

## *Curriculum vitae*

### **Personal**

Name: Jeffrey Alexander Hutchings, FRSC  
Address: Department of Biology, Dalhousie University  
Halifax, Nova Scotia B3H 4R2 Canada  
Citizenship: Canadian

### **Education**

1991	Ph.D.	Biology	Memorial University of Newfoundland
1985	M.Sc.	Biology	Memorial University of Newfoundland
1980	B.Sc.	Zoology	University of Toronto

### **Academic Experience**

2016-2021	Izaak W. Killam Memorial Chair	Dalhousie University
2017-2019	Research Scientist II	Institute of Marine Research, Norway
2015-2016	Professor II	Department of Natural Sciences, University of Agder, Norway
2012-2017	Killam Professor	Faculty of Science, Dalhousie University
2010-2017	Professor II	Centre for Ecological & Evolutionary Synthesis, University of Oslo, Norway
2006-2009	Professeur Associé	Université Laval
2004-present	Professor	Dalhousie University
2002-2012	Canada Research Chair	Dalhousie University
2002	Visiting Professor	University of Edinburgh
2002	Visiting Professor	University of Glasgow
2000-2004	Associate Professor	Dalhousie University
1995-1999	Assistant Professor	Dalhousie University
1993-2004	Adjunct Professor	Memorial Univ. of Newfoundland
1993-1994	NSERC Visiting Fellow	Fisheries & Oceans (Newfoundland)
1991-1992	NSERC Postdoctoral Fellow	University of Edinburgh
1987-1990	NSERC Postgraduate Scholar	Memorial Univ. of Newfoundland
1985-1986	Research Associate	Nfld. Inst. For Cold Ocean Science

### **Editorial Responsibilities**

2015-present	Subject Editor	<i>FACETS</i>
2009-2015	Associate Editor	<i>Proceedings of the Royal Society B</i>
2008-present	Editorial Board	<i>Environmental Reviews</i>
2007-present	Editorial Board	<i>Evolutionary Applications</i>
2007	Guest Subject Editor	<i>Ecological Applications</i>
2004-2007	Editorial Board	<i>Functional Ecology</i>
2003-2007	Editor	<i>Canadian Journal of Fisheries and Aquatic Sciences</i>
1997-2002	Associate Editor	<i>Canadian Journal of Fisheries and Aquatic Sciences</i>
1999-2001	Associate Editor	<i>Transactions of the American Fisheries Society</i>

### **Professional Responsibilities**

- 2017-2020 Member, Evolution & Ecology Grant Evaluation Group (EG1503), NSERC  
2016-2019 Member, *Marine Advisory Board*, University of Gothenburg, Sweden  
2015- Scientific Advisory Committee, *Atlantic Salmon Conservation Foundation*  
2012-2018 Member, Board of Directors, *World Wildlife Fund Canada*  
2009-present Chief Science Advisor, Sustainable Seafood Policy, *Loblaw Companies Ltd*  
2012-2014 President and co-founder, *Canadian Society for Ecology and Evolution*  
2010-2013 Co-Chair, Working Group on Endangered Species Red Flag Indicators, *National Center For Ecological Analysis and Synthesis*, Univ. California Santa Barbara  
2010-2011 Vice-President, *Canadian Society for Ecology and Evolution*  
2008-2009 Chair, Vanier Canada Graduate Scholarship Program Committee, NSERC  
2006-2010 Chair, *Committee on the Status of Endangered Wildlife in Canada (COSEWIC)*  
2006-2007 Founding Member and Councillor, *Canadian Society For Ecology and Evolution*  
2005-2006 Co-Chair, Evolution & Ecology Grant Selection Committee (GSC 18), NSERC  
2003-2005 Member, Evolution & Ecology Grant Selection Committee (GSC 18), NSERC  
2001-2012 Non-Government Science Member, *Committee on the Status of Endangered Wildlife in Canada (COSEWIC)*  
1999-2007 Member, Marine Fish Species Specialist Committee, COSEWIC  
1999-2002 Council Member, *Canadian Society of Zoologists*  
1995-1996 Chair, *Ecology, Ethology & Evolution Section*, Canadian Society of Zoologists

### **Responsibilities to Royal Society of Canada**

- 2015 Author of RSC Position Paper on *Strengthening Government by Strengthening Scientific Advice* (May 2015)  
2015 Reviewer, Expert Panel Report on *The Behaviour and Environmental Impacts of Crude Oil Released into Aqueous Environments*  
2014-2015 Chair, RSC Annual Symposium 2015, *Canadian Marine Biodiversity*  
2010-2012 Chair, *Royal Society of Canada Expert Panel on Sustaining Canada's Marine Biodiversity: Responding to the Challenges Posed by Climate Change, Fisheries, and Aquaculture*  
2008-present Member, *Science Advisory Committee, Royal Society of Canada*  
2004 Representative of the *Royal Society of Canada* to the *US National Academies' Committee on the St. Lawrence Seaway: Options to Eliminate Introduction of Non-indigenous Species into the Great Lakes, Phase 1*  
2003 Invited to serve as one of three members of the *Royal Society of Canada Expert Panel on Science Issues Related to Oil and Gas Activities, Offshore British Columbia*  
2000-2001 Member, *Royal Society of Canada Expert Panel on Future of Food Biotechnology*

### **Plenary and Keynote Lectures, Honours and Awards**

- 2017 A.G. Huntsman Medal for International Excellence in Marine Sciences  
2017 Keynote, *Redefining Darwinian Fisheries*, Am. Fish. Soc. Symposium, Tampa, FL, USA  
2017 Plenary, *Ecology and Evolution of Salmonid Invasions*, Kristineberg, Sweden  
2016 Izaak Walton Killam Memorial Chair, Dalhousie University  
2015 Fellow, Academy of Science, *Royal Society of Canada*

- 2015 Jay Newman Award for Academic Integrity, University of Guelph
- 2015 Plenary, *Royal Swedish Academy of Sciences Jubilee Symposium*, Göteborg, Sweden
- 2014 Plenary, *Swedish Society for Marine Sciences*, Umeå, Sweden
- 2014 Plenary, Presidential Address, *Canadian Society for Ecology and Evolution*, Montreal
- 2014 Plenary, *Fisheries Society of the British Isles Annual Meeting*, Hull, UK
- 2014 Capstone Lecturer, Department of Biology, Queen's University, Kingston, Canada
- 2014 Lansdowne Lecturer, Department of Biology, University of Victoria
- 2013 Plenary, International Symposium, *Gadoid Fisheries: Ecology & Management of Rebuilding*, St. Andrews, NB
- 2012 Fellow, *Royal Canadian Geographical Society*
- 2012 Keynote Speaker, World Fisheries Congress, Edinburgh, UK
- 2012 Plenary, *SARA at 10 Years: Improving Species Conservation in Canada*, Ottawa
- 2012 Plenary, European Marine Biological Symposium, Arendal, Norway
- 2012 Distinguished Speaker, *5<sup>th</sup> Annual Canada Ocean Lecture*, Vancouver, BC
- 2012 Keynote Speaker, 1<sup>st</sup> International Conference on Integrative Salmonid Biology, Oslo
- 2012 Killam Professor, Faculty of Science, Dalhousie University
- 2011 Sustainability Science Award (co-winner), Ecological Society of America
- 2011 Science College Public Lecturer, Concordia University, Montreal
- 2010 Plenary, *Darwin Day 2010: Human-Induced Evolution*, University of Oslo, Norway
- 2009 Plenary, *139<sup>th</sup> Meeting of the American Fisheries Society*, Nashville, TN, USA
- 2008 Distinguished Speaker, *3<sup>rd</sup> Annual Canada Ocean Lecture*, Vancouver, BC
- 2008 Keynote, *7<sup>th</sup> International Flatfish Symposium*, Sesimbra, Portugal
- 2008 Keynote, *Society for Experimental Biology Symposium*, Sète, France
- 2008 Distinguished Lecturer, Faculty of Science Seminar Series, University of Windsor
- 2008 Keynote, *61<sup>st</sup> Canadian Conference For Fisheries Research*, Halifax, NS
- 2006 Keynote, *Bevan Lecture Series on Sustainable Fisheries*, Univ. Washington, Seattle
- 2005 Keynote, *Société Québécoise pour l'Étude Biologique du Comportement*, Montréal
- 2005 Keynote, *American Assoc. for the Advancement of Science*, Washington, DC
- 2004 Keynote, *Ecological and Evolutionary Ethology of Fishes*, Sauðarkrokur, Iceland
- 2004 Plenary, *Royal Society (London) Scientific Discussion Mtg on Extinction Rates*
- 2004 Plenary, *In Pursuit of Ecological Sustainability IFAW Forum*, Limerick, Ireland
- 2003 Plenary, Canada-UK Colloquium on *Science and Public Policy*, Bristol, UK
- 2003 Invited Speaker, NSERC's *Bacon and Eggheads Seminar Series*, Parliament Hill, Ottawa
- 2003 Plenary, World Summit on Salmon, Vancouver, British Columbia
- 2002 George A. Lubinsky Memorial Lecturer, University of Manitoba, Winnipeg
- 2001 Plenary, Fish Biodiversity & Conservation, *Fisheries Society of the British Isles*
- 1999 Petro-Canada Young Innovator Award
- 1998 Freedom of Information Award, B.C. Freedom of Information & Privacy Association
- 1996 Killam Prize, Faculty of Science, Dalhousie University
- 1996 J.C. Stevenson Memorial Lecturer, *Canadian Journal of Fisheries & Aquatic Sciences*
- 1994 Wilfred Templeman Publication Award, Dept. Fisheries & Oceans (Newfoundland)
- 1993 Visiting Fellowship, Natural Sciences and Engineering Research Council
- 1990 Postdoctoral Fellow, Natural Sciences and Engineering Research Council
- 1989 Graduate Fellowship, Memorial University of Newfoundland

- 1988 Olin Fellowship, Atlantic Salmon Federation
- 1987 Postgraduate Scholarship, Natural Sciences and Engineering Research Council
- 1980 Innis College Medal, University of Toronto
- 1979 Studentship in Ichthyology, Royal Ontario Museum & University of Toronto

### **Invitations from Canadian Parliamentary Committees and Parliamentary Officers**

- 2017 Commissioner of the Environment and Sustainable Development, Office of the Auditor General of Canada
- 2016 (May, Oct) House of Commons Standing Committee, Fisheries and Oceans
- 2014 Senate Standing Committee, Fisheries and Oceans
- 2014 House of Commons Standing Committee, Environment and Sustainable Development
- 2013 Commissioner of the Environment and Sustainable Development, Office of the Auditor General of Canada
- 2012 House of Commons Standing Committee, Finance (Subcommittee on Bill C-38, Part III)
- 2012 Commissioner of the Environment and Sustainable Development, Office of the Auditor General of Canada
- 2012 House of Commons Standing Committee, Environment and Sustainable Development
- 2012 Senate Standing Committee, Fisheries and Oceans
- 2012 House of Commons Standing Committee, Fisheries and Oceans
- 2011 Commissioner of the Environment and Sustainable Development, Office of the Auditor General of Canada
- 2009 House of Commons Standing Committee, Environment and Sustainable Development
- 2009 Senate Standing Committee, Fisheries and Oceans
- 2005 House of Commons Standing Committee, Fisheries and Oceans
- 1997 House of Commons Standing Committee, Fisheries and Oceans

### **Professional Reviewing and Advisory Responsibilities**

- 2017 External Audit Advisor, Auditor General of Canada
- 2014 Member, Natural Sciences Expert Panel, Swedish Research Council, Stockholm
- 2014 Independent Reviewer, *Climate Change Species Vulnerability Assessments*, NOAA, USA
- 2013 External Audit Advisor, Auditor General of Canada
- 2012 External Examiner, PhD Thesis, University of Tasmania, Hobart, Australia
- 2012 External Audit Advisor, Auditor General of Canada
- 2010 External Examiner, PhD Thesis, University of Oslo, Oslo, Norway
- 2010 External Examiner, PhD Thesis, University of British Columbia
- 2010 External Examiner, PhD Thesis, University of Western Ontario
- 2009 Independent Reviewer, *South-Central California Steelhead DPS Recovery Plan*
- 2009 Reviewer, U.S. Nat. Mar. Fish. Serv. *Endangered Species Act* Status Rept on Eulachon
- 2008 Independent Reviewer, *Central Valley (California) Chinook Salmon ESU Recovery Plan*
- 2008 Independent Reviewer, *Central Valley (California) Steelhead ESU Recovery Plan*
- 2008 Independent Reviewer, *Central California Coast Coho Salmon ESU Recovery Plan*
- 2007 External Examiner, PhD Thesis, Université Laval, Québec
- 2005 Reviewer, U.S. NMFS *Endangered Species Act* Status Rept on Pacific Herring
- 2005 Reviewer, U.S. Nat. Res. Council Report on Great Lakes-St. Lawrence River Ecosystem

- 2005 External Examiner, PhD Thesis, University of Toronto
- 2004 Invited Expert, *Nordic Council of Ministers Workshop on Genetic Diversity in Commercial Fishes*, Iceland
- 2004 Representative, *Royal Society of Canada*, U.S. National Academies Meeting on the Elimination of Non-Indigenous Species into the Great Lakes
- 2003 External Examiner, PhD Thesis, University of Oslo, Oslo, Norway
- 2002 Reviewer, Atlantic Salmon National Recovery Strategy, Dept. Fisheries & Oceans
- 2002 External Examiner, PhD Thesis, Université Laval, Québec
- 2002 External Examiner, PhD Thesis, University of Göteborg, Göteborg, Sweden
- 2002 Reviewer, Dept. Fisheries & Oceans Species Recovery Strategies for Atlantic Salmon
- 2000 External Examiner, PhD Thesis, University of Oslo, Oslo, Norway
- 2000 External Examiner, PhD Thesis, Swedish Univ. of Agricultural Sciences, Umeå, Sweden
- 1995- Groundfish, Invertebrate & Salmon Stock Assessments, Dept. Fisheries & Oceans
- 1999 Stock Assessment Review Committee, National Marine Fisheries Service, Woods Hole
- 1999 External Examiner, PhD Thesis, Department Biology, University of Guelph
- 1999 External Reviewer, NSERC Strategic Grant Mid-Term Review, Memorial University
- 1998 External Reviewer, Department of Fisheries & Oceans Advisory Panel on Interactions Between Wild and Farmed Atlantic Salmon in the Maritime Provinces
- 1998 External Reviewer, Department of Fisheries & Oceans Advisory Panel on Interactions Between Wild and Farmed Striped Bass in the Maritime Provinces
- 1996 Review Committee, *Masters of Maritime Studies*, Memorial University of Newfoundland
- 1996 Member, Genetics Subgroup, Scientific Working Group on Salmonid Introductions & Transfers (North American Commission/North Atlantic Salmon Conserv. Organisation)
- 1995 External Examiner, PhD Thesis, University of Bergen, Norway
- 1995 Reviewer, Northern Cod Science Program, Dept Fisheries & Oceans, NL Region
- 1994- Grants (Strategic and Research) for NSERC, NERC (UK), NSF (USA)
- 1988- Numerous peer-reviewed journals, including *American Naturalist*, *Canadian Journal of Fisheries & Aquatic Science*, *Ecology*, *Evolution*, *Nature*, *PNAS*, *Proceedings B*, *Science*

### **Dalhousie University Administrative Responsibilities**

- 2010-2012 *Chair*, Seminar Committee, Department of Biology
- 2008-2011 Member, Promotion and Tenure Committee, Faculty of Science
- 2005-present Member, Appointments and Awards Committee, Department of Biology
- 2005 *Chair*, Search Committee for Canada Research Chair Position, Dept Biology
- 2002-2003 *Chair*, Search Committee for Asst. Professor Position, Department of Biology
- 1998-2001 *Chair*, Curriculum Committee, Department of Biology
- 1998-2001 Member, Curriculum Committee, Faculty of Science
- 1998 Co-ordinator, NSERC Site Visit to Dalhousie University
- 1998-2000 *Chair*, Priority Appointments Committee, Dept. Biology
- 1996-2001 Aquatron Management Board
- 1996-1997 Dorothy J. Killam Lecture Series Committee
- 1996-1998 *Chair*, Seminar Committee, Department of Biology
- 1995-2001 Public Relations Committee, Department of Biology

## **Dalhousie University Teaching Responsibilities**

### ***Undergraduate***

EVOLUTION OF LIFE HISTORIES (BIOL 4500). 2018-present. Fourth-year class. Students: 20. Evolution of life-history traits; age/size at maturity; offspring size/number; bet-hedging; trade-offs and constraints; links to fitness, population dynamics, and sustainable exploitation.

LECTURES IN ECOLOGY AND EVOLUTION IN FISHES (BIOL/MARI 3080). 2016-present. Third-year class. Students: 80. The class examines selected topics on the ecology and evolution of marine and freshwater fishes: phylogeny & systematics; functional morphology & physiology; population biology; life-history evolution; behaviour; fisheries science; conservation biology.

ECOLOGY AND EVOLUTION OF FISHES (BIOL/MARI 3067). 1995-2015. Third-year class. Students: 25-65. Taxonomy and systematics; functional morphology; evolutionary ecology; fisheries science and management, with particular emphasis on Canadian fishes.

INTRODUCTORY ECOLOGY (BIOL 2060). 1996-2001. Second-year class. Students: 100-150. Models of population growth rate, competition, predator-prey interactions.

RESOURCE ECOLOGY (BIOL 3063). 1998-2000. Third-year class. Students: 50-90. Conservation biology, species invasions, models of fisheries science and management.

### **SPECIAL TOPICS COURSES.**

2014	Evolution of Phenotypic Plasticity
2014	Evolutionary Responses of Marine Organisms to Environmental Change
2008	Causes and Consequences of Human-Induced Evolution
1998	Minimum Viable Population Analyses
1997	Influence of Fishing on Coral Reef Fishes
1995	Integration of Fisher's Local Knowledge with Fisheries Management

### ***Graduate***

EVOLUTION OF LIFE HISTORIES (BIOL5501) (2018-present)

ECOLOGY & EVOLUTION OF FISHES (BIOL5067) (1995-present)

COMMUNICATION OF SCIENCE TO DECISION-MAKERS AND SOCIETY (2016)

BASIC MODELS IN FISHERIES SCIENCE (2015)

ASSESSMENT OF SPECIES AT RISK IN CANADA (2007)

FOUNDATIONS OF ECOLOGY (2000, 2004, 2008)

LIFE HISTORY STRATEGIES (1996, 1998)

NATURAL SELECTION (2003)

PRACTICAL & CONCEPTUAL ISSUES IN BIOLOGICAL RESEARCH (1997)

SPECIAL TOPICS COURSES (Biol 4806, 5832).

2014	Local Adaptation in Marine Organisms; Phenotypic Plasticity in Marine Species
2003	Life History Strategies in Fish
1998	Evolutionary Models of Foraging Behaviour
1996	Models: From Ideal Gases to Ecology; Dealing With Uncertainty in Fisheries
1995	Life History Strategies of Cephalopods

### **International University Teaching Invitations**

***DEVELOPMENT AND MANAGEMENT OF MARINE PROTECTED AREAS.*** 2004. Nordic Council of Ministers, Finnish Ministry of Environment, and IUCN. Kasnäs, Finland.

***HISTORY OF MARINE ANIMAL POPULATIONS: OCEAN SUSTAINABILITY THROUGH THE AGES.*** 2001. University of Southern Denmark, Esbjerg, Denmark.

***POPULATION CONSEQUENCES OF ENVIRONMENTAL FLUCTUATIONS.*** 1999. Department of Marine Biology, University of Bergen, Bergen, Norway.

***LIFE HISTORY THEORY.*** 1992. Department of Ecology and Department of Marine Biology, University of Bergen, Bergen, Norway.

***LIFE HISTORY THEORY AND EMPIRICAL DATA.*** 1992. Dept Animal Ecology, University of Umeå, and Dept of Aquaculture, Swedish Univ. of Agricultural Science, Umeå, Sweden.

### **Postdoctoral, Graduate and Honours Student Supervision**

#### ***Postdoctoral Fellows***

Pardo, Sebastián (2017-2019) Stochastic dynamic life-history modelling of Atlantic salmon  
 Fraser, Dylan (2005-2009; NSERC Postdoctoral Fellow) Conservation genetics of salmonids.  
 Purchase, Craig (2003-2005; NSERC Postdoctoral Fellow) Life history invariants in fishes.  
 Rowe, Sherrylynn (2004-2005; NSERC Postdoctoral Fellow) Atlantic cod reproductive success.  
 Jones, Matthew (2002) Genetic analyses of individual reproductive success in fishes.  
 Koops, Marten (2001-2002; NSERC Postdoctoral Fellow) Stochastic dynamic modelling of fish life histories and population dynamics.

#### ***PhD Students***

Benoît, Hugues (in progress; co-supervised with Doug Swain) Community ecology of fishes in the northwest Atlantic.  
 Oomen, Rebekah (in progress; Canada Graduate Scholar) Transcriptomic responses to thermal plasticity in Atlantic cod.  
 Michl, Stéphanie (2017; co-supervised with Carsten Schultz, Helmholtz-Zentrum für Ozeanforschung Kiel) Growth and enzymatic processes in salmonid fish.  
 Keith, David (2014) Stock-recruitment dynamics at low population sizes.  
 Debes, Paul (2013) Genetically based effects of domesticated-wild outbreeding in Atlantic salmon, *Salmo salar*.  
 Rollinson, Njal (2013) The adaptive significance of egg-size variation within and among populations of Atlantic salmon.  
 Ricard, Daniel (2012; co-supervised with B. Worm) Ecology and evolution of heavily exploited populations.  
 Fuller, Susanna (2011; co-supervised with R. Myers) Diversity of marine sponges in the Northwest Atlantic.  
 Weir, Laura K. (2008; NSERC Canada Graduate Scholar) Consequences of the intensity of male-male competition on the mating system of Atlantic salmon (*Salmo salar*).  
 Adams, Blair K. (2007; NSERC Industrial Postgraduate Scholar) Reproductive success and evolutionary persistence of alternative migratory forms in Atlantic salmon.  
 Baum, Julia (2007; NSERC Postgraduate Scholar; co-supervised with Ransom Myers) Correlates of population recovery in marine fishes.

- Hardie, David C. (2007; NSERC & Killam Postgraduate Scholar) Evolutionary ecology of Arctic marine fishes.
- den Heyer, Nell (2006) Patterns and mechanisms of American lobster (*Homarus americanus*) movement in the Northumberland Strait, Canada.
- Rowe, Sherrylynn (2004) Patterns and processes of mating in Atlantic cod, *Gadus morhua*.
- Jones, Matthew W. (2001) Application of genetic markers to conservation biology: salmonid fish in Eastern Canada.
- MacDonald, Janice F. (not completed; NSERC Postgraduate Scholar) Alternative reproductive strategies in male white sticklebacks, *Gasterosteus* sp.

### **MSc Students**

- Bland, Stephanie (2015-present; co-supervised with Anna Kuparinen) Ecosystem network models in marine systems.
- Pisano, Olivia (2017; NSERC Canada Graduate Scholar) Reaction norms for thermal variability.
- Roney, Nancy (2016; NSERC Canada Graduate Scholar) Reproductive success in Atlantic cod.
- Hugenholtz, Emilie (2013; Prins Bernhard Cultuur Fonds Scholar, Netherlands) Spatial distribution, spawning stock biomass and the development of spatial reference points.
- Oomen, Rebekah (2012; NSERC Canada Graduate Scholar) Genetic variation in life-history reaction norms in Atlantic cod.
- Mogensen, Stephanie (2010) Maternal fitness consequences of different causative agents of offspring mortality in early life.
- Houde, Aimee Lee (2009; NSERC Postgraduate Scholar) Inbreeding and outbreeding depression in endangered populations of Atlantic salmon.
- Normandeau, Éric (2008; co-supervised with Louis Bernatchez, Université Laval) Comparison of gene expression profiles among hybrid and back-crossed farmed and wild salmon.
- Darwish, Tamara (2006) Disentangling genetic and environmental influences on brook trout life histories.
- Bowlby, Heather D. (2006) Individual variability in the movement and dispersal of American lobster, *Homarus americanus*.
- Marcil, Julie (2004) Genetic versus environmental components of phenotypic variation in body shape among populations of Atlantic cod (*Gadus morhua*).
- McCairns, Scott (2004) Adaptive variability in response to differences in seasonality along an altitudinal gradient.
- Weir, Laura K. (2003; NSERC Postgraduate Scholar) The influence of artificial selection on the spawning behaviour and reproductive success of male Atlantic salmon, *Salmo salar*.
- Lawlor, Jennifer (2003) Genetic differences in fitness-related traits among populations of wild and farmed Atlantic salmon (*Salmo salar*).
- Jewett, Tara (2001) Temporal and spatial variation in reproductive investment within and among populations of Atlantic cod, *Gadus morhua*.
- Adams, Blair K. (1999) Variation in genetic structure and life histories among populations of brook char, *Salvelinus fontinalis*, from insular Newfoundland, Canada.
- George, Sarah N. (1998; Commonwealth Scholar) Selectivity of coral reef fishes in a Caribbean trap fishery.



**BSc Honours Students**

Zielonko, Katya (2016) Life-history variability among Canadian freshwater fishes.  
 Bonsall, Arthur (2015) Thermal niche and distribution patterns of Atlantic halibut.  
 Dalman, Laura (2015) Correlates of colonization success in introduced fishes.  
 Lawrence, Elizabeth (2014) Population growth rate and recovery of endangered salmon.  
 Schram, Catherine (2013) A comparative analysis of marine protected area legislation.  
 Roney, Nancy (2012) Relationship between habitat size and abundance across species.  
 Yates, Matthew (2011) Influence of temperature on male parr maturity in Atlantic salmon.  
 Arbour, Jessica (2009) Morphometric variability in Arctic char morphs on Ellesmere Island.  
 Morris, Matthew (2009) Outbreeding depression in compensatory growth in Atlantic salmon.  
 Préfontaine, Renée (2009) Shifting baselines in marine fish assessments.  
 Heggelin, Anthony (2008) Influence of exploitation on brook trout life histories.  
 Houde, Aimee Lee (2007) Introgression and predator-avoidance behaviour in salmon.  
 de Mestral Bezanson, Louise (2005) Individual reproductive success in Atlantic cod.  
 Piché, Jacinthe (2004) Genetic basis to population differences in Atlantic salmon life history.  
 Hubley, Brad (2003) Population differences in Atlantic salmon morphometry.  
 Fung, Jonathan (2001) Environmental sex determination in a cichlid fish.  
 Gerber, Leah (2000) Sex-biased movement, dispersal, and seasonal growth rate in brook trout.  
 Smith, Cheryl-Anne (2000) Lipid composition of subtidal and intertidal male white sticklebacks.  
 Fitzgerald, Gretchen (1999) Life histories of three- and four-spine stickleback populations.  
 Pickle, Alison (1997) Overwinter changes in lipid composition of brook trout.  
 Joyce, Warren (1997) Migration of the porbeagle shark, *Lamna nasus*, in eastern Canada.  
 Jewett, Tara (1996) Effect of time of day on research survey estimates of Atlantic cod biomass.

**Research Grants and Contracts**

<b><i>Duration</i></b>	<b><i>Agency</i></b>	<b><i>Title</i></b>	<b><i>Responsibility</i></b>	<b><i>Total</i></b>
2014-2016	Norwegian Research Council	Genetic variability in population responses by cod to environmental change	PI	\$350,000
2013-2021	NSERC (Discovery Grant)	Evolutionary ecology and conservation biology of fishes	Sole	\$480,000
2013-2018	NSERC (Research Tools & Instruments)	Field research vehicle for research on fish biology	Sole	\$34,700
2011-2017	Loblaw, Inc.	Recovering and sustaining marine fish biodiversity	Sole	\$166,000
2010-2012	Canadian Wildlife Federation	Spatial scale of adaptive variability in Atlantic cod	Sole	\$58,000
2008-2013	NSERC (Discovery Grant)	Evolutionary ecology and conservation biology of fishes	Sole	\$285,650
2008-2011	NSERC (Discovery Grant Accelerator Suppl.)	Evolutionary ecology and conservation biology of fishes	Sole	\$120,000

<i>Duration</i>	<i>Agency</i>	<i>Title</i>	<i>Responsibility</i>	<i>Total</i>
2008-2013	NSERC (Northern Research Suppl.)	Ecology of peripheral fish populations at their northern extremes	Sole	\$75,000
2008-2013	NSERC (Major Resources Support)	Major resources support for Aquatron Laboratory	Applicant & 10 co-applicants	\$546,000
2008-2009	NSERC (Research Tools & Instruments)	Fish dispersal and movement detection technology	Sole	\$40,898
2006-2009	NSERC (Strategic Grant)	Multi-generational interactions between farm & wild Atlantic salmon	PI Co-applicant Louis Bernatchez	\$519,330
2005-2008	NSERC (MFA)	Infrastructure Support for the Aquatron Laboratory	Applicant & 10 Co-Applicants	\$375,000
2005-2006	Polar Continental Shelf Project	Evolutionary ecology of char on Ellesmere Is.	Sole	\$70,000
2004-2006	National Geographic Society (U.S.)	Evolutionary Ecology of Arctic Atlantic Cod	Sole	\$28,350
2004-2008	NSERC (Northern Research Suppl.)	Evolutionary ecology of Arctic fishes)	Sole	\$30,000
2004-2005	WWF Endangered Species Recov. Fund	Mechanisms of non-recovery in Atlantic cod	Sole	\$18,000
2004-2005	SSHRC	Canada's marine species at risk: science & law	with David VanderZwaag	\$26,500
2004-2005	Polar Continental Shelf Project	Evolutionary ecology of Arctic marine fishes	Sole	\$75,000
2003-2007	NSERC (Discovery Grant)	Causes and consequences of life history variation in fish	Sole	\$200,000
2003-2004	Polar Cont. Shelf Proj.	Evolutionary ecology of Arctic marine fishes	Sole	\$45,000
2003-2004	North. Sci. Train. Prog.	Atlantic cod populations on Baffin Island	Sole	\$3,800
2001-2004	Orion Seafoods	Dispersal and migration of American lobster	Sole	\$30,000
2001-2004	Fisheries & Oceans	American lobster spatial dynamics	Sole	\$30,000
2000-2004	NSERC (Strategic)	Genetic and environmental determinants of population variation in Atlantic cod	PI Hutchings	\$750,732
2000-2003	NSERC (Aquanet NCE)	Genetic and ecological interactions between farm and wild Atlantic salmon	Sole	\$360,500
2000-2004	NSERC (MFA)	Infrastructure Support for the Aquatron Laboratory	Applicant & 15 Co-Applicants	\$350,000

<i>Duration</i>	<i>Agency</i>	<i>Title</i>	<i>Responsibility</i>	<i>Total</i>
1999-2003	NSERC (Research Grant)	Influence of Environmental Heterogeneity on Life History Evolution	Sole	\$134,400
1999-2000	Petro-Canada	The Influence of Fishing on the Spawning Behaviour of Atlantic Cod	Sole	\$25,000
1999-2000	NSERC (Equipment)	Vehicle in Support of Field Research	R. Scheibling & J. Hutchings	\$30,000
1997-1999	Indian Bay Ecosys. Corp	Genetic Analysis of Brook Trout Populations	Sole	\$20,000
1997-1998	Fisheries & Oceans	Inshore and Offshore Discarding of Atlantic Cod	Sole	\$6,400
1996-1997	Fish. & Oceans	Partitioning Cod Mortality	Sole	\$16,000
1996-1997	Parks Canada	Genetic & Ecological Analysis of Brook Trout	Sole	\$32,500
1995-1999	NSERC (Research Grant)	Environmental Heterogeneity and Life History Evolution	Sole	\$105,780
1995-1997	Fisheries & Oceans	Influence of Trawling on Atlantic Cod Spawning	Sole	\$26,000
1995-1996	Fisheries & Oceans	Discard Estimates in the Northern Cod Fishery	Sole	\$15,450
1994	Fisheries & Oceans	Minimum Viable Population Size in Salmon	Sole	\$5,000
1992-1993	Fisheries & Oceans	Interannual Variability in Male Atlantic Salmon	Sole	\$27,400

### **Refereed Research Publications (h-index=51 [Web of Science] and 64 [Google Scholar])**

#### **2017**

Berg, P.R., Star, B., Pampoulie, C., Bradbury, I.R., Bentzen, P., **Hutchings, J.A.**, Jentoft, S., and Jakobsen, K.S. 2017. Trans-oceanic genomic divergence of Atlantic cod ecotypes is associated with large inversions. *Heredity* (in press).

**Hutchings, J.A.**, and Kuparinen, A. 2017. Empirical links between natural mortality and recovery in marine fishes. *Proc. Roy. Soc. B* 284: 20170693.

Kuparinen, A., and **Hutchings, J.A.** 2017. Genetic architecture of age at maturity can generate divergent and disruptive harvest-induced evolution. *Phil. Trans. R. Soc.* 372: 20160035.

Michl, S.C., Weis, B., **Hutchings, J.A.**, and Schulz, C. 2017. Plastic responses by wild brown trout (*Salmo trutta*) to plant-based diets. *Aquaculture* 476: 19-28.

Oomen, R.A. and **Hutchings, J.A.** 2017. Transcriptomic responses to environmental change in fishes: insights from RNA-sequencing. *FACETS* (in press).

#### **2016**

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### **Lectures and Presentations (1984-2010)**

#### ***Invited Conference and Symposium Presentations***

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- Hutchings, J.A.** 2005. Perceptions and caveats regarding assignment of extinction probability in marine fish. International Workshop on Marine Fish Extinction Risk Criteria, Halifax, NS.
- Hutchings, J.A.** 2005. Les stratégies de reproduction et la biologie de conservation des poissons. Société Québécoise pour l'Étude Biologique du Comportement, Montreal, PQ.
- Hutchings, J.A.** 2005. Future implications of fisheries-induced evolution. American Association for the Advancement of Science Annual Meeting, Washington, D.C.
- Hutchings, J.A.** 2005. The collapse of northern cod: malleable links between science and public policy. Changing Currents: Charting a Course of Action for the Future of Oceans, Vancouver, BC.
- VanderZwaag, D.L., and **J.A. Hutchings**. 2005. Canada's marine species at risk: science and law at the helm but a sea of uncertainties? Law Commission of Canada, Ottawa, ON

- Hutchings, J.A.** 2004. The ecological and population collapse of marine fishes: failures of science, policy, management, and communication. Wildlife Conservation: In Pursuit of Ecological Sustainability, IFAW Forum, Limerick, Ireland.
- Hutchings, J.A.** 2004. Threats to marine biodiversity: temporal changes in abundance, life history, demography and population structure in marine fishes. Royal Society Scientific Discussion Meeting on Beyond Extinction Rates: Monitoring Wild Nature for the 2010 Target, London, UK.
- Hutchings, J.A.** 2004. Conservation biology of marine and anadromous fishes: the utility of life-history research. Ecological and Evolutionary Ethology of Fishes 2004 Meeting, Sauðarkrokur, Iceland.
- Hutchings, J.A.** 2003. Science, public policy, and the conservation of natural resources. Canada-U.K. Colloquium on Science and Public Policy, Wootton-Under-Edge, South Gloucester, UK.
- Hutchings, J.A.** 2003. The threat to the world's oceans – measuring Canada's options. West Block, Parliament Buildings, Parliament Hill, Ottawa, Ontario.
- Hutchings, J.A.** 2003. Interactions among collapse, recovery, and extinction risk in marine and anadromous fishes. World Summit on Salmon, Vancouver, BC.
- Hutchings, J.A.** 2003. Adaptive life history variation within and among unexploited populations of brook trout in southeastern Newfoundland. 133<sup>rd</sup> American Fisheries Society Meeting, Québec, Québec.
- Hutchings, J.A.** 2003. Life history responses to collapse by Atlantic cod and consequences to recovery. 133<sup>rd</sup> American Fisheries Society Meeting, Québec, Québec.
- Hutchings, J.A.** 2002. Collapse, recovery, and extinction risk to marine fish. American Association for the Advancement of Science, Boston, USA.
- Hutchings, J.A.** 2001. Conservation biology of marine fishes. Plenary Lecture, Fisheries Society of the British Isles Annual Meeting, Leicester, UK.
- Hutchings, J.A.** 2001. Population recovery of marine fishes: disparity between perception and observation. Second International Symposium on Marine Conservation Biology, San Francisco, USA.
- Hutchings, J.A.** 2001. Norms of reaction for life history traits in fishes. Canadian Society of Zoologists Symposium on Evolution of Phenotypic Plasticity, Sudbury.
- Hutchings, J.A.** 2000. Life at the edge: adaptive variation in brook trout life histories on a small geographical scale. COSEWIC Symposium on Peripheral Populations, McGill University, Montréal.
- Hutchings, J.A.** 2000. Causes and consequences of seasonal changes in growth rate in brook trout, *Salvelinus fontinalis*. International Congress on Fish Biology, Aberdeen, Scotland.
- Hutchings, J.A.** 1998. The inter-relationship among science, management, and politics in the collapse of northern cod. Symposium entitled The Crisis of the Atlantic Fisheries, Pacem Maribus XXVI, in conclusion of the Year of the Ocean, Dalhousie University, Halifax, Nova Scotia.
- Hutchings, J.A.** 1998. Temporal and spatial scales of Atlantic salmon life history variation. Sustainability of Salmon Fisheries: Binational Perspectives, American Fisheries Society Symposium, Hartford, USA.

- Hutchings, J.A.** 1998. The communication of science in Canadian fisheries resource management. Plenary Lecture, Ontario Ecology & Ethology Colloquium, Queen's University, Kingston, Ontario.
- Hutchings, J.A.**, Bishop, T.D., and C.R. McGregor-Shaw. 1998. Evidence of mate competition and mate choice in Atlantic cod, *Gadus morhua*. Symposium honouring E.J. Crossman, American Society of Ichthyologists and Herpetologists Annual Meeting, University of Guelph, Guelph, Ontario.
- Hutchings, J.A.**, and M. Ferguson. 1998. Discarding, catch rates and fishing effort in Newfoundland's inshore and offshore cod fisheries: analytical strengths and weaknesses of interview-based data. Bringing Fishers' Knowledge into Fisheries Science and Management: A Methodological Workshop, St. John's, Newfoundland.
- Hutchings, J.A.** 1997. Uneasy interactions between fisheries science, management, and policy: a Canadian example. Annual Meeting of Swedish Fish and Fisheries Research. Umeå, Sweden.
- Hutchings, J.A.** 1997. Life history variation within and among populations of Atlantic salmon. Integrating Across Scales: Predicting Patterns of Change in Atlantic Salmon. Braemar, Scotland.
- Hutchings, J.A.** 1997. Life history variability in salmonid fish: adaptive responses to juvenile and adult growth. Conference on Brown Trout Population Biology, University of Lund, Sweden.
- Hutchings, J.A.** 1996. Causes and consequences of the collapse of Atlantic cod. J.C. Stevenson Memorial Lecture, Canadian Conference For Fisheries Research, Montréal, Québec.
- Hutchings, J.A.** 1995. The biological consequences of spatial and temporal variation in the exploitation of the northern cod, *Gadus morhua*: a historical perspective from 1500 to the present. Symposium on Marine Resources and Human Societies in the North Atlantic Since 1500, Memorial University of Newfoundland, St. John's, Newfoundland.
- Hutchings, J.A.**, Neis, B., and P. Ripley. 1995. The "nature" of cod: perceptions of stock structure and cod behaviour by fishermen, "experts", and scientists from the nineteenth century to present. Symposium on Marine Resources and Human Societies in the North Atlantic Since 1500, Memorial University of Newfoundland, St. John's, Newfoundland.
- Hutchings, J.A.** 1994. The influence of early life experience on phenotypic plasticity in age at maturity in brook trout (*Salvelinus fontinalis*). 18th Annual Larval Fish Conference of the American Fisheries Society, Huntsman Marine Centre, St. Andrews, New Brunswick.
- Hutchings, J.A.**, and C.T. Taggart. 1994. Biological metrics and their utility in monitoring the "health" of a highly exploited stock: examples from northern cod and their future application. American Fisheries Society Annual Meeting, Halifax, Nova Scotia.
- Hutchings, J.A.** 1992. The influence of mate competition and age at maturity on the evolution of alternative mating strategies in male Atlantic salmon, *Salmo salar*. Association For The Study of Animal Behaviour Annual Meeting, Glasgow, U.K.
- Hutchings, J.A.** 1991. Behavioural implications of intraspecific life history variation. Symposium on Behavioural Ecology of Fishes, Erice, Sicily.

- Hutchings, J.A.** 1991. Reaction norms for maturation in brook trout and their influence on evolutionary changes effected by size-selective exploitation. Symposium on The Control of Evolving Systems, Jülich, Germany.
- Hutchings, J.A.** 1990. The threat of extinction to native populations experiencing spawning intrusions by cultured Atlantic salmon. International Symposium on Interactions Between Cultured and Wild Atlantic Salmon, Loen, Norway.
- Contributed Conference Presentations (to 2010)*
- Houde, A.S., Fraser, D.J., O'Reilly, P. and **J.A. Hutchings**. 2010. Inbreeding and outbreeding depression in endangered populations fo Atlantic salmon. 63<sup>rd</sup> Canadian Conference For Fisheries Research, Winnipeg.
- Hutchings, J.A.** 2010. A limit reference point for fisheries-induced evolution. 63<sup>rd</sup> Canadian Conference For Fisheries Research, Winnipeg.
- Weir, L.K., **Hutchings, J.A.**, and D.D. Heath. 2010. The influence of an alternative male mating strategy on egg fertilization and genetic diversity in Atlantic salmon. 63<sup>rd</sup> Canadian Conference For Fisheries Research, Winnipeg.
- Hutchings, J.A.** 2009. Evolution by natural and anthropogenic selection: contributions from fish and fisheries science. 139<sup>th</sup> Annual Meeting, American Fisheries Society, Nashville, TN.
- Hutchings, J.A.**, Arbour, J., and P. Avendaño. 2009. From 1988 to 2008: notes on the natural history of non-commercial Atlantic marine fishes. 62<sup>nd</sup> Canadian Conference For Fisheries Research, Ottawa.
- Fraser, D.J., and **J.A. Hutchings**. 2008. Parental divergence predicts the degree of outbreeding depression between farmed and wild Atlantic salmon. 61<sup>st</sup> Canadian Conference For Fisheries Research, Halifax, NS.
- Fraser, D.J., and **J.A. Hutchings**. 2008. Genetic interactions between escaped farmed and wild Atlantic salmon in the Northwest Atlantic. Am. Fish. Soc. Symposium, Ottawa, ON.
- Houde, A.S., Fraser, D.J., and **J.A. Hutchings**. 2008. Ecological interactions between juveniles of multi-generational crosses of farmed and wild Atlantic salmon. 61<sup>st</sup> Canadian Conference For Fisheries Research, Halifax, NS.
- Hutchings, J.A.** 2008. On threshold traits, conservation biology, Ram and  $r$ . 2<sup>nd</sup> Conference of the Canadian Society For Ecology and Evolution, Vancouver.
- Hutchings, J.A.** 2008. Alternative reproductive strategies then and now: 25 years of study of Atlantic salmon. 61<sup>st</sup> Canadian Conference For Fisheries Research, Halifax, NS.
- Hutchings, J.A.** 2008. Ransom Aldrich Myers (1952-2007): an appreciation. 61<sup>st</sup> Canadian Conference For Fisheries Research, Halifax, NS.
- Morris, M., Fraser, D.J., Heggelin, A.J., Carr, J.W., O'Neil, S.F., Whoriskey, F.G., and **J.A. Hutchings**. 2008. Prevalence and recurrence of escaped farmed Atlantic salmon (*Salmo salar*) in eastern North American rivers. 61<sup>st</sup> Canadian Conference For Fisheries Research, Halifax, NS.
- Normandeau, É., **Hutchings, J.A.**, Fraser, D.J., and L. Bernatchez. 2008. Domestication, hybridization and gene expression in *Salmo salar*. 2<sup>nd</sup> Conference of the Canadian Society For Ecology and Evolution, Vancouver.
- Hardie, D.C., and **J.A. Hutchings**. 2007. The growth consequences of cannibalism in Atlantic cod populations in Canadian Arctic lakes. 60<sup>th</sup> Canadian Conference For Fisheries Research, Montréal, PQ.

- Hutchings, J.A.**, and S. Rowe. 2007. Influence of reproductive behaviour on fishery-induced evolution. 60<sup>th</sup> Canadian Conference For Fisheries Research, Montréal, PQ.
- Weir, L.K., Breau, C., **Hutchings, J.A.**, and R.A. Cunjak. 2007. Variance in male reproductive success and correlates of multiple paternity in a naturally spawning Atlantic salmon population. 60<sup>th</sup> Canadian Conference For Fisheries Research, Montréal, PQ.
- Hutchings, J.A.**, and S. Rowe. 2006. Potential consequences of reproductive behaviour and mating system complexity on fishery-induced evolution. ICES Annual Conference, Maastricht, Netherlands.
- Hardie, D.C., Bower, R.M., and **J.A. Hutchings**. 2006. The effects of isolation and colonization history on the genetic structure of marine-relict populations of Atlantic cod in the Canadian Arctic. 59<sup>th</sup> Canadian Conference For Fisheries Research, Calgary, AB.
- Hutchings, J.A.**, Swain, D.P., Puvanendran, V., Rowe, S., and J.A. Brown. 2006. Genetic differences in life history reaction norms among populations of Atlantic cod (*Gadus morhua*). Fisheries Society of the British Isles Annual Meeting, Aberdeen, UK.
- Hutchings, J.A.**, Swain, D.P., Puvanendran, V., Rowe, S., and J.A. Brown. 2006. Genetic differences in Atlantic cod reaction norms: linking individual and population responses to the environment. 7<sup>th</sup> International Congress on the Biology of Fish, St. John's, NL.
- Morrissey, M.M., **Hutchings, J.A.**, and M.M. Ferguson. 2006. Selection on phenotypic and genetic variation in brook trout (*Salvelinus fontinalis*) in Freshwater River, Newfoundland. 59<sup>th</sup> Canadian Conference For Fisheries Research, Calgary, AB.
- Rowe, S., and **J.A. Hutchings**. 2006. Phenotypic and behavioural correlates of individual variation in Atlantic cod reproductive success. Fisheries Society of the British Isles Annual Meeting, Aberdeen, UK.
- Rowe, S., and **J.A. Hutchings**. 2006. Population consequences of individual variability in reproductive behaviour of Atlantic cod. 7<sup>th</sup> Int. Congress on Fish Biology, St. John's.
- Weir, L.K., Breau, C., **Hutchings, J.A.**, and R.A. Cunjak. 2006. Spatial variability of multiple paternity in a naturally spawning population of Atlantic salmon, *Salmo salar*. Fisheries Society of the British Isles Annual Meeting, Aberdeen, UK.
- Darwish, T., and **J.A. Hutchings**. 2005. Genetic and environmental influences on fitness-related traits in three populations of Atlantic salmon (*Salmo salar*). 90<sup>th</sup> Ecological Society of America Annual Meeting, Montreal, PQ.
- Hutchings, J.A.**, and J.K. Baum. 2005. Measuring marine fish biodiversity. 58<sup>th</sup> Canadian Conference For Fisheries Research, Windsor, ON.
- Rowe, S., and **J.A. Hutchings**. 2005. Phenotypic and behavioural correlates of individual variation in Atlantic cod reproductive success. 58<sup>th</sup> Can. Conference For Fisheries Research, Windsor.
- Weir, L.K., Grant, J.W.A., and **J.A. Hutchings**. 2005. Operational sex ratio and aggression within alternative strategies in male Atlantic salmon, *Salmo salar*. 90<sup>th</sup> Ecological Society of America Annual Meeting, Montreal, PQ.
- Hutchings, J.A.** 2004. Life history consequences of over-exploitation to population recovery of Northwest Atlantic cod. 57<sup>th</sup> Can. Conference For Fisheries Research, St. John's, NL.
- Hutchings, J.A.**, Puvanendran, V., Swain, D.P., Brown, J.A. and W.R. Driedzic. 2004. Genetic determinants of population variation in Atlantic cod growth, survival and

- phenotypic plasticity 57<sup>th</sup> Canadian Conference For Fisheries Research, St. John's, NL.
- Marcil, J., Swain, D.P. and **J.A. Hutchings**. 2004. Genetic differences in body shape among populations of Atlantic cod (*Gadus morhua*). 57<sup>th</sup> Canadian Conference For Fisheries Research, St. John's, NL.
- Marcil, J., Swain, D.P. and **J.A. Hutchings**. 2004. Countergradient variation in body shape of a widespread marine fish, the Atlantic cod (*Gadus morhua*). Society for the Study of Evolution Annual Meeting, Fort Collins, CO.
- McCairns, R.J.S., **Hutchings, J.A.**, and T.W. Knight. 2004. Countergradient variation in growth and associated life-history trade-offs in brook trout from western Newfoundland. 57<sup>th</sup> Canadian Conference For Fisheries Research, St. John's, NL.
- Purchase, C.P., **Hutchings, J.A.**, and G.E. Morgan. 2004. Statistical versus biological deviation in walleye life history invariants. Ecological and Evolutionary Ethology of Fishes 2004 Meeting, Sauðarkrokur, Iceland.
- Rowe, S., and **J.A. Hutchings**. 2004. Sound production by Atlantic cod during spawning. Ecological and Evolutionary Ethology of Fishes 2004 Meeting, Sauðarkrokur, Iceland.
- Rowe, S., and **J.A. Hutchings**. 2004. Implications of mating systems for the collapse and recovery of Atlantic cod. 57<sup>th</sup> Canadian Conference For Fisheries Research, St. John's, NL.
- Weir, L.K., **Hutchings, J.A.**, Fleming, I.A., and S. Einum. 2004. Studs or duds? The influence of artificial selection on the spawning behaviour of male Atlantic salmon. 57<sup>th</sup> Canadian Conference For Fisheries Research, St. John's, NL.
- Adams, B.K., and **J.A. Hutchings**. 2003. Evidence for genetically distinct anadromous and non-anadromous Atlantic salmon (*Salmo salar*) in wild and introduced populations. 56<sup>th</sup> Canadian Conference For Fisheries Research, Ottawa, ON.
- Den Heyer, N., Lanteigne, M., Chadwick, E.M.P., and **J.A. Hutchings**. 2003. The contribution of seasonal movement to recruitment in a Canadian lobster fishery. 133<sup>rd</sup> Annual Meeting, American Fisheries Society, Québec, PQ.
- Hutchings, J.A.** 2003. Survival consequences of sex-biased patterns in seasonal growth. 56<sup>th</sup> Canadian Conference For Fisheries Research, Ottawa, ON.
- Hutchings, J.A.** 2003. Causes and consequences of sex-biased dispersal in salmonid fish. Fisheries Society of the British Isles, University of East Anglia, Norwich, UK.
- McCairns, R.J.S., **Hutchings, J.A.**, and T.W. Knight. 2003. Variation in brook trout (*Salvelinus fontinalis*) life histories along an altitudinal gradient: an hypothesized adaptive response. 133<sup>rd</sup> Annual Meeting, American Fisheries Society, Québec, PQ.
- Rowe, S., and **J.A. Hutchings**. 2003. The mating behaviour of Atlantic cod. 56<sup>th</sup> Canadian Conference For Fisheries Research, Ottawa, ON.
- Rowe, S., and **J.A. Hutchings**. 2003. Sound production by Atlantic cod during spawning. 133<sup>rd</sup> Annual Meeting, American Fisheries Society, Québec, PQ.
- Weir, L.K., **Hutchings, J.A.**, Fleming, I.A., and S. Einum. 2003. Spawning behaviour and fertilization success of male Atlantic salmon of farmed and wild origin. 56<sup>th</sup> Canadian Conference For fisheries Research, Ottawa, ON.
- Weir, L.K., **Hutchings, J.A.**, Fleming, I.A., and S. Einum. 2003. Behavioural similarities and differences among Atlantic salmon males of farmed and wild origin. 133<sup>rd</sup> Annual Meeting, American Fisheries Society, Québec, PQ.



- Adams, B.K., and **J.A. Hutchings**. 2002. Anadromous and non-anadromous life history strategies in Atlantic salmon (*Salmo salar*). 55<sup>th</sup> Can. Conf. For Fish. Res., Vancouver.
- Rowe, S., and **J.A. Hutchings**. 2002. The mating behaviour of Atlantic cod (*Gadus morhua*). International Workshop on the Application of Passive Acoustics in Fisheries, Boston.
- Weir, L.K., **Hutchings, J.A.**, and I.A. Fleming. 2002. The effect of domestication on spawning behaviour and reproductive success of mature male Atlantic salmon parr. Ecology, Ethology and Evolution of Fishes Conference, Québec, PQ.
- Hutchings, J.A.**, and S. Rowe. 2001. Life history and conservation biology of marine fishes: perceptions and caveats. 54<sup>th</sup> Canadian Conference For Fisheries Research, Toronto.
- Rowe, S., and **J.A. Hutchings**. 2001. Patterns and processes of mating in Atlantic cod. Fisheries Society of the British Isles Annual Meeting, Leicester, UK.
- Rowe, S., and **J.A. Hutchings**. 2001. Mating system of Atlantic cod. Fish Bioacoustics Meeting, Evanston, Illinois, USA.
- Adams, B.K., and **J.A. Hutchings**. 2000. Population genetics and adaptive life histories of wild brook charr, *Salvelinus fontinalis*. 53<sup>rd</sup> Canadian Conference For Fisheries Research, Fredericton, NB.
- Hutchings, J.A.** 2000. Sex-biased dispersal and temporal consistency in habitat use by brook trout. 53<sup>rd</sup> Canadian Conference For Fisheries Research, Fredericton, New Brunswick.
- Jones, M.W., McParland, T.L., **Hutchings, J.A.**, Dansmann, R.G., and D. Clay. 2000. Low genetic variability in brook trout lakes. 53<sup>rd</sup> Canadian Conference For Fisheries Research, Fredericton.
- Adams, B.K., and **J.A. Hutchings**. 1999. Population genetics and adaptive life histories of wild brook charr, *Salvelinus fontinalis*. Can. Soc. Zool., Ottawa, ON.
- Jones, M.W., and **J.A. Hutchings**. 1999. Reproductive success in Atlantic salmon (*Salmo salar*): effects of parr size and intensity of mate competition. Amer. Soc. Ichthyol. Herpetol., State College, Penn.
- Hutchings, J.A.**, Pickle, A., McGregor-Shaw, C.R., and L. Poirier. 1999. An energetic basis for a survival cost of reproduction in brook trout, *Salvelinus fontinalis*. Can. Soc. Zool., Ottawa.
- MacDonald, J.A., and **J.A. Hutchings**. 1999. Alternative reproductive phenotypes in male white sticklebacks (*Gasterosteus* sp.). Can. Soc. Zool., Ottawa, ON.
- Jones, M.W., McParland, T.L., **Hutchings, J.A.**, and D. Clay. 1998. Temporal changes in genetic variation in Atlantic salmon populations in the Inner Bay of Fundy. 51<sup>st</sup> Canadian Conference For Fisheries Research, Kingston, Ontario.
- Hutchings, J.A.** 1997. Population differences in Atlantic salmon age at maturity: adaptive responses to environmental variation in growth. 36<sup>th</sup> Annual Meeting of the Canadian Society of Zoologists, London, Ontario.
- Cadigan, S.T., and **J.A. Hutchings**. 1997. The ecological history of the nineteenth and early twentieth centuries' Labrador fishery. 76<sup>th</sup> Annual Meeting of the Canadian Historical Association, St. John's, Newfoundland.
- MacDonald, J.F., and **J.A. Hutchings**. 1997. Alternative reproductive behaviour in male white sticklebacks (*Gasterosteus* sp.). 36<sup>th</sup> Annual Meeting of the Canadian Society of Zoologists, London, Ontario.
- Hutchings, J.A.** 1996. Adaptive phenotypic plasticity in brook trout life histories. 35<sup>th</sup> Annual Meeting of the Canadian Society of Zoologists, St. John's, Newfoundland.

- Jones, M.W., **Hutchings, J.A.**, Danzmann, R.G., and D. Clay. 1996. Implications of low genetic variability in brook trout populations in Fundy National Park, New Brunswick. 35th Annual Meeting of the Canadian Society of Zoologists, St. John's, Newfoundland.
- Sinclair, A., Myers, R.A., and **J.A. Hutchings**. 1995. Seal predation: is there evidence of increased mortality on cod? NAFO/ICES Symposium on the Role of Marine Mammals in the Ecosystem, Dartmouth, Nova Scotia.
- Hutchings, J.A.** 1994. Life history metrics of population sustainability: empirical data on Newfoundland cod. Second International Conference on Science and the Management of Protected Areas, Dalhousie University, Halifax, Nova Scotia.
- Hutchings, J.A.**, and R.A. Myers. 1994. The influence of variable growth rate on the evolution of alternative mating strategies. 33rd Annual Meeting of the Canadian Society of Zoologists, Winnipeg, Manitoba.
- Hutchings, J.A.**, and R.A. Myers. 1994. The interplay between life history, overexploitation, and the collapse of Newfoundland cod. 33rd Annual Meeting of the Canadian Society of Zoologists, Winnipeg, Manitoba.
- Hutchings, J.A.** 1993. The evolution of alternative mating strategies in male Atlantic salmon. 46th Canadian Conference For Fisheries Research, Trent University, Peterborough, ON.
- Hutchings, J.A.** 1992. Individual optimisation in salmonid life histories. Symposium on Fish Life History Strategies, Fisheries Society of the British Isles, Liverpool, U.K.
- Hutchings, J.A.**, and D.W. Morris. 1990. The influence of egg size and food abundance on maternal fitness in the brook trout, *Salvelinus fontinalis*. Fourth International Congress of Systematic and Evolutionary Biology, College Park, Maryland.
- Hutchings, J.A.** 1989. The evolutionary significance of population divergence in brook trout, *Salvelinus fontinalis*, life histories. International Symposium on Fish Population Biology, Aberdeen, Scotland.
- Hutchings, J.A.**, and D.W. Morris. 1989. What is the scale of life history variation? 74th Annual Ecological Society of America meeting, Toronto, Ontario.
- Hutchings, J.A.** 1988. The scale of life histories: adaptive variation in populations of brook trout, *Salvelinus fontinalis*. 27th Annual Meeting of the Canadian Society of Zoologists, Halifax, Nova Scotia.
- Hutchings, J.A.** 1987. Mating success of alternative maturation phenotypes in male Atlantic salmon, *Salmo salar*. 26th Annual Meeting of the Canadian Society of Zoologists, Montréal, Québec.
- Hutchings, J.A.** 1984. Lakeward migrations by juvenile Atlantic salmon, *Salmo salar*. 23rd Annual Meeting of the Canadian Society of Zoologists, Wolfville, Nova Scotia.

***Invited Lectures at Universities and Government Laboratories***

November	2017	University of Toronto at Scarborough, Toronto
September	2017	Institute of Marine Research, Flødevigen, Norway
March	2017	University of Gothenburg, Sweden
March	2017	University of Oslo, Norway
March	2017	Institute of Marine Research, Flødevigen, Norway
November	2016	Department of Ecology & Evolutionary Biology, University of Arizona
September	2016	Institute of Marine Research, Flødevigen, Norway
March	2016	Simon Fraser University, Canada
March	2016	University of British Columbia, Canada

November	2015	University of Agder, Norway
October	2015	Acadia University, Canada
November	2014	University of Umeå, Sweden
October	2014	Royal Danish Academy of Sciences and Letters, Copenhagen
October	2014	Tech. Univ. Denmark, Nat. Inst. Aquat, Resources, Copenhagen
August	2014	University of Bangor, Wales
June	2014	University of Trondheim, Norway
April	2014	Leibniz Institute of Freshwater Ecology and Inland Fisheries, Berlin
March	2014	Queen's University
December	2013	University of Oslo, Norway
October	2013	University of Victoria, Canada
November	2012	CSIRO, Hobart, Tasmania, Australia
September	2012	University of Turku, Finland
June	2012	University of Oslo, Norway
April	2012	University of Calgary
January	2012	University of California Santa Cruz
November	2011	Concordia University, Montreal
October	2011	University Aula, Oslo
July	2011	Holar University, Iceland
April	2011	University of Oslo, Norway
November	2010	University of Oslo, Norway
October	2010	Memorial University of Newfoundland, St. John's, NL
March	2010	University of Helsinki, Finland
November	2009	NMFS/NOAA Fisheries Laboratory, Seattle, WA
October	2009	Memorial University of Newfoundland, St. John's, NL
May	2009	Department of Fisheries & Oceans, Ottawa
May	2009	Standing Committee on Fisheries & Oceans, Canadian Senate, Ottawa
May	2009	Standing Committee on the Environment, House of Commons, Ottawa
March	2009	University of North Carolina, Wilmington, NC
March	2009	University of California, Riverside, CA
April	2008	Zoological Society of London, London, UK
February	2008	Great Lakes Institute For Environmental Research, Univ. Windsor
April	2007	Centre for Environ., Fisheries & Aquaculture Science (CEFAS), Lowestoft, UK
April	2007	IUCN Species Programme, UK Office, Cambridge, UK
February	2007	Department of Marine Biology, University of Bergen, Bergen, Norway
November	2006	Dept Fisheries & Oceans, Bedford Inst. Oceanography, Dartmouth, NS
June	2006	Department of Biology, Hólar University College, Hólar, Iceland
April	2006	Department of Biology, University of Umeå, Umeå Sweden
April	2006	Department of Aquaculture, Swedish Univ. Agric. Sci., Umeå, Sweden
February	2006	School of Fisheries & Aquatic Sciences, Univ. Washington, Seattle, WA
November	2005	Concordia University, Montreal, QC
October	2005	Dept Fisheries & Oceans, Bedford Inst. Oceanography, Dartmouth, NS
September	2005	Memorial University of Newfoundland, St. John's, NL
February	2005	Simon Fraser University, Burnaby, BC
November	2004	University of New Brunswick, Fredericton, NB

November	2004	University of New Brunswick at Saint John, Saint John, NB
October	2004	Memorial University of Newfoundland, St. John's, NL
August	2004	Marine Research Institute, Reykjavik, Iceland
April	2004	Department of Biological Sciences, Simon Fraser Univ., Burnaby, BC
March	2004	Department of Biology, University of Calgary, Calgary, AB
March	2004	Department of Biology, University of Massachusetts, Amherst, MA
January	2004	Dept. Biology, Acadia University, Wolfville, NS
September	2003	West Block, Parliament Buildings, Ottawa, ON
April	2003	Zoological Society of London, London, UK
February	2003	Dept Fisheries & Oceans, Bedford Inst. Oceanography, Dartmouth, NS
November	2002	Dept. Biology, Université Laval, Ste. Foy, QC
November	2002	Dept. Biology, Université du Québec à Trois-Rivières, Trois-Rivières
November	2002	Dept. Biology, Université de Sherbrooke, Sherbrooke, QC
September	2002	Dept. Resource & Environ. Stud., Simon Fraser Univ., Burnaby, BC
April	2002	Department of Biology, University of Sheffield, Sheffield, UK
March	2002	Department of Zoology, University of Göteborg, Göteborg, Sweden
March	2002	Department of Zoology, University of Manitoba, Winnipeg, MB
February	2002	Inst. Cell, Animal & Pop. Biol., University of Edinburgh, UK
January	2002	Division of Ecology & Evolution, University of Glasgow, UK
December	2001	Dept Fisheries & Oceans, Bedford Inst. Oceanography, Dartmouth, NS
June	2000	Department of Biology, Memorial Univ. Newfoundland, St. John's, NF
April	2000	Biologisk Institutt, University of Oslo, Oslo, Norway
March	2000	Department of Aquaculture, Swedish Univ. Agric. Sci., Umeå, Sweden
November	1999	Dept of Biology, Erindale College (Univ. Toronto), Mississauga, ON
April	1999	Fisheries & Wild. Sci., Virginia Poly. Inst. State Univ., Blacksburg, VA
March	1999	Department of Zoology, University of Guelph, Guelph, ON
November	1998	Department of Zoology, University of British Columbia, Vancouver, BC
November	1998	Pacific Biological Station, Nanaimo, BC
October	1998	Department of Biology, St. Francis Xavier University, Antigonish, NS
October	1998	Department of Biology, Memorial Univ. Newfoundland, St. John's, NL
April	1998	Department of Biology, University of New Brunswick, Fredericton, NB
November	1997	Department of Biology, McGill University, Montréal, QC
November	1997	Department of Biology, Concordia University, Montréal, QC
November	1997	Department of Aquaculture, Swedish Univ. Agric. Sci., Umeå, Sweden
November	1997	Bedford Institute of Oceanography, Dartmouth, NS
October	1997	Department of Biology, St. Mary's University, Halifax, NS
October	1997	Department of History, Dalhousie University, Halifax, NS
September	1997	Department of Anthropology, Memorial University, St. John's, NL
September	1997	Faculty of Law, Dalhousie University, Halifax, NS
August	1997	Department of Fisheries & Oceans, Moncton, NB
June	1997	EcoResearch Programme, Memorial University of Nfld., St. John's, NL
November	1996	Department of Biology, Queen's University, Kingston, ON
November	1996	Fish Behavioural Group, Queen's University, Kingston, ON
February	1996	Department of Finance & Resource Mgmt., St. Mary's Univ., Halifax
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