

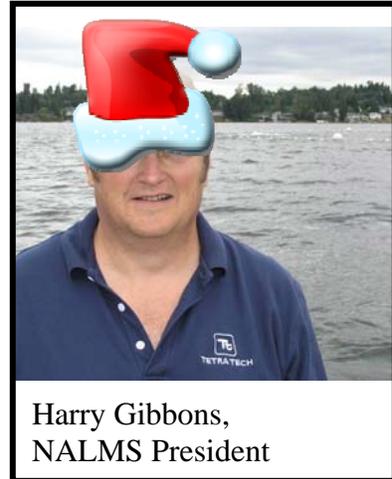
# 2009 NALMS e-Newsletter



## December

### **President's Message – NALMS is here to stay and we will grow!**

Well, this is my last message as the leadership of NALMS smoothly transferred in Hartford last month to Mark Hoyer. Speaking of Hartford, the 29<sup>th</sup> annual Symposium was great! If you missed it, we missed you, but try not to miss any more. They are just too good to miss! The Local Host Committee once again did a great job, and the conference was excellent and another one to remember. Sincere and special thanks to Charles Lee, Elizabeth Herron, Amy Smagula, Jeff Schloss, Philip Forsberg, and Sarah Unz. Simply put we had some fun, learned some things, shared some things, and we are of one mind ready to move NALMS forward in the promotion of lake and reservoir management. This conference was truly a great way for me to end my year as President, Thanks.



Speaking of thanks, I thank a host of NALMS members who have given to NALMS and helped me this last year, "Thank You." I wish I had space here in this newsletter to list everyone I thank; please, all of you accept this as my sincere thank you, especially, the ExCom, Board of Directors, Committees, and NALMS Staff.

Now let's move into the future and grow NALMS into an organization that has the membership numbers that will make NALMS a force to be reckoned with when it comes to lake and reservoir management. Like many of the Presidents before me, I cannot understate the need for NALMS to increase its membership. It is only through increased membership will we be in a position to achieve our mission to promote lake and reservoir management. By growing in number, we will be able to provide increased lake awareness through education. That education and awareness will enable NALMS to influence our political structure and support relative to lake management, increase direct action through awareness, increase intuitional financial support, and increase scientific understanding of what, how, where, and when to apply management technique(s) to ensure our lake and reservoir resources are preserved, enhanced, and sustainable. Also, to be financially stable we need to increase the membership numbers; that is just simple mathematics.

As I said a couple of months ago, we the members of NALMS have to take center stage and promote the management of lakes and reservoirs by promoting our profession, our science, our engineering, and our outreach. If NALMS is going to achieve its goal of promoting lake and reservoir management, we as members must develop an understanding of lake and reservoir management specifically to help contribute to the environmental policies, programs, and funding avenues necessary to protect and enhance our lakes.

Start planning now to attend our 2010 Symposium in Oklahoma City and the 2011 Symposium in Spokane. These all will be happening places to learn, exchange ideas, meet people, and of course have fun! Be there or be square!

Let's look forward and work together toward a future that brings lakes and reservoirs into the public's awareness so that we can help shape the future where lakes and reservoirs are universally recognized as the valuable resources they truly are.

Thanks,

Harry Gibbons  
President, NALMS

P.S. I am still around call me, email me, write me; let's work together to build NALMS!

## ***WITHIN NALMS***

### **Membership in Motion - Sarah Unz**

The NALMS office would like to thank attendees, sponsors, exhibitors, volunteers, and everyone else who helped to make the 2009 Symposium a success!

Sitting at the registration desk, browsing the exhibit hall, and attending sessions gave me the opportunity to meet many of you face to face for the first time. It was a pleasure to do that and to see those I have met before. I hope everyone had a chance to make some new connections and share thoughts and ideas about NALMS and lake and reservoir management during the Symposium.



In the spirit of the Symposium, I would like to suggest a gift idea to all current members. Do you know a student who would benefit from a NALMS membership? What about an intern at your company or organization? How about a lake property owner who would enjoy reading LakeLine? What about an emeritus colleague who was once a member? Or anyone who would like to be a member but who can not finance their own membership at this time? Please consider giving the gift of membership! [Simply download our membership form](#), check gift membership, fill out the rest of the form, and then send it in to the NALMS office. The recipient will receive a NALMS note card stating they received a gift membership from you and welcoming them to NALMS. Feel free to contact me if you would like to include an additional message in the note or if you have any questions or concerns about the gift membership. Bill Jones has been giving gift memberships to his students for many years, and this has proved to be a great way to connect others with NALMS.

We have our plates full here in the office and can use some volunteer help. If you have some time and the desire to help NALMS, please contact me and let me know which of the following activities you are interested in:

- Do you have lake photos you would like to share? We would like to use member photos on the NALMS website.
- Are there lake-related job opportunities in your area? Jobs can be uploaded to the NALMS website at anytime. Once they are approved, they will be published to the site. Any water resources or environmental science jobs are welcome.
- Libraries in your areas may not know about LakeLine magazine. If you are a library regular, please contact me about taking a free copy to your local library to introduce them.
- Are you a marketing professional or have experience in the marketing field? We are looking for a marketing savvy individual who can help us get the word out about NALMS.
- We have volunteer opportunities in various areas such as, government affairs, policy, education, volunteer monitoring, membership, and many others. [Please check out the committees webpage and contact a committee chair today!](#)

If your membership expires at the end of this month, you should have received an email invoice as well as a paper invoice from me. If you have not received an invoice and believe you should have, don't know when your membership expires, or have any questions or concerns regarding your membership, please feel free to contact me at 608-233-2836.

Thank you for your support and commitment to NALMS!

Take care,

Sarah  
Membership Services Coordinator

## ***UPCOMING CONFERENCES & EVENTS***

### **Highlights from the 29<sup>th</sup> Annual NALMS Symposium**

The 29<sup>th</sup> International Symposium of the North American Lake Management Society was held in Hartford, Connecticut on October 27 – 31, 2008. The theme of the symposium – *Ensuring Our Lakes' Future* – was nicely carried throughout the Symposium's sessions, workshops, and social activities.

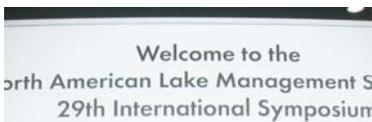
There were two half-day workshops and five full-day workshops that were well attended on Tuesday. These workshops covered a variety of lake management topics. Workshops include: nitrogen control, alum use, internal phosphorus loading, remote sensing, tools for lake and watershed management, nuisance algae, and aquatic plant identification.

The formal opening of the symposium on Wednesday included welcoming talks from NALMS and the host committee, an address by Amey Marrella, Connecticut Department of Environmental Protection, and a plenary talk by Mary C. Watzin, Dean of the Rubenstein School of the Environment and Natural Resources. With the fresh start of the Symposium, it was great to see 300+ attendees in a room ready for the week. Watzin spoke about adaptive management to deal with future lake management challenges. Changing climate, more intense agricultural practices, and ever-increasing human population are providing an accumulative impact to lake and watersheds, and lake managers need to plan for these in the future. Lake Champlain was used as an example on how adaptive management can work to tackle these complex issues.

As always, the Symposium was defined by the people and the setting. Over 450 people attended the Symposium, and the Connecticut Convention Center, overlooking the fall foliage along the Connecticut River, was a great location to focus everyone's attention on how to ensure the future of our lakes. Five concurrent sessions occurred throughout the Symposium covering such topics as modeling, fisheries management, aquatic plants, management approaches, and volunteer monitoring. Great food and company was enjoyed amongst the 49 exhibitors throughout each day. Poster presentations provided thought-provoking conversations as well during the breaks and in between over events.

Seemingly as important, the social events during the Symposium put many smiles on old friend's faces and provided a chance to exchange new business cards. Each night, attendees were encouraged to find their way to the Hospitality Room to solve world lake problems and argue about the Yankees in the World Series. The Exhibitor's Reception on Wednesday evening followed the NALMS Annual Membership Meeting and provided a great opportunity to visit the different booths. The Annual Awards and Recognition Banquet on Thursday night was enjoyed by all. Prior to the banquet, the Connecticut Science Center opened their doors after hours for a private reception just for NALMS. It is always entertaining seeing lake professionals acting like school-age children again, especially when it includes playing a hands-on, virtual fly-over activity of a familiar river.

Overall, it was a wonderful week of social connections and professional enrichment that was enhanced by the charming fall atmosphere of Connecticut. Okalahoma City is next on the list for fall of 2010, and preparations are already being made to make it a spectacular 30<sup>th</sup> annual Symposium event.



## **NALMS on Ice, Part 6.**

Hockey players within NALMS gathered for our sixth friendly game of ice hockey while in Hartford for the 29<sup>th</sup> annual symposium. As usual, a great time was had by all. Even teams were created for the event based simply on jersey color, and NALMS Dark defeated NALMS Light by a score of 9-6 at the Trinity College ice arena. It was a very even game through two periods, and exciting to the end. Thanks go to Ken Wagner for organizing and Terry McNabb for sponsoring the event. Assuming they know how to make ice in Oklahoma, we expect to play in November of 2010 at the 30<sup>th</sup> annual symposium.



## **Ohio Stormwater Conference June 10-11, 2010**

Call for Abstracts - Deadline December 10, 2009 Call for Posters - Deadline December 30, 2009

The Tinkers Creek Watershed Partners and the Ohio Stormwater Association, along with a number of collaborating partners, are hosting the 2010 Ohio Stormwater Conference.

The 2010 Conference offers a unique opportunity to directly interact with over 400 representatives from many organizations, all of whom have a direct interest in stormwater and watershed management issues and technologies. This call for abstracts is your invitation to join a broad range of professionals and be part of a dialogue addressing issues associated with stormwater and watershed management in Ohio. The presenters and attendees will include elected officials, scientists, engineers, academia, planners, governmental employees, regulators, conservationists and vendors. Professionals in state and local government, the consulting community, academia and others are invited to make presentations on case studies, research projects and current policy questions during the Conference's workshops sessions.

There are four tracks of concurrent sessions, which include:

- \* Watershed planning
- \* Stormwater and MS4 Program Management
- \* Stormwater practice, planning and design
- \* Monitoring, modeling and research

Please refer to the website for more detailed information on the tracks and submission requirements.

You can submit your abstract online at the Conference website: [http://ohioswa.com/conf\\_home.php](http://ohioswa.com/conf_home.php)

Please contact Harry Stark at [hstark@ccbh.net](mailto:hstark@ccbh.net) or at 216-201-2001 ext 1205 with any questions.

## **USA Science Fair in Washington D.C.**

Be a part of the Inaugural USA Science & Engineering Festival - host a Satellite Event in your own community!

The 2010 USA Science & Engineering Festival (USASEF), Washington, DC, October 2010, provides another great opportunity for COPUS (Coalition on the Public Understanding of Science) participants to rally together in support of science. COPUS is partnering with Festival organizers to make the event truly national in scope.

Please consider hosting Satellite Events in your own community and to connect them to the national Festival. Whether you are a part of a student club, school, university, museum or science center, community organization, or company, you have the opportunity to connect an event in your own community to the science celebration on the National Mall.

You create it, and USASEF will help you market it. Your event will be listed on the USA Science & Engineering Festival web site along with hundreds of other events taking place across the country. Anyone in the nation can check the Festival web site to see what's happening in their region on the weekend of the USA Science & Engineering Festival. It's a great way to get your community excited about science, and to put your organization on the national map. There is plenty of time to plan -- the USASEF main event will take place on October 23 and 24, 2010.

In addition, all satellite event organizers and attendees will be invited to participate in a nationwide activity that will take place at all Festival locations on the same day. For more details, go to [http://www.usasciencefestival.org/index.php?option=com\\_content&view=article&id=73:satelliteevents&catid=43:2010festival&Itemid=76](http://www.usasciencefestival.org/index.php?option=com_content&view=article&id=73:satelliteevents&catid=43:2010festival&Itemid=76).

## **Learn How to Electrofish in Kansas**

The Central Plains Center for BioAssessment has the opportunity to host electrofishing courses offered by the Northwest Environmental Training Center – either backpack shocking or boat shocking. 12 people need to sign up for a class for it to be offered. The classroom portion will be in the conference room at the Kansas Biological Survey (Lawrence, Kansas), and the field portion at Clinton Lake. These three-day courses are intended to meet the National Marine Fisheries Service (NMFS) training requirements for electrofishing field staff, and each also provides 2 units of continuing education.

If you are interested, please contact Debbie Baker at [dbaker@ku.edu](mailto:dbaker@ku.edu).

## **Freshwater Fish Identification in California**

Freshwater Fish Identification Biology, Ecology, and Morphology Course  
February 24 - 25, 2010, 8:30 A.M. to 5 P.M., Sacramento Public Library

This course provides the basics for identification of adult and juvenile freshwater fish with an emphasis on those species found in California. Starting with an overview of the ecology of native and introduced species, the course will provide participants with the ability to identify species commonly captured in freshwater environments. The course will emphasize fish identification through morphology and habitat preferences, as well as traditional methods (e.g., dichotomous keys). The course will provide participants with two days of in-class identification experience as well as an opportunity to collect and identify fish in the field during scheduled field visits.

For more information: [http://nwetc.org/bio-403\\_02-10\\_sacramento.htm](http://nwetc.org/bio-403_02-10_sacramento.htm)

## ***AFFILIATE TALK***

To foster better communication amongst the diverse group of NALMS Affiliates, this section will feature a monthly topic or question which may be of interest to many affiliates. The goal is to help affiliate groups learn from each other, be more efficient with their time and resources, and better manage our lakes and reservoirs.

***Debris Removal:*** Are there best management practices in use to manage, contain, and remove large amounts of debris from lakes and reservoirs that see heavy public recreational use?

A system of two reservoirs in Virginia used for hydropower and recreation have a major issue with debris and have studied this problem significantly. The conclusions of the Appalachian funded debris study showed that the primary sources of debris are the Roanoke, Blackwater, and Pigg Rivers upstream of the Project reservoirs (Smith Mountain Reservoir and Leesville Lake). The vast majority of debris entering the Smith Mountain Project consists of natural materials. Debris inputs are positively correlated to flow and after major storm events, debris rafts covering large areas are present. Amounts of debris can be substantial, during high inflow years and following major storm events, resulting in work crews removing thousands of tons of debris, per year. Debris represents both a boating and in-water recreation hazard at the Smith Mountain Project. The study also concluded that debris diversion and collection methods are viable on a large scale basis when the appropriate conditions exist.

Please send your thoughts and suggestions to Bill Brush at 540-721-4390 or [bill@brushsml.com](mailto:bill@brushsml.com).

## **Affiliate Websites – Check out this one**

A great way to see what other affiliates are doing is to check out their websites and see what they are up to and how fancy their web pages are.

Indiana Lake Management Society (ILMS) – [www.indianalakes.org](http://www.indianalakes.org)

ILMS is a great website full of current and useful information about lake management in the state of Indiana. Even though the site was full of information, ILMS decided it was time to freshen up the look. An updated site was recently launched. The two most important elements to an updated website is that 1. It remains updated frequently or else people will not go back to it and 2. It is easy to read - which means not too busy, easy to navigate, and plenty of great pictures.

## ***LAKE NEWS & INFORMATION***

### **The Origins of Ice Skating on Lakes?**

Archeological evidence shows that humans have been skating on lakes for at least the last four thousand years, using animal bones as blades. Now Dr. Federico Formenti, from The University of Oxford, thinks he knows where the activity originated. Dr. Formenti studies human physiology and started his work by looking at how efficient ancient skates would have been. To his surprise, skating on early bone skates turns out to be very inefficient, so would only have been used in places where there was a large number of lakes, since walking across icy lakes would be quite dangerous. So Dr. Formenti picked out places



where there were lots of lakes that would freeze during the winter and where there was archeological evidence to suggest skating could have occurred. Then, using a computer model, he looked to see where it would be most beneficial to skate rather than walk around the lakes. Far and away, southern Finland seems to have been the most likely site for skating to originate.

### **Giant Snakes Threaten Ecosystems**

Introduced giant constrictor snakes pose major risks to ecosystems in the United States. Already in South Florida, breeding populations of boa constrictors and Burmese pythons have become established and appear to be spreading. Other constrictor snakes caught in the wild include anacondas and other python species. These non-native snakes are likely to thrive in suitable environments because they mature early, produce many young, travel long distances, and can eat native birds and mammals. Adequate control tools have not been established, although several are being tested. A new USGS report documents the occurrence of these snakes, the potential for further invasion, and ecosystem risks in the United States. For more information, including the full report, pictures and video, check out the [USGS Newsroom](#). Contact Catherine Puckett at [cpuckett@usgs.gov](mailto:cpuckett@usgs.gov) or (352) 264-3532 for more information.

### **United States Using Less Water Today**

The United States uses less water today than it did 35 years ago, despite a 30 percent population increase. Declines in water use are partly attributable to alternative cooling methods at power plants and more efficient irrigation systems. According to the latest USGS water use report, nearly half of all water used in the United States goes to cooling thermoelectric power plants. Irrigation accounts for 31 percent. Eleven percent of water is used for public supply, and the remaining 9

percent is used for industrial, livestock, aquaculture, mining, and rural domestic uses. For details, listen to episode 108 of the [USGS Corecast](#) or check out the [full report](#). For more information, contact Susan Hutson at [sshutson@usgs.gov](mailto:sshutson@usgs.gov) or (901) 246-5330.

## **Collaborative Watershed Initiative to Protect and Preserve Lake Health**

Town of Delavan, WI - The Delavan Lake Sanitary District (DLSD) and the Kettle Moraine Land Trust (KMLT) are pleased to announce the launch of a collaborative watershed improvement and mitigation project for Delavan Lake – the Delavan Watershed Initiative 2030. This multi-year partnership is aimed at reducing the contaminated runoff entering Delavan Lake.

Over 20 years ago a group of dedicated lake advocates from local, State, and Federal organizations and agencies came together to accomplish a major rehabilitation project for Delavan Lake. Upon the completion of this \$7 million project the commitment was made to put major effort into addressing the source of pollutants and sediments which were and are degrading the lake. The Delavan WIN 2030 project represents that commitment.

Many groups in the Delavan Lake community have recognized that until pollution coming into the lake is addressed at its source, we will be continuing to treat symptoms rather than working toward a sustainable cure. The DLSD understands the challenge, and decided to take the lead in contracting with KMLT to launch this watershed project.

This watershed project will involve identification of watershed pollution sources, education about the range of potential solutions, and bringing land owners, tenants, and funding sources to the table to implement those solutions.

The KMLT is currently searching for an experienced professional to manage the effort. For more information about this project, contact Jerry Petersen, President, Kettle Moraine Land Trust at (262) 742-2367, [garwood2@elknet.net](mailto:garwood2@elknet.net) or Gail Swaine, Administrator, Delavan Lake Sanitary District at (262) 728-4100, [gail@dlsd.org](mailto:gail@dlsd.org).

## **Rocky Mountain National Park Lakes**

Airborne nitrogen pollution from vehicle exhaust and farm fertilizer is creating an algae issue in the alpine lakes of Rocky Mountain National Park. A similar phenomenon is occurring in Sweden and Norway, according to the study of about 90 high-elevation lakes that is now published in the journal Science.

Arizona State University professor James Elser, the study's lead author, said the effect of airborne nitrogen on once-pristine lakes is greater than previously believed. The nitrogen's sources include vehicle exhaust, fertilizer used on farms and livestock feed lots, and power plant emissions. More nitrogen can reduce long-term lake biodiversity because algae become poor food for other microscopic organisms. The algae are high in nitrogen, but low in phosphorous thus being less nutritious for the fish.

Previous studies have documented rising nitrogen levels in Rocky Mountain National Park, 70 miles northwest of Denver. The fish in the park include the rare greenback cutthroat trout and other

trout species. The next step is to study how changes in algae populations are affecting the rest of the ecosystem.

## **Restoring Lake Tahoe**

Congress is looking to approve legislation to help save this national treasure. The Lake Tahoe Restoration Act of 2009, which would allocate \$415 million over the next eight years, would represent a continuation of efforts approved by Congress nearly a decade ago.

The initial legislation in Congress had been preceded in 1997 by President Bill Clinton's decision to commit \$50 million in federal funding to restore the lake --- a pledge made when he and Vice President Al Gore attended an environmental summit at Lake Tahoe.

You can read the actual bill at <http://www.opencongress.org/bill/111-s2724/text>.

## **EPA Study Reveals Widespread Contamination of Fish in U.S. Lakes and Reservoirs**

EPA released a new study which shows concentration of toxic chemicals in fish tissue from lakes and reservoirs in nearly all of the U.S. states. This is the first national freshwater fish contamination study to be based on a statistical sampling design. The design allowed EPA to estimate the percentage of lakes and reservoirs in the lower 48 states that have elevated concentrations of targeted chemical in fish. These data provide a snapshot in time that characterizes the distribution of contaminant levels in freshwater fish from lakes and reservoirs.

It is important that women of child-bearing age and children continue to follow the advice of EPA and the Food and Drug Administration on fish consumption as it relates to mercury. This study is also a strong message to state and local governments to redouble their efforts in looking for opportunities to reduce mercury discharges, as well as developing fish advisories, especially to reach those in sensitive and vulnerable populations. You may obtain information about your local fish advisories at: <http://www.epa.gov/waterscience/fish/states.htm>

For additional information about this fish study, go to <http://www.epa.gov/waterscience/fishstudy>.

## **Ohio State Lake Jump**

Ohio State University researchers have learned students don't just party in a campus lake during rituals before the annual Michigan game, they also potty there. Thousands of students jump into Ohio State's Mirror Lake nights before the annual football game against the Wolverines.

Before, during and after last year's big swim, the College of Earth Sciences monitored the water quality. Postdoctoral researchers showed that the lake's temperature went up 3 degrees throughout the night, and the ammonia level surged. Researchers claim that body heat could explain the warmer water, but the ammonia likely means one thing: urine.

## **Featured Lake – Ancient Lakes of the World – Pingualuit Lake**

Pingualuit Lake, on Quebec's northern Ungava peninsula, is a remarkable natural feature. This unbelievably clear and perfectly



round lake was excavated by an asteroid strike 1.4 million years ago. Since then, it was repeatedly covered by the glaciers of the last Ice Age, at one point buried under 3km of ice. Scientists have suspected that Pingualuit's muddy bottom might hold a unique geological record because unlike all other North American lakes, it might not have been scraped down to bedrock by the advancing and retreating glaciers.

According to Quebec's Wildlife and Parks Department, the 240 meter deep lake is the second-most-transparent lake in the world. It is also called the “Crystal Eye of Nunavik” because of its clarity.

The lake which occupies the Pingualuit Meteorite Crater is the most amazing color of blue. The clarity of the water, tested with a Secchi disc, has been documented to have a visibility of over 30 meters. The lake is not connected to the regional drainage system. It is supplied solely by precipitation and is very poor in nutrients. The Arctic Char in the lake are totally isolated from the local lakes and have responded to the consequent malnutrition by evolving oversized heads and thin bodies

A hypothesis of how the fish originally got into the crater's lake is possibly explained by a thin gully scaring the rim of the crater. During the times of glacial melt, the water level in the crater was higher than it is today and drained through this gully. Arctic Char may have swum upstream in the creek through this gully and into the crater from one of the local lakes.

### **Website of the Month – Factsheets for Lake Folks**

Because it is the generous, giving time of year, here are two website links that might help you understand lake water quality parameters. The first one is from California, focus on section 3.0. ([http://www.waterboards.ca.gov/water\\_issues/programs/swamp/cwt\\_guidance.shtml](http://www.waterboards.ca.gov/water_issues/programs/swamp/cwt_guidance.shtml)).

The second site is from University of Rhode Island, <http://www.uri.edu/ce/wq/ww/Factsheets.htm>.

### **Open Invitation to Add to the Next E-newsletter**

If you are having a conference, have a lake-related question, need advice, looking for similar lake problems/solutions, have an interesting story to share, or just want to be heard throughout NALMS, please send your material to Steve Lundt at [slundt@mwr.dst.co.us](mailto:slundt@mwr.dst.co.us). All e-newsletter material is due to Steve Lundt by the first Friday of each month to be considered for inclusion in that month's e-newsletter.