

Sherri A. "Sam" Mason, Ph. D.

Sustainability Coordinator

Penn State Behrend

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Education:

University of Montana- Missoula, MT

1996-2001 Ph. D. in Physical Chemistry (4.00 GPA)

University of Texas- Austin, TX

1991-1995 B.S. in Chemistry, *cum laude* (3.56 GPA)

Professional Experience:

Sustainability Coordinator, Penn State Behrend, 2019-present

Working Group Member, GESAMP (Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection, WG40), 2017-present

Working group of the IOC-UNESCO & UN Environment

Aim: To produce guidelines to encourage harmonized sampling, monitoring and assessment of all types of plastic debris in all compartments (open-water, shoreline, seabed and biota)

Chair, Department of Geology & Environmental Sciences, SUNY-Fredonia, 2016-2018

Adjunct Professor, University of Waterloo, 2016-2018

Kara Cox, Masters' Candidate, Distance-Mentored Thesis Advisor:

Microplastic Pollution in Lake Superior: Examining the types, abundance, distribution, oxidation and spatial variation (Graduated August 2018)

Adjunct Professor, University of Minnesota, 2016-2017

Mary Kosuth, Masters' Candidate, Distance-Mentored Thesis Advisor:

Microplastics in Consumer Products (Graduated May 2017)

Full Professor, SUNY-Fredonia, 2014-2018

Environmental Sciences Program Coordinator, SUNY-Fredonia, 2007-present

Associate Professor, SUNY-Fredonia, 2008-2014

Sustainability Coordinator, SUNY FACE Center, SUNY Fredonia, 2009-2013

Earth Week Creator and Coordinator, SUNY Fredonia, 2007-2013

Distance Mentoring of Undergraduate Research Fellows, SUNY-Fredonia, Spring 2013

Assistant Professor, SUNY-Fredonia, 2001-2007

Adjunct Assistant Professor, University of Montana, Fall 2000

Chemistry 371 (Thermodynamics)

Substitute Instructor, University of Montana, Spring 2000

Substitute for Professor Field for Chemistry 372 (Quantum Mechanics)

Research Assistant, University of Montana, 1998-2001

NASA Earth System Science Fellow

Modeling the Impact of Directly-Emitted Oxygenated Organic Compounds on the Photochemistry within a Biomass Burning Smoke Plume

Advisor: Dr. Richard Field

Teaching Assistant, University of Montana, 1996-1998

Freshman chemistry for both science and non-science majors;

Science (Physics, Chemistry and Astronomy) for elementary school teachers

Undergraduate Research, University of Texas, 1994-1995

Synthesis of organic precursors for cation-radical polymerization processes

Advisors: Drs. Nathan Bauld and Todd Aplin

*Courses Taught (*indicates revised or new course offering):*

SUST 150N – The Science of Sustainability (integrated course)

SUST 200 – Leadership in Sustainability

Chemistry 107 – Chemistry for Consumers
Chemistry 113* – Chemistry in the Environment
Chemistry 115 – General Chemistry I
Chemistry 125 – General Chemistry I Laboratory
Chemistry 302 – Chemistry in Today’s Society
Chemistry 315/316* – Physical Chemistry I & II Lecture
Chemistry 325/326* – Physical Chemistry I & II Laboratory
Chemistry 341* – Introduction to Environmental Chemistry
Chemistry 473/573 – Environmental/Atmospheric Chemistry
Environmental Sciences 100* – First-Year Seminar
Environmental Sciences 440/441* – Senior Seminar
Great Lakes Environmental Sciences Summer Field Course*

As well as supervising **Research** (63 undergraduate, 6 graduate, & 15 distance-mentored) and **Internship** (12) experiences.

Publications:

- Cox, K., **S. A. Mason**, D. Armitage, M. Vinson, and S. Courtenay, ‘Distribution, abundance and spatial variability of microplastic pollution in surface waters of Lake Superior,’ intended for *J. Great Lakes Res.*, *in preparation*.
- Mason, S. A.**, G. Aleid, R. Ricotta, M. Smith, K. Donnelly, W. Edwards, and M. J. Hoffman, ‘High Levels of Pelagic Plastic Pollution within the Surface Waters of Lakes Erie and Ontario,’ intended for *J. Great Lakes Res.*, *in preparation*.
- Mason, S. A.**, V. Welch, and J. Neratko, ‘Synthetic Polymer Contamination in Bottled Water,’ *Front. Chem.* *6:407*, 2018.
- McNeish, R. E., L. H. Kim, H. A. Barrett, **S. A. Mason**, T. J. Hoellein, and J. J. Kelly, ‘Microplastic in riverine fish is connected to species traits,’ *Sci. Reports* *8:11639*, 2018.
- Kosuth, M., **S. A. Mason**, and E. V. Wattenbery, ‘Anthropogenic Contamination of tap water, beer and sea salt,’ *PLOS One*, *13(4): e0194970*, 2018.
- Naji, A., Z. Esmaili, **S. A. Mason**, and A. D. Vethaak, ‘The occurrence of microplastic contamination in littoral sediments of the Persian Gulf, Iran,’ *Environ. Sci. Pollut. Res.*, *24*, 20459, 2017.
- Grigorakis, S., **S. A. Mason**, and K. G. Drouillard, ‘Determination of the gut retention of plastic microbeads and microfibers in goldfish (*Carassius auratus*),’ *Chemosphere*, *169*, 233, 2017.
- Baldwin, A. K., S. R. Corsi, and **S. A. Mason**, ‘Plastic Debris in 29 Great Lakes Tributaries: Relations to Watershed Attributes and Hydrology,’ *Environ. Sci. Tech.*, *50*, 10377, 2016.
- Mason, S. A.**, D. Garneau, R. Sutton, Y. Chu, K. Ehmann, J. Barnes, P. Fink, D. Papazissimos, and D. L. Rogers, ‘Microplastic pollution is widely detected in US municipal wastewater treatment plant effluent,’ *Environ. Pollut.*, *218*, 1045, 2016.
- Sutton, R., **S. A. Mason**, S. K. Staneka, E. Willis-Norton, I. F. Wren, and C. Box, ‘Microplastic Contamination in the San Francisco Bay,’ *Marine Pollut. Bulletin*, *109*, 230, 2016.
- Mason, S. A.**, L. Kammin, M. Eriksen, G. Aleid, S. Wilson, C. Box, N. Williamson, and A. Riley, ‘Pelagic Plastic Pollution within the Surface Waters of Lake Michigan, USA,’ *J. Great Lakes Res.*, *42*, 753, 2016.
- McCormick, A., T.J. Hoellein, **S. A. Mason**, J. Schlupe, and J.J. Kelly, ‘Microplastic in an abundant and diverse microbial habitat in an urban river,’ *Environ. Sci. Tech.*, *48*, 11863, 2014.
- Free, C. M., O. P. Jensen, **S. A. Mason**, M. Eriksen, N. J. Williamson, and B. Boldgiv, ‘High-levels of microplastic pollution in a large, remote, mountain lake,’ *Marine Pollution Bulletin*, *85*, 156, 2014.
- Eriksen, M., **S. A. Mason**, S. Wilson, C. Box, A. Zellers, W. Edwards, H. Farley, and S. Amato, ‘Microplastic Pollution in the Surface Waters of the Laurentian Great Lakes,’ *Marine Pollution Bulletin*, *77*, 177, 2013.
- Mason, S. A.**, J. Arey, and R. Atkinson, ‘Kinetics and Products of the OH Radical-Initiated Reaction of 1,4-Butanediol and Rate Constants for the Reactions of OH Radicals with 4-Hydroxybutanal and 3-Hydroxypropanal,’ *Environ. Sci. Tech.*, *44*, 707, 2010.

- Mason, S. A.**, J. Arey, and R. Atkinson, 'Rate Constants for the Gas-Phase Reactions of NO₃ Radicals and O₃ with C₆-C₁₄ 1-Alkenes and 2-Methyl-1-alkenes at 296 ± 2 K,' *J. Phys. Chem. A*, *113*, 5649, 2009.
- Mason, S. A.**, J. Trentmann, T. Winterrath, R. J. Yokelson, T. J. Christian, L. J. Carlson, T. R. Warner, L. C. Wolfe, and M. O. Andreae, 'Intercomparison of Two Box Models of the Chemical Evolution in Biomass-Burning Smoke Plumes,' *J. Atmos. Chem.*, *55*, 273, 2006.
- Trentmann, J., R. J. Yokelson, P. V. Hobbs, T. Winterrath, T. J. Christian, M. O. Andreae, and **S. A. Mason**, 'An Analysis of the Chemical Processes in the Smoke Plume from a Savanna Fire,' *J. Geophys. Res.*, *110*, D12301, 2005.
- Mason, S. A.**, R. J. Field, R. J. Yokelson, M. A. Kochivar, M. R. Tinsley, D. E. Ward, and W.-M. Hao, 'Complex Effects Arising in Smoke Plume Simulations due to Inclusion of Direct Emissions of Oxygenated Organic Species from Biomass Combustion,' *J. Geophys. Res.*, *106*, D12527, 2001.

Mass Media Research Coverage:

Given the importance of the Great Lakes to this region and the ground-breaking nature of recent research endeavors (First-Ever Great Lakes Plastic Pollution Survey), our research efforts have received mass media attention in hundreds of mass media publications, including: *BBC*, *The Guardian*, *New York Times*, *Discovery News*, *Chicago Tribune*, *Toronto Star* and *National Public Radio's All Things Considered*, as well as many regional radio and television news programs.

Grants:

External Grants (funded):

- New York Sea Grant**, 'Determining Degradation Rates, Products and Impacts for Prominent Plastics in Freshwater Environs,' (\$216,961; *project duration May 2016-December 2018*)
- Illinois-Indiana Sea Grant**, 'Identifying Sources of Microplastic Contamination in Lake Michigan,' (\$20,000 sub-award of a \$200,000 grant; *project duration May 2016-April 2018*).
- New York Great Lakes Protect Fund Small Grants Program**, 'Assessment of Plastic Pollution Migration into the Great Lakes Food Web,' (\$14,000; *project duration June 2014-August 2015*).
- Burning River Foundation**, 'The Plasticsphere: Plastic Pollution In The Great Lakes And Beyond,' submitted December 2013 (\$8,000; *project duration March 2014-February 2015*).
- Illinois-Indiana Sea Grant**, 'Lake Michigan Plastic Pollution Survey 2013,' submitted May 2013 (\$5,000; *project duration August 2013*)
- Burning River Foundation**, 'Great Lakes Plastic Pollution Survey 2013,' submitted December 2012 (\$6,000; *project duration March 2013-February 2014*).
- SUNY Sustainability Fund-Small Grants**, 'Effective Use of Feedback to Facilitate Campus/Dormitory Food Waste Reduction across SUNY Campuses,' submitted November 2012 (\$2,000; *project duration February 2013-August 2013*).
- Burning River Foundation**, 'Great Lakes Plastic Pollution Survey 2012,' submitted November 2011 (\$11,000; *project duration March 2012-February 2013*).
- Eco-NRG**, 'Collaborative Community Outreach Sustainability Initiatives,' funding received to support: 'Shake the Habit of Plastic Bags' event, CFL give-away, and two tree planting endeavors, submitted October 2010. (~\$15,000; *project duration January 2011-May 2011*).
- NSF Research Opportunities Award**, extension to NSF grant no. ATM-0650061 to support full-year sabbatical leave for S. A. Mason at the Air Pollution Research Center (APRC) located on the University of California at Riverside (UCR) campus, submitted January 2008. (~\$55,000; *project duration August 2008-July 2009*).
- GLC Great Lakes Air Deposition Program**, 'Modeling Fine Particulate Matter (PM_{2.5}), Polycyclic Aromatic Hydrocarbons (PAH), and Mercury (Hg) over the Great Lakes Airshed using the Community Multiscale Air Quality (CMAQ) Modeling System,' submitted December 2005 (\$81,513; *project duration April 2006-May 2008*).

United States Geological Survey (USGS), ‘Continuation of the Operation of NY10: The Chautauqua County Monitoring Station of the National Atmospheric Deposition Program (NADP) for 1 October 2010 to 30 September 2015,’ submitted July 2010 (\$44,673.60).

United States Geological Survey (USGS), ‘Continuation of the Operation of NY10: The Chautauqua County Monitoring Station of the National Atmospheric Deposition Program (NADP) for 1 October 2005 to 30 September 2010,’ submitted July 2005 (\$39,632.67).

United States Geological Survey (USGS), ‘Continuation of the Operation of NY10: The Chautauqua County Monitoring Station of the National Atmospheric Deposition Program (NADP) for 1 October 2004 to 30 September 2005,’ submitted July 2004 (\$6,878.97).

United States Geological Survey (USGS), ‘Continuation of the Operation of NY10: The Chautauqua County Monitoring Station of the National Atmospheric Deposition Program (NADP) for 1 October 2003 to 30 September 2004,’ submitted July 2003 (\$6,862.32 + \$2,304.78 for a new deck at the site).

External Grants (not funded):

National Science Foundation Division of Environmental Biology, ‘Microbial species dispersal and biogeography of rivers: The influence microplastic particles, a novel anthropogenic contaminant,’ (no budget required, *submitted February 2015*).

Great Lakes Fishery Commission, ‘Microplastic Consumption and Fate in Great Lakes Biota,’ (\$230,000; *submitted January 2015*).

Great Lakes Fish And Wildlife Restoration Act, ‘Examination of the Effects of Microplastics on Great Lakes Microorganisms,’ (\$100,800; *submitted December 2014*).

National Science Foundation Environmental Engineering, ‘Microplastic in US rivers: a critical but unexplored component of the global plastic lifecycle,’ (\$329,932, *submitted November 2014*)

Great Lakes Observing System Data Management Mini-Grant, ‘Utilizing Great Lakes Plastic Pollution Data to Exemplify the Development of a Novel Great Lakes Digital (Storytelling) Atlas,’ (\$51,000; *submitted July 2014*).

EPA STAR Program, ‘An ecosystem perspective on microplastic in rivers: sources, fate, and biological effects,’ (~\$775,000; *submitted March 2014*).

EPA Environmental Education Grant, ‘Connecting Citizen Science with the Current Scientific Research on Microplastics in the Great Lakes,’ (no budget required; *submitted February 2014*).

NSF Division of Environmental Biology Core Programs, ‘Preliminary Proposal: Microplastic In Rivers: Sources, Fate, And Ecosystem Effects,’ (no budget required; *submitted January 2014*).

SUNY/RF Research Collaboration Fund, ‘Determining Degradation Rates and Products for Prominent Plastics in Freshwater Environs,’ (funding requested: \$92,903; *submitted May 2013*).

NOAA Marine Debris Research, ‘Determining Degradation Rates and Products for Prominent Plastics in Freshwater Environs,’ (funding requested: \$84,075; *submitted February 2013*).

Great Lakes Fish and Wildlife Restoration Act, ‘Great Lakes Plastic Pollution Survey,’ (\$12,000; *submitted December 2011*).

Learn and Serve America Higher Education, ‘Land, Grapes and Water: STEMming the ‘Brain Drain’ in Western New York,’ (\$800,000; *submitted March 2010*).

EPA Environmental Education Grant, ‘Major Issues of Our Time: Recycling Revisited,’ (~\$40,000; *submitted December 2009*).

ACS Petroleum Research Fund, ‘Modeling the Influence and Fate of Polycyclic Aromatic Hydrocarbons on a Regional Scale,’ (\$35,000; *submitted May 2004*).

CUR Undergraduate Summer Research Fellowship, ‘Development of a Gas/Particle Partitioning Module for Inclusion in Models-3/CMAQ,’ (\$3,000; *submitted November 2003*).

NASA New Investigator Program, ‘Modeling the Influence and Fate of Polycyclic Aromatic Hydrocarbons on a Regional Scale,’ (\$82,282; *submitted August 2003*).

ACS Petroleum Research Fund, ‘Simulation of a Biomass Burning Smoke Plume as Characterized during the 2000 Southern African Fire Atmosphere Research Initiative (SAFARI-2000),’ (\$35,000; *submitted January 2002*).

Internal Grants (funded):

Faculty Research Summer Award, ‘Assessment of Plastic Pollution Migration into the Great Lakes Food Web,’ (\$2,000; *submitted February 2014*).

Convocation Committee, ‘What Are We Drinking?: The Changing Landscape of Synthetic Chemicals in Our Environment & Its Impact on Human Health’ (\$1,050; *submitted April 2012*).

Carnahan-Jackson Humanities Fund, ‘Talking Heads: Political Performance Art,’ for support of an interdisciplinary Community Arts Project focused on increasing civic engagement, centered around the 2012 elections (\$1,000; *submitted October 2010*).

SUNY- Fredonia Individual Development Award, ‘Fourth Annual CMAS Models-3 User’s Conference and Sparse Matrix Operator Kernel Emission (SMOKE) Modeling System Training Session’ (\$1,000; *submitted January 2006*).

SUNY- Fredonia Scholarly Incentive Award, ‘Comparison and Validation of a Biomass Burning Smoke Plume Model’ (\$2,000; *submitted May 2003*).

Scholarly Presentations:

6th International Marine Debris Conference, ‘Anthropogenic contamination of Tap Water, beer, & Sea Salt,’ March 2018 (oral).

Erie County Teacher Development Day, Keynote Address, ‘Wasted,’ November 2017.

13th Annual Great Lakes Restoration Conference, ‘Microplastics in Common Consumables,’ October 2017 (invited, oral).

Harrington STEM Lecture, SUNY New Paltz, ‘The Perils of Plastic,’ April 2017.

5th Annual Science Research Symposium, University School, ‘The Perils of Plastic,’ April 2017.

International Expert Meeting on Monitoring Methods for Microplastics, Japanese Ministry of the Environment, ‘Freshwater Microplastics: Methods Overview,’ December 2016.

Rutgers University Newark Environmental Sustainability Institute, ‘Perils of Plastic,’ October 2016 (invited, oral)

5th International Conference on Emerging Contaminants, Keynote Address, ‘Microplastics in the World’s Largest Freshwater System,’ September 2016 (invited, oral).

San Francisco Estuary Institute Microplastic Workshop, ‘Sources, Pathways, Loadings and Processes Leading to Microplastic Pollution,’ June 2016 (invited, oral).

University of Buffalo Environmental Engineering Seminar, ‘Great Lakes Plastic Pollution Survey,’ April 2016 (invited, oral).

Great Lakes Sea Grant Marine Debris Training Conference, ‘Great Lakes Plastic Pollution Survey,’ April 2016 (invited, oral).

SUNY Environmental Science and Forestry, ‘Great Lakes Plastic Pollution Survey,’ February 2016 (invited, oral)

Rutgers University Environmental Sciences Distinguished Speaker, ‘Great Lakes Plastic Pollution Survey,’ November 2015 (invited, oral)

Swedish National Network on Drinking Water, ‘Great Lakes Plastic Pollution Survey,’ January 2015 (invited, oral).

Environment Canada, ‘Great Lakes Plastic Pollution Survey,’ January 2015 (invited, oral).

International Joint Commission Science Advisor Board, ‘Great Lakes Plastic Pollution Survey,’ Sherri A. Mason, September 2014 (invited, oral).

Great Lakes Legislative Caucus, ‘Great Lakes Plastic Pollution Survey,’ July 2014.

Great Lakes St. Lawrence Cities Initiative, ‘Great Lakes Plastic Pollution Survey,’ June 2014.

International Association of Great Lakes Researchers (IAGLR) 57th Annual Meeting, ‘Great Lakes Plastic Pollution Survey,’ Sherri A. Mason, Marcus Eriksen & William Edwards, May 2014 (invited, oral).

- Micro2014: International workshop on fate and impact of microplastics in marine ecosystems,** ‘Microplastics and suspected microbeads in the Laurentian Great Lakes of North America,’ Marcus Eriksen & Sherri A. Mason, January 2014 (oral).
- 10th Annual Conservation Symposium,** ‘Great Lakes Plastic Pollution Survey 2012,’ Sherri A. Mason, September 2013 (invited, oral).
- 2012 Great Lakes Restoration Conference,** ‘Plastics in the Great Lakes,’ Sherri A. Mason & Marcus Eriksen, September 2012 (oral).
- Innovative Teaching at SUNY Fredonia,** ‘Sailing the Great Lakes as a Learning Laboratory,’ September 2012 (oral).
- Niagara University Chemistry Departmental Seminar,** ‘Investigations in Atmospheric Chemical Kinetics,’ Sherri A. Mason, November 2011 (oral; detailing only the nighttime chemistry investigations of sabbatical work).
- University of Vermont Chemistry Departmental Seminar,** ‘Investigations in Atmospheric Chemical Kinetics,’ Sherri A. Mason, October 2011 (oral; detailing only the daytime chemistry investigations of sabbatical work).
- Jamestown Community College Faculty Development Day Keynote Address,** ‘Why Educate for Sustainability?,’ Sherri A. Mason and Michael Jabot, February 2011.
- University of Buffalo Analytical Chemistry Seminar,** ‘Investigations in Atmospheric Chemical Kinetics,’ Sherri A. Mason, September 2010 (oral; detailing both research projects conducted as part of sabbatical work).
- 26th Informal Symposium on Kinetic and Photochemical Processes in the Atmosphere (26ISKPPA),** ‘Rate Constants for the Gas-Phase Reactions of NO₃ Radicals and O₃ with C₆-C₁₄ 1-Alkenes and 2-Methyl-1-alkenes at 296 ± 2 K,’ Sherri A. Mason, Janet Arey, and Roger Atkinson, March 2009 (oral).
- International Association of Great Lakes Researchers (IAGLR) 50th Annual Meeting,** ‘Regional Atmospheric Modeling of Hazardous Air Pollutants,’ Sherri A. Mason, Nicholas C. Presutti, Gopal Sistla, Michael Ku, Kevin Civerolo, Christian Hogrefe, and Winston Hao, May 2007 (oral).
- SUNY- Fredonia Faculty Expo,** ‘Regional Atmospheric Modeling of Hazardous Air Pollutants,’ Sherri A. Mason, Nicholas C. Presutti, Gopal Sistla, Michael Ku, Kevin Civerolo, Christian Hogrefe, and Winston Hao, March 2007 (poster).
- American Chemical Society (ACS) NorthEast Regional Meeting (NERM),** ‘Modeling Fine Particulate Matter (PM_{2.5}), Polycyclic Aromatic Hydrocarbons (PAHs), and Mercury over the Great Lakes Airshed using CMAQ Modeling System,’ Sherri A. Mason, Kyle O’Connor, Gopal Sistla, Michael Ku, Kevin Civerolo, Christian Hogrefe, and Winston Hao, October 2006 (oral).
- SUNY- Fredonia Faculty Expo,** ‘Understanding the Hydrophobicity of Perfluorocarbons,’ John L. Lemon, Sherri A. Mason, and David Dixon, March 2006 (poster).
- Council on Undergraduate Research (CUR) National Conference,** ‘Comparison of Biomass Burning Smoke Plume Models,’ Sherri A. Mason, Lisa J. Carlson, Joerg Trentmann, and Tanja Winterrath, June 2004 (poster).
- SUNY- Fredonia Faculty Expo,** ‘Comparison of Biomass Burning Smoke Plume Models,’ Lisa J. Carlson, Sherri A. Mason, Joerg Trentmann, Tanja Winterrath, Ted J. Christian, Robert J. Yokelson, Meinrat O. Andreae, and Peter V. Hobbs, February 2004 (poster).
- SUNY- Fredonia Faculty Expo,** ‘Modeling the Advection of a Biomass Burning Smoke Plume through an Urban Airshed,’ S. A. Mason, M. R. Tinsley and R. J. Field, November 2002 (poster).
- American Geophysical Union (AGU) Spring Meeting,** *Fires, Scars, and Smoke: Observations, Impact, and Policies* special session, ‘Simulating the Impact of Biomass Burning Emissions on an Urban Airshed,’ S. A. Mason, M. R. Tinsley and R. J. Field, June 2002 (poster).
- SUNY- Fredonia Faculty Expo,** ‘Modeling the Impact of Oxygenated Organic Species on Biomass Burning Smoke Plume Photochemistry,’ Sherri A. Mason, Richard J. Field, Robert J. Yokelson, and Mark R. Tinsley, November 2001 (poster).

Reviewer:

Environmental Science & Technology, Manuscript Reviewer, December 2017.
USGS Competitive Seed Grants, Grant reviewer, November 2017.
Environmental Toxicology & Chemistry, Manuscript reviewer, July 2017.
Vienna Science Technology Fund, Grant Reviewer, July 2017.
Jamestown Community College, Environmental Sciences Program, Member - External Review Team, February 2017.
German Research Foundation, Grant Reviewer, January 2017.
Environmental Toxicology and Chemistry, Manuscript Reviewer, December 2016.
Indiana Water Resources Research Center, Grant Reviewer, November 2016.
Journal of Coastal Research, Manuscript Reviewer, November 2016.
Marine Pollution Bulletin, Manuscript Reviewer, November 2016.
Environmental Pollution, Manuscript Reviewer, July 2016.
Delaware Sea Grant, Grant Reviewer, June 2016.
Journal of Oceanography and Marine Science, Manuscript Reviewer, March 2016.
Pennsylvania Sea Grant, Grant Reviewer, October 2015.
New Jersey Water Resources Research Institute, Grant Reviewer, October 2015.
Minnesota Sea Grant, Grant Reviewer, May 2015.
Hudson River Foundation, Grant Reviewer, February 2015.
Science, Manuscript Reviewer, January 2015.
Journal of Great Lakes Research, Manuscript Reviewer, July 2014.
Current Biology, Manuscript Reviewer, September 2013.
Current Biology, Manuscript Reviewer, August 2013.
Current Biology, Manuscript Reviewer, April 2013.
Jamestown Community College, Interdisciplinary Studies Program, Member - External Review Team, March 2010.
U.S. Civilian Research & Development Foundation, Climate Change and Energy Cooperative Grants Program, Grant Reviewer, February 2010.
Atmospheric Chemistry and Physics, Manuscript Reviewer, March 2009.
Journal of Geophysical Research, Manuscript Reviewer, December 2008.
American Chemical Society Petroleum Research Fund, Grant Reviewer, October 2007.
Journal of Atmospheric Research, Manuscript Reviewer, July 2007.
Strategic and Environmental Research and Development Program (SERDP), Grant Reviewer, May 2007.

Awards:

Heinz Award, Heinz Family Foundation, October 2018
Kasling Award, SUNY Fredonia, April 2018.
Environmental Excellence in Research, Earth Month Network, April 2017
EPA Environmental Champion, EPA Region 2, April 2016
Harry J. Cord Recognition Award, Buffalo Audubon Society, May 2016
Keynote Award, University of Buffalo, UB Green, April 2016
Go Green Recognition Award, SUNY Fredonia, May 2008
Bertha Morton Scholarship, UM Graduate School, 2000-2001
NASA Earth System Science Fellowship, NASA Office of Earth Science, 1998-2001
Lola Mae Walsh Anacker Scholarship, UM Department of Chemistry, 1997-1998
American Chemical Society Scholarship, UT Student Affiliate Chapter, 1994-1995

Campus Committee/Service Work:

General Education Revision Committee, chair, 2012-2014 (*appointed*)
Sustainability-in-Academics Committee, 2009-2013
SUNY FACE Center, SUNY Fredonia, 2009-2013
Sustainability Committee, 2007-2013 (*appointed*)
Earth Week Creator and Coordinator, 2007-2008, 2009-2013

Academic Forgiveness Committee, 2010-2012
Baccalaureate Goals Task Force, AY 2011-2012 (*appointed*)
General Education Committee, AY 2011-2012 (*elected*)
Strategic Planning Committee, 2010-2012 (*appointed*)
College Senate, Natural Sciences Representative, 2002-2005 (*elected*)
Departmental Webmaster, Chemistry Department, 2002-2008

Community Outreach Presentations:

City Club of Erie, 'The Perils of Plastic,' August 2018.
Friends of Euclid Creek, 'The Perils of Plastic,' August 2018.
Wild America, 'The Perils of Plastic,' July 2018.
Sustainable Cleveland, 'The Perils of Plastic,' April 2017.
Bird, Tree & Garden Club of Chautauqua Institute, 'The Perils of Plastic,' July 2016
TEDx Thunder Bay, 'Beads of Destruction,' June 2016
UB Green Earth Week Keynote, 'Great Lakes Plastic Pollution,' April 2016
Jefferson Society of Erie, 'Beads of Destruction,' April 2016
Chapin Middle School, 'Girl Power: From Acid rain to Plastic Pollution, My Scientific Journey,'
March 2016
Roger Tori Peterson Institute, 'The Great Plasticized Lakes,' January 2016
Nature Sanctuary Society of WNY, 'The Great Plasticized Lakes,' May 2015
Dunkirk & Fredonia Rotary Clubs, 'Great Lakes Plastic Pollution Survey,' May 2015
Science Café (Gannon University), 'The Great Plasticized Lakes,' January 2015
Friends of Reed Library, 'The Great Plasticized Lakes,' October 2014
The Walrus Talks Water, 'Beads of Destruction,' May 2014
Alliance for the Great Lakes Webinar, 'Great Lakes Plastic Pollution Survey,' April 2014
NYC Sierra Club, 'Beads of Destruction,' April 2014
Rochester Committee for Scientific Information, 'Great Lakes Plastic Pollution Survey,' April
2014
Sustainability Speakers Series, SUNY Oswego, 'Addicted to Plastic,' March 2014
First Friday, Jamestown Audubon Society, 'Great Lakes Plastic Pollution Survey,' March 2014
Save the River, 'Great Lakes Plastic Pollution Survey,' February 2014
City of Mississauga, 'Great Lakes Plastic Pollution Survey 2012,' July 2013
Burning River Festival, 'Great Lakes Plastic Pollution Survey 2012,' July 2013
Chautauqua Vegetarian Society, 'Great Lakes Plastic Pollution Survey 2012,' January 2013
American Association of University Women, 'Great Lakes Plastic Pollution Survey 2012,'
November 2012
Chautauqua Vegetarian Society, 'Synthetic Chemicals in the Environment,' April 2012
Fredonia Grange, 'The Problem with Plastic,' March 2012
American Association of University Women, 'The Problem with Plastic,' March 2012
Dunkirk & Fredonia Rotary Clubs, 'The Problem with Plastic & a Proposed Local Solution,'
April 2011
Edinboro University, 'Tires-to-Energy, Hydrofracking, & the Case for Renewable Energy,' March
2011
Alleghany College, 'The Chemistry of Combustion,' as part of a three-person panel on the science
and policy related to a proposed Tire-to-Energy facility, February 2011
Fredonia Rotary Club, 'How to Reduce your Carbon Footprint,' April 2010
League of Women Voters, 'How to Reduce your Carbon Footprint,' March 2010

Pro Bono Work:

Crawford Area Residents for the Environment (CARE)
Keep Erie's Environment Protected (KEEP)
Residents Action Board (RAB) of the Lake Ontario Ordinance Works (LOOW)
Clean Air Coalition of Western New York (CAC WNY)