## Curriculum vitae

Personal

Name: Jeffrey Alexander Hutchings

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** 

Killam Professor	Faculty of Science, Dalhousie University
Professor II	Centre for Ecological & Evolutionary
	Synthesis, University of Oslo
Professeur Associé	Université Laval
	Professor II

2004-present	Professor	Dalhousie University
2002-2011	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
1002 2004	A 1' A D. C	M 'III' CM C

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** 

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

# **Professional Responsibilities**

2012-2013	President, Canadian Society for Ecology and Evolution
2012-	Member, Board of Directors, World Wildlife Fund Canada
2010-2011	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

2009-	Scientific Advisor, Sustainable Seafood Policy, Loblaw Companies Ltd, Canada
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

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-	Member, Science Advisory Committee, Royal Society of Canada		
2000-2001	Member Royal Society of Canada Expert Panel on Future of Food Riotechnology		

# Plenary and Keynote Lectures, Honours and Awards

- 2012 Fellow, Royal Canadian Geographical Society
- 2012 Keynote Speaker, World Fisheries Congress, Edinburgh, UK
- 2012 Plenary, European Marine Biological Symposium, Arendal, Norway
- 2012 Distinguished Speaker, 5th Annual Canada Ocean Lecture, Vancouver, BC
- 2012 Keynote Speaker, 1st International Conference on Integrative Salmonid Biology, Oslo
- 2012 Killam Professorship, 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, 139th Meeting of the American Fisheries Society, Nashville, TN, USA
- 2008 Distinguished Speaker, 3<sup>rd</sup> Annual Canada Ocean Lecture, Vancouver, BC
- 2008 Keynote, 7th 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, 61st 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 to Canadian Parliamentary Committees and Parliamentary Officers**

- House of Commons Standing Committee on Finance (Subcommittee on Bill C-38 (Part III) of the Standing Committee on Finance (SC38))
- 2012 Commissioner of the Environment and Sustainable Development, Office of the Auditor General of Canada
- 2012 House of Commons Standing Committee on the Environment and Sustainable Development
- 2012 Senate Standing Committee on Fisheries and Oceans
- 2012 House of Commons Standing Committee on Fisheries and Oceans
- 2011 Commissioner of the Environment and Sustainable Development, Office of the Auditor General of Canada
- 2009 House of Commons Standing Committee on the Environment and Sustainable Development
- 2009 Senate Standing Committee on Fisheries and Oceans
- 2005 House of Commons Standing Committee on Fisheries and Oceans
- 1997 House of Commons Standing Committee on Fisheries and Oceans

## **Professional Reviewing and Advisory Responsibilities**

- 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, Nat. Res. Council (U.S.) 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. Prof. 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

ECOLOGY AND EVOLUTION OF FISHES (Biol/Mari 3067). 1995-present. 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. Class sizes: 1.

2008 Causes and Consequences of Human-Induced Evolution

1998 Minimum Viable Population Analyses1997 Influence of Fishing on Coral Reef Fishes

1995 Integration of Fisher's Local Knowledge with Fisheries Management

#### Graduate

ASSESSMENT OF SPECIES AT RISK IN CANADA. 2007. Graduate student module.

FOUNDATIONS OF ECOLOGY. 2000, 2004, 2008. Graduate student module.

LIFE HISTORY STRATEGIES. 1996, 1998. Graduate student module.

NATURAL SELECTION. 2003. Graduate student module.

PRACTICAL & CONCEPTUAL ISSUES IN BIOLOGICAL RESEARCH. 1997. Graduate student module.

SPECIAL TOPICS COURSES (Biol 4806, 5832).

2003 Life History Strategies in Fish

1998 Evolutionary Models of Foraging Behaviour

1996 Models: From Ideal Gases to Ecology

1996 Dealing With Uncertainty in Fisheries Management

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

- Fraser, Dylan (2005-2009; NSERC Postdoctoral Fellow) Conservation genetics of Atlantic salmon.
- Purchase, Craig (2003-2005; NSERC Postdoctoral Fellow) Life history invariants and phenotypic plasticity.
- 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.
- Debes, Paul (in progress) Fitness consequences of outbreeding depression and life-history variation in Atlantic salmon.
- Keith, David (in progress) Stock-recruitment dynamics at low population sizes.
- Rollinson, Njal (in progress; NSERC Canada Graduate Scholar) Life-history trade-offs between offspring size and offspring number in animals.
- 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**

- Hugenholtz, Emilie (in progress; Prins Bernhard Cultuur Fonds Scholar, Metherlands) Influence of age and size at maturity on recovery of depleted species.
- Oomen, Rebekah (in progress; NSERC Canada Graduate Scholar) Genetic variation in lifehistory 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**

Roney, Nancy (2012) Relationship between habitat size and abundance across species.

Yates, Matthew (2010) 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-biassed 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, *Salvelinus fontinalis*, in relation to size, sex, and reproductive state.

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 Gr	ants and Contracts			
Duration	Agency	Title	Responsibility	Total
2011-2013	Loblaw	Recovering and sustaining	Sole	\$44,000
		marine fish biodiversity		
2010-2012	Canadian Wildlife	Spatial scale of adaptive	Sole	\$58,000
	Federation	variability in Atlantic cod		
2008-2013	NSERC	Evolutionary ecology and	Sole	\$285,650
	(Discovery Grant)	conservation biology of fishe	S	
2008-2011	NSERC	Evolutionary ecology and	Sole	\$120,000
	(Discovery Grant	conservation biology of fishe	S	
	Accelerator Suppl.)			
2008-2013	NSERC (Northern	Ecology of peripheral	Sole	\$75,000
	Research Suppl.)	fish populations at their		
	/	northern extremes		
2008-2013	NSERC (Major	Major resources support	Applicant &	\$546,000
	Resources Support)	for Aquatron Laboratory	10 co-applicar	nts
2008-2009	NSERC (Research	Fish dispersal and movement	Sole	\$40,898
	Tools & Instruments)			
2006-2009	NSERC	Multi-generational	PI	\$519,330
	(Strategic Grant)	interactions between farm &	Co-applicant	
		wild Atlantic salmon	Louis Bernatc	hez
2005-2008	NSERC	Infrastructure Support for	Applicant &	\$375,000
	(MFA)	the Aquatron Laboratory	10 Co-Applica	ants
2005-2006	Polar Continental	Evolutionary ecology	Sole	\$70,000
	Shelf Project	of char on Ellesmere Is.		
2004-2006	National Geographic	Evolutionary Ecology of	Sole	\$28,350
	Society (U.S.)	Arctic Atlantic Cod		
2004-2008	NSERC	Evolutionary	Sole	\$30,000
	(Northern Research	ecology of		
	Supplement)	Arctic fishes		
2004-2005	WWF Endangered	Mechanisms of non-	Sole	\$18,000
	Species Recov. Fund	recovery in Atlantic cod		
2004-2005	SSHRC	Canada's marine	with David	\$26,500
		species at risk:	VanderZwaag	
		science and law		
2004-2005	Polar Continental	Evolutionary ecology	Sole	\$75,000
	Shelf Project	of Arctic marine fishes		
2003-2007	NSERC	Causes and consequences of	Sole	\$200,000
	(Discovery Grant	life history variation in fish		
2003-2004	Polar Cont.	Evolutionary ecology	Sole	\$45,000
	Shelf Proj.	of Arctic marine fishes		
2003-2004	North. Sci.	Atlantic cod populations	Sole	\$3,800
	Train. Prog.	on Baffin Island		

Duration	Agency	Title	Responsibility	
2001-2004	Orion	Dispersal and migration of	Sole	\$30,000
	Seafoods	American lobster		
2001-2004	Fisheries	American lobster spatial	Sole	\$30,000
	& Oceans	dynamics		
2000-2004	NSERC	Genetic and environmental	PI Hutchings;	
	(Strategic)	determinants of population	co-applicants:	
2000 2002	Mark	variation in Atlantic cod	D Swain, W I	
2000-2003	NSERC	Genetic and ecological	Sole	\$360,500
	(Aquanet	interactions between farm		
2000 2004	NCE)	and wild Atlantic salmon	4 1 0	<b>#2.5</b> 0.000
2000-2004	NSERC	Infrastructure Support for	Applicant &	\$350,000
1000 2002	(MFA)	the Aquatron Laboratory	15 Co-Applic	
1999-2003	NSERC	Influence of Environmental	Sole	\$134,400
	(Research Grant)	Heterogeneity on Life		
1000 2000	D ( C 1	History Evolution	C 1	<b>#25</b> 000
1999-2000	Petro-Canada	The Influence of Fishing	Sole	\$25,000
		on the Spawning Behaviour		
1000 2000	NCEDC	of Atlantic Cod	D. Calcaildina	¢20,000
1999-2000	NSERC	Vehicle in Support of Field Research	R. Scheibling & J. Hutching	
1997-1999	(Equipment) Indian Bay		& J. Hutching Sole	•
1997-1999	Ecosys. Corp	Genetic Analysis of Brook Trout Populations	Sole	\$20,000
1997-1998	Fisheries	Inshore and Offshore	Sole	\$6,400
1997-1996	& Oceans	Discarding of Atlantic Cod	Soic	\$0,400
1996-1997	Fish. & Oceans	Partitioning Cod Mortality	Sole	\$16,000
1996-1997	Parks	Genetic & Ecological	Sole	\$32,500
1770 1777	Canada	Analysis of Brook Trout	Sole	ψ32,300
1995-1999	NSERC	Influence of Environmental	Sole	\$105,780
1775 1777	(Research Grant)	Heterogeneity on Life	5010	Ψ105,700
	(Itesearen Grane)	History Evolution		
1995-1997	Fisheries	Influence of Trawling on	Sole	\$26,000
1330 133,	& Oceans	Atlantic Cod Spawning	2010	<b>42</b> 0,000
1995-1996	Fisheries	Discard Estimates in the	Sole	\$15,450
	& Oceans	Northern Cod Fishery		,
1994	Fisheries	Minimum Viable	Sole	\$5,000
	& Oceans	Population Size in Salmon		•
1992-1993	Fisheries	Interannual Variability in	Sole	\$27,400
	& Oceans	Male Atlantic Salmon		

## **Refereed Research Publications**

- **Hutchings, J.A.,** Côté, I.M., Dodson, J.J., Fleming, I.A., Jennings, S., Mantua, N.J., Peterman, R.M., Riddell, B.E., and A.J. Weaver. 2012. Climate change, fisheries, and aquaculture: trends and consequences for Canadian marine biodiversity. *Environ. Rev.*
- **Hutchings, J.A.,** Côté, I.M., Dodson, J.J., Fleming, I.A., Jennings, S., Mantua, N.J., Peterman, R.M., Riddell, B.E., Weaver, A.J., and D.L. VanderZwaag. 2012. Is Canada fulfilling its obligations to sustain marine biodiversity? A summary review, conclusions, and recommendations. *Environ. Rev.*
- Rollinson, N.J., and **J.A. Hutchings.** In press. Estimating fitness curves for offspring size: integrating theory and empiricism. *Ecology*.
- VanderZwaag, D.L., **Hutchings, J.A.,** Jennings, S., and R.M. Peterman. 2012. Canada's international and national commitments to sustain marine biodiversity. *Environ. Rev.*
- Belmar-Lucero, S., Wood, J.L.A., Scott, S., Harbicht, A., **Hutchings, J.A.,** and D.J. Fraser. 2012. Concurrent habitat and life history influences on effective/census population size ratios in stream-dwelling trout. *Ecology and Evolution* 2: 562-573.
- Debes, P.V., Normandeau, E., Fraser, D.J., Bernatchez, L., and **J.A. Hutchings.** 2012. Differences in transcription levels among wild, domesticated and hybrid Atlantic salmon (*Salmo salar*) from two environments. *Mol. Ecol.* 21: 2574-2587.
- **Hutchings, J.A.,** Butchart, S.H., Collen, B., Schwartz, M.K., and R.S. Waples. 2012. Red flags: correlates of impaired species recovery. *Trends Ecol. Evol.* 27: 542-546.
- **Hutchings, J.A.**, Myers, R.A., García, V.B., Lucifora, L.O., and A. Kuparinen. 2012. Life-history correlates of extinction risk and recovery potential. *Ecol. Applic.* 22: 1061-1067.
- Keith, D.M., and **J.A. Hutchings**. 2012. Population dynamics of marine fishes at low abundance. *Can. J. Fish. Aquat. Sci.* 69: 1150-1163.
- Kuparinen, A., and **J.A. Hutchings**. 2012. Consequences of fisheries-induced evolution for population productivity and recovery potential. *Proc. R. Soc. B* 279: 2571-2579.
- Kuparinen, A., Hardie, D.C., and **J.A. Hutchings**. 2012. Evolutionary and ecological feedbacks of the survival cost of reproduction. *Evol. Applic*. 5: 245-255.
- Kuparinen, A., Mäntyniemi, S., **Hutchings, J.A.**, and S. Kuikka. 2012. Increasing biological realism of fisheries stock assessment: towards hierarchical Bayesian methods. *Environmental Reviews* 20: 135-151.
- Mogensen, S., and **J.A. Hutchings.** 2012. Maternal fitness consequences of interactions between agents of mortality in early life of salmonids. *Can. J. Fish. Aquat. Sci.* 69: 1539-1555.
- Weir, L.K., **Hutchings, J.A.**, and D.D. Heath. 2012. Influence of density and major histocompatibility genotype on sexual selection in a salmonid alternative mating strategy. *Can. J. Fish. Aquat. Sci.* 69: 670-680.
- Anderson, S.C., Farmer, R.G., Ferretti, F., Houde, A.L.S., and **J.A. Hutchings.** 2011. Correlates of extinction risk in Canada. *BioScience* 61: 538-549.
- Arbour, J.H., Hardie, D.C., and **J.A. Hutchings.** 2011. Morphometric and genetic analyses of two sympatric morphs of Arctic char (*Salvelinus alpinus*) in the Canadian High Arctic. *Canadian Journal of Zoology* 89: 19-30.
- Freedman, B., **Hutchings, J.A.**, Gwynne, D.T., Smol, J.P., Suffling, R., Turkington, R., and R.L. Walker. 2011. *Ecology: A Canadian Context*. Nelson Education, Toronto.
- Hardie, D.C., and J.A. Hutchings. 2011. The ecology of Atlantic cod (Gadus morhua) in

- Canadian Arctic lakes. Arctic 64: 137-150.
- Hindar, K., **Hutchings, J.A.,** Diserud, O.H., and P. Fiske. 2011. Stock, recruitment and exploitation. In: *Atlantic Salmon Ecology*, Aas, O., Klemetsen, A., Einum, S., and J. Skurdal [eds], Wiley-Blackwell, London, pp. 299-331.
- Houde, A.L.S., Fraser, D.J., O'Reilly, P., and **J.A. Hutchings**. 2011. Relative risks of inbreeding and outbreeding depression in the wild in endangered salmon. *Evolutionary Applications* 4: 634-647.
- Houde, A.L.S., Fraser, D.J., O'Reilly, P., and **J.A. Hutchings**. 2011. Maternal and paternal effects on fitness correlates in outbred and inbred Atlantic salmon (*Salmo salar*). *Canadian Journal of Fisheries and Aquatic Sciences* 68: 534-549.
- **Hutchings, J.A.** 2011. Old wine in new bottles: reaction norms in salmonid fishes. *Heredity* 106: 421-437.
- **Hutchings, J.A.**, and R.W. Rangeley. 2011. Correlates of recovery for Canadian Atlantic cod. *Canadian Journal of Zoology* 89: 386-400.
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- **Hutchings, J.A.,** and D.J. Fraser. 2009. Adaptive phenotypic plasticity in Atlantic salmon and Atlantic cod and its relevance to risk assessments of aquaculture. International Council for the Exploration of the Sea Annual Conference, Berlin. ICES CM 2009Q:4.
- **Hutchings, J.A.,** and S. Rowe. 2006. Potential consequences of reproductive behaviour and mating system complexity on fishery-induced evolution. ICES CM 2006H:15.

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- Hardie, C.D., and **J.A. Hutchings**. 2003. Landlocked Atlantic cod (*Gadus morhua*) in the Canadian Arctic. *In* R.K. Danby, H. Castleden, A.R. Giles and J. Rausch [eds], *Breaking the Ice*, Proc. 7<sup>th</sup> Association of Canadian Universities for Norther Studies (Inter)National Student Conference on Northern Studies, CCI Press, Edmonton, pp. 194-196.
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## **Book Reviews**

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- **Hutchings, J.A.** 1995. Gotelli, N.J. (1995) *A Primer of Ecology*. Choice Curr. Rev. Acad. Lib. (Dec), No. 33-2116.
- **Hutchings**, J.A. 1995. Brown, J.H. (1995) *Macroecology*. Choice Curr. Rev. Acad. Lib. (Dec), No. 33-2114.
- **Hutchings, J.A.** 1995. Kranze, E. (1995) *Wild Life: The Remarkable Lives of Ordinary Animals*. Choice Curr. Rev. Acad. Lib. (Mar), No. 33-3910.

## **Lectures and Presentations**

# Invited Conference and Symposium Presentations

- **Hutchings, J.A.** 2010. Key questions in behavioural ecology, population dynamics and conservation biology when would molecular information make a difference? Colloquium on *Bridging the Gap Between Molecular Genetics and Evolutionary Genetics*, University of Oslo, Norway.
- **Hutchings, J.A.** 2010. Trends in the ecosystem and biodiversity health of Canada's three oceans. 24<sup>th</sup> International Conference for Conservation Biology, Edmonton.
- **Hutchings, J.A.** 2010.COSEWIC and SARA: a successful model for linking conservation science with the listing of species at risk. 24<sup>th</sup> International Conference for Conservation Biology, Edmonton.
- **Hutchings**, **J.A.** 2010. The evolution of small fish: selection against that which we desire most from marine fisheries. *Darwin Day Celebrations*, University of Oslo, Norway.
- **Hutchings, J.A.** 2009. Causes, correlates, and consequences of declining marine fish biodiversity. 139<sup>th</sup> Meeting of the American Fisheries Society, Nashville, TN.
- **Hutchings, J.A.,** and D.J. Fraser. 2009. Adaptive phenotypic plasticity in Atlantic salmon and Atlantic cod and its relevance to risk assessments of aquaculture. International Council for the Exploration of the Sea Annual Conference, Berlin.
- **Hutchings, J.A.** 2009. Genetic variation in threshold reaction norms for alternative reproductive tactics in male Atlantic salmon. Evolutionary Society for Evolutionary Biology, Turin, Italy.
- Hutchings, J.A. 2008. Lament for a nation's oceans. Canada Ocean Lecture, Vancouver.

- **Hutchings, J.A.** 2008. The adaptive significance and demographic consequences of phenotypic plasticity in marine fishes. 7<sup>th</sup> International Symposium on Flatfishes, Sesimbra, Portugal.
- **Hutchings, J.A.** 2008. Management implications of fisheries-induced evolution. Symposium on *Evolving Fish, Changing Fisheries*, 138<sup>th</sup> Meeting of the American Fisheries Society, Ottawa.
- **Hutchings, J.A.** 2008. Canadian fishes at risk: status assessment, legal listing, and the communication of science. Symposium on *Freshwater Fishes of Canada: Changes Since* 1973, 138<sup>th</sup> Meeting of the American Fisheries Society, Ottawa.
- **Hutchings, J.A.** 2008. Genetic variability in life-history reaction norms among populations of Atlantic cod, *Gadus morhua*. Society for Experimental Biology Symposium, Sète, France.
- **Hutchings, J.A.** 2008. Canadian species at risk: assessment, listing and the communication of science. 61<sup>st</sup> Canadian Conference For Fisheries Research, Halifax, NS.
- **Hutchings, J.A.** 2007. Genetic variability in reaction norms: fish population responses to environmental change. Symposium in Honour of Fred Utter: Six Decades of Fish Genetics. University of Washington, Seattle.
- **Hutchings, J.A.,** and D.J. Fraser. 2007. Fishing, farming and their evolutionary consequences to fishes. Evolutionary change in Human-Altered Environments, University of California, Los Angeles.
- **Hutchings, J.A.** 2006. The assessment of species-at-risk in Canada amidst growing pains with the Species at Risk Act. Atlantic Canadian Species At Risk Conference, Lunenburg, NS.
- **Hutchings, J.A.** 2006. Life history correlates of the collapse, recovery, and biodiversity of marine fishes. *Bevan Lecture Series on Sustainable Fisheries*, University of Washington, Seattle, WA.
- **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.
- **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, Wooton-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.

- 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.  $2^{nd}$  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. 54th 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-biassed dispersal and temporal consistency in habitat use by brook trout. 53rd 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. 53rd 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. 51st 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. 36th 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. 76th 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.). 36th Annual Meeting of the Canadian Society of Zoologists, London, Ontario.
- **Hutchings**, **J.A.** 1996. Adaptive phenotypic plasticity in brook trout life histories. 35th 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	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, University of 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, PQ
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 University, Burnaby
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, PQ
November	2002	Dept. Biology, Université du Québec à Trois-Rivières, Trois-Rivières, PQ
November	2002	Dept. Biology, Université de Sherbrooke, Sherbrooke, PQ
September	2002	Dept. Resource & Environ. Stud., Simon Fraser University, 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
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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, PQ
November	1997	Department of Biology, Concordia University, Montréal, PQ
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, NS
February	1996	Faculty of Law, Dalhousie University, Halifax, NS
November	1995	Department of Biology, Mount Allison University, Sackville, NB
November	1995	Department of Biology, St. Francis Xavier University, Antigonish, NS
May	1995	Norwegian Institute for Nature Research, Trondheim, Norway
March	1994	Department of Biology, Dalhousie University, Halifax, NS
March	1994	Department of Zoology, University of Toronto, Toronto, ON
October	1993	Centre For Northern Studies, Lakehead University, Thunder Bay, ON
October	1993	Department of Biology, Lakehead University, Thunder Bay, ON
September	1993	Department of Biology, York University, Toronto, ON
September	1992	Department of Ecology, University of Bergen, Bergen, Norway
August	1992	Biology Department, St. Andrews University, St. Andrews, Scotland
February	1992	Swedish University of Agricultural Sciences, Umeå, Sweden
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