)
  - An assessment of ninth graders' use of graphs and explanations to communicate scientific ideas (Jones, 2013)
  - Understanding the greenhouse effect using a computer model (Schultz, 2009)
  - Using online data to teach science skills to middle school students (Steinman, 2007)
3. Courses taught:
  - SMT 504: Integrated Approaches to Earth Sciences Education: Monitoring Environmental Change (Graduate course for pre-service science teachers).
  - SMT 507: Research-related Curriculum Development in Science and Mathematics (graduate course for pre-service science and mathematics teachers, at Jackson Laboratory)
  - INT 188: Introduction to Integrated Science and Career Exploration (Undergraduate introduction to STEM for early-college high school students).
4. Professional Development workshops and summer institutes for science teachers:
  - RiSE Center Content Immersion Institute: Understanding climate using observations and models (July 2017)
  - Maine Data Literacy Project after-school Workshops and Summer Institutes (2010-present)
  - Math-Science Partnership: Connecting Climate to Curriculum (Challenger Learning Center, 2007-2010).