

Katya Schloesser, MA

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Cooperative Institute for Research in Environmental Science (CIRES)
Education and Outreach Program
University of Colorado at Boulder
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EDUCATION

Western Colorado University May 2018
Residential Teacher Licensure Program, Secondary Science

University of Colorado Boulder May 2014
M. A. in Geography, focus on Alpine Hydrology, GPA 3.9

University of New Mexico December 2010
B. S. in Environmental Sciences and B.A. in Latin American Studies, Magna Cum Laude

PROFESSIONAL APPOINTMENTS

Associate Scientist II, Education & Outreach Program March 2019-Current
Cooperative Institute for Research in Environmental Sciences (CIRES) Remote Work from Gunnison, CO

8th Grade Earth Science Teacher August 2018- January 2019
Gunnison Middle School Gunnison, CO

8th Grade Earth Science Student Teacher August 2017- May 2018
Gunnison Middle School Gunnison, CO

Education & Outreach Coordinator (0.4 FTE) October 2014-May 2018
AirWaterGas Sustainability Research Network, University of Colorado at Boulder Boulder, CO

Community Outreach Program Manager (0.6 FTE) October 2014-July 2017
CU Boulder Office for Outreach & Engagement Boulder, CO

Bilingual Museum Educator December 2013- September 2014
Denver Museum of Nature and Science Denver, CO

Science Squad Teacher August 2012-May 2013
CU Boulder Biological Sciences Initiative Boulder, CO

Graduate Research Assistant August 2011-May 2014
Niwot Ridge Long Term Ecological Research Site Boulder, CO

Middle and High School Teacher Professional Development Coordinator

New Mexico Established Program to Stimulate Competitive Research (EPSCoR)

June-December 2010

Albuquerque, NM

Hydrologic Technician

USGS Water Science Center

November 2009-December 2010

Albuquerque, NM

EXPERTISE

Curriculum Development & Teacher Training

Lead author of HEART Force curriculum, a comprehensive unit on natural hazards resilience for middle and high school science classrooms. Developed additional curriculum on snowmelt, climate change, and wind. Designed and led face-to-face and virtual teacher professional development workshops.

Project-Based Learning, Design Thinking and Community Engaged Pedagogy Expert

Expert on several frameworks that challenge students to address real-world problems in the classroom setting. Led the Gunnison Middle School 8th Grade Design Challenge, a semester-long collaboration between Gunnison Middle School and the Western Colorado University Business School. Facilitated community partnerships between several rural classrooms and local emergency management departments, fire departments and town planners.

Statewide and National Leader in Natural Hazards Resilience Education

Lead convener of two sessions on resilience education at national and international conferences; facilitator of Colorado resilience education network; proposal reviewer.

PUBLICATIONS & CONFERENCE PRESENTATIONS

Schloesser, K., Davis, R., Ruffin, T., Gold, A.U., Christensen, A., Littrell, M.K., & Boyd, K. (2024). Centering and uplifting youth voice in planning for a more resilient climate future in rural Colorado; A case study of a student resilience team asking for change. *Frontiers in Climate*, 6, <https://doi.org/10.3389/fclim.2024.1408872>.

Schloesser, K., Christensen, A., Boyd, K., Littrell, M.K., Gold, A.U., Pennycook, D. 2022. Empowering Students to Lead: Increasing Community Resilience to Natural Hazards in Rural Colorado. Invited talk at NAAEE Meeting; Oct. 13; Tucson, AZ.

Schloesser, K., Ruffin, T. 2022. Empowering students to increase resilience to natural hazards through civic action. Workshop. Colorado Association of Environmental Educators Conference; Sept. 9; Granby, CO.

Schloesser, K., Kurz, J., Gold, A.U. 2021. Too much or too little: Empowering students to plan for flooding and drought resiliency. *The Earth Scientist*, XXXVIII (3).

Schloesser, K. 2021. Resilient Colorado: Natural Hazards in the Earth Science Classroom. Workshop. Colorado Science Conference; Nov. 11; Virtual.

Schloesser, K., Sotelo, S., Schoedinger, S., McDougall, C., Allen, M., Thomas-Hillburn, H. 2021. Lessons Learned from the Frontlines of K-12 Community Resilience Education. Invited talk at NAAEE Meeting; Oct. 13; Virtual.

- Schloesser, K.**, Leckey, E., Christensen, A., Gold, A., Okochi, C., Boyd, K., Littrell, M., & Morton, A., 2020. Creating Local Pathways for Resilience to the Impacts of Global Climate Change with the Hazard Education and Resilience (HEART) Task Force in Rural Colorado. Invited talk at AGU Fall Meeting; Dec. 1-17; Virtual.
- Schloesser, K.**, Christensen, A., Leckey, E., Gold, A.U., Littrell, M., Boyd, K., Okochi, C., Morton, A., 2020. Creating Authentic Opportunities for Students to Engage with their Community to Build Resilience to Environmental Hazards in Rural Colorado. Poster Presentation. AGU Fall Meeting; Dec. 1-17; Virtual.
- Schloesser, K.** 2020. Resilient Colorado: Natural Hazards in the Earth Science Classroom. Workshop. Colorado Science Conference; Nov. 14; Virtual.
- Schloesser, K.** & Gold, A. 2020: Bringing polar topics into the classroom: Teacher knowledge, practices, and needs. *Journal of Geoscience Education*; DOI: <https://doi.org/10.1080/10899995.2020.1729076>
- Knight, D., M. Hannigan, L. Cheadle, and **K. Hafich**, 2017: Introducing university laboratory tools into K-12 classrooms: Benefits and challenges. Frontiers in Education Conference; Oct 18-21; Indianapolis, IN.
- Ladwig, L., Z. Ratajczak, T. Ocheltree, **K. Hafich**, A. Churchill, S. Frey, C. Fuss, C. Kazanski, J. Munoz, M. Petrie, A. Reinmann, and J. Smith, 2016: Beyond arctic and alpine: the influence of winter on temperate ecosystems. *Ecology* 97(2), pp. 372-382.
- Collier, A., **K. Hafich**, D. Knight, M. Hannigan, J. Gordon, B. Graves, E. Ambos, O. Cecil, V. Danner, E. Hotaling, E. Lee, D. Meyers, H. Adel Salamah, N. Vanderkolk, E. Cofman, 2016: Air Quality Inquiry Curricular Unit. Teach Engineering. Retrieved from: https://www.teachengineering.org/curricularunits/view/cub_airquality_unit
- Hafich, K.**, M. Hannigan, W. Martens, J. McDonald, D. Knight, L. Gardiner, A. Collier, H. Fletcher, and M. Polmear, 2015: Building Pipelines for Information: Developing Partnerships Between Scientists, Educators, and Community Groups to Learn More About Hydraulic Fracturing in Colorado. Oral Presentation. American Geophysical Union Fall Meeting; Dec 14-18; San Francisco, CA.
- Erb, P., L. Erb, **K. Hafich**, and K. Swihart, 2013: ScienceLIVE and BSI: Bringing Lessons Based on Real Science into your Classroom. Workshop. NSTA Denver Area Conference; Dec 12-14; Denver, CO.
- Hafich, K.**, P. Erb, C. Ray, and M.W. Williams, 2013: Connecting Long Term Ecological Research to the Classroom: A Partnership Between ScienceLIVE and Niwot Ridge LTER. Poster presented at: AGU Fall Meeting; Dec 9-13; San Francisco, CA.
- Hafich, K.**, 2013: Nutrient Cycling and Alpine Watersheds. Presentation at: Colorado Biological Teachers Association Fall Workshop; Sept 14; Steamboat Springs, CO.
- Hafich, K.**, and K. Swihart, 2013: Glaciers on the Move: A Hands on Activity for Grades K-8. Presentation at: Colorado Alliance for Environmental Education Thinking Outside the Box Conference; April 28; Denver, CO.
- Falk, S.E., S.K. Anderholm, and **K.A. Hafich**, 2013: Water quality, streamflow conditions, and annual flow-duration curves for streams of the San Juan–Chama Project, southern Colorado and northern New Mexico, 1935–2010: U.S. Geological Survey Scientific Investigations Report 2013–5005, 50 p.

MEDIA COVERAGE

- Estes Park School District. 2022 May 18, Estes Park Middle School team takes first place in statewide natural hazards competition. Estes Park Trail Gazette. <https://www.eptrail.com/2022/05/18/estes-park-middle-school-team-takes-first-place-in-statewide-natural-hazards-competition/>
- Staff Report. 2022 April 26, NFHS students receive first place in RISE Challenge; Community invited to open house on Sunday. Delta County Independent. https://www.deltacountyindependent.com/news/nfhs-students-receive-first-place-in-rise-challenge/article_dc9b5e4c-c574-11ec-a4ad-5b48ca0f606a.html
- Gienapp, K. 2019 Dec 20, A bright idea for affordable housing; Eighth graders propose solar homes at Lazy K. Gunnison Country Times, pp. A9.
- Gienapp, K. 2019 Oct 19. Looking on the bright side; Eighth graders examine alternative energy. Gunnison Country Times, pp. B1. <https://www.gunnisontimes.com/content/looking-bright-side>
- Shoemaker, W. 2018, April 18. Alliance born out of business initiative; ICE Project helps bring ‘design thinking’ to GMS. Gunnison Country Times, pp. A1. <https://www.gunnisontimes.com/content/alliance-born-out-business-initiative-0>

FUNDING

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| 2025-2027 | GameOn for Drought Resilience: Youth-Led Rural Engagement
Principal Investigator: Katya Schloesser
Colorado Water Conservation Board Water Plan Grant: \$70,029 |
| 2021-2024 | SCC-IRG Track 1: Reducing the vulnerability of disadvantaged communities to the impacts of cascading hazards under a changing climate
Principal Investigator: Farshid Vahedifard, PhD
USDA Award: \$51,094
<i>Role: Senior Personnel. I authored the K-12 Education section on the Broader Impacts component of the proposal.</i> |
| 2022-2025 | HEART Force-Resilience Colorado
Principal Investigator: Anne U. Gold, PhD
NOAA Environmental Literacy Program Award: \$500,000
<i>Role: Co-PI. Developed the vision and outline for the proposal, secured partnerships and letters of support.</i> |

SCHOLARSHIPS/AWARDS

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| 2024 | Cooperative Institute for Research in Environmental Sciences : Outstanding Performance Award for Science Service, HEART Force Program |
| 2022 | Colorado Association for Environmental Education – Award for Excellence in Environmental Education Program Award for HEART Force Program |
| 2022 | University of Colorado – Marshall Fire Scholarship – \$5,000, Bouncing Forward: Supporting BVSD Classrooms to Overcome Grief through Action |
| 2021-2022 | University of Colorado President’s Diversity Equity and Inclusion Award – CIRES Education & Outreach Program, Honorable Mention |
| 2017 | Colorado Rural Teaching Fellow – Colorado Center for Rural Education |