**Robert Buchkowski**

**Personal Information:**

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School of Forestry & Environ Studies

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**Education:**

* Doctor of Philosophy, School of Forestry & Environmental Studies, Yale University
  + Expected: Spring 2018
  + Candidacy: December 2015
  + Advisor: Dr. O.J. Schmitz
  + Committee: Dr. M. A. Bradford and Dr. S. J. Leroux
* Masters of Environmental Science, School of Forestry & Environmental Studies, Yale University, 2014
  + Thesis: Detritivores ameliorate the enhancing effect of plant-based trophic cascades on nitrogen cycling in an old-field system
  + Advisor: Dr. O.J. Schmitz
* Honors Bachelor of Science, Biology, Lakehead University, 2012
  + Thesis: Precipitation limits shrub growth in the Central Canadian Arctic
  + Advisor: Dr. D. Morris

**Papers in Review:**

1. **Buchkowski, R.W.**,O.J. Schmitz, M.A. Bradford. *Under review*. Herbivore and detritivore effects on nitrogen recycling: implications for plant nitrogen uptake and growth. *Journal of Ecology*
2. **Buchkowski, R.W.**,S.J. Leroux, O.J. Schmitz. *Under review*. Microbial and animal nutrient limitation change the distribution of nitrogen within coupled green and brown food chains. *Ecology*

**Publications:**

1. Schmitz, O.J., **Buchkowski, R.W.**, Smith, J.R., Telthorst, M. & Rosenblatt, A.E. 2017. Predator community composition is linked to soil carbon retention across a human land use gradient. *Ecology*, 98, 1256-1265.
2. **Buchkowski, R.W.**, Bradford, M.A., Grandy, A.S., Schmitz, O.J. & Wieder, W.R. 2017. Applying population and community ecology theory to advance understanding of belowground biogeochemistry. Ecology Letters, 20, 231-245.
3. **Buchkowski, R.W.** 2016. Top-down consumptive and trait-mediated control do affect soil food webs: It’s time for a new model. *Soil Biology and Biochemistry*, 102: 29-32.
4. Mendelsohn, R., Prentice, I.C., Schmitz, O., Stocker, B., **Buchkowski, R.** & Dawson, B. (2016). The Ecosystem Impacts of Severe Warming. *The American Economic Review*, 106: 612-614.
5. **Buchkowski, R. W.**, C. J. Williams, J. Kelly, J. G. Veinot, and M. A. Xenopoulos. 2015. Nanosilver and Nano Zero-Valent Iron Exposure Affects Nutrient Exchange Across the Sediment–Water Interface. Bulletin of environmental contamination and toxicology:1-7.
6. **Buchkowski, R. W.**, and O. J. Schmitz. 2015. Detritivores ameliorate the enhancing effect of plant-based trophic cascades on nitrogen cycling in an old-field system. Biology Letters 11.
7. **Buchkowski, R. W.**, O. J. Schmitz, and M. A. Bradford. 2015. Microbial stoichiometry overrides biomass as a regulator of soil carbon and nitrogen cycling. Ecology 96:1139-1149.
8. Schmitz, O. J., **R. W. Buchkowski**, K. T. Burghardt, and C. M. Donihue. 2015. Functional traits and trait-mediated interactions: connecting community-level interactions with ecosystem functioning. Advances in Ecological Research.
9. Dashtban, M., **R. Buchkowski**, and W. Qin. 2011. Effect of different carbon sources on cellulase production by *Hypocrea jecorina* (T*richoderma reesei*) strains. *International Journal of Biochemistry and Molecular Biology* 2:274-286. doi: 2152-4114/IJBMB1108001.

**Non-refereed publications:**

* Connecticut Academy of Science and Engineering. 2014. Methods to measure phosphorus and make future projections. Reported to the *Connecticut Department of Energy and Environmental Protection*.

**Academic Presentations:**

* **Buchkowski, R.W.** August 2017. Plant growth responds to the detritivores processing of leaf litter only when that litter has a history of herbivory. Ecological Society of America; Portland, OR, USA.
* **Buchkowski, R.W.** September 2016. Unanticipated interactions explain the combined effects of plant-based and detritus-based food chains on nitrogen cycling. Memorial University, St. John’s, NL, CAN
* **Buchkowski, R.W.** September 2015. Is it what you eat or where you live that matters? Yale University Doctoral Conference; New Haven, CT, USA
* **Buchkowski, R. W.**, O. J. Schmitz, and M. A. Bradford. August 2015. An empirical assessment of a stoichiometrically and microbially explicit nutrient cycling model. Ecological Society of America; Baltimore, MD, USA
* **Buchkowski, R. W.**, and O. J. Schmitz. June 2015. Detritivores ameliorate the enhancing effect of plant-based trophic cascades on nitrogen cycling. Rhizosphere 4; Maastricht, Limburg, Netherlands
* **Buchkowski, R. W.**, and O. J. Schmitz. April 2014. How do aboveground and belowground consumers impact nitrogen mineralization? MESc Colloquium at Yale University;New Haven, CT, USA
* **Buchkowski, R. W.** March 2014. Putting animals back into the nitrogen cycle. Trent University; Peterborough, ON, CAN
* **Buchkowski, R. W.**, O. J. Schmitz, and M. A. Bradford. 2015. Microbial stoichiometry overrides biomass as a regulator of soil carbon and nitrogen cycling. Eco-Lunch at Yale University; New Haven, CT, USA

**Poster Presentations:**

* **Buchkowski, R. W.**, and O. J. Schmitz. August 2014. How do aboveground and belowground consumers impact nitrogen mineralization? Ecological Society of America; Sacramento, CA, USA

**Public Presentations:**

* **Buchkowski, R. W.** 2015. Isopods and how they fit into the old-field nitrogen cycle. Yale-Myers Forest Seminar Series; Eastford, CT, USA
* **Buchkowski, R.W.** 2014. GMOs: Let’s talk. The Green Café; New Haven, CT, USA
* Grome, M., Lauridsen, H., **Buchkowski, R.W.** 2014. OMG GMOs! Food for thought. Yale Science Diplomats: Science in the News; New Haven, CT, USA

**Relevant work experience:**

* Research Assistant, September 2012-2013, Yale University
* Ecology and Evolution Intern, May to September 2011 and May to July 2012, Lakehead University
* Limnology Intern, May to August 2009 and 2010, Trent University

**Teaching Experience:**

* Yale University
  + Applied Math for Environmental Studies
    - Fall 2013, 2015
    - Duties: Lectures, office hours, grading
  + Dynamics of Ecological Systems
    - Spring 2015
    - Duties: Lectures, office hours, grading
  + Ecosystems and Landscapes
    - Fall 2014
    - Duties: Lead a field and laboratory section
* Lakehead University
  + Animal Biology
    - Fall 2011
    - Duties: Lead a laboratory section
  + Comparative Animal Physiology
    - Spring 2011
    - Duties: Lead a laboratory section

**Mentoring Experience:**

* High school Science Fair (1-2 projects with 1-2 students per year)
  + Academic years: 2013-4, 2015-6, 2016-7, 2017-8, 2018-9

**Awards/ Honors:**

* Robert Poulin Memorial Award for Outstanding Citizenship, Lakehead University 2012
* Lakehead University President’s Award for Community Leadership, 2012
* Dean of Science and Environmental Studies Metal, Lakehead University 2012
* Biology Prize, Lakehead University 2012
* Gold Metal in Earth and Environmental Sciences, Canada Wide Science Fair, 2008

**Scholarships/ Fellowships:**

* Postgraduate Scholarship for Doctoral Students, Natural Science and Engineering Research Council of Canada 2014, $63,000
* Mackenzie King Scholarship, 2013, $8,300
* Faculty of Forestry and Environmental Studies Entrance Scholarship, Yale University 2012-2013, $40,000
* Postgraduate Scholarship for Masters Students, Natural Science and Engineering Research Council of Canada 2012, $17,300
* Undergraduate Student Research Award, Natural Science and Engineering Research Council of Canada 2011, $4,500
* Undergraduate Student Research Award, Natural Science and Engineering Research Council of Canada 2010, $4,500
* Undergraduate Student Research Award, Canada Wide Science Fair 2009, $4,500
* President’s Scholarship, Lakehead University 2008
* Local Excellence Award, Canada Millennium Scholarship Program 2008, $4,000
* Queen Elizabeth II: Aim For The Top Tuition Scholarship, Ontario Student Assistance Program 2008, $500

**Grants/ Fellowships:**

* Yale Institute for Biospheric Studies Fellowship, 2017, $1,500
* Kohlberg Fellowship, 2016, $1000
* Schiff Fund, Yale University, 2016, $8,500
* Yale Institute for Biospheric Studies Fellowship, 2015, $4,000
* Yale Institute for Biospheric Studies Matching Funds, 2015, $750
* Yale Institute for Biospheric Studies Fellowship, 2014, $4,500
* Edna Bailey Sussman Fund, 2013, $6,300
* Schiff Fund, Yale University, 2013, $3,500

**Memberships in Professional Societies:**

* Ecological Society of America 2012-present
* Canadian Society for Ecology and Evolution 2017-present

**Professional Service:**

* Reviewer: Biology and Fertility of Soils, Functional Ecology, Soil Biology and Biogeochemisty, Ecosphere, Environmental Toxicology Reports, Basic and Applied Ecology, Applied Soil Ecology, Evolution, Environmental Microbiology
* Doctoral Student Member, Yale-Myers Forest Research Committee 2015-present
* PhD Representative, Student Academic Affairs Committee 2014-2015
* Research Team Member for Connecticut Academy of Sciences and Engineering study to define phosphorus limits and set management goals for inland waters of Connecticut (Working Group 2 from CT Public Act 12-155), 2013-2015
* Student Senator, Lakehead University Senate 2009-2012
* Undergraduate Representative, Lakehead University Library Committee 2009-2012

**Synergistic Activities:**

* Student Presenter, Yale University’s Science In The News, 2013
* Volunteer, New Haven Science Fair, 2013
* Events Coordinator, Lakehead Association of Biology Students 2010-2011
* Host Committee, Canada Wide Science Fair 2010
* Chaperone, Canadian Biology Olympiad 2009-2010
* Student Ambassador, Orientation and Commuter Services Office of Lakehead University 2008-2011