

CURRICULUM VITAE
Timothy J. Maguire

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Cooperative Institute for Great Lakes Research • University of Michigan • Ann Arbor MI

EDUCATION

Ph.D. Sept 2017	Boston University, Boston MA, GPA 3.97	Biology
A.L.M. May 2012	Harvard University Extension School, GPA 3.56	Environmental Management
B.S. June 2003	Massachusetts Maritime Academy, GPA 3.80	Marine Safety and Environmental Protection

APPOINTMENTS

2020 –	Postdoctoral Researcher, CIGLR, University of Michigan, Ann Arbor MI
2019 –	Steering Committee Member, Great Lakes HABs Collaborative, Ann Arbor MI
2019 – 2020	Climate Ready Boston, Greater Boston Research Advisory Group, Boston MA
2017 – 2019	Postdoctoral Researcher, Great Lakes Institute for Environmental Research, Windsor ON
2013 – 2017	Teaching Fellow / Graduate Student, Boston University, Boston MA
2013 – 2014	Research Associate Rhode Island Sea Grant, Oyster Aquaculture & Water Quality
2007 – 2013	Environmental Scientist and Project Manager, OHI Engineering, Mansfield MA
2005 – 2007	Environmental Compliance Officer, Norwegian Cruise Lines, Miami FL
2003 – 2005	Environmental Officer, Royal Caribbean Cruise Lines, Miami FL

PUBLICATIONS

Maguire TJ, Stow CA, and Godwin CM (in review). Spatially Referenced Bayesian State-Space Model of Total Phosphorus in western Lake Erie. *Hydrology and Earth System Sciences*

Maguire TJ, Dominato KR, Weidman RP, and Mundle SOC (in review). Ultraviolet-visual spectroscopy estimation of nitrate concentrations in surface waters via machine learning. *L&O Methods*

Maguire TJ, Weidman RP, Mundle SOC, Moore JW, Chezik KA, and Selbie DT (2020). Direct and Indirect Effects of Sulfur Deposition on Stream Exports in North Coastal British Columbia. *Environmental Monitoring and Assessment*, doi.org/10.1007/s10661-020-08493-x

Maguire TJ and Mundle SOC (2020) Citizen science data shows temperature driven declines in riverine sentinel invertebrates. *Environ. Sci. Technology Letters*, DOI 10.1021/acs.estlett.0c00206

Ray NE, **Maguire TJ**, Al-Haj AN, Henning MC, and Fulweiler RW (2019) Low Greenhouse Gas Emissions from Oyster Aquaculture. *Environ. Sci. Technology*, DOI: 10.1021/acs.est.9b02965

Maguire TJ and Fulweiler RW (2019). Vertical Composition of Historic Urban Land-Use Impacts Contemporary Watershed Silica Export. *Science of the Total Environment*, 684, 89-95

Maguire TJ, Spencer C, Grgicak-Mannion A, Meyer B, and Mundle SOC (2019). Finding the signal in the noise; distinguishing point and non-point sources of dissolved nutrients, metals, and legacy contaminants in the Detroit River. *Science of the Total Environment*, 681, 1-8

Colborne SF, **Maguire TJ**, Mayer B, Nightingale M, Enns GE, Fisk AT, Drouillard KG, Mohamed MN, Weisener CG, Wellen C and Mundle SOC (2018). Water and sediment as sources of phosphate in aquatic ecosystems: The Detroit River and its role in the Laurentian Great Lakes. *Science of the Total Environment*, 647, 1594-1603

Maguire TJ, Wellen C, Stammler KL, and Mundle SO (2018). Increased nutrient concentrations in Lake Erie tributaries influenced by greenhouse agriculture. *Science of the Total Environment*, 633, 433-440.

Maguire TJ and Fulweiler RW (2017). The fate and effect of dissolved silicon within wastewater treatment effluent. *Environ. Sci. Technology*, DOI: 10.1021/acs.est.7b01276

Maguire TJ, Templer PH, Battles JJ, and Fulweiler RW (2017). Winter climate change decreases fine root biogenic silica in sugar maple trees (*Acer saccharum*): implications for silica export in the Anthropocene *Journal of Geophysical Research: Biogeosciences*, 122(3), 708-715

Fulweiler RW, Emery HE and **Maguire TJ** (2016). A workflow for reproducing mean benthic gas fluxes. *Earth and Space Science*, 3(8), 318-325.

Maguire TJ and Fulweiler RW (2016). Urban Dissolved Silica: Quantifying the Role of Groundwater and Runoff in Wastewater Influent. *Environ. Sci. Technology*, 50(1), 54–61

Fulweiler RW, **Maguire TJ**, Carey JC and Finzi AC (2014). Does Elevated CO₂ Alter Silica Uptake in Trees?. *Front. Plant Sci.* 5:793. DOI: 10.3389/fpls.2014.00793

Byers JE, Blakeslee AM, Linder E, Cooper AB, and **Maguire TJ** (2008). Controls of spatial variation in the prevalence of trematode parasites infecting a marine snail. *Ecology*, 89(2), 439-451.

MEDIA

- 2018 UWindsor News “Research partnership paints a picture of health of Windsor-Essex watersheds” URL: www.uwindsor.ca/dailynews/2018-05-25/research-partnership-paints-picture-health-windsor-essex-watersheds
- 2017 BU Research “Climate Change and an “Overlooked” Nutrient: Silica” URL: www.bu.edu/research/articles/forest-ecology-and-silica/
- 2015 BU Today “Science under Our Feet” URL: www.bu.edu/today/2015/boston-groundwater-trust/

COMPETITIVE FUNDING

2020	Co-PI for CIGLR Summer Fellow
2015	Boston University Initiative on Cities Research Grant
2015	Boston Athenaeum Mary Catherine Mooney Fellow
2015	Warren McLeod Summer Fellowship, Biology Department, Boston University
2013 – 2014	Boston University Graduate Fellowship
2002	National Science Foundation Research Opportunities for Undergraduates

WHITE PAPERS

- 2021 Boyer G, Evans MA, **Maguire TJ**, Newell S, Raymond H, Robertson D, Stammler K, Zacharda N, and Gibbons K. Great Lakes Harmful Algal Blooms: Current Knowledge Gaps. Published by Great Lakes Commission
- 2019 **Maguire TJ**, Mundle SOC. Signal Noise Reduction Development of a continuous real-time nutrients, metals, and contaminant analyzer for environmental applications in agricultural and urban watersheds. Submitted to Natural Sciences and Engineering Research Council of Canada
- 2018 Mundle SOC, **Maguire TJ**, Dominato KR. Development of geochemical approaches to monitor the fate, transport, and retention of CO₂ in SAGD reservoirs at the Mackay River Project. Submitted to Suncor Energy

PRESENTATIONS

- 2020 **Maguire TJ** and Mundle SOC “Using Citizen Science Data to show Declines in Riverine Sentinel Invertebrates” (eTalk) American Geophysical Union Fall Meeting.
- 2019 **Maguire TJ**, Spencer C, Grgicak-Mannion A, Meyer B, and Mundle SOC “Distinguishing point and non-point sources of dissolved nutrients, metals, and legacy contaminants in the Detroit River” (Talk) International Association for Great Lakes Research.
- 2018 **Maguire, TJ**, Wellen C, Stammler KL, and Mundle SO “Increased nutrient concentrations in Lake Erie tributaries influenced by greenhouse agriculture” (Talk) International Association for Great Lakes Research.
- 2017 **Maguire, TJ**, Fulweiler, RW “How does history impact the biogeochemical cycles of Si?” (Talk) Coastal Estuarine Research Federation 2017 Conference.
- 2016 **Maguire, TJ**, Fulweiler, RW “Urban Dissolved Silica: The Impact of Wastewater Effluent on the Coastal Ocean” (Talk) New England Estuarine Research Society Fall 2016 Meeting. (*Awarded Best Graduate Student Presentation*)
- 2016 **Maguire, TJ**, Fulweiler, RW “Connecting History to Water Quality Part II” (Public Talk) Annual Proprietors’ Reception, June 2016 Boston Athenaeum.
- 2016 **Maguire, TJ**, Fulweiler, RW “Connecting History to Water Quality” (Public Talk) Fellow presentation, March 2016 Boston Athenaeum.
- 2016 **Maguire, TJ**, Organizer and Moderator for BU Biogeoscience Symposium, January, 2016.
- 2015 **Maguire, TJ**, Fulweiler, RW “Wastewater and urban runoff -significant anthropogenic sources of silica to coastal systems” (Talk) Coastal Estuarine Research Federation 2015

Conference.

- 2015 Maguire, TJ, **Fulweiler, RW**, “City shortcuts: documenting Si export pathways in an urban ecosystem” (Talk) The Geological Society of America 2015 Conference.
- 2015 **Maguire, TJ**, Fulweiler, RW “Urban Runoff – an overlooked yet Significant Source of Silica to Coastal Habitats.” (Talk) New England Estuarine Research Society Spring 2015 Meeting.
- 2015 **Maguire, TJ**, Fulweiler, RW “Urban Runoff and the Biogeochemical Cycles of Dissolved Silica.” (Talk) BU Biogeoscience Symposium, January, 2015.
- 2014 **Maguire, TJ**, Fulweiler, RW “The Effects of Urbanization on the Biogeochemical Cycles of Dissolved Silica.” (Talk) New England Estuarine Research Society Spring 2014 Meeting. (*Awarded Honorable Mention Best Graduate Student Presentation*)
- 2012 **Maguire, TJ**, Frankic, A “Development of a Salt Marsh Restoration Site Selection Method for Urban Harbors.” (Poster) National Conference Coastal and Estuarine Habitat Restoration

BIOLOGY GRADUATE PROGRAM STUDENT SEMINAR SERIES:

- 2015 **Maguire, TJ**, Fulweiler, RW “Urban Dissolved Silica: Quantifying the Role of Groundwater and Runoff in Wastewater Influent” (Talk)
- 2014 **Maguire, TJ**, Fulweiler, RW “The Role of Urbanization on the Biogeochemical Cycles of Dissolved Silica.” (Talk)

TEACHING and MENTORING

TEACHING FELLOWSHIPS:

2015 (Fall)	BI 107 Introduction to Biology I
2014 (Spring)	BI 303 Evolutionary Ecology
2014 (Fall)	BI 306 Biology of Global Change
2013 (Spring)	BI 108 Introduction to Biology II

MENTORING:	2021	Mentor to Isabelle Horvarth (Marquette University, CIGLR)
	2019	Mentor to Kelsey Friesen (UWindsor Masters Student)
	2017	Mentor to Julia Masterman (BU Undergraduate)
	2015	Mentor to Halina Malinowski (BU Undergraduate)
	2014	Mentor to Elena Newmark (BU Undergraduate)

REFERENCES

Casey Godwin, Assistant Research Scientist, Cooperative Institute for Great Lakes Research, University of Michigan, 651-328-4557, cgodwin@umich.edu

Craig Stow, Aquatic Ecosystem Scientist, Great Lakes Environmental Research Laboratory, NOAA, Ann Arbor, Michigan, 734-741-2268, craig.stow@noaa.gov

Scott Mundle, Assistant Professor, Great Lakes Institute for Environmental Research, University of Windsor, Ontario, 519-253-3000 x3755, smundle@uwindsor.ca

Robinson Fulweiler, Associate Professor, Boston University Departments of Earth & Environment and

Biology, 617-258-5466, rwf@bu.edu

Pamela Templer, Professor, Boston University Department of Biology
617-353-6978, ptempler@bu.edu