



Cynthia Smith, PhD

Associate Term Professor, Environmental Science and Policy
K12 Education Director, Potomac Environmental Research and Education Center

Education

PhD, Environmental Science and Policy, George Mason University

Key Interests

Community Engagement | Outreach | Translating Science to the Public | K12 Programs | Watershed Education | MWEEs | Solid Waste Education | Sustainability

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SELECT PUBLICATIONS

- Smith, C. and Palmer, A. (2019). Microplastics - Are They a Micro-Problem? Microplastics Impact on Plankton – High School Teacher Guide. Environmental Science Course Launch Training for Prince William County Public Schools, 1-5.
- Greene, J., *et al.* (2009). From the Mountains to the Estuary: From the Schoolyard to the Bay: Meaningful Watershed Experiences for Grade 6 Students. Prince William County Schools, Potomac Environmental Research & Education Center, George Mason University: Woodbridge, VA.
- Smith, C. and Landry, M. (2013). The Wonder of Worms: Inquiry-Based Learning for Early Elementary. *Science and Children. National Science Teachers Association*, 50(6).

Research Focus

As a practitioner, I translate complex STEM topics into hands-on experiences for learners of all ages. My products are programs. I work closely with local K12 school districts and environmental NGOs developing large scale field programs, teacher training and networking opportunities for environmentally oriented youth. Local and regional environmental agencies are well-integrated into my Mason courses, providing essential personal connections to jobs and internships for Mason students. To ensure that the fascinating research conducted by our PEREC team reaches the public, I am developing the Exhibit Hall buildout at Mason's Potomac Science Center.

Current Projects

- I direct award-winning hands-on Meaningful Watershed Educational Experiences (MWEEs), field programs directly reaching 15,000+ K12 students/year. I hire and train 30 GMU students per semester as field interpreters, who in turn engage youth in water chemistry, macroinvertebrate collection and identification, biodiversity, land use practices assessment and help direct youth efforts in stewardship projects. Our programs have directly reached over 100,000 youth since 2009.
- I serve as translator of PEREC research to the public. I host Potomac Science Center tours, which include highlighting sustainable building resources (e.g. rain gardens, cistern, living wall) immersing civic groups in climate resiliency, land-water connectivity. I collaboratively deliver K12 teacher training programs.
- I oversee the Potomac Science Center Visitor Experience Plan and guide development of Potomac River ecology-related exhibits and community programs. I mentor student teams in Environmental Engineering and Public Relations courses and provide academic consulting to Prince William County Division of Solid Waste in developing their Public Outreach Plan, pollinator garden design and educational programming.