

**HILLARY NIEMAN, PhD**  
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**Education**

Ph.D.	Science Education, University of Colorado Denver School of Education & Human Development Committee: Robert Talbot (Chair), Michael Ferrara, Bryan Wee	Dec 2025
M.S.	Environmental Sciences, University of Colorado Denver Department of Geography & Environmental Sciences	December 2013
B.S.	Education, Peru State College School of Education	December 2003
B.S.	Environmental Studies, University of Nebraska-Lincoln College of Agricultural Sciences & Natural Resources	May 2000

**Scholarship**

My teaching is focused on engaging learners through inquiry and critical reflection. I utilize multiple modalities to present information in a way that supports learning across varied world views and prior knowledge. By the end of my courses, learners should have a clear theoretical and conceptual understanding of the content and be able to apply this knowledge in their own life experiences. My research interests include environmental identity, science identity, and teaching and learning within the contexts of contemporary socio-scientific and environmental issues.

**Awards**

<i>LGBTQIA+ Faculty Advocate Award</i> , University of Nebraska-Lincoln	2024
<i>Outstanding Graduate Student Award</i> , University of Colorado Denver	2013
<i>Science Teacher of the Year</i> , Shawnee Mission School District, KS.	2007

**Experience**

Lecturer   Program Coordinator Environmental & Sustainability Studies Program College of Agricultural Sciences & Natural Resources, College of Arts & Sciences University of Nebraska-Lincoln, Lincoln, NE	2020-Present
<ul style="list-style-type: none"><li>● <b>Courses:</b> ENVR 101 Environmental Studies Orientation, ENVR 201 Science, Systems, Environment &amp; Sustainability, ENVR 249 Individual &amp; Cultural Perspectives on the Environment, ENVR 334 Psychology of Environmental Sustainability, ENVR 495 Environmental Studies Internship</li><li>● <b>Committees:</b> College of Agricultural Sciences &amp; Natural Resources (CASNR) Curriculum Committee; CASNR Academic Coordinating Committee</li></ul>	

Lecturer Department of Geography & Environmental Sciences School of Education & Human Development University of Colorado Denver, Denver, CO	2014-2019
<ul style="list-style-type: none"> <li>● <b>Courses:</b> <i>ENVS 1342 Environment, Society, and Sustainability, SCED/ENVS 4650/5650 Environmental Education, SCED 5670 Experiential Learning in the Parks</i></li> </ul>	
Graduate Research Assistant Department of Mathematical & Statistical Sciences University of Colorado Denver, Denver, CO	2013-2019
Environmental Literacy Coordinator Colorado Alliance for Environmental Education, Denver, CO	2013-2017
<ul style="list-style-type: none"> <li>● <b>Courses:</b> <i>Principles and Foundations of Environmental Education</i></li> </ul>	
Lab Instructor & Teaching Assistant Department of Geography & Environmental Sciences University of Colorado Denver, Denver, CO	2011-2013
<ul style="list-style-type: none"> <li>● <b>Courses:</b> <i>ENVS 1044/1045 Introduction to Environmental Sciences Lecture and Lab</i></li> </ul>	
Graduate Research Assistant School of Education & Human Development University of Colorado Denver, Denver, CO	2011-2013
Middle Grades Science Teacher Shawnee Mission School District, Kansas City, KS	2004-2010

### Peer-Reviewed Publications

Huvar, H., Ferrara, M., Talbot, R.M., **Mason, H.** (2021). STEM outreach programs as growth opportunities for nontraditional adult learners: A case study. *Journal of Higher Education Outreach and Engagement*.

Huvar, H., Talbot, R. M., **Mason, H.**, Thompson, A. N., Ferrara, M., & Wee, B. (2020). Science identity and metacognitive development in undergraduate mentor-teachers. *International Journal of STEM Education*, 7(1), 1-17.

Ferrara, M., Talbot, R., **Mason, H.**, Wee, B., Jacobson, M., Rorrer, R., & Gallagher, D. (2018). Enriching undergraduate experiences with outreach in school STEM clubs. *Journal of College Science Teaching*, 47(6), 74-82.

Marzetta, K., **Mason, H.**, & Wee, B. (2018). 'Sometimes they are fun, and sometimes they are not': Concept mapping with English Language Acquisition (ELA) and Gifted/Talented (GT) elementary students learning science and sustainability. *Education Sciences*, 8(1), 13.

Wee, B. & **Mason, H.** (2016). Language About the Environment as a Reflection of Socially Constructed Realities. In H. Kopnina & E. Shoreman-Ouimet (Eds.), *Routledge International Handbook of Environmental Anthropology*. Routledge.

Wee, B., **Mason, H.**, Abdilla, J., & Hogden, R. (2016). Perceptions of green school practices and what it means for education reform: A national survey. *International Research in Geographical and Environmental Education*, 1-12.

Simon, G., Wee, B., Chin, A., Depierre-Tindle, A., Guth, D., & **Mason, H.** (2013). Synthesis for the Interdisciplinary Environmental Sciences: Integrating Systems Approaches and Service Learning. *Journal of College Science Teaching*, 42(5), 42-49.

Ruiz-Primo, M.A., Li, M., Wills, K., Giamellaro, M., Lan, M., **Mason, H.**, & Sands, D. (2012). Developing and evaluating instructionally sensitive assessments in science. *Journal of Research in Science Teaching*, 49(6), 691-712.

### **Presentations**

**Mason H.**, (2024, March). *Navigating Emotions in Women Undergraduate Students' Developing Science Identities*. Facilitated Roundtable Discussion at National Association for Research in Science Teaching Annual Conference, Denver, CO.

**Mason H.**, Armstrong, M., & Li, C. (2021, October). *Deliberation in the Classroom: Moving Students to Action*. Paper presentation at North American Association for Environmental Education Annual Conference. Washington D.C.

**Mason, H.** (2018, October). *Building a Conceptual Model for Environmental Identity Development*. Facilitated Roundtable Discussion at North American Association of Environmental Education Annual Conference, Spokane, WA.

**Mason, H.**, Wee, B., Ferrara, M., & Talbot, R. (2018, March). *The Impact of K-12 Outreach Experiences on Undergraduate STEM Majors' Scientific Literacy and STEM Communication Skills*. Paper presentation at National Association for Research in Science Teaching Annual Conference, Atlanta, GA.

**Mason, H.** & Wee, B. (2017, April). *Understanding how participation in Middle and High School STEM Clubs Shape Undergraduate students' STEM identities*. Paper presentation at National Association for Research in Science Teaching Annual Conference, San Antonio, TX.

**Mason, H.,** Wee, B., & Talbot, R. (2017, April). *The impact of organizing Middle and High School STEM clubs on Undergraduate STEM majors*. Poster presentation at National Association for Research in Science Teaching Annual Conference, San Antonio, TX.

**Mason, H.,** Marzetta, K., & Wee, B. (2017, January). *Finding a place for concept maps in Education for Sustainability*. Paper presentation at Association for Science Teacher Education International Conference, Des Moines, IA.

**Mason, H.** (2016, October). *Building a Watershed Identity*. Presentation at the Colorado Alliance for Environmental Education Annual Conference, Ridgeway, CO.

**Mason, H.** (2014, March). *Negotiating Identities: Exploring Graduate Students' Views of Scientists and Mathematicians in an Interdisciplinary GK-12 Program*. Poster presentation at National Association for Research in Science Teaching Annual Conference, Pittsburgh, PA.

**Mason, H.,** Abdilla, J., & Hogden, R. (2012, October). *Do green schools matter? Results from a national survey*. Poster presentation at North American Association for Environmental Education Annual Conference, Oakland, CA.

**Mason, H.** & Abdilla, J. (2012, April). *Exploring connections between greenprint benchmarks and student achievement: A national survey of green schools*. Presentation at the Colorado Alliance for Environmental Education Annual Conference, Loveland, CO.

Lan, M-C., Li, M., Ruiz-Primo, M.A., Wang, T., Giamellaro, M., & **Mason, H.** (2012, April). *Linking quality of instruction to instructionally sensitive assessments*. Paper presented at the American Educational Research Association Annual Meeting, Vancouver, B.C.

Li, M., Ruiz-Primo, M.A., Giamellaro, M., Wills, K., **Mason, H.**, & Feehan, J. (2012, April). *Sensitivity and transfer of learning at different distances: Close, proximal and distal assessment items*. Paper presented at the American Educational Research Association Annual Meeting, Vancouver, B.C.

Ruiz-Primo, M. A., Li, M., Giamellaro, M., Wills, K., **Mason, H.**, Lan, M-C, & Sands, D. (2012, April). *Instructionally sensitive assessments and curricula characteristics: Learning goals, opportunities to achieve them, and opportunities to transfer them*. Paper presented at the American Educational Research Association Annual Meeting, Vancouver, B.C.

**Mason, H.,** Ruiz-Primo, M.A., Giamellaro, M., & Li, M. (2012, March) *What do students' science notebooks reflect about the quality of teaching students received?* Paper presented at the National Association for Research in Science Teaching Annual Conference, Indianapolis, IN.

Ruiz-Primo, M.A., Li, M., Giamellaro, M., **Mason, H.**, & Wang, T. (2012, March). *Beyond student test scores: A more comprehensive look at teacher quality*. Paper presentation at the National Association for Research in Science Teaching Annual Conference, Indianapolis, IN.

**Mason, H.,** Abdilla, J., & Wee, B. (2012, February). *The greening of our schools: Does it matter?* Presentation at the Green Schools National Conference, Denver, CO.

### **Invited Presentations**

*Climate Change: Experiments in Deliberative Education.* (2022, May). Research exchange at Kettering Foundation, Dayton, OH.

*A critical view of climate change policy and the use of public deliberation.* (2019, July). Guest lecture in ENVS 1342 Environment, Society, and Sustainability, University of Colorado Denver.

*Counter-narratives in Environmental Education.* (2019, February). Colloquium presentation at the University of Colorado Denver Department of Geography & Environmental Sciences.

*Counter-narratives in Environmental Education.* (2018, October). Colloquium presentation at the University of Montana Department of Geography, Missoula, MT.

*Streamlining online discussion boards: Tips and tricks for meaningful dialogue.* (2016, December). Webinar presentation for EE Capacity Fellows.

### **Grants and Fellowships**

Graduate Student Travel Award. (2017, 2018). University of Colorado Denver, \$1000.

EE Capacity Fellowship. (2015, 2016). U.S. Environmental Protection Agency National Environmental Education Training Program, \$3000.

William B. Stapp Student Academic Scholarship. (2012, 2013). North American Association for Environmental Education, \$1000.

Wee, B., Delevie, B., & **Mason, H.** (2012). *Assessing Education for Sustainability in green schools and its impact on student learning.* College of Liberal Arts and Sciences Research Innovations Seed Programs grant, University of Colorado Denver, \$4724.

**Mason, H.,** Wee, B., & Abdilla, J. (2011). *Exploring connections between greenprint benchmarks and student achievement: A national survey of green schools.* Green Schools National Network grant, \$5000.

### **Certifications**

Tribal Engagement Training Certification, UNL Extension

ACUE Promoting Active Learning Online Micro-credential

Environmental Science Education Certificate, Department of Geography & Environmental Sciences, University of Colorado Denver

Collaborative Institutional Training Initiative (CITI) Certification

Colorado Department of Education Professional Teaching License

Colorado Master Certified Environmental Educator

**Professional Affiliations**

Association of Environmental Studies and Sciences  
 American Association of Geographers  
 National Association for Research in Science Teaching  
 American Educational Research Association  
 North American Association for Environmental Education  
 Colorado Alliance for Environmental Education  
 Colorado Association for Science Teachers

**Community Affiliations and Service**

Member, UNL Chancellor's Environment, Sustainability, & Resilience Commission	2020-Present
Moderator, Common Ground for Action (CGA) Online Deliberation Platform, Kettering Foundation	2016-Present
Application Reviewer, Colorado Environmental Educator Certification Program, Colorado Alliance for Environmental Education	2013-Present
Consultant, <i>Singapore Declaration on Research in Education for Sustainable Development</i> , National Institute of Education, Nanyang Technological University, Singapore	2019
Participant, <i>CGA Innovators: Experiments in Online Deliberation</i> , Kettering Foundation Annual Research Exchange, Dayton, OH.	2019
Consultant, <i>Let's talk about water: A guide to developing discussion materials to get your community deliberating</i> , Kettering Foundation, North American Association for Environmental Education, and National Issues Forums Institute	2017
Member, K-12 Environmental Literacy Collaborative, North American Association for Environmental Education	2016-2017
Chair, Northeast Colorado Environmental Education Leadership Council	2016-2017
Participant, <i>Environmental Education: Transdisciplinary approaches to addressing wicked problems</i> , Massive Open Online Course (MOOC), Cornell University	2016
Participant, <i>Framing Water Issues for Public Deliberation</i> , Kettering Foundation Annual Research Exchange, Dayton, OH.	2015

Application Reviewer, U.S. Department of Education Green Ribbon Schools (ED-GRS) Award, Colorado Department of Education Office of Competitive Grants and Awards

2013-2017

Member, Planning Committee, Green Schools National Conference, Denver, CO.

2012