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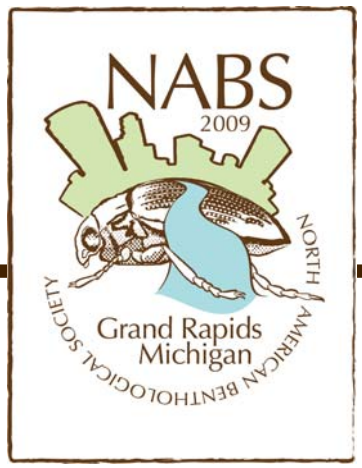
NABS 57th Annual Meeting
Grand Rapids, Michigan
May 17-22, 2009



Conference Registration

Registration for the conference can be accomplished through one of the following options:

- By Internet: Visit http://sail2.ext.usu.edu/nabs/ and complete the online registration form.
- By Mail or Fax: Visit http://sail2.ext.usu.edu/nabs/ to print a registration form that can be returned via mail or fax.
- By Phone: Call Registration Services at 1-800-538-2663 to register.

Abstract Submission
Deadline: January 21, 2009

We invite members of the North American Benthological Society and other interested persons to submit abstracts for oral and poster presentations for the 57th Annual Meeting (May 17-22, 2009), to be held in Grand Rapids, Michigan, USA. The NABS annual meeting has established a reputation not only for its camaraderie, but also for the high quality of its program and presentations.

To submit an abstract, visit http://nabs.confex.com/nabs/2009/cfp.cgi.

Presentation Format

Oral Presentations: Contributed and invited presentations are limited to 12-13 minutes plus 2-3 minutes for discussion (maximum 15 minutes per presenter). Session moderators will strictly enforce these limits. Powerpoint presentations are the only format allowed for oral presentations.

Posters: The Program Committee strongly encourages participants to consider submission for poster presentations. Posters are an excellent medium for detailed and extended discussion of your research and allow for complex charts, graphs, tables, or photographs that are difficult to present in an oral presentation session.

Plenary Session

Plenary Theme -- ***Climate Change: Interfacing Science, Sustainability, and Aquatics***

The theme of the NABS 2009 Plenary addresses the recognition that climate change will significantly influence freshwater resources, and that specific and well-informed reactions are needed from science and society.

Plenary Speakers

1) **Dr. Paul Ehrlich**
   President, Center for Conservation Biology
   Bing Professor of Population Studies
   Stanford University
   http://www.stanford.edu/group/CCB/Staff/Ehrlich.html

   Paul R. Ehrlich received his Ph.D. from the University of Kansas. Co-founder with Peter H. Raven of the field of coevolution, he has pursued long-term studies of the structure, dynamics, and genetics of natural butterfly populations. He has also been a pioneer in alerting the public to the problems of overpopulation, and in raising issues of population, resources, and the environment as matters of public policy.

   Professor Ehrlich's research group covers several areas. It continues to study the dynamics and genetics of natural populations of checkerspot butterflies (*Euphydryas*). This research has applications to such problems as the control of insect pests and optimum designs for nature reserves. A central focus of his group is investigating ways that human-disturbed landscapes can be made more hospitable to biodiversity. A special interest of Ehrlich's is cultural evolution, especially with respect to environmental ethics.

   Professor Ehrlich is a fellow of the American Association for the Advancement of Science, the American Academy of Arts and Sciences, and the American Philosophical Society, and a member of the National Academy of Sciences. Professor Ehrlich has received several honorary degrees, the John Muir Award of the Sierra

Club, the Gold Medal Award of the World Wildlife Fund International, a MacArthur Prize Fellowship, the Crafoord Prize of the Royal Swedish Academy of Sciences (given in lieu of a Nobel Prize in areas where the Nobel is not given), in 1993 the Volvo Environmental Prize, in 1994 the United Nations' Sasakawa Environment Prize, in 1995 the Heinz Award for the Environment, in 1998 the Tyler Prize for Environmental Achievement and the Dr. A. H. Heineken Prize for Environmental Sciences, in 1999 the Blue Planet Prize, in 2001 the Eminent Ecologist Award of the Ecological Society of America and the Distinguished Scientist Award of the American Institute of Biological Sciences.

2) **Ms. Lynn Scarlett**
Deputy Secretary of the Interior
http://www.doi.gov/bio/bioscarlett.htm

Lynn Scarlett was confirmed as Deputy Secretary of the Department of the Interior on November 2005, a post she took on after 4 years as the Department's Assistant Secretary for Policy, Management and Budget. She served as Acting Secretary of the Department upon the resignation of former Secretary Gale Norton effective April 1, until the confirmation of Secretary Dirk Kempthorne on May 26, of 2006. She serves on the Executive Committee of the President's Management Council.

Ms. Scarlett coordinates Interior's environmental policy initiatives to implement the President's executive order on cooperative conservation, serving on the White House Cooperative Conservation Task Force. She chairs the Department's Climate Change Task Force and she co-chairs the President and First Lady's Preserve America initiative on historic preservation and heritage tourism. She serves on the Board of Trustees of the Udall Foundation as the Department of the Interior representative. From June 2003-2004, she chaired the federal Wildland Fire Leadership Council, an interagency and intergovernmental forum for implementing the National Fire Plan and 10-Year Implementation Plan.

Prior to joining the Bush Administration in July 2001, she was President of the Los Angeles-based Reason Foundation, a nonprofit current affairs research and communications organization.

Ms. Scarlett is author of numerous publications on incentive-based environmental policies. Ms. Scarlett received her B.A. and M.A. in political science from the University of California, Santa Barbara, where she also completed her Ph.D. coursework and exams in political science and political economy.

3) **Dr. Don Scavia**
Professor, Natural Resources and Environment
Director, Michigan Sea Grant Program
http://sitemaker.umich.edu/scavia/scavia_home

Don and his students combine numerical models, laboratory, and field work to improve the understanding of interactions between human activities and impacts on marine and freshwater ecosystems. His research and teaching support integrated assessments that bring together natural systems, social science, and environmental policy making. He is on the Advisory Board for the North American Nitrogen Center, the Science Advisory Board for the Annis Water Resources Institute and the Central Michigan University Great Lakes Program, the Science Advisory Council of the Environmental Law and Policy Center, and science advisor to the Healing our Waters Great Lakes Coalition. At UM, he also serves on the Executive Committee for the Erb Institute for Global Sustainable Enterprise and the Graham Environmental Sustainability Institute.

He was Associate Dean for Research at UM's School of Natural Resources and Environment from 2004-2006, Interim Director of the Cooperative Institute for Limnology and Ecosystems Research from 2004-2007, Associate Editor for Estuaries and Coasts from 1998-2007; Associate Editor for Frontiers in Ecology and Environment from 2002-2006, served on the Boards of Directors for the American Society of Limnology and Oceanography and the International Association for Great Lakes Research, and the Science Committee of NSF's Collaborative Large-scale Engineering Network for Environmental Research program.

Prior to joining the Michigan faculty, Don was Chief Scientist of NOAA's National Ocean Service Director of the National Centers for Coastal Ocean Science, and Director of NOAA's Coastal Ocean Program, where he managed coastal and Great Lakes research programs in NOS laboratories, monitoring and assessment offices, and extramural research.

Between 1975 and 1990, Don was a research scientist with NOAA's Great Lakes Environmental Research Laboratory in Ann Arbor, Michigan, focusing on modeling and empirical studies on nutrient cycling, bacteria and phytoplankton production, food-web dynamics, and biological-physical coupling at all scales.

He holds Bachelors, Masters, and Doctorate degrees in Environmental Engineering from Rensselaer Polytechnic Institute and the University of Michigan, has published over 70 articles in the primary literature and books, and led development of dozens of interagency scientific assessments and program development plans.

4) **Dr. Jay Austin**
Assistant Professor, Large Lakes Laboratory and Department of Physics
University of Minnesota-Duluth
http://www.d.umn.edu/~jaustin/

Dr. Austin is an Assistant Professor of Physics and a faculty member at the Large Lakes Observatory at the University of Minnesota Duluth. He earned BS degrees in Physics and Mathematics from Cal Poly San Luis Obispo, and a PhD from the Joint Program in Physical Oceanography at MIT and the Woods Hole Oceanographic

Institution. He did postdoctoral work at Oregon State and Old Dominion University before moving to Duluth in 2005. He is the author of publications covering diverse topics, from coastal circulation, estuarine dynamics, oceanographic education, instrument development, and limnology.

Jay's research fits into a fairly broad definition of coastal physical oceanography and limnology, as his interests extend beyond the coastal zone to estuaries and lakes. Jay's recent work has focused on the long-term effects of climate change on large lakes, especially the role of winter ice cover in setting the stage for the coming year. On shorter time scales, he is interested in understanding wind-driven circulation in coastal and lacustrine systems. He focuses on two primary techniques for exploring these systems: Direct field observations and numerical simulation, particularly process-oriented idealized models of systems. He is currently the lead PI on a large NSF grant to develop a comprehensive dataset of physical parameters for Lake Superior in support of numerical modeling activities. Jay also has interests in instrument development and education.

Special Sessions

Authors interested in presenting in a Special Session, but who are not included on the list provided by the Session Organizers, should notify the organizer(s) of their interest in participating via email prior to abstract submission. If you have questions regarding special sessions or workshops, please contact Don Uzarski (uzars1dg@cmich.edu) or Al Steinman (steinmaa@gvsu.edu)

Special sessions organized to date include:

1. Causal Assessment – From the General to the Specific using Bioassessment Data
Organizer:
Michael Griffith (griffith.michael@epa.gov)

Most environmental and ecological science is focused on general causal relationships: Does an environmental variable cause an effect of interest? However, in a regulatory or remedial context, the focus is often much more specific: Is a particular stressor a cause of an observed impairment at a single site or a specific set of sites? In the United States, European Union, Australia, and elsewhere, bioassessment programs now use biotic assemblages (i.e., macroinvertebrates, fish or periphyton) to assess the condition or status of streams. If a stream is determined to be impaired, the next logical step toward restoring the stream is to identify the environmental stressor or stressors that are most likely causing the observed impairment. Since the impairment is defined in terms of the biotic assemblages, most approaches to assessing the likely causes would also use assemblage data. We will explore methods for generating general relationships between causes and effects in stream biotic assemblages and possible approaches for using these general relationships to help assess the likely causes of impairment at specific sites.

2. Basic and applied ecological research on the US mid-continent great rivers
Organizers:
Brian Hill (hill.brian@epa.gov)
Ted Angradi (angradi.theodore@epa.gov)

Ecological research on great rivers has lagged behind research on smaller rivers and streams. For the mid-continent great rivers of the US, the Mississippi, Missouri, and Ohio Rivers, a recent EPA research effort, the Environmental Monitoring and Assessment Program for Great Rivers (EMAP-GRE) has increased our knowledge of the ecology of these rivers and has motivated the development of new bioassessment tools for large rivers. This special session seeks to highlight the recent ecological research on these rivers conducted by EMAP-GRE participants and by other scientists working in the mid-continent great rivers. The underlying theme of the session will be how basic and applied ecological research findings are relevant for river monitoring, management and restoration.

3. Towards an understanding of eco-evolutionary processes in freshwaters
Organizers:
Chris Robinson (Christopher.Robinson@eawag.ch)
Jane Hughes (jane.hughes@griffith.edu.au)

Techniques in population genetics have reached a point where substantial information on population dispersal and distribution, biotic interactions, host parasite dynamics, ecotoxicology, temporal and spatial dynamics in metapopulations, and other exciting research areas is mounting. This special session looks at using this information towards a better understanding of eco-evolutionary processes in freshwaters. Freshwaters are key ecosystems for contributing to this growing body of knowledge. Speakers will present results that contribute a mechanistic understanding of eco-evolutionary processes using recent molecular techniques covering a diverse range of topics. Please contact the session chairs if you are interested in presenting your recent research in this area.

4. Impacts of Agriculture on Stream Ecosystems
Organizers:
Joseph Culp (Joseph.Culp@ec.gc.ca)
Patricia Chambers (patricia.chambers@EC.GC.CA)

Intensification of agriculture, through greater use of chemical fertilizers, larger livestock operations with insufficient land base for manure application, increased irrigation, and cultivation of marginal land, has resulted in diffuse pollution being a major source of nutrients, contaminants and sediments to inland and coastal waters. This special session aims to address the effects of agricultural activities on ecological condition of flowing waters, and to provide Society members with a current, international perspective on the management of these working landscapes. The session will consist of invited papers summarizing key science issues for the management of agricultural watersheds. Contributed papers/posters on the topic would be welcome.

5. Developing flow-ecology response relations to support regional streamflow management

Organizers:
Jonathan Kennen (jgkennen@usgs.gov)
LeRoy Poff (poff@lamar.colostate.edu)

Environmental or ecological flows have become a topic of heightened national and international interest over the past decade as the need to better understand how human modification of natural streamflow variability affect water availability and aquatic assemblages has expanded. There is a growing interest in streamflow management among regulatory agencies in developing regional flow standards but the science to support such standards is still being developed. Recent advances in environmental flow science have emphasized the need to quantify ecological responses to flow alteration and to examine how these responses vary among streams that differ in their natural flow regimes. This special session will present current research and advances in quantitative methods currently being used throughout the international community to develop a basis for establishing flow-ecology response relations. It will strive to bring together scientists working in diverse streams and rivers to compare and contrast methods that are applied in broad geographic settings for different aquatic assemblages and ultimately, better inform water resource managers, planners, and policy makers on what does and doesn't work for setting environmental flow standards at the state, provincial, and regional levels.

6. Applying the Biological Condition Gradient for Protecting Our Waters - Regional and State Experiences

Organizer:
Wayne S. Davis (Davis.Wayne@epamail.epa.gov)

We are now at the point where several of our state and regional programs have applied the BCG (Davies and Jackson 2006; http://www.epa.gov/bioindicators/html/bcg.html) to evaluate reference conditions and set water quality goals. There are pros and cons to these approaches, but the BCG will likely be a major mechanism for how aquatic life designated uses in water quality standards will be interpreted. We would like to use this opportunity to share several lessons learned from programs in Maine, Ohio, Florida, Pennsylvania, New Jersey. EPA Regions 1, 2 and 3, among others.

7. Metacommunities in riverine ecosystems.

Organizers:
Christopher Swan (cmswan@umbc.edu)
Bryan Brown (bbrown3@clemson.edu)

Substantial variation in dispersal exists between organisms that contribute to the structuring of ecological communities in space and time. The explicit incorporation of space into community ecology has been an important recent advance in our understanding of natural systems. Rather than view communities as isolated entities, we have begun to conceptualize them as assemblages determined by the relative strengths of

stochastic regional effects (primarily dispersal-driven) and local environmental factors. Riverine ecosystems are common spatial features on the landscape, and the dendritic nature provides an ecologically interesting foundation to understand local versus regional effects on local community structure. In this session, our goal is to highlight ongoing research in riverine metacommunities, with special emphasis on riverine network structure. We will encourage submissions by researchers working across taxa (i.e., invertebrates, amphibians, fish) and in both natural and disturbed ecosystems. This broad perspective has the potential to highlight new questions in community ecology, in both basic and applied fields.

8. Measures of stream ecosystem function: An applied perspective

Organizers:
Brent Johnson (johnson.brent@epa.gov)
Ken Fritz (Fritz.Ken@epamail.epa.gov)

Assessments of stream health have traditionally focused on measures of ecosystem structure such as water chemistry, physical habitat, and composition of biological assemblages. Yet maintenance of stream ecosystem function is a clear goal of the Clean Water Act and functional measures are necessary for appropriate assessment and mitigation efforts. Measures of function are used to quantify ecosystem processes including energy flow and rates of material cycling. Functional measures have, however, been largely ignored for stream assessments because they are perceived to be more time and labor intensive than structural measures. Though there has been an assumption in the regulatory community that ecosystem structure adequately reflects function, limited research suggests otherwise. This special session focuses on use of functional measures for stream assessment and the challenges faced in their widespread application

9. Using best available science to protect and restore aquatic systems: integrating advances in ecological theory into assessment approaches and management applications

Organizers:
Dana Infante (infanted@msu.edu)
Li Wang (wangl@michigan.gov)

Successful protection and restoration of aquatic systems relies on an ecosystem management approach that integrates best available science into assessment and management applications. With numerous recent advances in our understanding of aquatic ecology, we currently have the potential for developing more effective protection and restoration strategies than ever before. Examples of such advances include recognition that landscape pattern influences ecological processes, the ability to account for hierarchical influences of landscape-level controls (such as climate and land use change) on aquatic systems, the importance of considering impacts across spatial scales, insights into functional organization of aquatic communities, and the subtle but pervasive threat of biotic homogenization in aquatic systems. The goal of this session will be to highlight ways in which such advances in our understanding are actually being integrated into assessment and management approaches. This will not only benefit researchers

hoping for their work to improve opportunities for protecting and restoring aquatic systems, it will provide managers with ideas into new developments and approaches that could enhance their efforts.

10. Advances in stream biogeochemistry: the legacy and promise of 30 years of the nutrient spiralling concept

Organizers:
Eugènia Martí (eugenia@ceab.csic.es)
Nancy B. Grimm (nbgrimm@asu.edu)

In 1979, Webster and Patten introduced a new way to approach nutrient cycling in stream ecosystems, called "the Nutrient Spiralling Concept." Over the ensuing 30 years, this concept and associated mathematical and methodological advances have significantly advanced our understanding of how streams retain, transform, and transport organic and inorganic solutes, including nutrients. On the 30th anniversary of the nutrient spiralling concept, this session represents a tribute as well as an evaluation of the concept. Invited presenters will review its scientific contributions to the field of stream biogeochemistry as well as discuss existing gaps and future prospects. The session also welcomes contributions (both oral and poster) based on extensive reviews or meta-analyses of existing data (nutrients, dissolved and particulate organic matter), methods, and mathematical approaches, and new perspectives (data, methods, models, scales) in stream biogeochemistry that contrast with or build upon the nutrient spiralling concept.

11. Application of Landscape, Bioassessment and Predictive Models in Stream Ecology

Organizer:
Ian R. Waite (iwaite@usgs.gov)

There is a heightened interest throughout the scientific community in innovative ecological modeling techniques. Many aquatic researchers are currently developing alternative types of predictive ecological models that use non-parametric, Bayesian, and path approaches. For example, predictive models that use measures of watershed disturbance, including urban and agricultural land use, land cover, flow regime, and hydrologic infrastructure (e.g., number of dams, number of canals) as the predictors of biological condition at unsampled stream sites are currently being developed and tested in many watersheds throughout the U.S., Canada, Australia, New Zealand, Europe, and elsewhere. The response variables often are various metrics of biological condition such as EPT richness, tolerance, % predators, B-IBI, functional species traits, or even ordination axes scores. Many predictive disturbance models developed for urban systems use a combination of multivariate statistics and regression. Historically, disturbance models relied primarily on multiple regression procedures, however, many newer ecological modeling techniques include classification and regression tree (CART) methods, structural equation modeling (SEM), multilevel-hierarchical and Bayesian models. This special session will emphasize the growing use of modeling techniques in stream ecology by highlighting current advances in quantitative ecological modeling methods. Papers presented will include the use of landscape models to illicit better causal

linkages to stream biological attributes and the use of models to predict biological indicators of stream condition at unsampled sites. This session will also focus on some classic modeling techniques and application of newer predictive modeling methods that have the potential to provide managers with more powerful tools for understanding the factors associated with degradation of water quality and biological communities and allow them to make cost-effective decisions about how to avoid further degradation. However, O/E Rivspac type models will not presented, as this predictive modeling technique has previously been presented at NABS.

12. Environmental barcoding: genomic solutions for biomonitoring

Organizers:
Donald Baird (djbaird@unb.ca)
Bern Sweeney (sweeney@stroudcenter.org)

The technique of DNA barcoding is revitalizing many areas of biology, and now researchers are beginning to investigate its practical applications in benthic science. This session will bring together scientists at the forefront of these developments to report on this rapidly progressing field, including new advances in laboratory techniques, field studies and future prospects.

13. Freshwater mussel conservation: Pathways for recovery in the Great Lakes Basin

Organizers:
Dave Zanatta (zanat1d@cmich.edu)
Daelyn Woolnough (wooln1d@cmich.edu)

Freshwater mussels (unionids) have experienced significant declines in the Great Lakes Basin. The unionids in the region (50+ species) continue to endure invasive species, acute toxic contaminants, chronic effects of agriculture, habitat alteration, and urbanization. This special session will bring together researchers from the Great Lakes Basin and beyond to speak on the conservation status, ecology, toxicology, and genetics of these important sentinels of the benthic community. The state of conservation science and knowledge on unionids has expanded greatly since the invasion of dreissenid mussels. As such, this session will give rise to discussion of synergistic basin-wide strategies for the recovery of species and habitats.

14. Population and economic growth versus biodiversity conservation

Organizers:

Bob Hughes (hughes.bob@epa.gov)
Jerry Mead (jvmead@gmail.com)

Aquatic ecologists are increasingly relating the condition of aquatic ecosystems to land use and landscape-scale stressors, but ecological economists and global ecologists view economic and population growth as the root causes of ecosystem impairment. At the

same time, local planning agencies are trying to stimulate economic and population growth via increased urban development and employment opportunities. At state and national scales, governments view economic and population growth as desirable if not essential. An initial set of speakers in this session will document linkages between economic/population growth and the impairment of aquatic ecosystems. Other speakers will offer alternatives to economic and population growth, discuss the limits of technological improvements and research, and suggest optional indices for monitoring quality of life. A brief panel discussion will follow the formal presentations.

15. Integration and Application of Watershed Research

Organizers:
Jan Stevenson (rjstev@msu.edu)
Mike Wiley (mjwiley@umich.edu)

Watershed-scale research is critical for understanding and managing interactions between humans and aquatic ecosystems. Integrating results of the research in ways that can inform management can be challenging. This session will focus on research that addresses watershed scale patterns, and how different elements of the research have been related and translated into forms that can be used in watershed management.

Workshops

Quantifying Transient Storage and Hyporheic Exchange using Tracer Techniques and the OTIS Solute Transport Model
Sunday, May 17, 2009
10:00 am - 3:00 pm

Tracer techniques and solute transport models are frequently used to quantify the temporary detainment of solutes in hyporheic and surface storage zones. The physical process of "transient storage" has implications for nutrient cycling as the storage process affects residence time and the extent of biogeochemical processing. This 4-hour workshop provides an overview of OTIS (One-dimensional Transport with Inflow and Storage), a solute transport model that is often used to quantify transient storage. The workshop will provide a step-by-step "how-to" on the use of OTIS to estimate transient storage parameters based on tracer data. Emphasis will be placed on fundamental concepts such AS experimental design, data evaluation, transport processes, and parameter estimation (due to time constraints, "hands on" computer exercises will not be part of the workshop). Beginner and intermediate model users are encouraged to attend. Participants should read the OTIS documentation and have a conceptual understanding of transient storage prior to the workshop. Additional information on OTIS is available at http://co.water.usgs.gov/otis/.

The workshop will be presented by Rob Runkel, a Research Hydrologist at the U.S.

Geological Survey in Denver Colorado. Rob holds an MS in Computer Science (Minnesota State U., 1985), MEM in Water Resources Duke U., 1987), and a PhD in Environmental Engineering (U. Colorado, 1993). Rob lives in Boulder Colorado with his wife and two young daughters. He enjoys running, mountain biking, snow boarding and attending NABS meetings.

Mayfly Taxonomic Workshop

Sunday, May 17, 2009
9:00 am - 5:00 pm

Bob Waltz and Steve Burian will be leading this exciting Mayfly taxonomy workshop this year in Grand Rapids. The workshop will consist of an overview of current Mayfly taxonomy, and other topics relating to the dynamic world of mayflies, with a special emphasis on Baetidae. The workshop is still in the planning phase, as far as which specific topics to be covered, but it will definitely be a great workshop. Microscopes will be available in which participants can view specimens and ask the specialists for assistance with any difficult specimens.

Participants are strongly encouraged to bring specimens to the workshop and receive assistance with them from Bob and Steve. If you are wondering if certain things will be covered, you are encouraged to contact Bob Waltz (rwaltz@purdue.edu) or Steve Burian (burians1@southernct.edu) directly. We are hoping to expand the available seating to 40 participants, as this will surely be a popular workshop.

Bob Waltz is a native Hoosier from Indiana. He enjoys the outdoors, hiking, photography, and midwestern trout (small mouth bass). Throughout his career Bob has maintained a specialized interest in small insects including springtails, featherwing beetles (Ptiliidae), and baetid mayflies. Bob is located at Purdue University where he is a Research Full Professor in the Department of Biochemistry, serving as Department Head and State Chemist for the Office of Indiana State Chemist. Bob and his wife Nancy live in West Lafayette, Indiana. He is the author of more than 80 refereed journal articles on the taxonomy of insects and currently is senior author of the jointly authored Mayfly chapter with Steve Burian, in the Merritt, Cummins and Berg 's - An Introduction to the Aquatic Insects of North America (4th Edition).

Steve Burian, originally from Springfield, Massachusetts (the one, true home of the Simpson's) considers himself a Mainer at heart. He enjoys the traditional forms of biological illustration and loves to search for aquatic insects that no one has seen in 70+ years just to prove that they are still out there. In his professional career he has sampled pretty much the full range of aquatic habitats from Florida to the Lower Canadian Arctic. Much of his work has focused on questions of mayfly diversity (systematics), distribution, and ecology. Over the past 20 years he has developed a strong collaborative relationship with Canadian aquatic entomologists. The area of New England and Atlantic Canada is of particular interest concerning mayflies, but recently he has been investigating the spotty distribution of *Nepa apiculata* as well. Currently, he is a professor of aquatic biology in the biology department of Southern Connecticut State University, New Haven, CT. His recent publications include a contribution to Gene

Likens Encyclopedia of Inland Waters on mayflies, work on the life history of *Baetis bundyae* with Donna Giberson and Mike Shouldice, and chaper-11 on Mayflies with Bob Waltz in the 4th ed. of An Introduction to the Aquatic Insects of North America by Merritt, Cummins, and Berg (eds.).

Understanding the ecology of ecotoxicology in benthic research applications
Applying the ecology of ecotoxicology to benthic research

Sunday, May 17, 2009
9:00 - 5:00 pm

This 8-hour workshop will introduce the basics of ecotoxicology and how these tools can be applied in a research setting. This "hands-on" workshop will begin by introducing EPA acute and chronic test methods, EPA recognized freshwater and sediment test organisms, and how EPA methods are standardized among laboratories. We will explore the Whole Effluent Toxicity test procedures (EPA 2002 protocol) and the development of these tests following the passage of the Clean Water Act of 1972. We will discuss the use of several different test organisms in aqueous tests (e.g. *Ceriodaphnia dubia*, *Pimephales promelas*, and *Daphnia magna*) and sediment tests (e.g. *Hyalella azteca*, and *Chironomus tentans*). Participants will handle some of these organisms; learn test setup and duration, and statistical analyses. An introduction to freshwater sediment testing will include acute and chronic test setup and endpoints, EPA recognized test organisms, and sediment test applications.

Following the introductory session, participants will explore variations of these standard methods and learn how ecotoxicological studies can be applied to individual research projects outside of a regulatory context. Case studies of laboratory and *in situ* exposures will allow the scientist to make research applications using toxicological methods adapted from EPA standard methods. Field and microcosm approaches that have been developed to examine effects of contaminants on population-, community-, and ecosystem-level responses will be presented. These assessments at higher levels of biological organization will focus on understanding benthic community responses to multiple stressors. We will highlight limitations of single-species toxicity tests for predicting effects of contaminants on benthic organisms and demonstrate how basic ecological concepts can be combined with traditional laboratory techniques to assess effects. We will examine single and multiple compartmental models that have been developed to quantify uptake and transfer of contaminants within benthic food webs. We will give special consideration to several classes of new and emerging contaminants (e.g., endocrine disrupters, pharmaceuticals) known to impact aquatic ecosystems. The course will be presented within the context of ecological risk assessment and demonstrate how laboratory toxicity tests and field data collected from benthic communities can be integrated to measure ecologically realistic contaminant effects.

The basic hands-on skills acquired in this workshop will broaden the knowledge of participants and increase the research tools available for their research applications. We hope to enlighten participants regarding the fundamental principles of ecotoxicology and demonstrate how these ideas can be applied to predict contaminant effects on benthic communities.

This workshop will be presented by:

Jennifer L. Bouldin, PhD, is an Assistant Research Professor and Director of Arkansas State University's Ecotoxicology Research Facility. Her research incorporates standardized US EPA toxicity testing for the detection of aqueous contaminants, new product testing, pesticide interactions, and aquatic toxicity and food chain transfer of nanoparticles. She also studies the interaction of agricultural-associated contaminants with indigenous aquatic plant communities, use of wetlands and agricultural ditch systems for contaminant mitigation, and water quality and quantity concerns in the Mississippi Delta. Through the Ecotoxicology Research Facility she conducts Whole Effluent Toxicity workshops for wastewater treatment managers, regulators, permit writers, and consultants.

Donna R. Kashian, PhD, is an Assistant Professor at Wayne State University and a visiting scientist at NOAA's Great Lakes Environmental Research Laboratory. Her research has covered a diverse array of topics within ecotoxicology including examining the effects of wastewater effluent in the Great Lakes, investigating sub-lethal responses of Daphnia to toxaphene, developing a water quality biological monitoring program for Yellowstone and Grand Teton NP, examining the impacts of metals and ultra violet radiation on benthic stream communities, and developing a novel screen for chemicals classified as endocrine disrupters. Her research is driven by her belief in the need to promote the importance of the interrelationships between earth system processes, biota, human systems, and contaminants.

William H. Clements, PhD, is a professor in the Department of Fish, Wildlife and Conservation Biology at Colorado State University. His research interests incorporate basic aquatic ecology and ecotoxicology. He is the co-author on a recent book, Ecotoxicology: A Comprehensive Treatment, which examines ecological responses to contaminants across a range of hierarchical levels. Will's research has focused primarily on understanding how benthic macroinvertebrate communities are affected by natural and anthropogenic stressors. By integrating biomonitoring studies with field and microcosm experiments, he and his students have attempted to understand the basic ecological effects of contaminants on benthic communities. This includes assessments of recovery from fire disturbance, quantifying interactions between natural and anthropogenic stressors, and measuring abiotic factors that influence contaminant bioavailability. Will is also an active NABS member, previously chairing the Executive Committee and currently serving as an Associate Editor for JNABS.

Graduate Student Workshop: Exploring local ecosystems around the Great Lakes region

Sunday, May 17, 2009
8:00 - 5:00 pm

At the 2009 NABS meeting in Grand Rapids, the Graduate Resources Committee is

hosting a workshop for graduate students that will explore local ecosystems around the Great Lakes region. The workshop will begin with a presentation by Dr. Alan Steinman, director of Grand Valley State University's Annis Water Resources Institute (AWRI). Next, we will travel to Muskegon for a tour of AWRI and an educational cruise on Muskegon Lake. Finally, we will spend the afternoon hiking on local dunes and learning about their ecology.

Taxonomy Fair

The Technical Issues Committee has scheduled the 11th annual taxonomy fair for the conference in Grand Rapids. At the current time we have 8 dedicated experts willing to provide their time to help the membership with difficult specimens and confirmations for reference collections. In addition, we expect that a local aquatic specialist from the Michigan area will be present for this taxonomy fair to serve as a regional generalist. We have contacted and hope to add several other taxonomists for other groups, but are open to suggestions. Contact Bobby Louque (Robert.Louque@durhamnc.gov) for details and suggestions. **Start gathering your specimens together for this event now**. Remember that you can bring specimens in alcohol on an airplane if you follow the rules and regulations. Please check with your local airport for details as they might change, but in general have specimens in vials with less that 15 ml of EtOH in clear ziplock bags.

Taxonomist	Affiliation	Group	Phone	E-Mail Address
Charles Watson	Independent Consultant	Chironomidae	513-569-7405	procladius@aol.com
Ed DeWalt	Illinois Natural History Survey	Stonefly nymphs and adults	217-244-7515	edewalt@inhs.uiuc.edu
Mike Floyd	U.S. Fish & Wildlife Service - Kentucky	Caddisflies	502-695-0468	mike_floyd@fws.gov
Donald Klemm	USEPA-Cincinnati	Hirudinea (leeches)	513-569-7090	klemm.donald@epa.gov
Steve Burian	Southern Connecticut State University	Mayflies	203-392-6212	burians1@southernct.edu
Bob Waltz	Purdue University	Mayflies	765-494-1492	rwaltz@purdue.edu
D. Christopher Rogers	EcoAnalysts, Inc	Crustacea (including crayfish)	530-406-1178	crogers@ecoanalysts.com
Mark Wetzel	Illinois Natural History Survey	Oligochaeta	217-244-2108	mjwetzel@uiuc.edu

Meeting Schedule

Saturday, 16 May 2009

Finance Committee Meeting	5:00 pm – 8:00 pm
Endowment Committee Meeting	7:00 pm – 9:00 pm

Sunday, 17 May 2009

Editorial Board Meeting	7:00 am – 9:00 am
Workshops (see Workshop section for specific times)	8:00 am – 5:00 pm
Executive Committee Meeting	9:00 am – 12:00 pm
Box Lunches	12:00 pm – 1:00 pm
Executive Committee and Committee Chairs Meeting	1:00 pm – 4:00 pm
Registration	1:00 pm – 7:00 pm
Exhibitor Setup	4:00 pm – 7:00 pm
Dinner on Your Own	5:00 pm – 7:00 pm
2009 Meeting Welcome:	7:00 pm – 11:30 pm
Presidential Address	
Awards	
Keynote	
NABS 2010 Presentation	
Welcome Mixer	

Monday, 18 May 2009

Registration	7:00 am – 5:00 pm
Exhibitors	8:00 am – 5:00 pm
Taxonomic Certification	8:00 am – 5:00 pm
Plenary Session	8:00 am – 11:30 am
Lunch on Your Own	11:30 am – 1:30 pm
Committee Meetings/Box Lunches included	12:00 pm – 1:00 pm
Poster Setup	1:30 pm – 5:00 pm
Contributed and Special Sessions	1:30 pm – 3:15 pm
Break	3:15 pm – 3:30 pm
Contributed and Special Sessions	3:30 pm – 5:15 pm
Dinner on Your Own	5:15 pm – 8:00 pm
Endowment Reception	5:30 pm – 7:00 pm
Graduate Student/Mentor Mixer	6:30 pm – 8:00 pm
All Society Mixer	8:00 pm – 11:30 pm

Tuesday, 19 May 2009

Registration	7:00 am – 5:00 pm
Poster Setup	7:00 am – 12:00 pm
Exhibitors	8:00 am – 5:00 pm
Contributed and Special Sessions	8:00 am – 10:00 am
Break	10:00 am – 10:15 am
Contributed and Special Sessions	10:15 am – 12:00 pm
Lunch on Your Own	12:00 pm – 1:30 pm

Poster Session	1:30 pm – 4:30 pm
Taxonomy Fair	1:30 pm – 4:30 pm
5K Fun Run	5:30 pm – 7:30 pm
All Society Mixer	8:00 pm – 11:30 pm
GRC Auction	8:30 pm – 9:30 pm

Wednesday, 20 May 2009

Registration	7:00 am – 5:00 pm
Executive Committee Breakfast	7:00 am – 8:00 am
Poster Takedown	7:00 am – 12:00 pm
Exhibitors	8:00 am – 5:00 pm
Contributed and Special Sessions	8:00 am – 10:00 am
Break	10:00 am – 10:15 am
Contributed and Special Sessions	10:15 am – 12:00 pm
Membership Lunch and Business Meeting	12:00 pm – 2:00 pm
Contributed and Special Sessions	2:00 pm – 3:45 pm
Break	3:45 pm – 4:00 pm
Contributed and Special Sessions	4:00 pm – 5:30 pm
Society Banquet and Entertainment	6:00 pm – 11:30 pm
End of Silent Auction	

Thursday, 21 May 2009

Registration	7:00 am – 5:00 pm
Exhibitors	8:00 am – 12:00 pm
Contributed and Special Sessions	8:00 am – 10:00 am
Break	10:00 am – 10:15 am
Contributed and Special Sessions	10:15 am – 12:00 pm
Lunch on Your Own	12:00 pm – 1:30 pm
Exhibitors Takedown	12:00 pm – 5:00 pm
Contributed and Special Sessions	1:30 pm – 3:15 pm
Break	3:15 pm – 3:30 pm
Contributed and Special Sessions	3:30 pm – 5:15 pm

Friday, 22 May 2009

Excursions (see Post-Meeting Excursions for details)

Local Arrangements

About Grand Rapids

The Grand River serves as a backdrop for the city of Grand Rapids. To early settlers, the attraction of the local region was a seemingly endless supply of trees for lumber and water for power. Today, Grand Rapids is a large and lively metropolitan area. Located in west Michigan, Grand Rapids is the second largest city in Michigan with a population of nearly 200,000. In addition, Grand Rapids has been recently named one of the greenest cities in the United States (http://www.fastcompany.com/magazine/129/new-urban-eco-nomics.html). The downtown offers a wide array of restaurants, clubs, pubs, museums, dancing, and eclectic neighborhoods. Regional attractions include the Meijer Gardens and Fifth Third Ballpark, home of the West Michigan Whitecaps baseball team.

The glacial geology and climate conspire to produce aquatic systems that range from small coldwater streams to the Great Lakes, all within a 45 minute drive. Most NABS members should be able to find their favorite habitat within the local region.

For Additional Visitor Information:

Kent County Convention and Visitor Bureau (www.MeetGrandRapids.com)
171 Monroe Avenue NW
Suite 700
Grand Rapids, MI 49503-2694
800-678-9859

A great website with lots of general information is available at www.grnow.com.

Climate

May in west Michigan is generally mild with average high temperatures of 21^{o} C (69^{o} F) and average lows of 8^{o} C (46^{o} F), but the weather can be a bit unpredictable with the record low temperature of -5^{o} C (23^{o} F) and high of 34^{o} C (94^{o} F).

Conference Venue

NABS 2009 will be held in the historic Pantlind section of the Amway Grand Plaza (www.amwaygrand.com). This classic turn of the (19th) century structure offers a hint of elegance not seen in most modern conference centers. The Presidential Address, Awards presentations, plenary talks, mixers, poster session, and society banquet will be held in the Ambassador Ballroom. Concurrent sessions will be convened in the Pantlind Ballroom, Imperial Ballroom, Presidential Ballroom, Governors Room, Vandenberg Room A and Vandenberg Room B, all conveniently located to the Ambassador Ballroom. Most other NABS functions also will be located in the Amway Grand.

Accommodations

The Amway Grand Plaza has reserved a block of 335 rooms (singles and doubles are $127/night, triples and quads are $137/night) for NABS 2009. We hope that conference participants will enjoy the convenience of having the conference venue and hotel accommodations in the same facility. Each room has free high-speed internet and guests have access to the fitness center for a small daily fee, although we are working to have the fee waived for NABS participants. In addition to several casual and fine dining options within the hotel, the Amway Grand is within walking distance of a wide array of restaurants, clubs, pubs, museums, and the YMCA. Make lodging reservations by calling the Amway Grand Plaza Hotel (800-253-3590) and ask for the NABS special room rate.

Dorm housing is available at Grand Valley State University for $40-64 per night. Please register for these rooms under the registration page. You will pay for the room when you arrive at the conference.

Other Accommodations

There are other hotels in and around Grand Rapids but some would require you to provide your own transportation to and from the conference. Please note that booking with the Amway Grand will help offset the cost of the conference facility.

Airports

Gerald R. Ford International Airport (GRR) www.GRR.org
The Gerald R. Ford International Airport is a 20 minute drive from the Amway Plaza. Airlines that serve GRR include American, Northwest, United, and Delta. Commercial shuttles and taxis are available at the airport.

Detroit Metro Airport (DTW) www.metroairport.com
Distance from Grand Rapids: 2.5 hour drive.

Capitol City Airport (LAN) www.flylansing.com
Distance from Grand Rapids: 1.5 hour drive.

Chicago O'Hare International Airport (ORH) www.ohare.com
Distance from Grand Rapids: 3 hour drive.

Train Service

AmTrak serves Grand Rapids from Chicago and Detriot. NABS members traveling to Grand Rapids from either Chicago or Detroit will receive a 10% discount on AmTrak fares. Traveling by train will help reduce our carbon footprint. www.amtrak.com

Interstate Connections

Grand Rapids is accessible from Chicago via I-196, from Detroit on I-96, and from Kalamazoo, MI on I-131.

Boat Service

The Lake Express is a large high-speed car ferry that runs from Milwaukee, Wisconsin to Muskegon, Michigan. Travel time across Lake Michigan is approximately 1.5 hours. Drive time from Muskegon to Grand Rapids is 45 minutes. www.lake-express.com

Downtown Grand Rapids Parking

Downtown Venues

DeVos Place Convention Center
303 Monroe Ave NW

Van Andel Arena
130 W Fulton St

Downtown Hotels

Amway Grand Plaza Hotel
187 Monroe Ave NW

Courtyard by Marriott Downtown
11 Monroe Ave NW

Days Hotel Downtown
310 Pearl St NW

JW Marriott
235 Louis St NW

Downtown Parking Facilities

A. DeVos Place Ramp
B. Government Center Ramp
C. Ellis Midtown Ramp
D. Monroe Center Ramp*
E. Ottawa Fulton Ramp
F. Louis Campau Ramp
G. Amway Grand Plaza Ramp
H. Scribner Lot
I. Area 8
J. JW Marriott Ramp

* Sixty minutes free parking if you enter before 6:00pm

Prices

A. $1.00/half hour - $10.00 max
$7.00 evening rate after 5 pm
B. $1.00/half hour - $10.00 max
$7.00 evening rate after 5 pm
C. $2.00/half hour - $14.75 max,
$9 evening rate after 5pm
D. $1.00/half hour- No Max
E. $1.00/half hour - $9.00 max
$7.00 evening rate after 5 pm
F. $1.00/half hour - $9.00 max
$7.00 evening rate after 5 pm
G. $3.70/hour - $14.00 max 6:00am-5:30pm
$10.00 max 5:30-2:00pm; $20 overnight
H. $3.00 coin - $5.00 max event rate
I. $2.00 coin - $5.00 max event rate
J. $3.70/hr. $14/day $20 max.

(Rates effective as of July 1, 2008)

Grand Rapids
Michigan's West Coast

Grand Rapids/Kent County
Convention & Visitors Bureau
171 Monroe Ave NW, Suite 700
Grand Rapids, MI 49503
(616) 459-8287
(800) 678-9859

Special Activities

5K Fun Run

The annual NABS 5K Fun Run will take place Tuesday, 19 May 2009 at 5:30 pm. The run will take place at Riverside Park in Grand Rapids, along the bank of the Grand River. Look for details on the registration form.

Post-Convention Excursions

Coastal Ecology of West Michigan

Friday, May 22

The Muskegon River watershed is Michigan's second largest watershed, covering 7,060 km^2 from Houghton Lake in north-central Michigan to the city of Muskegon on the state's western shore. Before the 352 km-long river empties into Muskegon Lake and Lake Michigan, however, it broadens, slows down, and snakes its way through an expansive (26 km^2) wetland system. Join us for a full day of exploration in this system, beginning with a tour of the wetland system in the morning and spend the afternoon on Muskegon Lake and Lake Michigan. Or, choose a half-day excursion in either the wetland or lake environment.

A) Wetland Kayak Tour: The best way to explore this complex system of braided channels, backwater pools, mudflats, and flooded forests is by quietly slipping along in a kayak. Join us on a 2-3 hour paddling tour of this unique Michigan ecosystem where you will have an opportunity to observe flora and fauna that call this wetland their home. The majority of the trip will be on slow-flowing and flat water so only basic paddling skills are required. Equipment and lunch will be provided.

B) Muskegon Lake/Lake Michigan Cruise: We will embark Grand Valley State University's research vessel, the *W.G. Jackson*, for a leisurely 3-hour cruise on Muskegon Lake and Lake Michigan. Muskegon Lake is a drowned-river mouth lake, with a surface area of 17 km^2. Despite impairments from past industrial activities and present-day stressors, Muskegon Lake boasts high quality fishing and recreational opportunities. It also serves as an important habitat corridor joining Muskegon River and Lake Michigan. The tour will continue through the Muskegon channel to Lake Michigan, where you will get exceptional views of west Michigan's coastal dunes. Along the way, we will look at the benthic community and discuss the unique limnological features of this system. Lunch will be provided.

Cost: Kayak trip only $55; Lake cruise only $30; Full day kayak trip plus lake cruise $75
Limit: 20 people; must have 10 person minimum for lake cruise

Birding West Michigan
Friday May 22

West Michigan is a major spring migration corridor for many bird species. Join Ottawa County Parks Naturalist Chip Francke for this trip to some of the area's birding hot spots including locations along the Lake Michigan shoreline and the Muskegon Wastewater Facility. A good number of migrant waterbirds, shorebirds and passerines should be seen as well as resident birds. If you have questions on specific species, contact Chip at lfrancke@miottawa.org. The excursion will leave early in the morning for a full day in the field. There will be a short lunch break around noon at a local watering hole.

Cost: $25
Limit: 14 people

Digital photography for aquatic enthusiasts (1-day workshop)
Friday, May 22

Hosted by Freshwaters Illustrated, this workshop is designed for beginning to intermediate photographers who want an aquatic-oriented introduction to photo theory and principles, shooting/editing techniques, and digital workflows. More details at: http://www.freshwatersillustrated.org/photoI.html

Cost: $75
Limit: 30 people

Advanced photo techniques for aquatic enthusiasts (2-day workshop)
Friday, May 22 – Saturday, May 23

Hosted by Freshwaters Illustrated, this workshop is designed for beginning to intermediate photographers who want a more comprehensive immersion in the process of natural history shooting and digital photography. More details at: http://www.freshwatersillustrated.org/photoII.html

Cost: $140
Limit: 30 people

Additional Activities

Salmon Fishing on Lake Michigan:
Spring salmon fishing on Lake Michigan is outstanding, and we have reserved the morning of May 22 aboard the Thunderduck (www.thunderducksportfishing.com) captained by Willis Kerridge. Captain Kerridge has been charter fishing for 35 years, and the Thunderduck is one of the most successful charters on Lake Michigan. Captain Kerridge fishes out of Grand Haven, MI, a 40 minute drive from Grand Rapids. This trip

is limited to 6 so make your reservations early. Reservations can be made through email (thunderducky@hotmail.com) or by calling Captain Willis directly at (616) 292-4113. Additional charters can be reserved if more than 6 wish to participate. Approximate cost will depend on the total number of reservations, but should be between $110.00 and $120.00 for six hours. You will also need to purchase a 1 day Michigan fishing license for $7.00. The deadline for signing up for this trip is February 15, 2009.

Trout fishing in local streams and rivers:

Several local streams and rivers offer exceptional fishing during mid-May. Trout fishing should be good with several hatches in progress, and some rivers should still hold steelhead. If you wish to book a guided trip, we encourage you to contact Fred Vargas of RiverQuest Charters (fredsflies@msn.com, 231-750-5496) or contact RiverQuest Charters directly (www.riverquestcharters.com, 866-837-0440) and ask for Fred. For larger groups, RiverQuest does list four additional guides. Dates during this time of the year fill quickly, so contact them soon if you are interested in a trip. For general information regarding fishing in the local area, contact the Great Lakes Fly Fishing Co. (www.troutmoor.net, 800-303-0567). The Great Lakes Fly Fishing Co. also offers fishing and instructional classes on the Rogue River, which supports a healthy trout fishery.

Green Meeting Initiative

Each year the NABS annual meeting is a great success, bringing people together from all over the world to share ideas and discuss future directions in benthic science. While this event is a great benefit to the scientific community, it does come at a cost to the environment. We have adopted a green meeting initiative for the 2009 meeting to move NABS forward toward greater sustainability. As a United Nations-recognized Center of Expertise in Sustainability, Grand Rapids is a great location for this initiative, with more LEED-certified buildings per capita than any other city in the US and city vehicles that use alternative fuels. In addition to sustainability practices already in place at the conference venue, we are planning several other measures for the greening of NABS.

1) Carbon offsets – Plans are being developed to help offset the greenhouse gas emissions associated with the meeting. We are currently considering voluntary donations toward a local tree-planting. Look for more information on the registration form.

2) Reduce, reuse, recycle! – We are making every effort to reduce the amount of waste generated at the meeting, for example through the use of reusable china and composting food waste. Unavoidable waste will be recycled whenever possible. We are distributing reusable water bottles with the registration materials that can be refilled throughout the meeting. In addition, **we are not providing a tote bag with registration**. Please, reuse your favorite bag from a previous year!

We are excited about making NABS a greener meeting!

Student Presentation Awards for 2009

NABS offers 7 merit awards (2 of which are book donations) for student presentations.

Award 1 -- Best oral presentation (Basic Research); $400 cash award + 1 book + registration costs for the 2009 NABS meeting
Award 2 -- Runner-up oral presentation (Basic Research); $250 cash award + 1 book + registration costs for the 2009 NABS meeting
Award 3 -- Best oral presentation (Applied Research); $400 cash award + 1 book + registration costs for the 2009 NABS meeting
Award 4 -- Runner-up oral presentation (Applied Research); $250 book certificate + registration costs for the 2009 NABS meeting
Award 5 -- Best poster presentation (Basic Research); $250 cash award + 1 book + registration costs for the 2009 NABS meeting
Award 6 -- Best poster presentation (Applied Research); $250 book certificate + registration costs for the 2009 NABS meeting
Award 7 -- Best methodology presentation (oral or poster); $250 cash award + 1 book + registration costs for the 2009 NABS meeting

Current sponsors for the awards are **Frigid Units, YSI, Hach/Hydrolab; Camp Dresser and McKee, Elsevier/Academic Pres,; Commonwealth Biomonitoring, Ben Meadows (Safety First), BioQuip, and University of California Press.**

For each of the 7 student award winners at the 2009 meeting, the NABS registration fee will be covered for the next meeting (i.e., 2010). It is incumbent on the 2009 award winners to attend the next meeting - the registration fee waiver is intended as an incentive for the award winners to attend so they can actually receive their award certificates in person at the 2010 Business Meeting.

Eligibility criteria:

The research must have been conducted while the entrant was a graduate or undergraduate student.
The research must not have been published prior to December 31, 2007.
The entrant must have been enrolled during the 2007-2008 academic year.
The student must be the senior author and present the paper.
Oral presentations must be given during the normal, 15-minute contributed or special sessions.
A student may enter and thus receive an award for only one presentation in any one year.

How to apply?

How to Apply for an Award Competition: While submitting your abstract at http://nabs.confex.com/nabs/2009/cfp.cgi, simply select the award category in which you

want to compete. For additional information regarding student awards, contact Peggy Morgan, telephone 813-238-4594 or email pegrat307@msn.com.

Annual Meeting Contacts

Mark Luttenton (Local Arrangements Committee chair): luttentm@gvsu.edu
Al Steinman (Program Committee chair): steinmaa@gvsu.edu