



**SETAC North Atlantic Chapter  
15th ANNUAL MEETING AGENDA**

**June 10 - 12, 2009**

**New England Center, University of New Hampshire  
Durham, NH**

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**WEDNESDAY, JUNE 10**

All day short course, 8:00AM - 5:00PM **“Causal Analysis/Stressor Identification”**  
Instructor: Dr. Susan M. Cormier (US EPA)

Jackson Estuarine Laboratories tour, 5:00PM – 7:00PM  
Student Pizza Mixer at NEC, 7:30PM

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**THURSDAY, JUNE 11**

7:30 Coffee and light snacks  
8:15 Welcome, John Williams, NAC president

**SESSION 1**

**ENVIRONMENTAL CONCERNS: PAHs** (Susan Kane-Driscoll, Chair)

8:20 *Evaluating the Ecological Risk of PAHs in Sediments: A Regulatory Perspective.* Thomas Angus.

8:40 *PAHs And Parking Lots: A Field Study on PAHs Exported From Sealed and Unsealed Parking Lots at the UNH Stormwater Center.* Alison Watts.

9:00 *Subsurface Oil Persistence and Shoreline Type in the Exxon Valdez Spill Zone of Prince William Sound, Alaska.* David Page.

9:20 *Implementing an Oil Toxicity Field Guide for Spill Response.* Ken Finkelstein.

9:40 *Use and Validation of a Biological Effects Model for Oil Spills.* Jill Rowe.

10:00 **BREAK**

**SESSION 2**

**OTHER TOPICS: ENVIRONMENTAL TOXICOLOGY AND CHEMISTRY** (Adria Elskus, Chair)

10:20 *\*Fish Scales and Gills: Possible Non-Lethal Biomarkers for Waterborne Organic Contaminants.* Jennifer Meyers.

10:40 *Response of Fish Populations and Caged Mussels to Pulp and Paper Mill Effluent and Municipal Sewage Treatment Plant Effluent in Maine Rivers.* Barry Mower.

11:00 *Bringing Gulf Of Maine Ecosystem Indicators to the Users.* Christine Tilberg.

11:20 *\*Gellyfish: An In-Situ Equilibrium-Based Sampler for Determining Multiple Free Metal Ion Concentrations in Aquatic Systems.* Zhao Dong.

11:40 *Analysis of PCB in Seafood Tissue: A Case Study from New Bedford Harbor.* Paul Craffey & Jim Occhialini.

\* denotes Student presentation

12:00 – 1:20 **LUNCH & NAC SETAC Business Meeting (12:00-1:20pm)** (included)

### **INTERACTIVE SESSION 3**

#### **CAUSAL ANALYSIS AND BEYOND** (Charlie Menzie)

1:20 – 2:20 *Applied Causal Analysis Approaches: As Illustrated Through Case Studies.* Charles Menzie (Exponent) & Susan Cormier (EPA).

People's brains have evolved to seek patterns and to make connections among potential causes and effects. Most of these analyses occur at the subconscious level and only a tiny fraction involves the deliberate choice to analyze information in a structured or scientific way. In both conscious and subconscious attribution of causation, these mental connections reflect an individual's experience, perceptions, and even values. As issues become more complex and are associated with decisions that can affect several parties, there is increasing need for explicit formalized approaches of causal analysis. This discussion will describe general explicit approaches that have proven effective for causal analysis. These can be applied to a variety of problems. Illustrations are provided for three different environmental case studies: 1. Causes of damage to plants and farms in the Yemen desert, 2. Sources of contamination at a complex environmental site, and 3. Predicting conditions related to beach closures.

This session will be an interactive session with Dr. Susan Cormier, US EPA, also contributing. Susan is the instructor for our preceding short course, Causal Analysis/Stressor Identification (Wednesday, June 10). We will provide for and encourage opportunities for audience discussion and participation.

2:20 **BREAK**

### **SESSION 4**

#### **CONTAMINATED SEDIMENTS** (Peg Pelletier, Chair)

2:40 *An Introduction to the Radiometric Dating of Sediments.* Darryl Luce.

3:00 *Temporal Trends of Triclosan in Dated Sediment Cores from Four Urbanized Estuaries: Evidence of Preservation and Accumulation.* Mark Cantwell.

3:20 *\*Bioavailability Assessment of a Contaminated Field Sediment From Patrick Bayou, Texas: TIE And Equilibrium Partitioning.* Monique Perron.

3:40 *Field Validation of Molybdenum Accumulation in Sediments as an Indicator of Hypoxic Water Conditions.* Warren Boothman.

### **SESSION 5**

#### **EMERGING CONTAMINANTS** (Jimmy Hauri, Chair)

4:00 *Green Pharmacy: Strategies for Reducing the Pharmaceutical Footprint.* Nick Anastas.

4:20 *\*Polybrominated Diphenyl Ethers (PBDEs): Promoters of Sweet Preference, Overeating, and Weight Gain in Male Rats.* Stephen Hennigar.

4:40 *\*The Effect of Diet and Polybrominated Diphenyl Ether (PBDE) Exposure on Adipocyte and Whole Body Metabolism in Male Wistar Rats.* Erin Allgood.

5:00 **ADJOURN**

\* denotes Student presentation

## **POSTER SESSION AND RECEPTION (5:00-7:30pm)**

*\*Using Fluorescence Spectroscopy as a Rapid, Cost-Effective Method to Monitor and Analyze Low Levels of Pharmaceuticals in Three Marine Rivers.* Jim Killarney.

*Influences of Water Sampling Methodologies on Pesticide Detection and Data Interpretation.* Lien Chow.

*Histopathologic Effects of Estrogens in Marine Fishes.* Doranne Borsay Horowitz.

*\*Evaluation of the Effectiveness of In-Situ PCB and DDT Remediation with Engineered Amendment Agents.* Scott Cloutier.

*\*Evaluation of Solid Phase Micro Extraction to Assess PAH Uptake of In-Situ Sediment and Benthic Organisms.* Rebecca Damberg-Mausser.

*\*Does Developmental Exposure to Flame Retardants Promote Obesity and Diabetes in Rats?* Amy Taetzsch.

*\*Osteoblast Cell Development in the Presence of Polybrominated Diphenyl Ethers (PBDEs) - A Chemical Flame Retardant.* David Cocozziello.

*Assessment of Nonlethal Methods for Predicting Muscle Tissue Mercury Concentrations in Estuarine Fishes.* David Taylor.

*Recovery from Mercury Contamination in Three North American Lakes.* Jody Kubitz.

*A Comprehensive Review Comparing the Aquatic Toxicology of Common Nanomaterials Reveals a Low Potential for Environmental Risk.* Steve Clough.

*Differential Body Burdens of Various Metals and Organic Compounds in Co-Occurring Marine Bivalves: Implications for Ecological and Human Health Risk Assessment.* Jerome Cura.

*\*Insulin Signaling In Adipocytes Exposed To PBDEs.* Bradley Best.

*\*Using Passive Samplers to Examine the Fate and Transport of Dioxins and Furans in Newark Bay, New Jersey.* Carey Friedman.

*\*Effects of Polybrominated Diphenyl Ethers on Bone Density.* Casey Doucette.

*Demonstration of Data Portal for Massachusetts Freshwater Fish Tissue Mercury Database.* Michael Hutcheson.

\* denotes Student presentation

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## **BANQUET WITH KEYNOTE SPEAKER, DR. SUSAN M. CORMIER. (8:00-9:30PM)**

### **KEYNOTE ADDRESS: "Science To Inform Decision Making"**

Susan M. Cormier, PhD (Cormier.Susan@epa.gov), Senior Scientist, National Center for Environmental Assessment, USEPA, Cincinnati, Ohio.

Scientists have access to information that others need. Not only do we have a grasp of facts that others do not have, but we have the ability to make those facts relevant. How do we develop and share useful information while also being scientifically rigorous and maintaining our reputation as objective witnesses? First we must continue to be skeptics, but in a productive way. We must be willing to go beyond providing raw facts and associated uncertainties. We need to use a wider array of information and learn to consider the value of that information. We need to show how the facts fit together and suggest options for a course of action. As scientists it is our responsibility to remain

open to possibility. We need to be aware of where and how we can make a difference and then provide the information at the right time and in the right way so that good science will guide or even compel right actions. We need to know that what we do matters and that it makes a difference. To that end, I will share with you a way to connect scientific investigations and assessments to resolve environmental problems. To make it interesting, I will share a few stories of how integrated assessments have made a difference in the real world of environmental protection.

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## **FRIDAY, JUNE 12**

7:30 Coffee and light breakfast snacks

### **SESSION 6**

**LOCAL AND REGIONAL ISSUES** (Allison Dunn, Chair)

8:00 \**Preliminary Results of the Examination of Thermal Impacts from Stormwater BMPs.* Nicholas DiGennaro.

8:20 \**Impacts of Culverts and Impervious Areas on Water Temperatures in Southern NH Streams.* Gary Lemay Jr.

8:40 *Integration of Geospatial and Risk-Based Analyses to Prioritize Sediment Management Actions for the St. Clair River Area of Concern.* Allison Glessner.

9:00 *Sixteen Years of Contaminant Monitoring in the Gulf of Maine and Bay of Fundy by Canada and the United States: 1993 to 2006.* Jack Schwartz.

### **SESSION 7**

**NANOMATERIALS: ENVIRONMENTAL IMPLICATIONS AND APPLICATIONS** (Stephen Clough, Chair)

9:20 *Big Concerns with the Very Small: The Emergence of Nanotoxicology.* Emily Monosson.

9:40 *Open Group Discussion led by Stephen Clough and Emily Monosson.*

10:00 **BREAK**

### **SESSION 8**

**METALS IN THE ENVIRONMENT** (David Taylor, Chair)

10:20 \**Effects of In Vitro Exposure of American Woodcock Splenocytes to Cadmium Chloride.* Brian Hiller.

10:40 \**Influence of Metal Contamination Source and Soil Properties on Bioaccumulation by Plants.* Laurel Schaidler.

11:00 \**Estuarine Invertebrates and Forage Finfish as Bioindicators of Environmental Mercury Levels.* Jennifer Linehan.

11:20 *Quality Assurance is Not a Guarantee: False Positives and Negatives for Metals Data Used in Quantitative Risk Assessment.* Susan Chapnick & Leonard Pitts.

11:40 *Metal Bioavailability and Trophic Transfer in Intertidal Food Webs.* Celia Chen.

\* denotes Student presentation

12:00 **NAC SETAC Student Awards**

12:20 **ADJOURN MEETING**  
1:00 **NAC SETAC Board Luncheon Meeting**