

# Preliminary Poster Session Program / Programme préliminaire des sessions d'affiches

Presenting author(s) names are underlined. (É) indicates posters submitted for the student poster award competition.

Les noms des présentateurs sont soulignés. (É) indique les affiches qui sont inscrites à la compétition pour les prix étudiants pour les affiches.

## Monday, September 28 / Lundi 28 septembre

### General Aquatic Toxicology / Toxicologie aquatique générale : General

Development of a structure versus toxicity model for switchable surfactants

Troy Arthur

Interactions between humic substances and marine phytoplankton

Mathieu Millour (É), Jean-Pierre Gagné

Biological and chemical contaminants in whitefish (*Coregonus clupeaformis*) from Northern Saskatchewan Lakes

Olesya Mysiv (É), Michael Pietrock

Development of an animal model methodological unit at the Aquarium du Québec

Stéphane Masson

Using image analysis to investigate chemical stress-induced changes in the behaviour of *Daphnia magna*, *Euglena gracili*, and *Hyalella azteca*

Isabelle Netto

Increased accumulation of sulfur in lake sediments of the High Arctic

Paul E. Drevnick, Carl H. Lamborg, Derek CG. Muir, Donald E. Canfield, Michael H. Bothner,

### Legacy Contaminants / Contaminants anciens : General

Germline mutations and reproductive effects in fathead minnows exposed to contaminated sediments from Randle Reef, Hamilton Harbour

Jason L. Miller, Joanne Parrott, Jim Sherry, James S. Quinn

Persistent organic pollutants in muscle tissue vs. whole fish in American eel (*Anguilla rostrata*)

Michel Lebeuf, Jonathan D. Byer, Michael Keir, Mehran Alaei, Sean Backus, Stephen Brown, Peter V. Hodson

Spatial occurrence of PCDD/Fs and dIPCBs determined in American eel

Jonathan D. Byer (É), Mehran Alaei, Stephen Brown, Sean Backus, Michael Keir, Grazina Pacepavicius, Sharilyn Kennedy, Michel Lebeuf, Sharilyn Kennedy

The use of a model fish, *Fundulus heteroclitus*, to assess the role of persistent halogenated hydrocarbons in American eel (*Anguilla rostrata*) decline

Cyril Rigaud, Catherine M. Couillard, Jocelyne Pellerin, Benoît Légaré, Peter V Hodson

Bioaccumulation assessment of pyrene using trout liver S9 and a predictive model

Adebayo A. Adekola, Curtis Eickhoff, Sue Erhardt, Michelle Embry, Karla Johanning, Marlies Halder, Margo Moore, Frank Gobas

### **Emerging Contaminants / Contaminants d'intérêt émergent**

The effects of brominated flame retardants on reproductive behaviour and physiology of American kestrels: conservation implications

Kimberly Fernie, Sarah Martinson, Katrina Sullivan, Robert Letcher, Laird Shutt, Ian Ritchie, David Bird

Analytical method for the monitoring of cyanotoxins in surface water and fish tissues by LC-MS/MS

Christian DeBlois, Marie-Claire Grenon, Benoît Sarrasin

Occurrence of glyphosate and AMPA in open waters and tributaries of Lake Erie

John Struger, V. Richardson, S. Watson

Automated solid phase extraction of carbamate and related pesticides in fortified water and natural water samples using LC-ESI/MS/MS

J.M. Grabuski, S.J. Cagampang, John Struger, E.C.P. Smith

Occurrence of pharmaceutical compounds and steroids in drinking water, surface water and wastewater: From 2003 to 2008

Christian DeBlois, Benoît Sarrasin

Chronic toxicity of phthalates, bisphenol A and a Canadian bottled water stored under different light regimes using the cnidarian *Hydra viridissima*

(É) Rodrigo Orrego, John Guchardi, Douglas A. Holdway

Consortium for research on pollutants in the Lake Ontario – Gulf of St. Lawrence corridor

Michel Lebeuf, Magella Pelletier, Bernard Rondeau, Chris Marvin

Polybrominated diphenyl ethers in air as part of the chemicals management plan

Catharine M. Banic, Brad Cumming, Nick Alexandrou, Gary Poole, Jianmin Ma, Tom Harner, Sum Chi Lee, Hayley Hung, Yushan Su

## **Nanotoxicology / Nanotoxicologie**

Toxicological effects of a new nanoscale drug delivery system to rainbow trout hepatocytes (*Oncorhynchus mykiss*)

Joëlle Auclair, François Gagné, Christian Blaise, Dusica Maysinger

Effect of core shell copper oxide nanoparticles on cell culture morphology and photosynthesis in *Chlamydomonas reinhardtii*

Cyril Saison (É), François Perreault, Jean-Christophe Daigle, Julien Gogot, Catherine Tardy-Laporte, Claude Fortin, Jérôme Claverie, Mario Morin, Radovan Popovic

## **Biomarkers / Biomarqueurs**

Biological effects of a mixture of hydrocarbure – chemical dipersant in the Pacific oyster *Crassostrea gigas* and the blue mussel *Mytilus edulis*

Helene Thomas-Guyon

Impact of an experimental oil spill in vivo on quality of vertebral bone tissue in sea bass, *Dicentrarchus labrax*

Morgane Danion (É), Claire Quentel, Stephane Le Floch, Alexis Jalabert, Helene Thomas-Guyon

Identification of a novel biomarker for evaluating the disruption of thyroid function

Jason C. Raine, Allison B. Coffin, Craig W. Hawryshyn

To protect Rainbow Trout dial 9-1-1: the use of Rad9-Rad1-Hus1 (the 9-1-1 complex) checkpoint genes and proteins as a genotoxicity biomarker

Johny Bozdarov, Daniel Zicherman, Niels C. Bols, Bernard P. Duncker, Brian Dixon

## **Environmental effects monitoring / Études de suivi des effets sur l'environnement**

The Ostracodtoxkit microbiotest as an alternative screening solid phase assay to the conventional sediment contact test with *Hyalella azteca*

Guido Persoone

Multiple reference areas – pooling data collected over time instead of space – an alternative approach in EEM programs when you just cannot get the fish numbers you need?

Annick St-Amand, Malcolm Stephenson, Mary Murdoch

Linking spatiotemporal variations of diuron contamination to biofilm induced tolerance in a river  
Stéphane Pesce, Christelle Margoum, Bernard Montuelle

Impact of a phosphorus on the tolerance

Ahmed Tlili, Annette Berard, Bernard Montuelle

Assessing metal bioavailability in field sediments using both metal bioaccumulation and the SEM-AVS approach

Isabelle Proulx (É), Landis Hare

Assessment of fish health around the Terra Nova Oil Development Site on the Grand Banks

Anne Mathieu, Jacqueline Hanlon, Marc Myers, Wynnann Melvin, Boyd French, Elisabeth M. DeBlois, Urban P. Williams, Francine M. Wight, Greg Janes

Using 48-h acute test without food as a surrogate for 7-d sub-lethal test with food for metal mining effluents

Morgan King, Bernard Vigneault, Carrie Rickwood, Melissa Desforges

Age and growth of darters, sticklebacks, and minnows: an area in need of further study

Dean G. Fitzgerald, Edward Kott, Michael Power

### **Remediation of degraded aquatic environments / Réhabilitation des milieux aquatiques dégradés**

Effects of nitrate addition on phosphorus retention in an eutrophic reservoir: laboratory experiments

Thaís M. Yamada, Helena Janke, Clarice M.R. Botta, Marina Colzato, Daniele A.S. Beraldo, Marcos R. L. Nascimento, Antonio A. Mozeto

Le canal de Lachine: un habitat pour le poisson

Marc Desrosiers, Mylène Salvas, Réjean Malo, Marie Lafontaine, Jean Carreau

### **Oil sands / Sables bitumineux**

Modeling the ecotoxicity of naphthenic acids

Aaron Redman, Joy McGrath, Thomas Parkerton, Richard Frank, Dominic Di Toro

Identification of causes of oil sands coke leachate toxicity

Naveen Puttaswamy (É), Karsten Liber

Salinity and solvent effects on the characterization of naphthenic acids from Athabasca Oil Sands using electrospray ionization

John V. Headley, Kerry M. Peru, Mark P. Barrow, Peter J. Derrick

Gas production, oxygen demand and microbial activity in sediments of wetlands constructed with oil sands mine tailings

Michael Chen, Christopher Weisener, Jan J.H. Ciborowski, Carsten Slama, Jesse G. Costa, Stephen Goudey

Emergence, growth, and dispersal of Chironomidae in reclaimed wetlands in the Athabasca Oil Sands region of Alberta

Kaitlin Kennedy (É), Jan Ciborowski

The effects of nutrient enrichment on oil sands reclaimed wetlands: A field microcosm study

Hao Chen, Andrea Farwell, George Dixon

Seasonal and spatial trends in production and stable isotope signatures of primary producers in Alberta oil sands reclamation wetlands

Monique Boutsivongsakd, Hao Chen, Allison Legg, Andrea Farwell, George Dixon

Inferring energy sources in constructed wetlands through stable isotope analysis of microbial biofilms

Karolina M. Jurkowski (É), Christine A. Daly, Jan J.H. Ciborowski

Effects of Oil Sands Pond Sediments in Fish

Joanne L Parrott, Dominique Turcotte, L. Mark Hewitt, Karsten Liber, Jim P Sherry, John Headley

## Tuesday, September 29 / Mardi 29 septembre

### Legacy Contaminants - Metals / Contaminants anciens - Métaux

Analyse des métaux traces dissous par ICP-MS en conditions propres

Nathalie Dassylva, Steeve Roberge, Gilles Labbé, Gertrude Guay, Serge Hébert, Sylvie Cloutier, Bernard Rondeau, Alain Tremblay

Temporal changes in metal concentrations in the insect biomonitor *Hexagenia* from Rouyn-Noranda area lakes

Julien Lacharité (É), Landis Hare

Heavy metal concentrations in commercial fish sold in the Baie des Chaleurs, New Brunswick

Marc Fraser (É), Céline Surette, Cathy Vaillancourt

Patterns of methylmercury bioaccumulation by the phantom midge *Chaoborus sp.*: involvement of diel vertical migration and feeding habits

Floriane Bourdiol, Anne-Hélène Le Jeune, Lama Aldamman, Marc Amyot, Bernadette Pinel-Alloul

Toxicokinetic and food web models to quantify the effects of *Hemimysis anomola* on Lake Ontario food webs

Linda Compbell, Timothy B. Johnson

### Cyanobacteria / Cyanobactéries

Validation of a phycocyanin probe for the monitoring of cyanobacteria

Christian Bastien, Richard Cardin, Annabelle Warren, Isabelle Laurion, Karine Ménard-Cloutier, Éloïse Veilleux

The effect of Zn on photosynthetic energy dissipation processes of freshwater cyanobacteria and algae: acclimated versus non acclimated species

Natàlia Corcoll (É), Vincent Ouellet Jobin, Helena Guasch, Philippe Juneau

### Pesticides

Growth, survivability, and reproductive effects of pulse-dosed endosulfan on *Jordanella floridae* (Florida flagfish) over one life-cycle.

Lindsay Beyger (É), Rodrigo Orrego, John Guchardi, Douglas Holdway

Apport en pesticides vers le lac Saint-Pierre

Bernard Rondeau, Isabelle Giroux

Chronic effects of single intra-peritoneal endosulfan injection on rainbow trout (*Oncorhynchus mykiss*) and field observation of caged fish in Oshawa Creek

Jeffrey Armour, Zacharias Pandelides, Rodrigo Orrego, John Guchardi, Douglas Holdway

Chemical mixtures in the environment: effects of glyphosate-herbicides and fertilizers on the emergence of adult aquatic insects from wetlands

Leanne F. Baker (É), Karen A. Kidd, Jeff E. Houlahan, Dean G. Thompson

The influence of detection limits on the interpretation of pesticide data in surface waters, particularly in regards to monitoring programs

Shane R. De Solla, John Struger, Tana V. McDaniel

Metolachlor in the Great Lakes and Ontario Small Lakes

Perihan B. Kurt-Karakus, Derek C.G. Muir, Sean Backus, Alice Dove, Camilla Teixeira, Jeff Small

Air-water gas exchange of currently used pesticides in the Canadian Arctic

Liisa M. Jantunen, Fiona Wong, Terry F. Bidleman, Stern Gary

### **Amphibians Toxicology / Toxicologie des amphibiens**

Influence of agricultural contamination on reproductive system of male bullfrog (*Rana catesbeiana*)

Mireille Plouffe-Malette, Monique Boily, Philip Spear, Patrick Devine

Development of an early life stage toxicity test using the Pacific Tree Frog (*Pseudacris regilla*): case study using selenium and sulphate

Bonnie P. Lo, Vicki L. Marlatt, Howard C. Bailey, James R. Elphick, Francesca Knight

### **Environmental Risk Assessment / Évaluation du risque environnemental**

Comparative evaluation of the impact of different disinfection procedures on the toxicity of the wastewater of the city of Montreal

Marlène Fortier, Patrick Cejka, Stephane Pillet, Michel Fournier

DIESE : un projet pour l'évaluation des risques écotoxicologiques liés aux sédiments contaminés  
Rayna Charlatchka, Jean-François Féraud, Jeanne Garric, Matthias Grote, Karen Burga, Cyrielle Durand

The use of monospecific and multispecific bioassays to assess the ecocompatibility of alum application in eutrophicated lake restoration

Gabriel Soumis-Dugas (É), Clotilde Boillot, Rosa Galvez, Louis Martel, Christian Bastien, Gaëlle Triffault-Bouchet

Development of cadmium bioassays using the green alga *Chamydomonas reinhardtii*

Dana Simon, Kevin Wilkinson, William Zerges, Madhav Soowamber\*

The toxicity of oil contaminated peat following biodegradation  
Andrea Farwell, Francine Kelly-Hooper, Kendra Sinnesael, George Dixon

### **Waterborne and diet-borne metals / Métaux aqueux ou associés à la nourriture**

Biodilution and biomagnification of silver in Lake Moreno, Patagonia, Argentina.  
Jorge E. Revenga, Linda M. Campbell, María A. Arribere, Marina Arcagni, Ana Rizzo,  
Sergio Ribeiro Guevara

Prise en charge et adsorption de l'aluminium et du fluorure par les algues vertes dans les eaux résiduelles d'alumineries  
Danaé Pitre, Claude Fortin, Amiel Boullemant

The complex relationship between metal-gill binding and toxicity in trout exposed to Pb plus Cd mixtures  
Yvonne Kara (É), Oana Birceanu, Michae Wilkie

Bioaccumulation of Cd in binary metal mixtures by *Chlamydomonas reinhardtii*  
Caroline T.N. Hoang (É), Colin M. Hutchins, Kevin J. Wilkinson

### **“Omics” in aquatic ecotoxicology / “Omiques” en toxicologie aquatique**

Transcriptional response of fathead minnows (*Pimephales promelas*) to chronic exposure of environmentally relevant dietary or waterborne copper  
Greg G. Pyle, Ishaq Ahmed, Cassidy Weisbord, Sunita R. Nadella, Patrice Couture, Chris M. Wood

### **Organism or population level indicators / Indicateurs au niveau de l'organisme ou de la population**

Evaluation of contamination history using deformed insects  
Karine Bertrand (É)

Identifying the cause(s) of toxicity at sites in a stormwater management facility to the freshwater amphipod *Hyaella azteca*  
Adrienne J. Bartlett, Lisa R. Brown, Quintin Rochfort, Jiri Marsalek

Cancer regulating proteins in neoplastic *Mytilus edulis* and *M. trossulus* from contaminated sites in Greater Vancouver  
S. Clarence, A. Muttray, C. Reinisch, S. St-Jean, S. Bladwin, James P. Sherry

Comparison of benthic macroinvertebrate community to sediment quality guidelines classification using various indices: The case of the St. Lawrence River  
Mélanie Desrosiers, Mario Cormier, Virginie Archambault, Bernadette Pinel-Alloul

Comparison between functional traits and taxonomy of benthic macroinvertebrates as tools for ecological risk assessment (ERA): the case of the St. Lawrence River

Mélanie Desrosiers, Ginette Methot, Bernadette Pinel-Alloul, Virginie Archambault, Philippe Usseglio-Polatera, Stéphane Masson, Louis Martel

Comparison of tumor-suppressor gene expression in two mussel species with different susceptibilities to haemic neoplasia, a cancer of the haemolymph

Annette F. Muttray, Sylvie St-Jean, Farida Bishay, Paul van Poppelen, Susan A. Baldwin

Analysis of age in pearl dace used for environmental monitoring in Ontario: understanding the implications of past incorrect age estimates

Dean G. Fitzgerald, Derek Parks, Norman M. Halden

### Toxicity tests / Tests de toxicité

Investigation of cadmium toxicity in *Chlamydomonas reinhardtii* strains with and without cell wall by using chlorophyll fluorescence parameters

François Perreault (É), David Dewez, Olivier Didur, Michel Vincent, Radovan Popovic

Investigation of physiological stress in *Chlorella vulgaris* exposed to non-equilibrated composition of nitrogen

Laura Pirastru, Mohamed Darwish, François Perreault, Cyril Saison, Julien Gogot, Catherine Tardy-Laporte, Radovan Popovic

Application of TIE (Toxicity Identification Evaluation) in pluvial waters of the Fertilizer Industry in Brazil.

Ana Luiza F. Piedade (É)

Confusing effect of phosphorus and nitrogen present in pulp and paper effluents on the results of the aquatic toxicity test with *Pseudokirchneriella subcapitata*

Éloïse Veilleux, Christian Bastien, Richard Cardin, Luc Jauron

Behavioural and biochemical responses of *Chironomus tentans* and *Lumbriculus variegatus* to Tributyltin

Jason R. Solnik (É)

Determination of effects of atrazine and tributyltin on *Daphnia magna*, *Hyalella azteca*, *Chironomus tentans*, and *Lumbriculus variegatus* using the Multispecies Freshwater Biomonitor

Vivian Fleet (É)

Toxicity testes in marine sediments using amphipods *Tiburonella viscana*

Ana Luiza F. Piedade (É)

An assessment of thallium speciation and the relative toxicity of thallium species

Carrie Rickwood, Morgan King, Philippa Huntsman-Mapila

The toxicity of harmony landfill leachate to green hydra  
Carrie L. Ginou (É), John Guchardi, Rodrigo Orrego, Douglas Holdway

Toxicity assessment of alkyl-polycyclic aromatic hydrocarbons and their metabolites to Japanese medaka (*Oryzias latipes*)  
Shirin Fallahtafi (É), Peter V. Hodson, Stephen Brown

Comparative study of different herbicides and pesticides acute toxicity in *Chlamydomonas reinhardtii*  
Julien Gogot (É), Nathalie Boucher, François Perreault, François Bellemare, Radovan Popovic

Field versus laboratory comparison using passive samplers for detection of narcosis-based toxicity  
Marion Nipper, R. Scott Carr, Joseph Germano, James M Biedenbach