

2010 NALMS e-Newsletter



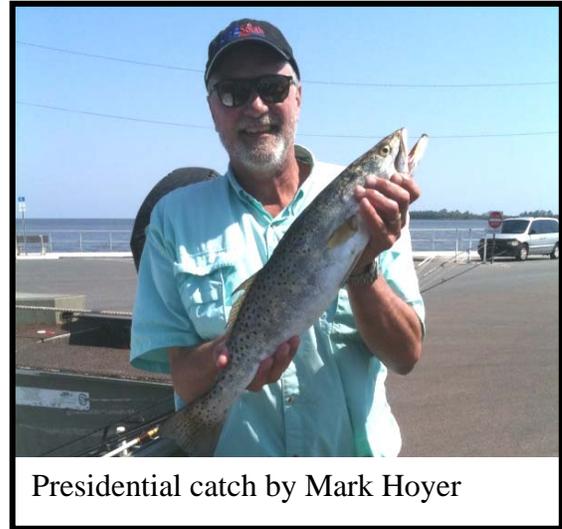
August 2010

President's Message – Dog Days of Summer

Today's high is 97°F with a heat index of 108 °F (42.2 °C for our Canadian Friends). That makes it almost too hot to fish, unless you get up real early in the morning and/or you are really tired of sitting behind a desk. I fell into both of those categories so the picture is from Cedar Key where I had a great day and give each of you permission to go fish at your favorite spot.

August has caught up to us, and we only have three months left until the NALMS 30th Annual Symposium in Oklahoma City. This is a reminder to start making your plans and reservations because it is going to be a great Symposium both with an excellent program and an excellent venue. One thing that I am really trying to promote this year is our student participation in Oklahoma and in the future, and I need all of your help. **Remember you were all**

once students and students are the only future of NALMS! A couple things that everyone can do are to encourage students you know to come and faculty advisors to support their students. The other is to bring items for the silent auction table. This is one of the only dedicated sources of student funding that NALMS has. Let's all get behind this effort and help the students.



Presidential catch by Mark Hoyer

A lot of things have happened since last year's symposium including but not limited to:

- 1) The NALMS office has a new printer/scanner thanks to donations from several Board members
- 2) All under an EPA grant, NALMS has members improving the toxic algae pages on our web site, starting a lakes inventory data base for our web site and the Secchi Dip-in is proceeding with a new data entry and retrieval system.
- 3) Post cards with four different pictures representing lakes from the four corners of North America (NE, NW, SE and SW) were sent to remind folk about Lakes Appreciation month.
- 4) NALMS hosted and helped run an incredibly successful States Monitoring Conference with over 900 attendees, which tremendously helped NALMS out financially.
- 5) We are just about ready to send out NALMS first all electronic special LakeLine issue, which is a compilation of several past articles. This will be used by all of us as a marketing and education tool.
- 6) With the help of Ken Wagner (principle Investigator) NALMS has just successfully captured a Grant from the Water Research Foundation to develop "Reservoir Operations and Maintenance Strategies."

- 7) NALMS members will be voting on a bylaws change in Oklahoma to switch one of our At-Large Board position to a student position to encourage more student participation.
- 8) NALMS is currently in the process of designing and building a much needed new website.

All of these exciting things and more are happening with NALMS but our membership growth is still crawling at a snail's pace. In Hartford, I made membership growth the number one priority for my term, and we are not succeeding. Increasing membership has to be a priority or NALMS stands the chance of drifting off into the sunset as a good idea that never worked. We need the stability of 2000 members to be able to take NALMS to the next level and really have an impact in the future of lake management. I know the Executive Committee and the Board are working very hard on membership, but we cannot do this alone! Please find your friends who will be able to benefit from a membership and sign them up. We can double in size if everyone gets just one new member.

Thanks,

Mark Hoyer
President, NALMS

WITHIN NALMS

Membership in Motion - Sarah Unz

Well, it is hot in Madison too! To keep our minds off the heat, let's talk membership. Our June membership renewal period had 249 members up for renewal. Of those 249 members, 170 of them renewed. Thank you! As for those 79 non-renewers...well, I won't put their names here, to shame them. Instead, I thought it would be a more positive action to welcome all the new members since our last newsletter.

Please join me in welcoming to NALMS the following new members!

Jacelyn	Bailey
Amy	Beussink
Marisa	Burghdoff
Jason	Childress
Victoria	Gonzales
Tim	Grotheer
H. Kenneth	Hudnell
Laurel	Jackson
Henning	Jensen
Carl	Koenig
Ria	Kristiana
Mike	Stephenson



Thank you for joining NALMS and welcome! You are all entered into the President Elect challenge and good luck on winning a wood carving in Oklahoma City.

Speaking of Oklahoma City, let's talk Symposium. [Registration is now open](#) and as of publication of this newsletter **43 people** have registered. The early bird rate is a steal at \$395 for NALMS members! The host committee has been working hard on putting together an excellent event. I hope to see you there.

Speaking of fun events, over the July 4th weekend, some friends and I went to the Apostle Island National Lakeshore in Lake Superior. We did a little "cliff jumping" at the near by State park. If you are wondering if Lake Superior was cold, it was. What I wouldn't give for some Lake Superior relief right now! Madison is a balmy 92 degrees and a little cliff jumping sound perfect.



As always, if you have any questions or concerns about your membership, please contact me at 608-233-2836.

Take care,

Sarah
Membership Services Coordinator

NALMS' 2010 Election

It's time once again to cast your vote for NALMS' officers and directors. Positions being elected this year include President-Elect, Secretary and Directors for Regions 1, 3, 5 & 9.

To cast your ballot, [visit the NALMS website and click on the link on the homepage](#). The link will take you to the login area for members only. Once you log in, please click on "Document Archive" and then "For Member Review". The ballot is a downloadable PDF. Members without internet access may request a paper ballot by contacting the NALMS Office at 608-233-2836.

All ballots must be returned to the NALMS Office or postmarked by October 17.

Message from NALMS Past-President, Ken Wagner

Dear friends and colleagues,

After 17 years in an organization of changing names and ever increasing size, I have decided to go back to basics and formed my own firm, Water Resource Services LLC. AECOM remains a vibrant and capable company but with increased size and new structure, its interests and mine simply don't match up very well, so it was time for a change. My new venture will focus on source water aspects of water supply and recreational lake management. My new phone number is 413-219-8071. The email used for journal business (kjwagner@charter.net) will reach me until a company email has been established. I am excited about the new opportunity and after a nice vacation, will dig into some fun projects!

Kenneth J. Wagner, Ph.D., CLM

Past NALMS President Helped with Gulf Oil Clean Up

F.X. Browne biologists aided Fish and Wildlife Services officials with the capture and cleanup of various aquatic birds in the Gulf of Mexico. The firm sent a handful of its biologists and ecologists to the Gulf to assist the Fish and Wildlife Service in the cleanup and Michael Martin was one of them.



The company received about 40 resumes for people who wanted to help. A typical work day involved being out on the water for 12 hours and then coming back to a dormitory to do paper work. This went on seven days a week. The biologists and ecologists mostly collected oil-covered pelicans and other birds and took them to rescue centers to be de-oiled and released.

UPCOMING CONFERENCES & EVENTS



30th Annual NALMS Symposium in Oklahoma City-November 3-5th, 2010, [Registration is Open!](#)

The Oklahoma Clean Lakes and Watershed Association (OCLWA) invites you to join us in Oklahoma City for NALMS 30th International Symposium. We are excited to host the first ever NALMS symposium in Oklahoma City.

[Registration is now open!](#) Please visit [the NALMS website to get conference information](#) and to register! The early bird rate expires September 17, so register today!

Oklahoma City is a great venue in November with colorful foliage and crisp autumn air. The hotel and Cox Convention center are just a short walk from OKC's famous revitalized "Bricktown" entertainment district, where you can spend the evening strolling its "Riverwalk" of shops, restaurants and warm pubs nestled in the heart of the Downtown area.

Conference programming is underway and a preliminary program will be available in the upcoming weeks. Information packets are being prepared and will be sent out to all presenters and moderators by the end of September. Conference room rates at the Renaissance Hotel are available until September 30, 2010 so be sure to make arrangements soon if you haven't done so already.

Let Oklahoma City surprise and charm you with an atmosphere perfectly suited for spending time with old friends or making new ones. See you there!

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. Here is a nice, clean, and up to date website that serves a good function.

Pennsylvania Lake Management Society: <http://www.palakes.org/>

LAKE NEWS & INFORMATION

Fishless Lake in Adirondacks Shows Signs of Recovery

Chuck Boylen, a biology professor at Rensselaer Polytechnic University in New York, is part of a multi-organizational team that has been studying the effects of air pollution on Brooktrout Lake (pictured) and other lakes in the Adirondacks every summer for the last 16 years.

The goal of the research is to determine how the Clean Air Act, passed in 1990, has affected the lakes in the Adirondacks, many of which had become so acidic they no longer had any fish.

The research by Boylen and his team will be the most comprehensive long-term study of how acidification affects lake ecosystems to date and will also look at how those ecosystems recover.



The Adirondacks region covers 6 million acres (2.4 million hectares), containing over 3,000 lakes and ponds, 46 peaks over 4,000 feet (1,220 meters), and 2,000 miles (3,200 kilometers) of hiking trails. It is the largest area of forest in the eastern United States, with a diverse mix of trees, including beech, maple, oak, hemlock, white pine and fir.

Studying the lakes is no small feat. Boylen's field crew makes its base at a research station near Lake George in the southeast corner of the park. But, because of the enormity of the park, many of the lakes they study are a two-hour drive away, much of it over winding, dirt roads. If the crew is lucky, the road will lead all the way to the lake, but if not, as in the case of Brooktrout Lake, they will often have to hike a good 6 miles (9.6 km) through dense forest to reach the lake.

The team published the results of a 12-year analysis of 30 Adirondacks lakes recently in the journal *Environmental Science and Technology*. The researchers evaluated acidity in 30 different lakes in the Adirondacks in order to determine how air pollution has affected the fish, bacteria, phytoplankton, and other aquatic life that reside in the lakes.

They determined that a drop in one unit of pH corresponds with a loss of approximately four fish and plant species. They also created a database of species they classified as either acid-sensitive, acid-tolerant, or acid-resistant.

The good news is that the lakes are showing some signs of recovery, all of them have become less acidic over the 12 years of study. While none have fully recovered, Brooktrout Lake, which had become fishless is now at the point where the scientists have been able to reintroduce fish.

Garbage Problem Threatens Three Gorges Dam

Thousands of tons of garbage washed down by recent torrential rain are threatening to jam the locks of China's massive Three Gorges Dam and is in places so thick people can stand on it. More than 3,000 tons of trash was being collected at the dam every day, but there was still not enough manpower to clean it all up.

This amount of garbage could jam the miter gates of the Three Gorges Dam, damage boats, and can disrupt the crucial commercial route along the waterway. The decaying garbage could also harm the aesthetics and water quality behind the dam.

Geese Police

Have a problem with pesky geese on your property? Want to get rid of them humanely? Try using trained geese police boarder collies. Eight years ago, Cindy Ranneberger worked at a bank but wasn't happy with her job. By chance, she saw an ad looking for someone who liked dogs, could kayak, and wanted to work outdoors.

Since 2004, she has been the franchisee for four Maryland counties for Geese Police. The job ad led to working about two years for Cathy Benedict, who owned Geese Police franchises in Maryland and Virginia. Cindy went through extensive training, both on the job and at Geese Police headquarters in New Jersey.

Geese Police uses border collies to chase geese away from ponds and grassy areas without harming them. The Rannebergers and their crew work at golf courses, parks, corporate centers, playgrounds, schools, beaches, and homeowner associations.

The process is approved by the various organizations that look out for animals. Chasing the geese and not harming them is a humane way to get rid of a problem. The dogs never touch or harm the geese, but the geese don't know that.

Using traditional herding dog commands, the Geese Police crew guides the dogs so they herd the geese toward the people and scare them. The dogs get in the water to herd the geese as well. Border collies have a predatory stare that the birds recognize, and the dogs also have a stalking position that disturbs the geese.

Record Outbreak of Toxic Algae Feared for Lake Erie this Summer

Western Lake Erie could be on the verge of one of its worst algae outbreaks in years. Heavy spring rain and unusually high phosphorus levels in the Maumee and Sandusky rivers, coupled with massive overflows from Detroit-area and Toledo-area sewage plants, spurred growth of a toxic brew of algae known as microcystis in June. Then July's hotter-than-normal temperatures began heating up the water more, causing more algae growth.

Boaters have been complaining for weeks about slime near the lake's surface from Monroe to Sandusky. The algae have formed dense mats on calm days, especially in the Toledo and Port Clinton areas.

John Hageman, manager of Ohio State University's Stone Laboratory on Gibraltar Island, near Put-in-Bay, predicts an "all-time record algae bloom" when the annual peak occurs in early September.

Roger Knight, Ohio Department of Natural Resources' Lake Erie fisheries program manager, said his research unit in Sandusky is wondering if microcystis, which returned in 1995 following a 20-year absence, is at least partially to blame for below-average walleye hatches in recent years.

The walleye is one of the lake's most coveted fish and one of its greatest economic drivers, drawing fishermen from throughout the Midwest. But after several record hatches in the 1980s -- when there were virtually no nuisance algae -- the walleye numbers have decreased. The only above-average hatch in recent years was in 2003.

The algae's generation-long disappearance has been credited largely to sewage controls put into place after the advent of modern pollution laws in the early 1970s.

Knight, a member of a state phosphorus task force, published in April the results of a three-year study about the relationship between algae and the region's runoff. Pollution-tolerant species such as carp and drum aren't as greatly affected. To a lesser degree, the same is true for certain sport fish such as yellow perch and smallmouth bass.

University of Toledo researcher Tom Bridgeman, who has been studying western Lake Erie's algae problems since 2002 out of UT's Lake Erie Center in Oregon, likened the free-floating microcystis to "shredded plastic" while cruising the lake on Friday. It mats on the surface when the lake is calm

and recirculates through the water column when waves kick up, only to collect again on the surface when conditions settle.

This year is the third consecutively for an excessive bloom. Last year's was the biggest he had seen since starting his research on the lake eight years ago.

Many researchers believe the region's algae problem will get worse unless more cities install better sewage controls and more farmers, golf course operators, and homeowners participate in programs to curb runoff.

They have said that's an especially likely scenario if predictions about warming trends made by scientists with the United Nations' Nobel-winning Intergovernmental Panel on Climate Change prove to be true. The Earth's expanding population also could lead to more runoff as demand for food rises and more land is developed.

What's Worse for Lake Michigan, Kalamazoo River Oil Spill or Asian Carp?

A pipeline operated by Enbridge, Inc., a Canadian company, ruptured in July near Marshall, Mich., releasing 819,000 gallons of oil into the river. Only about 10 percent of the oil has been recovered. So far, no reason has been given for the break.

In June, a 19-pound Asian carp was discovered six miles from Lake Michigan. This is clear evidence that the fish may have found a way to move past the navigational locks meant to keep them from reaching the lake.

In the media and around the Great Lakes region, there was a debate going on about which threat was worse to Lake Michigan. This is an interesting question that can lead to great discussions about the oil industry and about long term impacts caused by invasive species. But at the end of the day, who cares? Both are bad. The more important question to ask now is how to best resolve both problems to protect Lake Michigan in the near term as well as in the long term.

28-Foot Alligator found at Lake Weiss (Alabama)

Reports of a mammoth alligator were reported by lake residents but it was not believed until Alabama Parks and Wildlife game wardens had to shoot the 28-foot alligator in the back yard of a lake resident after spotting it kill a full grown buck deer.



New Research Aims to Unravel How Phosphorus Pollution Drives Toxic Blooms of Blue-Green Algae in the Great Lakes

NOAA has awarded New York-based Stony Brook University \$285,895 as part of an anticipated three-year, nearly \$500,000 project to determine how different kinds of phosphorous, a nutrient required by all plants for growth, trigger toxic blooms of blue-green algae in the Great Lakes.

The project will focus on the algal species *Microcystis*, which frequently causes massive and unsightly blooms in Lake Erie and Lake Ontario. *Microcystis* sometimes produces toxins that can cause acute and chronic illness in humans and is a growing problem that impacts drinking water and recreation worldwide. It has long been known that nutrient pollution, especially phosphorus, stimulates excessive growth or blooms this alga.

Phosphorus, however, can be present in several different chemical forms, which are difficult to measure. The researchers will test whether specific forms of phosphorus cause *Microcystis* to grow or become more toxic and whether controlling those forms might reduce blooms or their toxicity.

Using new information about how *Microcystis* genes regulate uptake and utilization of these different kinds of phosphorus, the researchers will develop new tools to overcome the measurement difficulties. They will then apply these tools during natural blooms in order to identify which types of phosphorous are most instrumental in stimulating bloom formation.

There are many types of phosphorus and knowing which types can trigger a toxic algal bloom is paramount,” said Christopher Gobler, associate professor at Stony Brook University and lead investigator from the project. “Coastal managers and local officials need this data to make important decisions to protect public health and the coastal ecosystem.

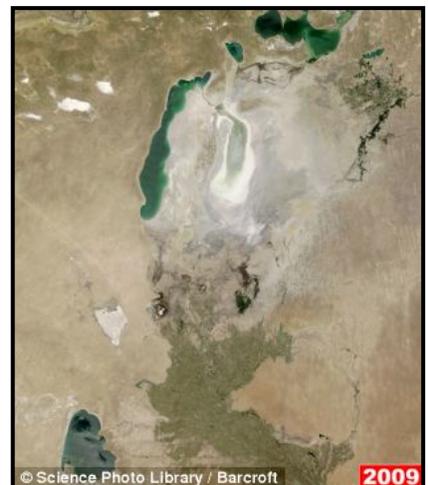
The investigators plan to host a workshop in Buffalo, N.Y., upon completion of the project with representatives from water treatment facilities, health departments, resource management agencies, educators, and the news media to share their findings on the role of phosphorous in the occurrence and toxicity of *Microcystis* blooms.

Support for these projects is provided through the NOAA Ecology and Oceanography of Harmful Algal Blooms (ECOHAB) Program, which strives to understand the causes and impacts of HABS in order to predict their occurrence and minimize their impacts. The ECOHAB program was first authorized by the Harmful Algal Bloom and Hypoxia Research and Control Act in 1998.

Fourth Largest Lake has all but Vanished



The Aral Sea, before 1960's was the world's fourth largest lake. But mainly due to river diversions for crops, the salt water lake is now less than 10% of the original size.



Satellites have been taking images of our lakes for close to 40 years now. Before and after satellite images are starting to show major changes in how lakes are changing due to thirsty pressures to provide more food and water to more people and due to warmer climate changes.

Other examples of important lakes slowly disappearing include: Lake Chad (Sahel region near the Sahara), the Toshka Lakes (southern Egypt), and the Mesopotamia marshlands (near the Tigris and Euphrates rivers in Iraq).

Disappearing of a Reservoir in Arizona Caught on Tape

A surveillance camera along Tempe Town Lake captured the flash of the explosion as a rubber bladder burst, sending nearly a billion gallons of water into the Salt River.

The reservoir was drained in less than a day leaving behind a muddy footprint. The inflatable rubber dam will be repaired in about 4 months, but the reservoir management problem will be dealing with the smell of decaying fish and the fear of increased mosquitoes and West Nile outbreak caused by the small pools left behind.

No one knows why the 16-foot tall bladder popped. The lake has four inflatable dams on both ends, and the sections were supposed to last for 25 to 30 years. The manufacture, Bridgestone Industrial Products, had concerns that the hot sun could damage the rubber similar to car tires sitting in the sun. They also recommended keeping boaters far away from the bladders. A large buffer zone would help prevent props and other sharp objects way from the dam.

The City of Tempe did inspect the dams once every month and had fixed to tears in 2002. It is estimated to cost \$2.5 million dollars to replace the dams and Bridgestone was expected to reimburse the City of Tempe for the replacement.

To see the news footage, go to <http://www.myfoxphoenix.com/dpp/news/local/tempe/surveillance-video-dam-collapse-07222010>

Great Lakes Warming Up, Could They end up Like the Aral Sea?

As the world's largest freshwater system warms, it is poised to systematically alter life for local wildlife and the tribes that depend on it, according to regional experts. And the warming could also provide a glimpse of what is happening on a more global level.

Total ice cover on Lake Superior, the largest, deepest, and coldest of the five Great Lakes, has shrunk by about 20 percent over the past 37 years. Though the change has made for longer, warmer summers, it's a problem because ice is crucial for keeping water from evaporating and it regulates the natural cycles of the Great Lakes.

This year, the waters in Lake Superior are on track to reach, and potentially exceed, the lake's record-high temperatures of 68 degrees Fahrenheit, which occurred in 1998.

Analysis of several buoys that measure temperatures in the lake reveal that the waters are some 15 degrees warmer than they would normally be at this time of year. Analysis of National Oceanic and Atmospheric Administration data indicates that summer for the lake, which happens at about a 40-degree threshold, came about a month early this year.

While the warmer waters make for more comfortable swimming conditions for humans, they may also make for more habitable conditions for invasive species and lower lake levels. Various models forecast that the Great Lakes region may see lower lake levels on the order of 1 to 2 feet in places.

Lake Legends – Lake Waccamaw, North Carolina

Lake Waccamaw in southeastern North Carolina is the second largest natural freshwater lake east of the Mississippi River. Local legend claims that Lake Waccamaw was once a huge mound of flowers, watched over by a beautiful Indian princess. A besotted Indian brave asked the princess to marry him but she refused, leading to a war between the local tribes. Rather than marry the brave and give up her flowers, the princess chose to die on the spot and turned the flowers into a huge lake. A legend perhaps, but locals claim that there is still a spot where no flowers will grow. Scientists estimate that Lake Waccamaw was formed around 250,000 years ago, although its origin is uncertain. One theory is that the lake basin was formed after a peat fire in prehistoric times. Old charred tree stumps have been found to support this theory. Another theory claims that meteorites formed Lake Waccamaw and a group of lakes known as the Bladen Lake Group; all of these lakes are oval and angled in the same way. Located 40 miles west of Wilmington NC, Lake Waccamaw and Lake Waccamaw State Park can be enjoyed year round.

Lake Monsters – Reindeer Lake, Manitoba

Reindeer Lake was named for the caribou that used to migrate to its shores during winter. The sprawling lake covers 1,500,000 acres and is home to captivating geological formations, including Deep Bay, a water-filled crater created by a meteorite that struck 140 million years ago. Deep Bay harbors the Reindeer Lake monster. According to Native American legend, the monster ate reindeer as they fell through the ice. Whether a monster resides in Reindeer Lake is uncertain, but what is certain is that visitors will find an outdoor paradise along the sparsely developed lake shoreline spanning Saskatchewan and Manitoba.

Websites of the Month – www.usgs.gov/corecast/details.asp?ep=129

This is a pod cast or a core cast explaining how algal blooms can be harmful to people and animals. This is a 6:45 minute video developed by a couple of NALMS members and is a great tool to pass on to lake users that might have questions about why their lake is so great and is it harmful.

Update Contact information:

Please let the NALMS Office (slunz@nalms.org) know if you have or are planning to change your contact information, so we can make sure you do not miss any of the NALMS monthly news letters, updates, or general NALMS announcements. NALMS appreciates this.

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. All e-newsletter material is due to Steve Lundt by the first Friday of each even month to be considered for inclusion in that month's e-newsletter. The newsletter goes out electronically during February, April, June, August, October, and December.