

Curriculum Vitae - Sigurd Einum

Personal information

Date of birth: 4. juli 1972

Place of birth: Orkanger, Norway

Nationality: Norwegian

Address: Valgrindveien 7

7031 TRONDHEIM

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Research experience

1995-96: Behavioural and physiological experiments, field experiments on salmonids for Dr. Ian A. Fleming (Norwegian Institute for Nature Research).

1997-2000: Spawning experiments, salmon for Dr. Ian A. Fleming

2001-2007: Research scientist, Norwegian Institute for Nature Research

2007-present: Scientific advisor, Norwegian Institute for Nature Research

2007-2008: Associate Professor, Norwegian University of Science and Technology

2008-present: Professor, Norwegian University of Science and Technology

Education

1995: B.Sc. Norwegian University of Science and Technology, Trondheim.

1996: Cand. scient. Department of Zoology, Norwegian University of Science and Technology, Trondheim. *Performance of juvenile farmed and native/farmed hybrid Atlantic salmon (Salmo salar L.) and implications for native populations.*

2000: Dr. scient. Department of Zoology, Norwegian University of Science and Technology, Trondheim. *Maternal effects in fish: Implications for the evolution of breeding time and egg size.*

Academic Awards/Scholarships

1997-2001: Individual PhD scholarship from the Research Council of Norway (RCN)

2001-2004: Postdoctoral scholarship from the RCN

2004-2009: Young Outstanding Scientist award from the RCN

2004: Nominated to receive European Young Investigator Award from the RCN

2005: Young Outstanding Scientist award from The Royal Norwegian Society of Sciences and Letters

Supervisor experience

2003-2008: Line Sundt-Hansen, PhD, NINA/NTNU

2004-2010: Eli Kvingedal, PhD, NINA/NTNU

2007-2011: Maxim Teichert, PhD, NINA/NTNU

2007-2011: Grethe Robertsen, PhD, NTNU

2006-2008: Anders Foldvik, MSc, NINA/NTNU

2006-2008: Marius Berg, MSc, NINA/NTNU

2008-: Anders Foldvik, PhD, NINA/NTNU

2008-2010: Pål Anders Martinussen, MSc, NTNU

2009-2011: Vidar Bentsen, MSc, NTNU

2009-2011: Frøydis Hamnes Bolme, MSc, NTNU

2010-2012: Kenneth Nygård, MSc, NTNU

2010-2012: Torstein Klausen, MSc, NTNU

2010-2013: Stine Marie Skjellevik, MSc, NTNU

2010-: Tijana Gajic, MSc, NTNU

2011-: Aina Mærk Aspaas, MSc, NTNU

2011-: Knut Andreas Eikeland, MSc, NTNU

Publications

See <http://www.ntnu.edu/employees/sigurd.einum>

Media appearance

Adressavisa, 22/03-2011: "Må overtale sta laks". Interview related to my publications.

Pong-pesca, 24/02-2010: "Noruega: Cuarenta años de cultivo del salmón ... y uno de misterio genético" (<http://pongpesca.wordpress.com/2010/02/24/noruega-cuarenta-anos-de-cultivo-del-salmon-%E2%80%A6-y-uno-de-misterio-genetico/>)

AquaHoy, 23/12-2009: Noruega: 40 años del cultivo del salmón y un misterio genético (http://www.aquahoy.com/index.php?option=com_content&view=article&id=9297:noruega-40-anos-del-cultivo-del-salmon-y-un-misterio-genetico&catid=16&lang=es&Itemid=0)

TheFishSite, January-2010: "Farmed salmon are changing genetics" (<http://www.thefishsite.com/articles/822/farmed-salmon-are-changing-genetics>)

ScienceDaily, 22/12-2009: "Forty Years of Farmed Salmon ... and One Genetic Mystery" (<http://www.sciencedaily.com/releases/2009/12/091220174039.htm>)

Forskning.no, 21/2-2008: "Snart slutt på ren villaks?" Interview based on Roberge et al. 2006 and 2008. (<http://forskning.no/artikler/2008/februar/1203431748.73>)

Adresseavisen, 14/12-2006: "Med døden som innsats." Article on field study of salmon spawning and recruitment.

Dagsavisen, 11/6-2003: Kongens lakseelv trues av oppdrett. Interview related to my publications.

Adressavisa, 30/6-2003: Rømt oppdrettslaks fyller nøtene på kysten. Interview related to my publications.

Science, 2/6-2003: Farmed fish luckier at love.
<http://sciencenow.sciencemag.org/cgi/content/full/2003/602/2>

New Scientist, 9/6-2003: Escaped farmed salmon threaten native species
<http://www.newscientist.com/news/news.jsp?id=ns99993796>

Presentations

1996: *Comparative behaviour, morphology and growth of wild, farmed and hybrid juvenile Atlantic salmon (*Salmo salar*)*. Department of Zoology, Norwegian University of Science and Technology, Trondheim, Norway.

1997: *Genetic divergence and interactions in the wild among juvenile native, farmed and hybrid Atlantic salmon*. ICES/NASCO Symposium, Bath, England.

1997: *Evolution of egg size and timing of reproduction related to life history and environment in teleosts, with emphasis on Atlantic salmon*. NorFA Workshop in Conservation Biology, Lund, Sweden.

- 1997: Evolution of egg size and timing of reproduction related to life history *and environment in teleosts, with emphasis on Atlantic salmon*. Department of Zoology, Norwegian University of Science and Technology, Trondheim, Norway.
- 1997: *Use of life history information in conservation and management of Atlantic salmon*. Norwegian Institute for Nature Research Workshop, Oslo, Norway.
- 1998: *Directional selection on breeding time and size at emergence in Atlantic salmon (*Salmo salar*)*. Department of Fisheries and Marine Biology, University of Bergen, Norway.
- 1999: *Selection against late breeding and small egg size in Atlantic salmon resulting from maternal effects on juvenile fitness*. American Society of Ichthyologists & Herpetologists, State College, Pennsylvania, USA.
- 1999: *Egg production: tricky choice or one size fits all?* Department of Fisheries and Marine Biology, University of Bergen, Norway.
- 2000: *The mother and her baby: maternal effects in fish*. National Institute of Water and Atmospheric Research, Christchurch, New Zealand.
- 2000: *Implications of stocking: Ecological interactions between wild and released salmonids*. Workshop on Releases of Salmonids, Kongsvoll, Norway.
- 2000: *Reproductive investment in a cruel world: Salmon mothers sacrifice offspring size and survival to maximise fitness*. Evolution 2000, Indiana University Bloomington, Indiana, USA.
- 2001: *Fish egg size variation: ecological implications and evolutionary explanations*. Oregon State University, Oregon, USA.
- 2002: *Egg size variation: what is it good for?* University of East Anglia, Norwich, UK.
- 2002: *Natural and sexual selection in Atlantic salmon*. EU workshop, Centro Ictiologico, Arredondo, Spain.
- 2002: *Atlantic Salmon Productivity and Stability: Effects of Temporal Environmental Variation, Spatial Distribution and Phenotypic Variation*. Norwegian Research Council conference, Tromsø, Norway.
- 2003: *Egg Size Selection Under Anoxic Conditions: Is Big Really That Bad?* University of East Anglia, Norwich, UK.
- 2003: *Embryo Metabolism and Survival: Interactions between Physical Factors and Maternal Traits*. American Fisheries Society 133rd Annual Meeting, Quebec, Canada.
- 2004: *Ecological and genetic consequences of the escape of farmed Atlantic salmon*. North Calotte Council Meeting, Narvik, Norway.
- 2004: *Population regulation of mobile organisms in continuous habitats: why worry about spatial scales?* Dartmouth College, Hanover, NH, USA.
- 2004: *Population regulation of Atlantic salmon*. US Geological Survey, Conte Anadromous Fish Res Ctr, Turners Falls, MA, USA
- 2004: *Salmon in space: romlig målestokk for produksjon og forvaltning*. Wild salmon program conference, Trondheim, Norway.
- 2004: *Effects of spatial structure on density dependence & production*. International Conference on Behaviour and ecology of freshwater fish: Linking ecology and individual behaviour, Silkeborg, Denmark.
- 2004: *Salmon in space: Links between spatial structure and productivity of wild populations*. Norwegian University of Science and Technology, Trondheim, Norway.
- 2005: *Egg size evolution*. Nordic Workshop for PhD students on Anadromous Salmonid Research, Agdenes, Norway.
- 2006: *Ontogenetic changes in space use may drive patterns of density dependence*. Göteborg University, Göteborg, Sweden.
- 2006: *Ontogenetic changes in space use may drive patterns of density dependence*. Memorial University of Newfoundland, St. John's, Newfoundland, Canada

- 2006: *First come, first served?* International Congress on the Biology of Fish. St. John's, Newfoundland, Canada
- 2007: *Egg size variation: what is it good for?* Department of Biology, Norwegian University of Science and Technology, Trondheim, Norway.
- 2007: *Water discharge: effects on fish production.* Envidorr project seminar, Kongsvoll, Norway.
- 2007: *Population consequences of spatial breeding distributions.* Centre for Ecological and Evolutionary Synthesis, University of Oslo, Norway.
- 2008: *Density dependent population regulation in Atlantic salmon: spatial considerations.* EBL Fish Symposium 2008, Oslo, Norway.
- 2008: *Spatial considerations for Atlantic salmon production.* Spawning Target Workshop, Stjørdal, Norway
- 2008: *Non-ideal distributions and their population consequences.* Bern University, Switzerland.
- 2008: *Density dependence in salmon: causes and consequences.* Norwegian Research Council program conference, Lillestrøm, Norway.
- 2010: *Linking spatial breeding behaviour and spatio-temporal variation in Atlantic salmon productivity* (poster). Norwegian Research Council program conference, Oslo, Norway.
- 2010: *Competition from recruits on an older cohort of Atlantic salmon.* Advances in the population ecology of stream salmonids, Luarca, Spain.
- 2010: *The salmon of doubt.* Karlstad University, Sweden.
- 2011: *Spatial ecology of salmonids.* University of Lausanne, Switzerland.
- 2011: *Consequences of within-population spatial structure.* University of Glasgow, Scotland.
- 2012: *Why non-spatial approaches may (sometimes) be inappropriate for modelling habitat effects on populations.* Key-note lecture, Oikos 2012 annual meeting, Karlstad University, Sweden.
- 2012: *Sex, space and density dependence: why non-spatial approaches may be inappropriate for modeling habitat effects on populations.* Key-note lecture, Nowpas 2012 annual meeting, Sletvik, Norway.
- 2012: *Ecological modeling of optimal metabolic rates.* University of Lausanne, Switzerland.

Reviewer experience

American Naturalist, Animal Behaviour, Aquaculture, Aquatic Living Resources, Basic and Applied Ecology, Behavioural Ecology, Behavioural Ecology and Sociobiology, Canadian Journal of Fisheries and Aquatic Sciences, Canadian Science Advisory Secretariat Research Documents, Environmental Biology of Fishes, Ecology, Ecology of Freshwater Fish, Evolution, Evolutionary Applications, Evolutionary Ecology, Functional Ecology, Hydrobiologia, Integrative and Comparative Biology, Journal of Animal Ecology, Journal of Applied Ecology, Journal of Ethology, Journal of Evolutionary Biology, Journal of Experimental Biology, Journal of Fish Biology, Journal of Theoretical Biology, Molecular Ecology, North American Journal of Fisheries Management, Oecologia, Oikos, Proceedings of the Royal Society B, PLoS Biology, PLoS One, River Research and Applications, Transactions of the American Fisheries Society