

Christopher S. Greene

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Department of Earth & Environmental Sciences
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ACADEMIC INTERESTS

Geographic Information Science and Systems, Remote Sensing, Environmental Decision Making, Strategic Planning Approaches to Sustainability, Human Activities and Disturbed Landscapes.

EDUCATION (5)

- 2015 **PhD, Environmental Applied Science and Management**
Toronto Metropolitan University (formerly Ryerson University), Toronto, Ontario
- 2009 **Masters in Spatial Analysis (MSA)**
Toronto Metropolitan University (formerly Ryerson University), Toronto, Ontario
- 2005 **Masters in Environmental Studies (MES)**
York University, Toronto, Ontario
- 2003 **Bachelor of Science, Honours, Environmental Science (BSc. H)**
Wolfville, Nova Scotia
- 1998 **Bachelor of Science, Animal Science (BSc. Agr.)**
Nova Scotia, Agricultural College, Bible Hill, Nova Scotia

PEER REVIEWED ARTICLES (7)

- Ma, S., Beazley, K., Nussey, P., and **Greene, C.S.** (2021). Assessing Optimal Digital Elevation Model Selection for Active River Area Delineation Across Broad Regions. *Water Resources Management*, 35 (2021), 4825-4840. <https://doi.org/10.1007/s11269-021-02948-7>
- Greene, C.S.**, Kedron, P.J. (2018). Beyond fractional coverage: A multilevel approach to analyzing the impact of urban tree canopy structure on surface urban heat islands. *Applied Geography*, 95 (June), 45-53. doi: 10.1016/j.apgeog.2018.04.004
- Greene, C. S.**, Robinson, P. J., & Millward, A. A. (2018). Canopy of advantage: Who benefits most from city trees?. *Journal of Environmental Management*, 208, 24-35.
doi: <https://doi.org/10.1016/j.jenvman.2017.12.015>
- Greene, C.S.** & Millward, A.A. (2017). Getting closure: the role of urban forest canopy density in moderating surface temperatures in a large city. *Urban Ecosystems*, 20 (1), 141-156. doi: 10.1007/s11252-016-0586-5
- Kedron, P.J., Frazier, A., **Greene, C.S.**, & Mitchell, D. (2016). Curriculum Design in Upper-Level and Advanced GIS Classes: Are New Skills being Taught and Integrated? *GI_Forum*, 1, 324-335.

Greene, C.S. and Millward, A.A. (2016). The legacy of past tree planting decisions for a city confronting emerald ash borer (*Agrilus planipennis*) invasion. *Frontiers in Ecology and Evolution*. 4, 1-27. doi: 10.3389/fevo.2016.00027

Greene, C.S., Millward, A.A., & Ceh, B. (2011). Who is likely to plant a tree? The use of public socio-demographic data to characterize client participants in a private urban forestation program. *Urban Forestry & Urban Greening*, 10 (1), 29-38. doi: 10.1016/j.ufug.2010.11.004

IN REVIEW (1)

Bermarija, T., Johnston, L., **Greene, C.S.**, Kurylyk, B., Jamieson, R. (2023). Assessing and Predicting Lake Chloride Concentrations in a Lake-Rich Urbanizing Region. *Journal of Hydrology: Regional Studies*. Submitted February 1, 2023. (Manuscript ID: PENDING).

CONTRIBUTION TO GRADUATE RESEARCH (6)

Dalhousie University

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|-------------|---|
| In Progress | Supervisory Committee Member: Beau Ahrens, IDPhD
<i>Do urban tree canopy-cover characteristics modify the association between temperature and mortality (working title).</i> |
| 2022 | Supervisory Committee Member: Tessa Bermarija, MASc
<i>Development of Statistical and Mass Balance Approaches for Assessing and Predicting Chloride Concentrations in Halifax Lakes</i> |
| 2021 | Supervisory Committee Member: Jessica Needham, MES
<i>Investigating Wildlife Movement Pathways through the Chignecto Isthmus: A Participatory Mapping Approach for Knowledge Co-Production</i> |
| 2020 | Supervisory Committee Member: Ma, Shizhou, MES
<i>Functional Riparian Area Delineation of St. John River in New Brunswick, Canada</i> |
| 2020 | Supervisory Committee Member: MacDonald, Stephen, MLIS
<i>Using geographic information systems to study honeybee disease and pests: a Nova Scotia case study</i> |
| 2019 | External Reader: Quinton, Jessica, MES
<i>The living amongst the dead: the role of Halifax cemeteries as greenspace and their potential for expansion of the urban forest</i> |

CONTRIBUTION TO UNDERGRADUATE RESEARCH (5)

Honours Thesis Supervisor, Dalhousie University

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| 2020 | Heather (Bay) Berry, Earth Sciences (Completed April 2020)
<i>Quantifying impacts of spatial resolution on pixel and object-based methods of image classification: a case study of identifying estuarine morphology in Cobequid Bay, Nova Scotia, Canada</i> |
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- 2020 Evan Muise, ENVS (Completed April 2020)
Emerging hot spot analysis and forests: a case study on the Hemlock Woolly Adelgid's invasion into Nova Scotia using fine spatial resolution satellite imagery.
- 2019 Fong, Megan, ENVS (Completed April 2019)
Static or shifting: Quantifying the relationship between income and green space in urban Halifax, Nova Scotia (2001-2016)
- 2018 Buchholz, Adam, ENVS (Completed April 2018)
Quantifying Land Use/Cover Change and Eutrophication in the Carleton River Watershed, Yarmouth County, Nova Scotia, Canada

External Reader, Dalhousie University

Evans, Catherine, Earth Sciences (Completed April 2019)
Determining subsurface suspended sediment mechanisms through surficial remote sensing techniques, South Korea.

INVITED CONFERENCE / WORKSHOP PARTICIPATION (2)

- 2019 **Invited Speaker.** Trees in the City: Learning About the Urban Forest. Seminar to first year Environmental Science and Environmental Studies students at St. Mary's University. Sept. 25: Halifax, NS.
- 2017 **Invited Speaker.** Trees in the City: Learning About the Urban Forest. Public seminar organized by students in Dalhousie University's School for Resource and Environmental Management. Nov 4: Halifax, NS.

EMPLOYMENT HISTORY (4)

- 2017 - Present **Senior Instructor (GIS) – Department of Earth & Environmental Sciences**
Career Stream Appointment
Dalhousie University, Halifax, Nova Scotia
- 2016 - 2017 **Instructor, Faculty of Science – Environmental Science Programmes**
Limited Term Appointment
Dalhousie University, Halifax, Nova Scotia
- 2012 – 2014 **Assistant Professor, Department of Geography and Environmental Studies**
Limited Term Appointment, Environment and Urban Sustainability Program
Toronto Metropolitan University (formerly Ryerson University), Toronto, Ontario
- 2011 - 2016 **Various Sessional positions**
Toronto Metropolitan University (formerly Ryerson University), Toronto, Ontario

GRANTS / FELLOWSHIPS / SCHOLARSHIPS / AWARDS (4)

- 2018, 2020 **Department of Earth Sciences Professor of the Year**
Selected by departmental students, Dawson's Geology Club

- 2018 **Shell Experiential Learning Fund – Category 1**
Producing High Spatial Resolution Thematic Outputs for the Halifax, Nova Scotia Peninsula
- 2015 **Ryerson University Deans' Teaching Award**
Nominated by Environment and Urban Sustainability student
- 2013 **Learning & Teaching Enhancement Fund (LTEF)**
Interdependent Learning Modules to Support Student Training in Crossing Disciplinary Boundaries
With Peter Kedron (Principle)

PROFESSIONAL / DEPARTMENTAL SERVICE (8)

- Ongoing Interim Undergraduate Program Coordinator, Earth Sciences Program, Earth & Environmental Sciences, Dalhousie University (for Fall 2022)
- Interim Chair, Undergraduate Affairs Committee, Earth & Environmental Sciences, Dalhousie University (For Fall 2022)
- Director, ESRI Canada Centre of Excellence / GIS Advisory Committee, Dalhousie University
- Member of working group preparing Geographic Information Science & Technology (GIST) combined major program proposal, Earth & Environmental Sciences, Dalhousie University
- GIS Certificate Coordinator for Earth & Environmental Sciences, Dalhousie University
- Peer-review of manuscripts submitted to *Urban Forestry & Urban Greening, Journal of Environmental Management, Landscape and Urban Planning*
- 2017-2018 Shell Experiential Learning Fund Evaluation Committee Member, Earth & Environmental Sciences, Dalhousie University
- 2017 Volunteered to act as judge for 2016-2017 Environmental Science Honours Thesis Presentations.
- 2016 Volunteered to assist with the Dalhousie University Faculty of Science BioBlitz project, September 8th, 2016.

PROFESSIONAL AFFILIATIONS

Canadian Association of Geographers, Association of American Geographers, Canadian Remote Sensing Society

SOFTWARE PROFICIENCY

Software Packages: Geoda, ArcGIS Suite and Online, PCI Geomatica / Catalyst, ENVI, Hydrogeoanalyst, SPSS, AutoCAD, FragStats, Adobe CS, MS-OFFICE Suite