65th Canadian Conference for Fisheries Research
65é Conférence canadienne de la recherche sur les pêches

Society of Canadian Limnologists
Société canadienne de limnologie

Society of Wetland Scientists
Société des scientifiques des zones humides

5-7 January 2012 Moncton, NB
Delta Beausejour Hotel

Organized by:

Canadian Conference for Fisheries Research
Conférence canadienne de la recherche sur les pêches

Society of Canadian Limnologists
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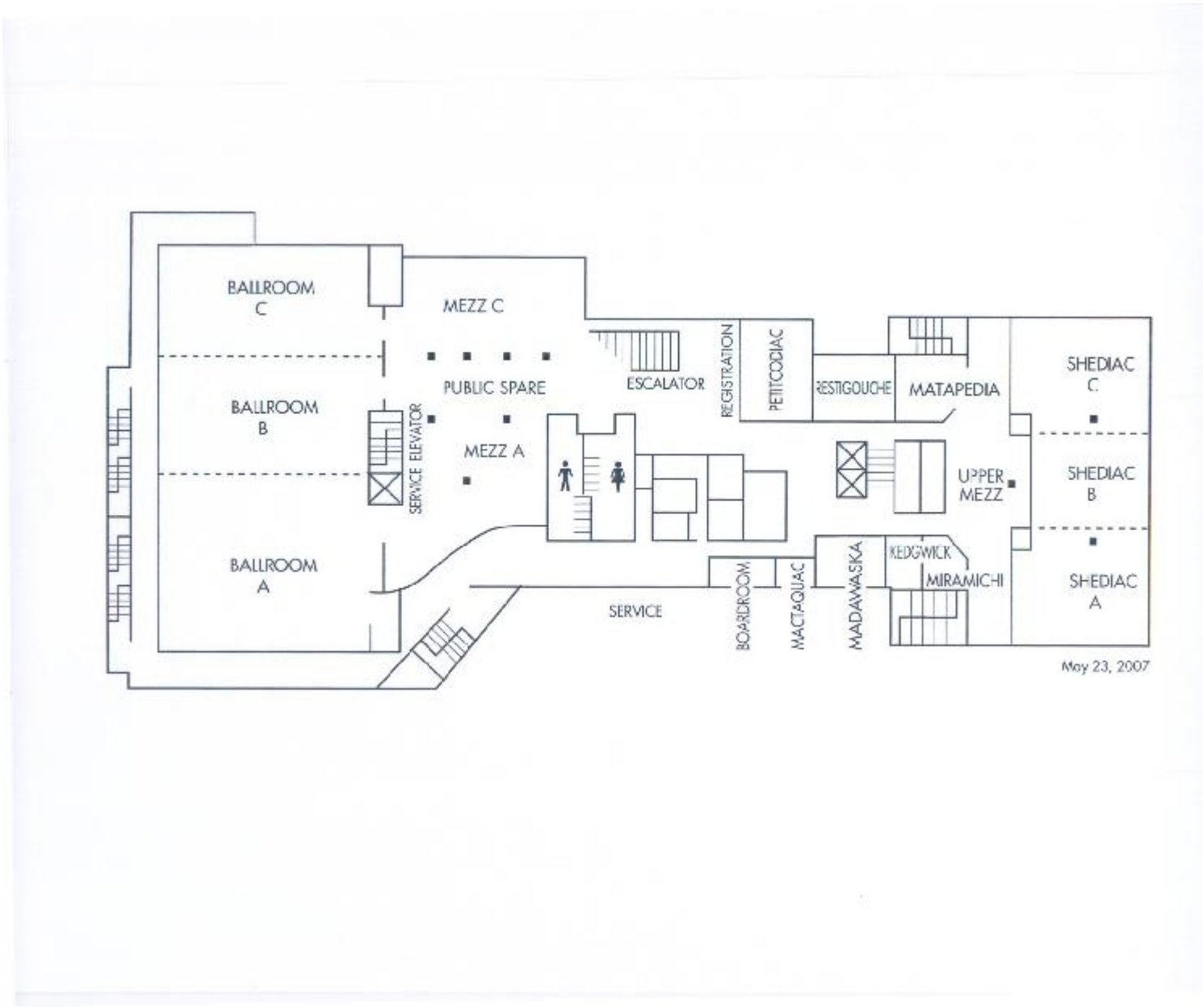
Conference Floor Plan



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CCFFR/SCL/SWS Themes and Session Chairs (TBA) for 2012

(1) Role of top predators in aquatic ecosystems

(2) Population dynamics, health, and ecology of salmonids

(3) Species at risk

(4) Use of new technology in aquatic research

(5) Migration, mixing, and dispersal in aquatic species

(6) Impacts of climate change on aquatic environments and fisheries

(7) Impacts of multiple stressors on aquatic ecosystems

(8) Nutrient dynamics in lakes, rivers, estuaries, and coastal environments

(9) Invasive aquatic species

(10) Linking theory and application: From fish to phytoplankton

(11) Science for wetland policy and management

(12) General session

General Information:

Dinner dining: Moncton is a small city with a small downtown; nevertheless, there is a reasonable choice of restaurants near the hotel – all within 2-3 minutes walking distance and mostly on Main Street (the majority are to your left as you leave the hotel). For vegetarians go up Alma, it is 4 blocks to St. George and there you will find *Calactus* just to your right. The Pumphouse microbrewery and pub is just across the street on Orange Lane.

Registration: in the Mezzanine from 5 to 9 PM on Thursday, 5 January, and 07:30 -12:00 h on Friday, 6 January.

Accessing Abstracts: To save paper, the abstracts are only available from the Program link on the CCFFR website: http://www.uwindsor.ca/glier//ccffr/. Alternatively, you can obtain an electronic copy from a USB key at the Registration Desk.

Instructions for Oral Presentations:

1. Presenters will be given a total of 20 minutes: 15 minutes for their presentation and 5 minutes for questions. This time limit will be strictly enforced.
2. A laptop computer (PC), an LCD projector, a laser pointer, and (if necessary) a microphone will be provided. Only PowerPoint 2003 (or more recent versions) will be supported (PC platform). Videos created on non-PC platforms generally do not function. Use of your own computer is not permitted.
3. Provide your presentation file on USB key or CD to the A-V assistant or Session Chair 20 minutes prior to the start of your session.
4. Inform the chair of your session that you are present.

We have a room available for presenters to practice talks. Contact the registration desk.

Instructions for Poster Presentations:

1. Poster boards are 4 X 8 feet (1.22-2.44 m); therefore, posters must measure no greater than 4 X 6 feet (1.2 x 1.8 m). Poster fonts should be of sufficient size to be read from at least 1 meter away (at least 18 pt).
2. Posters must be posted on the board with your Poster No., assigned below in Posters at a Glance
3. Posters will be displayed in Ballroom C. They can be set up between 6:00 – 10:00 AM on Friday, 6 January. Fastening materials (pins only) will be provided; the boards are compatible with both Velcro (not provided) and pins.
4. Formal poster viewing is scheduled during both lunch breaks. Poster authors are asked to attend their posters at these times. Attendees also will be able to view posters informally during coffee breaks.
5. Posters must be taken down 3:30 – 5:00 PM Saturday, 7 January.

Business Meetings

- The annual CCFFR Business Meeting will be held after the last session (starting roughly 17:15) on Friday 6 January in Shediac A.
- The annual SCL Business Meeting will be held after the last session (starting roughly 17:15) on Friday 6 January, in Shediac C.

Come and hear what your societies and sections are planning. Students and PDFs are welcome.

Schedule at a Glance

Thursday, 5 January

Time	Event	Location
4:00 – 6:00 PM	CJFAS Editorial Board Meeting	Boardroom
5:00 – 9:00 PM	***Registration***	Mezzanine outside Ballrooms
7:00 – 9:00 PM	Welcome Reception	Ballroom or Mezzanine

Friday, 6 January

Time	Event	Location
6:00 – 10:00 AM	Exhibit and Poster Setup	Ballroom A
8:00 – 12:00 AM	***Registration***	Mezzanine outside Ballrooms
9:00 – 10:30 AM	Plenary Presentations	Ballroom C
10:30 – 11:00 AM	Coffee/Tea/Water	Mezzanine outside Ballrooms
11:00 AM – 12:00 noon	Theme Sessions	Various Session Rooms
12:00 noon – 1:20 PM	Buffet Lunch (included with registration)	Ballroom A/B
1:20 – 5:00 PM	Theme Sessions (with 3 PM break)	Various Session Rooms
5:00 – 6:30 PM	CCFFR Business Meeting SCL Business Meeting	Shediac B Shediac A

Saturday, 7 January

Time	Event	Location
9:00 AM – 12:00 noon	Theme Sessions (with 10:20 AM break)	Various Session Rooms
12:00 noon – 1:20 PM	Buffet Lunch (included with registration)	Ballroom A/B
1:20 – 5:00 PM	Theme Sessions (with 3 PM break)	Various Session Rooms
3:30 – 5:00 PM	Remove Posters and Exhibits	Ballroom

Plenary Abstracts

J.C. Stevenson Memorial Lecture

EVOLUTIONARY PRINCIPLES IN FISHERIES CONSERVATION: PROMISES AND PITFALLS

Fraser, D.
Department of Biology, Concordia University, Montreal, QC, Canada (djfraser@alcor.concordia.ca)

Evolutionary principles are increasingly integrated into fisheries management and conservation. They hold great promise for improving the preservation or captive rearing of depleted fish populations, for minimizing undesirable effects of harvesting on phenotypic variation, for mitigating interactions between aquaculture and wild fishes, and for ameliorating species or ecosystem conservation planning. But applying evolutionary principles is not without risk. Predicting the degree to which selection, gene flow and genetic drift will influence evolutionary change and ultimately population persistence remains challenging. On one hand, selection or gene flow can be manipulated to suit human needs or to otherwise alter population demography. The importance of selection is supported by evidence of phenotypic evolution in fishes faced with a barrage of human influences (e.g. overexploitation or habitat change). On the other hand, human influences can also reduce the efficacy of selection by generating greater stochasticity. In a rapidly changing world, will this lead to more imprecision and unpredictability? Given that some degree of evolutionary change is inevitable, under what conditions is it most likely to have negative conservation or socio-economic consequences? By synthesizing data from the literature and my own research, I argue that applying evolutionary principles to fisheries conservation will require a probabilistic, flexible approach, which embraces the roles that both deterministic and stochastic factors play in evolutionary change.

F.H. Rigler Memorial Award Lecture

TERRESTRIAL CARBON, LAKE METABOLISM, ALLOCHTHONY AND THE ROLE OF LAKES IN THE LANDSCAPE

del Giorgio, P.A.
Dépt. des sciences biologiques, Université du Québec à Montréal, CP 8888, succ. Centre Ville, Montréal, Québec

Terrestrial ecosystems export large amounts of materials, including organic C to lakes. Contrary to what was assumed for decades, our work and that of others has demonstrated that this terrestrial organic C is very reactive, both photochemically and biologically, and may thus profoundly alter the functioning of the receiving systems. One of the most conspicuous effects of terrestrial organic C inputs are on the metabolic balance at the ecosystem level, and in particular, in determining the low ratios (< 1) of primary production to total respiration that characterize many northern temperate and boreal lakes. This apparent net ecosystem heterotrophy must necessarily be driven by the respiration of variable amounts of terrestrial C at the base of the food web, presumably by bacteria. Our own experimental work using stable isotopes has provided direct evidence that lake bacterioplankton respire significant amounts of terrestrial OC, and furthermore, that a portion of this C is old (> 1000 years), suggesting a link between contemporary lake metabolism and the paleo conditions of their drainage basins. Whether this terrestrial OC consumed by bacteria is transferred upwards in the food web and results in significant "allochthony" in higher trophic levels (zooplankton and fish) is still a matter of much debate. The pathways that lead to allochthony are complex, and involve the incorporation of terrestrial C into microbial biomass, and the effective transfer of this biomass within the food web, and there are conflicting results in the literature regarding these processes. Our experimental results have unambiguously shown that the isotopic signature of bacterial biomass is predominantly terrestrial across many lakes types. Furthermore, our large-scale comparative studies of zooplankton allochthony in temperate and boreal lakes using a multi-isotope approach (^{13}C, ^{2}H, ^{15}N) also revealed a significant terrestrial component in the biomass of different major zooplankton groups across lakes. The biological cycling and decomposition of terrestrial OC is one of the major processes that fuel the consistent CO_2 supersaturation that has been observed in most lakes, and which represents a major component of the C balance in northern landscapes. Net ecosystem heterotrophy, allocthony at different trophic levels, and the associated gas dynamics are all manifestations of the influence of terrestrial OC in lakes, and collectively shape the role of lakes at a regional scale.

Rob Peters Award Lecture
Friday, 11:00 AM (Multiple Stressors Session, Shediac B)

LAKEWATER CALCIUM DECLINE AND THE AQUATIC FOOD WEB: IMPLICATIONS FOR ALGAL PRODUCTION IN SOFTWATER LAKES

Korosi*, J.B., S. Burke, J.R. Thienpont, and J.P. Smol.
Paleoecological Environmental Assessment and Research Lab (PEARL), Department of Biology, Queen's University, Kingston, Ontario (jennifer.korosi@queensu.ca).

Increased algal blooms are a threat to aquatic ecosystems worldwide, although the combined effects of multiple stressors often make it difficult to determine the underlying causes. We used a multi-proxy paleolimnological approach to reconstruct the trophic history of a softwater lake in Nova Scotia (Canada) since ~1850, in order to determine the mechanism behind recent rises in algal production observed over ~20 years of long-term lake monitoring. We show that chlorophyll *a* values in the lake tripled in the early 1990's, constituting an unprecedented increased over the last ~150 years. The rise in chlorophyll *a* is strongly correlated to a decline in the keystone grazer, *Daphnia,* and not to increases in total phosphorus (TP) concentrations or recent climate warming. The decline in *Daphnia* cannot be attributed to changes in pH, thermal stratification, or predation, but instead is linked to declining lakewater [Ca], a water quality issue only recently recognized in Europe and North America (Jeziorski et al., 2008, *Science*). The consistency in the timing of changes in *Daphnia* and inferred chlorophyll *a* highlights the importance of top-down control on algal production in this system, and provides the first evidence of a link between lakewater [Ca] decline and elevated algal production mediated through the effects of [Ca] decline on *Daphnia*. We conclude that [Ca] decline can have severe implications for whole-lake food webs, and presents yet another mechanism for potential increases in algal blooms.

Plenary: Friday Morning, 6 January

Room	Ballroom C
9:00	**Opening remarks**
9:10	**J.C. Stevenson Memorial Lecture** Evolutionary Principles In Fisheries Conservation: Promises And Pitfalls – Fraser
9:50	**F.H. Rigler Memorial Award Lecture** Terrestrial Carbon, Lake Metabolism, Allochthony And The Role Of Lakes In The Landscape - del Giorgio
10:30	**Break – Mezzanine outside Ballrooms**

Oral Presentations: Friday Morning, 6 January

Room	Shediac A	Ballroom C	Shediac B	Shediac C	
Session	**Linking Theory and Application**	**Salmonids**	**Multiple Stressors**	**Species At Risk – Sturgeon**	
11:00	The key elements of ecosystem-based management and an assessment of their application in 3 fisheries in the Bay of Fundy, Canada. **Long*, R.D**., T. Charles, and R.L. Stephenson	Changes in the salmonids community on Prince Edward Island: the influence of land-use practices. **Roloson*, S.,** M. Coffin, T. Dupuis, and M.R. van den Heuvel	Lakewater calcium decline and aquatic food web implications for algal production in softwater lakes **Korosi*, J.B**., S. Burke, J.R. Thienpont, and J.P. Smol ***Peters Award Lecture***	The past, present, and future of sturgeons: an elemental analytic approach to better understand and protect. **Litvak*, M.,** S. Usvyatsov, A. Taylor, S. Blair, and M. Power	
11:20	Fish and zooplankton assemblages in a North Atlantic coastal ecosystem: summertime spatial patterns and environmental correlates in Northumberland Strait. **Debertin*, A**., J.M. Hanson, and S. Courtenay	Modelling instream flow effects on juvenile salmonid capacity in small streams: do habitat suitability curves systematically underestimate optimal flows? **Rosenfeld, J.S.**	Impact of copper contamination on inducible antipredator defences in *Daphnia pulicaria*. **Bresnehan*, A.,** and S. Arnott	The ancient sturgeon fishery of the Miramichi, New Brunswick. **Blair*, S.,** and M. Litvak.	
11:40	A habitat template approach to the identification of vulnerable locations and marine fishes of Newfoundland and Labrador. **Fisher*, J.A.D.,** K.T. Frank, N.L. Shackell, and V.E. Kostylev	Turning the tables: are cutthroat trout benefiting from channelization on the Crowsnest River? **Lennox*, P.A.III**, and J.B. Rasmussen	Can the prediction of long-term zooplankton abundance be improved upon using the wind field over Harp Lake? **Goral*, M.B**., and N.D. Yan	Movement, behaviour, and diet of Atlantic sturgeon tagged with acoustic transmitters in Minas Basin, Bay of Fundy. **McLean*, M.F.,** M.J. Stokesbury, M.J. Dadswell, and F. Smith	
12:00	**Lunch (provided) and Poster Viewing – Ballroom**				

Oral Presentations: Friday Afternoon, 6 January

Room	Shediac A	Ballroom C	Shediac B	Shediac C	Petitcodiac
Session	**General**	**Salmonids**	**Multiple Stressors**	**Species At Risk – Sturgeon**	**Invasives**
1:20	Atlantic cod escapes: motivation and dispersal. **Zimmermann*, E.,** C.F. Purchase, and I.A. Fleming	Evaluating the 'zone of influence' of an engineered stream to provide spawning habitat for landlocked Atlantic salmon **Clarke*, K.D**., C.J. Pennell, and B. Sellars	Adding phylogenetic information to predicting tolerance to chemicals. **Guénard*, G.,** S.C. Walker, P.C. von der Ohe, and P. Legendre	River-wide movements and fine-scale habitat use of Atlantic sturgeon during spawning migration in the Saint John River, New Brunswick, Canada **Taylor*, A.,** and M.K. Litvak	Newfoundland green crab invasion: a summary, 2007-2011. **Best*, K.,** C.H. McKenzie, T. Wells, and C. Couturier
1:40	Receiver bias determines the message conveyed by public information. **Elvidge*, C.K**., and G.E. Brown	Foraging and territorial decisions by juvenile Atlantic salmon under chronic predation threat **Malka*, P.H.,** and G.E. Brown	Do measurements of stress biomarkers of a top predator help assess the effects of high daily flow variations in a hydro-peaking river? **Harvey-Lavoie*, S.,** and D. Boisclair	A combined stable isotope and gut content analysis of shortnose sturgeon diet in the Saint John River, NB, Canada. **Usvyatsov*, S**., M. Power and M. Litvak	From propagule pressure to establishment: using import records to quantify aquarium-fish establishment risk. **Bradie*, J**., C. Chivers, and B. Leung
2:00	An evaluation of an inshore bottom trawl survey design for American lobster (*Homarus americana*) using computer simulations. Cao*, J., **Y. Chen,** J.-H. Chang, and X. Chen	At-sea survival of Southern Upland Atlantic salmon: How much has it changed? **Gibson*, A.J.F**., and H.D. Bowlby	How landscape characteristics may influence the colonization and distribution of a freshwater Amphipod in Sudbury, Ontario. **Kielstra*, B.,** and S.E. Arnott, and J.M. Gunn	Super salty sturgeon: acute effects of saltwater exposure in shortnose sturgeon. **Penny, F.**	Population dynamics of the invasive round goby in the Great Lakes. **Calder*, M**., Y. Zhao, and X. Zou
2:20	A tale of two streams (and introduced *Lepomis gibbosus*) in southern England **Copp*, G.H.,** M.G. Fox, S. Stakėnas, G. Zięba, E. Fobert, L. Vilizzi, and M.J. Godard	Temporal (annual) changes in effective and census population sizes in a small anadromous Atlantic salmon (*Salmo salar*) population over a 21-year period, 1991-2011. **Johnstone*, D.,** and D.E. Ruzzante	Selenium impacts in streams draining surface coal mines: toxicity and fish community effects. **Kuchapski*, K.A.,** and J.B. Rasmussen	Changes in lake sturgeon (*Acipenser fulvescens*) habitat in the South Saskatchewan River under regional climate change. **Head*, K.,** J. Sereda, J. Hudson, M. Pollock, and A. Nazemi	Genetic diversity and population differentiation of the invasive golden mussel, *Limnoperna fortunei*, in Asia and South America **Ghabooli*, S.,** A. Zhan, E. Briski, P.V. Perepelizin, E. Paolucci, F. Sylvester, P. Sardiña, M.E. Cristescu, and H.J. MacIsaac
2:40	Stock assessment and management in data-poor commercial fisheries: Lake Nipigon whitefish. **Reid*, K.,** K. Tsiplova, Y. Jiao, T. Nudds, and E. Desson	Using juvenile density to infer adult abundance and status in Atlantic salmon. **Bowlby*, H.D**., and A.J.F. Gibson	Is reduction of selenium contamination in end-pit mine lakes possible through ecosystem manipulation? Two different approaches. **Luek*, A.,** C.S. Brock, J.B. Rasmussen	External factors affecting *Dichelesthium oblongum* infection in acipdenserids **Fast, M.***	The influence of light on the foraging ability of *Bythotrephes longimanus.* **Jokela*, A.,** S.E. Arnott, and B. Beisner
3:00	**Break – Mezzanine outside Ballrooms**				

Oral Presentations: Friday Afternoon, 6 January

Room	Shediac A	Ballroom C	Shediac B	Shediac C	Petitcodiac
Session	**General**	**Salmonids**	**Multiple Stressors**	**Species At Risk – Eel**	**Invasives**
3:20	Effects of a fishing moratorium on snow crab *Chionoecetes opilio* in Bonne Bay, Newfoundland, and future implications for the local fishery. **Neville, V.**	Genetic monitoring of co-distributed salmonids in the Peace River "Site C" hydroelectric development area. **Taylor*, E.B**., and M. Yau	Effects of multiple stressors on food webs of temperate lakes. **Persaud*, A.D**., and P.J. Dillon	Distribution and habitat associations in stock American eels, *Anguilla rostrata*, in Lake Ontario tributaries, Moira nad Napanee River. **Lloyst*, M.,** S. Reid, T. Pratt, and M.G. Fox	Impacts of prey quality on the invasive aquatic planktivore *Bythotrephes*. **Kim*, N.,** M.T. Arts, and N.D. Yan
3:40	Spatio-temporal distribution of cusk bycatch in the Gulf of Maine lobster fishery. **Cushman*, J**., and Y. Chen	Landscape genetics of a hierarchically structured lake trout (*Salvelinus namaycush*) system in northern Labrador. **McCracken*, G**., R. Perry, D. Keefe, and D.E. Ruzzante	Assessing the impact of multiple stressors (fishing and an introduced predator) on life history traits of R*astrineobola argentea* - Lake Victoria's most important native fish stock **Sharpe*, D.M.T**., S.B. Wandera, and L.J. Chapman	Characterization and comparison of American eel (*Anguilla rostrata*) diets in two stocking locations in Lake Ontario and the Upper St. Lawrence River **Stacey*, J.,** T.C. Pratt, and M.G. Fox	The effect of DOC on isotopic niche partitioning between walleye (*Sander vitreus*) and smallmouth bass (*Micropterus dolomieu*) in small Boreal Shield lakes. **Stasko*, A.S**., T.A. Johnston, and J.A. Gunn
4:00	Rocky breakwaters as habitat for benthic intertidal biota: as good as natural rocky environments? **Musetta-Lambert*, J.,** E. Keppel, R. Scrosati, P. MacDonald, and S. Courtenay	Patterns of functional and neutral divergence among populations of rainbow trout from Babine Lake, BC. **Wellband*, K.W**., J. Lough, and D.D. Heath	physical habitat below a hydropeaking dam: Examining progressive downstream change and the role of tributaries. **Winterhalt*, L.,** B. Eaton, and M. Lapointe	Seasonal migration of yellow-stage American eel inferred by stable isotope and otoliths microchemistry analysis and confirmed with pit-tag technology. **Clément*, M**., M. Sweezey, A. Chiasson, G. Veinott, S. Courtenay, and D. Cairns	Testing abiotic and biotic factors that affect competition between bull trout and brook trout in an artificial stream. **Warnock*, W.G.,** and J.B. Rasmussen
4:20	Understanding an apparent conservation ethic in the US Western Atlantic bluefin tuna fishery **Condit*, C.,** T. Johnson, J. Wilson, and Y. Chen	A successful lake restoration assessment of genetic and ecological factors important for brook charr population survey following a reintroduction. **Brodeur*, N.N**., M. Plante, P. Magnan, and L. Bernatchez	Integrated coastal zone management: an oyster resource perspective. **Ouellette, M**.	Distribution of resident American eels (*Anguilla rostrata*) in waters off the East Coast of Canada based on marine survey datasets. **Poirier*, L.**	Morphological responses to varying water velocities in native and non-native fishes. **Yavno*, S**., and M.G. Fox
4:40		The use of microsatellite genotype information and parentage assignment in assessing the efficacy of Atlantic salmon conservation programs in the Maritimes. **O'Reilly*, P.**	Quantifying the relative importance of manageable and natural factors of coastal watershed ecosystem health. **Patoine, A**.	A proposed method to assess the panmictic American eel stock. **Cairns, D.K.**	Energetic effects from consumption *of Hemimysis anomala* on near-shore fish species in Lake Ontario. **Yuille*, M.J**., T.B. Johnson, and S. Arnott
5:15	**General Meetings: CCFFR in Shediac A; SCL in Shediac** C				

Oral Presentations: Saturday Morning, 7 January

Room	Shediac A	Ballroom C	Shediac B	Shediac C	
Session	**New Technology**	**Salmonids**	**Top Predators**	**Species At Risk**	
9:00	Dispersal kernel estimation via direct measures of real particle dispersion and resulting comparison to a numerical model. **Hrycik*, J.M.**, J. Chassé, C.T. Taggart, B.R. Ruddick	Why pre-stocking predator recognition of hatchery-reared salmonids might not increase post-stocking survival: lessons from behavioural ecology. **Brown*, G.E.**, M.C.O. Ferrari, and D.P. Chivers	Is it possible to have a sustainable fishery on top predators such as sharks? **Campana, S.E.**	Effects of conservation release and captive rearing strategies on fitness-related measures for Inner Bay of Fundy Atlantic salmon. **Clarke*, C.**, C.F. Purchase, and D.J. Fraser	
9:20	Variation in morphology, life history, and habitat use of cisco in Great Bear Lake, NT. **Howland*,. K.L., L. Chavarie,** R. Eshenroder, J. D. Reist, R. F. Tallman, & T. Todd	Stocking and environmental correlates of hatchery-wild admixture in brook trout (*Salvelinus fontinalis*) populations. **Harbicht*, A.**, M.A. Shamlih, C. Wilson, and D. Fraser	Fine-scale attributes of dogfish *Squalus acanthias* trophic dynamics in the Gulf of Maine. **Kersula*, M.**, and Y. Chen	The initial recovery of the Petitcodiac River's diadromous fish populations following 42 years of impaired fish passage. **Bagnall, J.F.**	
9:40	Finescale behaviour in fish acceleration signatures and the effect of sampling frequency. **Broell*, F.,** T. Noda, S. Wright, P. Domenici, J. Steffensen, and C.T. Taggart	Reproductive success of farmed and wild Chinook salmon in competition. **Lehnert*, S.J.**, and D.D. Heath	Response of native fishes to an introduced top predator (rainbow trout) mediated by complex littoral habitat **Hanisch*, J.,** W. Tonn, C. Paszkowski, and G. Scrimgeour	Effectiveness of genetic restoration of Aurora trout in captivity and the wild. **Mouland*, J.**, and C. Wilson	
10:00	Assessment of a technique used to determine fat content of fish: bioelectrical impedance analysis. **Vue*, S.,** R.A. Cunjak, and K.M. Samways	Growth and mortality of domesticated and naturalized rainbow trout (*Oncorynchus mykiss*) in nature **Martens*, M.T.**, P.J. Blanchfield, A.J. Wall, and R. Devlin	Effects of trout stocking on zooplankton communities in small Boreal Foothill lakes. **Holmes*, T.**, C. Paszkowski, and W. Tonn	Population structure and inadequacy of current management approaches for an exploited marine fish under COSEWIC consideration. **Roy*, D.**, T.R. Hurlbut, and D.E. Ruzzante	
10:20	**Break – Mezzanine outside Ballrooms**				

Oral Presentations: Saturday Morning, 7 January

Room	Shediac A	Ballroom C	Shediac B	Shediac C	
Session	**General**	**Salmonids**	**Top Predators**	**Climate**	
10:40	An ISODAR approach to quantifying the Ideal Free Distribution in commercial fisheries. **Gillis*, D.M.,** and A. van der Lee	Consequences of different thermal regime on the standard metabolic rate of Atlantic salmon parr (*Salmo salar*) **Beauregard*, D.,** E. Enders, and D. Boisclair	Changes in a recovering food web due to the introduction of a top predator: a Before-After-Control-Impact (BACI) study **Luek*, A**., G.E. Morgan, B. Wissel, J. Gunn, and C.W. Ramcharan	Effects of experimental thermocline deepening on fish community dynamics and trophic ecology. **Gillespie*, M.,** and J. Gunn	
11:00	Comparative analysis of the spatial distribution of fishing effort utilizing the Ideal Free Distribution and discrete choice models **van der Lee*, A**., and D. Gillis	Comparison of the effects of diel fluctuations of water temperature on the standard metabolic rate of Atlantic salmon parr (*Salmo salar*) originating from rivers possessing different temperature regimes **Oligny-Hébert*, H**., and D. Boisclair	Effect of introduced chain pickerel (*Esox niger*) on freshwater fish communities **Mitchell*, S.C**., and J.E. LeBlanc	Examining the environmental triggers for aggregation-type behaviour in juvenile of Atlantic salmon (*Salmo salar*) subjected to thermal stress. **Corey*, E.,** C. Breau, T. Linnansaari, and R.A. Cunjak	
11:20	Designing a sentinel survey/fishery in the eastern Gulf of Maine. **Henry*, A.,** and Y. Chen	Effect of brook trout strain and temperature acclimation on critical thermal maxima and underlying physiological mechanisms **Stitt*, B**., K. Burgomaster, J. McDermid, G. Burness, and C. Wilson	The relative influence of food web position and growth rate on interspecific variation in mercury concentrations of Boreal piscivores. **Tang, R.W.-K.,** A.D. Stasko*, T.A. Johnston, and J.M. Gunn	Understanding how Pacific salmon respond to fisheries-related stress in a changing climate. **Donaldson*, M.R.,** S.G. Hinch, S.J. Cooke, D.A. Patterson, K.M. Miller, G.D. Raby, V.M. Nyguyen, and A.P. Farrell	
11:40	Toward a better understanding of river water temperature dynamics and corresponding forcing factors. **Caissie*, D**., and N. El-Jabi	Near lack of plasticity in brown trout sperm performance to pH. **Purchase*, C.F.,** and D. Moreau		Have non-native Iberian pumpkinseed (*Lepomis gibbosus*) lost their ancestral resistance to harsh North American winters? **Rooke*, A**., and M.G. Fox	
12:00	**Lunch (provided) and Poster Viewing – Ballroom**				

Oral Presentations: Saturday Afternoon, 7 January

Room	Shediac A	Ballroom C	Shediac B	Shediac C	
Session	**General**	**Nutrient Dynamics**	**Migration, Mixing, and Dispersal**	**Climate**	
1:20	NSERC HYDRONET:a national research network to promote sustainable development of hydropower in Canada. **Boisclair, D.**	An application of export coefficient modelling (ECM) to quantify watershed-based sources of nutrients in the Saint John River Basin. **Benoy*, G.,** E. Luiker, J. Culp, and S. Hann	Range-wide analysis of genetic structure, gene flow, and genetic diversity in eastern sand darter (*Ammocrypta pellucida*) populations. **Ginson*, R.,** N.E. Mandrak, and D.D. Heath	Cyanobacteria biomass in the United States: developing general and trait-specific predictive models. **Beaulieu*, M.,** F. Pick, and I. Gregory-Eaves	
1:40	The impact of boat avoidance by fishes on stock estimation from small vessel hydroacoustics surveys. **Wheeland, L.** & Rose, G. A.	Within- and among-lake variation in total phosphorus decline during stratification. **Chen, F.,** and W.D. Taylor*	Population genetic structure of northern pike (*Esox lucius*) in St. Lawrence River – Lake Ontario System **Ouellet-Cauchon*, G.,** M. Mingelbier, and L. Bernatchez	The impact of thawing permafrost on lakes of the MacKenzie Delta. **Blais*, J.M.,** A. Houben, R. Deison, T. French, L.E. Kimpe, M. Pisaric, J. Thienpont, and J.P. Smol	
2:00	Development of an environmental flow regime based on natural flow variability using an adaptation of the building block methodology. **Linnansaari*, T.,** K. Alfredsen, A. Harby, and O. Ugedal	Spatial heterogeneity of water quality in a large freshwater reservoir in relation to anthropogenic activity. Hunter, K., J. Johansson, D.Vandergucht, **J. Sereda*,** J. Hudson, L. Huber, C. Prestie, K. Head, and H. Yip	Limited gene flow and dispersal in brown bullhead (*Ameiurus nebulosus*): contaminant effects and local adaptation. **Söderberg*, L.I**., M.J. Ouellette, R.P. Walter, and D.D. Heath	Ecosystem-based management for shellfish aquaculture: developing tools and diagnostics for a changing environment. **Guyondet*, T**., Landry, T. Comeau, L., Sonier, R, DaAvidsson, J.	
2:20	Impact of flow alterations on fish populations across natural and regulated rivers in Quebec. **Macnaughton*, C.J**., and D. Boisclair	Linking nutrients derived from anadromous fish to aquatic insect production and its transfer to terrestrial ecosystems in Atlantic Canada. **Graham*, B.,** K. Samways, and R. Cunjak	Influences of temperature and bathymetry on spawning migration routes of Icelandic capelin (*Mallotus villosus*) **Olafsdottir*, A.H**., and G.A. Rose	Effects of deepened thermocline on zooplankton community phenology. **Gauthier*, J**., Y.T. Prairie, and B.E. Beisner	
2:40	An inquiry on protective effects of natural organic matter to a *Daphnia* hybrid exposed to water-borne nickel. **Gibson, C.,** and N. Yan	Scratching the surface of stream productivity: compositional changes of biofilm communities of Atlantic rivers receiving marine-derived nutrient inputs. **Samways*, K.M**., Z.J. Quiñones-Rivera, M.A. Charest, P.R. Leavitt, and R.A. Cunjak	Effect of aquaculture on wild fish distributions. **Goodbrand*, L.,** M. Abrahams, and G. Rose	Relative effects of wave-induced mixing, irradiance regime, and thermocline depth on the distribution of phytoplankton across a depth gradient: Implications for future global change **Haig*, H.A.,** M.V. Kingsbury, K.R. Laird, B.F. Cumming, and P.R. Leavitt	
3:00	**Break – Mezzanine outside Ballrooms**				

Oral Presentations: Saturday Afternoon, 7 January

Room	Shediac A	Ballroom C	Shediac B	Shediac C	
Session	**General**	**Wetlands**	**Migration, Mixing, and Dispersal**	**Climate**	
3:20	A new approach to understanding the spatial regulation of zooplankton community structure. **St-Gelais*, N.F.,** P. del Giorgio, and B.E. Beisner	A new wetland conservation policy for Nova Scotia. **Brazner, J.C.**	A quantitative assessment of fish passage efficiency **Noonan*, M.,** J. Grant, and C. Jackson	Effects of artificially deepened thermocline on the transformation of carbon in lakes **Mercier-Blais*, S.,** B.E. Beisner, and Y.T. Prairie	
3:40	Patterns of zooplankton abundance in St. Pauls Inlet: a brackish water system in Gros Morne National Park., Newfoundland and Labrador. **Stevens*, E.,** and C. Campbell	Does the current Ontario wetland evaluation system adequately protect coastal wetlands of eastern Georgian Bay **Chow-Fraser*, P**., and J.D. Midwood	Dispersal increases negative co-occurrence patterns in experimental zooplankton communities **Turner, K.,** S. E. Arnott*, and B. Schamp	Role of warming water temperatures on fatty acids of key algal species found in southern Canadian Shield lakes **Quinn*, L.,** N. Yan, and M. Arts	
4:00	Assessment of fish abundance and activity using combined fishery acoustics and telemetry approaches. **Blanchfield*, P.J.,** D. deKerckhove, L. Hrenchuk, S. Milne, L. Cruz-Font, M. Rennie, M. Guzzo, and B. Shuter	Amphibian monitoring in wetlands, translated: a method for scientists, citizen scientists, and policy makers. **Hilchey*, K.G.,** and R.W. Russell	The adaptability of subarctic tundra ponds to environmental stressors. **Symons*, C.C**., S.E. Arnott, and J.N. Sweetman	The influence of water column stratification on zooplankton community composition, zooplankton productivity, and food web efficiency. **Sastri*, A.R.,** P. Juneau, and B.E. Beisner	
4:20		Modelling dissolved organic carbon and nitrogen in streams and rivers across Atlantic Canada. **Jutras*, M.-F.,** M. Nasr, T. Clair, and P. Arp	Niche partitioning and diversity in lake phytoplankton. **Beisner*, B.E.,** and M.L. Longhi	Drought-induced fluxes of metals and nutrients to lakes from peatlands in catchments vulnerable to extreme events. **Szkokan-Emilson*, E.,** S. Watmough, and J. Gunn	
4:40		LiDAR-based delineation of wetland borders. **Oglivie*, J.,** K. Wen, and P. Arp		Historical storm surge magnitude and chironomid response over he last ~1200 years in the MacKenzie Delta region of the Northwest Territories, Canada. **Vermaire*, J.C.,** C.L. Steele, C.J. Courtney Mustaphi, J.R. Thienpont, S.V. Kokelj, J.P. Smol, and M.F.J. Pisaric	
5:00	End				

Posters-at-a-Glance, Ballroom A/B

Population dynamics, health, and ecology of salmonids		
P1	**Martens**	Growth of Domestic and Wild Strains of Rainbow Trout (*Onchorynchus mykiss*) in Experimental Trials
P2	**Miller**	Characterization of selenium exposure in experimentally stocked fish and invertebrates from pit lakes on reclaimed metallurgical coal mines
P3	**Thoms**	Is Egg Survival of Atlantic Salmon a Function of Hyporheic Water Quality and/or Flow Regulation?
Species at risk		
P4	**Bennett**	Characterizing Atlantic Wolffish Habitat in the Gulf of Maine
P5	**Gray**	As Clear as Mud: What Have We Learned about the Effects of Turbidity on Canadian Fishes at Risk?
P6	**Plummer**	Muddy Waters: an Assessment of American Eels in Atlantic Canada's National Parks
P7	**Rafferty**	Single Nucleotide Polymorphism Analysis of Mitochondrial DNA Variation in Recent and Historic Samples of Bay of Fundy Atlantic Salmon
Use of new technology		
P8	**Baki**	Computational Fluid Dynamics (CFD) Modeling of Fish Passage Energetics in a Rocky Ramp Type Nature-like Fishway
P9	**Blanchfield**	Assessment of Fish Abundance and Activity Using Combined Fishery Acoustics and Telemetry Approaches
P10	**Charest**	The Application of Sulphur Stable Isotope Analysis to Determine Fish Movements in Atlantic Canada Streams
Impacts of climate change		
P11	**Vermaire**	The Impact of Retrogressive Permafrost Slumps on Lake Sediment Characteristics and Chironomid Assemblages
Impacts of multiple stressors		
P12	**Al-Malikey**	Distribution of metal contaminants in the Southern Iraqi Marshes
P13	**Chase**	Investigating Multiple Stressor Responses to Nutrient Enrichment and Sedimentation in Stream Mesocosms
P14	**Hogsden**	Short & Simple? Food Webs in Streams Impacted by Acid Mine Drainage

P15	**Lemmen**	Changes in the Resting Egg Banks of Goose Impacted Subarctic Ponds
P16	**Seward**	The Feasibility of Stocking Stormwater Ponds with Rainbow Trout for the Purpose of Human Consumption
Nutrient dynamics		
P17	**Good**	Nutrients as Chemical Drivers of Fish Production in Geographically Diverse Mountain Streams
Invasive aquatic species		
P18	**Howland**	Surveillance for Aquatic Invasive Species in the Canadian Arctic.
P19	**Kanary**	Predicting Larval Dispersal of the Vase Tunicate *Ciona intestinalis* in a Prince Edward Island Estuary Using a Matrix Population Model
P20	**Bernier**	New record of *Penilia avirostris* Dana, 1849 (Cladocera) in the Gulf of St. Lawrence
General session		
P21	**Butts**	Primary and Secondary Sexual Characters in Alternative Reproductive Tactics of Chinook Salmon: Associations with Androgens and the Maturation-inducing Steroid
P22	**Campen**	Community and Food Web Structure is Critical to the Fisheries Potential in Prarie Storage Reservoirs
P23	**Charles**	Relating the Foraging Strategy to Catch Rates in the Gulf of St. Lawrence Snow Crab Fishery
P24	**Debertin**	Key Oceanographic Characteristics of a North Temperate Coastal Habitat During Summer: a Snapshot Northumberland Strait.
P25	**Guzzo**	Linking Catch-per-Unit-Effort to Mark-Recapture Abundance Estimates for Cyprinids in Small Boreal Lakes.
P26	**Loomer**	Effects of Potato Agriculture on the Production and Community Composition of Stream Invertebrates
P27	**Malcolm**	Presence of Slimy Sculpin (*Cottus cognatus)* in Relation to Depth, Temperature, and Dissolved Oxygen in Clear Lake, Riding Mountain National Park, Manitoba
P28	**Reebs**	Avoidance by Sand Shrimp, *Crangon septemspinosa*, of Sandy Patches Covered by Hydrated Lime (Calcium Hydroxide) Deposits