



Midwest Chapter Society of Environmental Toxicology and Chemistry



Final Program and Meeting Information

Meeting of

**The Midwest Chapter of the Society of
Environmental Toxicology and Chemistry**

30 March to 1 April 2009

La Crosse Radisson Hotel, La Crosse, Wisconsin

MEETING THEME

Biomonitoring: Assessing Spatial & Temporal Trends in Contaminants

CONFERENCE OVERVIEW

The theme of the 2009 Annual Meeting of the SETAC Midwest Chapter is "Biomonitoring: Assessing Spatial & Temporal Trends in Contaminants". This year's theme will focus on the methodology and importance of detecting pulses of contaminants into ecosystems and the evaluation of spatial and temporal trends in contaminants in aquatic and terrestrial biota, sediments, soil, air, and water. Research on other areas of interest in the Midwest region is also welcome.

A short course will precede the main meeting on Monday, 30 March 2009 on the campus of the University of Wisconsin-La Crosse. This short course will focus on statistics in ecology and ecotoxicology using R, a free and very powerful software for statistical analyses. The technical program will begin on Tuesday morning, March 31, at 8:45 A.M. with keynote guest speakers followed by a series of platform presentations. After lunch, the meeting will continue with contributed platform presentations of 20 minutes in length. The afternoon session will be followed by a Poster Session/Cocktail Reception from 4:30-7:00 P.M. Everyone is invited to engage in spirited scientific discussion of the posters while enjoying a nice selection of complimentary hors d'oeuvres and a cash bar. Wednesday morning, April 1, the scientific program will continue with additional contributed platform presentations.

MEETING LOCATION

Radisson Hotel La Crosse

200 Harborview Plaza , La Crosse Wisconsin 54601

Reservations: (888) 201-1718 US Toll Free

Telephone: (608) 784-6680

Fax: (608) 782-6430

A map and directions are available from the hotel website http://www.radisson.com/hotels/la_cross

SHORT COURSE: Statistics in Ecology & Ecotoxicology Using R

Instructor: Stephen B. Cox, Texas Tech University, Lubbock, Texas.

The primary goals of this course are to introduce participants to R – a freely available and very powerful tool for conducting statistical analyses, and to demonstrate the capabilities and tools available in R that are specifically relevant to environmental biologists. Example topics include basic data input and manipulation, graphics, and statistical modeling. The course is intended for participants who would like a brief introduction to some of the statistical tools that are particularly relevant to ecologists and ecotoxicologists, or are familiar with statistics but are interested in the R programming environment. Some conceptual background information about relevant statistical tests will be presented. Computers will be provided for use for all participants, but participants may also bring their own laptops to step through the statistical exercises. Only a general understanding of basic statistical principles (sampling, hypothesis testing, and probability distributions) is required.

Please note that the extended deadline for registration for the short course is March 16, 2009. The short course will be held on Monday, March 30 from 12:30-5:30 PM in 217 Wimberly Hall on the campus of the University of Wisconsin-La Crosse. Location and other information for the short course on the UW-La Crosse campus will be sent to all short course registrants prior to the course.

MEETING REGISTRATION

The registration includes meeting attendance, breaks, Tuesday lunch, Tuesday poster social, Wednesday breakfast and abstracts. Online registration can be done via the web at www.uwlax.edu/conted with payment by credit card. After March 16, 2009 registration may be made online or at the meeting.

Short Course Registration Fees

Category

By 16 March 2009

Member and Non-member
Student

\$60
\$30

Meeting Registration Fees

Category

By 16 March 2009

After 16 March 2009

Regular Member MW SETAC
Regular Non-member
Student Member MW SETAC
Student Non-member

\$110
\$125
\$45
\$50

\$130
\$145
\$70
\$75

HOTEL RESERVATIONS

A limited block of rooms has been reserved at the La Crosse Radisson Hotel. Please make your reservations for lodging directly with the Radisson Hotel or any other hotel of your choice. If making reservations at the Radisson Hotel, indicate that you are with the SETAC Conference to receive a special negotiated rate. After March 1 reservations can only be accepted on a space available basis. Contact the Radisson Hotel directly at:

Radisson Hotel La Crosse
200 Harborview Plaza
La Crosse, Wisconsin 54601
Phone: (888) 201-1718 US Toll Free
(608) 784-6680
Fax: (608) 782-6430
<http://www.radisson.com/lacrossewi>

Conference Rate: Singles \$70/night + 12.5% tax
Doubles \$100/night + 12.5% tax

MIDWEST SETAC

Midwest Chapter of SETAC is a regional chapter of the Society of Environmental Toxicology and Chemistry (SETAC), a nonprofit, worldwide professional society with a mission to support the development of principles and practices for the protection, enhancement, and management of sustainable environmental quality and ecosystem integrity. The Midwest Chapter has over 100 members from Illinois, Iowa, Michigan, Minnesota, South Dakota, and Wisconsin. The Chapter is committed to the professional development of students and offers a variety of funding avenues to help students attend and present original research findings at the annual Chapter meetings. The Midwest Chapter of SETAC holds their annual meeting to provide professionals, academics, and students the opportunity to present their work, exchange ideas, and network with their peers.
<http://www.midwestsetac.org/index.htm>

Midwest Chapter of SETAC March 30 – April 1, 2009 Radisson Hotel, La Crosse, Wisconsin Meeting Program

Monday, March 30

12:30-5:30 PM

Short Course: Statistical Analysis in Ecology and Ecotoxicology using R
University of Wisconsin-La Crosse, Room 217 Wimberly Hall
(pre-registration required)

7:00 PM

MW SETAC Executive Board Meeting, Lobby Conference Room, Radisson Hotel

Tuesday, March 31

7:30-9:00 AM

Registration—Lobby, Radisson Hotel

4:00-5:00 PM

(Note: All platform & poster presentations and meals will be held in Ballroom A and Ballroom B of the Radisson Hotel)

8:00-8:40 AM

Continental Breakfast

8:45 AM

Welcome and Announcements

Invited Plenary Presentations—Biomonitoring: Assessing Spatial & Temporal Trends in Contaminants

8:55 AM

Biomonitoring: Birds as Indicators of Environmental Contamination and Health
Christine Custer, U.S. Geological Survey

9:30 AM

Assessing Temporal Trends of Mercury in Fish
Bruce Monson, Minnesota Pollution Control Agency

10:05 AM

Biological Responses of Unionid Mussels to Environmental Contaminants
Teresa Newton, U.S. Geological Survey

10:40-11:00 AM

Coffee Break

Biomonitoring and Methods Evaluation

Moderator: Pat Guiney

11:00 AM

Evaluation of the Usefulness of ELISA Methods in Assessing Endpoints in
Endocrine Disruption Research
Stephen Bartell, St. Cloud State University

11:20 AM

Bioassay Directed Fractionation and Identification of Estrogenic Compounds in
CAFO Runoff by HPLC-UV-FL-MS/MS
Curtis Hedman, Wisconsin State Laboratory of Hygiene

11:40 AM

The Mini-Mobile Environmental Monitoring Unit: A Novel Bio-Assessment Tool
Alan Kolok, University of Nebraska at Omaha

12:15 PM

Lunch (included in meeting registration)

Endocrine Disrupters
Moderator: Matt Hudson

- 1:20 PM Preservation and Analysis of Endocrine Disrupting Compounds Using Hydrochloric Acid and Isotope Dilution
Sonya Havens, University of Wisconsin-Madison
- 1:40 PM The Bioavailability of Endocrine-Active Compounds to *Daphnia magna*
Timothy Loes, St. Cloud State University
- 2:00 PM Necessity and Novelty of Incorporating Innate Behavioral Testing in the Development of Water Quality Criteria
Meghan McGee, St. Cloud State University
- 2:20 PM Reproductive Effects of Variable Estradiol Treatments on Male Fathead Minnows
Katie Hyndman, St. Cloud State University
- 2:40 PM Coffee Break

Aquatic Toxicology
Moderator: Jeff Denny

- 3:00 PM Reproductive Effects of Pharmaceuticals Singularly and in Mixture on Male Fathead Minnows
Heiko Schoenfuss, St. Cloud State University
- 3:20 PM Chronic Polybrominated Diphenyl Ether (PBDE) Exposure Affects Survival, Growth and Development of *Rana pipiens* Tadpoles
Tawnya Cary Coyle, University of Wisconsin-Madison
- 3:40 PM Surface Functionalization Influences the Nanotoxicity of Quantum Dots in Zebrafish Embryos
Tisha King-Heiden, University of Wisconsin-La Crosse

4:30-7:00 **Poster Social (poster titles and presenters listed below)**

Wednesday, April 1

7:30-8:30 AM **Breakfast (included in registration)**

Mercury Bioaccumulation, Exposure, and Toxicity
Moderator: Christine Custer

- 8:30 AM Mercury Contamination in Tree Swallows Nesting in Northern Wisconsin Inland Lakes that Differ in Methylation Potential
Thomas Custer, U.S. Geological Survey
- 8:50 AM Probabilistic Estimates of Methylmercury Exposure from Walleye Consumption Among Anishinabe in Wisconsin, Michigan, and Minnesota
Matt Hudson, Great Lakes Indian Fish and Wildlife Commission
- 9:10 AM Methylmercury in Fish: Advances in Assessing Toxicity of Environmentally Relevant Exposures
Mark Sandheinrich, University of Wisconsin-La Crosse
- 9:30 AM Riverine and Wetland Influences on Methylmercury Contamination of the Aquatic Food Web in Nearshore Environments of Chequamegon Bay (Lake Superior, Wisconsin)
Kris Rolfhus, University of Wisconsin-La Crosse
- 9:50 AM Coffee Break
- 10:10 AM-???? Business Meeting, Student Presentation Awards, Adjourn

Poster Presentations

Chronic toxicity of constant and pulsed ammonia concentrations to the endangered Rio Grande silver minnow--- Kevin Buhl, U.S. Geological Survey

Effects of a lipid depleted food source on *Daphnia magna* life cycles.--- Rebekah Criswell, St. Cloud State University

Relative chemical binding affinities for trout and human estrogen receptor using different competitive binding assays.--- Jeff Denny, U.S. Environmental Protection Agency

Bioaccumulation of lead and zinc in earthworm tissues--- Oliver deSilva, University of Dubuque

Persistence of 2,4-D and its effects on benthic organisms in Wisconsin lakes following sprig treatments--- Donn Edwards, University of Wisconsin-Whitewater

Environmental assessments of aquaculture drugs: Lessons learned in search of broad U.S. drug approvals--- Mark Gaikowski, U.S. Geological Survey

Demographic impacts of dietary methylmercury on *Daphnia pulex* from 3 different lakes in eastern Wisconsin --- Martin Hobmeier, Lakeland College

A convenient method for the determination of antimycin-A in water collected during field treatments-- Terrance Hubert, U.S. Geological Survey

Patterns and consequences of *in ovo* exposure to methylmercury in common loons.--- Kevin Kenow, U.S. Geological Survey

Histological assessment of liver samples taken from perfluorooctane sulfonate (PFOS) exposed bluegill sunfish (*Lepomis macrochirus*)--- Emily Metz, St. Cloud State University

Histological investigation of the biological effects of endocrine disrupting pollution in Minnesota lakes-- Beth Poganski, St. Cloud State University

Methylmercury content of wild rice in Chequamegon Bay, Lake Superior—Kristofer Rolfhus, University of Wisconsin-La Crosse

Monitoring and assessing methylmercury and organic contaminants in aquatic food webs in the Great Lakes network—Mark Sandheinrich, University of Wisconsin-La Crosse

Toxicity of diphenhydramine hydrochloride and erythromycin thiocyanate to *Daphnia magna* in a flow-through, continuous exposure test system--- Theresa Schreier, U.S. Geological Survey

Detecting metal-induced reaction oxygen species in *Chlamydomonas reinhardtii*--- Tasha Stoiber, University of Wisconsin-Madison

In vitro and *in Vivo* estrogenicity of wastewater treatment plant effluent.--- Leah Wehmas, U. S. Environmental Protection Agency

Presence of *Cylindrospermopsis raciborskii* and saxitoxin in select south central Wisconsin lakes--- Joseph Zaukas, University of Wisconsin-Whitewater