

CURRICULUM VITAE

PETER H. TYEDMERS

Professor

School for Resource and Environmental Studies

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1.0 SCHOLARLY INTERESTS:

Thematic: Food system sustainability, ecological economic tools for improved natural resource and environmental decision-making; eco-efficiency, biophysical accounting, technology assessment, human appropriation and substitution of ecosystem goods and services.

Current

Research: Biophysical inputs to and impacts of agriculture, fisheries, aquaculture systems.

2.0 EDUCATION:

1994 - 2000 **Doctor of Philosophy - Resource Management and Environmental Studies (Ph.D.).**

University of British Columbia, Vancouver, British Columbia, V6T 1Z3

Thesis: *Salmon and Sustainability: The biophysical cost of producing salmon through the commercial salmon fishery and the intensive salmon culture industry.*

1989 - 1992 **Bachelors of Laws and Letters (LL.B.).**

University of British Columbia, Vancouver, British Columbia, V6T 1Z3

1983 - 1988 **Bachelors of Science - Co-op Applied Earth Science (B.Sc. (Hons.)).**

University of Waterloo, Waterloo, Ontario, N2L 3G1

Thesis: *Ore Petrography and Paragenesis of the Silver City and Fortymile Occurrences, Yukon Territory*

3.0 AWARDS & HONOURS:

2018 Research Impact Award, Faculty of Management. Based on highest 5-year H-index and total citations within the Faculty.

2018 Dalhousie University's nominee for the Arrell Global Food Innovation Award in its inaugural year.

2017 & 2019 Faculty of Management nominee for University Research Professorship

2014 Winner of inaugural Graedel Prize for Best Paper in *Journal of Industrial Ecology* in 2013. Co-authored with Jeff Wilson and Jason Spinney.

2008 Teaching Excellence Award, Faculty of Management, Dalhousie University

1998 Lever Pond Special University Scholarship, UBC

1996 British Columbia Ministry of Environment, Lands and Parks, Environmental Research Scholarship

1996 BC Hydro Scholarship.

1985 Kerr Addison Mines Ltd. Coop Work Term Report Award.

4.0 EMPLOYMENT HISTORY**4.1 Academic**

2021 - 2026 **Director**, Interdisciplinary PhD program, Faculty of Graduate Studies, Dalhousie University, Halifax, NS.

2012 - 2017 **Director**, School for Resource and Environmental Studies, Faculty of Management, Dalhousie University, Halifax, NS.

On administrative leave July 2017- June 2018

2012 - **Professor**, tenured, School for Resource and Environmental Studies, Faculty of Management, Dalhousie University, Halifax, NS.

2014-2022 Cross-appointed to College of Sustainability, Dalhousie University.

2013-2017 Cross-appointed to Environmental Science, Faculty of Science, Dalhousie

- University.
- 2007 - 2012** **Associate Professor**, tenured, School for Resource and Environmental Studies, Faculty of Management, Dalhousie University, Halifax, NS.
2010-2013 Cross-appointed to College of Sustainability, Dalhousie University.
- 2003 - 2007** **Assistant Professor**, probationary tenure track, re-appointed tenure track July '06. School for Resource and Environmental Studies, Faculty of Management, Dalhousie University, Halifax, NS.
Cross-Appointed to Environmental Science, Faculty of Science, Dalhousie University
- 2001- 2003** **Assistant Professor**, 22 month term appointment, full-time. School for Resource and Environmental Studies, Faculty of Management, Dalhousie University, Halifax, NS.
- 2000 - 2003** **Researcher**, part-time. *Sea Around Us Project*, Fisheries Centre, University of British Columbia, Vancouver, B.C.
Projects include: - energy and greenhouse gas emission analyses of global fisheries,
- impact of anthropogenic climate change on BC's freshwater fish resources,
- detailed analysis of the change in the functional trophic level of global aquaculture from 1970 to 1997,
- analysis of protein energy returns from seafood.
- 2001** **Lecturer**, part-time. Centre for Coastal Studies, School for Field Studies, Bamfield, BC.
- 1998 - 2001** **Research Assistant**, part-time. Economics Department, University of British Columbia, Vancouver, B.C.
Under the supervision of Prof. Gordon Munro, provided research support to a NOAA/OGP funded project exploring the trans-boundary management of Pacific salmon.
- 1997 - 1999** **Sessional Lecturer**, Environmental Engineering Technology Programme, British Columbia Institute of Technology, Burnaby, B.C.
- 1998** **Sessional Lecturer**, Centre for Coastal Studies, School for Field Studies, Bamfield, BC.
- 1992 - 1995** **Research Associate**, full-time. Faculty of Law, University of British Columbia, Vancouver, BC.
- 1991** **Research Assistant**, part-time. Faculty of Law, University of British Columbia, Vancouver, BC. Under the direction of Prof. Ian Townsend-Gault.
- 1987** **Teaching Assistant**, Earth Science Department, University of Waterloo, Waterloo, ON.
Under the supervision of Prof. G. Roberts, TA'd EARTH 370.

4.2 Non-Academic

- 1989 - 1991** **Environmental Scientist**, full-time seasonally. Golder Associates Ltd., Mississauga, ON and Vancouver, BC.
- 1988** **Exploration Geologist**, full-time. Flanigan McAdam and Company, Chibougamau, PQ
- 1988** **Exploration Geologist**, full-time. Private Consultant, Uranium City, SK.
- 1987** **Geological Assistant**, full-time co-op work term. Geological Survey of Canada, Dawson City, YT.
- 1987** **Geological Assistant**, full-time, co-op work term. Atomic Energy of Canada Limited, Pinawa, MN.
- 1986** **Geological Assistant**, full-time, co-op work term. Gulf Canada Resources, North. BC.
- 1985** **Geological Assistant**, full-time, co-op work term. Gulf Canada Resources, Calgary, AB.

5.0 PROFESSIONAL ASSOCIATIONS

- 2003 - 2007 American Fisheries Society
 2001 - 2006 International Society for Ecological Economics
 2001 - 2006 Canadian Society for Ecological Economics

6.0 TEACHING:**6.1 Graduate Teaching: SRES, Dalhousie University:**

- 2021/22 Teaching leave
 Wint. 2021 ENVI 5205 - Natural Resource and Environmental Law - 36 students
 ENVI 5101 (cross with SUST 3101)- Special topics course on Food systems and sustainability (co-led with Ms. Laurel Schut) - 6 graduate, 65 undergraduate students
 Fall 2020 ENVI 5031 - Economics for Resource and Environmental Management - 26 students
 ENVI 5508 - Project Report coordination - 27 students.
 Wint. 2020 ENVI 5205 - Natural Resource and Environmental Law - 31 students
 ENVI 5051 (cross with SUST 3950)- Special topics course on Food systems and sustainability (co-led with Ms. Laurel Schut) - 2 graduate, 24 undergraduate students
 Fall 2019 ENVI 5508 - Project Report coordination - 28 students
 Wint. 2019 ENVI 5205 - Natural Resource and Environmental Law - 26 students
 ENVI 5051 (cross with SUST 3950)- Special topics course on Food systems and sustainability (co-led with Ms. Laurel Schut) - 6 graduate, 26 undergraduate students
 Fall 2018 ENVI 5035 - Research Design and Methods - 12 students
 2017/18 Administrative leave
 Wint. 2017 ENVI 5205 - Natural Resource and Environmental Law - 31 students
 Wint. 2016 ENVI 5205 - Natural Resource and Environmental Law - 30 students
 Wint. 2015 ENVI 5205 - Natural Resource and Environmental Law - 28 students
 Wint. 2014 ENVI 5205 - Natural Resource and Environmental Law - 45 students
 Wint. 2013 ENVI 5205 - Natural Resource and Environmental Law - 40 students
 Wint. 2012 ENVI 5205 - Natural Resource and Environmental Law - 38 students
 Fall 2011 ENVI 5031 - Economics for Resource and Environmental Management - 43 students
 Wint. 2011 ENVI 5205 - Natural Resource and Environmental Law - 37 students
 ENVI 5048 - Directed reading course - 2 students
 Fall 2010 ENVI 5031 - Economics for Resource and Environmental Management - 26 students
 Wint. 2010 ENVI 5205 - Natural Resource and Environmental Law - 32 students
 ENVI 5009 - Graduate Seminar in Resource and Environmental Studies - 14 students
 ENVI 5007 - Research Methods II - 15 students
 Fall 2009 ENVI 5009 - Graduate Seminar in Resource and Environmental Studies - 14 students
 2008/09 Sabbatical leave
 Wint. 2008 ENVI 5009 - Graduate Seminar in Resource and Environmental Studies - 14 students
 Fall 2007 ENVI 5031 - Economics for Resource and Environmental Management - 26 students
 ENVI 5009 - Graduate Seminar in Resource and Environmental Studies - 14 students
 Wint. 2007 ENVI 5205 - Natural Resource and Environmental Law - 23 students
 ENVI 5009 - Graduate Seminar in Resource and Environmental Studies - 14 students
 ENVI 5048 - Directed Studies - 1 student
 Fall 2006 ENVI 5009 - Graduate Seminar in Resource and Environmental Studies - 14 students
 ENVI 5048 - Directed Studies - 2 students

Wint. 2006	ENVI 5205 - Natural Resource and Environmental Law - 17 students ENVI 5009 - Graduate Seminar in Resource and Environmental Studies - 14 students ENVI 5048 - Directed Studies - 1 student
Fall 2005	ENVI 5031 - Economics for Resource and Environmental Management - 28 students ENVI 5009 - Graduate Seminar in Resource and Environmental Studies - 14 students
Wint. 2005	ENVI 5205 - Natural Resource and Environmental Law - 21 students ENVI 5009 - Graduate Seminar in Resource and Environmental Studies - 18 students
Fall 2004	ENVI 5031 - Economics for Resource and Environmental Management- 24 students ENVI 5003 - Introduction to Environmental Studies - 26 students ENVI 5009 - Graduate Seminar in Resource and Environmental Studies - 18 students
Wint. 2004	ENVI 5205 - Natural Resource and Environmental Law - 22 students ENVI 5030 - Management of Sustainable Development - 6 students (shared responsibility with Prof. Peter Duinker).
Fall 2003	ENVI 5031 - Environmental and Ecological Economics - 25 students. ENVI 5003 - Introduction to Environmental Studies (shared responsibility with Prof. Karen Beazley) - 26 students. ENVI 5048 - Directed Studies - 1 student
Wint. 2003	ENVI 5205 - Natural Resource and Environmental Law - 30 students ENVI 5030 - Management of Sustainable Development - 7 students (shared responsibility with Prof. Peter Duinker).
Fall 2002	ENVI 5031 - Environmental and Ecological Economics - 15 students ENVI 5003 - Introduction to Environmental Studies (shared responsibility with Prof. Karen Beazley) - 23 students.
Wint. 2002	ENVI 5205 - Natural Resource and Environmental Law - 29 students ENVI 5030 - Management of Sustainable Development - 10 students
Fall 2001	ENVI 5031 - Environmental and Ecological Economics - 20 students

6.2 Undergraduate Teaching:

Wint 2021	MGMT 4205 - Law and Policy for Resource & Environmental Management - 5 students.
Fall 2020	MGMT 4031 - Economics for Resource and Environmental Management - 3 students
Wint 2019	MGMT 4205 - Law and Policy for Resource & Environmental Management - 3 students.
Wint 2018	MGMT 4205 - Law and Policy for Resource & Environmental Management - 1 student.
Fall 2016	SUST 3000 - Environmental Decision-making (co-led with Dr. James Steenburg) - 59 students.
Fall 2015	SUST 3000 - Environmental Decision-making (co-led with Dr. Kate Sherren) - 65 students.
Wint 2015	MGMT 4205 - Law and Policy for Resource & Environmental Management - 5 students.
Fall 2014	SUST 3000 - Environmental Decision-making (co-led with Dr. Daniel Rainham) - 77 students.
Fall 2013	SUST 3000 - Environmental Decision-making (co-led with Dr. Daniel Rainham) - 65 students.
Wint 2013	MGMT 4205 - Law and Policy for Resource & Environmental Management - 3 student
Fall 2012	SUST 3000 - Environmental Decision-making (co-led with Dr. Daniel Rainham) - 83 students.

Wint 2012	MGMT 4702 – Advanced Resource and Environmental Management – 6 students.
Fall 2011	SUST 3000 – Environmental Decision-making (co-led with Dr. Daniel Rainham) – 70 students.
Wint 2011	MGMT 4205 – Law and Policy for Resource & Environmental Management – 1 student
Fall 2010	MGMT 4031 – Economics for Resource and Environmental Management - 3 students SUST 3000 – Environmental Decision-making (co-led with Dr. Daniel Rainham) – 19 students.
2001	School for Field Studies – Introduction to ecological economics and sustainable development – 14 students
1999	BCIT - EENG 8901 Project proposal research and writing - 10 students
1998	BCIT - EENG 8901 Project proposal research and writing - 2 sections, 18 students total
1998	School for Field Studies – Introduction to ecological economics, sustainable development, and the ecological economics of salmon fishing and farming in coastal BC– 19 students
1998	BCIT - EENG 8782 Value analysis and environmental management (shared responsibility with Brenda Tyedmers) - 12 students
1997	BCIT - EENG 8782 Value analysis and environmental management (shared responsibility with Brenda Tyedmers) - 14 students

7.0 THESIS SUPERVISION:

7.1 Supervised/Co-Supervised – Completed (to date: 14 Honours, 34 Masters, 5 Doctoral):

2020 - 2021	Sage Mosgrove, B.Sc. (Environmental Science Honours). When and where can farm-level life cycle assessments be used to predict aggregate food system contributions to global warming?
2020 - 2021	Anne Overgaard-Thomsen, B.Sc. (Environment, Sustainability and Society and Biology combined Honours) Never Eat Shredded Wheat: An Exploration Into The Role Of Geography In Life Cycle Assessments Of Grain Production
2011 - 2020	Nathan Ayer, Interdisciplinary Ph.D.: Dismantling the Green Machine: A critical reflection on technology and eco-modern environmental policy.
2017 - 2019	Marion Davies, MES: Are we out to lunch?: Are the dietary strategies we share on social media effective in mitigating climate change?
2016 - 2019	Kare Tønning, MES: Overwinter mortality of young-of-year Striped bass (<i>Morone saxatilis</i>) in freshwater ponds in Nova Scotia. (co-supervised with Dr. James Duston, Faculty of Agriculture)
2016 - 2019	Kathleen Mifflin, MES: Hooked on food waste: Characterizing post-production seafood losses and their life cycle impacts along various seafood supply chains.
2015 - 2019	Yichen Shen, MES: Role of co-operatives in facilitating the implementation of the Sustainable development Goals: an experience from Nova Scotia, Canada.
2015 - 2017	Tyler Wilson, MES. Socio-economic impact of ocean acidification in Atlantic Canadian waters.
2016 - 2017	Alex Coley B.Sc. (Biology and Environment, Sustainability and Society Honours): Vulnerability of local food systems in Nova Scotia.
2016 - 2017	Jordyn Stafford B.Sc. (Environmental Science) Environment, Sustainability and Society Honours: Big Shoes to Fill: An Investigation of the Halifax Food Footprint.
2014 - 2017	Caitlin Cunningham, MES. Enhancing Ecosystem Service Mapping with Primary Data: Opportunities to expand Nova Scotia's managed pollination services capacity.
2015 - 2016	Angela Moores, B.Sc. (Math) Environment, Sustainability and Society Honours. Functional trophic level of aquaculture globally 1970-2013.

- 2015 - 2016 Kat Jack, B.A. (Economics) Environment, Sustainability and Society Honours. Does the presence of environmental management systems improve the environmental performance of Canadian electrical utilities?
- 2013 - 2016 Laurel Schut, MES. Importance of early pollination inputs on yield in wild lowbush blueberry.
- 2011- 2015 Andony Melathopolous, Interdisciplinary Ph.D.: Ecosystem services, context and the social basis of conservation: The case of insect pollination benefits to lowbush blueberry. Co-supervised with Dr. Christopher Cutler, Faculty of Agriculture, Dalhousie University.
- 2013 - 2015 Tim Cashion, MES. The Fish We Feed Fish: An evaluation of primary production requirements and greenhouse gas emissions of reduction fisheries in the age of sustainable boundaries.
- 2014 - 2015 Sheena Parris, B.A. (Environment, Sustainability and Society Honours). Planning for Failure: a framework evaluation of Nova Scotia's environmental emergency management capacity in the context of tailings dam failure.
- 2014 - 2015 Emma Halupka, B.Sc. (Environment Science Honours). Relating nutrient availability to yield: an examination of lowbush blueberry (*Vaccinium anustifolium*) resource limitation in Prince Edward Island.
- 2014 - 2015 Brogan Carruthers, B.A. (Environment, Sustainability and Society Honours). Wild pollinator contribution to crop yield: A comparison of landscape characteristics and their effect on seed set of Canola (*Brassica spp.*) in Alberta.
- 2014 - 2015 Christopher Andrews, B.Sc. (Biology Honours). Landscape attributes versus native and managed bee (*Apoidea*) species: An analysis of the coarse-scaled landscape characteristics that influence the diversity and abundance of bees in Prince Edward Island.
- 2014 - 2015 Caitlyn Weir, B.Sc. (Environment Science and Women's Studies Honours). In The Red: A private economic cost and qualitative analysis of environmental and health implications for five menstrual products (co-supervised with Prof. Tarah Wright).
- 2012 - 2015 François Bregha, MES. Contextualizing the impact of ocean acidification on veliger growth for three commercially important bivalve molluscs.
- 2012 - 2014 Christine Stortini, MES. Marine Climate Change Vulnerability Development, Uses and Limitations as a Tool for Climate Adaptation. Co-supervised with Dr. Nancy Shackell, Bedford Institute of Oceanography.
- 2013 - 2014 Makayla Mosher, B.A. (Environment, Sustainability and Society Honours). Cookbooks as cultural indicators: An examination of protein consumption trends in North America.
- 2011 - 2014 Angel Avadi, Ph.D. student at Université Montpellier II, France. Co-supervised with Dr. Pierre Fréon of the French Institute of Research for Development: evaluating the life cycle environmental performance of alternative uses of Peruvian anchoveta.
- 2011- 2013 Keegan McGrath, MES thesis: Conceptualizing and quantifying the environmental impacts of biological production systems.
- 2012- 2013 Jenna Stoner, MMM Project: Applying the concept of Sustainable Consumption to Seafood: How product loss through post-harvest seafood supply chains undermines seafood sustainability.
- 2010 - 2013 Sarah Keyes, MES thesis: Life cycle environmental impacts of conventional and organic apple production in Nova Scotia.

- 2012 - 2013 Autumn Grant, B.A. (International Development Studies Honours). Comparative sustainability implications of alternative carpet production practices.
- 2006 - 2013 Jeff Wilson, Interdisciplinary Ph.D. Rethinking Economics: Accounting for environmental impact at the local level.
- 2008 - 2012 Janice Ashworth, MES: Community engagement for improved renewable energy development in Nova Scotia. Co-supervised with Peter Duinker
- 2011 - 2012 Daniel Brown, B.A. (Environment, Sustainability and Society Honours). Waste Watchers: Characterizing Food Losses in Sheriff Hall Residence, Dalhousie University.
- 2010 - 2011 Emma McLaren, MMM: The Standards Dilemma: A comparative analysis of global salmon aquaculture standards.
- 2008 - 2011 Robert Parker, MES: Measuring and characterizing the ecological footprint and life cycle environmental costs Antarctic krill (*Euphasia superba*) products.
- 2008 - 2010 Sarah Fulton, MES: Fish and Fuel: Life cycle assessment of the Greenhouse gas emissions associated with the Alaskan Pollock, Alaskan pink salmon and Icelandic Atlantic cod fisheries.
- 2007 - 2010 Nathan Pelletier, Interdisciplinary Ph.D. What's at Steak: Ecological Economic Sustainability and the Ethical, Environmental and Policy Implications for Global Livestock Production.
- 2006 - 2008 Emma Point, MES: Life cycle environmental impacts of Nova Scotian wine production.
- 2006 - 2008 John Driscoll, MES: Life cycle environmental impacts of Gulf of Maine lobster and herring fisheries management decisions.
- 2005 - 2008 Catherine Boyd, MES: Life cycle environmental impacts of the Atlantic Canadian lobster fishery.
- 2005 - 2007 Nathan Ayer, MES: The Biophysical Costs of Technology: Assessing the Environmental Impacts of Alternative Salmonid Culture Systems in Canada Using Life Cycle Assessment.
- 2005 - 2006 Nathan Pelletier, MES: Life cycle measures of biophysical sustainability in feed production for conventional and organic salmon aquaculture in the Northeast Pacific. Nominated for Governor General's Gold Medal Award.
- 2003 - 2006 Nicole Arsenault, MES: Comparing the Environmental Impacts of Pasture-Based and Confinement-Based Dairy Systems in Nova Scotia Using Life Cycle Assessment.
- 2004 - 2005 Barbara Carleton, MES: Quantifying Environmental Alterations to Rivers by Large Dams at a Landscape Scale.
- 2003 - 2005 Cory Aldous, MES: Changes in Body Size in Five Commercially Exploited Scotian Shelf Groundfish Populations from 1970 to 2003.
- 2003 - 2005 Daniel O'Neill, MES: Human Appropriation of the Products of Photosynthesis in Nova Scotia, Canada. Nominated for Governor General's Gold Medal Award.
- 2003 - 2005 Marjolaine Côté, MES: An Evaluation of the Sustainability and Practicability of Landfill Gas to Energy (LGTE): A case study of Mar Del Plata, Argentina.
- 2003 - 2005 Jeff Wilson, MA (International Development Studies): A Comparison of Sustainable Development Indicator Metrics and the Need for Ecological Thresholds. Which Way are we Going?
Winner of 2006 Governor General's Gold Medal for outstanding Masters studies in social sciences and humanities.
Winner of 2007 Northeast Association of Graduate Schools Masters thesis award.

- 2002 – 2005 Kate Bigney, MES: A Review of Community-Based Quota Management of the Fixed Gear, Inshore Groundfish Fishery of the Scotia-Fundy Region.
- 2002 – 2004 Shannon Long, MES: A Paired Comparison Approach to Measuring Public Preferences for Non-Market Goods and Services: A Case Study of the Republic of Palau.
- 2002 – 2003 Coral Cargill, MMM: Managing Sea Lice in Salmon Aquaculture to Minimize Impacts on Wild Stocks
- 2001 – 2005 Caroline Cameron, MES: Varying Perceptions of Sustainable Development: Implications for Rural Planning and Development.
- 2001 – 2002 Noni Georges, MES. Exploring Solid-Waste as an Indicator of Sustainability in Small Island Developing States (SIDS): Case Study of Tortola, British Virgin Islands. Co-supervised with Prof. Raymond Côté.
- 2001 – 2002 Thomas Hall, MMM. The Newfoundland and Labrador Atlantic Salmon Aquaculture Industry's Competitive Advantages and Disadvantages in Atlantic Canada.

7.2 Supervised/Co-Supervised – In Progress:

- 2021- Camryn Gallagher, Honours B.Sc. Environmental Science candidate: Change in Canadian per capita nominal consumption of livestock products
- 2021- Isaac Greenberg, MES candidate: Better aggregation of life cycle environmental impacts of seafood consumption as applied to the Canada
- 2021- Holly Giacomodonato, MES candidate: Better aggregation of life cycle environmental impacts of seafood consumption as applied to the United Kingdom
- 2020- Emily Laage, MES candidate: Net life cycle greenhouse gas emissions of organic field crop production in Quebec and the Maritime provinces.
- 2018- Nicole Arseneault, Interdisciplinary Ph.D. student: Forecasting resource and environmental impacts of Canadian national food consumption in 2050 using scenario analysis
- 2016- Angela Moores, MES candidate: Changes in ecological dependence of global aquaculture over time.

7.3 Member of Graduate Advisory Committees:

- 2016 - 2021 Candace Nicoletti. MES Candidate: Potential role of food hubs in Nova Scotia
- 2011 - 2018 Mauricio Castrejon Mendoza, Interdisciplinary PhD. Internal supervisor for Prof. Tony Charles, St. Mary's University.
- 2016 - 2019 Mickey Gilchrist. MES candidate: Electrifying residential space heating with air-source heat pumps in a carbon-intensive grid: greenhouse gas emission impacts and the case of incentivising in Nova Scotia
- 2016 - 2018 Molly Fredeen. MES: Looking Forward to a Food Sovereign Future: The Role of Tradition-Informed Values and Indigeneity in the Carcross/Tagish First Nation Community Garden.
- 2016 - 2017 Melina Pulley. MES: Dissecting Co-management – An examination of fishermen involvement in fisheries management in Nova Scotia, Canada.
- 2015 - 2017 Christopher Andrews, MSc. Faculty of Agriculture, Dalhousie University.
- 2011 - 2014 Christopher Whynacht. MES: Planning a SEA Change: Designing a robust framework for strategic environmental assessment in Nova Scotia.
- 2009 - 2011 John Choptiany, Interdisciplinary Ph.D. candidate. Improved decision-making for carbon capture and storage. Withdrew from committee post-candidacy.
- 2008 - 2011 Chloe Kennedy, MES: Feasibility of Farm-to-School Programs in Nova Scotia, Canada
- 2003 - 2008 Alain Joseph, Interdisciplinary Ph.D. candidate: Technical and geographic constraints on biofuel development in Canada

- 2004 - 2007 Judith Lipp, Interdisciplinary Ph.D.: Political and economic barriers to renewable energy in Nova Scotia.
- 2004 - 2005 Johanna Nesbitt, MES: Soil quality differences on conventional and organic potato farms.
- 2004 - 2005 Emily Austen, MES: Guidelines for a Wetland Compensation Process for Atlantic Canada.
- 2003 - 2005 Lisa Isaccman, MES: Reconstructing the historical fish community of the Avon River, NS.
- 2002 - 2004 Kelley Baltzer, MES: Evaluating the use of ozonation for water purification in commercial recirculating aquaculture systems.
- 2002 - 2003 Linda Tam, MES: Healthy Growth: A Case Study of factors affecting environmental policy formulation under the Halifax Regional Municipality's Regional Planning Process.
- 2001 - 2003 Ricardo Bosshard, MES: Environmental Accounting: A Case Study for Nova Scotia.
- 2001 - 2002 Marcus Goodick, MES. Assessing Environmental Improvements Resulting from Changes in Waste Management Practices in Nova Scotia from 1990-2000.

7.4 EXAMINER:

- 2017 Jordan Carlson, MES, School for Resource and Environmental Studies, Dalhousie University: "Go Big or Go Away?" An Investigation into the Potential for Small-Scale Tidal Energy Development in Canada, and Factors that May Influence its Viability".
- 2013 Amelia White, Ph.D., Bond University, Australia: "Life cycle environmental impacts of Australian farmed salmon production".
- 2008 Natasha Power, M.Sc., Environmental Science, Nova Scotia Agricultural College: "Farm-Level Adaptation to Climate Variability and Change: Nova Scotia Farmers' Perceptions, Risks, and Response Strategies".
- 2006 Friederike Ziegler, Ph.D., Department of Marine Ecology, Göteborg University, Sweden: "Environmental Assessment of Seafood Products with a Life Cycle Perspective". Served as Opponent in the defence, November 10, 2006.
- 2006 Rajat Sharan, M.Sc., Environmental Science Program, Memorial University of Newfoundland: "A model to calculate energetic returns and an ecological footprint of an industrial fishery with a case study of the 1980s Northwest Atlantic cod fishery".
- 2002 Yoichiro Kanno, MES, School for Resource and Environmental Studies, Dalhousie University: "Fish Community Changes in a Nova Scotia Coldwater Stream and Development of an Index of Sustainable Coldwater Streams".

8.0 ACADEMIC SERVICE:

8.1 Administrative Service:

8.1.1 University-wide:

- 2019 - 2020 Co-lead with Ms. Rochelle Owen, Executive Director, Office of Sustainability, President's self-study team on Sustainability and Environmental Responsibility, one of eight self-study teams assembled to inform incoming President Deep Saini.
- 2019 - 2020 Member, search committee for Canada Research Chair Tier 1 in Indigenous, Ethnic, and Immigrant Community Development, School of Planning, Faculty of Architecture and Planning - search cancelled
- 2017 - 2021 Member, Advisory Board, Clean Technology Research Institute

- 2016 - 2021 Senator, Dalhousie University Senate
 2015 - 2016 Member, President's Top 200 Working group
 2014 - 2016 Member, Provost's Working group to assess governance and relationships among environment and sustainability programs at Dalhousie University.
 2009 - 2010 Associate Director Designate for Graduate Studies, College of Sustainability
 2007 - 2008 Member, Faculty of Architecture and Planning Dean search committee.
 2007 Member, Senate Review Committee, Faculty of Architecture and Planning. Withdrew as a result of a family emergency prior to the committee completing its work.
 2004 - 2006 Member (*ad hoc*) Senate Academic Appeals Committee, Dalhousie University Senate. Chaired one panel, served on two others. Called on when law school members of SAAC are in a conflict of interest.

8.1.2 Faculty of Management:

- 2020 - 2021 Member *ad hoc* Faculty structure committee
 2019 - 2022 Member, Faculty Tenure and Promotion Advisory Committee
 2018 - 2019 Chair, search committee for Canada Research Chair Tier 1 in Social Dimensions of Clean Technology, School for Resource and Environmental Studies. Search successful and candidate appointed as CRC tier 1
 2016 - 2018 Member, Faculty of Management Appeals Committee, member and chair of one appeal panel
 2016 - 2017 Member, Rowe School of Business Director search committee
 2015 - 2016 Member, Canada Research Chair Tier 2 in Indigenous Governance and Leadership search committee. Search successful but candidate unsuccessful in securing CRC appointment
 2014 - 2016 Member, Dean search committee
 2014 - 2015 Member, DFA funding allocation committee.
 2012 - Member, Research Advisory committee, SRES research lead
 2011- 2015 Member, Undergraduate appeals committee
 2009 - 2010 Member, Dean search committee
 2009 - 2012 Member, Faculty council
 2006 Member, Task Force on Graduate Programs
 2004 - 2005 Member, Research Advisory Committee
 2003 - 2006 Member, Faculty Tenure and Promotion Advisory Committee
 2002 - 2005 Chair, Undergraduate Academic Appeals Committee. Chaired two panels.

8.1.3 Faculty of Graduate Studies:

- 2021 Member, FGS Prize Panel
 2018 - 2021 Member, Faculty Council, Faculty of Management representative, From 2019 - 2021, Vice Chair of Faculty Council and Chair of Governance sub-committee
 2016 - 2020 Member FGS scholarship committee (30-40 hrs required in December)
 2016 - 2017 Member, FGS program review committee, Faculty of Dentistry
 2014 - 2017 Member, Academic Programme and Curriculum Change Committee, Faculty of Graduate Studies, Dalhousie University.
 2014 - 2017 Member, Faculty Council, Faculty of Graduate Studies, Dalhousie University.
 2013 - 2014 FGS representative member, Department of Philosophy unit review committee.
 2011 - 2012 Member, Academic programme, curriculum change committee.

- 2011 - 2012 Member, ad hoc Advisory Committee for Fostering a Culture of Excellence in Research and Graduate Studies in the School of Nursing.
- 2010 - 2011 Member, Interdisciplinary Ph.D. programme appeal committee. Chaired two appeal processes.
- 2008 - 2012 Member, Faculty Council, Faculty of Graduate Studies, Dalhousie University.
- 2006 - 2007 Member, Academic Programme Review Committee (Ph.D. Programme in Agricultural Sciences), Faculty of Graduate Studies, Dalhousie University.
- 2006 Member, Associate Dean Search Committee, Faculty of Graduate Studies, Dalhousie University.
- 2004 - 2006 Member, Interdisciplinary Ph.D. Admissions Committee, Faculty of Graduate Studies, Dalhousie University.
- 2004 - 2007 Member, Academic Programme and Curriculum Change Committee, Faculty of Graduate Studies, Dalhousie University.
- 2003 - 2007 Member, Faculty Council, Faculty of Graduate Studies, Dalhousie University.
- 2003 - 2004 Member, Academic Appeals Committee, Faculty of Graduate Studies, Dalhousie University. Chaired one panel.
- 2003 - 2004 Member, Curriculum Committee, Faculty of Graduate Studies, Dalhousie University

8.1.4 School level:

- 2020 - 2021 Member, combined MES and MREM Admissions Committee
- 2020 School *ad hoc* Health and Safety committee to prepare for research students re-entry into SRES
- 2020 Member, School re-appointment committee
- 2019 - 2020 MES admissions committee
- 2019 - 2020 Member, SRES faculty search committee. Process resulted in appointment of committee's first choice candidate.
- 2018 - 2018 PhD program proposal development
- 2018 Acting Academic Programme Coordinator July 1 - Dec 31, 2018
- 2016 - 2017 Member and Chair, Admissions Committee
- 2016 Acting Academic Programme Coordinator July 1 - Dec 31, 2016
- 2012 - 2017 Director, School for Resource and Environmental Studies
- 2009 - 2010 Member and Chair, SRES tenure and promotion committee
- 2009 - 2010 Member and Chair, SRES faculty search committee. Process resulted in appointment of committee's first choice candidate.
- 2009 - 2011 Academic Programme Coordinator, School for Resource and Environmental Studies, Dalhousie University.
- 2009 - 2011 Member and Chair Admissions Committee, School for Resource and Environmental Studies, Dalhousie University.
- 2007 - 2008 Member, faculty search committee.
- 2004 - 2008 Academic Programme Coordinator.
- 2002 - 2003 Coordinator, Departmental seminar series.
- 2002 - 2006 Member and Chair (2003-2006), Admissions Committee.

8.1.5 College of Sustainability

- 2010 - 2017 Member of College's curriculum committee
- 2010 - 2015 Member of College's appointments committee
- 2009 - 2010 Member of College's executive committee, curriculum committee and appointment committee.

8.2 Scholarly Service:

- 2020 - 2021** Chair and member of external ISO-standard compliance review panel for the Life cycle Assessment being undertaken for the Association of Genuine Alaska Pollock Producers on behalf of its members by Quantis.
- 2019 - 2020** External ISO-standard compliance reviewer for SINTEF Ocean AS of Norway of methods and final report on Carbon footprint of the Norwegian Seafood Industry (Klimaregnskap for norsk sjømatnæring) SINTEF Project No.: 302003889.
- 2017** Member of Review Panel to evaluate the first five years of performance of the Interdisciplinary Center for aquaculture Research (INCAR), Chilean Center of Excellence on behalf of the Fund for Research Centers of Excellence (FONDAP) program of the National Commission for Scientific and Technological Research (CONICYT), Chile. September 11-14, 2017, Santiago, Chile.
Manuscript reviews: *Nature Sustainability*,
- 2016** Manuscript reviews: *Nature Climate Change, Journal of Cleaner Production*.
- 2015** External reviewer, periodic program review, Master of Environment and Sustainability, University of Western Ontario.
- 2014-2015** Member, Scientific Committee, Second International Conference on Global Food Security. October, 2015, Ithaca, New York, USA.
- 2014** Manuscript reviews: *Global Food Security, Fish and Fisheries, Environmental Science & Technology*.
- 2014 - 2017** Editorial Board member, *Global Food Security* journal.
- 2012-2013** Member, Scientific Committee, First International Conference on Global Food Security. September 29th-October 2nd, 2013, Noordwijkerhout, the Netherlands.
- 2012** Member and Coordinator of the Expert Review Panel to evaluate Research Centers of Excellence proposals related to Sustainable Agriculture and/or Aquaculture as part of the Fund for Research Centers of Excellence (FONDAP) program of the National Commission for Scientific and Technological Research (CONICYT), Chile. September 3-6, 2012, Santiago, Chile.
- 2012** Manuscript review, *Journal of Food Security*
- 2009** Manuscript review, *Ecological Economics*
Manuscript review, *Aquaculture*
- 2008** Proposal review, Netherlands Foundation for the Advancement of Tropical Research
Manuscript review, *Regional Environmental Change*
Proposal review, Oregon Transportation Research and Education Consortium
Proposal review, Austrian Science Foundation
- 2007** Manuscript review, *Journal of Industrial Ecology*
Manuscript review, *Aquatic Living Resources*
Manuscript review, *Ecological Economics*
Scientific committee, LCA in Foods conference, April 25-26, 2007, Göteborg, Sweden.
- 2006 - 2008** Special issue guest editor (with Nathan Ayer and Professors M. Willison and R. Côté) for the *Journal of Cleaner Production* issue on "Sustainability of seafood production and consumption".
- 2006** Manuscript review, Book chapter, Fourth World Fisheries Congress proceedings
Proposal review, Mistra - Swedish foundation for strategic environmental research.
- 2005 - 2007** Local organizing committee, Canadian Society for Ecological Economics 2007 conference, July 26-28, 2007, Halifax, NS.
- 2005** Manuscript review, *Oceans Yearbook*

- 2004 Manuscript review, *Ecological Economics*
 2003 Manuscript review, *Journal of Environment and Development*
 Manuscript review, *Proceedings of the Royal Society: Biological Sciences*
 Manuscript review, *Oceans Yearbook*
 2002 Manuscript review, *Ecological Economics*
 2000 Manuscript review, *Aquaculture Research*

9.0 NON-ACADEMIC SERVICE:

- 2019 - 2022 Technical Advisory Group, **Aquaculture Stewardship Council**, Utrecht, The Netherlands.
 2019 Informal advisor on greenhouse gas emissions from fisheries to Minister of Fisheries and Land Resources, Government of Newfoundland and Labrador.
 2012 - 2017 Scientific Advisory Board Member, **Seafood Watch Program**, Monterey Bay Aquarium, Monterey, CA, USA.
 2011 Expert testimony to the House of Commons Standing Committee on Fisheries and Oceans in their review of aquaculture in the Pacific, October, 2011, Ottawa.
 2010 Expert testimony to the House of Commons Standing Committee on Fisheries and Oceans in their review of aquaculture in the Pacific, May 10th, 2010, Ottawa.
 2010 - 2011 Member, Advisory committee, **Seafood Watch Program** sustainable seafood criteria review and revision process.
 2009 - 2012 Member, Advisory Committee for 2010-2013 **Pew Fellows Program in Marine Conservation**, Washington, DC.
 2007 - 2008 Director, **East Coast Environmental Law Association**, Halifax, NS.
 2006 - 2008 Advisory Board Member, **Seafood Watch Program**, Monterey Bay Aquarium, Monterey, CA, USA.
 2002 - 2005 Advisory Board Member, **Habitat Media**, San Raphael, CA, USA
 1996 - 1997 Review Committee Member. **Salmon Aquaculture Environmental Assessment**, British Columbia Ministry of Environment, Lands and Parks.
 Represented the interests of the Steelhead Society of British Columbia as part of this salmon farming industry-wide environmental impact assessment process.
 1994 - 1997 Director. **Steelhead Society of British Columbia**, Vancouver, BC.
 1994 - 1997 Director. **Outdoor Recreation Council of British Columbia**, Vancouver, BC.
 1994 - 1997 Director. **Environmental Fund of British Columbia**, Vancouver, BC.

10.0 RESEARCH SUPPORT:

10.1 University Administered Projects: (With partners, have secured a total of ~\$12.5 million CAN in grants and contracts since joining Dalhousie. Of this, >\$1.3 million CAN has supported activities under my supervision based at SRES)

- 2019-2025 Co-Applicant on \$1.65 million NSERC CREATE for Climate Smart Soils. Project led by Dr. Claudia Wagner-Riddle, University of Guelph. Approximately \$80,000 to support student stipends for work under my direction at Dalhousie.
 2019-2023 Principal investigator on a \$239,430 project titled: Net life cycle greenhouse gas emissions of Canadian organic field crop production systems. Funded by Agriculture and Agrifood Canada and the Organic Federation of Canada. Project co-investigators: Goretty Dias (Waterloo) and Nathan Pelletier (UBC). Approx. \$92,350 to support work at Dalhousie.

- 2018** Co-Investigator on a 1,399,000Kr (~\$210,000Can) project titled: Synthesizing the environmental performance and nutritional values of seafood - a basis for optimizing future diets for health and sustainability. Funded by the Swedish Research Council Formas. Project is led by Dr. Friederike Ziegler, of RISE the Research Institute of Sweden. Approximately \$44,000 to support work based at Dalhousie.
- 2018-2020** Co-Investigator on a 2,994,000Kr (~\$450,000Can) project titled: Meaningful aggregation of LCA results - a basis for global synthesis, optimization, policy and certification. Funded by the Swedish Research Council Formas. Project is led by Drs. Ulf Sonesson and Friederike Ziegler, of RISE the Research Institute of Sweden. Approximately \$150,000 Can to support work based at Dalhousie.
- 2017-2022** Co-investigator on \$309,640 SSHRC Insight Grant 'Peak population and future Canadian food requirements: implications for human nutrition and earth's carrying capacity'. Principal investigator, Dr. Goretty Dias, University of Waterloo. Approximately \$56,000 to support work based at Dalhousie.
- 2017** Principal investigator \$30,000 grant to assess impact of lipid quality in diets on over-winter survival of under-yearling striped bass in pond culture. Funded through Aquaculture Association of Nova Scotia and Mitacs.
- 2016-2018** Co-Investigator on \$585,000 NSERC Strategic Partnership Grant 'Guiding sustainable bio-industrial synergies for optimal GHG mitigation and regional economic development'. Principal investigator, Dr. Michelle Adams, Dalhousie University.
- 2016-2020** Co-applicant on 9,999,719 SEK (~\$1,530,000Can) 'SEAWIN - Increasing production and consumption of sustainable seafood in Sweden' project. Principal investigator, Dr. Max Troell, Stockholm University. Funded by Formas, the Swedish Research Council. Approximately \$50,000 of grant to fund work based at Dalhousie.
- 2016** \$15,000 grant to support research to model life cycle greenhouse gas emissions associated with wood fiber-derived cellulosic diesel. Funded by Mitacs, and Cellufuel Ltd. Funds used to support internship of Nathan Ayer.
- 2015-2018** Co-Applicant, with Prof. Helmuth Thomas, Department of Oceanography, on a \$550,000 grant from MEOPAR to investigate the spatial and temporal variation along with socio-economic implications of ocean acidification in Canadian inshore waters. \$72,000 of which funds a sub-project based at SRES.
- 2015** Principal investigator on a \$15,000 grant to support research to better understand how to effect behaviour change to reduce resource use at the household level in Peninsular Halifax, Nova Scotia. Funded by Mitacs, and Thinkwell Shift. Funds used to support internship of Sarah Rosenblat.
- 2014** Principal investigator on a \$15,000 grant to support sustainability & environmental management capacity development at Clearwater Seafoods Limited Partnership. Funded by Mitacs and Clearwater Seafoods Limited Partnership. Funds used to support internship of Melissa Archibald.
- 2014-2015** Co-PI, with Prof. Christopher Cutler, Faculty of Agriculture on a \$47,000 contract with the PEI Wild Blueberry Growers Association to investigate the impact of wild pollinator service flows to lowbush blueberry production. Co-funded by Jaspar Wyman and Son, Canada, Ltd and the Agriculture Research and Innovation Program, PEI Department of Agriculture and Forestry.

- 2014-2015** Co-PI with Prof. Kate Sherren, \$48,000Can contract with the N.S. Department of Agriculture's Research Acceleration Program to quantify the honeybee colony carrying capacity of Nova Scotia. Industry co-funding provided by the NS Beekeepers Association and the Canadian Bee Research Fund.
- 2012-2013** Principal investigator on a \$30,000Can grant to undertake life cycle assessment of Agrimarine Holdings Incorporated's salmon tank culture technology. Funded by Betty and Gordon Moore Foundation and Mitacs.
- 2012** Principal investigator on a \$15,000Can grant to support sustainability capacity development with Sobeys Limited. Funded through Sobeys and Mitacs.
- 2008 - 2009** \$3,750Can grant from Dalhousie sabbatical leave fund to gather data to evaluate the Life cycle environmental impacts of the New Zealand rock lobster fishery.
- 2008 - 2010** Principal investigator on a \$70,000Can research contract with Aker BioMarine of Norway titled "Measuring and Improving the Environmental Performance of Antarctic Krill Fishery Products".
- 2008 - 2010** Principal investigator on a \$70,000Can research contract with FoodVest group of companies of the UK titled "Managing Greenhouse Gas Emissions Associated with Key Seafood Products into the UK".
- 2007 - 2008** Co-investigator on a \$425,000US project with Ecotrust (US) and the Swedish Institute for Food and Biotechnology to extend our analysis of the life cycle environmental and socio-economic impacts of salmon farming systems of the NE Atlantic and Chile. Funded by the Oak Foundation, Switzerland, Esmée Fairbairn Foundation, UK and the Lighthouse Foundation, Germany. \$40,000US was available to support work based at Dalhousie.
- 2006 - 2008** Principal investigator on a \$125,000US research grant to evaluate the environmental impacts of Nova Scotia- and Maine-based lobster fisheries using life cycle assessment. Funded by the Lenfest Ocean Program at the Pew Charitable Trusts.
- 2005 - 2007** Co-investigator on a \$540,000US project to evaluate the life cycle impacts of alternative salmon production systems of the Northeast Pacific with institutional partners Ecotrust (US) and the Swedish Institute for Food and Biotechnology. Funded by the Lenfest Ocean Program at the Pew Charitable Trusts. \$99,000US was available to support work undertaken at Dalhousie.
- 2004** \$3,450 research grant to evaluate the energy performance of commercial fisheries of the early 20th century using archived corporate records. Funded by the Research Development Fund, Dalhousie University.
- 2003 - 2008** Co-investigator on a five year, \$980,000 NSERC Strategic Research Grant titled: "Managing pasture biodiversity and its impact on productivity and yield" held by Dr Alan Fredeen of the NSAC. \$156,300 was available to support research under my direction to undertake life cycle assessment of NS dairy production systems.
- 2001 - 2003** Principal investigator on a \$20,000 research contract to evaluate the energy performance of global fisheries. Funded through the *Sea Around Us Project*, Fisheries Centre, UBC, Vancouver, BC.
- 2001** Principal investigator on a \$6,000 research contract to review the potential impacts of anthropogenic climate change in British Columbia's freshwater fish resources. Funded by the BC Ministry of Agriculture, Fisheries and Food through the Fisheries Centre, UBC, Vancouver, BC.
- 1999 - 2000** Principal investigator on a \$30,000 research contract to evaluate energy inputs to North Atlantic fisheries. Funded through the *Sea Around Us Project*, Fisheries Centre, UBC, Vancouver, BC.

- 1997 \$1,500 research grant to evaluate biophysical costs of salmon farming (together with Prof. W. Rees, School for Community and Regional Planning, UBC). Hampton Fund, UBC.

10.2 Outstanding Funding Applications*:

- none current

* Note: unsuccessful proposals not listed

10.3 Private Projects: (Contract work, typically undertaken with my students)

- 2011 For Aquaculture Branch of Fisheries and Oceans Canada, conducted a review of integrative methodologies for assessing the environmental impact of finfish aquaculture technologies in partnership with Nathan Ayer (I.D. Ph.D. student)
- 2010 -2011 For International Seafood Sustainability Foundation, undertook a preliminary analysis of fuel inputs to global tuna fisheries with assistance of Robert Parker (MES student).
- 2009 Advisor to the New Zealand Ministry of Fisheries on a project to quantify the total fuel burned by the NZ fishing fleet in 2005.
- 2008 & 2009 In collaboration with Nathan Pelletier (PhD student), provided EWOS Innovation with an ecological footprint and greenhouse gas emission accounting tool for salmon feeds milled in each of the company's four operating regions (Canada, Chile, Norway and Scotland).
- 2006 - 2008 For Sea Fish Industry Authority, UK, developing an Excel-based tool to quantify the greenhouse gas emission intensity of 12 typical seafood products entering the UK market.
- 2006 For EWOS Innovation, developed an Excel-based tool to quantify the ecological footprint associated salmon feeds formulated by EWOS Scotland Ltd. Included data for 26 feed ingredients.
- 2005 - 2006 For the United States Marine Aquaculture Task Force, convened by the Woods Hole Oceanographic Institution, report written with Nathan Pelletier and Nathan Ayer (MES students) on marine aquaculture and the sustainability of seafood production systems.

11.0 PUBLICATIONS:

11.1 Theses:

- Tyedmers, P.H. (2000) *Salmon and Sustainability: The biophysical cost of producing salmon through the commercial salmon fishery and the intensive salmon culture industry*. Unpublished Ph.D. Thesis, Resource Management and Environmental Studies, University of British Columbia, Vancouver, B.C. pp. 270.
- Tyedmers, P.H. (1988) *Ore Petrography and Paragenesis of the Silver City and Fortymile Occurrences, Yukon Territory*. Unpublished B.Sc. Thesis. Department of Earth Science, University of Waterloo. pp. 100.

11.2 Refereed Journal Articles (Student co-authors are underlined):

64. Ziegler, F., P. Tyedmers and R.W.R. Parker (accepted Feb 1, 2022) Methods Matter: Improved practices for environmental evaluation of dietary patterns. *Global Environmental Change*.
63. Tonning, K.A., S.M. Budge, P. Tyedmers (2021) Overwinter Changes in the Lipid Profile of Young-of-the-Year Striped Bass (*Morone saxatilis*) in Freshwater Ponds. *Biomolecules*. 11, 1678. <https://doi.org/10.3390/biom11111678>
62. Gephart, J.A., P.J.G. Henriksson, R.W.R. Parker, A. Shepon, K.D. Gorospe, K. Bergman, G. Eshel, C.D. Golden, B.S. Halpern, S. Hornborg, M. Jonell, M. Metian, K. Mifflin, R. Newton, P. Tyedmers, W. Zhang, F. Ziegler, M. Troell (2021) Environmental performance of blue foods. *Nature*.

61. Drew, J., S.D. Christie, **P. Tyedmers**, J. Smith-Forrester, D. Rainham (2021) Operating in a climate crisis: A state of the science review of life cycle assessment within surgical services. *Environmental Health Perspectives*.
60. Wilson, T., T. Tai, W. Cheung, S. Cooley, **P. Tyedmers** (2020) Potential socioeconomic impacts from ocean acidification and climate change effects on Atlantic Canadian fisheries. *PLOS One*.
59. Medeiros, H.G., Y. C. Grandinete, P. Manning, K. A. Harper, G. C. Cutler; **P. Tyedmers**, C. A. Righi, M. C. Ribeiro (2019) Forest cover increases natural enemy diversity and biological control services in Brazilian sun-coffee plantations. *Agronomy for Sustainable Development*. 39:50.
58. Tlusty, M.F., **P. Tyedmers**, M. Bailey, F. Ziegler, P.J.G. Henriksson, C. Béné, S. Bush, R. Newton, F. Asche, D.C. Little, B. Belton, M. Troell, M. Jonell (2019) Reframing the sustainable seafood narrative. *Global Environmental Change*. 59:101991
57. Hallström, E., K. Bergman, K. Mifflin, R. Parker, P. Tyedmers, M. Troell, F. Ziegler (2019) Combined climate and nutritional performance of seafoods. *Journal of Cleaner Production*. 230:402-411.
56. Ziegler, F., O.R. Eigaard, R.W.R. Parker, **P.H. Tyedmers**, E.S. Hognes, S. Jafarzadeh (2019) Adding perspectives to: Global trends in carbon dioxide (CO₂) emissions from fuel combustion in marine fisheries from 1950 to 2016. *Marine Policy*. 107: 103488
55. McPherson, K., T. Wright, **P. Tyedmers** (2019) Challenges and prospects to the integration of ocean education into high school science courses in Nova Scotia. *Applied Environmental Education and Communication*.
54. McPherson, K., T. Wright, **P. Tyedmers** (2018) Examining the Nova Scotia Science Curriculum for International Ocean Literacy Principle Inclusion. Submitted to *International Journal of Learning, Teaching and Educational Research*. 17(11): 1-16.
53. Tlusty, M., **P. Tyedmers**, F. Ziegler, M. Jonell, P.J.G. Henriksson, R. Newton, D. Little, J. Fry, D. Love, L. Cao (2018) Commentary: Comparing efficiency in aquatic and terrestrial animal production systems. *Environmental Research Letters*. 13(12): 128001
52. Parker, R.W.R., J.L. Blanchard, C. Gardner, B.S. Green, K. Hartmann, **P.H. Tyedmers** & R. A. Watson (2018) Fuel Use and Greenhouse Gas Emissions of World Fisheries. *Nature Climate Change*. 8: 333-337.
51. Cunningham, C., **P. Tyedmers** & K. Sherren (2018) Primary data in pollination services mapping: Potential service provision by honey bees (*Apis mellifera*) in Cumberland and Colchester, Nova Scotia. *Journal of Biodiversity Science, Ecosystem Services & Management*. 14(1):60-70.
50. Cashion, T., **P. Tyedmers** & R. Parker (2017) Global reduction fisheries and their products in the context of sustainable limits. *Fish and Fisheries*. 18(6):1026-1037.
49. Mumby, P., J. Sanchirico, K. Broad, M. Beck, **P. Tyedmers**, T. Okey, L. Crowder, E. Fulton, D. Kelso, J. Kleypas, M. Morikawa, S. Munch, P. Glynn, K. Matthews & J. Lubchenco (2017) Avoiding a crisis of motivation for ocean management under global environmental change. *Global Change Biology*. 23:4483-4496.
48. Schut, L., **P. Tyedmers**, G.C. Cutler, and A Melathopoulos (2017) Is early pollination in lowbush blueberry an ecosystem service or disservice? *Agriculture, Ecosystems and Environment*. 239C: 368-375.
47. Cashion, T., S. Hornborg, F. Ziegler, E. S. Hognes & **P. Tyedmers** (2016) Review and advancement of the marine biotic resource use metric in LCAs: a case study of Norwegian salmon feed. *International Journal of Life Cycle Assessment*. 21(8): 1106-1120.
46. Bailey, M., B. Favaro, S.P. Otto, A. Charles, R. Devillers, A. Metaxas, **P. Tyedmers**, N. C. Ban, T. Mason, C. Hoover, T. J. Duck, L. Fanning, C. Milley, A. M. Cisneros-Montemayor, D. Pauly, W. W. L. Cheung, S. Cullis-Suzuki, L. Teh, and U. R. Sumaila (2016) Canada at a crossroad: The imperative of realigning ocean policy with ocean science. *Marine Policy*. 63: 53-60.
45. Driscoll, J., C. Boyd & **P. Tyedmers** (2015) Life Cycle Assessment of the Maine and southwest Nova Scotia lobster industries. *Fisheries Research*. 172: 385-400.
44. Parker, R.W.R. & P. Tyedmers (2015) Fuel consumption of global fishing fleets: Current understanding and knowledge gaps. *Fish and Fisheries*. 16(4): 684-696. DOI: 10.1111/faf.12087.
43. Stortini, C.H., N.L. Shackell, **P. Tyedmers** & K. Beazley (2015) Assessing marine species vulnerability to projected warming on the Scotian Shelf, Canada. *ICES Journal of Marine Science*. 72 (6): 1731-1743 DOI:10.1093/icesjms/fsv022.

42. Keyes, S., P. Tyedmers and K. Beazley (2015) Evaluating the environmental impacts of conventional and organic apple production in Nova Scotia, Canada, through life cycle assessment. *Journal of Cleaner Production*. 104:40-51.
41. Parker, R.W.R., I. Vazquez-Rowe & P. Tyedmers (2015) Fuel consumption and carbon footprint of global purse seine fisheries for tuna. *Journal of Cleaner Production*. 103:517-524. DOI: 10.1016/j.jclepro.2014.05.017.
40. McGrath, K., N. Pelletier & P. Tyedmers (2015) Life cycle assessment of a novel closed containment salmon aquaculture technology. *Environmental Science and Technology*. 49(9): 5628–5636.
39. Melathopoulos, A.P., G.C. Cutler & P. Tyedmers (2015) Where is the value in valuing pollination ecosystem services to agriculture? *Ecological Economics*. 109: 59-70.
38. Troell, M., R. Naylor, M. Metian, M. Beveridge, **P. Tyedmers**, C. Folke, K. Arrow, S. Barrett, A-S. Crépin, P. Ehrlich, Å. Gren, N. Kautsky, S. Levin, K. Nyborg, H. Österblom, S. Polasky, M. Scheffer, B. Walker, T. Xepapadeas, A. de Zeeuw (2014) Does aquaculture add resilience to the global food system? *Proceedings of the National Academy of Science*. 111(37):13257-13263.
37. Melathopoulos, A.P., P. Tyedmers & G.C. Cutler (2014) Contextualizing pollination benefits: effect of insecticide and fungicide use on yield increases from bee pollination in lowbush blueberry. *Annals of Applied Biology*. 165(3): 387-394.
36. Wilson, J., J. Spinney & P. Tyedmers (2013) An exploration of the relationship between socio-economic and wellbeing variables and household greenhouse gas emissions. *Journal of Industrial Ecology*. 17(6): 880-891.
Winning paper in inaugural Graedal Prize for the best paper in *Journal of Industrial Ecology* for 2013.
35. Wilson, J., J. Spinney, H. Millward, D. Scott, A. Hayden & P. Tyedmers (2013) Blame the Exurbs, not the Suburbs: exploring the distribution of greenhouse gas emissions within a city region. *Energy Policy*. 62: 1329-1335.
34. Wilson, J. and P. Tyedmers (2013) Rethinking the economic growth imperative. A review of wellbeing and genuine progress indicator metrics from a Canadian perspective. *Sustainability*. 5: 187-202.
33. Vazquez-Rowe, I. and P. Tyedmers (2013) Identifying the importance of the “skipper effect” within sources of measured inefficiency in fisheries through data envelopment analysis (DEA). *Marine Policy*. 38: 387-396.
32. Klinger, D.H., M. Turnipseed, J.L. Anderson, F. Asche, A.G. Guttormsen, B.S. Halpern, M.I. O’Connor, R. Sagarin, K.A. Selkoe, G. Shester, M.D. Smith, and **P. Tyedmers** (2013) Moving Beyond the Fished or Farmed Dichotomy. *Marine Policy*. 38: 369-374.
31. Wilson, J., P. Tyedmers and J. Grant. (2013) Measuring environmental impact at the neighbourhood level. *Journal of Environmental Planning and Management*. 56(1): 42-60. DOI: 10.1080/09640568.2011.649557
30. Parker, R.W.R. and P. Tyedmers (2012) Life cycle environmental impacts of products derived from Antarctic krill (*Euphasia superba*). *Environmental Science and Technology*. 46(9):4958–4965.
29. Point, E., P. Tyedmers and C. Naugler (2012) Life Cycle Environmental Impacts of Wine Production and Consumption in Nova Scotia, Canada. *Journal of Cleaner Production*. 27: 11-20.
28. Parker, R.W.R. and P. Tyedmers (2012) Uncertainty and Natural Variability in the Ecological Footprint of Fisheries: A Case Study of Reduction Fisheries for Meal and Oil. *Ecological Indicators*. 16: 76-83.
27. Ford, J.S., N.L. Pelletier, F. Ziegler, A.J. Scholz, **P.H. Tyedmers**, U. Sonesson, S.A. Kruse, and H. Silverman (2012) Proposed Local Ecological Impact Categories and Indicators for Life Cycle Assessment of Aquaculture: A Salmon Aquaculture Case Study. *Journal of Industrial Ecology*. 16(2): 254-265.
26. Rudd, M.A., N. Pelletier and **P. Tyedmers** (2011) Preferences for health and environmental attributes of farmed salmon amongst southern Ontario salmon consumers. *Aquaculture Economics & Management*. 15(1): 18-45.
25. Pelletier, N. & P. Tyedmers (2011) An ecological economic critique of the use of market information in life cycle assessment research. *Journal of Industrial Ecology*. 15(3): 342-354. DOI: 10.1111/j.1530-9290.2011.00337.x
24. Pelletier, N. & P. Tyedmers (2010) Forecasting potential global environmental costs of livestock production 2000-2050. *Proceedings of the National Academy of Science*. 107(43): 18371-18374.

23. Sumaila, U.R., A. S. Khan, A.J. Dyck, R. Watson, G. Munro, **P. Tyedmers** & D. Pauly (2010) A bottom-up re-estimation of global fisheries subsidies. *Journal of Bioeconomics*. 12(3): 201-225.
22. Pelletier, N. and **P. Tyedmers** (2010) Life cycle assessment of frozen tilapia fillets from Indonesian lake and pond-based intensive aquaculture systems. *Journal of Industrial Ecology*. 14(3) 467-481.
21. Driscoll, J. and **P. Tyedmers** (2010) Fuel Use and Greenhouse Gas Emission Implications of Fisheries Management: The case of the New England Atlantic herring fishery. *Marine Policy*. 34(3): 353-359. Accepted without revision.
20. Sumaila, U. R., A. Khan, L. Teh, R. Watson, **P. Tyedmers**, and D. Pauly (2010) Subsidies to high seas bottom trawl fleets and the sustainability of deep-sea demersal fish stocks. *Marine Policy*. 34(3): 495-497.
19. Smith, M.D., C.A. Roheim, L.B. Crowder, B.S. Halpern, M. Turnipseed, J.L. Anderson, F. Asche, L. Bourillón, A.G. Guttormsen, A. Khan, L.A. Liguori, A. McNevin, M. O'Connor, D. Squires, **P. Tyedmers**, C. Brownstein, K. Carden, D.H. Klinger, R. Sagarin, K.A. Selkoe (2010) Sustainability and Global Seafood. *Science*. 327: 784-786.
18. Pelletier, N., **P. Tyedmers**, U. Sonesson, A. Scholz, F. Ziegler, A. Flysjo, S. Kruse, B. Cancino, H. Silverman (2009) Not all Salmon Are Created Equal: Life Cycle Assessment (LCA) of Global Salmon Farming Systems. *Environmental Science and Technology*. 43(23): 8730-8736.
17. Arsenault, N., **P. Tyedmers** and A. Fredeen (2009) Comparing the environmental impacts of pasture-based and confinement-based dairy systems in Nova Scotia (Canada) using Life Cycle Assessment. *International Journal of Agricultural Sustainability*. 7(1): 19-41.
16. Ayer, N., R. P. Côté, **P.H. Tyedmers** and J.H.M. Willison (2009) Sustainability of seafood production and consumption: An introduction to the special issue. *Journal of Cleaner Production*. vol. 17(3): 321-324.
15. Ayer, N. and **P. Tyedmers** (2009) Assessing Alternative Aquaculture Technologies: Life Cycle Assessment of Salmonid Culture Systems in Canada. *Journal of Cleaner Production*. 17(3): 362-373.
14. Pelletier, N., N. Arsenault and **P. Tyedmers** (2008) Scenario Modeling Potential Eco-efficiency Gains from a Transition to Organic Agriculture: Life Cycle Perspectives on Canadian Canola, Corn, Soy and Wheat Production. *Environmental Management*. 42(6): 989-1001.
13. Pelletier, N. and **P. Tyedmers** (2008) Life Cycle Considerations for Improving Sustainability Assessments in Seafood Awareness Campaigns. *Environmental Management*. 42(5): 918-931.
12. Sumaila, U. R., L. Teh, R. Watson, **P. Tyedmers**, and D. Pauly (2008) Fuel price increase, subsidies, overcapacity, and resource sustainability. *ICES Journal of Marine Science*, 65: 832-840.
11. Wilson, J., R. Pelot and **P. Tyedmers** (2008) Ensuring that development metrics consider environmental sustainability - a proposal to combine development metrics with an ecological threshold variable. *International Journal of Transdisciplinary Research*. 3(1): 44-68.
10. Pelletier, N. and **P. Tyedmers** (2007) Feeding Farmed Salmon: Is organic better? *Aquaculture*. 272: 399-416.
9. Ayer, N.W., N.L. Pelletier, **P.H. Tyedmers**, U. Sonesson, and A. Scholz. (2007) Co-Product Allocation in Life Cycle Assessments of Seafood Production Systems: Review of Problems and Strategies. *International Journal of Life Cycle Assessment*. 12(7): 480-487.
8. Pelletier, N., N. Ayer, S. Kruse, A. Flysjo, G. Robillard, F. Ziegler, **P.H. Tyedmers**, A. Scholz, U. Sonesson (2007) Impact categories for Life Cycle Assessment research of seafood production: Review and Prospectus. *International Journal of Life Cycle Assessment*. 12(6): 414-421.
7. O'Neill, D., **P. Tyedmers** and K. Beazley (2007) Human Appropriation of Net Primary Productivity (HANPP) in Nova Scotia, Canada. *Regional Environmental Change*. 7: 1-14.
6. Ruttan, L. and **P. Tyedmers** (2007) Skippers, Spotters and Seiners: Analysis of the "skipper effect" in US menhaden (*Brevoortia spp.*) purse-seine fisheries. *Fisheries Research*. 83(1): 73-80.
5. Wilson, J., **P. Tyedmers** and R. Pelot (2007) Contrasting and comparing sustainable development indicators. *Ecological Indicators*. 7: 299-314.
4. **Tyedmers**, P., R. Watson, and D. Pauly (2005) Fueling Global Fishing Fleets. *Ambio*. 34(8):635-638.
3. Hospido, A., and **P. Tyedmers**, (2005) Life Cycle Environmental Impacts of Spanish Tuna Fisheries. *Fisheries Research*. 76(2): 174-186.

2. Pauly, D., J. Alder, E. Bennett, V. Christensen, **P. Tyedmers**, and R. Watson (2003) World Fisheries: The next 50 years. *Science*. 302: 1359-1361.
1. Miller, K., G. Munro, T.L. McDorman, R. McKelvey, and **P. Tyedmers** (2001) The 1999 Pacific Salmon Agreement: A Sustainable Solution to the Management Game? *Canadian-American Public Policy Occasional Paper Number 47*, Orono, The Canadian-American Center, University of Maine.

11.3 Refereed Reports, Chapters or Case Studies in Books:

6. Hoegh-Guldberg, O., K. Caldeira, T. Chopin, S. Gaines, P. Haugen, M. Hemer, J. Howard, M. Konar, D. Krause-Jensen, C.E. Lovelock, E. Lindstad, M. Michelin, F. G. Nielsen, E. Northrop, RWR Parker, J. Roy, T. Smith, S. Some, **P. Tyedmers** (2019) *The ocean as a solution for climate change: Five opportunities for action*. World Resources Institute.
5. Henriksson, P.J.G., N.L. Pelletier, M. Troell and **P.H. Tyedmers** (2012) Life Cycle Assessment and its Application to Aquaculture Production Systems., Meyers, R. (ed.), *Encyclopedia of Sustainability Science and Technology*, Springer-Verlag New York.
4. Pauly, D., J. Alder, E. Bennett, V. Christensen, **P. Tyedmers** and R. Watson. 2006. The future for fisheries p. 29-36 In: D. Kennedy et al. (eds.) *Science Magazine's State of the Planet, 2006-2007*. AAAS, Washington, DC.
3. **Tyedmers, P.** (2004) Fisheries and Energy Use, Cleveland, C. (editor-in-chief) *Encyclopedia of Energy*. Elsevier, Amsterdam. vol. 2, p. 683-693.
2. Troell, M, **P. Tyedmers**, N. Kautsky, and P. Rönnbäck (2004) Aquaculture and Energy Use, Cleveland, C. (editor-in-chief) *Encyclopedia of Energy*. Elsevier, Amsterdam. vol. 1, p. 97-108.
1. Hearn, G.S. and **P. Tyedmers** (1995) "Poseidon's Trident - Biodiversity Preservation, Resource Conservation and Conflict Avoidance in the South China Sea", Blake, G.H., W.J Hildesley, M.A. Pratt, R.J. Ridley, and C.H. Schofield (eds.) *The Peaceful Management of Transboundary Resources*. Graham and Trotman/Martinus Nijhoff. London, Dordrecht, Boston. 289-300.

11.4 Non-Refereed Contributions in a Series or Journal:

10. **Tyedmers, P.** and N. Pelletier (2007) "Biophysical accounting in aquaculture: Insights from current practice and the need for methodological development", Bartley, D.M. C. Brugere, P. Gerber, D. Soto and B. Harvey (eds) *Comparative Assessment of the Environmental Costs of Aquaculture and Other Food Production Sectors: Methods for meaningful comparisons*. FAO Fisheries Proceedings No. 10. Rome, Italy. pp. 229-241.
9. Chuenpagdee, R., A. Bundy, A. Charles, P. Christie, L. Fanning, P. Gonzales, J. Houston, L Liguori, D. Nandakumar, D. Ricard, M. Rudd, D. Pauly, S. Salas, J. Smith, R. Sumaila, M. Turnipseed, **P. Tyedmers**, D. VanderZwaag, and K. Zwanenburg (2005) "Creating a Positive Future for Fisheries and Coastal Communities Worldwide" *Fisheries Centre Research Reports*. 13(2): 77-88.
8. Watson, R., **P. Tyedmers**, A. Kitchingman and D. Pauly (2003) "The Emerging Shape of the Global Fisheries Crisis". *Conservation in Practice*. vol. 4(3): 30-31.
7. Pauly, D., **P. Tyedmers**, R. Froese, and L. Y. Liu (2001) "Fishing Down and Farming Up the Food Web" *Conservation Biology in Practice*. 2(4): 25.
6. **Tyedmers, P.** (2001) "Energy Consumed by North Atlantic Fisheries", in Zeller, D., R. Watson, and D. Pauly (eds.), *Fisheries Impacts on North Atlantic Ecosystems: Catch, effort and national/ regional datasets.*, *Fisheries Centre Research Reports* 9(3): 12-34.
5. Sumaila, U.R., L.Y. Liu and **P. Tyedmers**. (2001) "Small versus Large Scale Fishing Operations in the North Atlantic", in Pitcher, T., U. R. Sumaila and D. Pauly. (eds) *Fisheries impacts on North Atlantic ecosystems: Evaluations and Policy Exploration*. *Fisheries Centre Research Reports* 9(5), 28-35.
4. **Tyedmers, P.** and B. Ward (2001) *Impacts of Climate Change on BC's Freshwater Fish Resources and Possible Management Responses*. *Fisheries Centre Research Reports*. 9(7), 12 pp.
3. **Tyedmers, P.** (2000) "Quantifying the Energy Consumed By North Atlantic Fisheries", Pauly, D. and T.J. Pitcher eds., *Methods for Evaluating the Impact of Fisheries on North Atlantic Ecosystems*, *Fisheries Centre Research Reports*. 8(2): 123-135.

2. **Tyedmers, P.**, 1996, "Prospects for Vietnam's Fisheries Resources", Nemetz, P.N. (ed.), *Development Versus the Environment: The Challenge for Southeast Asia. Journal of Business Administration and Policy Analysis*, vol. 22/23. pp. 215-223.
1. Roberts, R.G. and **P.H. Tyedmers**, 1988, "Structural Controls of the Mineralization at the Box and Athona Deposits, Saskatchewan": *Summaries of Investigations, 1988*; Saskatchewan Geological Survey, Miscellaneous Report 88-4.

11.5 Refereed Papers Published in Conference Proceedings:

- Shen, Y., P. Tyedmers, M. Adams, L. Beaubien (2019) Role of Co-operatives in Facilitating the Implementation of the Sustainable Development Goals: An Experience from Nova Scotia, Canada. Presented at United Nations Inter-Agency Task Force on Social and Solidarity Economy conference: Implementing the Sustainable Development Goals: What Role for Social and Solidarity Economy? June 25-26, 2019, Geneva, Switzerland.
- Mifflin, K., Tyedmers, P. (2018). Life Cycle Assessment of Seafood Beyond the Sea: Understanding How Seafood Losses and Consumption Patterns within Post-Production Stages Impact the Life Cycle Impacts of Seafood Products. Proceedings of the Life Cycle Assessment Food Conference (LCA Food 2018).
- Bergman, K, Hallstrom, E., Ziegler, F., **Tyedmers, P.**, Mifflin, K., Parker, R. (2018). If we are to eat more seafood- what seafood should we eat? Combining nutrition and greenhouse gas emissions of seafood products. Proceedings of the Life Cycle Assessment Food Conference (LCA Food 2018).
- Hospido, A., **P. Tyedmers**, M.T. Moreira and G. Feijoo (2005) "LCA of Seafood: A case study of canned tuna" in *LCM2005: Innovation by Life Cycle Management*. Proceedings of the Innovation by Life Cycle Management LCM 2005 International Conference, convened September 5-7, 2005, Barcelona, Spain.
- Brown, J. and **P. Tyedmers** (2005) "Production of Fish" in *Sustainable EU Fisheries: Facing the Environmental Challenges*. Proceedings of a conference convened November 8-9, 2004, EU Parliament, Brussels.
- Tyedmers, P.** (2002) "Energy Inputs and Greenhouse Gas Emissions Associated with the Production of Salmon Smolts from Hatcheries in British Columbia". Orr, C., P. Gallagher, and J. Penikett (eds.) *Hatcheries and the Protection of Wild Salmon*. Proceedings of a Speaking for the Salmon Workshop: Hatcheries and the Protection of Wild Salmon, convened June 6-7, 2001, Continuing Studies in Science, Simon Fraser University, Burnaby, British Columbia.
- Miller, K.A., G. Munro, R. McKelvey, and **P. Tyedmers**, 2001: "Climate, Uncertainty and the Pacific Salmon Treaty: Insights on the Harvesting Game." *Microbehavior and Microresults: Proceedings of the Tenth Biennial Conference of the International Institute of Fisheries Economics and Trade, July 10-14, 2000, Corvallis, OR*. Compiled by R.S. Johnston and A.L. Shriver. IIFET, Corvallis, OR.
- Pauly, D., R. Froese, L.Y. Liu and **P. Tyedmers** (2001) "Down with Fisheries, Up with Aquaculture? Implications of Global Trends in the Mean Trophic Level of Fish", presented at the AAAS-sponsored Mini-Symposium: *The Aquaculture Paradox: Does Fish Farming Supplement or Deplete World Fisheries?*, San Francisco, California, February 18, 2001.
- Tyedmers, P.**, 1998, "The Status of Squamish River Salmon and Steelhead Stocks", Gallagher, P. and Wood, L. (eds.) *Speaking for the Salmon Workshop Proceedings*, convened January 23, 1998, Institute of Fisheries Analysis, Simon Fraser University, Burnaby, B.C.

11.6 Professional Project Reports:

- Tyedmers, P.** and R. Parker (2012) *Fuel Consumption and Greenhouse Gas Emissions from Global Tuna Fisheries: A preliminary assessment*. A report prepared for the International Seafood Sustainability Foundation.
- Tyedmers, P.**, and N. Ayer (2011) *Assessing the environmental performance of finfish culture in Canada: Review of potential methodological frameworks*. A report prepared for Fisheries and Oceans Canada.
- Tyedmers, P.**, N. Pelletier and D. Robb (2008) *Ecological Footprint Modeling of EWOS Feeds Phase II: UK, Norway, Canada and Chile*. a confidential research and development report prepared for EWOS Innovation AS, Norway.

- Tyedmers, P., N. Pelletier, A. Garrett and S. Anton (2007) *Greenhouse gas emissions for select seafood species supplied to UK processors*. A confidential report prepared for the Sea Fish Industry Authority, UK.
- Tyedmers, P., N. Pelletier and D. Robb (2007) *Ecological Footprint Modeling of EWOS Feeds*, a confidential research and development report prepared for EWOS Innovation AS, Norway.
- Tyedmers, P., N. Pelletier and N. Ayer (2007) *Marine Aquaculture and the Sustainability of Seafood Production Systems: A comparative analysis*. A report to the United States Marine Aquaculture Task Force, convened by the Woods Hole Oceanographic Institution.

11.7 Publications in Preparation or Review:

- Hoegh-Guldberg, O., E. Northrop, M. Konar, J. Lubchenco, C.E. Lovelock, T. Smith, P. Haugan, K. Caldeira, T. Chopin, H. Ding, S. Gaines, M. Hemer, J. Howard, D. Krause-Jensen, E. Lindstad, M. Michelin, F.G. Nielsen, R. Parker, J. Roy, S. Some, and P. Tyedmers. (in review – submitted Sept 12, 2020) Ocean based actions for stimulating economies while reducing emissions. *Nature*.
- Bianchi, M.A., E. Hallström, R.W. R. Parker, K. Mifflin, P. Tyedmers, and F. Ziegler (in review - submitted March 2021) Climate costs and nutritional benefits of seafood: a global perspective. *Proceedings of the National Academy of Sciences*.
- Cunningham, C., P. Tyedmers & K. Sherren (in revision) Opportunities for expanding Nova Scotia's managed pollination services. Submitted to *Journal of Apicultural Research*.

12.0 PRESENTATIONS, LECTURES AND WORKSHOPS:

12.1 Invited Presentations:

- 2121** *The Opportunity and Challenge of Robust Greenhouse Gas Emission Modeling of Seafood*. Invited presentation as part of the Sustainability Seminar: The effect of climate change on the seafood sustainability landscape, part of the 2021 North Atlantic Seafood Forum, June 8-10, 2021, held online.
- 2019** *Sustainability of fish-derived feed inputs: An ecological perspective*. Invited presentation as part of the Comparative nutrition session of the American Society of Animal Science – Canadian Society of Animal Science joint conference 2019, Austin, Texas, July 8-11, 2019.
- 2016** *Your Plate. Our Planet. The Future of Food* Nobel Week Dialogue 2016. One of 23 panelists, including six Nobel Laureates, invited to discuss meeting the challenges of future global food production before a live audience of 1,300 participants in the Stockholm City Conference Centre, Stockholm, Sweden on December 9th, 2016.
- 2016** *Seafood's future: The importance of fisheries and aquaculture in achieving global food sustainability and security*. Keynote presentation to Science Atlantic Aquaculture and Fisheries and Biology conference 2016, St. Mary's University, March 9-11, 2016.
- 2015** *Overview of shrimp fisheries and management in Canadian waters*. Invited presentation to the Nordic workshop on shrimp fisheries management, March 5th and 6th, 2015, Göteborg, Sweden.
- 2015** *How aquaculture, fisheries, crops, and livestock interact to affect global food security*. Invited presentation to Environmental Defense Fund's, February 4, 2015 Science Day event on "The Seafood Lover's Dilemma: Having your fish and eating it, too".
- 2014** *Energy and Seafood: Use, Supply and Cost*. Invited presentation to the September 16-17, 2014 Prospering in a Changing Global Seafood Industry workshop convened by the Canadian Center for Fisheries Innovation, St. John's, NL.
- 2014** *Strengths and limits of life cycle assessment in understanding sustainability of seafood systems*. Invited presentation to the April, 2014 Atlantic salmon closed containment workshop convened by Tides Canada and American Fisheries Society, Saint Andrews, N.B. April 30th, 2014.
- 2013** *Life Cycle Assessment to Better Understand Sustainable Lobster Production* Invited presentation to the 2013 Atlantic Lobster Sustainability Foundation's Lobster Science Symposium, July 23rd-24th, Moncton, NB.
- 2013** *Energy Use in Fisheries: Achilles' heel or Poseidon's trident?* Invited presentation as part of The Bevan Series on Sustainable Fisheries. January 24th, 2013, University of Washington, Seattle, Washington.
- 2012** *LCA to Better Understand Sustainability of Fisheries*. Invited presentation to "Putting Fisheries in the Food Bowl" workshop, February 20th-22nd, 2012, Hobart, Australia.
- 2012** *GHG Emissions & Seafood: Context, Patterns and Challenges*. Invited presentation to FAO Expert Workshop, January 23rd-25th, 2012, Rome Italy.

- 2010 *Energy Use in Seafood: Challenges and opportunities*. Keynote address to Energy Use in Fisheries Symposium, November 15-17, 2010, Seattle WA.
- 2008 *Life cycle perspectives on aquaculture sustainability*, as part of “Towards food sustainability: from global to local” panel, 4th Sustainability and environmental research symposium, March 14th, 2008, Halifax, NS.
- 2007 *Life cycle assessment of closed containment salmon aquaculture: What impacts are we potentially trading off?*, presented to the Speaking for the salmon: Encouraging Innovative Solutions for Sustainable Salmon Aquaculture town hall meeting, Vancouver, BC, Canada, November 29th, 2007.
- 2007 *Fish, Fuel and 'Feed miles': Quantifying the carbon intensity of seafood products*, presented to Mars Incorporated Multidisciplinary Research Unit Seafood Sustainability meeting, September 28th, 2007, Shanghai, China.
- 2007 *Food for Thought: Is it time for a broader definition of sustainable seafood?*, presented to Seafood Watch Advisory Board annual meeting, May 18, 2007, Monterey, CA, USA.
- 2007 *Biophysical Sustainability Accounting in Aquaculture & Insight from Recent Research*, presented to EWOS Sustainability workshop, May 14-15, 2007, Byrkjedal, Norway
- 2007 *Introduction to Ecological Footprint Analysis*, presented to Scotian Pride conference, January 27, 2007, Halifax, NS.
- 2006 *Fueling the Decline: The energy performance of capture fisheries and The “skipper effect” in U.S. purse-seine fisheries for menhaden* presented to the Institute of Marine Research, Swedish Board of Fisheries, Lysekil, Sweden, November 9, 2006.
- 2006 *Biophysical sustainability accounting in aquaculture: Insights from current practice and the need for methodological development*. Experts consultation on Comparative Environmental Costs of Aquaculture and Other Food Production Sectors convened by the Food and Agricultural Organization of the United Nations and the World Fisheries Trust, April 24-28, 2006, Vancouver, BC.
- 2006 *Fueling the Decline: The energy performance of capture fisheries* presented as part of the Biology Department Seminar Series, Acadia University, March 2, 2006, Wolfville, N.S.
- 2005 *Ecological Economic Tools for Coastal Management* presented to the “Fortalecimiento de Capacidades para el Manejo Costero Integrado (Strengthening Capacity for Integrated Coastal Management) a regional conference convened December 13-14, 2005, Montevideo, Uruguay.
- 2005 *Fueling the Decline: The energy performance of capture fisheries* presented as part of the Biology Department Seminar Series, Dalhousie University, December 8, Halifax, N.S.
- 2005 *Ecological Sustainability of Aquaculture* invited presentation to the Pew Fellows Program in Marine Conservation annual meeting, White Point Beach Resort, NS, September 21-26, 2005.
- 2005 *Ecological Sustainability of Aquaculture* invited presentation to the U.S. Marine Aquaculture Task Force inception meeting, Woods Hole Oceanographic Institution, Woods Hole, MA, July 20-21, 2005.
- 2004 *Production of Fish* invited presentation to the Sustainable EU Fisheries: Facing the Environmental Challenges conference, convened at the EU Parliament, Brussels, Belgium, November 8-9, 2004.
- 2004 *The Green and Blue Revolutions: Myths, Realities and Lessons Learned* invited panel presentation (with Drs. John Volpe and Mike Skladany) to Seafood Summit, Chicago, Illinois, October 26-27, 2004.
- 2004 *Aquaculture’s increasing dependence on capture fisheries resources and aquatic net primary productivity* Salmon Aquaculture Dialogue workshop convened by World Wildlife Fund, Washington, DC, February 13th-14th, 2004.
- 2003 *Biophysical Accounting, Sustainability and Food Production*. Livestock production group seminar series. Nova Scotia Agricultural College, Truro, NS, November 6th, 2003.
- 2003 *Dispelling the Myth: Aquaculture’s increasing dependence on capture fisheries resources and aquatic net primary productivity* invited presentation to the Aquaculture symposium held as part of the 133rd American Fisheries Society annual meeting, Quebec City, Quebec. August 10th – 14th, 2003.
- 2003 *Technology and Sustainability: Insights from fisheries and aquaculture*. School for Resource and Environmental Studies, Dalhousie University, Halifax, Nova Scotia, April, 2003.
- 2002 *Fueling the Decline: The energy costs of fishing*, Harvest fisheries seminar series, Bedford Institute of Oceanography, Halifax, NS. November 13th, 2002.
- 2002 *Estimating Fuel Inputs to North Atlantic Fisheries*, Life Cycle Assessment of Seafood 2nd Workshop, Icelandic Fisheries Laboratories, Reykjavik, Iceland. March 21st-22nd, 2002.

- 2002 *All Salmon are not Created Equal: Measuring the biophysical costs of salmon fishing and farming in British Columbia, Canada*, Life Cycle Assessment of Seafood 2nd Workshop, Icelandic Fisheries Laboratories, Reykjavik, Iceland. March 21st-22nd, 2002.
- 2001 *Consumption and the Sea: Evidence of Human Ecological Dysfunction*, School for Resource and Environmental Studies, Dalhousie University, Halifax, Nova Scotia, June 11th, 2001.
- 2000 *Input-Intensive Aquaculture and Sustainability: The Case of Salmon Farming*, Fish and Wildlife Department, University of Minnesota, Minneapolis, Minnesota, March 10th, 2000.
- 2000 *Energy Efficiency of Intensive Salmon Culture and the Commercial Salmon Fishery in British Columbia: Implications for Sustainability*, Aquaculture America 2000 conference, New Orleans, LA, February 2nd - 5th, 2000.

12.2 Conference Presentations (only includes instances where I personally present):

- 2016 *What we feed matters: differences in life cycle greenhouse gas emissions and primary productivity requirements to sustain provision of fishmeals and oils*. Conference presentation to 10th International Conference on LCA of Food, University College, Dublin, Dublin Ireland, October 19-21, 2016.
- 2016 *Advancement of the marine biotic resource use metric in seafood LCAs: a case study of Norwegian salmon feed*. Conference presentation to 10th International Conference on LCA of Food, University College, Dublin, Dublin Ireland, October 19-21, 2016.
- 2015 *The Fish We Feed Fish in the Context of Sustainable Limits*. Conference presentation to 2nd Global Food Security conference, Cornell University, Ithaca, NY. October 11-14, 2015.
- 2014 *Seafood Business Summit: Food waste solutions*. Convening panel speaker at Seafood Expo North America, Boston, Massachusetts. March 17th, 2014.
- 2011 *Life Cycle Assessment of Seafood Systems*. Seafood Summit, January 31st-Feb 2nd, 2011, Vancouver, BC.
- 2010 *Do Food Miles Matter?: Insights from a Global Life-Cycle Assessment of Farmed and Wild Salmon*. Energy Use in Fisheries Symposium, Nov. 15-17th, 2010, Seattle, WA.
- 2010 *Insights from a Global Life-Cycle Assessment of Farmed and Wild Salmon* as part of the panel titled "Building better salmon: Improving the life-cycle of seafood supply chains from fish to fork" Seafood Summit, January 31st-February 2nd, 2010, Paris, France.
- 2009 *Climate Objectives and Food System Sustainability: The case of salmon* part of the panel titled "Food for Thought: Feeding Ourselves, Feeding the Climate Crisis" 2009 American Association for the Advancement of Science (AAAS) annual meeting, February 12-16, 2009, Chicago, Ill.
- 2008 *The role of food miles in the carbon intensity of seafood* part of the panel on "Food Miles: The next big sustainability issue or a fundamentally flawed concept?" Seafood Summit, January 27-31, 2008, Barcelona, Spain.
- 2008 *Introduction to the global salmon life-cycle assessment project* as part of the workshop on "Effecting seafood sustainability: What is it that European decision-makers, consumers and industry need to know?" , Seafood Summit, January 27-31, 2008, Barcelona, Spain.
- 2007 *Life Cycle Assessment of the Nova Scotia Lobster Industry: Evaluating Impacts and Striving for Efficiency*, International Life Cycle Assessment and Management 2007, October 2-4, 2007, Portland, OR, USA.
- 2007 *All salmon are not created equal: the life cycle environmental impacts of salmon fisheries and culture in the NE Pacific*, International Life Cycle Assessment and Management 2007, October 2-4, 2007, Portland, OR, USA.
- 2007 *Introduction to Life Cycle Assessment*, Life cycle assessment and food: Insights and opportunities to improve the eco-efficiency of food production systems symposium, Canadian Society of Ecological Economics 2007 conference, July 26 - 28, 2007, Halifax, NS.
- 2007 *All salmon are not created equal: the life cycle environmental impacts of salmon fisheries and culture in the NE Pacific*, LCA in Food conference, April 25-26, 2007, Göteborg, Sweden.
- 2007 Co-chair and presenter in the Sustainable Seafood: Cradle to Grave Assessments of Alternative Technologies symposium, 2007 American Association for the Advancement of Science annual meeting, February 15-19, 2007, San Francisco, CA. My presentation was titled: *All salmon are not created equal: the life cycle environmental impacts of salmon fisheries and culture*.
- 2007 *Life-cycle assessment (LCA) of farmed and wild salmon: results from new research and industry applications*, Seafood Summit, January 28-31, 2007, Jacksonville, Florida.

- 2006 *Energy and the environmental impacts of fishing*, Fish conservation and the end of cheap fossil fuels symposium, 136th Annual meeting of the American Fisheries Society, September 10-14, 2006, Lake Placid, NY.
- 2005 *Life Cycle Environmental Impacts of Spanish Tuna Fisheries*, Second Canadian Forum on the Life Cycle Management of Products and Services, October 26-27, 2005, Montreal, Quebec, Canada.
- 2004 *The Rapid Expansion of Global Aquaculture's Ecological Footprint*, Fourth World Fisheries Congress, May 2nd-6th, 2004, Vancouver, Canada.
- 2004 *Fuelling the Decline: Energy, overcapacity and global fisheries*, Fourth World Fisheries Congress, May 2nd-6th, 2004, Vancouver, Canada
- 2001 *Energy Inputs and Greenhouse Gas Emissions Associated with Salmon Smolt Production from Hatcheries*, Hatcheries and Wild Salmon workshop, June 6th-7th, 2001, Centre for Coastal Studies, Simon Fraser University, Burnaby, BC.
- 1999 *The Energy Efficiency of Intensive Salmon Culture in British Columbia: Implications for Sustainability*, Aquaculture Canada '99 conference, October 26th-29th, 1999, Victoria, BC, Canada.
- 1998 Chaired a panel presentation on *Selective Fishing Strategies: Opportunities and Constraints*, held as part of **Crossing Boundaries**, the seventh conference of the International Association for the Study of Common Property, June 10th-14th, 1998, Vancouver, Canada
- 1997 *Economic and Biophysical Value of Squamish River Salmon Stocks*, "Fisheries Sustainability in the Squamish River Watershed" conference, November 27th-30th, 1997, Squamish, Canada.
- 1996 *The Need to Integrate Ecosystem Support Costs for Sustainable Salmon Management*, "Towards Sustainable Fisheries: Balancing Conservation and Use of Salmon and Steelhead in the Pacific Northwest" conference, held April 26th-30th, 1996, Victoria, Canada

12.3 Invited Workshop Participation:

- 2017 Methodological approaches for synthesis of life cycle impact assessment results. Held as part of SEAWIN project, June 7th to 9th, 2017, Stockholm, Sweden.
- 2015 Nordic workshop on shrimp fisheries management, March 5th and 6th, 2015, Göteborg, Sweden.
- 2012 Inaugural workshop, "Putting Fisheries in the Foodbowl" convened to initiate research to better describe biophysical sustainability of fisheries within the context of food systems generally. February 20th-22nd, 2012, Hobart, Tasmania, Australia.
- 2012 Expert Workshop on Greenhouse Gas Emission Strategies & Methods in Seafood convened by the Food and Agricultural Organization of the United Nations, January 23rd to 26th, 2012, Rome, Italy.
- 2011 Invited participant in the 2011 Askö meeting of the Beijer Institute of Ecological Economics. The Royal Swedish Academy of Science. Convened to address: *Food security and aquaculture development in a globalized world – links and tradeoffs between marine and terrestrial production systems*. September 17-19, 2011, Stockholm, Sweden.
- 2010 *Expert consultation on Energy Use in Fisheries*. convened by the Food and Agricultural Organization of the United Nations, November 14th, 2010, Seattle WA.
- 2007 *Seafood Sustainability Workshop*, hosted by EWOS Innovation, May 14-15, 2007, Byrkjedalstunnet, Norway.
- 2006 *Expert consultation on Comparative Environmental Costs of Aquaculture and Other Food Production Sectors* convened by the Food and Agricultural Organization of the United Nations and the World Fisheries Trust, April 24-28, 2006, Vancouver, BC.
- 2005 *Sustainability of Uruguay's Coastal Zone* First curriculum development meeting, December 12-16, to establish a new Masters in Coastal Management program at the Universidad de la Republica, Montevideo, Uruguay.
- 2005 *Sustainability of Uruguay's Coastal Zone* May 30-June 3 inception mission to launch a five year CIDA funded project to establish a new Masters in Coastal Management program at the Universidad de la Republica, Montevideo, Uruguay.
- 2005 *Architects for Sustainable Offshore Aquaculture: Meeting Needs While Maintaining Ecosystem Services* workshop convened November 2-3, 2005, University of Miami's Rosenstiel School of Marine and Atmospheric Science, Miami, FL.

2005 *Changing Currents* workshop convened February 23-26, 2005, Centre for Coastal Studies, Simon Fraser University, Vancouver, BC.

12.4 Guest Lectures and Seminars:

- 2021 *How do we know if Climate-Smart Soils actually are climate smart?* Guest lecture in CREATE Climate Smart Soils Graduate Training course, University of Guelph, Oct 19 7 22, 2021
- 2020 *How do we know if Climate-Smart Soils actually are smart?* Guest lecture in CREATE Climate Smart Soils Graduate Training course, University of Guelph, October 27 & 30, 2020
- 2019 *How do we know if Climate-Smart Soils actually are smart?* Guest lecture in CREATE Climate Smart Soils Graduate Training course, University of Guelph, September 11, 2019.
- 2019 *Thinking about waste.* Shad Valley, July 4, 2019.
- 2019 *Life Cycle Assessment: A tool for sustainability decision-making.* Guest lecture in ENVS 1000, Jan. 22, 2019
- 2018 *Ecological Economic Tools for Ocean Governance.* Guest Lecture for International Oceans Institute, Oceans Governance Training Program, June 19th, 2018.
- 2018 *Life Cycle Assessment: A tool for sustainability decision-making.* Guest lecture in ENVS 1000, Jan. 18, 2018
- 2017 *Life Cycle Assessment: A tool for sustainability decision support(?).* Guest lecture in ENVI 5031, Oct. 24, 2017
- 2017 *Life Cycle Assessment: A tool for sustainability decision support.* Guest lecture in MGMT 3702, Oct. 17, 2017
- 2017 *Life Cycle Assessment: A tool for understanding the secret life of foods (and everything else).* Shad Valley, July 12, 2017.
- 2017 *Ecological Economic Tools for Ocean Governance.* Guest Lecture for International Oceans Institute, Oceans Governance Training Program, July 7th, 2017.
- 2016 *Ecological Economic Tools for Ocean Governance.* Guest Lecture for International Oceans Institute, Oceans Governance Training Program, June 1st, 2016.
- 2016 *Life Cycle Assessment: A tool for sustainability decision-making.* Guest lecture in ENVS 1000, Jan. 7, 2016
- 2015 *Life Cycle Assessment: A tool for sustainability decision-making.* Guest lecture in CHEM 6361, October, 2015
- 2015 *Ecological Economic Tools for Ocean Governance.* Guest Lecture for International Oceans Institute, Oceans Governance Training Program, June 3rd, 2015.
- 2015 *Life Cycle Assessment: A tool for sustainability decision-making.* Guest lecture in ENVS 1000, April 7, 2015
- 2014 *Aquaculture and LCA: reflections on the sustainability of cultured seafood, technology, ...* Guest lecture to Social and Technological Innovation in Global Food Systems, Master of Environmental Management program, School of Forestry and Environmental Studies, Yale University. March 5th, 2014.
- 2012 *Using Economic Instruments to Effect Change.* Guest lecture to LAWS 2104, Environmental Law I.
- 2012 *Introduction to Fisheries and Fisheries Management.* February 2nd and *The Secret Life of Foods: Insights from life cycle assessment research of food systems.* March 8th. Guest lectures to MGMT 1700, Introduction to Environment and Resource Management.
- 2011 *Using Economic Instruments to Effect Change.* Guest lecture to LAWS 2104, Environmental Law I.
- 2011 *Introduction to Fisheries and Fisheries Management.* January 13th and *The Secret Life of Foods: Insights from life cycle assessment research of food systems.* March 10th. Guest lectures to MGMT 1700, Introduction to Environment and Resource Management.
- 2010 *Using Economic Instruments to Effect Change.* Guest lecture to LAWS 2104, Environmental Law I.
- 2008 *Beyond Food Miles: Understanding the carbon intensity of seafood systems,* December 10, 2008, seminar series, Landcare Research, Lincoln, NZ.
- 2008 *Beyond Food Miles: Understanding the carbon intensity of seafood systems,* Guest speaker, October 7, 2008, departmental seminar series, Department of Geography, University of Canterbury, Christchurch, NZ.
- 2008 *History of Economic Thought and Biophysical Accounting Techniques in Ecological Economics.* Guest lecturer, May 22-23, 2008, MCISur program of the University of the Republic, Montevideo, Uruguay.
- 2007 *Beyond "food miles:" Understanding the carbon-intensity of seafood systems.* Guest speaker, November 28th, 2007, FISH 500 seminar series, Fisheries Centre, University of British Columbia, Vancouver, BC.
- 2007 *Using Economic Instruments to Effect Change.* Guest lecture to LAWS 2104, Environmental Law I.
- 2007 *Sustainable Seafood: Expanding our perspective.* Guest lecture provided to International Oceans Institute training programme on Ocean Governance: Policy, Law and Management. June 26, 2007.

- 2007 *Introduction to Fisheries and Fisheries Management*. Guest lecture to ENVI 1100, Introduction to Environment and Resource Management, March 26, 2007.
- 2007 *Life Cycle Assessment and the Environmental Impact of Salmon Production*. Guest lecture to FW 5455, Sustainable Aquaculture, University of Minnesota, March 19, 2007.
- 2006 *Using Economic Instruments to Effect Change*. Guest lecture to LAWS 2104, Environmental Law I.
- 2006 *Global Aquatic Ecosystem Decline: Challenges and opportunities*. Presented as part of the Management Without Borders seminar series, October 12, 2006.
- 2006 *Sustainable Seafood: Expanding our perspective*. Guest lecture provided to International Oceans Institute training programme on Ocean Governance: Policy, Law and Management. June 20, 2006.
- 2005 *Using Economic Instruments to Effect Change*. Guest lecture to LAWS 2104, Environmental Law I.
- 2004 *Using Economic Instruments to Effect Change*. Guest lecture to LAWS 2104, Environmental Law I.
- 2004 *Fishing for Good Data: conducting research when official statistics mislead and no one bothers to collect the data that you need*. Guest lecture to ENVI 5007, Research Methods II.
- 2003 *Fueling the Decline: The energy costs of fishing*. Fisheries Centre lunch time seminar series, UBC, Vancouver, BC. February 6th, 2003.
- 2003 *Using Economic Instruments to Effect Change*. Guest lecture to LAWS 2104, Environmental Law I.
- 2002 *Fishing for Good Data: conducting research when official statistics mislead and no one bothers to collect the data that you need*. Guest lecture to ENVI 5035, Research Methods.
- 2002 *Using Economic Instruments to Effect Change*. Guest lecture to LAWS 2104, Environmental Law I.
- 2001 *Fishing for Good Data: conducting research when official statistics mislead and no one bothers to collect the data that you need*. Guest lecture to ENVI 5035, Research Methods.

12.5 Facilitation and Moderation:

- 2010 *Energy Use in Fisheries Symposium*, Final Panel Discussion, November 17th, 2010, Seattle Wa.
- 2006 *Green Party of Nova Scotia Founding Convention*. As an impartial outsider, I was invited to chair key debates at the Party's founding convention, March 4, 2006, Halifax, N.S.
- 2005 *Renewable Energy Promotion in Atlantic Canada: A Key Component of a Sustainable Energy Strategy*. A workshop held May 20th, 2005, Faculty of Law, Dalhousie University, Halifax, NS.

13.0 APPEARANCE IN POPULAR MEDIA:

13.1 Contributions to popular media

- 2009 Astrid Scholz, Ulf Sonesson and Peter Tyedmers. "Catch of the Freezer" Opinion-Editorial published in the *New York Times*, December 9, 2009, p. A43.
- 2003 Pauly, D., V. Christensen, R. Watson and P. Tyedmers "A Century in the North Atlantic", *The New York Times*, Science Times. July 29, 2003.

13.2 Media coverage and interviews related to my work (excludes radio interviews as these have been too numerous)

- JUNE 2021 Chris Lambie "Plans to use wind-powered ships to sail cargo out of Halifax making headway." Saltwire Press June 23, 2021. Accessed at: <https://www.saltwire.com/atlantic-canada/news/plans-to-use-wind-powered-ships-to-sail-cargo-out-of-halifax-making-headway-100603584/>
- APR 2018 Stuart Peddle "Shipping industry is already efficient: Dalhousie professor" *The Chronicle Herald* April 18th, 2018. Accessed at: <http://thechronicleherald.ca/business/1563250-shipping-industry-is-already-efficient-dalhousie-professor>
- APR 2018 John McPhee "Fisheries' carbon footprint increasing but Canadians aren't the worst culprits." *The Chronicle Herald* Tuesday April 3rd, 2018. Accessed at: <http://thechronicleherald.ca/novascotia/1558659-fisheries%E2%80%99-carbon-footprint-increasing-but-canadians-aren%E2%80%99t-the-worst-culprits>

- APR 2018** Josh Gabbatiss "Seafood greenhouse gas emissions have spiked due to demand for lobsters and shrimp." *The Independent* Tuesday April 3rd, 2018. Accessed at: <https://www.independent.co.uk/environment/seafood-greenhouse-gas-emissions-lobsters-demand-climate-change-shrimp-crustaceans-a8286821.html>
- DEC 2016** Mark Harris "Are these startups the future of food tech?" *The Guardian*. Saturday December 17th, 2016. Accessed at: <https://www.theguardian.com/sustainable-business/2016/dec/17/weather-proof-crops-hydroponics-new-food-startups>
- JUNE 2016** Fram Dinshaw "Climate change could drive up food costs in N.S., Dalhousie prof says" *Chronicle Herald*. June 2, 2016. Accessed at: <http://thechronicleherald.ca/novascotia/1369247-climate-change-could-drive-up-food-costs-in-n.s.-dalhousie-prof-says>
- FEB 2016** Eric Hand "Cleaner fuels for fishing boats could backfire on the climate" *Science News*. American Association for the Advancement of Science. February 5, 2016. Accessed at: <http://thechronicleherald.ca/metro/1288939-study-young-lower-income-earners-good-for-the-environment> <http://www.sciencemag.org/news/2016/02/cleaner-fuels-fishing-boats-could-backfire-climate>
- JAN 2016** Tim Zimmermann "Eating Right Can Save the World" *Outside* magazine, January/February, 2016 double issue, p. 78. Accessed at: <http://www.outsideonline.com/2046606/eating-right-can-save-world>
- MAY 2015** Evan Webster "Study: Young lower-income earners good for the environment" *Chronicle Herald*. May 25, 2015. Accessed at:
- JULY 2014** April Fulton "Want To Reduce Your Carbon Footprint? Choose Mackerel Over Shrimp" *KBIA Mid-Missouri Public Radio*, July 29th, 2014. Accessed at: <http://kbia.org/post/want-reduce-your-carbon-footprint-choose-mackerel-over-shrimp>
- Erik Stokstad "What seafood guzzles the most gas?" *Science News*. American Association for the Advancement of Science. July 24th, 2014. Accessed at: <http://news.sciencemag.org/climate/2014/07/what-seafood-guzzles-most-gas>
- DEC. 2010** Tristan Spinski "Local seafood or imported? Debating the pros and cons of choosing" *Naples Daily News*. December 17th, 2010. Accessed at: <http://www.naplesnews.com/news/2010/dec/17/local-seafood-sustainability-carbon-footprint-fish/>
- OCT. 2010** Liz Kalaugher. "Livestock Production Set to Become Unsustainable" *Environmental Research Web*. Oct 6th, 2010. Accessed at <http://environmentalresearchweb.org/cws/article/news/43957>.
- Ewen Callaway. "Livestock Growth Could Imperil Planet" *Nature News on Nature.com*, Oct. 5th, 2010. Accessed at: http://blogs.nature.com/news/thegreatbeyond/2010/10/livestock_growth_could_imperil.htm
- Richard Black. "Livestock: Lengthening the Shadow?" *BBC News*. Oct. 5th 2010. Accessed at: http://www.bbc.co.uk/blogs/thereporters/richardblack/2010/10/the_environmental_impact_of_me.html.
- Jessica Marshall. "Livestock Production Will Push Earth's Limits". *Discovery News*. Oct. 4th, 2010 Accessed at: <http://news.discovery.com/earth/livestock-production-greenhouse-emissions.html>.
- NOV. 2009** Jessica Leeder. "Debunking our 'fetish of the fresh'" *The Globe and Mail*. November 24th, 2009, page A1 (cover story page A1). Accessed: <http://www.theglobeandmail.com/news/national/debunking-our-fetish-of-the-fresh/article4305216/>
- SEPT. 2008** Bijal Trivedi. "Dinner's Dirty Secret" *New Scientist*. September 13th, 2008 edition, p.28-32.
- JUNE 2008** Anon. "Fishy Tales" *The Economist*. June 14th, 2008 edition. p. 69.
- SEPT. 2006** Cheryl Lyn Dybas. "Fueling Fishing" *Oceanography*. Volume 19(3) p.13.
- DEC. 2005** *CBC Radio News*. "Fishing industry burns as much oil as Netherlands: study". Aired Thursday December 29, 2005. Available at: <http://www.cbc.ca/ns/story/ns-fishing-oil20051229.html>.

- DEC. 2005** Chris Lambie. "Fishing for fuel answers". *The Chronicle Herald*. Halifax. Thursday, December 29, 2005 p. B2.
- DEC. 2005** Cornelia Dean. "Fishing Industry's Fuel Efficiency Gets Worse as Ocean Stocks Get Thinner". *The New York Times*. December 20, 2005, Science Times p. F3.
- DEC. 2005** Paul Molyneaux. "Betting the Farm?" *National Fisherman*. 28-31.
- DEC. 2004** Todd Steiner. "Industrial Longline Fishing: A War on Fish", *Independent Media TV*. Available at: http://www.independent-media.tv/item.cfm?media_id=10238&fcategory_desc=Under%20Reported
- JAN. 2004** Robert Ovetz. "What's Behind the Food We Eat: Cheap oil drives industrial longline fishing". Op-Ed in the *San Francisco Chronicle*, January 23, 2004.
- AUG. 2003** Canadian Press. "Tastes for exotic fish threaten fish stocks". *CTV news*. August 12, 2003.