

CURRICULUM VITAE
Nancy C. Tuchman, Ph.D.

ADDRESS

School of Environmental Sustainability
Loyola University Chicago
6349 N. Kenmore Ave.
Chicago, IL 60660
Office: 773 508 2475
ntuchma@luc.edu
www.luc.edu/sustainability

EDUCATION

Ph.D. Aquatic Ecology, 1988. University of Louisville, Louisville, Kentucky. Dissertation title: Effects of different intensities and frequencies of disturbance by snail herbivory on periphyton succession. Advisor: Dr. R. Jan Stevenson (Michigan State Univ.).

M.S. Aquatic Ecology, 1983. Central Michigan University, Mount Pleasant, Michigan. Thesis title: Effects of agricultural land use on leaf litter processing rates in central Michigan streams. Advisor: Dr. Robert H. King.

B.S. Biology with Ecology emphasis, 1980 (cum laude). Central Michigan University, Mt Pleasant, Michigan.

PROFESSIONAL POSITIONS HELD

2020 - present Founding Dean, The School of Environmental Sustainability, Loyola University Chicago
2020 - 2023 Board of Trustees Executive Committee, Peggy Notebaert Nature Museum, Chicago, IL
2018 - present Science Advisory Board, Campus de la Transition, Paris, France
2016 – present Board of Trustees, Catholic Climate Covenant, Washington, DC
2013 – 2020 Founding Dean, The Institute of Environmental Sustainability, Loyola University Chicago
2013 – present Science Advisory Board, The Environmental Law and Policy Center, Chicago, IL
2013 – 2017 Board of Trustees, The Delta Institute, Chicago, IL
2013 – present Board of Trustees, Peggy Notebaert Nature Museum and the Chicago Academy of Science
2010 – 2013 Vice Provost, Loyola University Chicago
2011 - 2013 Co-Founding Director of the Faculty Center for Ignatian Pedagogy, Loyola Chicago
2009 – 2010 President, Society for Freshwater Science
2005 – 2010 Founding Director, Center for Urban Environmental Research & Policy, Loyola U Chicago
2003 - 2008 Associate Provost for Research and Centers, Loyola University Chicago
2002 – 2003 Program Director, National Science Foundation, Division of Environmental Biology, Ecosystem Studies Program, Arlington, VA
2002 - present Professor, Department of Biology, Loyola University Chicago
1994 – 2002 Associate Professor, Department of Biology, Loyola University Chicago
1992 – 2013 Affiliated Faculty, The University of Michigan Biological Station, Pellston, MI
1988 - 1994 Assistant Professor, Department of Biology, Loyola University Chicago
1987-1988 Instructor, Department of Biology, Loyola University Chicago

GENERAL ACADEMIC and CIVIC AWARDS

| | |
|-------------|---|
| 2023 | Society for Freshwater Science Fellows Award |
| 2022 | St. Peter Canisius Medal for Extraordinary Service, International Assn Jesuit Universities |
| 2020 | Madonna della Strada Awardee from the Ignatian Volunteer Corps |
| 2020 | Leadership in Science and Education Awardee from the Peggy Notebaert Nature Museum |
| 2018 | Chicago Eco-Champion, <i>Make It Better Magazine Chicago</i> . |
| 2017 | Expanded Reason Award, Pope Benedict XVI Foundation, Vatican City, Rome. |
| 2014 | Honorary PhD Recipient and Commencement Speaker, Central MI University. |
| 2013 | Chicago Green Award recipient, <i>Chicago Magazine</i> . |
| 2013 | Named 1 of the 24 Green Women Powerhouses Making a Difference in Chicago, <i>The Wren</i> . |
| 2010 - 2011 | Past-President, Society for Freshwater Science. |
| 2009 - 2010 | President, Society for Freshwater Science. |
| 2008 - 2009 | President-Elect Society for Freshwater Science. |
| 2002 - life | University Faculty Scholar Award, Loyola University Chicago. |
| 1996 – life | Sujak Master Teacher Award in the College of Arts & Sciences, Loyola University Chicago. |
| 1988 | Biology Teacher of the Year, awarded by the Loyola University chapter of βββ. |

RECENT PROFESSIONAL EXPERIENCE and ACCOMPLISHMENTS -- HIGHLIGHTS

2020 - present **Founding Dean, School of Environmental Sustainability (SES)** -

- The Board of Trustees ratified our proposal for IES to be promoted to the University's 11th School in September, 2020 with a vision to double faculty and staff positions and student enrollments by 2025. Since 2021, we have hired 8 new faculty and are currently conducting searches for 8 more. We have developed Affinity Groups or areas of concentration with the SES that identify 5 complex, vexing socio-environmental problems that the SES has expertise in: Biodiversity, Environment & Society, Sustainable Food Systems, Environmental Health & Toxicology, and Climate & Energy. We have built a governance system having ratified Bylaws, and developing a Handbook of policies and procedures.

2013 – 2020 **Founding Dean of the Institute of Environmental Sustainability (IES)** –

- By Presidential appointment, Tuchman was asked to serve as the Founding Director of the IES (promoted to Dean in 2016), with the charge of building an interdisciplinary School of the Environment from the ground up, and bringing the University to national prominence in environmental science and sustainability. No national search was conducted for the position.
- Launched the IES in August 2013. Ten years later SES has over 500 students and 28 FT faculty/staff, and was promoted to School status.
- Loyola reached national prominence by ranking 4th in US green schools by Sierra Club in 2014, has received numerous national and international awards in environmental sustainability including the 2017 Second Nature Climate Leadership Award, and has reached the aspirational STARS Gold rating by AASHE. The University has consistently ranked in the top 5% of green campuses nationwide since 2014.
- Oversaw the development and successful approval by the President and ratification by the Trustees of a Campus Climate Action Plan to make LUC carbon neutral by 2025. We beat that goal and became a carbon-neutral University in 2022, and are developing a new Carbon Action Plan to decarbonize our

campuses by 2040.

- By 2016, environmental sustainability had become a *key differentiator* of Loyola University Chicago; we are leading in the Midwest, the 28 Jesuit Universities in the US, and the 211 Jesuit Universities world wide.
- When surveyed, 54% of incoming freshmen since fall 2017 say Loyola's commitment to the environment was *important* or *very important* to their electing to come to Loyola, demonstrating the external reputation we have developed and how this reputation draws undergraduates to Loyola.
- Hosted annual international conferences on Global Climate Change since 2014, over 1,000 attendees in 2018.
- Collaborating on research, teaching and outreach with 22 different Loyola departments or schools and 38 external partner universities, businesses and NGOs.
- Participate and lead multiple Jesuit University Task Forces on environmental sustainability both nationally and internationally.
- Developed/implemented a Mission, Vision, Strategic Plan and an Operations Plan for the IES/SES.
- Developed/implemented 7 new undergraduate majors and four 5-year BS/MS dual degree programs.
- Developed 2 MS programs and 3 certificate programs which launched in 2019.
- Raised over \$6M for IES in donor gifts and >\$2M in grants for IES programming and infrastructure.
- Co-edited *Healing Earth*, a free online Environmental Science textbook written through the lens of ethics and spirituality for the poor and marginalized (see <https://healingearth.ijep.net>). Coordinated writing and editing with 120 participants from 40 Jesuit universities world-wide.
- Conduct environmental science research, maintain a research lab and mentor undergraduate and graduate students, post-doc fellows and Research Associates.

2010 – 2013 Vice Provost for New Initiatives –

- In 2010 the President and Provost asked me to serve as Vice Provost to design and implement several new initiatives at the University including LUREC academic programming, a new J-Term, the FCIP and IES, as well as improving on several existing programs and serving operations roles in the Provost's office.
- **LUREC.** Partnered with the President's office in acquiring a new 100-acre campus 50 miles NW of Chicago called the Loyola University Retreat and Ecology Campus (LUREC) where I helped design academic facilities, implemented, and continue to facilitate and manage all academic programming including; designing the construction of 3 teaching/research laboratories and 2 classrooms, a stockroom for equipment and supplies, an herbarium and specimen collection room. Developed a 4.5 acre student-run organic farm with a new groundwater well and electricity, a large greenhouse, hoop house, tool shed, processing center, chicken coop and bee hives. Designed and conducting ecological restoration of a 25 acre wetland and decommissioning of a 5 acre pond, a project that integrates students, faculty and researchers with industry experts. Facilitation and oversight of 5 summer field courses taught at LUREC. Conduct marketing for LUREC, successful fundraising, grant writing, staff and budget management.
- **J-Term.** To address student graduation rate and enhance the probability of students graduating within 4 years, I led, facilitated, and coordinated the development and implementation of a 2-week condensed January session (J-Term), which offers both face-to-face and online courses for students at the end of Christmas break. This was a new term at Loyola, launched in 2011, and its development required coordination with and explicit trust from the Deans, skeptical faculty, the Registrar, Bursar, Residence Life, Facilities, Library, Campus Safety, Information Technologies,

University Marketing, Financial Aid, and Student Development. J-Term is extremely successful today providing upwards of 45 courses per year.

- **FCIP.** Co-Founded and co-Directed a Faculty Center on Ignatian Pedagogy designed to enhance the teaching culture at Loyola, reward excellence in teaching, and provide resources for new teaching pedagogies and technologies. Instrumental in developing an online teaching certification program, and online teaching standards. Developed multiple university level teaching awards, an Ignatian Scholars Program, and invited Fr. Jose Meso to develop and teach an Ignatian Pedagogy course.
- **IES.** Coordinated and managed the merging of four academic units into the new Institute of Environmental Sustainability (IES), by holding 10 monthly planning meetings, retreats, and listening to concerns of all. Responsible for working closely with the architects and engineers, defining the functional needs for the new IES facility, a 217,000 sq ft, \$58M LEED Gold certified building which opened in fall of 2013. It has the largest geothermal facility in Chicago, a large biodiesel production and clean energy innovations lab, a 3,100 sq ft greenhouse, 2 aquaponics facilities, 2 Innovation Laboratories, state-of-the-art shared research laboratories, a GIS lab, faculty offices, and a 406-bed green student dorm, all under one roof.
- **Fund Raising.** Raised funds through grants and donors specifically for programming and infrastructure of LUREC and IES.
- **Strategic Planning.** I played a central role in the University Strategic Planning and implementation process.
- **University Core.** Facilitated the development of foundational Core courses in the social sciences and sciences and shepherded the implementation of a new University Core Curriculum across all schools. The social science foundational Core course development required meeting with the chairs of the social science departments to develop a 100-level course that integrates Political Science, Anthropology, Sociology and Psychology; a task that took almost 9 months to reach common ground and stakeholder ownership for a course on Globalization. Similarly, development of the Core science course required months of meetings with the chairs of Biology, Chemistry, Physics and Environmental Science, to agree upon a foundational Core science course addressing environmental threats to the planet.
- **Honors Program.** Oversight of the University Honor's Program which doubled in size during these 3 years, and facilitated their move into a new building.
- **Society of Jesus Task Force on Ecology.** By invitation of the University President, I served on Father General Aldo Nicolás's Task Force on Ecology and co-authored the [*Healing a Broken World*](#) document. This document has served to call all Jesuits worldwide to incorporate "Care for Creation" into their daily work and workplace. I was the only lay person from the 130 Jesuit Colleges and Universities worldwide to serve on this task force.
- **Healing Earth.** By invitation of the University President, I was asked to co-edit the [*Healing Earth*](#) e-textbook; an environmental science textbook that employs Ignatian pedagogy through the lenses of ethics and spirituality with a call to action. This text is free and open access, for Jesuit High Schools and Colleges worldwide, as well as for people at the margins, in refugee camps and in poverty situations. This project won the International Expanded Reason Award from the Vatican in 2017.
- **Professional Service.** Served as President of the Society of Freshwater Scientists for 1 year (president-elect for 1 year, and past-president for 1 year).
- **Professional Scholarship.** Conducted environmental science research, mentored graduate students,

obtained federal grant funding and published refereed manuscripts in reputable journals.

2008 – 2010 Founding Director of the Center for Urban Environmental Research and Policy (CUERP) –

- After accomplishing all of the goals I set forth for my work in the Office of Research Services, in 2008 I asked permission of the President and Provost to step away from the Provost's office so that I could begin to develop CUERP and the University Sustainability Initiative. My goal was to reduce our campus environmental footprint by 50% and develop plans for a School of the Environment to raise awareness about the peril of the planet and develop solutions to environmental challenges. The President and Provost allowed me to develop and direct CUERP for two years, and then invited me back to the Provost's Office to serve as Vice Provost of New Initiatives in 2010.
- Developed the mission, vision, strategic plan and operations plan for CUERP.
- Negotiated for space and budget, hired 10 faculty and staff.
- Initiated and managed numerous successful ongoing programs including;
 - University GIS Research lab
 - University recycling and sustainability initiative
 - Some of the first truly interdisciplinary university research programs
 - Solutions To Environmental Problems (STEP) Program
 - CUERP Undergraduate Student Research Program
 - Carbon Scholars Program
 - Student-run Biodiesel Production Facility and BioSoap Production Facility
 - A 4.5 acre student organic farm at LUREC
 - Urban Agriculture Program with campus gardens and the Loyola Farmer's Market
 - A 25 acre wetland restoration and biodiversity recovery program.
- CUERP was very successful, and was the only University Center of Excellence to be elevated to the level of a degree-granting, stand-alone Institute, which is now well on its way to becoming the School of the Environment.
- Conducted environmental science research, maintained my research lab and mentored undergraduate and graduate students, post-doc fellows and Research Associates, obtained federal grant research funding and published refereed manuscripts in reputable journals.

2003 – 2008 Associate Provost for Research and Centers –

- After serving at the National Science Foundation as Program Officer in the Ecosystem Studies Program for one year, I was invited by the Provost to serve as Associate Provost for Research and Centers, to restructure and manage the Office of Research Services, to increase faculty grant awards by 50%, and to help define and oversee new strategic Centers of Excellence.
- Revitalized and completely restructured the Office of Research Services and all of its operations.
- Brought the university into compliance with radiation safety, biohazardous materials, and the use of animals and human subjects in research.
- Visited every department in CAS and schools on the Lakeside campuses to learn what needs faculty from different disciplines had for research, and developed programs to help facilitate research in these different areas.
- Created an online grant signature routing system and grant submission system (the PTAP).
- Developed internal research grant awards programs for humanities, social sciences, natural sciences,

and professional school scholars.

- **LUROP** - Developed and launched the University-wide interdisciplinary Loyola Undergraduate Research Opportunities Program which coordinates and financially supports undergraduate students conducting research with faculty. Developed and steward the Carbon Fellows Program for undergraduate student research in STEM disciplines.
- Worked with the VP of Research at HSD to develop and implement a cross-campus research initiative to incentivize and facilitate interdisciplinary research teams across our main liberal arts and sciences campus, the professional schools campus, and our health sciences campus.
- Facilitated and led the development of 3 new University Centers of Excellence (and served as Founding Director of one – CUERP). This required multiple town-hall meetings to engage faculty who had expertise and interest in Human Rights, Catholic Intellectual Heritage, and Environmental Sustainability. New Centers included the Center for Urban Environmental Research and Policy (CUERP), the Joan and Bill Hank Catholic Center for Catholic Intellectual Heritage (CCIH), and the Center for Human Rights of Children (CHRC).
- I oversaw and facilitated the sensitive retirement of two established Centers of Excellence (the Center of Ethics, and the Parmley Hearing Institute).
- Oversaw the direction and growth of all 8 University Centers of Excellence; developed a Center Directors Council that met monthly, and coordinated projects that leveraged different Centers with one another.
- LUC external grant funding doubled in the 5 years that I served as Associate Provost for Research and Centers.
- Conducted environmental science research, maintained my research lab and mentored undergraduate and graduate students, post-doc fellows and Research Associates, obtained federal grant research funding and published refereed manuscripts in reputable journals.

EXTRAMURAL RESEARCH GRANTS RECEIVED

- 2016- 2019 U.S. Environmental Protection Agency: Great Lakes Restoration Initiative (GLRI). “Increasing biodiversity and habitat complexity in invaded wetlands.” PIs S. Lishawa and N.C. Tuchman, Co-PIs E. Clark, A. Schrank, D. Albert, N. Reo, B. Lawrence. \$649,695.
- 2014-2017 U.S. Environmental Protection Agency, Great Lakes Restoration Initiative (GLRI). “Furthering Capacity to Maintain High Quality Coastal Wetlands in Northern Michigan”. P.I. N.C. Tuchman, Co-PI S. Lishawa. \$499,727.
- 2014 - 2015 Northern Trust Company Charitable Trust. “LUREC Summer Internships”. P.I. N.C. Tuchman, Co-PI S. Lishawa. \$75,000.
- 2012 – 2014 U.S. Department of Agriculture, National Institute of Food and Agriculture. “Sustainable Urban Agriculture Education for a Food Secure and Sustainable Future: A Workshop Series”. P.I., N.C. Tuchman, Co-PIs C.G. Peterson, L. Vail, S. Lishawa, and S. Mitten. \$35,630.
- 2010 – 2013 U.S. Environmental Protection Agency, Great Lakes Restoration Initiative (GLRI). “A

- Sustainable Approach to Restoring Wetland Biodiversity”. P.I. N.C. Tuchman, Co-PIs D. Albert, and S. Lishawa. \$449,603.
- 2010 - 2011 U.S. Department of Energy, Congressional Direction. “Chicago Clean Air, Clean Water Program, Loyola University Chicago: Environmental Monitoring for a Healthy Sustainable Urban Future.” P.I., N.C. Tuchman. \$486,000.
- 2009 - 2012 National Science Foundation (Division of Chemistry). “MRI-R2: Acquisition of a Triple Quadrupole Mass Spectrometer”. P.I., P. Chiarelli, Co-PIs N.C. Tuchman and P. Geddes. \$335,300.
- 2009 – 2011 National Science Foundation (Division of Environmental Biology). Urban Long-Term Research Areas Exploratory (ULTRA-Ex): Connecting the social and ecological sciences with planners, managers, and the public: Building a broad foundation for the Chicago Region ULTRA. P.I., D. Wise, Co-PIs L. Heneghan, B. Pijanowski, N.C. Tuchman, and L. Westphal. \$299,920.
- 2008 – 2010 U.S. Environmental Protection Agency P3 Program (People, Prosperity and the Planet). “Innovative Biodiesel Production: A Solution to the Scientific, Technical, & Educational Challenges of Sustainability”. P.I., N.C. Tuchman, Co-PIs D. Larkin and S. Lishawa. \$75,000.
- 2007 – 2009 National Oceanic and Atmospheric Administration’s Illinois-Indiana Sea Grant Program. “Do urbanization and invasive plant species affect water quality services performed by Great Lakes coastal wetlands?” P.I. N.C. Tuchman, Co-PIs, D. Larkin, P. Geddes and D. Goldblatt. \$80,000.
- 2007 – 2008 U.S. Environmental Protection Agency P3 Program (People, Prosperity and the Planet); Phase I “Innovative Biodiesel Production: A Solution to the Scientific, Technical, and Educational Challenges of Sustainability”. P.I. D. Larkin, Co-PI N.C. Tuchman. \$10,000.
- 2007 – 2009 National Science Foundation (Division of Environmental Biology, Ecosystems Studies Fellowship Program). “Exploring Mechanisms behind Invasions: Do Microbes Mediate Plant Invasion success by Altering Nutrient Pools and transformation Processes?” P.I. N.C. Tuchman, Co-PI P. Geddes. \$120,000.
- 2005 - 2009 National Science Foundation (Ecosystems Studies Program) “Graduate Research Fellowship Award: The Role of Litter Accumulation as a Mechanism for Invasion Success of a Non-Native Cattail, *Typha x glauca* in Great Lakes Coastal Wetlands.” P.I. N.C. Tuchman, Co-PI Monika Freyman. \$121,500.
- 2003 - 2005 National Science Foundation (Ecosystems Studies Program) “REU Supplement: Interactive Effects of Elevated Atmospheric CO₂, N-Enrichment, and an Invasive Species on Wetland Plant Productivity”. PI N.C. Tuchman. \$6,000.
- 2003 - 2005 National Science Foundation (Ecosystems Studies Program) “Supplement: Elevated

- Atmospheric CO₂ Alters Plant Detritus Nutritional Quality: Effects on Microbial and Detritivore Food Webs in Aquatic Ecosystems". P.I. N.C. Tuchman, Co-PI J. Kelly. \$27,000.
- 2001 - 2005 National Science Foundation (Ecosystems Studies) "Elevated Atmospheric CO₂ Alters Plant Detritus Nutritional Quality: Effects on Microbial and Detritivore Food Webs in Aquatic Ecosystems". P.I. N.C. Tuchman, Co-PIs, R.G. Wetzel and J.A. Teeri. \$348,332.
- 1999 - 2002 National Science Foundation (Ecosystems Studies Program) "Effects of Elevated Atmospheric CO₂ on Plant Nutritional Quality and Heterotrophic Utilization in Aquatic Ecosystems". P.I. N.C. Tuchman, Co-PIs, R.G. Wetzel and J.A. Teeri. \$300,000.
- 1996 Nancy Ryerson Ranney Leadership Grants Program. "Restoration of a Low-Diversity Cattail Wetland in the Ryerson Woods Conservation Area". P.I., N.C. Tuchman. \$6,000.
- 1995 Nancy Ryerson Ranney Leadership Grants Program. "Establishment of Seven Wetland Plant Species within a Disturbed Cattail Stand". P.I., N.C. Tuchman. \$5,750.
- 1993-1996 National Oceanic and Atmospheric Administration (Illinois-Indiana Sea Grant Program). "Shifts in Southwestern Lake Michigan Benthic Food Web Dynamics Since the Invasion of the Zebra Mussel". P.I., N.C. Tuchman. \$59,000.
- 1993 - 1995 National Science Foundation (Instrument and Laboratory Improvement Program). "Studying Plant Cellular Processes and Aquatic Organisms Through Advanced Microscopic Techniques". Co-PIs, N. Tuchman and J. Smarrelli. \$39,868.
- 1991-1993 National Oceanic and Atmospheric Administration (Illinois-Indiana Sea Grant Program). "Dietary Benefit of Benthic Algae in the Diets of Two Lake Michigan crayfish; *Orconectes propinquus* and *Orconectes virilis*". P.I., N.C. Tuchman. \$120,000.
- 1990-1991 National Oceanic and Atmospheric Administration (Sea Grant Program). "Effects of Crayfish Grazing on Benthic Algal Standing Crops, Turnover Rates, and Productivity". P.I., N.C. Tuchman. \$49,500.

INTRAMURAL RESEARCH GRANTS RECEIVED

- 2015 Loyola University Chicago Provost's Summer Research Fellowship. "Increasing the resilience of Great Lakes coastal wetlands to invasive species through Indigenous community-researcher collaboration". With S. Lishawa and B. Ohsowski. \$60,000.
- 2011 Center for Urban Environmental Research and Policy Summer Fellowship. "Characterizing the potential of Great Lakes wetland invaders to produce biogas". With E. Throop and B. Lawrence. \$2,000.
- 2011 Mulcahy Scholars Program. "Investigating the Effects of the Antibiotic Azithromycin on Stream Bacteria and Algal Community Composition". S. Hertel, L.Vail. \$2,000.

- 2010 – 2012 President’s Intercampus Research Award. "Environmental Exposure to Bisphenol-A in Countries at Differing Levels of Economic Development: Effects on Human Health and Aquatic Life". With A. Luke, D. Shoham, P. Chiarelli, and L. Vail. \$80,000.
- 2010 Center for Urban Environmental Research and Policy Summer Fellowship. “Investigating the Effects of the Antibiotic Azithromycin on Stream Bacteria and Algal Community Composition”. With S. Hertel and L. Vail. \$2,000.
- 2009 - 2011 Interdisciplinary Research Stimulation Award. “Chicago Clean Air, Clean Water Program”. With G. Thiruvathukal, P. Geddes, M. Schmeling, and J. Frenreis. \$20,000.
- 2009 Loyola University Chicago Office of Research Services. “Emerging contaminants in Chicago surface waters: Effects on biological communities”. \$6,000.
- 2009 Mulcahy Scholars Program. “Invasive plant species and wetland denitrification rates: Effects of water level and time since invasion”. With O. McKenna. \$2,000.
- 2008 – 2010 Carbon Scholars Program. “Effects of Invasive Plant Species on Wetland Denitrification and Greenhouse Gas Emissions”. With M. Olszewski, D. Larkin and A. Fitch. \$14,000.
- 2008 Center for Urban Environmental Research & Policy Summer Fellowship. “Mapping Invasive Wetland Plants at Spring Bluff Nature Preserve”. With D. Miceli. \$2,000.
- 2007 Mulcahy Scholars Program. “Bacterial biomass and decomposition rates of 4 native wetland plants compared with the invasive *Typha x glauca*”. With C. Stowell. \$2,000.
- 2007 Mulcahy Scholars Program. “Tracking a wetland plant invasion through time using lead dating and nutrient analyses of soil cores.” With R. Porto. \$2000.
- 2007 Mulcahy Scholars Program. “Reconstructing the history of a plant invasion using pollen analyses of deep sediment cores”. With N. Kmytuyk. \$2,000.
- 2006 Center for Urban Environmental Research and Policy Summer Fellowship. “Does invasive *Typha x glauca* enhance N-fixation relative to native plants?” With L. Barham. \$2,000.
- 2005 Mulcahy Scholars Program. “Allelopathic properties of the invasive wetland plant, *Typha x glauca* on germination and growth of native wetland plants”. With S. Mestrezat. \$2,000.
- 2002 Mulcahy Scholars Program. “Elevated atmospheric CO₂ alters leaf litter nutritional quality for stream invertebrates, and the subsequent food quality of their feces for stream coprophageous insects”. With N. Miller. \$2,000.
- 2001 Mulcahy Scholars Program. “Elevated Atmospheric CO₂-Induced Alterations in Tree

- Foliage: Effects on Aquatic Detritivore Growth and Subsequent Fish Predation. With S. Abichandani. \$2,000.
- 2000 Mulcahy Scholars Program. "Elevated atmospheric CO₂ lowers leaf litter food quality: impacts on growth and development of 4 species of mosquito larvae." With L. Sasso. \$2,000.
- 1999 Mulcahy Scholars Program and Dept of Biology. "Upgrading and expanding the Stream Research Facility in the Greenhouse of Damen Hall". \$5,000.
- 1998 Mulcahy Scholars Program. "Elevated atmospheric CO₂-Induced alterations in tree foliage chemistry: Effects on stream detritivore growth rates". With G. Kilbane. \$2,025.
- 1996 Loyola University Summer Research Award. "Heterotrophic metabolism as a survival mechanism for resource-limited benthic algae". \$6,000.
- 1995 Loyola University Research Support Grant. "Effects of Hydrologic Regime on the Success of Four Wetland Forb Species. \$1,200.
- 1993 Loyola University Grant in Aid. "Design and Construction of a Stream Research Facility in the Greenhouse of Damen Hall". \$1,150.
- 1992 Loyola University Research Support Grant. "Effects of the Invasion of the Exotic Zebra Mussel on Rock Reef Ecosystems in SW Lake Michigan". \$1,200.
- 1991 Loyola University Summer Research Award. "Effects of Crayfish Grazing on Algae in Southwestern Lake Michigan". \$5,500.
- 1991 Loyola University Research Support Grant. "Effects of Crayfish Grazing on Benthic Algae in Southwestern Lake Michigan". \$1,000.
- 1989 Loyola University Summer Research Award. "Effects of Light Limitation on Diatom Stalk Production". Awarded \$4,500.

RESEARCH MANUSCRIPTS PUBLISHED (REFEREED)

- Keyport S, Carson BD, Johnson O, Lawrence BA, Lishawa SC, Tuchman NC, Kelly JJ. 2019. Effects of harvesting an invasive hybrid cattail on abiotic and biotic wetland properties. **Restoration Ecology**. 27 (2) 389-398. [DOI:10.1111/rec.12859](https://doi.org/10.1111/rec.12859)
- Lishawa, S. C., Lawrence, B. A., Albert, D. A., Larkin, D. J., & Tuchman, N. C. (2019). Invasive species removal increases species and phylogenetic diversity of wetland plant communities. **Ecology and Evolution**. 9 (11) 6231-6244. <https://doi.org/10.1002/ece3.5188>

- Carson, BD, Lishawa SC, Tuchman NC, Monks AM, Lawrence BA, Albert DA. 2018. Harvesting invasive plants to reduce nutrient loads and produce bioenergy: an assessment of Great Lakes coastal wetlands. **Ecosphere**. 9 (6): e02320. 10.1002/ecs2.2320.
- McCarthy, J.W. and Tuchman, N.C. 2018. How We Speak of Nature: A Plea for a Discourse of Depth. **The Heythrop Journal**. 59 (6): 944-958. <https://doi.org/10.1111/heyj.13017>
- Lawrence B.A., Lishawa S.C., Hurst N., Castillo B.T., Tuchman N.C. 2017. Wetland invasion by *Typha x glauca* increases soil methane emissions. **Aquatic Botany**. 137 (1): 80-87.
- Lawrence B.A., Bourke K., Lishawa S.C., Tuchman N.C. 2016. *Typha* invasion associated with reduced aquatic macroinvertebrate abundance in northern Lake Huron coastal wetlands. **Journal of Great Lakes Research**. 42 (6): 1412-1419.
- Lawrence B.A., Lishawa S.C., Rodriguez Y., Tuchman N.C. 2016. Herbicide management of invasive cattail (*Typha x glauca*) increases porewater nutrient concentrations. **Wetlands Ecology and Management**. 24 (4): 457-467.
- Lishawa, S.C., Lawrence B.A., Albert D.A., Tuchman N.C. 2015. Biomass harvest of invasive *Typha* promotes plant diversity in a great Lakes coastal wetland. **Restoration Ecology**. 23 (3): 228-237.
- Lishawa, S.C., K.J. Jankowski-Giefer, P. Geddes, D.J. Larkin, A.M. Monks, and N.C. Tuchman. 2014. Denitrification in a Laurentian Great Lakes coastal wetland invaded by hybrid cattail (*Typha x glauca*). **Aquatic Sciences**. 76 (4): 483-495.
- Kelly, J.J., E. Peterson, J. Winkelman, T. Walter, S.T. Rier and N.C. Tuchman, 2013. Elevated atmospheric CO₂ impacts abundance and diversity of nitrogen cycling functional genes in soil. **Microbial Ecol**. 65: 394-404.
- Lishawa, S.C., D.J. Treering, L.M. Vail, O. McKenna, E.C. Grimm, N.C. Tuchman. 2013 Reconstructing plant invasions using historical aerial imagery and pollen core analysis: *Typha* in the Laurentian Great Lakes. **Diversity & Distributions**. 19: (1):14-28.
- Larkin, D.J., S.C. Lishawa and N.C. Tuchman. 2012. Appropriation of Nitrogen by the Invasive Cattail *Typha x glauca*. **Aquatic Botany** 100 (2012): 62-66.
- Larkin D.J., M.J. Freyman, S.C. Lishawa, P. Geddes, N.C. Tuchman. 2012. Mechanisms of dominance by the invasive hybrid cattail *Typha x glauca*. **Biological Invasions**. 14 (1): 65-77.
- Mitchell M.E., S.C. Lishawa, P. Geddes, D.J. Larkin, D.J. Treering, N.C. Tuchman. 2011. Time-dependent impacts of cattail invasion in a Great Lakes coastal wetland complex. **Wetlands**. 31 (6): 1143-1149.
- Lishawa S.C., D.A. Albert, N.C. Tuchman. 2010. Water level decline promotes *Typha X glauca* establishment and vegetation change in Great Lakes coastal wetlands. **Wetlands**. 30 (6): 1085-1096.
- Lishawa S.C., A.T. Schubel, N.C. Tuchman, A.K Varty. 2010. Sustainability education as a catalyst for university and community partnerships. **Metropolitan Universities**. 21 (1): 58-72.

- Kelly, J.J., A. Bansal, J. Winkelman, L.R. Janus, S. Hell, M. Wencel, P. Belt, K. Kuehn, S.T. Rier, and N.C. Tuchman. 2010. Alteration of Microbial Communities Colonizing Leaf Litter in a Temperate Woodland Stream by Growth of Trees under Conditions of Elevated Atmospheric CO₂. **Applied Environ. Microbiol.** 76: 4950-4959.
- Tuchman, N.C., D.J. Larkin, P. Geddes, R. Wildova, K.J. Jankowski, and D.E. Goldberg. 2009. Patterns of environmental change associated with *Typha x glauca* invasion in a Great Lakes coastal wetland. **Wetlands.** 29(3):964-975.
- Kominoski, J.S., P.A. Moore, R.G. Wetzel, and N.C. Tuchman. 2007. Elevated CO₂ alters leaf-litter-derived dissolved organic carbon: effects on stream periphyton and crayfish feeding **J. N. Am. Benthol. Soc.** 26(4):662-671.
- Angeloni, N.L., K.J. Jankowski, N.C. Tuchman, and J.J. Kelly. 2006. Effects of an invasive cattail species (*Typha x glauca*) on sediment nitrogen and microbial community composition in a freshwater wetland. **FEMS Microbiol. Lett.** 263:86-92.
- Tuchman, N.C., M.A. Schollett, S.T. Rier, and P. Geddes. 2006. Differential heterotrophic utilization of organic compounds by diatoms and bacteria under light and dark conditions. **Hydrobiol.** 561:167-177.
- Frost, P. and N.C. Tuchman. 2005. Nutrient release rates and ratios by two stream detritivores fed leaf litter grown under elevated atmospheric CO₂. **Archiv für Hydrobiol.** 163(4): 463-477.
- Wetzel, R.G. and N.C. Tuchman. 2005. Effects of atmospheric CO₂ enrichment and sunlight on degradation of plant particulate and dissolved organic matter and microbial utilization. **Archiv für Hydrobiol.** 162(3): 287-308.
- Janus, L.R., N.L. Angeloni, J. McCormack, S.T. Rier, N.C. Tuchman, and J.J. Kelly. 2005. Elevated atmospheric CO₂ alters soil microbial communities associated with trembling aspen (*Populus tremuloides*) roots. **Microb. Ecol.** 50:102-109.
- Rier, S.T., N.C. Tuchman, and R.G. Wetzel. 2005. Chemical changes to leaf litter from trees grown under elevated CO₂ and the implications for microbial utilization in a stream ecosystem. **Can. J. Fish. Aquatic. Sci.** 62: 185-194.
- Adams, J.A., N.C. Tuchman, and P.A. Moore. 2005. Effects of CO₂-altered detritus on growth and chemically-mediated decisions in crayfish (*Procambarus clarkii*). **J.N. Am. Benthol. Soc.** 24(2):330-345.
- Tuchman, N.C., R.L. Burks, C.A. Call, and J. Smarrelli, Jr. 2004. Flow rate and vertical position influence ingestion rates of colonial zebra mussels (*Dreissena polymorpha*). **Freshwater Biol.** 49(2):191-198.
- Tuchman, N.C., K.A. Wahtera, R.G. Wetzel, N.M. Russo, G.M. Kilbane, L.M. Sasso, and J.A. Teeri. 2003. Nutritional quality of leaf detritus altered by elevated atmospheric CO₂: Effects on development of mosquito larvae. **Freshwat. Biol.** 48(8):1432-1439.

- Tuchman, N.C., K.A. Wahtera, R.G. Wetzel, and J.A. Teeri. 2003. Elevated atmospheric CO₂ alters leaf litter nutritional quality for stream ecosystems: An *in situ* leaf decomposition study. **Hydrobiologia**. 495(1- 3):203-211.
- Adams, J.A., N.C. Tuchman, and P.A. Moore. 2003. Atmospheric CO₂ enrichment alters the chemical quality of leaf detritus: Impacts on foraging decisions of crayfish (*Orconectes virilis*). **J. N. Am. Benthol. Soc.** 22(3):410-422.
- Tuchman, N.C., R.G. Wetzel, S.T. Rier, K.A. Wahtera, and J.A. Teeri. 2002. Elevated atmospheric CO₂ lowers leaf litter nutritional quality for stream ecosystem food webs. **Global Change Biol.** 8:163-170.
- Rier, S.T., N.C. Tuchman, R.G. Wetzel, and J.A. Teeri. 2002. Elevated CO₂ induced changes in the chemistry of quaking aspen (*Populus tremuloides*) leaf litter: Subsequent mass loss and microbial response in a stream ecosystem. **J. N. Am. Benthol. Soc.** 21(1):16-27.
- Burks, R.L., N.C. Tuchman, C.A. Call, J.E. Marsden. 2002. Colonial Aggregates: Effects of spatial position on zebra mussel responses to interstitial water quality gradients. **J. N. Am. Benthol. Soc.** 21(1):64-75.
- Biggs, B.J.F., N.C. Tuchman, R.L. Lowe, and R.J. Stevenson. 1999. Resource stress alters hydrological disturbance effects in a stream periphyton community. **Oikos** 85(1):95-108.
- Johnson, R.E., N.C. Tuchman and C.G. Peterson. 1997. Changes in vertical microdistribution of Diatoms within a developing periphyton mat. **J. N. Am. Benthol. Soc.** 16(3):503-519.
- Peterson, C.G. and N.C. Tuchman. 1996. Substratum-associated microbiota. **Wat. Environ. Res.** 68: 755-768.
- Tuchman, N.C. 1996. The role of heterotrophy in algae. **In: Algal Ecology; Freshwater Benthic Ecosystems.** Eds. R.J.Stevenson, M.Bothwell, and R.L.Lowe. **Academic Press.** 753 pp.
- Tuchman, N.C. and C.G. Peterson. 1995. Substratum-associated microbiota. **Wat. Environ. Res.** 67:702-713.
- Peterson, C.G. and N.C. Tuchman. 1994. Substratum-associated microbiota. **Wat. Environ. Res.** 66: 602-611.
- Tuchman, N.C. and R.H. King. 1993. Changes in mechanisms of summer detritus processing between wooded and agricultural sites in a Michigan headwater stream. **Hydrobiologia** 268:115-127.
- Tuchman, N.C. and C.G. Peterson. 1993. Substratum-associated microbiota. **Wat. Environ. Res.** 65: 548-558.
- Tuchman, N.C. 1993. The relative importance of microbes versus macroinvertebrate shredders in the process of leaf decay in lakes of differing pH. **Can. J. Fish. Aquat. Sci.** 50: 2707-2712.

Peterson, C.G. and N.C. Tuchman. 1992. Substratum-associated microbiota. **Wat. Environ. Res.** 64: 625-632.

Tuchman, N.C. and R.J. Stevenson. 1991. Effects of selective grazing by snails on benthic algal succession. **J.N. Am. Benthol. Soc.** 10(4): 430-443.

Stevenson, R.J., C.G. Peterson, D.B. Kirschtel, C.C. King, and N.C. Tuchman. 1991. Density-dependent growth, ecological strategies, and effects of nutrients and shading on benthic diatom succession in streams. **J. Phycol.** 27: 59-69.

Tuchman, N.C. 1988. Effects of different intensities and frequencies of disturbance by snail herbivory on periphyton succession. Univ. of Louisville Press. Louisville, KY. 220 pp.

Brooks, N.C. 1983. Effects of agricultural land use on leaf litter processing rates in a central Michigan stream. M.S. thesis. Central Michigan Univ. Press. Mt. Pleasant, MI. 102 pp.

ONLINE BOOKS

Schuck, M.J. and N.C. Tuchman. 2022. [Healing Earth](#): An Integrated Approach to Environmental Science. 3rd edition. Loyola University Chicago.

Schuck, M.J. and N.C. Tuchman. 2020. [Healing Earth](#): An Integrated Approach to Environmental Science. 2nd edition. Loyola University Chicago.

Schuck, M.J. and N.C. Tuchman. 2016. [Healing Earth](#): An Integrated Approach to Environmental Science. Loyola University Chicago.

BOOK CHAPTERS PUBLISHED (REFEREED)

Tuchman, N.C. 2021. The Laurentian Great Lakes – A Case Study. *In: The Cry of Water and The Cry of the Poor.* [Promotio Iustitiae](#) vol. 132:25-29.

Tuchman, N.C. and M.J. Schuck. 2014. A Preferential Option for the Earth. *In: Humanity at The Threshold: Religious Perspectives on Transhumanism.* Eds. J.C. Haughey and I. Delio. The Council for Research in Values and Philosophy. Washington, D.C. 113-126.

Varty A.K., S.C. Lishawa, N.C. Tuchman. 2011 Sustainability education through an interdisciplinary and service-learning approach. *In: Social Responsibility and Sustainability: Multidisciplinary Perspectives Through Service Learning.* Eds. T. McDonald and G. Eisman. Stylus Publishing. New York, NY. 35-58.

Eames, J.M. and N.C. Tuchman. 2013. 250 years of environmental activism in the United States: A story of partial success? *In: Social Work and Social Development, Perspectives from India and the United States.* Ed. S. Singh. Lyceum Books. Chicago, IL USA. 178-191.

POPULAR MEDIA ARTICLES PUBLISHED (NON-REFEREED)

- Schuck, M.J. and N.C. Tuchman. 2022. [7 Years After Laudato Si': How Catholic Universities are Amplifying Pope Francis' Call to Heal our Common Home](#). **America: The Jesuit Review**. May 2022.
- Tuchman, N.C. 2020. [Where Science and Humanities Meet Pope Francis's Laudato Si'](#). **Connections: The Online Magazine of the American Jesuit Colleges and Universities**. April 2020.
- Tuchman, N.C. 2016. Why Jesuit Colleges and Universities are Uniquely Suited to Tackle the Environmental Crisis. **Conversations on Jesuit Higher Education**, Issue 50:10-13.
- Tuchman, N.C., and M.J. Schuck. 2015. The Pope is Talking to You, Chicago. **Chicago Sun-Times** Op Ed. June 21, 2015.
- Weubbles, D.J., and N.C. Tuchman. 2013. Cold Truth: It's Time to Act on Climate Change. **Chicago Tribune** Op Ed. May 31, 2013.
- Tuchman, N.C. 2013. In response to the recent Op Ed titled "Overpopulation is Not the Problem" by Erle C. Ellis, published September 14, 2013. **NY Times** Letter to the Editor.
- Vigen, A.M. and N.C. Tuchman. 2012. Farming in Hell – The New Normal? Our Food System is a Cause as Well as a Victim of Climate Change. **Sojourner's Magazine**. November 2012.

PAPERS PRESENTED and PUBLISHED ABSTRACTS

- Tuchman, N.C. 2022. The Role of Jesuit Higher Education in Advancing Laudato Si'. International Conference on Transitioning to Integral Ecology: Transdisciplinary Approaches for the Grounding and Implementation of a Holistic Worldview. The Pontifical Gregorian University, Rome, Italy.
- Tuchman, N. C., S.C. Lishawa. 2018. Nutrient Uptake Potential by Invasive *Typha × glauca* in Great Lakes Coastal Wetlands: A 15-Year Longitudinal Study. Society for Freshwater Science Conference. Detroit, MI.
- Berke K, Carson B, Lishawa S, Monks A, Tuchman N.C. 2017. Nutrient removal in Great Lakes coastal wetlands through successive harvesting of the invasive hybrid cattail (*Typha × glauca*). Midwest-Great Lakes Chapter Society of Ecological Restoration Conference, Grand Rapids, MI.
- Lawrence, B.A., S.C. Lishawa, N.C. Tuchman, and D.A. Albert. 2013. Promoting biodiversity & biofuels through *Typha* harvest. Society for Ecological Restoration World Conference. Madison, WI.
- Albert, D.A., S.C. Lishawa, B.A. Lawrence, and N.C. Tuchman. 2013. Great Lakes coastal monitoring provides baseline plant data for sustainable wetland restoration project. 5th Annual Conference on Ecosystem Restoration, Schaumburg, IL.
- Lawrence, B.A., S.C. Lishawa, N.C. Tuchman, and D.A. Albert. 2013. Converting invasive plants to bioenergy: An innovative approach to restoring Great Lakes coastal wetlands. Society for Wetland Scientists annual meeting. Duluth, MN.

- Lawrence, B.A., S.C. Lishawa, N.C. Tuchman, and D.A. Albert. 2013. Converting invasive plants to bioenergy: an innovative approach to restoring Great Lakes coastal wetlands. University of Michigan Biological Station Winter Meeting. Ann Arbor, MI.
- Lishawa, S.C., B.A. Lawrence, D.A. Albert, and N.C. Tuchman. 2012. Plant community response to experimental *Typha* × *glauca* restoration in Great Lakes coastal wetlands. Chicago Wilderness Congress. Chicago, IL.
- Greene, K., N.C. Tuchman, B. Lawrence, and S. Lishawa. 2012. Effects of *Typha x glauca* on aquatic macroinvertebrate communities in Northern Lake Huron Coastal Wetlands. 17th Annual Conference of the Wisconsin Wetlands Association, Lake Geneva, WI.
- Patterson, D., N.C. Tuchman and R. Kelly. 2012. Center for Sustainable Urban Living: A New Model for Student Success. Society for College and University Planning, Chicago, IL.
- Karalius VK, Mora N, Dugas LR, Forrester TE, Plange-Rhule J, Chiarelli P, Reichert M, Vail L, Tuchman NC, Luke A. 2012. Bisphenol-A and Adiposity-related Measures in Three African-origin Populations. 30th annual meeting of the Obesity Society, San Antonio, TX.
- Kelly, J., A. Bansal, J. Winkelman, L.R. Janus, S. Hell, M. Wencel, P. Belt, K.A. Kuehn, S.T. Rier, and N.C. Tuchman. 2010. Growth of Trees under Elevated Atmospheric CO₂ Alters Microbial Communities Colonizing Leaf Litter in at Temperate Woodland Stream. 13th annual International Society of Microbial Ecology meetings, Seattle, WA.
- McKenna, O., D. Treering, D. Miceli, L. Vail, S. Lishawa, and N.C. Tuchman. 2010. Reconstructing the History of Emergent Wetland Plant Invasions Using Aerial Photo Interpretation. Joint annual meeting of the North American Benthological Society and the American Society of Limnology and Oceanography, Santa Fe, NM.
- Mitchell, M.E., P. Geddes, D. Larkin, S. Lishawa, D. Treering and N.C. Tuchman. 2010. Constructing a Timeline of *Typha x glauca* Invasion: Ecological Impacts after more than Fifty Years of Invasion in Great Lakes Coastal Wetlands. Joint annual meeting of the North American Benthological Society and the American Society of Limnology and Oceanography, Santa Fe, NM.
- Reynoso, V., J. Kelly, N.C. Tuchman, A. Martinez Alcantara, Y. Fofanov, C. Putonti. 2009. Assessing microbial diversity within soil samples exposed to different levels of CO₂. Proceedings of the 20th Annual Argonne Symposium for Undergraduates in Science, Engineering and Mathematics (Argonne, IL), 2009: 21.
- Mitchell, M.E., P. Geddes, D. Larkin, and N.C. Tuchman. 2009. *Typha x glauca* invasion in wetlands of the Great Lakes region: Are impacts time-dependent? North American Benthological Society annual meetings, Grand Rapids, MI.
- Tuchman, N.C., P. Geddes, D. Larkin, K.J. Jankowski, M. Freyman, and L. Vail. 2009. *Typha x glauca*: An ecological engineer in Great Lakes coastal marshes? Society for Wetland Scientists annual meetings, Madison, WI.

- Geddes, P. and N.C. Tuchman. 2009. Do invasive wetland plant species affect microbially-mediated nitrogen dynamics? Society for Wetland Scientists annual meetings, Madison, WI.
- Tuchman, N.C. 2009. "Global climate change: Where is the voice for nature and for the common good?" Globalization for the Common Good Conference, Chicago, IL.
- Winkelman, J., W. Teagan, M. Sullivan, J. Gil, N.C. Tuchman and J. Kelly. 2009. Effect of Elevated Atmospheric CO₂ on Terrestrial Nitrogen-Cycling Microbial Communities. American Society for Microbiology annual meeting, Philadelphia, PA.
- Varty, A., S. Lishawa and N.C. Tuchman. 2008. Engaging students in campus sustainability initiatives through innovative courses. Association for the Advancement of Sustainability in Higher Education, biennial conference Raleigh, N.C.
- Kelly, J. and N.C. Tuchman. 2008. "Elevated Atmospheric Carbon Dioxide Alters Terrestrial and Aquatic Microbial Communities in a Northern Michigan Watershed". American Society of Microbiology annual meetings, Boston, MA.
- Tuchman, N.C., D. Larkin, P. Geddes, K.J. Jankowski, M. Freyman and L. Barham. 2008. Mechanisms of obtaining dominance by invasive plants in Great Lakes coastal marsh ecosystems. North American Benthological Society annual meetings, Salt Lake City, UT.
- Barham, L., K.J. Jankowski, P. Geddes, D. Larkin and N. C. Tuchman. 2008. Increased rates of nitrogen fixation following a *Typha x glauca* invasion in a Great Lakes coastal wetland. North American Benthological Society annual meetings, Salt Lake City, UT.
- Tuchman, N.C., K.J. Jankowski, P. Geddes, D. Larkin, and L. Barham. 2007. The Impact of Non-native Cattail *Typha x glauca* on Wetland Structure and the Biogeochemical Cycling of Nitrogen. North American Benthological Society annual meetings, Columbia, SC.
- Wildova, R., D.E. Goldberg, A.A. Snow, P.M. Sweeney, and N.C. Tuchman. 2006. How invasive cattail changes North American Wetlands. Wetlands 2006 Symposium; Applying Scientific, Legal, and Management Tools for the Great Lakes and Beyond. Traverse City, MI.
- Freyman, M., K.J. Jankowski, and N.C. Tuchman. 2006. Effects of litter accumulation of the invasive cattail *Typha x glauca* on a Great Lakes Coastal Marsh. Great Lakes Coastal Wetlands Annual Conference, Madison, Wisconsin.
- Taber, A.P., M. Wencel, L.R. Janus, S.T. Rier, N.C. Tuchman, and J.J. Kelly. 2006. Impacts of aspen leaves grown under elevated carbon dioxide on detritivore bacterial and fungal communities. American Society of Microbiology meetings, Orlando, FL.
- Jankowski, K.J. and N.C. Tuchman. 2005. The impact of *Typha x glauca* on species diversity and soil N in a Great Lakes coastal marsh. N. Am. Benthological Society, New Orleans, LA.
- Angeloni, N.L., K.J. Jankowski, N.C. Tuchman, & J.J. Kelly. 2005. Effects of an invasive cattail species on sediment microbial communities in a wetland ecosystem. Soil Ecology Society, Argonne, IL.
- Jankowski, K.J., S. Shattuck, and N.C. Tuchman. 2005. The impact of the invasive cattail *Typha x glauca* on the physicochemical environment and plant species diversity of a Great Lakes coastal marsh.

Great Lakes Coastal Wetlands Annual Conference, Green Bay, Wisconsin.

- Wetzel, R.G. and N.C. Tuchman. 2004. Interactions of atmospheric CO₂ enrichment and light on chemical composition of wetland plants and their decomposition. International Conference on Wetlands, Utrecht, The Netherlands.
- Tuchman, N.C., R.G. Wetzel and S.T. Rier. 2004. Elevated atmospheric CO₂ alters leaf litter nutritional quality: Effects on 3 trophic levels in streams. North American Benthological Society, Vancouver, British Columbia.
- Wetzel, R.G. and N.C. Tuchman. 2004. Interactions of atmospheric CO₂ enrichment and light on chemical composition of wetland plants & their decomposition. Ecological Society of America, Portland, OR.
- Angeloni, N., L.R. Janus, J. McCormack, S.T. Rier, N.C. Tuchman, and J.J. Kelly. 2004. Growth of Quaking Aspen Trees under Elevated Atmospheric CO₂ Alters Soil Bacterial and Fungal Communities. American Society for Microbiology, New Orleans, Louisiana.
- Wetzel, R.G. and N.C. Tuchman. 2003. Natural photolytic alteration of dissolved organic matter leached from wetland plants. Society for Wetland Scientists, New Orleans, Louisiana.
- Kelly, J.J., J. McCormack, L.R. Janus, N. Angeloni, S.T. Rier, and N.C. Tuchman. 2003. Elevated atmospheric CO₂ alters belowground microbial communities associated with quaking aspen roots. American Society for Microbiology, Washington, D.C.
- Rier, S.T., N.C. Tuchman and R.G. Wetzel. 2003. Influence of elevated atmospheric CO₂ on the chemistry and *in situ* decomposition of leaf litter from three common riparian tree species in northern Michigan. North American Benthological Society, Athens, GA.
- Kominoski, J.S., N.C. Tuchman, P.A. Moore, C.G. Peterson, and R.G. Wetzel. 2003. DOC derived from elevated CO₂-altered leaf litter: Impacts on stream periphyton growth and community structure. 51st Annual meeting, North American Benthological Society, Athens, Georgia.
- Tuchman, N.C., B. Swedo, S. Abichandani, S.T. Rier, and R.G. Wetzel. 2002. Elevated atmospheric CO₂ alters leaf litter nutritional quality: Impacts on three trophic levels in detritus based aquatic food webs. 50th Annual meeting, North American Benthological Society, Pittsburgh, Pennsylvania.
- Adams, J.A., N.C. Tuchman, and P.A. Moore. 2002. The effect of elevated CO₂ detritus on the foraging decisions of crayfish (*Orconectes virilis*). Annual meeting, American Society of Limnology and Oceanography, Hawaii.
- Adams, J.A., N.C. Tuchman, and P.A. Moore. 2002. The effect of elevated CO₂ detritus on the foraging decisions of crayfish (*Orconectes virilis*). XXIV annual meeting, American Chemosensory Society.
- Wetzel, R.G. and N.C. Tuchman. 2002. Solar radiation as the simultaneous autotrophic and heterotrophic modulator of aquatic ecosystems. Invited lecture, Annual meetings of the American Society of Limnology and Oceanography, Victoria, British Columbia.
- Wetzel, R.G. and N.C. Tuchman. 2001. Effects of CO₂ enrichment on the production of degradation

products of *Typha latifolia* and their natural photodegradation and biological utilization. Annual meeting, Ecological Society of America, Madison, Wisconsin.

- Rier, S.T., N.C. Tuchman, and R.G. Wetzel. 2001. Microbial responses to changes in leaf litter nutritional quality induced by leaf growth under elevated atmospheric CO₂. 49th Annual meeting, North American Benthological Society, LaCrosse, Wisconsin.
- Wetzel, R.G. and N.C. Tuchman. 2001. Effects of CO₂ enrichment on the production of humic degradation products, their natural photodegradation, and biological utilization. Annual meeting, Society for International Limnologists, Sydney, Australia.
- Wahtera, K.A., N.C. Tuchman, and R.G. Wetzel. 2000. Elevated atmospheric CO₂-induced changes in leaf litter chemistry: Effects on *in situ* aquatic microbial activity and leaf decomposition rates. 48th Annual meeting, North American Benthological Society, Keystone, CO.
- Tuchman, N.C., K.A. Wahtera, and R.G. Wetzel. 1999. Elevated atmospheric CO₂-induced changes in leaf litter chemistry: Effects on aquatic microbial activity and detritivore growth. 47 Annual meeting, North American Benthological Society, Duluth, Minnesota.
- Tuchman, N.C. 1997. Changes in Southwestern Lake Michigan food web dynamics since the invasion of the zebra mussel: Summary of a 5 year study. 45th Annual meeting, North American Benthological Society, San Marcos, Texas.
- Schollett, M.A. and N.C. Tuchman. 1997. Organic nutrient preferences for benthic diatoms: An approach to understanding heterotrophic metabolism. 14th Annual meeting, North American Diatom Symposium, Pellston, Michigan.
- Schollett, M.A., N.T. Udovich, N.C. Tuchman, and J. Smarrelli, Jr. 1996. Organic nutrient preferences for benthic diatoms: an approach to understanding heterotrophic metabolism. 44th Annual meeting, North American Benthological Society, Kalispell, Montana.
- Tuchman, N.C., N. Gormly and L. Bradford. 1996. Zebra mussel effects on the southwestern Lake Michigan food web. North American Benthological Society, Kalispell, Montana.
- Call, C.A., N.C. Tuchman, and J. Smarrelli, Jr. 1995. The effects of individual location and ambient flow rate on filtration in large zebra mussel colonies. 5th International Zebra Mussel and other Aquatic Nuisance Organisms Conference, Toronto, Ontario.
- Tuchman, N.C., M.A. Schollett, N.T. Udovich, and J. Smarrelli, Jr. 1995. Suppression of bacterial metabolism in periphyton communities using antibiotics. 43rd Annual meeting, North American Benthological Society, Keystone, Colorado.
- Call, C.A., N.C. Tuchman, & J. Smarrelli, Jr. 1995. Effects of individual location and flow rate on filtration in zebra mussel colonies. 43rd Annual Meeting, North American Benthol. Society, Keystone, CO.
- Johnson, R.E. and N.C. Tuchman. 1994. A novel approach to studying the effects of density-dependent resource limitations on vertical distribution of diatoms in periphyton mats. 42nd Annual meeting, North American Benthological Society, Orlando, Florida.

- Tuchman, N.C., J.R. Panella, P. Donovan, and J. Smarrelli. 1994. Facultative heterotrophy as a survival mechanism for light-limited benthic diatoms. 42nd Annual meeting, North American Benthological Society, Orlando, Florida.
- Call, C.A., J.E. Marsden, and N.C. Tuchman. 1994. Vertical migration and mortality in dense zebra mussel colonies as a response to changes in interstitial water quality. 4th International Zebra Mussel Conference. Madison, Wisconsin.
- Bradford, L. and N.C. Tuchman. 1994. Changes in a Lake Michigan benthic rock reef community since the invasion of zebra mussels. 42nd Annual meeting, North American Benthological Society, Orlando, Florida.
- Call, C.A., J.E. Marsden, and N.C. Tuchman. 1994. Vertical migration and mortality in dense zebra mussel colonies as a response to changes in interstitial water quality. 42nd Annual meeting, North American Benthological Society, Orlando, Florida.
- Tuchman, N.C., J. Panella, and J. Smarrelli. 1993. Determination of shade-induced heterotrophic metabolism in a benthic diatom, *Achnanthes rostrata*. 41st Annual meeting, North American Benthological Society, Calgary, Alberta, Canada.
- Zenchak, K.A. and N.C. Tuchman. 1992. The effects of crayfish grazing on benthic algal community dynamics in southwestern Lake Michigan. 40th Annual meeting, North American Benthological Society, Louisville, Kentucky.
- Krema, P.B. and N.C. Tuchman. 1992. Determination of the importance of benthic algae, macroinvertebrates and detritus to crayfish secondary production in *Orconectes propinquus*. 40th Annual meeting, North American Benthological Society, Louisville, Kentucky.
- Panella, J., J. Smarrelli and N.C. Tuchman. 1992. Shade-induced heterotrophy in *Achnanthes rostrata*. 40th annual meeting, North American Benthological Society, Louisville, Kentucky.
- Zenchak, K.A. and N.C. Tuchman. 1991. The effects of crayfish grazing on benthic algal community dynamics in Southwestern Lake Michigan. 11th biennial North American Diatom Symposium, Clemson, South Carolina.
- Panella, J., J. Smarrelli and N.C. Tuchman. 1991. Facultative heterotrophy in *Achnanthes rostrata* under laboratory conditions. 11th biennial North American Diatom Symposium, Clemson, South Carolina.
- Tuchman, N.C., R. Jan Stevenson and K. A. Zenchak. 1991. Effects of snail and crayfish grazing on benthic algal succession rates and direction. 39th Annual meeting, North American Benthological Society, Santa Fe, New Mexico.
- Zenchak, K.A. and N.C. Tuchman. 1991. The effects of crayfish grazing on benthic algal community dynamics in southwestern Lake Michigan. 39th Annual meeting, North American Benthological Society, Santa Fe, NM.
- Johnson, R.E., N.C. Tuchman and J. Smarrelli. 1991. The effect of density on the distribution of

photosynthetically active cells in benthic algal mats. 39th Annual meeting, North American Benthological Society, Santa Fe, New Mexico.

Tuchman, N.C. 1989. Limiting factors that induce stalk formation in benthic diatoms. 10th biennial meeting of the North American Diatom Symposium, Lake Itasca, Minnesota.

Tuchman, N.C., R.E. Youssef, R.J. Pane and I.S. Zabaneh. 1989. Effects of light intensities on Lake Michigan algal community development. IL State Academy of Science, Chicago, IL.

Tuchman, N.C. 1989. Effects of light level on benthic diatom stalk production. North American Benthological Society, Guelph, Ontario.

Tuchman, N.C. 1988. Effects of grazing on algal community resilience and resistance. North American Benthological Society, Tuscaloosa, Alabama.

Stevenson, R.J., C.C. King and N.C. Tuchman. 1988. Benthic algal succession: is there a common theme? Phycological Society of American meetings, Pacific Grove, California.

Kirschtel, D.B., N.C. Tuchman, C.C. King, C.G. Peterson and R.J. Stevenson. 1987. Periphyton succession: community response to nutrient enrichment. 9th N. American Diatom Symposium, Tomahawk, WI.

Stevenson, R.J., N.C. Tuchman, D.B. Kirschtel, C.C. King, and C.G. Peterson. 1987. Periphyton succession: can population accumulation patterns be used to assign species to guilds? 9th North American Diatom Symposium, Tomahawk, Wisconsin.

Brooks, N.C. 1986. Effects of acidity on the leaf decay process in four northern Michigan lakes. North American Benthological Society, Lawrence, Kansas.

Godshalk, G.L. and N.C. Brooks. 1985. A leaf litter budget study on two southern Mississippi streams. North American Benthological Society, Corvallis, Oregon.

Brooks, N.C. and R.H. King. 1983. Effects of agricultural land use on leaf litter processing rates in a central Michigan stream. North American Benthological Society, LaCrosse, Wisconsin.

PROFESSIONAL SOCIETY MEMBERSHIPS (past and present)

Society for Freshwater Science (SFS)

Society of Limnology and Oceanography (ASLO)

Ecological Society of America (ESA)

The Society for Wetland Scientists (SWS)

Council of Scientific Society Presidents (CSSP)

Association for the Advancement of Sustainability in Higher Education (AASHE)

OTHER PROFESSIONAL ACTIVITIES and SERVICES

2021 – 2022 External team member, Mission Priority Examen, San Francisco University, CA

2021 - present Advisory Board member Santa Clara U. Environmental Justice Institute, San Jose, CA

2020 – 2023 Board of Trustees Executive Committee, Peggy Notebaert Nature Museum, Chicago, IL

2020 – 2023 Chair, Museum Experience Committee, Peggy Notebaert Nature Museum, Chicago, IL

2020 – present Laudato Si’ 7-Year Journey, Universities Working Group, Vatican City, Rome, Italy

2019 External Examen Team for Santa Clara University, San Francisco, CA

2019 Ecological Examen for Regis University, Denver, CO

2018 – present Advisory Board member, Campus de la Transition, Paris, France

2018 – present Faculty Council Member, LUC Baumhart Center for Social Enterprise, Chicago, IL

2017 - present Chair, Society of Jesus, IAJU Task Force on Environmental and Economic Justice

2017 External Examen Team for LeMoyne University, Syracuse, NY

2016 External Examen Team for John Carroll University, Cleveland, OH

2016 External reviewer for Gonzaga University Environmental Studies Program

2016 – present Board of Trustees, Catholic Climate Covenant, Washington, DC

2015 – 2019 U of I Summer Institute on Sustainability and Energy (SISE) Advisory Board

2015 External reviewer for Loyola University New Orleans Environmental Studies Program

2014 External reviewer for University of San Francisco Environmental Studies Program

2013 – present Board of Trustees, Peggy Notebaert Nature Museum, Chicago, IL

2012 – present Science Advisory Board, Environmental Law and Policy Center, Chicago, IL

2012 – present Co-editor of *Healing Earth*, an online free Environmental Science textbook

2013 – 2017 Board of Trustees, the Delta Institute, Chicago, IL

2011 – 2012 Adolfo Nicolás, S.J. Task Force on Ecology – published *Healing a Broken World*

2008 Site Review Team, NSF Science and Technology SAHRA Program, Tuscon, AZ

2008 Collaborated with Highland Park High School Asst. Principal to construct and develop a biodiesel lab program for the High School

2006 (fall) Served on NSF review panel, Frontiers in Integrative Biological Research (FIBR).

2006 (spring) Served on NSF review panel, Frontiers in Integrative Biological Research (FIBR).

2005 (fall) Served on NSF review panel, Frontiers in Integrative Biological Research (FIBR).

2004 Served on NSF review panel, Long-Term Ecological Research (LTER) Program.

2004 - 2006 U of Michigan Biological Station seminar series coordinator.

2004 Reviewer and judge, JSHS High School Science Fair.

2004 - 2006 U of Michigan’s NSF- IGERT Program Review and Selection Committee.

2003 - 2005 Aquatic Initiatives Committee of the Chicago Wilderness.

2006 Sustainability Task Force of the Chicago Wilderness.

2006 - 2012 Executive Committee of the Chicago Wilderness.

2003 Site reviewer for the NSF-funded Luquillo LTER Site in Puerto Rico.

2002-2003 Served as Program Officer for the Ecosystem Studies Program at the National Science Foundation, Arlington, VA. Oversight of \$13M budget and two programs (Ecosystem Studies and Coupled Natural and Human Systems)

2002 Participated in the U.S. Climate Change Science Program Planning Workshop for Scientists and Stakeholders, Washington, D.C.

2002 Served on NSF Division of Environmental Biology review panel for the Long-Term Ecological Research (LTER) competition.

2001 - 2005 Director of the Elevated CO₂ Research Facility at the University of Michigan Biological Station.

1995 – present *ad hoc* reviewer for the promotion and tenure of faculty at the Univ. of San Francisco,

- Univ. of California at Berkeley, The Ohio State University, The Univ. of Missouri-Rolla, Univ. of Denver, DePaul University, University of Oklahoma, Univ. of Maryland Baltimore County.
- 1995 - 2004 Conduct Science Units and Science Field Trips for all grades (K-5) at Braeside Elementary School, Highland Park, IL
- 1991 - 1996 Professional Consultant for Integrated Lakes Management, Inc., Gurnee, IL
- 1991 - 1993 Chicago Junior Sciences and Humanities Symposium Advisory Board
- 1990 - present *ad hoc* grant proposal reviewer for 30 proposals submitted to the following funding agencies: National Science Foundation, U.S. Environmental Protection Agency, U.S. Department of Energy, Illinois-Indiana Sea Grant, Ohio Sea Grant, New York Sea Grant, Michigan Sea Grant.
- 1989 - present *ad hoc* manuscript reviewer for 61 manuscripts submitted to the following journals: *Ecology*, *Global Change Biology*, *Canadian J. Fisheries and Aquatic Sciences*, *Limnology and Oceanography*, *Freshwater Biology*, *J. North American Benthological Society*, *Archiv für Hydrobiologie*, *Oikos*, *Hydrobiologia*, *J. Phycology*, *Canadian J. Botany*, *J. Freshwater Ecology*, *American Midland Naturalist*, and *J. Great Lakes Research*.
- 1988 - 1990 Wetlands Consultant for Young Environmental Services, Inc., Glenview, IL

PROFESSIONAL PUBLIC SPEAKING

- 2022 Panel speaker, Laudato Si' 7-Year Journey, IAJU Assembly, Boston College, Boston, MA
- 2022 Workshop Presenter - Ecology and Land Restoration: Connecting Science, Ethics, and Spirituality for the Presentation Sisters of the Blessed Virgin Mary, Aberdeen, SD
- 2021 Keynote Speaker on UAP 4, Justice in Jesuit Higher Ed Conference, Georgetown U., Washington DC
- 2021 Invited Speaker, The Jesuit University & Sustainability, AJCU Leadership Institute, Chicago, IL
- 2021 Spotlight: School of Environmental Sustainability at LUC, 30 min interview for Cimpatico TV
- 2021 Invited speaker on How Higher Ed can Lead on Sustainability, U of Detroit Mercy, Detroit, MI
- 2021 Keynote address for Sustainability Week at the Esade University of Barcelona, Spain
- 2021 Panel speaker for Sustainability in Businesses, Fordham University School of Business, NY
- 2021 Co-Panelist, Health Disparities and Climate Change. Loyola University Chicago, IL
- 2021 Keynote speaker on Sustainability at LUC, American Chemical Society, Chicago, IL
- 2021 Keynote address at Faith Doing Justice Summit on the Environment, Fordham Prep High School, NY
- 2021 Keynote address St. Joseph University's Institute of Environmental Stewardship, Philadelphia, PA
- 2021 Invited speaker for Earth Week event, Truman College, Chicago, IL
- 2021 Keynote address for launch of Institute for Climate, Villanova University, Philadelphia, PA
- 2020 Invited speaker on UAP 4, Midwest Province Conference for Jesuits in Formation, Milwaukee, WI
- 2020 Keynote Speaker at EAIE, International Higher Education Society, Seville, Spain
- 2019 Invited speaker at side event United Nations High-Level Political Forum on SDGs, NY, NY
- 2018 Invited speaker at EcoJesuit Annual Meeting, Leticia, Amazonas, Colombia
- 2018 Invited plenary speaker at International Association of Jesuit Universities Assembly, Bilbao, Spain
- 2018 Commencement speaker at Loyola Andalusia, Seville, Spain
- 2018 Keynote speaker at Association of Engineers on Environmental Sustainability and Engineering Solutions, Seville, Spain
- 2018 Invited speaker on Educating the Next Generation at St. Louis Univ. Climate Summit, St. Louis, MO
- 2018 Invited speaker on Laudato Si' and the Call for Courageous Leadership: Climate Action in Jesuit

Universities, Cardinal Bernardin Lecture, Georgetown University

2018 Invited speaker at Second Nature Higher Education Climate Leadership Conference, Phoenix, AZ

2017 Invited speaker at EcoJesuit side event, COP23, Bonn, Germany

2017 Invited speaker at the Environmental Markets Association Roundtable: Current Developments in Environmental Markets: Air Quality Credits and Potential Nutrient Trading Tools, Chicago, IL

2017 Panel Moderator for the Fragile Great Lakes at the Peggy Notebaert Nature Museum

2016 Invited speaker at the Heartland Delta Faculty Conversations, Marquette University

2015 Invited speaker on The Role of Jesuit Universities in Advancing Laudato Si': LUC as a Case Study, Marquette University, Milwaukee, WI

2015 Invited speaker on The Particular Point of View of Biology on the World, Université Catholique de Louvain, Belgium

2015 Invited speaker on Living on our Fragile Planet: Ecological Sustainability & Global Climate Change, Common Ground, Deerfield, IL

2015 Keynote speaker at Sustainability Matters! Goethe Institute International Conference, Chicago, IL

2015 Invited speaker on The Role of Jesuit Universities in Advancing Sustainability, USDA Food and Nutrition Service, Chicago, IL

2015 Invited speaker on International Jesuit Ecology Project, International Assembly of Jesuit University Presidents, Melbourne, Australia

2015 Invited speaker on Sustainability and Higher Education, Focus Abengoa, Loyola Andaluca, Seville, Spain

2015 Invited speaker on Invasives-to-Energy: Can we Mitigate Climate Change while Managing Great Lakes Coastal Wetlands for Biodiversity?, Illinois Institute of Technology

2015 Invited speaker on International Jesuit Ecology Project, Loyola College, Chennai, India

2014 Commencement speaker at Newman Institute, Uppsala, Sweden

2014 Commencement Speaker and Honorary PhD recipient, Central Michigan University, Mt. Pleasant, MI

2015 Invited speaker on Sustainability, Mission and Higher Ed, John Carroll University

2015 Invited speaker on *Healing Earth* at the meeting of International Jesuit University Presidents in Melbourne, Australia

2014 Invited speaker on the State of the Great Lakes, Common Ground

2014 Invited speaker on Corporate Partnerships with Higher Ed for Sustainability, Spheres of Influence

2013 Good Food Festival & Conference, University of IL at Chicago, panelist

2013 Invited speaker on Global Climate Change, Common Ground

2013 Invited speaker at the McHenry County College Bioneers Lecture series

2013 The Albertus Magnus Lecturer at Dominican University, Chicago, IL

2012 Keynote speaker at the Inauguration of Fr. Kevin Gillespie, President, St. Joseph's Univ.

2012 Invited speaker on the Food System Crisis, the Common Ground

2012 Keynote speaker at the Annual Defenders of McHenry County meeting

2012 Invited speaker on the Global Water Crisis, the Common Ground

2011 Invited speaker on Global Climate Change, the Common Ground

2010 Invited speaker on Environmental Sustainability in Jesuit Higher Education at the Assembly of International Jesuit University Presidents in Mexico City

2010 Invited speaker on Agriculture and the Food System, the Common Ground

2010 Invited speaker on Global Climate Change at the Lake Shore Unitarian Society

2009 Invited speaker Building a Healthier Chicago annual meeting

2009 Keynote speaker at the Xavier University Sustainability conference

2009 Invited speaker at the 1909 Plan of Chicago Centennial Celebration

- 2009 Keynote speaker and Chair, The Common Ground Lecture series
- 2009 Invited speaker on Climate Science & Policy, Common Ground (w J. Frendreis)
- 2009 Invited speaker at the AJCU President's Board meeting Campus Sustainability
- 2009 Keynote speaker on Climate Change at Charis Ministries, Chicago, IL.
- 2008 Invited speaker on Invasive Species Research at the U. of MI Biol. Station.
- 2008 Invited Research speaker at U of Illinois Urbana Champaign.
- 2008 Invited Research speaker at Loyola University Chicago Biology Department.
- 2007 Invited Research speaker at U of I-Chicago School of Engineering, Environ/Water Resources.
- 2005 Invited Research speaker at Cornell University, Dept of Ecology and Evolutionary Biology.
- 2004 Invited speaker at the University of Montana, College of Forestry.
- 2004 Invited speaker at Western Michigan University, Department of Biology.
- 2004 Invited speaker for University of Illinois at Chicago's Ecology and Evolution seminar series.
- 2004 Invited speaker at The University of Montana, Division of Biological Sciences.
- 2003 Invited speaker at Eastern Michigan University, Department of Biology.
- 2003 Invited speaker at Virginia Polytechnic University, Department of Biological Sciences.
- 2002 Invited speaker at the Smithsonian Environmental Research Center.
- 2002 Invited speaker at Western Michigan University, Department of Biology.
- 2002 Invited speaker at Bucknell University, Department of Biology.
- 2002 Invited speaker at the National Science Foundation, Division of Environmental Biology.
- 2002 Invited speaker at the University of Alabama, Department of Biological Sciences.
- 2001 Invited speaker for Bowling Green State University's Biology Departmental seminar series.
- 2001 Research seminar at Loyola University Chicago Department of Biology seminar series.
- 2000 Invited speaker for the University of Georgia's Institute of Ecology seminar series.
- 2000 Invited speaker for the University of Michigan Biological Station research seminar series.
- 1998 Invited speaker for University of Illinois at Chicago's Ecology and Evolution seminar series.
- 1997 Invited seminar speaker University of Chicago, Ecology and Evolutionary Biology Dept.
- 1996 Interviewed on the "Insight" Program on CNN International; 8 minute live television interview on the impacts of the zebra mussel invasion on waterways in the U.S.
- 1995 Invited seminar speaker U.S. Environmental Protection Agency.
- 1994 Invited speaker for Central Michigan University's Department of Biology seminar series.
- 1993 Invited speaker for DePaul University's Department of Biology seminar series.
- 1993 Invited speaker for Michigan State University's Kellogg Biological Station seminar series.
- 1992 Invited speaker for Northern Illinois University Department of Biology seminar series.
- 1989 Invited speaker for dinner address at the American College Physicians Society annual meetings, Chicago, Illinois. Topic: The Ecological and Economic Impacts of Global Change.

PROFESSIONAL DEVELOPMENT

- 2020 COVID-19 Awareness & Prevention training
- 2019 Diversity, Equity & Inclusion training
- 2011 – 2018 Monthly participant in 1-on-1 Xcellero Leadership Coaching program.
- 2012 – 2013 Participant in a course on Ignatian Pedagogy – 1 semester graduate course w/ Fr. Jose Mesa
- 2009 - 2010 Participant in the inaugural cohort of the Ignatian Colleagues Program, an 18-month AJCU lay leadership development program
- 2008 Participant, American Jesuit Colleges and Universities Leadership Conference II, Chicago, IL

- 2006 Participant, American Jesuit Colleges and Universities Leadership Conference I, Chicago, IL
- 2006 Participant, The Conference Board's Women's Leadership Conference: Advancing the Woman Leader: The Organizational Challenge, NY, NY.
- 2004 Participant, Loyola University Chicago Human Resources 8 day workshop on Management and Leadership.

TEACHING ACTIVITIES

- 1) **Environmental Careers & Professional Skills (ENVS 220)**: Developed and teaching the inaugural course for all IES majors.
- 2) **General Biology I (Biology 101)**: All lectures in the semester: majors requirement; 45+ students. New preparation for this course.
- 3) **General Biology II (Biology 102)**: All lectures in the semester: majors requirement; 170+ students.
- 4) **Honors General Biology II (Biology 125H)**: All lectures in the semester; majors requirement for honors students; 40+ students.
- 5) **General Biology II (Biology 125)**: All lectures in the semester; majors requirement; 40 students
- 6) **Ecology (Biology 265)**: All lectures in the semester; majors requirement; 50+ students.
- 7) **Limnology (Biology 316/416)**: All lectures in the semester as well as one 5-hour laboratory or field trip each week; elective. Graduate level course.
- 8) **Wetland Ecology (Biology 327/417)**: All lectures in the semester as well as one 5-hour laboratory or field trip each week. New graduate level course that I developed.
- 9) **Special Topics: Research in Wetland Ecology (Biology 395/495)**: Direct 15-18 students in researching wetland restoration. Undergraduate and graduate level course that I developed.
- 10) **Solutions To Environmental Problems: Biodiesel (Biol 395/Univ 350b)**: Designed and developed this interdisciplinary course with 13 faculty from 9 different academic units. Built a biodiesel lab and produced biodiesel for campus shuttle buses in 2008, developed a business plan for the operations, and produced a documentary, website, and partnered with 6 local high schools.
- 11) **Solutions To Environmental Problems: Food Systems (Univ 350f)**: Involved in the design and execution of this interdisciplinary course. Built a greenhouse for student/faculty research and food production, developed composting program on campus, developed and manage a community Farmer's Market and started a 4.5 acre student organic vegetable farm with bee-keeping, turkeys and chickens.
- 12) **Solutions To Environmental Problems: Water (Univ 350w)**: Designed and involved in execution of this interdisciplinary course with 10 faculty from 8 different academic units. Facilitated student's drive to ban the sale of bottled water on campuses, and implementation of a stormwater capture system on campus.
- 13) **Global Change Biology (Biology 395/495)**: All lectures in the semester. New course I developed for Biology majors and Environmental Studies Program majors.
- 14) **Restoration Ecology (Biology 395/495)**: Team-taught course that I developed with Dr. Roberta Lammers and Dr. Marty Berg for Biology majors and Environ. Studies Program majors.
- 15) **Research Techniques (Biology 425)**: One lecture in a semester. Graduate level course.
- 16) **Community Ecology (Biology 462)**: All lectures and discussions in the semester. Graduate level course that I developed.

UNIVERSITY OF MICHIGAN BIOLOGICAL STATION TEACHING ACTIVITIES

- 1992 - 2000 (summers). **Limnology (Biology 480)**: All lectures and field trips. 5 credit upper division

rigorous field and lecture course. Individual student research projects required in addition to small group research projects, oral presentations, and papers.

POST DOCTORAL FELLOW/RESEARCH ASSOCIATE SUPERVISION

2016 – 2022 Andrew Monks, Research Associate
2014 – 2018 Brendan Carson, Research Associate
2011 – 2012 Beth Lawrence, Post doc
2009 – present Shane Lishawa (Full time Research Associate)
2007 – 2008 Daniel Larkin, Post doc
2006 – 2009 Pamela Geddes, Post doc
2001 – 2003 Steven Rier, Post doc

UNDERGRADUATE and GRADUATE STUDENT RESEARCH SUPERVISION

2019 - 2021 Logan St. John, graduate student (mentor)
2016 – 2021 Kurtis Himmler, graduate student (mentor)
2014 - 2017 Kelsey Berke, graduate student (mentor)
2011 - 2013 Kayla Turek, graduate student (committee member)
2011 - 2012 Erin Throop CUERP Undergraduate Fellow (co-mentor)
2011 - 2012 Franz Schuck, LUREC Farm intern (co-mentor)
2011 - 2012 George Wilson, LUREC Farm intern (co-mentor)
2011 - 2012 Brandon Brabec, LUREC Farm intern (co-mentor)
2011 Donna Friedman, LUREC Farm intern (co-mentor)
2011 Megan Davern, undergraduate research assistant (co-mentor)
2011 Buck Castillo, NSF Research Experience for Undergrads (co-mentor)
2011 - 2013 Kimberly Greene, graduate student (mentor)
2010 - 2012 Samantha Hertel, Undergraduate Mulcahy and CUERP scholar (co-mentor)
2010 - 2013 Qian Wang, Chemistry Department PhD student (committee member)
2009 - 2011 Anna Sjodin, CUERP Undergraduate Fellow, and NSF REU (mentor)
2009 - 2010 Sarah Guidone, undergraduate research assistant (co-mentor)
2009 Andrew Monks, NSF Research Experience for Undergrads (mentor)
2009 Alex Tuchman, undergraduate research assistant (co-mentor)
2009 - 2014 Katrina Binaku, Chemistry Department PhD student (committee member)
2008 - 2011 Mark Mitchell, graduate student (mentor)
2008 Eric Applebaum, undergraduate research assistant (co-mentor)
2008 - 2011 Owen McKenna, undergraduate research assistant (mentor)
2008 - 2010 Michal Olszewski, Carbon Scholar (co-mentor)
2008 - 2009 David Miceli, undergraduate CUERP fellow (mentor)
2008 Kaitlin Koch, undergraduate research assistant (co-mentor)
2007 Michal Olszewski, undergraduate research assistant (co-mentor)
2007 Patrick Grucelski, undergraduate research assistant (mentor)
2007 Terry Kowalski, undergraduate research assistant (mentor)
2007 Jeffrey Price, NSF Research Experience for Undergrads (mentor)
2007 – 2012 Allison Daley, Dept of ENVIS Master's Student (committee member)

2006 Natalie Kmytuyk, undergraduate Mulcahy Scholar (co-mentor)
 2006 Cindy Stowell, undergraduate Mulcahy Scholar (co-mentor)
 2006 Raphael Porto, undergraduate Mulcahy Scholar (co-mentor)
 2006 - 2009 Lane Barham, graduate student (mentor)
 2006 - 2009 Kara Borden, UIC MS student (committee member)
 2006 Alexander Cuthbert-Smith, post-bac student researcher (mentor)
 2005 - 2006 Scott Mestrezat, Mulcahy Undergraduate Researcher (mentor)
 2005 Emily Kay, Post-bac student researcher (mentor)
 2005 - 2006 Brian Schuetz, Post-bac student researcher (mentor)
 2005 Hannah Shadis, NSF Research Experience for Undergrads (mentor)
 2005 Chester Elliott, NSF Research Experience for Undergrads (mentor)
 2004 - 2006 Kathi Jo Jankowski, Master's student (mentor)
 2004 - 2008 Monika Freyman, Master's student (mentor)
 2004 Sharon Shattuck, NSF Research Experience for Undergrads (mentor)
 2004 Nicholas Tefft, Program for Undergraduate Research Experience (mentor)
 2004 Chester Elliott, Undergraduate Researcher (mentor)
 2004 Brandon Dowd, Undergraduate Researcher (mentor)
 2004 Laura Pickering, Program for Undergrad Research Experience (co-mentor)
 2004 - 2005 Erica Mynarich, Undergrad Researcher (mentor)
 2003 Alison Varty, Research Technician (supervisor)
 2003 Allison Poor, Undergraduate researcher (supervisor)
 2003 Shane Lishawa, Research Technician (supervisor)
 2003 Margaret Cowan, Research Technician (supervisor)
 2003 Peter Cowan, Research Technician (supervisor)
 2003 Laurel Billings, Research Technician (supervisor)
 2003 - 2007 Anna Taber, Master's student; left the program (committee member)
 2003 - 2005 Jennifer Smith, Master's student (committee member)
 2003 - 2007 Jennifer Koshorek, Master's student (committee member)
 2002 - 2004 Matthew Pierle, Research Technician (supervisor)
 2002 - 2003 Mark Bradburn, Research Technician (supervisor)
 2002 - 2003 Nicole Miller, Undergraduate Research (BIOL 299/Mulcahy Scholar mentor)
 2002 - 2003 Katherine Baxtrom, Undergraduate Research (BIOL 299)
 2002 - 2003 John Kominoski, Master's Student (advisor)
 2001 - 2002 Christina Zorzi, Undergraduate Research (BIOL 299)
 2001 - 2002 Shanti Abichandani, (Mulcahy Scholar mentor)
 2001 - 2007 Margot McDonald, Masters Student (committee member)
 2001 - 2006 Eric Brown, Masters Student (advisor)
 2001 - 2006 Priscila Andrade, Masters Student (committee member)
 2001 - 2005 Holly Arrigoni, Masters student (committee member)
 2001 - 2003 Julie Adams, Ph.D. Candidate, BGSU (UMBS mentor)
 2001 Barbara Swedo, Research Experience for Undergrads (UMBS mentor)
 2001 Barbara Swedo, Undergraduate Research (BIOL 299)
 2000 - Lincoln Bradford, Master's student (mentor)
 2000 - 2001 Kristen Yanko, Masters Student, left the program (committee member)
 2000 - Elizabeth Lehigh, Ph.D. Candidate, Western Mich. Univ. (committee member)

2000 Lisa Sasso, (Mulcahy Scholar mentor/BIOL 397H)
 2000 Alison Varty, NSF Research Experience for Undergrads (UMBS mentor)
 2000 Elizabeth Bernier, NSF Research Experience for Undergrads (UMBS mentor)
 2000 - 2001 Alexander Pavlovich, Masters Student, left the program (advisor)
 1999 Paul Marek, (Mulcahy Scholar mentor)
 1999 Nicole Russo, (Mulcahy Scholar mentor)
 1999 Grace Kilbane, (Mulcahy Scholar mentor)
 1999 Shaun Gill, Directed Reading (BIOL 493)
 1999 Grace Kilbane, Individual Study (BIOL 399)
 1999 Monique Baumel, Directed Reading (BIOL 493)
 1999 Mahya Shudnow, NSF Research Experience for Undergrads (UMBS mentor)
 1999 - 2001 Max Kanter, Masters Student (committee member)
 1998 - 2001 Kirk Wahtera, Masters Student (advisor)
 1998 - 2003 Monique Baumel, Masters Student (advisor)
 1998 Brian Brewer, Individual Study (BIOL 399)
 1998 Jennifer Joly, Directed Reading (BIOL 493)
 1998 Daniel Ng, Directed Reading (BIOL 493)
 1997 Monique Baumel, Individual Study (BIOL 399)
 1997 Monique Baumel, Teaching in Biology (mentor) (BIOL 510)
 1997 - 2005 Laura Rice, UIC Ph.D. Candidate (committee member)
 1996 - 2001 Nicole Vidales, Masters Student (committee member)
 1996 Sergey Maryanchik, Independent Study (BIOL 399)
 1996 (spring) Monique Baumel, Individual Study (BIOL 399)
 1996 (fall) Monique Baumel, Individual Study (BIOL 399)
 1995 - 2006 Nia Haller, Masters Student (committee member)
 1995 Alyssa Tomoff, NSF Research Experience for Undergraduates (UMBS mentor)
 1995 Romi Snivley, Senior Honors Thesis (BIOL 397H)
 1995 Jerry Martin, Senior Honors Thesis (BIOL 397H)
 1995 Angela Marshall, Senior Honors Thesis (BIOL 397H)
 1994 -1996 Linda Benning, Masters Student (committee member)
 1994 -1996 Heather Biga, Masters Student (committee member)
 1994 Aleks Shakhnet, Undergraduate Research (BIOL 299)
 1994 Jodi Sedlock, Undergraduate Research (BIOL 299)
 1994 - 1997 Neil Udovich, Masters Student, left the program (co-advisor)
 1994 - 1997 Marc Schollett, Masters Student (co-advisor)
 1993 - 1994 Romi Snivley, Undergraduate Research (BIOL 299)
 1993 - 1994 Jerry Martin, Undergraduate Research (BIOL 299)
 1993 Jodi Sedlock, Internship in Biology (BIOL 398)
 1992 - 2001 Laurel Nida, U of Michigan Masters Student (committee member)
 1992 - 1997 Patrick Donovan, Masters Student (co-advisor)
 1992 - 1995 Christopher Call, Masters Student (advisor)
 1992 - 1995 Lincoln Bradford, Masters Student, took LOA after 1995 (advisor)
 1991 - 1994 Patricia Krema, Masters Student (advisor)
 1991 Patricia Krema, Directed Reading (BIOL 493)
 1991 - 1992 George Vass, Undergraduate Research (BIOL 299)

| | |
|-------------|--|
| 1991 | Kristi Zenchak, Individual Study (BIOL 399) |
| 1990 - 1994 | Jeff Panella, Masters Student (co-advisor) |
| 1990 | Michael Bert, Undergraduate Research (BIOL 299) |
| 1990 | John Grace, Undergraduate Research (BIOL 299) |
| 1990 | George Hejna, Undergraduate Research (BIOL 299) |
| 1989 - 1992 | Kristi Zenchak, Masters Student (advisor) |
| 1989 | Ibrahim Zabaneh, Senior Honors Thesis (BIOL 397H) |
| 1989 | Randall Pane, Undergraduate Research (BIOL 299) |
| 1989 | Riad Youssef, Undergraduate Research (BIOL 299) |
| 1989 - 1992 | Jean Replicon, SSOM Ph.D. Student (committee member) |
| 1988 - 1995 | Ronald Johnson, Masters Student (advisor) |
| 1988 | Ronald Johnson, Individual Study (BIOL 399) |
| 1988 | Terry Swade, Senior Honors Thesis (BIOL 397H) |

HIGH SCHOOL STUDENT RESEARCH SUPERVISION

| | |
|------|--|
| 1994 | Katheryn Hayes, Lincoln Park High School |
| 1993 | Katheryn Hayes, Lincoln Park High School |
| 1991 | M. Daniels, Lincoln Park High School |
| 1990 | Lize VanderVoort, Lincoln Park High School |

LOYOLA UNIVERSITY BIOLOGY DEPARTMENTAL COMMITTEE SERVICE

| | |
|-------------|---|
| 2004 - 2008 | Promotion and Tenure Committee |
| 2003 | Aquatic Ecologist Search Committee (Chair) |
| 2000 - 2004 | Undergraduate Curriculum Committee |
| 1999 - 2002 | Development of Biology track of Environmental Studies Program (Chair) |
| 1998 - 2000 | Departmental Senior Assessment Committee (Chair in 1998-99) |
| 1998 - 2001 | Departmental Promotion and Tenure Committee (Chair in 1998-99) |
| 1995 - 1997 | Teaching Excellence Committee (Chair) |
| 1995 - 1997 | Promotion and Tenure Committee |
| 1994 | Aquatic Invertebrate Ecologist Search Committee |
| 1994 | Library Journal (20% Cutting) Committee |
| 1990 - 1995 | Graduate Program Committee |
| 1992 | Graduate Program Subcommittee Chair for Graduate TCE's |
| 1990 | Developmental Biologist Search Committee |
| 1989 | Director of Departmental Seminar Series |
| 1988 - 1990 | Undergraduate Curriculum Committee |
| 1988 - 1990 | ad hoc Ph.D. Curriculum Committee |

LOYOLA UNIVERSITY-LEVEL COMMITTEE SERVICE

| | |
|-------------|--|
| 2023 | Search Committee, Dean of the School of Communications |
| 2021 – 2022 | University Strategic Plan Implementation Committee |
| 2020 | Chair, Search Committee for VP-Research Loyola University Chicago, Chicago, IL |

| | |
|----------------|---|
| 2019 - 2021 | Graduate Studies Coordinating Board |
| 2019 - 2021 | University Senate Academics Committee |
| 2018 - 2019 | Chair, Dean Search, School of Communication |
| 2017 | Chair, Board of Undergraduate Studies |
| 2016 | Library Dean Search Committee member |
| 2015 – 2020 | University Strategic Planning Committee, Plan 2020 Implementation |
| 2014 - 2015 | University Strategic Planning Task Force |
| 2014 – 2021 | University Senate |
| 2014 – 2016 | University Senate Diversity & Inclusion Committee |
| 2014 – 2016 | University Senate Student Development & Success Committee |
| 2011 – 2013 | Institute of Public Health Task Force |
| 2011 – 2012 | Chair, Committee on scheduling space at LUREC |
| 2010 - 2012 | Information Technologies Executive Steering Committee |
| 2010 - 2013 | Library Digital Repository Committee |
| 2010 - 2011 | University Core Curriculum Committee |
| 2010 - 2021 | Board of Undergraduate Studies |
| 2010 - 2013 | Graduate Studies Coordinating Board |
| 2010 - 2012 | Academic Affairs University Policy Committee |
| 2010 - 2015 | LUREC Advisory Board |
| 2010 - 2013 | Council on Student Success |
| 2010 – present | Council of Deans |
| 2009 - 2011 | Strategic Planning University Policy Committee member |
| 2009 - 2010 | Provost Search Committee |
| 2008 - 2009 | University Strategic Planning Steering Committee |
| 2008 - 2009 | Strategic Planning Task Force on Research and Faculty Development (Chair) |
| 2008 - 2009 | Carnegie Community Engagement Classification Committee |
| 2008 - 2010 | CURL Advisory Board |
| 2008 | Gannon Center Interim Director Search Committee Chair |
| 2007 - 2013 | Academic Affairs Committee of the Loyola University Board of Trustees |
| 2007 - 2008 | University Academic Technology Committee |
| 2007 - 2008 | LUC/Cook County Jail Initiative Co-Chair |
| 2006 - 2008 | Centers of Excellence Directors' Council Chair |
| 2006 | Gannon Center Director Search Committee Chair |
| 2005 - 2006 | Center for Child, Family and Community Steering Committee |
| 2004 - 2005 | Center for Urban Environmental Research and Policy Steering Committee Chair |
| 2004 - 2005 | Institute of Research Methodology Steering Committee Chair |
| 2004 - 2008 | Council of Deans |
| 2004 - 2008 | Provost's Cabinet/Senior Staff |
| 2004 | North Central University Accreditation Review Committee |
| 2003 - 2004 | Loyola University Faculty Research Mentor |
| 2003 - 2004 | Strategic Planning Task Force on Research in the University |
| 2003 - 2004 | University Core Curriculum Revision Committee |
| 1999 | Pre-Health Professions Advisory Board |
| 1998 - 2001 | Sujack Teaching Award Selection Committee |
| 1998 - 2010 | Advisory Board of the Environmental Studies Program |

1997 - 2001 Advisory Committee on Teaching Excellence in the College and Teacher/Course
Evaluation Subcommittee Chair

1996 - 1999 University Honors Programming Advisory Committee

1993 - 1994 Faculty Summer Research Award Review Committee

1993 - 1994 Sujack Teaching Award Selection Committee

1991 - 1993 Representative-At-Large of the Academic Council

1991 – 1993 Academic Council Elections Subcommittee

1991 – 1993 Committee for the Development of Teaching Excellence in CAS; and Subcommittee Chair

1991 - 1992 Latin American Studies Program Advisory Board

1990 - 1992 Loyola University Students for the Environment, Faculty Co-Advisor

1989 - 1991 Faculty Status Committee of the Faculty Council