

## Program / programme

Canadian Conference for Fisheries Research (CCFFR) and annual meeting with  
Canadian Society of Limnologists (SCL)

Conférence canadienne de la recherche sur les pêches (CCRP) et assemblée  
annuelle de la Société Canadienne des Limnologues (SCL)

2002 Annual Meeting/Réunion annuelle

3-5 January/janvier 2002

Empire Landmark Hotel, Vancouver, British Columbia

Thursday Evening, 3 January 2002



Coal Harbour Exhibition Hall

18:00-21:00	- Registration / Inscription - Social Mixer and Poster Installation / Cocktail et installation des affiches
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## Plenary Session / Assemblée plénière

Main Ballroom

Friday Morning, 4 January 2002

Convenor S. Hinch, UBC

7:50	<b>Welcome / Bienvenue</b> Eric Taylor, President CCFFR, UBC
7:55	<b>Welcome / Bienvenue</b> Ken Beal, President American Fisheries Society
8:00	<b>Guest Speaker / Conférencier invité</b> Honourable John A. Fraser, Chairman Pacific Fisheries Resource Conservation Council
8:10	<b>Program Announcements / Mise en jour du programme</b> Jim Reist, Program Chair CCFFR, DFO-Winnipeg
8:15	<b>Venue/Activities Announcements / Renseignements sur les activités hors conférence</b> Scott Hinch, Local Arrangements Chair, UBC
8:20	<b>F.H. Rigler Lecture / Présentation par F.H. Rigler</b> Jack Vallentyne (Johnny Biosphere), President of the International Association of Limnology (SIL, 1974-1980) An Ecological and Evolutionary Solution to Problems Exacerbated by Runaway

	Demotechnic Growth
<b>9:05</b>	<b>J. C. Stevenson Lecture / Pr♦sensation par J. C. Stevenson</b> Pierre Pepin, Northwest Atlantic Fisheries Centre, DFO-Newfoundland Early Life Stages in Fisheries Research: A Perspective From the Larva♦s Point of View
<b>9:50-10:20</b>	<b>BREAK</b>

### Friday Morning, 4 January 2002



Room	Pavillion	Ballroom
<b>Theme</b>	<b>Climate Change Impacts on Aquatic Ecosystems</b> (Joint Session of CCFFR/SCL) Convenors: Michael Power (Waterloo) and Roland Hall (Waterloo)	<b>Fish Biology: Behaviour, Conservation and Evolutionary Genetics♦ (CCFFR)</b> Convenor: Chris Wood (DFO Nanaimo)
<b>10:20</b>	Global Climate Change: What♦s Happening and What Can We Expect? <b>Hengeveld, H.G.</b>	No♦ Place Smells Like Home When You Are In The Mood: Roles Of Thyroid And Gonadotropin-Releasing Hormones In Olfactory Imprinting In Sockeye Salmon ( <u>Oncorhynchus nerka</u> ) <b>Plate, E.M.</b> , C.C. Wood and C.W. Hawryshn
<b>10:40</b>	<b>Hengeveld, H.G.</b> -continued (see above)	Energy Expenditures During Reproduction by Sockeye Salmon ( <u>Oncorhynchus nerka</u> ) of the Early Stuart River Stock complex, British Columbia, Canada. ♦♦ <b>Healey, M.C.</b> , R. Lake and S.G. Hinch
<b>11:00</b>	Arctic Ocean Environmental Variability: Recent Observations and it♦s Potential Consequences to Biota <b>Carmack, E.</b>	Selection For Elevated Metabolic Rates In Salmonid Hatcheries: Indirect Evidence From Otolith Microstructure <b>Reinhardt, U.G.</b> and♦ T. Yamamoto
<b>11:20</b>	<b>Carmack, E.</b> -continued (see above)	Differential Reproductive Success of Sympatric Naturally Spawning Hatchery and Wild Steelhead, <u>Oncorhynchus mykiss</u> <b>McLean, Jennifer E.</b> , Paul Bentzen and Thomas P. Quinn
<b>11:40</b>	Do Climate Change and Fisheries Cause Depensation in Sockeye Salmon Populations? <b>Schindler, D.E.</b> , P.R. Leavitt, W. Lew, R. Hilborn, T.P. Quinn and D.E. Rogers	The Comparative Behavior Of Wild And Hatchery Adult Steelhead In The Chilliwack River, BC: An Analysis Of Run Timing, Recapture Rates, Survival To Spawning, Spawning Behavior, And Survival To Kelt Using Radio Telemetry Techniques♦♦♦ <b>Nelson, T.C.</b> , ♦J. Rissling, C. Mussell, M.L. Rosenau and P. A. Caverhill
<b>12:00-13:20</b>	<b>LUNCH</b>	<b>LUNCH</b>

## Friday Afternoon, 4 January 2002

Room	False Creek	Burrard Inlet
<b>Theme</b>	<b>Aquatic Toxins</b> ♦♦♦ (SCL) Convenor: Michael Turner (DFO-Winnipeg)	<b>Nutrient Limitation in Aquatic Ecosystems</b> ♦♦ (SCL) Convenor: Jeff Hudson (Saskatchewan)
<b>13:20</b>	Barriers Potentially Obstructing Reinvasion of Biota into Lakes Recovering from Acidification - Experiences from an Experimental Ecosystem Study. <b>Turner, M.A.</b> , Hesslein, R.H., Trick, C.G., Findlay, D.L., Vinebrooke, R.D., McNicol, D., Watkins, E.M.	Setting Nutrient Guidelines for Streams. <b>Guy, M.</b> , Chambers, P.A., Roberts, E.S.
<b>13:40</b>	Methyl Mercury in Food Webs of Boreal Plain Lakes: ♦ Influence of Catchment Disturbance. <b>Allen, E.W.</b> , Prepas, E.E., Gabos, S., Strachan, W.M.J.	Seasonal and Spatial Patterns of Nutrient Limitation in the Wapiti River, Alberta. <b>Depoe, S.L.</b> , Chambers, P.A., Devito, K.J.
<b>14:00</b>	Mercury Accumulation Patterns in Freshwater Ecosystems Explained by Passive Diffusion and Algal Membrane Permeabilities. <b>Petri, B.</b> , Mierle, G., McQueen, D.	Importance of Plankton Size in Nutrient Limitation. <b>Davies, J-M.</b> , and ♦ Mazumder, A.
<b>14:20</b>	Effects of Water Quality Changes on Mobilization and Bioavailability of Existing Mercury Pools in Aquatic Ecosystems. <b>Petri, B.</b> , Mierle, G., McQueen, D.	Phytoplankton Nutrient Status Measurements in Lake Erie during May to October 1997. <b>North, R.L.</b> , Guildford, S.J., Charlton, M.N.
<b>14:40</b>	Effect of Hydrologic Residence Time on Complexation of Copper by Dissolved Organic Matter (DOM): Comparison with Allochthonous and Autochthonous End Members. <b>Luider, C.</b> , Curtis, P.J., Playle, R.C.	Effects of Inorganic Nutrients and Mixed-Layer Depth on the C:N:P Ratios of Sediments Produced from DOM-Rich Water. <b>Radomske, E.H.</b> , Curtis, P.J., Petticrew, E.L.
<b>15:00-15:20</b>	<b>Break</b>	<b>Break</b>
<b>15:20</b>	Effects of <i>Microcystis aeruginosa</i> and purified Microcystin-LR on the Feeding Behavior of <i>Daphnia pulicaria</i> . <b>Ghadouani, A</b> , Pinel-Alloul, B., Plath, K, Lampert, W. , Codd, G.A	<b>THEME - New Methods in Limnology</b> ♦ (SCL) Convenor: Jeff Hudson (Saskatchewan) The Analysis of Size Spectra: A Comparison of Different Statistical Methods. <b>Norton, G.M.B.</b> , Legendre, P., Boisclair, D., Pinel-Alloul, B.
<b>15:40</b>	Impact of Ultraviolet Radiation on <i>Chaoborus</i> Larvae. <b>Persaud, A.D.</b>	Using Fluorescence Spectroscopy to Characterize Dissolved Organic Matter Quality for Planktonic Bacteria. ♦ <b>Cammack, W.K.L.</b> , ♦ Kalff, J., Prairie, Y.T.
<b>16:00</b>	No presentation	Field Validation of a New Fluorometer Capable of <i>In Situ</i> Determination of Algal Biomass and Taxonomical Classes. <b>Ghadouani, A.</b> , Pinel-Alloul, B., Carignan, R., Cattaneo, A.
<b>16:20</b>	No presentation	Spatial and Temporal Patterns of Dissolved Organic Carbon (DOC) Size Distribution in a Precambrian Shield Watershed using High Performance Size Exclusion Chromatography (HPSEC).

		Kothawala, D., Dillon, P., Evans, R.D.
16:40	No presentation	Rapid Estimation of Phosphate at Picomolar Concentrations. ♦♦ Hudson, J.J.
17:00-19:00	<b>Poster Session ♦ (Coal Harbour Exhibition Hall) ♦ See titles at end of program</b>	
19:00	<b>CCFFR - SCL ♦ Banquet (Ballroom)</b>	



**Friday Afternoon, 4 January 2002**

Room	Pavillion ♦	Ballroom East	Ballroom West
Theme	<b>Climate Change Impacts on Aquatic Ecosystems</b> (Joint Session of CCFFR/SCL) Convenors: Michael Power (Waterloo) and Roland Hall (Waterloo)	<b>Fish Biology: Behaviour, Conservation and Evolutionary Genetics</b> (CCFFR) Convenor: Chris Wood (DFO-Nanaimo)	<b>Contributed Paper Session 1 -Marine Habitat and Fisheries</b> (CCFFR) Convenor: Guillermo Giannico (Oregon State U)
13:20	Size Variability of Juvenile Atlantic Salmon ( <i>Salmo salar</i> L.): Links to Environmental Conditions <b>Swansburg, E.</b> , G. Chaput, ♦ D. Moore, D. Caissie ♦ and N. El-Jabi,	The Architecture Of Fitness Traits In Salmonid Fishes: Genomic Approaches To Understanding The Genetic Basis Of Variation In Life-History Characters ♦ <b>Ferguson M.</b> , K. Gharbi, C. Martyniuk, K. O'Malley, G. Perry, I. Somorjai, R. Woram and R. Danzmann	Changes In Finfish Community Structure Associated With The Implementation Of A Large Offshore Fishery Closed Area On The Scotian Shelf <b>Fisher, J.A.</b> and K.T. Frank
13:40	Paleo-Optics: A Window Into The Ancient Light Fields Of Lakes <b>Pienitz, R.</b> , W.F. Vincent, E. Saulnier-Talbot	Superior Fitness For Precocial Males In Salmon <b>Gross, M.</b>	Reproductive Allocation And Growth Of The Mummichog ( <i>Fundulus heteroclitus</i> ) In Salt Marsh Habitats Of New Jersey, USA. <b>Hunter, K.L.</b> and M.G. Fox
14:00	Impacts Of Climate Change On Freshwater Fish And Fisheries <b>Shuter, B.J.</b> and C.K. Minns	Migration Timing And Conservation Of Atlantic Salmon In Ireland <b>Quinn, T.P.</b>	A Nutrient Limited Ecosystem Off Eastern Australia: Upwelling And Sewage Effects On Ichthyoplankton And Stable Isotope Composition <b>Suthers, Iain.</b>
14:20	Effects Of Climate On Sulphate Fluxes From Forested Catchments In South-Central Ontario <b>Dillion, P.J.</b> and M.C. Eimers	Conservation And The Evolutionary Genetics Of Seasonal Migrations In Fishes. <b>Tallman, R. F.</b>	Marine And Estuarine Riparian Habitats And Their Role In Coastal Ecosystems, Pacific Region <b>Levings, C.</b> and G. Jamieson
14:40	A Comparison Of Projected Climate Change	Potential Mechanisms For Reproductive	Are Pacific Salmon Starving In The Ocean?

	Scenarios On Ocean Distributions Of Pacific Salmon <b>Welch, D.W.</b>	Isolation In Littoral And Pelagic Brook Trout, <i>Salvelinus fontinalis</i> : A Hot Story! <b>Magnan P.</b> , R. Proulx, F. ♦ Marched and J. Adams	<b>Trudel, M.</b> , S. Tucker and D.W. Welch
<b>15:00-15:20</b>	<b>BREAK</b>	<b>BREAK</b>	<b>BREAK</b>

## Friday Afternoon, 4 January, 2002

Room	Pavillion	Ballroom East	Ballroom West
Theme	<b>Climate Change Impacts on Aquatic Ecosystems (cont.)</b> (Joint Session of CCFR/SCL) Convenors: Michael Power (Waterloo) and Roland Hall (Waterloo)	<b>Fish Biology: Behaviour, conservation and Evolutionary Genetics (cont.)</b> (CCFR) Convenor: Chris Wood (DFO-Nanaimo)	<b>Contributed Paper Session ♦ 2 -Fish Habitat</b> (CCFR) Convenor: Guillermo Giannico (Oregon State U)
<b>15:20</b>	Paleoclimatic Trends In Northern Quebec And Labrador, As Inferred From Paleolimnological Data <b>Pienitz, R.</b> , M.- A. Fallu, T.E. Laing, E. Saulnier-Talbot, K. Ponader, K. Swadling, and ♦ I.R. Walker	Tracking The Origins Of Coaster Brook Trout: Combining Telemetry And Genetic Profiles To Determine Source Populations <b>D'Amelio S.</b> , J. Mucha, R. Mackereth and C. Wilson	Impacts Of Low-Head Barriers On Stream Fishes: Selection For More Headwater-Type Assemblages <b>Mclaughlin, R. L.</b>
<b>15:40</b>	Opposite Effects Of ♦ Sea-Surface Temperature On Survival Rates Of Salmon From Northern And Southern Areas Mueter, F.J., B.J. Pyper and <b>R.M. Peterman</b>	Anadromous And Non-Anadromous Life History Strategies In Atlantic Salmon ( <i>Salmo salar</i> ) <b>Adams B.K.</b> ♦ and J.A. Hutchings	Brook Charr ( <i>Salvelinus fontinalis</i> ) Habitat Utilization And Production Within A Small Headwater System In Newfoundland, Canada: Adapting To Life Alone <b>Clarke, K. D.</b> , D. A. Scruton, J. H. Mccarthy, L. J. Cole, and R. A. Curry
<b>16:00</b>	The Past, Present And Future Of Prairie Droughts <b>Leavitt, P.R.</b> , G. Chen, J.A. Rusak, O.G. Olson, S. Wunsam, B.F. Cumming, and K. Laird	New Genetic Data For River-Sea-Type Sockeye Salmon In Western North America <b>Winans, G.A.</b> , ♦ E. Iwamoto and R.G. Gustafson	Experimental Studies Of The Effects Of Riparian Management On Communities Of Small Streams: Establishing Causal Mechanisms. <b>Richardson, J. S.</b> and P. M. Kiffney
<b>16:20</b>	Flip, Flop and Fry: Climate-Induced Variation In Keogh River Salmonid Carrying Capacity And Survival In The Ocean <b>Ward, B.R.</b> , D.J.F. McCubbing, D.W. Welch	Glacial Biogeography Of North American Coho Salmon <b>Smith, C.T.</b> , R.J. Nelson, C.C. Wood and B.F. Koop	Distribution And Biology Of Bull Trout Populations In Mountain Streams Of The Central And Southwestern Northwest Territories <b>Mochnacz, Neil J.</b> , James D. Reist, and G. Low.
<b>16:40</b>	The Role Of Temperature In The Survival Of Arctic Cod Larvae ( <i>Boreogadus saida</i> ) In The Northwest Water And The North Water Polynyas <b>Sirois, P.</b> ♦ M. Ringuette, L. Fortier, V. Perron, M. Fortier and J. Gagne	Molecular Identification Of Sculpins ( <i>Cottus</i> ) In The Canadian Portion Of The Columbia Basin <b>McPhail, J.D.</b>	Use Of Topographic Indices To Predict Potential Brook Trout Habitat In Lakes On The Canadian Shield <b>Borwick, J.A.</b> , ♦ M.S. Ridgway and J.M. Buttle
<b>17:00-19:00</b>	<b>Poster Session ♦ (Coal Harbour Exhibition Hall) ♦ See titles at end of</b>		

	<b>program</b>
<b>19:00</b>	<b>CCFFR - SCL ♦ Banquet (Ballroom)</b>

**Saturday Morning, 5 January, 2002**

<b>Room</b>	<b>Ballroom East</b>	<b>Pavillion</b>	<b>Ballroom West</b>
<b>Theme</b>	<b>Ricker Symposium</b> (CCFFR) Convenor: D. Noakes (U.Guelph)	<b>Aquatic Ecological Research: Scaling, Society and Priorities</b> (Joint Session of CCFFR/SCL) Convenors: Leon Carl (MNR-Ontario) and Peter Leavitt (Regina)	<b>Contributed Paper Session 3 -Salmon Biology</b> (CCFFR) Convenor: Rick Taylor (Zoology UBC)
<b>8:30</b>	Title and authors TBA	The Role of Colonization Patterns and Engineering by Beaver in Structuring Fish Communities of Canadian Boreal Shield Lakes. <b>Bertolo, A.</b> and P. Magnan	Comparison Of Estimates Of Optimal Spawner Abundance For Fraser River Sockeye Salmon ( <i>Oncorhynchus nerka</i> ) Based On Productivity Of Nursery Lakes And Stock-Recruitment Analyses, Taking Uncertainty Into Account <b>Bodtker, K.M.,</b> R.M. Peterman and ♦ M.J. Bradford
<b>8:50</b>	Title and authors TBA	Influence Of Environmental Features On Fish Assemblages Across Multiple Spatial Scales In A River Basin. <b>Desch ♦ nes, J.</b> and ♦ M.A. Rodr ♦ guez	Mechanisms For The Regulation Of Population Abundance Of Rainbow Trout In Lakes <b>Parkinson, E. A.,</b> ♦ J.R. Post, ♦ P. Biro and ♦ N.T. Johnston
<b>9:10</b>	Recruitment Dynamics In Yellow Perch: Phenomenological Description And Mechanistic Understanding <b>Post, J.R.,</b> L.G. Rudstam and J.R. Forney	Integrated Ecosystem- and Watershed Management for Sustainable Clean and Healthy Drinking Water at the Source. <b>Mazumder, A.</b>	A Genetic Evaluation Of The Factors Affecting The Breeding Success Of Sockeye Salmon, <i>Oncorhynchus nerka</i> <b>Mehranvar, L.</b> and M. Healey
<b>9:30</b>	Sexual Size Dimorphism Of Walleye ( <i>Stizostedion vitreum</i> ) <b>Henderson, B.A.,</b> N.C. Collins, G. Morgan, and A. Vaillancourt	A Whole-Lake Synthetic Estrogen Addition Experiment to Assess Effects of a Hormone Mimic on Aquatic Populations. <b>Kidd, K.,</b> and 19 others	The Impact Of Geographic And Habitat Complexity In Organizing Genetic Variation And Differentiation In Rainbow Trout, <i>Oncorhynchus mykiss</i> <b>Tamkee, P.,</b> E. A. Parkinson and E.B. Taylor
<b>9:50</b>	Habitat Use Of Juvenile Atlantic Cod In A Coastal Area Of Newfoundland As Determined By 2-D Telemetry <b>Cote, D.,</b> L.M.N. Ollerhead, D.A. Scruton, and R.S. McKinley	Evaluating Juvenile Chum and Chinook Salmon Habitat in Burrard Inlet. <b>Haggarty, D.</b> and M. Healey	A Decision Analysis Framework For Comparing Experimental Designs Of Projects To Enhance Pacific Salmon <b>Macgregor, B.W.,</b> R. M. Peterman and B. J. Pyper
<b>10:10-10:40</b>	<b>BREAK</b>	<b>BREAK</b>	<b>BREAK</b>

**Saturday Morning, 5 January, 2002**

<b>Room</b>	<b>Ballroom East</b>	<b>Pavillion</b>	<b>Ballroom West</b>
	<b>Ricker Symposium (cont.)</b> (CCFFR) Convenor: ♦ D. Noakes (Guelph)	<b>Aquatic Ecological Research: Scaling, Society and Priorities (cont.)</b> (Joint Session of CCFFR/SCL) Convenors: Leon Carl (MNR-Ontario) and Peter Leavitt (Regina)	<b>Contributed Paper Session 3 (cont.) -Salmon Biology</b> (CCFFR) Convenor: Rick Taylor (Zoology UBC)
<b>10:40</b>	Bias In Fish Relative Abundance Using Horizontal-Scanning Approach Due To Distance. <b>Brind'Amour, A.</b> and D. Boisclair	Using Nitrogen Isotopes to Distinguish Diffuse from Point-Source Nitrogen Inputs into Riverine Food Webs: Can Fish Eat Pigs? <b>Anderson, C.</b> , and G. Cabana	Evolution Of Fighting Behaviour Under Asymmetric Competition: An Experimental Test With Juvenile Salmonids ♦ <b>Young, K. A.</b>
<b>11:00</b>	Development Of Field Deployable Turbulence Measurement Devices And Their Applications To Stream Ecology <b>Yonemitsu, N.</b> and T.M. Hoover	From Land to Water and Back: Tracing the Incorporation of Aquatic Secondary Production into Terrestrial Food Webs with Stable Isotopes. <b>Cabana, G.</b> , and W. Giroux	A Spatially Explicit Fitness Based Model For Predicting The Migratory Behavior In Fishes With Ontogenic Migrations. A Case Study Of The Marine Migration Of Sockeye Salmon From The Fraser River <b>Huato, L.</b>
<b>11:20</b>	An Examination Of The Varying Life History Characteristics Of Three Ontario Lake Herring( <i>Coregonus artedii</i> ) Populations <b>Vascotto, K., B.</b> Shuter and D. Jackson	Assessment of Restoration Potential for Fish and Riparian Plant Communities in the Willamette River in Oregon. <b>Gregory, S.V.</b> ♦	Is Scale An Issue? Using Underwater Stereo Videography To Study The Effects Of Hydraulic Condition On Energy Use In Up-River Migrating Salmon <b>Standen, E. M.</b> and S. Hinch
<b>11:40</b>	Inter-Annual Variation In Burbot Cohort Abundance In Columbia Lake, British Columbia <b>Josh L. Taylor</b>	Spatial Scale Considerations For Assessing And Managing Risk Of Hydrologic Impacts To Stream Fish Habitat In Ontario ♦s Boreal Forest <b>Mackereth, R.W.</b> , D.J. McCormick and K.D. ♦ Strilchuk	Adaptive Energetics And Morphology Of Migrating, Adult, Fraser River Sockeye: The Role Of Migratory Distance And Elevation ♦ <b>Crossin, G.</b> and S. Hinch
<b>12:00-13:20</b>	<b>LUNCH</b>	<b>LUNCH</b>	<b>LUNCH</b>



## Saturday Afternoon, 5 January, 2002

Room	Pavillion	Ballroom East	Ballroom West
Theme	<b>Productive Capacity of Aquatic Habitat (CCFFR)</b> Convenor: R. Randall (DFO-Ontario)	<b>Contributed Paper Session 4 -Fisheries (CCFFR)</b> Convenor: Mike Healey (Oceanogr. UBC)	<b>Contributed Paper Session 5 -Fish Ecology (CCFFR)</b> Convenor: John Richardson (Forestry UBC)
<b>13:20</b>	Habitat Productive Capacity Research In Freshwaters Of Newfoundland: Progress Towards Refining Fluvial And Lacustrine Habitat Relationships In A Depauperate Fish Assemblage <b>Scruton, D., A.</b> and K., D. Clarke	A Decision Analysis Of Adaptive Management Experiments For Whitefish Management In The Columbia River: Is It Worth Varying Flows To Reduce Key Uncertainties? <b>Alexander, C.,</b> P. Higgins, D. Marmorek and C. Peters	Inter-Annual Comparison Of Size-Selective Mortality Of Rainbow Smelt ( <u>Osmerus mordax</u> ) Due To Predation By Landlocked Atlantic Salmon ( <u>Salmo salar</u> ) In Lac Saint-Jean <b>Tremblay, G.,</b> P. Sirois and M. Legault
<b>13:40</b>	The Roles Of Uncertainty And Complexity In Assessing Net Change Of Productivity Capacity Of Fish Habitats <b>Minns, C.K.</b>	Trawler Targeting In The North Sea <b>Gillis, D.M.,</b> A.D. Rijnsdorp and J.J. Poos	Effect Of Turbulence On The Costs Of Swimming In Juvenile Atlantic Salmon ( <u>Salmo salar</u> ) <b>Enders, E.C.,</b> D. Boisclair and A.G. Roy
<b>14:00</b>	Aquatic Science For Managed Landscapes: Where Is Our Habitat Habit At? <b>Steedman, R.</b>	Ecological Basis Of TAC Determination For Lake Whitefish ( <u>Coregonus clupeaformis</u> ) In Lake Huron <b>Crawford, S.,</b> K. McCann and A. Muir	Habitat Utilization Patterns Of A Nearshore Fish Community; Implications For Habitat Management <b>Pratt, T.C.</b> and K.S. Smokorowski
<b>14:20</b>	ETD (Erosion, Transport, Deposition), A Unifying Concept For Classification Of Fish Habitat And Predicting Productive Capacity <b>Franzin W., G.,</b> and P. A. Nelson	Growth And Reproduction Of Lake Whitefish ( <u>Coregonus clupeaformis</u> ): Life History Strategies <b>Beauchamp, K.,</b> B.A. Henderson and N.C. Collins	Impact Of Six Years Of White Sucker Biomanipulation On Fish Communities Of Five Canadian Shield Lakes <b>St-Laurent, M.H.,</b> P. Magnan and M. Legault
<b>14:40</b>	Eco-Physical Habitat Classification For Large, Gravel-Bed Rivers: A Tool For Research And Management. <b>Rempel, L.</b> and M. Church	Annual Repeatability In Determining Life History Traits: ♦ Implications For Predicting Population Parameters From Lake Characteristics <b>Purchase, C.F.,</b> N.C. Collins, B.A. ♦ Henderson, and G.E. Morgan	Benthic And Pelagic Feeding Behaviour Of Lacustrine Brook Trout ( <u>Salvelinus fontinalis</u> ) Revealed By Stable Isotope Analysis In Relation To The Presence Of Introduced Species <b>Caron, M.,</b> G. Cabana and P. Magnan
<b>15:00-15:20</b>	<b>BREAK</b>	<b>BREAK</b>	<b>BREAK</b>

## Saturday Afternoon, 5 January, 2002

Room	Pavillion	Ballroom East	Ballroom West
Theme	<b>Productive Capacity of Aquatic Habitat (CCFFR)</b> Convenor: R. Randall (DFO-Ontario)	<b>Contributed Paper Session 6 -Fish Populations (CCFFR)</b> Convenor: Mike Healey (Oceanogr. UBC)	<b>Contributed Paper Session 7 -Conservation (CCFFR)</b> Convenor: John Richardson (Forestry UBC)
15:20	The Effectiveness Of Different Sampling Techniques In Identifying Associations Of Fish With Differing Habitats In Inland Lake Littoral Zones. <b>Smokorowski, K.E.</b> , M. Ridgeway and J. Hume	Phylogeography, Local Population Structure And Conservation Genetics Of Arctic Grayling (Thymallus arcticus) In North America <b>Stamford, M. D.</b> and E.B. Taylor	Ecotypic Variation In Rainbow Trout Morphology <b>Keeley, E.R.</b> , E.A. Parkinson and E. B. Taylor
15:40	Hydroacoustic Assessment Of Spatial Variability Of The Influence Of Moon Phase On Fish Abundance <b>Gaudreau, N.</b> and D. Boisclair	Spatial And Temporal Patterns Of Population Structure In Atlantic Herring <b>McPherson, A.</b> , P.T. O'Reilly, M. Jones and C.T. Taggart	Mating Strategies In Coastal Cutthroat Trout (Oncorhynchus clarki clarki): Implications For The Conservation Of Small Populations <b>Costello, A. B.</b>
16:00	Productive Capacity Of Eelgrass Habitat For Juvenile Atlantic Cod <b>Gregory, R.S.</b> , D.C. Schneider and B.J. Laurel	Genetic Stock Structure Of Walleye (Stizostedion vitreum) In The Lower Great Lakes: Comparison Of Population-And Individual-Based Analyses <b>Wilson, C.</b>	Using Geographic Models To Apply Limited Genetic Information To Species Conservation <b>Parkinson, E.A.</b> , E. Taylor and E. Keeley
16:20	Reconstruction Of Time-Varying Productivity Of Sockeye Salmon Stocks In Bristol Bay, Alaska, Using Smoothed Kalman Filter Estimates <b>Peterman, R.M.</b> , and B.J. Pyper	The Allometry Of Cannibalism In Piscivorous Fishes <b>Juanes, F.</b>	Inbreeding Depression In Pacific Salmon: The Myth And Reality <b>Heath, D.D.</b> , C.A. Bryden, J.W. Heath, E. Fillatre, L. Duke and J.M. Shrimpton
16:40	Growth And Production Of Young-Of-The-Year Arctic Grayling In Natural And Artificial Tundra Streams <b>Jones, N.E.</b> , W.M. Tonn, G. Scrimgeour and C. Katopodis	Mechanisms Involved In Trophic Polymorphism Of Brook Trout, Salvelinus fontinalis <b>Proulx, R.</b> and P. Magnan	Home Ranges And Trophic Relationships Of Muskellunge Associated With A Dam And Reservoir: The Continuing Saga Of An Unwelcome, Introduced Predator <b>Curry, R. A.</b> and C. Doherty
17:00	<b>CCFFR Business Meeting</b>		

## Saturday Morning, 5 January 2002

<b>Room</b>	<b>False Creek</b>
<b>Theme</b>	<b>Invertebrates, Macrophytes, Lakes and Reservoirs</b> ♦♦ (SCL) Convenor: Rick Nordin (MWLAP-BC)
<b>8:30</b>	Limnological Ecoregions for British Columbia. <b>Nordin, R. N.</b> , Perrin, C.J.
<b>8:50</b>	Black Fly Larvae Link Lacustrine and Riverine Food Webs in Lake Outlet Streams. <b>Parkes, A.</b> , Kalff, J., Cabana, G.
<b>9:10</b>	PCO <sub>2</sub> (aq) Reconstruction from Diatoms in Lakes: Paleoeological Indication for the Contribution of Groundwater into Lakes and the Behavior of Lakes in Global Climate Warming. <b>Philibert, A.</b> , Prairie, Y.T.
<b>9:30</b>	Patterns in Submerged Macrophyte Structure and Invertebrate Abundance. <b>Rennie, M.D.</b> Jackson, L.J.
<b>9:50</b>	Invertebrates Associated to Different Types of Aquatic Vegetation in the St. Lawrence River: Implications for Water Level Changes. <b>Tessier, C.</b> , Cattaneo, A., Pinel Alloul, B.
<b>10:10-10:40</b>	<b>Break</b>
<b>10:40</b>	Macrophyte and Water Quality Relationships in Southern Ontario Rivers. <b>Carr, G.M.</b> , Taylor, W.D., Duthie, H.C.
<b>11:00</b>	Reservoir Drawdown: Implications for Benthic Communities and Drinking Water Quality. <b>Furey, P.C.</b> , Mazumder, A., Nordin, R.
<b>11:20</b>	Zooplankton Feeding Behaviors in Lakes and Reservoirs Inferred by Stable Isotopes. <b>Matthews, B.</b> , Mazumder, A.
<b>11:40</b>	Effects of Seasonal Drawdown on a Drinking Water Reservoir: ♦ Responses of Pelagic Phosphorus Pathways. <b>Nowlin, W.H.</b> , Davies, J.M., Mazumder, A.
<b>12:00-13:20</b>	<b>Lunch</b>

## Saturday Afternoon, 05 January 2002

<b>Room</b>	<b>False Creek</b>
<b>Theme</b>	<b>Patterns in Long-term Time Series: Analyses, Insights and Applications</b> ♦ (SCL) Convenors: Charles Ramcharan (Louisiana) and James Rusak (Regina)
<b>13:20</b>	Changes in the North Pacific Zooplankton Community off British Columbia: Time and Space Scales. <b>Mackas, D.L.</b> (invited)
<b>13:40</b>	Scaling of Environmental Variability in Lakes and Rivers. <b>Cyr, H.</b> (invited)
<b>14:00</b>	Patterns and Trends in Sudbury Area Water Chemistry. <b>Futter, M.N.</b> , Keller, W., Heneberry, J. (invited)
<b>14:20</b>	Multi-Scale Control of Prairie Lake Nutrient Cycling and Production. <b>Rusak, J.A.</b> , Leavitt, P.R., Graham, M.D., McGowan, S., Wunsam, S., ♦ Cumming, B.
<b>14:40</b>	Detecting Effects of a Perturbation using RIA and DLM. <b>Ramcharan, C.W.</b> , Lamon, C.
<b>15:00-15:20</b>	<b>Break</b>
<b>15:20</b>	Were Antifouling Paints Culpable in the Collapse of One of Europe ♦s Finest Shallow Lake Ecosystems? <b>Jackson, M.J.</b> , Sayer, C.D., Waldock, M.J., Simpson G.L., Boyle, J.F., James, R.
<b>15:40</b>	Effects of Drought-Induced Acidification on Diatom Communities in Acid-Sensitive Ontario Lakes. Faulkenham, S.E., and <b>Hall, R.I.</b>
<b>16:00</b>	Paleolimnological Reconstruction of Change in Two BC Reservoirs.

	<b>Bos, D.G.</b> , Stockner, J.G.
<b>16:20</b>	Life History Variation in Lake Trout, <i>Salvelinus namaycush</i> , in Great Bear Lake, NWT: Implications for Future Research and Management. <b>Howland, K.L.</b> , Tallman, R.F.
<b>16:40</b>	Fungal Biomass and Rates of Production on Standing Dead Litter Of <i>Scirpus</i> in a Prairie Wetland. <b>Verma, B.</b> , ♦Robarts, R.D.
<b>17:00-18:00</b>	<b>SCL Business Meeting</b>

## Poster Displays (Coal Harbour Exhibition Hall)

**Poster Installations ♦ Thursday, 3 January, 2002 18:00-21:00**

**Poster Presentations ♦ Friday, 4 January, 2002 17:00-19:00**

### CCFFR

1. 1. Thermal Preferences Of Two Forms Of Brook Trout, *Salvelinus fontinalis*  
**Adams, Julie** and Pierre Magnan
2. 2. DONALD EVAN McALLISTER ♦ 23 AUGUST 1934 - 17 JUNE 2001  
**Alfonso, Noel R.** and Brian W. Coad.
3. 3. Effect Of Summer Floods And Spatial-Temporal Scale On Growth And Feeding Of Juvenile Atlantic Salmon  
**Arndt, S.K.A.**, R.A. Cunjak and T.J. Benfey
4. 4. Lake Origin Of Endako River Kokanee Spawners  
**Benckhuysen Justus**, Tim Slaney, and Carrier-Sekani Tribal Council
5. 5. Comparison Of Growth In Whitefish Dwarf And Normal Morphotypes (*Coregonus clupeaformis*) Using Biochemical Indices  
Berthelot, H. and **H. Gl♦met**,
6. 6. Age And Growth Of Lake Charr, *Salvelinus namaycush*, From Great Bear Lake, Northwest Territories, In Relation To Diet  
**Blackie, C.**, D. Weese and D.L.G. Noakes
7. 7. The Thermal Habitat Of Lake Trout In Small Boreal Lakes: Projected Implications Of Climate Change  
**Blanchfield, P.J.**, R.H. Hesslein and W. Jansen
8. 8. Indicator Species In Freshwater Streams: A New Approach To Biomonitoring  
**Bondar C.** and J.S. Richardson
9. 9. Comparison Of Point And Line Transect Methods For Surveying Fish Assemblages In Littoral Habitats Of The Lower Great Lakes  
**Boston, Christine M.**, ♦ Robert G. Randall, and Charles K. Minns
10. 10. Muscle Absorption/Loss In Sexually-Mature Chinook Salmon: The Apoptotic Link  
**Busch, Christopher**, Daniel Heath, Andrew Hubberstey ♦ and John Heath
11. 11. Seascape Effects on Local, Fine Scale Genetic Structure of Marine Nearshore Fishes: A Molecular Genetic Approach to Understanding the Dispersal of the Bay Pipefish (*Syngnathus leptorhynchus*)  
**de Graaf, Ramona C.**
12. 12. Looking Back In Time Through The Mitochondrial DNA Kaleidoscope: Origin And Demographic History Of A Dolly Varden (*Salvelinus malma*) And Bull Trout (*S. confluentus*) Hybrid Zone  
**Elz, Anna** and Eric B. Taylor
13. 13. Sublethal Effects Of A Thiamine Deficiency On Larval Lake Trout - Moving Beyond Early Mortality Syndrome (EMS)  
♦**Fitzsimons, J.**, B. Williston, G. Fodor, G. Bravener, L. Brown, and S. Brown
14. 14. A Generic Framework For Setting Conservation Limits In Fisheries Management  
**Fu, Caihong** and Chris Wood
15. 15. The Effect Of Suspended Sediment On Sockeye Salmon (*Oncorhynchus nerka*) Fertilization Success  
**Galbraith, R.V.**, E.A. MacIsaac, and A.P. Farrell

16. 16. Juvenile Coho Salmon In The Salmon River Watershed: Seasonal Distribution And Habitat Use  
**Giannico, Guillermo R.** and Kathryn Staley
17. 17. Effects Of Leaf Litter And Forest Cover On Colonisation Patterns Of Stream Invertebrates  
**Gjerlöv, C.** and J.S. Richardson
18. 18. Quantifying Spatial And Temporal Uncertainties In The Abundance Of Larval Lampreys And Their Effect On Chemical Treatment Success In The St. Marys River  
**Haeseker, S.L.** and M.L. Jones,
19. 19. Predicting Relative Effects Of Forest Management On Coastal Fish Stream Habitat  
**Heinzelmann, Frank**
20. 20. Sounding Out Fish: Distribution And Abundance Of Whitefish Near Douglas Point, Lake Huron  
**Holmes, J.A.,** S.S. Crawford, D.L.G. Noakes and D.A. Wismer
21. 21. A Rule-Based Model For The Evaluation Of Invertebrate Transport Processes In Streams  
**Hoover, T.M.,** and N. Yonemitsu
22. 22. Life History Variation In Lake Trout, *Salvelinus namaycush*, In Great Bear Lake, NWT: Implications For Future Research And Management  
**Howland, K.L.,** and R.F. Tallman
23. 23. Postglacial Dispersal Patterns And Genetic Relationships Among Inconnu Populations In The Western Arctic  
**Howland, K.L.,** J.D. Reist, W.M. Tonn and R.F. Tallman
24. 24. To What Degree Can Cod (*Gadus morhua*) Larvae Buffer Against A Change In Temperature During Development  
**Jordaan, A.** and L.J. Kling
25. 25. Linking Riparian Tree Species Composition To Stream Community Dynamics: Effects On Fungal Biomass And Invertebrate Diversity, Density And Productivity  
**Kolodziejczyk, R.I.** and J.S. Richardson
26. 26. Field Measurements Of Swimming Performance And Metabolic Expenditure With Hatchery-Reared And Transgenic Coho Salmon (*Oncorhynchus kisutch*) In Comparison With Wild Sockeye Salmon (*O. nerka*)  
**Lee, Chris G.,** Anthony P. Farrell, Scott G. Hinch and Michael Healey
27. 27. Swimming Performance And Energetics Of Sockeye (*Oncorhynchus nerka*) And Pink Salmon (*O. gorbuscha*)  
**MacNutt, Meaghan,** Scott Hinch and Tony Farrell
28. 28. Behavioral Thermoregulation In Lake Trout (*Salvelinus namaycush*) With Applications To Predicted Impacts Of Global Warming  
**Mackenzie-Grieve, Jody** and J.R. Post
29. 29. Assessing Risk Of Hydrologic Impact To Stream Fish Habitat In Ontario's Boreal Forest: A Comparison Of Catchment Scales And Disturbance Types  
**McCormick, D.J.,** R.W. Mackereth and K.D. Strilchuk.
30. 30. Phylogeography And Postglacial Dispersal Of Whitefish (*Coregonus clupeaformis* Complex) In North America  
**McDermid, J.L.,** J.D. Reist and R.A. Bodaly
31. 31. Habitat Preferences, Movement Patterns, And Home Ranges Of Coaster Brook Trout In Lake Superior  
**Mucha, J.M.** and R.W. Mackereth
32. 32. Aquatic Insect Diversity And Productivity In Intermittent And Continuously-Flowing Streams  
**Muchow, Christine L.** and John S. Richardson
33. 33. Shortjaw Cisco (*Coregonus zenithicus*) in Manitoba Waters  
**Murray, L.** and J. D. Reist
34. 34. Ecosystem-Based Management Of Canada's Oceans: Objectives, Indicators And Reference Points  
O'Boyle, R., **G. Jamieson,** J. Arbour, D. Cobb, S. Courtenay, R. Gregory, C. Levings, J. Munro, I. Perry and H. Vandermeulen
35. 35. Fish Winterkills Shape Amphibian Recruitment In Western Boreal Lakes  
**Paszkowski, C.,** B. Eaton, W. Tonn and A. Danylchuk

36. 36. Individual and Population Variation in Gamete Viability in Fraser River Sockeye Salmon Populations  
**Patterson, D.A.**, ♦J.S. Macdonald, H.E. Herunter and A.P. Farrell
37. 37. The Distribution and Abundance of the Salish sucker (*Catostomus* sp.) and Nooksack Dace (*Rhinichthys* sp.)  
**Pearson, Mike** and M.C. Healey
38. 38. Variation In Contribution Of Energy Sources To Growth Of Juvenile Chinook Salmon In Small Boreal Streams: A Dynamic Approach Using Stable Isotopes  
**Perry, Russell W.**, ♦ Michael J. Bradford and Jeffrey Grout
39. 39. Growth And Survival Of Atlantic Cod Larvae From Two Latitudinally Separated Populations In A Common Garden Experiment - Preliminary Results  
**Puvanendran, V.** and J.A. Brown
40. 40. Are Densities And Recruitment Rates Of Wild Rainbow Trout Different Among Populations, And If So, Which Mechanisms Could Be Responsible?  
♦**Rejwan, C.**, J.R. Post, and E. Parkinson
41. 41. Movement And Genetic Relatedness Of Coastal Cutthroat Trout In Small, Coastal British Columbia Streams  
**Roberge, Michelle**, ♦ Scott G. Hinch, E.B. Taylor, Tim Slaney, Stolo First Nations
42. 42. Genetic Analysis Of Hybridization Between Westslope Cutthroat Trout (*Oncorhynchus clarkii lewisi*) And Introduced Rainbow Trout (*O. mykiss*) In The East Kootenays Of British Columbia  
**Rubidge, Emily M.**, Peter Corbett, and Eric B. Taylor
43. 43. Chinook And Coho Spawner Enumeration In The Squamish Watershed  
**Sander, B.C.**, and R. Lewis
44. 44. Exotics Impede Atlantic Salmon Restoration  
**Scott, R. J.**, D.L.G. Noakes , F.W.H. Beamish and Leon M. Carl
45. 45. Nest Site Selection In The Wild By Cultured Atlantic Salmon  
**Scott, R. J.**, D.L.G. Noakes and F.W.H. Beamish
46. 46. Influence Of Riparian Vegetation And Soils On Stream Macroinvertebrate Communities In Coastal Headwaters Of British Columbia: Providing Perspectives For Riparian Management  
**Sleeman, J.D.**
47. 47. Assessing Nearshore Fish Community Associations With Differing Habitat By Using An Underwater Video Camera  
**Smokorowski, K. E.**, T. Pratt, J. Muirhead, L. Jones, W. Gardner and J.R.M. Kelso
48. 48. Linking Values, Risk, Precision, Scale And Level Of Effort Into A Framework For Managing Streams For A Net Gain In Productive Capacity For Streams  
**Stanfield, Les W.**, Bruce Kilgour, ♦ Jacques Whitford and ♦ Jack Imhof
49. 49. Community Metabolism: Properties Of Scale (Size/Shape And Data Analyses)  
**Taub, Frieda B.**, John E. Petersen, W. Michael Kemp, and Debbie Hinkle
50. 50. Visual Pigments As A Quantitative Measure Of Preparedness For Smoltification In Coho Salmon  
**Temple, S.E.**, C.W. Hawryshyn and T. Haimberger
51. 51. Physical, Chemical, And Biological Characteristics Of ♦ Barrenland Tundra Streams Of The Northwest Territories ♦  
**Tonn W.**, N. Jones and G. Scrimgeour
52. 52. Angler-Induced Changes In Size- And Age-At-Maturity In Size-Structured Populations: Individual And Population Level Impacts  
**van Poorten, B.T.** and J.R. Post
53. 53. The Introduction Of Northern Pike Into A Fishless Boreal Lake: Does A Diet Of Leeches Affect Predators Or Prey?  
**Venturelli, P.** and W. Tonn
54. 54. Physiological Impact Of Different Levels Of Salmon Lice (*Lepeophtheirus salmonis*) Infestation On The Cardiac Output And Swimming Performance Of Atlantic Salmon (*Salmo salar*)  
**Wagner, G.N.**, R.S. McKinley, P.A. Bj ♦rn , B. Finstad
55. 55. Effects Of Managed Buffer Zones On Aquatic Fauna And Habitat Associated With A Headwater Stream

- In Newfoundland
- Wells, J.**, D. Scruton and Joseph Brown
56. 56. The Effect Of Ammonia Exposure On Ammonia Metabolism And Immune System Response Of Chinook Salmon Smolts  
**Wicks, B.J., P.A. Ackerman**, G.K. Iwama, and D.J. Randall
57. 57. Mitochondrial Phylogeography Among Great Lakes Populations Of The Deepwater Sculpin, *Myoxocephalus thompsoni*.  
**Wilson, C.**, J. Casselman and N.R. Lovejoy
58. 58. Distribution And Movement Of Brook Trout (*Salvelinus fontinalis*) Within And Between Headwater Tributaries In A Discrete Lake Basin In South-Central Ontario  
**Wootton, B.** and D.O. ♦ Evans
59. 59. Genetic Evidence Of Metapopulation Structure In Brook Trout (*Salvelinus fontinalis*) Inhabiting Small Tributaries Of Two Precambrian Shield Lakes In South-Central Ontario  
**Wootton, B.**, D.O. Evans and C. Wilson
60. 60. Lake Fertilization As A Restoration Technique For Columbia Basin Kokanee  
**Wright, M.E.** and S.K.A. Arndt
61. 61. Towards Understanding The Diversity Of Fish Assemblages In Eelgrass, *Zostera-Marina* L, Ecosystems In British Columbia  
**Yakimishyn J.** and C. Robinson
62. 62. Effects Of Salmon Carcasses On An Ecosystem Function - Leaf Litter Decomposition  
**Zhang, Y.**, J. Negishi, R.I. Kolodziejczyk and J.S. Richardson
63. 63. Effects Of Prey Size, Mobility And Habitat Structure On Prey Selection By Pumpkinseed (*Lepomis gibbosus*)  
**Zhao, X.**, M.G. Fox and D.C. Lasenby

## SCL

64. Implicit Treatment of Spatial Autocorrelation in Redundancy Analysis (RDA) and Canonical Correspondence Analysis (CCA).  
**Norton, G.M.B.**, Legendre, P., and Makarenkov, V.
65. Speciation Modelling of Copper in Photolyzed Natural Waters using Potentiometric Techniques in a Continuous Flow Reactor. ♦  
**Mills, B.**, Dillon, P., and Evans, R.D.
66. Natural Organic Matter (NOM) in Source Water Reservoirs and Disinfection By-Products (DBPs) in Drinking Water. ♦  
**Liang, Y.** and Mazumder, A.
67. Evaluating a Volunteer-Based Sampling Program to Detect *Bythotrephes* in Ontario Inland Lakes.  
**Boudreau, S.**, MacDonald, F., and Yan, N.D.
68.  $\delta^{15}\text{N}$  ♦ of Aquatic Invertebrates Reflects Contrasting Land Uses and Anthropogenic Nitrogen Inputs on Small Watersheds. ♦  
**Bertrand, ♦ M.** and Cabana, G.
69. Paleoecological  $\text{pCO}_2(\text{aq})$  Reconstruction From Diatoms in Lakes.  
**Philibert, A.**, ♦ Enache, M. and Prairie, Y.T.
70. Comparing Paleolimnological Reconstructions with Observed Ice-Jam Flood Frequency, Peace-Athabasca Delta, Alberta. ♦  
**Wolfe, B.B.**, Paterson, A., Karst, T., Hall, R.I., McGowan, S., Leavitt, P.R., Vardy, S.R., Edwards, T.W.D., and Last, W.M.
71. Biological Indicators (Diatoms, Pigments, Pollen, Macrofossils) for Assessing Hydrological Changes in the Peace-Athabasca Delta (Alberta).  
**Karst, T.**, Paterson, A., Hall, R.I., McGowan, S., Leavitt, P.R., Vardy, S.R., and Wolfe, B.B.

