



NSERC HYDRONET SYMPOSIUM

March 29th to 30th, 2011

Delta Winnipeg, Victoria/Albert room

350 St. Mary Avenue

Winnipeg, MB

AGENDA

Tuesday, March 29th, 2011

- 08:30 *Welcome and introduction to the workshop* (D. Boisclair, Université de Montréal)
- 08:35 **Opening remarks:** Mr. Ken Adams, Senior Vice President, Power Supply, Manitoba Hydro.
- 08:45 **Keynote speaker:** Keith Gido, Kansas State University – *Response of Arid River Fish Assemblages to Environmental Flow Regulation.*
- 09:30 *Measuring the productive capacity of fish habitat under Canada's Policy for the Management of Fish Habitat: Where have we been, where are we now and where are we going?* (K. Minns, R. Randall*, K. Smokorowski, K. Clarke, A. Vélez-Espino, B. Gregory, S. Courtenay and P. LeBlanc, DFO)
- 10:00 COFFEE BREAK
- 10:30 *An overview of NSERC HydroNet.* (D. Boisclair, Université de Montréal)
- 11:00 *Center of Expertise on Hydropower Impacts on Fish and Fish Habitat (CHIF) projects.* (K. E. Smokorowski, DFO-CHIF)
- 11:30 *Saskatchewan Protocol Agreement - A Cooperative Approach to Prioritizing & Managing Fisheries Issues at Power-generating Facilities.* (R. West*, SaskPower and D. Lightle, DFO)
- 11:50 LUNCH
- 13:00 *Resizing a River: Using an experimental management approach to develop a downscaled environmental flow regime for Lower Bridge River, B.C.* (M. Bradford*, DFO; P. Higgins, B.C. Hydro; J. Korman, Ecometric Research).
- 13:20 *Quantifying stress in fish: The relationship between Heat Shock Proteins, lactate and flow variation in regulated and natural rivers.* (S. Harvey-Lavoie, Université de Montréal)
- 13:40 *Comparing relative fish density estimates from electrofishing and visual surveying methods.* (C. Macnaughton, Université de Montréal)
- 14:00 *Chemical and biological drivers for fish biomass and productivity – Geographical variability.* (C. Good and J. Rasmussen, University of Lethbridge)
- 14:20 *Studying the geomorphic aspects of changes to fish habitat below hydro dams: changes to bed substrate characteristics as well as changes to size and morphology of channels.* (F. Hugue*, and M. Lapointe, McGill University and B. Eaton, University of British Columbia)
- 14:40 *Physical habitat modeling.* (L. Winterhalt, University of British Columbia)
- 15:00 COFFEE BREAK

- 15:30 *Applications of airborne remote sensing in assessing physical and ecological impacts of dams along the Kananaskis River, Alberta.* (H. Buehler, University of British Columbia)
- 15:50 *Monitoring river ice processes at Newfoundland HydroNet sites.* (J. Morley*, J. Nafziger and F. Hicks, University of Alberta)
- 16:10 *Hydraulic modelling options for Newfoundland HydroNet sites.* (J. Nafziger*, J. Morley and F. Hicks, University of Alberta)
- 16:30 *Behaviour and passage success of fish using a vertical slot fishway in Québec: Case studies incorporating a single and multispecies approach.* (J. Thiem, Carleton University)
- 16:50 *Correlates of swimming ability and fishway success: Use of three redhorse species as a model.* (C. Hatry, Carleton University)

Wednesday, March 30th, 2011

- 08:20 *Metrics of productive capacity in shallow areas of lakes and reservoirs.* (D. Boisclair, Université de Montréal)
- 08:40 *Acoustic measures of fish distribution, abundance, movement and habitat in Manitoba lakes.* (R. Pollom, L. Wheeland and G. Rose, Memorial University of Newfoundland)
- 09:00 *Overview of the hydraulics component of the BC hydro fish entrainment study – progress and ongoing analysis of Hugh Keenleyside dam field data.* (C.B. Robertson, University of Alberta)
- 09:20 *Hydraulic measurements in reservoirs – capabilities and limitations pertaining to field investigation of forebay hydraulics at Columbia River hydropower facilities.* (M. Langford, University of Alberta)
- 09:40 *Upstream sturgeon passage at the Vianney-Legendre Vertical Slot Fishway.* (A. Marriner, University of Alberta)
- 10:00 COFFEE BREAK
- 10:30 *Modeling thermal stratification upstream of a dam: Its necessity and impact.* (R. Islam, University of Alberta)
- 10:50 *Spatial ecology of bull trout (*Salvelinus confluentus*) in a large hydropower reservoir: implications for entrainment risk.* (L. Gutowsky, Carleton University)
- 11:10 *The thermal and spatial ecology and associated entrainment risk of burbot (*Lota Lota*) in a large hydropower reservoir in British Columbia, Canada.* (P. Harrison, University of Waterloo)
- 11:30 *Development of metrics relating flow alteration impacts to river food web dynamics.* (J. Marty*, St. Lawrence River Institute; M. Power, University of Waterloo; K.E. Smokorowski, DFO-CHIF)
- 11:50 *Numerical investigation of turbulent flows through trash racks in closed conduits.* (H. Ghamry, DFO)
- 12:10 MEETING ADJOURNED
- 12:30 BOARD OF DIRECTORS MEETING (TALBOT ROOM)
- 12:30 SCIENCE ADVISORY COMMITTEE MEETINGS (STRATHCONA ROOM)