

Curriculum vitae

Personal

Name: Jeffrey Alexander Hutchings
Address: Department of Biology, Dalhousie University
Halifax, Nova Scotia B3H 4J1 Canada
Tel: +1 902 494 2687 FAX: +1 902 494 3736
email: *Jeff.Hutchings@dal.ca*
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

2010-present	International Professor	Centre for Ecological & Evolutionary Synthesis, University of Oslo
2006-2009	Professeur Associé	Université Laval
2004-present	Professor	Dalhousie University
2002-present	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

2009-present	Editorial Board	<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

2012-2013	President, <i>Canadian Society for Ecology and Evolution</i>
2010-2011	Chair, <i>Royal Society of Canada Expert Panel on Sustaining Canada's Marine Biodiversity: Responding to the Challenges Posed by Climate Change, Fisheries, and Aquaculture</i>

- 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*
- 2008- Member, Committee on Expert Panels, *Royal Society of 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 Councillor and Founding Member, *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)*
- 2000-2001 Member, *Royal Society of Canada* Expert Panel on *Future of Food Biotechnology*
- 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

Plenary and Keynote Lectures, Honours and Awards

- 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, *3rd 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

Professional Reviewing and Advisory Responsibilities

- 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

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 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 Analyses

1997 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 Responsibilities

- DEVELOPMENT AND MANAGEMENT OF MARINE PROTECTED AREAS*. 2004. Nordic Council of Ministers, Finnish Ministry of Environment, and IUCN. Kasnäs, Finland. (Unable to attend.)
HISTORY OF MARINE ANIMAL POPULATIONS: OCEAN SUSTAINABILITY THROUGH THE AGES. 2001. University of Southern Denmark, Esbjerg, Denmark. (Unable to attend.)
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.
 Ricard, Daniel (in progress; co-supervised with Boris Worm) Global analyses of marine fish abundance.
 Rollinson, Njal (in progress; NSERC Canada Graduate Scholar) Life-history trade-offs between offspring size and offspring number in animals.
 Fuller, Susanna (2011; co-supervised with Ransom 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

Oomen, Rebekah (in progress; NSERC Postgraduate 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

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.
- Hubleby, 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 reproductive subtidal and intertidal male white sticklebacks, *Gasterosteus* sp.
- 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 Grants and Contracts

<i>Duration</i>	<i>Agency</i>	<i>Title</i>	<i>Responsibility</i>	<i>Total</i>
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
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	Applicant: Co-applicant	\$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 Arctic char on Ellesmere Island	Sole	\$70,000
2004-2006	National Geographic Society (U.S.)	Evolutionary Ecology of Arctic Atlantic Cod	Sole	\$28,350

<i>Duration</i>	<i>Agency</i>	<i>Title</i>	<i>Responsibility Total</i>	
2004-2008	NSERC (Northern Research Supplement)	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 and 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; co-applicants: J Brown, D Swain, W Driedzic	\$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
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

<i>Duration</i>	<i>Agency</i>	<i>Title</i>	<i>Responsibility</i>	<i>Total</i>
1996-1997	Parks Canada	Genetic & Ecological Analysis of Brook Trout	Sole	\$32,500
1995-1999	NSERC (Research Grant)	Influence of Environmental Heterogeneity on 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 Myers	\$27,400

Refereed Research Publications

Books

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.

Journal Publications

- Anderson, S.C., Farmer, R.G., Ferretti, F., Houde, A.L.S., and **Hutchings, J.A.** 2011. Correlates of extinction risk in Canada. *BioScience*. (In press.)
- Arbour, J.H., Hardie, D.C., and **Hutchings, J.A.** 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. (In press.)
- VanderZwaag, D.L., Engler, C.M., and **J.A. Hutchings**. 2011. SARA and endangered Atlantic salmon: cascade of promises, trickles of protection, and sea of challenges. *Journal of Environmental Law and Practice* (In press.)
- Hardie, D.C., and **J.A. Hutchings**. 2011. The ecology of Atlantic cod (*Gadus morhua*) in Canadian Arctic lakes. *Arctic* 64: 000-000. (In press.)
- Hindar, K., **Hutchings, J.A.**, Diserud, O.H., and P. Fiske. 2011. Stock, recruitment and exploitation. In: Atlantic Salmon Ecology *In: Aas, O., Klemetsen, A., Einum, S., and J. Skurdal [eds], Atlantic Salmon Ecology*, Wiley-Blackwell, London.
- 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*. (In press.)
- Morris, M.R.J., Fraser, D.J., Eddington, J., and **J.A. Hutchings**. 2011. Hybridization effects on phenotypic plasticity: experimental compensatory growth in farmed-wild Atlantic

- salmon. *Evolutionary Applications*. (In press.)
- Rollinson, N.J., and **J.A. Hutchings**. 2011. Why does egg size increase with maternal size? Effects of egg size and egg density on offspring phenotypes in Atlantic salmon (*Salmo salar*). *Evol. Ecol. Res.* (In press.)
- Rollinson, N.J., and **J.A. Hutchings**. 2011. Why does egg size increase with the size of spawning gravels among populations of salmonids?. *Canadian Journal of Fisheries and Aquatic Sciences*. (In press.)
- Rollinson, N.J., and **J.A. Hutchings**. 2011. Body size-specific maternal effects on the offspring environment shape juvenile phenotypes in Atlantic salmon (*Salmo salar*). *Oecologia*. (In press.)
- Romanuk, T.N., Hayward, A., and **J.A. Hutchings**. 2011. Trophic level scales positively with body size in fishes. *Global Ecology and Biogeography* 20: 231-240.
- Rudd, M.A., ..., **Hutchings, J.A.**, and 32 other authors. 2011. Generation of priority research questions to inform conservation policy and management at a national level. *Conservation Biology* 25: 000-000. (In press.)
- Skjæraasen, J.E., Meager, J.J., Karlsen, Ø., **Hutchings, J.A.**, and A. Fernö. 2011. Extreme spawning site fidelity in Atlantic cod. *ICES Journal of Marine Science*. (In press.)
- Weir, L.K., Grant, J.W.A., and **J.A. Hutchings**. 2011. The influence of operational sex ratio on the intensity of competition for mates. *Am. Nat.* 177: 167-176.
- Arbour, J.H., Avendaño, P., and **J.A. Hutchings**. 2010. Aspects of the ecology and life history of alligatorfish, *Aspidophoroides monopterygius*. *Env. Biol. Fish.* 87: 353-362.
- Bradbury, I., Hubert, S., Higgins, B., Borza, T., Bowman, S., Paterson, I., Snelgrove, P., Morris, C., Gregory, R., Hardie, D.C., **Hutchings, J.A.**, Ruzzante, D.E., Taggart, C., and P. Bentzen. 2010. Parallel adaptive evolution of Atlantic cod on both sides of the Atlantic Ocean in response to temperature. *Proceedings of the Royal Society B* 277: 3725-3734.
- Fraser, D.J., Houde, A.L.S., Debes, P.V., O'Reilly, P., Eddington, J.D. and **J.A. Hutchings**. 2010. Consequences of farmed-wild hybridization across divergent wild populations and multiple traits in salmon. *Ecological Applications* 20: 935-953.
- Fraser, D.J., Minto, C., Calvert, A.M., Eddington, J.D., and **J.A. Hutchings**. 2010. Potential for domesticated-wild interbreeding to induce maladaptive phenology across multiple populations of wild Atlantic salmon (*Salmo salar*). *Can. J. Fish. Aquat. Sci.* 67: 1768-1775.
- Hardie, D.C., and **J.A. Hutchings**. 2010. Evolutionary ecology at the extremes of species' ranges. *Environmental Reviews* 18: 1-20.
- Houde, A.L.S., Fraser, D.J., and **J.A. Hutchings**. 2010. Reduced anti-predator responses in multi-generational hybrids of farmed and wild Atlantic salmon (*Salmo salar* L.). *Conservation Genetics* 11: 785-794.
- Houde, A.L.S., Fraser, D.J., and **J.A. Hutchings**. 2010. Fitness-related consequences of competitive interactions between farmed and wild Atlantic salmon at different proportional representations of wild-farmed hybrids. *ICES J. Mar. Sci.* 67: 657-667.
- Hutchings, J.A.**, Minto, C., Ricard, D., Baum, J.K., and O.P. Jensen. 2010. Trends in the abundance of marine fishes. *Can. J. Fish. Aquat. Sci.* 67: 1205-1210
- Skjæraasen, J.E., and **J.A. Hutchings**. 2010. Shifting reproductive success in a shoal of Atlantic

- cod, *Gadus morhua* L. *Env. Biol. Fish.* 88: 311-318.
- Skjæraasen, J.E., Meager, J.J., and **J.A. Hutchings**. 2010. A cost of reproduction in male Atlantic cod (*Gadus morhua*). *Can. J. Zool.* 88: 595-600.
- Weir, L.K., Grant, J.W.A., and **J.A. Hutchings**. 2010. Patterns of aggression and operational sex ratio within alternative male phenotypes in Atlantic salmon. *Ethology* 116: 166-175.
- Weir, L.K., Breau, C., **Hutchings, J.A.**, and R.A. Cunjak. 2010. Multiple paternity and variance in male fertilization success within Atlantic salmon, *Salmo salar*, redds in a naturally spawning population. *J. Fish Biol.* 77: 479-493.
- Darwish, T.L., and **J.A. Hutchings**. 2009. Genetic variability in reaction norms between farmed and wild backcrosses of Atlantic salmon (*Salmo salar*) *Can. J. Fish. Aquat. Sci.* 66: 83-90.
- Den Heyer, C.E., Chadwick, E.M.P., and **J.A. Hutchings**. 2009. Diffusion of American lobster (*Homarus americanus*) in Northumberland strait, Canada. *Can. J. Fish. Aquat. Sci.* 66: 659-671.
- Hutchings, J.A.** 2009. Avoidance of fisheries-induced evolution: management implications for catch selectivity and limit reference points. *Evol. Applic.* 2: 324-334.
- Hutchings, J.A.**, and M. Festa-Bianchet. 2009. Scientific advice on species at risk: a comparative analysis of status assessments of polar bear, *Ursus maritimus*. *Environ. Rev.* 17: 45-51.
- Hutchings, J.A.**, and M. Festa-Bianchet. 2009. Canadian species at risk (2006-2008), with particular emphasis on fishes. *Environ. Rev.* 17: 53-65.
- Lawlor, J.L., Dacanay, A., **Hutchings, J.A.**, Brown, L.L., and S.A. Sperker. 2009. Differences in pathogen resistance within and among cultured, conservation-dependent, and endangered populations of Atlantic salmon, *Salmo salar* L. *Env. Biol. Fish.* 84: 69-78.
- Normandeau, E., **Hutchings, J.A.**, Fraser, D.J., and L. Bernatchez. 2009. Population-specific gene expression responses to hybridization between farm and wild Atlantic salmon. *Evolutionary Applications* 2: 489-503.
- Worm, B., Hilborn, R., Baum, J.K., Branch, T.A., Collie, J.S., Costello, C., Fogarty, M.J., Fulton, E.A., **Hutchings, J.A.**, Jennings, S., Jensen, O.P., Lotze, H.K., Mace, P.M., McClanahan, T.R., Minto, C., Palumbi, S.R., Parma, A.M., Ricard, D., Rosenberg, A.A., Watson, R., and D. Zeller. 2009. Rebuilding global fisheries. *Science* 325: 578-585.
- Bowlby, H.D., Hanson, J.M., and **J.A. Hutchings**. 2008. Stock structure and seasonal distribution patterns of American lobster, *Homarus americanus*, inferred through movement analyses. *Fish. Res.* 90: 279-288.
- Fraser, D.J., Cook, A.M., Eddington, J.D., Bentzen, P., and **J.A. Hutchings**. 2008. Mixed evidence for reduced local adaptation in wild salmon resulting from interbreeding with escaped farmed salmon: complexities in hybrid fitness. *Evolutionary Applications* 1: 501-512.
- Hardie, D.C., Renaud, C.B., Ponomarenko, V.P., Mukhina, N.V., Yaragina, N.A., Skjæraasen, J.E., and **J.A. Hutchings**. 2008. The isolation of Atlantic cod, *Gadus morhua* (Gadiformes), populations in northern meromictic lakes – a recurrent Arctic phenomenon. *J. Ichthyol.* 48: 230-240.
- Hutchings, J.A.** 2008. Ransom Aldrich Myers (1952-2007): in memoriam. *Can. J. Fish. Aquat.*

- Sci.* 65: vii-xix.
- Hutchings, J.A.**, and D.J. Fraser. 2008. The nature of fishing- and farming-induced evolution. *Molecular Ecology* 17: 294-313.
- Hutchings, J.A.**, and S. Rowe. 2008. Consequences of sexual selection for fisheries-induced evolution: an exploratory analysis. *Evolutionary Applications* 1: 129-136.
- Hutchings, J.A.**, and S. Rowe. 2008. Response: on the consequences of sexual selection for fisheries-induced evolution. *Evolutionary Applications* 1: 650-651.
- Morris, M.R.J., Fraser, D.J., Heggelin, A.J., Whoriskey, F.W., Carr, J.W., O'Neil, S.F., and **J.A. Hutchings**. 2008. Prevalence and recurrence of escaped farmed Atlantic salmon (*Salmo salar*) in eastern North American rivers. *Can. J. Fish. Aquat. Sci.* 65: 2807-2826.
- Piché, J., **Hutchings, J.A.**, and W. Blanchard. 2008. Genetic variation in threshold reaction norms for alternative reproductive tactics in male Atlantic salmon, *Salmo salar*. *Proc. R. Soc. B* 275: 1571-1575.
- Purchase, C.P., and **J.A. Hutchings**. 2008. A temporally stable spatial pattern in the spawner density of a freshwater fish: evidence for an ideal despotic distribution. *Can. J. Fish. Aquat. Sci.* 65: 382-388.
- Rowe, S., and **J.A. Hutchings**. 2008. A link between sound producing musculature and mating success in Atlantic cod. *J. Fish Biol.* 72: 500-511.
- Rowe, S., **Hutchings, J.A.**, Skjæraasen, J.E., and L. Bezanson. 2008. Morphological and behavioural correlates of reproductive success in Atlantic cod *Gadus morhua*. *Mar. Ecol. Prog. Ser.* 354: 257-265.
- Williams, J.G., Zabel, R.W., Waples, R.S., **Hutchings, J.A.**, and W.P. Connor. 2008. Potential for anthropogenic disturbances to influence evolutionary change in the life history of a threatened salmonid. *Evolutionary Applications* 1: 271-285.
- Bowlby, H.D., Hanson, J.M., and **J.A. Hutchings**. 2007. Resident and dispersal behavior among individuals within a population of American lobster, *Homarus americanus*. *Mar. Ecol. Prog. Ser.* 331: 207-218.
- Fraser, D.J., Jones, M.W., McParland, T.L., and **J.A. Hutchings**. 2007. Loss of historical immigration and the unsuccessful rehabilitation of extirpated salmon populations. *Conserv. Gen.* 8: 527-546.
- Fraser, D.J., Weir, L.K., Darwish, T.L., Eddington, J.D., and **J.A. Hutchings**. 2007. Divergent compensatory growth responses within species: linked to contrasting migrations in salmon? *Oecologia* 153: 543-553.
- Hutchings, J.A.**, Swain, D.P., Rowe, S., Eddington, J.D., Puvanendran, V., and J.A. Brown. 2007. Genetic variation in life-history reaction norms in a marine fish. *Proc. R. Soc. B* 274: 1693-1699.
- Mooers, A.O., Prugh, L.R., Festa-Bianchet, M., and **J.A. Hutchings**. 2007. Biases in the legal listings under Canadian endangered species legislation. *Conservation Biology* 21: 572-575.
- Rowe, S., **Hutchings, J.A.**, and J.E. Skjæraasen. 2007. Non-random mating in a broadcast spawner: mate size influences reproductive success in Atlantic cod (*Gadus morhua*). *Can. J. Fish. Aquat. Sci.* 64: 219-226.
- Hardie, D.C., Gillett, 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 (*Gadus morhua*) in the Canadian Arctic. *Can. J. Fish. Aquat. Sci.* 63: 1830-1839.
- Hutchings, J.A.** 2006. Survival consequences of sex-biased growth and the absence of a growth-mortality trade-off. *Functional Ecology* 20: 347-353.
- Hutchings, J.A.** 2006. Ecological and fisheries sustainability: common goals uncommonly achieved. In: D.M. Lavigne [ed], *Gaining Ground: In Pursuit of Ecological Sustainability*, University of Limerick, Limerick, pp. 101-112.
- Marcil, J., Swain, D.P. and **J.A. Hutchings**. 2006. Genetic and environmental components of phenotypic variation in body shape among populations of Atlantic cod (*Gadus morhua* L.). *Biol. J. Linn. Soc.* 88: 351-365.
- Marcil, J., Swain, D.P. and **J.A. Hutchings**. 2006. Countergradient variation in body shape of a widespread marine fish, the Atlantic cod (*Gadus morhua*). *Proc. R. Soc. Lond. B.* 273: 217-223.
- Purchase, C.F., **Hutchings, J.A.**, and G.E. Morgan. 2006. The biological and statistical significance of life history invariants in walleye (*Sander vitreus*). *Evolutionary Ecology Research* 8: 295-308.
- Rowe, S., and **J.A. Hutchings**. 2006. Sound production by Atlantic cod during spawning. *Transactions of the American Fisheries Society* 135: 529-538.
- Skjæraasen, J.E., Rowe, S., and **J.A. Hutchings**. 2006. Sexual dimorphism in pelvic fin length of Atlantic cod. *Can. J. Zool.* 84: 856-870.
- Hutchings, J.A.** 2005. Life history consequences of overexploitation to population recovery in Northwest Atlantic cod (*Gadus morhua*). *Can. J. Fish. Aquat. Sci.* 62: 824-832.
- Hutchings, J.A.**, and J.K. Baum. 2005. Measuring marine fish biodiversity: temporal changes in abundance, life history, and demography. *Phil. Trans. R. Soc. Lond.* 360: 315-338.
- Reynolds, J.D., Dulvy, N.K., Goodwin, N.B., and **J.A. Hutchings**. 2005. Biology of extinction risk in marine fishes. *Proc. R. Soc. Lond. B* 272: 2337-2344.
- Weir, L.K., **Hutchings, J.A.**, Fleming, I.A., and S. Einum. 2005. Spawning behaviour and success of mature male Atlantic salmon (*Salmo salar*) parr of farmed and wild origin. *Can. J. Fish. Aquat. Sci.* 62: 1153-1160.
- 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. *Ocean Development and International Law* 36: 219-259.
- Hutchings, J.A.** 2004. The cod that got away. *Nature* 428: 899-900.
- Hutchings, J.A.** 2004. Norms of reaction and phenotypic plasticity in salmonid life histories. In: A.P. Hendry and S.C. Stearns [eds], *Evolution Illuminated: Salmon and Their Relatives*, Oxford University Press, Oxford, pp. 154-174.
- Hutchings, J.A.** 2004. Interactions among collapse, recovery and extinction risk in marine and anadromous fishes. In: Gallagher, P. [ed.], *World Summit on Salmon*, Simon Fraser University, Burnaby, BC, pp. 17- 38.
- Hutchings, J.A.**, and J.D. Reynolds. 2004. Marine fish population collapses: consequences for recovery and extinction risk. *BioScience* 54: 297-309.
- Koops, M.A., **Hutchings, J.A.**, and T.M. McIntyre. 2004. Testing hypotheses about egg production, body size and maternal condition in fishes. *Fish and Fisheries* 5: 120-130.

- Rowe, S., and **J.A. Hutchings**. 2004. The function of sound production by Atlantic cod as inferred from patterns of variation in drumming muscle mass. *Canadian Journal of Zoology* 83: 1391-1398.
- Rowe, S., **Hutchings, J.A.**, Bekkevold, D., and A. Rakitin. 2004. Depensation, probability of fertilization, and the mating system of Atlantic cod. *ICES J. Marine Science* 61: 1144-1150.
- Swain, D.P., **Hutchings, J.A.**, and C.J. Foote. 2004. Environmental and genetic influences on stock identification characters. In: S.X. Cadrin, K.D. Friedland, and J. Waldman [eds], *Stock Identification Methods*, Academic Press, New York, pp. 43-83.
- Weir, L.K., **Hutchings, J.A.**, Fleming, I.A., and S. Einum. 2004. Dominance relationships and behavioural correlates of individual spawning success in farmed and wild male Atlantic salmon, *Salmo salar*. *Journal of Animal Ecology* 73: 1069-1079.
- Wilson, A.J., **Hutchings, J.A.**, and M.M. Ferguson. 2004. Dispersal in a stream dwelling salmonid: inferences from tagging and microsatellite studies. *Conservation Genetics* 5: 25-37.
- Adams, B.K., and **J.A. Hutchings**. 2003. Microgeographic population structure of brook charr: a comparison of microsatellite and mark-recapture data. *J. Fish Biol.* 62: 517-533.
- Hutchings, J.A.** 2003. Update COSEWIC status report on Atlantic cod *Gadus morhua* in Canada. In COSEWIC assessment and status report on the Atlantic cod *Gadus morhua* in Canada. Committee on the Status of Endangered Wildlife in Canada, Ottawa.
- Koops, M.A., **Hutchings, J.A.**, and B.K. Adams. 2003. Environmental predictability and the cost of imperfect information: influences on offspring size variability. *Evol. Ecol. Res.* 5: 29-42.
- McIntyre, T.M., and **J.A. Hutchings**. 2003. Small-scale temporal and spatial variation in Atlantic cod, *Gadus morhua*, life histories. *Can. J. Fish. Aquat. Sci.* 60: 1111-1121.
- Rowe, S., and **J.A. Hutchings**. 2003. Mating systems and the conservation of commercially exploited marine fish. *Trends in Ecology and Evolution* 18: 567-572.
- Wilson, A.J., **Hutchings, J.A.**, and M.M. Ferguson. 2003. Selective and genetic constraints on the evolution of body size in a stream-dwelling salmonid fish. *J. Evol. Biol.* 16: 584-594.
- Hutchings, J.A.** 2002. Life histories of fish. In: P.J.B. Hart and J.D. Reynolds [eds], *Handbook of Fish Biology and Fisheries Vol. 1. Fish Biology*, Blackwell Science, Oxford, pp. 149-174.
- Hutchings, J.A.** 2002. Sustaining Atlantic salmon in the Northwest Atlantic: considerations from a life history perspective. In: K.D. Lynch, M.L. Jones, and W.W. Taylor [eds], *Sustaining North American Salmon: Perspectives Across Regions and Disciplines*, American Fisheries Society, Bethesda, MD, pp. 33-60.
- Hutchings, J.A.**, and L. Gerber. 2002. Sex-biased dispersal in a salmonid fish. *Proc. R. Soc. Lond. B* 269: 2487-2493.
- Hutchings, J.A.**, Neis, B., and P. Ripley. 2002. The nature of cod: perceptions of stock structure and cod behaviour by fishermen, 'experts' and scientists from the nineteenth century to present. In: R. Ommer [ed], *The Resilient Outport: Ecology, Economy and Society in Rural Newfoundland*, ISER Books, St. John's, NF, pp. 140-185.

- Jones, M.W., and **J.A. Hutchings**. 2002. Individual variation in Atlantic salmon fertilization success: implications for effective population size. *Ecological Applications* 12: 184-193.
- Barrett, S.C.H., Beare-Rogers, J.L., Brunk, C.G., Caulfield, T.A., Ellis, B.E., Fortin, M.G., Pong, A.J.H., **Hutchings, J.A.**, Kennelly, J.J., McNeil, J.N., Ritter, L., Wittenberg, K.M., Wyndham, R.C., and R.Y. Yada. 2001. Special issue by an expert panel of The Royal Society of Canada - Elements of precaution: recommendations for the regulation of food biotechnology in Canada. *Journal of Toxicology and Environmental Health- Part A* 64: 1-212.
- Cadigan, S.T., and **J.A. Hutchings**. 2001. Nineteenth-century expansion of the Newfoundland fishery for Atlantic cod: an exploration of underlying causes. *Res. Mar. Hist.* 21: 31-65.
- Hutchings, J.A.** 2001. Conservation biology of marine fishes: perceptions and caveats regarding assignment of extinction risk. *Can. J. Fish. Aquat. Sci.* 58: 108-121.
- Hutchings, J.A.** 2001. Influence of population decline, fishing, and spawner variability on the recovery of marine fishes. *Journal of Fish Biology* 59 (Suppl. A): 306-322.
- Jones, M.W., and **J.A. Hutchings**. 2001. The influence of male parr body size and mate competition on fertilization success and effective population size in Atlantic salmon. *Heredity* 86: 675-684.
- Jones, M.W., McParland, T.L., **Hutchings, J.A.**, and R.G. Danzmann. 2001. Low genetic variability in lake populations of brook trout (*Salvelinus fontinalis*): a consequence of exploitation? *Conservation Genetics* 2: 245-256.
- Hutchings, J.A.** 2000. Collapse and recovery of marine fishes. *Nature (Lond.)* 406: 882-885.
- Hutchings, J.A.** 2000. Numerical assessment in the front seat, ecology and evolution in the back seat: time to change drivers in fisheries and aquatic sciences? *Marine Ecology Progress Series* 208: 299-303.
- Hutchings, J.A.**, and M. Ferguson. 2000. Temporal changes in harvesting dynamics of Canadian inshore fisheries for northern Atlantic cod, *Gadus morhua*. *Can. J. Fish. Aquat. Sci.* 57: 805-814.
- Hutchings, J.A.**, and M. Ferguson. 2000. Links between fishers' knowledge, fisheries science, and management: Newfoundland's inshore fishery for northern Atlantic cod, *Gadus morhua*. In: B. Neis and L. Felt [eds], *Finding Our Sea Legs: Linking Fishery People and their Knowledge with Science and Management*, ISER Books, St. John's, NF, pp. 82-110.
- Hutchings, J.A.** 1999. The influence of growth and survival costs of reproduction on Atlantic cod, *Gadus morhua*, population growth rate. *Can. J. Fish. Aquat. Sci.* 56: 1612-1623.
- Hutchings, J.A.** 1999. The biological collapse of Newfoundland's northern cod. In D. Newell and R. Ommer [eds], *Fishing People, Fishing Places: Traditions and Issues in Canadian Small-Scale Fisheries*, Univ. Toronto Press, pp. 260-275.
- Hutchings, J.A.**, Bishop, T.D., and C.R. McGregor-Shaw. 1999. Spawning behaviour of Atlantic cod, *Gadus morhua*: evidence of mate competition and mate choice in a broadcast spawner. *Can. J. Fish. Aquat. Sci.* 56: 97-104.
- Hutchings, J.A.**, Pickle, A., McGregor-Shaw, C.R., and L. Poirier. 1999. Influence of sex, body size, and reproduction on overwinter lipid depletion in brook trout. *J. Fish Biol.* 55: 1020-1028.

- Neis, B., Schneider, D.C., Felt, L., Haedrich, R.L., Fischer, J., and **J.A. Hutchings**. 1999. Stock assessment: what can be learned from interviewing resource users? *Can. J. Fish. Aquat. Sci.* 56: 1949-1963.
- Hutchings, J.A.**, and M.E.B. Jones. 1998. Life history variation and growth rate thresholds for maturity in Atlantic salmon, *Salmo salar*. *Can. J. Fish. Aquat. Sci.* 55 (Suppl. 1): 22-47.
- Marschall, E.A., Quinn, T.P., Roff, D.A., **Hutchings, J.A.**, Metcalfe, N.B., Bakke, T.A., Saunders, R.L., and N.L. Poff. 1998. A framework for understanding Atlantic salmon (*Salmo salar*) life history. *Can. J. Fish. Aquat. Sci.* 55 (Suppl. 1): 48-58.
- Hutchings, J.A.** 1997. Life history responses to environmental variability in early life. In R.C. Chambers and E.A. Trippel [eds], *Early Life History and Recruitment in Fish Populations*, Chapman and Hall, London, pp. 139-168.
- Hutchings, J.A.** 1997. Spatial and temporal variation in the exploitation of northern cod, *Gadus morhua*: a historical perspective from 1500 to present. In D. Vickers [ed.] *Marine Resources and Human Societies in the North Atlantic Since 1500*, Inst. Soc. Econ. Res., St. John's, NF, pp. 41-68.
- Hutchings, J.A.**, Haedrich, R.L., and C. Walters. 1997. Reply: Scientific inquiry and fish stock assessment in the Canadian Department of Fisheries and Ocean and Reply: The interplay of policy, politics, and science. *Can. J. Fish. Aquat. Sci.* 54: 1430-1431.
- Hutchings, J.A.**, Walters, C., and R.L. Haedrich. 1997. Is scientific inquiry incompatible with government information control? *Can. J. Fish. Aquat. Sci.* 54: 1198-1210.
- Myers, R.A., **Hutchings, J.A.**, and N.J. Barrowman. 1997. Why do fish stocks collapse? The example of cod, *Gadus morhua*, in Atlantic Canada. *Ecological Applications* 7: 91-106.
- Myers, R.A., Barrowman, N.J., and **J.A. Hutchings**. 1997. Inshore exploitation of Newfoundland Atlantic cod (*Gadus morhua*) since 1948 as estimated from mark-recapture data. *Can. J. Fish. Aquat. Sci.* 54 (Suppl. 1): 224-235.
- Hutchings, J.A.** 1996. Spatial and temporal variation in the density of northern cod and a review of hypotheses for the stock's collapse. *Can. J. Fish. Aquat. Sci.* 53: 943-962.
- Hutchings, J.A.** 1996. Adaptive phenotypic plasticity in brook trout, *Salvelinus fontinalis*, life histories. *Écoscience* 3: 25-32.
- Myers, R.A., **Hutchings, J.A.**, and N.J. Barrowman. 1996. Hypotheses for the decline of cod in the North Atlantic. *Mar. Ecol. Prog. Ser.* 138: 293-308.
- Hutchings, J.A.** 1995. Seasonal marine protected areas within the context of spatio-temporal variation in the northern cod fishery. In Shackell, N.L., and J.H.M. Willison [eds], *Marine Protected Areas and Sustainable Fisheries*, SAMPAA, Centre for Conservation Biology, Acadia University, Wolfville, NS, pp. 39-47.
- Hutchings, J.A.**, and R.A. Myers. 1995. The biological collapse of Atlantic cod off Newfoundland and Labrador: an exploration of historical changes in exploitation, harvesting technology, and management. In Arnason, R., and L.F. Felt [eds], *The North Atlantic Fishery: Strengths, Weaknesses, and Challenges*, Inst. Island Stud., Univ. Prince Edward Island, Charlottetown, PEI, pp. 37-93.
- Myers, R.A., Barrowman, N.J., **Hutchings, J.A.**, and A.A. Rosenberg. 1995. Depensatory recruitment and the potential for recovery of exploited fish stocks. *Science* 269: 1106-1108.

- Hutchings, J.A.** 1994. Age- and size-specific costs of reproduction within and among populations of brook trout, *Salvelinus fontinalis*. *Oikos* 70: 12-20.
- Hutchings, J.A.**, and R.A. Myers. 1994. What can be learned from the collapse of a renewable resource? Atlantic cod, *Gadus morhua*, of Newfoundland and Labrador. *Can. J. Fish. Aquat. Sci.* 51: 2126-2146.
- Hutchings, J.A.**, and R.A. Myers. 1994. The evolution of alternative mating strategies in variable environments. *Evolutionary Ecology* 8: 256-268.
- Hutchings, J.A.**, and R.A. Myers. 1994. Timing of cod reproduction: interannual variability and the influence of temperature. *Mar. Ecol. Prog. Ser.* 108: 21-31.
- Taggart, C.T., Anderson, J., Bishop, C, Colbourne, E., **Hutchings, J.**, Lilly, G., Morgan, J., Murphy, E., Myers, R., Rose, G., and P. Shelton. 1994. Overview of cod stocks, biology, and environment in the northwest Atlantic region of Newfoundland with emphasis on northern cod. *ICES Mar. Sci. Symp.* 198: 147-157.
- Hutchings, J.A.** 1993. Behavioural implications of intraspecific life history variation. *Mar. Behav. Physiol.* 23: 187-203.
- Hutchings, J.A.** 1993. Adaptive life histories effected by age-specific survival and growth rate. *Ecology* 74: 673-684.
- Hutchings, J.A.** 1993. Reaction norms for reproductive traits in brook trout and their influence on life history evolution effected by size-selective harvesting. In Stokes, T.K., McGlade, J.M., and R. Law [eds], *The Exploitation of Evolving Resources*, Lecture Notes in Biomathematics 99, Springer-Verlag, Berlin, pp. 107-125.
- Hutchings, J.A.** 1993. Behavioural implications of life history variation. In Huntingford, F.A., and P. Toricelli [eds], *Behavioural Ecology of Fishes*, Harwood Academic Publishers, Chur, Switzerland, pp. 187-203.
- Hutchings, J.A.**, and R.A. Myers. 1993. Effect of age on the seasonality of maturation and spawning of Atlantic cod, *Gadus morhua*, in the Northwest Atlantic. *Can. J. Fish. Aquat. Sci.* 50: 2468-2474.
- Hutchings, J.A.**, Myers, R.A, and G.R. Lilly. 1993. Geographic variation in the spawning of Atlantic cod, *Gadus morhua*, in the Northwest Atlantic. *Can. J. Fish. Aquat. Sci.* 50: 2457-2467.
- Chapman, T., **Hutchings, J.**, and L. Partridge. 1993. No reduction in the cost of mating for *Drosophila melanogaster* females mating with spermless males. *Proc. R. Soc. Lond.* 253: 211-217.
- Hutchings, J.A.**, and M.M. Ferguson. 1992. Independence of enzyme heterozygosity and life history traits in natural populations of *Salvelinus fontinalis* (brook trout). *Heredity* 69: 496-502.
- Hutchings, J.A.** 1991. Fitness consequences of variation in egg size and food abundance in brook trout, *Salvelinus fontinalis*. *Evolution* 45: 1162-1168.
- Hutchings, J.A.** 1991. The threat of extinction to native populations experiencing spawning intrusions by cultured Atlantic salmon. *Aquaculture* 98: 119-132.
- Ferguson, M.M., Danzmann, R.G., and **J.A. Hutchings**. 1991. Incongruent estimates of population differentiation among brook charr from Cape Race, Newfoundland, Canada, based upon allozyme and mitochondrial DNA variation. *J. Fish Biol.* 39 (Supplement A):

79-85.

- Hutchings, J.A.**, and R.A. Myers. 1988. Mating success of alternative maturation phenotypes in male Atlantic salmon, *Salmo salar*. *Oecologia* 75: 169-174.
- Hutchings, J.A.**, and R.A. Myers. 1987. Escalation of an asymmetric contest: mortality resulting from mate competition in Atlantic salmon, *Salmo salar*. *Can. J. Zool.* 65: 766-768.
- Myers, R.A., and **J.A. Hutchings**. 1987. A spurious correlation in an inter-population comparison of Atlantic salmon life histories. *Ecology* 68: 1839-1843.
- Myers, R.A., and **J.A. Hutchings**. 1987. Mating of anadromous Atlantic salmon, *Salmo salar* L., with mature male parr. *J. Fish Biol.* 31: 143-146.
- Hutchings, J.A.** 1986. Lakeward migrations by juvenile Atlantic salmon, *Salmo salar*. *Can. J. Fish. Aquat. Sci.* 43: 732-741.
- Gilkinson, K.D., **Hutchings, J.A.**, Oshel, P.E., and R.L. Haedrich. 1986. Shell microstructure and observations on internal banding patterns in the bivalves *Yoldia thracieformis* Storer, 1838, and *Nuculana pernula* Müller, 1779 (Nuculanidae), from a deep-sea environment. *Veliger* 29: 70-77.
- Myers, R.A., and **J.A. Hutchings**. 1986. Selection against parr maturation in Atlantic salmon. *Aquaculture* 53: 313-320.
- Myers, R.A., **Hutchings, J.A.**, and R.J. Gibson. 1986. Variation in male parr maturation within and among populations of Atlantic salmon, *Salmo salar*. *Can. J. Fish. Aquat. Sci.* 43: 1242-1248.
- Hutchings, J.A.**, and D.W. Morris. 1985. The influence of phylogeny, size and behaviour on patterns of covariation in salmonid life histories. *Oikos* 45: 118-124.
- Hutchings, J.A.**, and R.A. Myers. 1985. Mating between anadromous and nonanadromous Atlantic salmon, *Salmo salar*. *Can. J. Zool.* 63: 2219-2221.
- Hutchings, J.A.**, and R.L. Haedrich. 1984. Growth and population structure in two species of bivalves (Nuculanidae) from the deep sea. *Mar. Ecol. Prog. Ser.* 17: 135-142.

Government Reports and Conference Proceedings

- 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.
- Marcil, J., Swain, D.P. and **J.A. Hutchings**. 2005. Countergradient variation in body shape of Atlantic cod: implications for stock structure studies. ICES CM 2005K:10.
- 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. 7th Association of Canadian Universities for Northern Studies (Inter)National Student Conference on Northern Studies, CCI Press, Edmonton, pp. 194-196.
- Hutchings, J.A.** 1994. Temporal variability in estimates of population sustainability for 3NO Atlantic cod from 1959 to 1994. NAFO SCR Doc. 94/2.
- Hutchings, J.A.**, and R.A. Myers. 1993. The effect of age on seasonality of maturation and spawning of Atlantic cod, *Gadus morhua*, in the northwest Atlantic. NAFO SCR Doc.

93/43.

- Hutchings, J.A.**, Myers, R.A., and G.R. Lilly. 1993. Geographic variation in the spawning of Atlantic cod, *Gadus morhua*, in the northwest Atlantic. NAFO SCR Doc. 93/42.
- Myers, R.A., Barrowman, N.J., and **J.A. Hutchings**. 1993. Depensatory recruitment and the collapse of fisheries. NAFO SCR Doc. 93/69.
- Hutchings, J.A.**, and R.A. Myers. 1993. The timing of cod reproduction: inter-annual variability and the influence of temperature. NAFO SCR Doc. 93/41.
- Myers, R.A., and **J.A. Hutchings**. 1987. Sea age at maturity for Atlantic salmon, *Salmo salar*, in North America. Can. Tech. Rept. Fish. Aquat. Sci. No. 1566.
- Hutchings, J.A.** 1985. Determination of the gametic contribution of precocious males during spawning and the effect on the yield of Atlantic salmon, *Salmo salar*. Newfoundland Institute For Cold Ocean Science, St. John's, NL.
- Myers, R.A., and **J.A. Hutchings**. 1985. Mating of anadromous Atlantic salmon (*Salmo salar* L.) With mature male parr. ICES CM1985/M:8.
- Myers, R.A., and **J.A. Hutchings**. 1985. Variation in precocious maturation within and among populations of Atlantic salmon. ICES CM1985/M:9.

Book Reviews

- Hutchings, J.A.** 2004. Vandermeer, J. and D.E. Goldberg. (2003) *Population Ecology: First Principles*. Choice Curr. Rev. Acad. Lib. (February), No. 41-3429.
- Hutchings, J.A.** 2002. Prévost, E. and G. Chaput. (2001) *Stock, Recruitment and Reference Points: Assessment and Management of Atlantic Salmon*. *Fish and Fisheries* 3: 55-56.
- Hutchings, J.A.** 2001. Roff, D.A. (2002) *Life History Evolution*. Reviewed pre-publication manuscript for Sinauer Book Publishers.
- Hutchings, J.A.** 2001. Jennings, S., Kaiser, M.J., and J.D. Reynolds [eds] (2001) *Marine Fisheries Ecology*. The Times Higher Education Supplement (UK).
- Hutchings, J.A.** 2001. Osborne, P.L. (2001) *Tropical Ecosystems and Ecological Concepts*. Choice Curr. Rev. Acad. Lib. (May), No. 38-5021.
- Hutchings, J.A.** 2000. Ford, D.E. (2000) *Scientific Method for Ecological Research*. Choice Curr. Rev. Acad. Lib. (December), No. 38-2152.
- Hutchings, J.A.** 2000. Dorsey, K. (1998) *The Dawn of Conservation Diplomacy: U.S.-Canadian Wildlife Protection Treaties in the Progressive Era*. Quarterly Review of Biology 75: 206-207.
- Hutchings, J.A.** 1999. Schlichting, C.D., and M. Pigliucci (1998) *Phenotypic Evolution: A Reaction Norm Perspective*. *Ecoscience* 6: 297.
- Hutchings, J.A.** 1998. Candow, J.E., and C. Corbin (1997) *How Deep is the Ocean? Historical Essays on Canada's Atlantic Fishery*. University of Toronto Quarterly 68: 371-372.
- Hutchings, J.A.** 1997. Hannesson, R. (1996) *Fisheries Mismanagement: the case of the North Atlantic cod*. Rev. Fish Biol. Fisheries 7: 371-372.
- Hutchings, J.A.** 1997. Cushing, D.H. (1996) *Towards a science of recruitment in fish populations*. Choice Curr. Rev. Acad. Lib. (June), No. 34-5678.
- Hutchings, J.A.** 1997. Gotelli, N.J., and G.R. Graves (1996) *Null models in ecology*. Choice Curr. Rev. Acad. Lib. (Apr), No. 34-4469.

- Hutchings, J.A.** 1996. Brandon, R.N. (1996) *Concepts and methods in evolutionary biology*. Choice Curr. Rev. Acad. Lib. (Dec), No. 34-2142.
- Hutchings, J.A.** 1996. Sutherland, W.J. (1996) *From Individual Behaviour to Population Ecology*. Choice Curr. Rev. Acad. Lib. (Oct), No. 34-0933.
- Hutchings, J.A.** 1995. Finlayson, A.C. (1994) *Fishing For Truth: A Sociological Analysis of Northern Cod Stock Assessments From 1977-1990*. Fisheries 21: 54-55.
- 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. 24th 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. 24th 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. 139th 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. 7th International Symposium on Flatfishes, Sesimbra, Portugal.
- Hutchings, J.A.** 2008. Management implications of fisheries-induced evolution. Symposium on *Evolving Fish, Changing Fisheries*, 138th 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, 138th 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. 61st 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. 7th 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, 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. 133rd American Fisheries Society Meeting, Québec, Québec.
- Hutchings, J.A.** 2003. Life history responses to collapse by Atlantic cod and consequences to recovery. 133rd 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

- Houde, A.S., Fraser, D.J., O'Reilly, P. and **J.A. Hutchings**. 2010. Inbreeding and outbreeding depression in endangered populations of Atlantic salmon. 63rd Canadian Conference For Fisheries Research, Winnipeg.
- Hutchings, J.A.** 2010. A limit reference point for fisheries-induced evolution. 63rd 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. 63rd Canadian Conference For Fisheries Research, Winnipeg.
- Hutchings, J.A.** 2009. Evolution by natural and anthropogenic selection: contributions from fish and fisheries science. 139th 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. 62nd 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. 61st 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. 61st Canadian Conference For Fisheries Research, Halifax, NS.
- Hutchings, J.A.** 2008. On threshold traits, conservation biology, R_m and r . 2nd 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. 61st Canadian Conference For Fisheries Research, Halifax, NS.
- Hutchings, J.A.** 2008. Ransom Aldrich Myers (1952-2007): an appreciation. 61st 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. 61st 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*. 2nd 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. 60th Canadian Conference For Fisheries Research, Montréal, PQ.
- Hutchings, J.A.**, and S. Rowe. 2007. Influence of reproductive behaviour on fishery-induced evolution. 60th 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. 60th 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. 59th 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. 7th 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. 59th 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. 7th 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*). 90th Ecological Society of America Annual Meeting, Montreal, PQ.
- Hutchings, J.A.**, and J.K. Baum. 2005. Measuring marine fish biodiversity. 58th 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. 58th 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*. 90th 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. 57th 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 57th 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*). 57th 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. 57th 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. 57th 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. 57th 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. 56th 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. 133rd Annual Meeting, American Fisheries Society, Québec, PQ.
- Hutchings, J.A.** 2003. Survival consequences of sex-biased patterns in seasonal growth. 56th 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. 133rd Annual Meeting, American Fisheries Society, Québec, PQ.
- Rowe, S., and **J.A. Hutchings**. 2003. The mating behaviour of Atlantic cod. 56th Canadian Conference For Fisheries Research, Ottawa, ON.
- Rowe, S., and **J.A. Hutchings**. 2003. Sound production by Atlantic cod during spawning. 133rd 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. 56th 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. 133rd 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*). 55th 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*. 53rd Canadian Conference For Fisheries Research, Fredericton, NB.
- Hutchings, J.A.** 2000. Sex-biased 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	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, 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, 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
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