

Craig M.T. Johnston

Assistant Professor of Forest Economics
Department of Forest & Wildlife Ecology
1630 Linden Dr., Madison WI 53706
University of Wisconsin – Madison

FORMAL EDUCATION

- 2015 Ph.D. Economics. University of Victoria, Canada.
- 2011 M.A. Economics. University of Victoria, Canada.
- 2008 B.A. Economics (hon.). Queen's University, Canada.

THESIS TITLE

Ph.D. Thesis: Topics in Forest Product Modelling: The Economics of Bioenergy Product Exports from Forests.

POSITIONS HELD

- 2015- Assistant Professor, University of Wisconsin – Madison.
Department of Forest and Wildlife Ecology
Department of Agricultural and Applied Economics (affiliated)
Nelson Institute for Environmental Studies (affiliated)
Nelson Institute: Center for Climatic Research (affiliated)
- 2014- Adjunct Researcher, Resource Economics and Policy Analysis (REPA) Research Group, Department of Economics, University of Victoria, Canada.
- 2013-14 Forest Economist, Canadian Forest Service, Forest Industry, Trade and Economics Branch, Victoria, Canada.
- 2012-14 Lecturer, Department of Economics, University of Victoria, Canada.
- 2011 Economist, Environment Canada, Analysis and Modelling Directorate, Gatineau, Canada.

EDITORIAL DUTIES

- 2016- Associate Editor, *Forest Science*.

SPECIAL HONORS AND AWARDS

- 2016-17 *Madison Teaching and Learning Excellence Faculty Fellowship*. University of Wisconsin-Madison.
- 2013-14 *SSHRC Doctoral Fellowship*.
- 2011-14 *University of Victoria Graduate Fellowship*. University of Victoria.
- 2012 *Phillips, Hager and North Doctoral Award* for outstanding research in environmental economics.
- 2010 *Van Dusen Fellowship* from the Van Dusen Foundation and the Government of British Columbia awarded to outstanding students in economics.
- 2009 *University of Victoria Graduate Fellowship*. University of Victoria.

PUBLICATIONS

Peer-Reviewed Journals

- Ochuodho, T., C.M.T. Johnston and P. Withey. 2017. Assessing Economic Impacts of Internet Adoption through Reduced Pulp and Paper Demand. *Canadian Journal of Forest Research*. In Press.
- Johnston, C.M.T. and G.C. van Kooten. 2017. Inefficiencies of the Canada – U.S. Softwood Lumber Dispute: A Calibrated Mixed Complementary Approach. *Forest Policy and Economics* 74: 71-80.
- Johnston, C.M.T. and J. Buongiorno. 2017. Impact of Brexit on the Forest Products Industry of the United Kingdom and the Rest of the World. *Forestry: An International Journal of Forest Research* 90(1): 47-57.
- Buongiorno, J., C.M.T. Johnston, and S. Zhu. 2017. An Assessment of Gains and Losses from International Trade in the Forest Sector. *Forest Policy and Economics* 80: 209-217.
- Johnston, C.M.T, and P. Withey. 2017. Managing Forests for Carbon and Timber: A Markov Decision Model of Uneven-Aged Forest Management with Risk. *Ecological Economics* 138: 31-39.
- Buongiorno, J., M. Zhou, and C.M.T. Johnston. 2017. Risk Aversion and Risk Seeking in Multi-Criteria Forest Management: A Markov Decision Process Approach. *Canadian Journal of Forest Research*. DOI: 10.1139/cjfr-2016-0502.
- Buongiorno, J., and C.M.T. Johnston. 2017. Potential Effects of United States Protectionism and Trade Wars on the Global Forest Sector. *Forest Science*. In Press
- Johnston, C.M.T. 2016. Global Paper Market Forecasts to 2030 under Future Internet Demand Scenarios. *Journal of Forest Economics* 25: 14-28.
- Johnston, C.M.T. and G.C. van Kooten. 2016. Global Trade Impacts of Increasing Europe's Bioenergy Demand. *Journal of Forest Economics* 23: 27-44.
- van Kooten, G.C. and C.M.T. Johnston. 2016. The Economics of Forest Carbon Offsets. *Annual Review of Resource Economics* 8: 227-246
- Johnston, C.M.T. and G.C. van Kooten. 2015. Back to the Past: Burning Wood to Save the Globe. *Ecological Economics* 120: 185-193.
- Johnston, C.M.T. and G.C. van Kooten. 2015. Economics of Co-Firing Coal and Biomass: An Application to Western Canada. *Energy Economics* 48: 7-17.
- Johnston, C.M.T. and G.C. van Kooten. 2014. Economic Consequences of Increased Bioenergy Demand. *Forestry Chronicle* 90(5): 636-642.
- van Kooten, G.C. and C.M.T. Johnston. 2014. Global Impacts of Russian Log Export Restrictions and the Canada–U.S. Lumber Dispute: Modeling Trade in Logs and Lumber. *Forest Policy and Economics* 39: 54-66.
- van Kooten, G.C., C.M.T. Johnston and L. Wong. 2013. Wind versus Nuclear Options for Generating Electricity in a Carbon Constrained World: Strategizing in an Energy Rich Economy. *American Journal of Agricultural Economics* 95(2): 505-511.

Book Chapters

van Kooten, G.C., C.M.T. Johnston and Z. Xu. 2014. Economics of Forest Carbon Sequestration. Chapter 16: *Handbook of Forest Resource Economics*. NY, USA: Routledge.

Working Papers

Johnston, C.M.T and G.C. van Kooten. 2014. Carbon Neutrality of Hardwood and Softwood Biomass: Issues of Temporal Preference. REPA Working Paper #2014-06. University of Victoria.

Johnston, C.M.T and G.C. van Kooten. 2014. Modeling Bi-lateral Forest Product Trade Flows: Experiencing Vertical and Horizontal Chain Optimization. REPA Working Paper #2014-04. University of Victoria.

van Kooten, G.C., C.M.T. Johnston and Z. Xu. 2012. Economics of Forest Carbon Sequestration. REPA Working Paper #2012-04. University of Victoria.

Conference Proceedings

1. Johnston, C.M.T. 2016. The Effects of Increased Internet Adoption on Global Paper Based Media Markets: Forecasts to 2030. In *Proceedings of the 2016 Meeting of the International Society of Forest Resource Economics: Forest Economics and Policy in a Changing Environment: How Market, Policy, and Climate Transformations Affect Forests*. Edited by Frey, Gregory E. and Nepal, Prakash. e-Gen. Tech. Rep. SRS-218. Asheville, NC: U.S. Department of Agriculture Forest Service, Southern Research Station. 154 p.

RESEARCH GRANTS (*Under Review)

**Managing Forests for Joint Economic and Ecological Benefits with Uncertainty and Risk Preference*

PI: C.M.T. Johnston
Source: USDA; AFRI

Amount: \$218,926
Dates: 09/2018-08/2021

Development and Testing of a New World Market Model

PI: C.M.T. Johnston
Source: USDA

Amount: \$100,000
Dates: 09/2016-08/2018

2017 Wisconsin Logging Sector Survey

PI: M. G. Rickenbach; co-PI: M. Vokoun, C.M.T. Johnston,
T. Knoot, J. Ballweg
Source: Wisconsin Department of Natural Resources

Amount: \$30,077
Dates: 06/2016-05/2017

Dealing with Risks and Uncertainties in Forest Management Under Climate Change

PI: C.M.T. Johnston
Source: USDA Formula Funds

Amount: \$123,000
Dates: 09/2015-08/2018

An Investigation of the Environmental and Economic Impacts of Forest Carbon Sequestration in Canada

PI: C.M.T. Johnston

Amount: \$40,000

Source: Social Science and Humanities Research Council
(ref.: 752-2013-1038)

Dates: 09/2013-08/2014

Teaching Grants

Madison Teaching and Learning Excellence Faculty Fellowship Grant.

PI: C.M.T. Johnston

Amount: \$4,000

Source: University of Wisconsin-Madison

Dates: 06/2016-05/2017

PRESENTATIONS

Invited Presentations

Johnston, C.M.T., 2017. Advances in global forest products trade modeling. *United States Department of Agriculture: Forest Service Seminar Series*, Southern Research Station, Raleigh-Durham, NC.

Johnston, C.M.T., 2017. Forecasting Global Forest Carbon Stocks with World Market Models. *Journal of Forest Economics Forest Carbon Projection Special Issue Workshop 2017* International Institute for Applied Systems Analysis (IIASA) Laxenburg, Austria.

Johnston, C.M.T., 2017. Risk Aversion and Risk Seeking in Multi-Criteria Forest Management: A Markov Decision Process Approach. *Department of Forestry Seminar Series*, University of Kentucky – Lexington, KY.

Johnston, C.M.T., 2016. Future of Forest Products Modelling – Towards a New Generation of Model. *UNECE-FAO*. Moscow, Russia.

Johnston, C.M.T., 2016. Global Trade Impacts of Increasing Bioenergy Demand. *United States Department of Agriculture: Forest Service Seminar Series*, Southern Research Station, Raleigh-Durham, NC.

Johnston, C.M.T., 2016. Topics in Forest Sector Modeling. *Department of Forestry Seminar Series*, Michigan State University – East Lansing, MI.

Johnston, C.M.T., 2012. Re-evaluating the Role of Dead Organic Matter in the Optimal Forest Harvesting Decision under Carbon Sequestration. *Canadian Forest Service*, Victoria, Canada.

Campus or Departmental Presentations

Johnston, C.M.T., 2016. Risk, Forests, and Climate Change. *Wisconsin Ecology 22nd Annual Fall Symposium*, University of Wisconsin - Madison, Madison, WI.

Johnston, C.M.T., 2015. Dealing with Risk and Uncertainties in Forest Management under Climate Change. *Nelson Institute: Center for Climatic Research (CCR) - Climate, People, and the Environment Program (CPEP) seminar series*, University of Wisconsin - Madison, Madison, WI.

Johnston, C.M.T., 2015. Inefficiencies of the Canada – U.S. Softwood Lumber Dispute: A Calibrated Mixed Complementary Approach. *Department of Agricultural and Applied Economics Seminar Series*, University of Wisconsin - Madison, Madison, WI.

- Johnston, C.M.T and G.C. van Kooten, 2014. Economics of Forest Bioenergy Product Exports: Unintended Trade Repercussions. *Department of Economics Seminar Series*, University of Victoria, Victoria, Canada.
- Johnston, C.M.T and G.C. van Kooten, 2013. The Impact of Coal-Fired Performance Standards in Canada: Feasibility of Co-Firing Coal and Biomass. *Department of Economics Seminar Series*, University of Victoria, Victoria, Canada.
- Johnston, C.M.T and G.C. van Kooten, 2012. Using Carbon Taxes to Change Generating Asset Mix: A Case Study of the Alberta Electricity System and the Potential for Nuclear Energy. *Department of Economics Seminar Series*, University of Victoria, Victoria, Canada.

Conference Presentations

- Johnston, C.M.T., and J. Buongiorno, 2017. Impact of Brexit on the Forest Products Industry of the United Kingdom and the Rest of the World. *International Society of Forest Resource Economics Annual Meeting*, New Orleans, Louisiana.
- Zhou, M., J. Buongiorno, and C.M.T. Johnston, 2017. New Advances in Markov Decision Process Models for Forest Management: Multi-criteria and Risk-sensitive Decision Making. *International Society of Forest Resource Economics Annual Meeting*, New Orleans, Louisiana.
- Buongiorno, J., C.M.T. Johnston, and S. Zhu, 2017. Effects of International Trade, Protectionism and Trade Wars on the Global Forest Sector. *International Society of Forest Resource Economics Annual Meeting*, New Orleans, Louisiana.
- Withey, P., C.M.T. Johnston and T. Ochudho, 2016. Economic Impact of Increased Internet Demand on Global Paper Industries: A Computable General Equilibrium Analysis. *Society of American Foresters National Convention*, Madison, Wisconsin.
- Johnston, C.M.T. 2016. Economic Growth, Electronic Media, and the Rise and Fall of Global Newsprint Consumption. *Society of American Foresters National Convention*, Madison, Wisconsin.
- Johnston, C.M.T., 2016. Economic Growth, Technological Change, and the Global Demand for Newsprint: Implications for the US Forest Industry. *Western Forest Economists Annual Meeting*, Seattle, Washington.
- Johnston, C.M.T., 2016. The Effects of Increased Internet Adoption on Global Paper Based Media Markets: Forecasts to 2030. *International Society of Forest Resource Economics Annual Meeting*, Raleigh, North Carolina.
- Johnston, C.M.T. and G.C. van Kooten, 2015. Modeling Trade in Forest Products: A Solution to the Tariff Problem. *Joint Western Forest Economists/ International Society of Forest Resource Economics Annual Meeting*, Vancouver, Canada.
- Johnston, C.M.T. and G.C. van Kooten, 2014. Increasing Europe's Bioenergy Demand: Who Stands to Benefit? *The Laboratory of Forest Economics Biennial Workshop*, Nancy, France.
- Johnston, C.M.T. and G.C. van Kooten, 2014. Economics of Forest Bioenergy Product Exports: Unintended Trade Repercussions. *Canadian Economics Association/Canadian Agricultural Economics Society*, Vancouver, Canada.
- Withey, P, C.M.T. Johnston and G.C. van Kooten, 2014. The Economic and Environmental Impact of Renewable Electricity Generation in Nova Scotia. *Canadian Economics Association/Canadian Agricultural Economics Society*, Vancouver, Canada.

- Johnston, C.M.T. and G.C. van Kooten, 2014. Unintended Trade Repercussions from Increased Bioenergy Demand. *Future Forestry Leaders Student Research Symposium*, 2014, Vancouver, Canada.
- Johnston, C.M.T. and G.C. van Kooten, 2013. The Impact of Coal-Fired Performance Standards in Canada: Feasibility of Co-Firing Coal and Biomass. *Western Forest Economists Annual Meeting*, Leavenworth, United States.
- Johnston, C.M.T. and G.C. van Kooten, 2013. A New Dynamic, 20-region Log-Lumber Trade Model. *Western Forest Economists Annual Meeting*, Leavenworth, United States.
- van Kooten, G.C. and C.M.T. Johnston, 2013. Economics of Bioenergy Products from Forests: Unintended Repercussions. *Association of Environmental and Resource Economics Annual Conference*, 2013, Banff, Canada.
- Johnston, C.M.T. and G.C. van Kooten, 2012. Generating Electricity in a Carbon Constrained World: Wind, Gas and Nukes Canadian. *Resource and Environmental Economics Annual Conference*, 2012, Vancouver, Canada.
- Johnston, C.M.T. and G.C. van Kooten, 2012. Re-evaluating the Role of Dead Organic Matter in the Optimal Forest Harvesting Decision under Carbon Sequestration. *Agricultural and Applied Economics Association Annual Meeting*, 2012, Seattle, United States.
- Johnston, C.M.T. and G.C. van Kooten, 2012. Using Carbon Taxes to Change Generating Asset Mix: A Case Study of the Alberta Electricity System and the Potential for Nuclear Energy. *Agricultural and Applied Economics Association Annual Meeting*, 2012, Seattle, United States.
- Johnston, C.M.T. and G.C. van Kooten, 2012. Do Kyoto's tCERs and lCERs truly equal a Reduction in Atmospheric GHG's. *Western Forest Economics Conference*, 2012, Victoria, Canada.

TEACHING

On-campus, formal instruction

- FWE 652 (Decision Methods for Natural Resource Managers). Department of Forest and Wildlife Ecology/Agricultural and Applied Economics, University of Wisconsin-Madison, 2016. (4 credit undergraduate/graduate course).
- FWE 699 (Special Problems). Department of Forest and Wildlife Ecology, University of Wisconsin-Madison, 2016-present: Ad hoc. (1 credit undergraduate/graduate).
- FWE 990 (Research and Thesis). Department of Forest and Wildlife Ecology, University of Wisconsin-Madison, 2016-present.
- ECON 381 (Environmental Economics). Department of Economics, University of Victoria, 2012-2014. (3 credit undergraduate course).
- ES 312 (Environmental Economics). School of Environmental Studies, University of Victoria, 2012-2014. (3 credit undergraduate course).

Guest Lectures

FWE 953. (Introduction to Ecology Research) Department of Forest and Wildlife Ecology, University of Wisconsin-Madison. “Economics of Forest Carbon Offsets”. October 2015. (Instructor Dr. Ben Zuckerberg)

AAE 773. (Seminar in Resource and Energy Demand) Department of Agricultural and Applied Economics, University of Wisconsin-Madison. “Forests and Climate Change”. November 2016. (Instructor Bethany Glinsmann)

Graduate Students Supervised

Adam McKenna, MS: Agricultural and Applied Economics, 2017- (RA funding)

Ziyi Lu, PhD: Agricultural and Applied Economics, 2015-2017 (RA funding)

Other Students Funded

Matt Landi, graduate: Nelson Institute, 2017 (student hourly funding)

Yuhan Zhang, graduate: Agricultural and Applied Economics, 2017 (student hourly funding)

Madisson Weier, undergraduate: Forest Science, 2016 (student hourly funding)

Logan Wells, undergraduate: Forest Science, 2016 (student hourly funding)

Graduate Committees

James Anderson, PhD: University of Maine, School of Forest Resources (2015–pres)

Jennifer Raynor, PhD: UW-Madison, Agricultural and Applied Economics (2016-pres)

Brian Zweifel, MS: UW-Madison, Forest Science (2015–2017). Graduated Spring 2017

Reed Wuttke, MA: UW-Madison, Agricultural and Applied Economics (2015-2017). Graduated Spring 2017

Undergraduate Advisees

Ashley Cofrin, BS, Forest Science (2017–pres)

Travis Schmitt, BS, Forest Science (2017–pres)

Dani Steinberg, BS, Forest Science (2015–pres)

Andrew Kluck, BS, Forest Science (2015–pres)

Melanie Sinnen, BS, Forest Science (2015–2016)

Michael Tipping, BS, Forest Science (2015–2016)

Other Supervisory Responsibilities

Faculty Advisor, Forestry Club, University of Wisconsin – Madison (2015–pres)

SERVICE

University/Department

Committee member. Scholastic Policies and Actions Committee (SPAC). College of Agricultural and Life Sciences; University of Wisconsin-Madison. 2017.

Committee member. Undergraduate. Department of Forest and Wildlife Ecology, University of Wisconsin-Madison. 2016 to present.

Committee member. Information Technology. Department of Forest and Wildlife Ecology, University of Wisconsin-Madison. 2016 to present.

Public

Ad hoc committee to review *Silviculture Handbook: Rotation Age. Wisconsin Department of Natural Resources*. 2016-2017.

Panelist. Teaching Academy Summer Institute: *How We Applied Backward Design in our Courses*. University of Wisconsin-Arboretum. June 7, 2016.

Forester Training. Forest Products Economics Workshop. *Wisconsin Department of Natural Resources*. 2015.

Government advisor - trade policy. Presented evidence based on forest products trade modeling. *Pacific Forestry Centre: Canadian Forest Service*. British Columbia, Canada. 2014.

Export consultant. Canadian forest products supply chain modeling. *Policy, Economics and Industry Branch: Canadian Forest Service*. 2014.

Collaborator. Asia-Pacific Trade Negotiations: Forest Trade Modeling. *BC Ministry of Jobs, Tourism and Skills Training*. British Columbia, Canada. 2013.

Professional

Proposal Reviewer for the USDA: NIFA Hatch Act. 2015.

Moderator. Forests. Session 1083. Agricultural and Applied Economics Association Annual Meeting, Seattle, United States. 2012.

Discussant. Faustmann's Formulae for Forest Capital (Author: Robert Cairns). Canadian Resource and Environmental Economics Annual Conference, Vancouver, Canada. 2012.

Professional Affiliations

American Agricultural Economics Association; Canadian Agricultural Economics Association; Western Forest Economists; International Society of Forest Resource Economics; Global Forest Biodiversity Initiative

Peer Reviewer for Journals

American Journal of Agricultural Economics; Canadian Journal of Forest Research; Challenges; Ecological Economics; Fraser Institute; Forest Policy and Economics; Forest Science; Forestry; Journal of Forest Economics; Journal of the Association of Environmental and Resource Economists; Journal of Environmental Economics and Management.