



MMI ON FRASER RIVER OCKE E ALMON

# Understanding Stock Declines and Prospects for the Future

**Tuesday–Wednesday, March 30–31, 2010**

Morris J. Wosk Centre for Dialogue, Simon Fraser University  
580 West Hastings Street, Vancouver, BC

**Objective**

A scientists' think tank met on December 7–8, 2009, to consider the causes of the unusual and unexpectedly low returns for Fraser River sockeye salmon in 2009. They examined these questions:

- Is marine/ocean
-

Tuesday, March 30, 2010

## Day 1: Challenges to Sockeye

Asia Pacific Hall—Room 100

8:00 am

**Registration and light refreshment**

8:30 am

**Welcome**

8:45–9:30 am

**Report from the December Link Tank of Scientists**

10-minute presentations followed by discussion.

9:30–10:30 am

**Panel I: Fry emergence and migration to sea**

10-minute presentations followed by discussion.

Chair:

- What is the “typical” life history of sockeye and what can we learn by comparing typical lake rearing populations (Chilko) with atypical, non-lake rearing populations (Harrison Rapids)?
- How do we know how many fish go to sea?
- What is the variation in freshwater productivity; is diversity important?
- What do we know about mortality during downstream migration?
- What are the general trends and issues related to freshwater sockeye stewardship?

10:30 am

**Break**

10:45 am–12 noon

**Panel II: Smolts enter nearshore marine environments**

10-minute presentations followed by discussion.

Chair:

- What stressors may be encountered?

12 noon

**Lunch, ICBC Concourse (downstairs)**

1:00–1:45 pm

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Adult Sockeye Salmon:

Challenges to Complete the Journey and Spawn

4:00 pm

End of Day One

Wednesday, March 31, 2010

**Day 2: What Can We Do?**

Asia Pacific Hall – Room 100

8:00 am

**Light Refreshment**

8:30–9:15 am

**Panel V: Review of Day One including results from the December Scientists' Link Tank and Recommendations for Action**

10-minute presentations followed by discussion.

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- Is marine/ocean survival the problem?
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## Participant Biographies

**The Honourable David Anderson** was born in Victoria seventy-three years ago. He has been an active conservationist, particularly in the area of protecting our coastline from oil tanker traffic and of shore drilling. He served both as an MLA and an MP and served in the cabinet of Prime Minister Chretien as both Fisheries Minister (1997–99) and as Environment Minister (1999–2004).

**Mark Angelo**, Chair of the Pacific Fisheries Resource Conservation Council, is a noted river conservationist, outdoor leader, teacher and writer. He is the Chair of the Rivers Institute as well as Program Head of the Fish, Wildlife and Recreation Department at the British Columbia Institute of Technology. He is the founder and chair of BC Rivers Day, and also chairs World Rivers Day. Mark is a recipient of the Order of Canada and also holds the Order of British Columbia, in recognition of outstanding achievement in preserving Canada's waterways. He was the first recipient of the National River Conservation Award as Canada's most outstanding river conservationist in the past decade and he received the inaugural United Nations Stewardship Award. His involvement with conservation issues in British Columbia spans four decades and he has published close to 300 articles and editorials. In June 2009, Dr. Angelo received an honorary doctorate in science from Simon Fraser University.

**Ken Ashley** earned his BSc and MSc in Zoology, and MASc and PhD in Civil/Environmental Engineering from UBC. He worked for the Fisheries Research and Development Section of the BC Ministry of Environment for 25 years where he developed a variety of innovative lake aeration, lake and stream fertilization and habitat restoration solutions. From 2005–2007, Ken worked at the Greater Vancouver Regional District as Senior Engineer in the Utility Analysis and Environmental Management Division to learn about the deleterious effects of municipal wastewater discharges and drinking water withdrawals on aquatic ecosystems. He returned to the Ministry of Environment in 2008 where he was the provincial contact for the Living Rivers Program and other habitat restoration /compensation programs. A member of the Salmon 2100 project team, Ken is currently an instructor at the BC Institute of Technology in the new undergraduate degree program in Ecological Restoration, and an Adjunct Professor of Civil Engineering at UBC, in addition to operating his own ecological engineering consulting company.

**Sonia Batten** completed her PhD at Southampton University in the UK and then began a post-doc with the Sir Alister Hardy Foundation for Ocean Science working on the north Atlantic Continuous Plankton Recorder survey. In 2000 she moved to Nanaimo, BC and coordinated the setting up of the north Pacific CPR survey.

**Kelsey Charlie** is a Councillor with the Chehalis First Nation. He holds the Culture portfolio among many other responsibilities.

**Chief Allan Claxton** (Sxed Qel A'new) has been the Chief of the Tsawout First Nation for the past sixteen years. During his tenure, Tsawout has taken charge of their sewage treatment plant, implemented a lands management program and introduced taxation. Chief Claxton's goal is to move his community into self-sufficiency through self-government, with the ultimate goal being a healthy community in control of its own destiny. Chief Claxton currently serves as a co-chair of the BC First Nations Fisheries Council, and as a BC representative for the Assembly of First Nations National Fisheries Committee. He is also a board member for the Centre for Indigenous Environmental Resources, a member of the Regional Chiefs' Health Committee, a member of the Chiefs' Committee on Health, and a BC Assembly of First Nations representative for the Leadership Council of Health. He has also served as the national representative for Health Technicians. He loves spending time with his wife, their five children, and their grandchildren. He enjoys golfing and the outdoors.

**Willie Davidson** is a Professor in the Department of Molecular Biology and Biochemistry at Simon Fraser University. His research interests are broad, but are all in the general field of molecular evolution. He has investigated population structuring in Atlantic salmon and Arctic char as well as the interactions between, and the hybridization of, brown trout and Atlantic salmon. For the past ten years he has been involved in salmonid genomic research, and was a co-PI of the Genome Canada/Genome BC funded Consortium for Genomic Research on All Salmonids Project (cGRASP). He is currently involved with sequencing the Atlantic

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founder and member of the steering committee of the Canada Ocean Lecture and a co-investigator on the Consortium for Genomic Research on All Salmonids (cGRASP) Genome Canada/BC funded research project based at Simon Fraser University and the University of Victoria.

**Terry Glavin** is a journalist, the author of eight non-fiction books, and an adjunct professor in the Creative Writing department at the University of British Columbia. His most recent book, *The Vanishing*, is published under separate titles in Canada, the United States, the UK and Germany. For this book, he traveled around the world to report on the impacts of globalization, biodiversity loss, and the vanishing of cultural and linguistic diversity. His book,

*The Vanishing*, was nominated for the Bill Duthie Prize and the Roderick Haig-Brown Non-Fiction Prize, and was the winner of the Hubert Evans Non-Fiction Prize. As a journalist and columnist for *The Vancouver Sun* and the *Vancouver Observer*, and a frequent contributor to such newspapers and magazines as

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**Daniel Pauly** is a French citizen who completed his high school and university studies in Germany; his doctorate (1979) and habilitation (1985) are in Fisheries Biology, from the University of Kiel. After many years at the International Center for Living Aquatic Resources Management (ICLARM), in Manila, Philippines, Daniel Pauly became in 1994 Professor at the Fisheries Centre of the University of British Columbia, of which he was the Director for 5 years (Nov. '03-Oct. '08). Since 1999, he is also Principal Investigator of the Sea Around Us Project (see [www.searoundus.org](http://www.searoundus.org)), funded by the Pew Charitable Trusts, and devoted to studying, documenting and promoting policies to mitigate the impact of fisheries on the world's marine ecosystems.

**Randall Peterman** is a Professor in the School of Resource and Environmental Management at Simon Fraser University. He holds a Canada Research Chair in Fisheries Risk Assessment and Management. Dr. Peterman's research focuses on quantitative methods to improve the understanding and management of fish populations, particularly in the presence of uncertainties and conservation risks. His research group specializes in developing and applying quantitative methods to improve fisheries management, mostly related to Pacific salmon, through using large data sets, simulation models, Bayesian and other statistical methods, and formal decision analysis. Most relevant to this workshop is his group's past research on developing and comparing the methods for pre-season forecasting of abundances that are used by salmon management agencies on the west coast of North America. Randall's group has received several international awards for the quality of its research. Randall has served on various policy advisory groups and helped to write the 1995 United Nations Food and Agriculture Organization's Precautionary Approach to Capture Fisheries and he is a member of the Royal Society of Canada (RSC) Expert Panel on Ocean Climate Change and Marine Biodiversity.

**John Pierce** has for the past 33 years served many diverse roles within Simon Fraser University as a researcher, teacher, administrator and community advisor. He has taught and published widely on topics relating to sustainable community development; food security, resource and environmental management/modelling and public policy. As an administrator he served as Chair of the Department of Geography, Director of the Centre for Community Economic Development, Dean of the Faculty of Arts and Social Sciences and most recently he serves as the inaugural Dean to the newly created Faculty of Environment at SFU. John received his PhD from the London School Of Economics

**Michael Price** is a MSc candidate with the University of Victoria, and conservation biologist with Raincoast Conservation Foundation, where he is the project manager of their Juvenile Salmon Ecology Program. He is also a science advisor on wild salmon ecology with the Heiltsuk Nation. Michael has extensive field research experience, spanning multiple projects, and involving keystone and endangered species of terrestrial and marine systems. Michael's most recent focus is on anthropogenic influences on the early marine survival of Fraser River sockeye.

**John Reynolds** is a professor at Simon Fraser University, where he holds the Tom Buell BC Leadership Chair in Salmon Conservation and Management. His research focuses on understanding connections between salmon and their ecosystems, emphasizing implications for conservation and sustainability. This includes research on numerous streams in both the Fraser Basin and in the Great Bear Rainforest. Dr. Reynolds has held a wide range of scientific advisory positions, including the BC Pacific Salmon Forum and the Skeena Independent Science Review Panel. He has written five books and over 150 scientific articles on ecology and conservation. In 2000, he was awarded the FSBI Medal by the Fisheries Society of the British Isles, and in 2003 he received the J.C. Stevenson Award from the Canadian Conference for Fisheries Research. <http://www.sfu.ca/reynolds>

**Rick Routledge** develops and applies statistical models to fisheries management and conservation.

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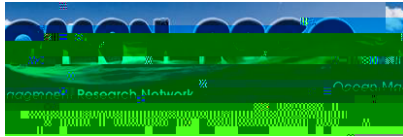
**Glenn Sigurdson** is the lead Facilitator for the Integrated Salmon Dialogue Forum and Principal, CSE Group. His background includes experience as a mediator, facilitator, and negotiator; he also brings with him an extensive adjudicative background as an arbitrator in workplace, commercial, and healthcare disputes, and as the Senior Vice Chair of the Manitoba Labour Relations Board (1980-1989, part time). Glenn is associated with Simon Fraser University, where he is an adjunct Professor in the Learning Strategies Group in the Faculty of Business. He is also associated with the LL.M. Graduate Program in Dispute Resolution, Osgoode Hall Law School of York University in Toronto (2002–2003). He is a former President (1996) of the Society of Professionals in Dispute Resolution (SP

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