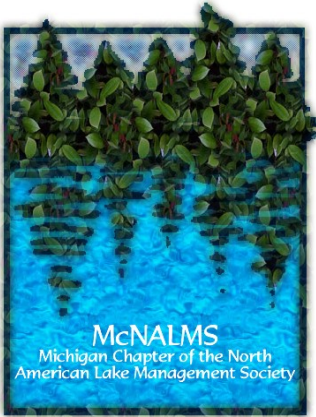


LAKE EFFECT

July 2011



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Presidential Tidbits by Jo Latimore, Ph. D.

What is stewardship?

An online search for a definition of stewardship leads hundreds of different results. One that struck a chord with me was featured at forestinfo.org: stewardship is “the concept of responsible caretaking; the concept is based on the premise that we do not own resources, but are managers of resources and are responsible to future generations for their condition.”

For those of us involved in lake management as professionals, we can be stewards of Michigan’s lakes by providing knowledge and guidance to protection and manage-

ment efforts. For those of us who live in a lake community, we can take our local decision making authority seriously and use our knowledge of our neighbors, our lakes and their watersheds to manage and protect our lakes carefully and thoughtfully. One example of a Michigan lake community that has grown into the stewardship role is the Glen Lake Association, which was recently recognized nationally for their Outreach and Education efforts (see story in this issue).

Opportunities for each of us to become better stewards of our lakes are available across Michigan. In fact, I’m encouraged to see these opportuni-

ties becoming more numerous and available every day. A highlight among these opportunities from my perspective, of course, is the upcoming McNALMS conference. Following our recent theme of empowering lake professionals and community members to become better lake stewards, this year’s conference will once again provide an excellent forum for the exchange of ideas and to build community among all of us involved in lake stewardship. See the conference agenda in this newsletter, and register at our web site – www.mcnalms.org.

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Notes from the Executive Director

by Howard Wandell

Goats

Lester Brown recently had an article describing how goat numbers were increasing dramatically in certain developing nations, while sheep and cattle numbers were declining. You may ask, what do goat populations have to do with lakes. Well, nothing but there may be a lesson in how herders are using the land and how we use lakes.

Apparently in some developing countries sheep and cattle have been placed on the grasslands in unsustainable

numbers resulting in a shift in the ecology of the land from grasses to shrubs. The herders have adapted to this situation by shifting from sheep and cattle to goats, that will graze the more woody shrubs, with little to no loss in protein production. The immediate problem is addressed and solved. The long-term problem just got worse. The land is still being grazed at unsustainable levels. What happens when the goats have removed all the shrubs?

How do we address our lake issues? If we have a problem with dissolved oxygen, we put in aerators. If we have a problem with plants we use herbicides or a harvester. A problem with too many sediments - dredge. Not enough fish - easy, just stock more. We have many fine tools that are very good at addressing our immediate lake problems. In fact our tools are so effective, we sometimes forget that they are targeting effects and not causes.

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ML&SA News and Views

by Scott Brown, ML&SA Executive Director

In mid-July, ML&SA launched a new content management system based web site using the domain name www.mymlsa.org - a new look, accompanied by a user friendly structure as well as a lot of new lakes, streams, watersheds and aquatic invasive species related content highlight our new presence on the constantly expanding world wide web. We invite you to take a few moments to explore some of the new features and information on our site. We view our new web site as an effective means of communicating with our membership as well a platform for promoting the special events of ML&SA and of our collaborative partners. We are also nearing the release of our latest book, **Buying and Selling Waterfront Property in Michigan**, written by riparian and water law attorney Cliff Bloom. The new book will be a "how-to" resource for anyone who is contemplating buying or selling water-

front property in Michigan. This book will also be helpful to readers who currently own or have an interest in (or curiosity about) waterfront property, since it also contains a wealth of information regarding waterfront property ownership, riparian rights, and a variety of other matters regarding the waterfront.

On the Michigan state legislative front, we are pleased that a bi-partisan group of Senators has written and introduced Senate Bill 509, which seeks to establish an Aquatic Invasive Species Advisory Council in the Department of Environmental Quality. The AIS Advisory Council would be tasked with updating Michigan's AIS Management Plan, developing and adapting model AIS programs as well as collaborating with other Great Lakes states and provinces to "ensure a coordinated and consistent response to aquatic

invasive species" within the region. The AIS Advisory Council would consist of the Directors of the DEQ, DNR, Agriculture and Rural Development, MDOT, the Attorney General as well as several other representatives appointed by the Governor, Senate Majority leader and the Speaker of the House of Representatives. Senate Bill 509 enjoys strong bi-partisan support and is expected to become law in late fall of 2011.



Looking Beyond Your Individual Lake and Its Watershed

By C. Emi Fergus and Patricia A. Soranno

Phosphorus is an important lake nutrient that, in excess, is attributed to nuisance algae blooms and degraded lake health. It is known that lake morphometry (e.g., shape, depth) and landscape features (e.g., geology, soils) in the watershed affect lake phosphorus concentrations (P). In fact, most lake management strategies to reduce P occur at the individual lake or watershed scale. However, lake P exhibits regional differences, and these differences cannot be explained by lake and watershed features alone. It is thought that landscape features and land use activities at the region scale may have an effect on lake P. In addition, these regional features may modify how local watershed features are related to lake P - this idea is referred to as

a cross-scale interaction.

C. Emi Fergus and Dr. Patricia Soranno at Michigan State University studied the effects of watershed and regional landscape features on lake P using data compiled for over 1,700 inland lakes in Wisconsin, Michigan, New Hampshire, and Maine. Land cover and land use features such as wetlands and agriculture were calculated for the local watershed and at the regional Ecological Drainage Unit scales using geographic information systems (GIS) technology. Lake P was related to these landscape features to determine how it differs among regions and whether these differences can be attributed to regional landscape features and cross-scale interactions.

Lake P was higher in Midwest U.S. regions than Northeast regions. Regional agriculture accounted for a quarter of the differences in lake P among these regions. Both agriculture within the watershed and within the region were related to lake P. Interestingly, cross-scale interactions between wetlands in the watershed and regional agriculture affected lake P, resulting in inconsistent wetland-lake P relationships among regions. In pristine regions with little agricultural land use, wetlands were associated with higher lake P, but in regions with more agricultural land use, wetlands were associated with lower lake P.

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McNALMS Conference to Focus on Emerging Issues and Plant Management

The second annual McNALMS conference on Taking Charge: New Trends in Lake Research and Aquatic Plant Management will be held Friday, September 23, 2011 with a pre-conference workshop and tour the day before. Both sessions will take place at the Kettunen Center in Tustin, MI.

The main conference will begin with a featured talk by the co-author of Moral Ground: Ethical Action for a Planet in Peril. The author, Dr. Michael Nelson, will provide his ideas in a talk titled, "Why It's Wrong to Wreck the World: Ethical Action for a Planet in Peril." This will be followed by a presentation, Legislative and Policy Issues for Lakes by Peter Manning, Division Chief of the Environment, Natural Resources, and Agriculture Division in the Michigan Department of the Attorney General. Two afternoon concurrent sessions will feature three talks each on Current and Emerging Research and on Aquatic Plant Management. The research talks will focus on bass populations and human impacts, zebra mussel/algal interactions,

and long-term ecosystem responses to alum treatment in lakes. The plant management talks include new herbicides, laminar flow/aeration, and milfoil problems and treatment techniques.

After reconvening as one large group, a talk will be presented by Dr. Gary Crawford on one of the newer invasive species to Michigan, Starry Stonewort. This presentation will be followed by an update on the manual for lake management in Michigan with a lake improvement board, being produced by Michigan NALMS. Door prizes will be given out at the end of the day.

The pre-conference workshop, beginning at 12:30pm on Thursday, September 22 will provide individual attention to lake residents interested in developing a 1st Order Management Plan for their lake. The session will be led by Howard Wandell, Executive Director, Michigan NALMS. The workshop will be followed with a tour of the Lake Cadillac Shoreline bioengineering pro-

ject that was installed this past May (see article in this newsletter).

The cost of the conference is \$50 for the conference only, \$35 for the workshop only, and \$75 for both the workshop and conference. The fee includes the conference, materials, breaks, and lunch. To register for the conference or to obtain more detailed information, visit www.mcnalms.org

The conference is sponsored by the Michigan Chapter, North American Lake Management Society. It is co-sponsored by the Michigan Lake and Stream Associations, Inc., the Michigan Natural Shoreline Partnership and the Institute of Water Research, Michigan State University. It is also endorsed by the Michigan Inland Lakes Partnership.

For further information, contact Howard Wandell at wandellh@yahoo.com or Lois Wolfson at [wolfsonl@msu.edu](mailto:sonl@msu.edu).

Michigan Inland Lakes Partnership Looks to the Future

by Jo Latimore

McNALMS is a founding member of the Michigan Inland Lakes Partnership, a collaborative of over twenty organizations and agencies across the state that share an interest in and responsibility for inland lake protection and management. The mission of the Partnership is to promote stewardship of inland lakes through collaboration. The Partnership is a relatively new entity, launched in June 2008 with a three-year trial period. At its last meeting, after an internal evaluation and assessment, the Partnership voted unanimously to continue ahead into the future.

The Partnership has reached many of the goals initially identified in 2008, including launching its web site – <http://michiganlakes.msue.msu.edu> – that is the most comprehensive source of information on Michigan's lakes and their protection and management. The user-friendly site takes full advantage of the resources of all of the Partners, including the Michigan Departments of Environmental Quality and Natural Resources, Michigan Lake and Stream Associations, MSU Extension, and McNALMS, and is a great starting point for any lake-related inquiry. Other Partnership achievements to

date include an analysis of the barriers to early detection and rapid response to aquatic invasive species in Michigan, hosting several Open Forums around the state to gather public input on priorities for Michigan's lakes, and, through Partner cooperation, maintaining the state's volunteer Cooperative Lakes Monitoring Program and supporting numerous conferences and training sessions around Michigan.

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Glen Lake Association Receives National Award for Outreach and Education

By Jo Latimore

The Glen Lake Association (GLA), based in Leelanau County, was awarded the 2011 National Fish Habitat Action Plan (NFHAP) Award for Outreach and Educational Achievement in support of Fish Habitat Conservation.

A grassroots organization for over 50 years with 800 individual and business members, GLA uses numerous outreach and educational campaigns to protect the Glen Lake watershed from aquatic invasive species, physical habitat degradation, and water quality impairment while promoting aesthetic and recreational enjoyment to riparians and the public.

“The Glen Lake Association has over 100 volunteers that work countless hours to protect and preserve the uniquely beautiful area we live in,” said current GLA president Andy DuPont who traveled to Washington, D.C. to accept the award April 15 on behalf of the nonprofit association. “To have our efforts nationally recog-

nized is very special. This award will help keep our volunteers and members motivated as we continue to reach out and educate those who have an impact on the quality of our lakes.”

The GLA was nominated for this honor by Dr. Jo Latimore, current McNALMS President and Michigan’s representative to NFHAP through the Midwest Glacial Lakes Partnership.

“The Glen Lake Association is frequently invited to share their successful outreach and education efforts at lake monitoring and management meetings and conferences across Michigan,” noted Dr. Latimore in her letter of nomination. “Representatives of GLA are always willing to share their experiences and lessons learned with others, and their leadership has led to similar projects by lake associations and aquatic conservation groups state-

wide. As such, GLA’s positive influence has been felt across Michigan, far beyond their own watershed.”

For additional information on the work of the Glen Lake Association and ways to become involved, visit www.glenlakeassociation.com.

Noteworthy GLA outreach and education efforts include:

Lake-Friendly Stewardship Awards – publicly recognizing homeowners, contractors, and local units of government that manage lake-shore properties in compliance with shoreline zoning ordinances and ecological sustainable and sensitive principles.

Cooperative Lakes Monitoring Program – engaging community members in long-term monitoring of water quality, aquatic plants, and invasive species in lakes and streams within the watershed.

Landowner’s Handbook and Stewardship Checklist – developed and distributed to all riparian landowners.

Volunteer-staffed boat wash station

Shoreline Management Program – parcel-by-parcel shoreline quality surveys and personalized lake-friendly shoreline maintenance advice for property owners.

Glen Lake Association biologist, Rob Karner (left) and association president, Andy DuPont, display the organization’s national fish habitat conservation award.



About the National Fish Habitat Action Plan

The National Fish Habitat Action Plan is the most comprehensive effort ever attempted to treat the causes of aquatic habitat decline and fix the nation’s most pressing fisheries problems. The Action Plan is a science-based investment strategy to conserve waterways and make conservation dollars stretch farther by combining federal and privately raised funds to build regional partnerships. For more information, visit www.fishhabitat.org.

Newly Installed Natural Shoreline Demonstration Site Part of McNalms Pre-Conference Tour

By Jane Herbert, Water Resources Educator
Michigan State University Extension Land & Water Unit
Kellogg Biological Station

Members of the Michigan Natural Shoreline Partnership (MNSP) recently finished instructing in the *Certified Natural Shoreline Professional* (CNSP) program during an intensive certification training targeted toward landscape and marine contractors. In its second year, the CNSP trainings were held in Brighton and Cadillac during 2011. Each group installed a natural shoreline demonstration site. The Cadillac demonstration site will be featured at the McNALMS pre-conference tour on September 22.

Shoreline development is often accompanied by the removal of plants, shrubs and trees to create lawns, foot paths, storage areas and views of the lake. Loss of native vegetation can result in the need for shoreline hardening to control erosion from waves and ice -- usually in the form of vertical sea wall or rock riprap which can destroy habitat. Natural shoreline landscaping and bioengineered erosion control can protect, enhance and restore shoreline and nearshore aquatic habitats.

Certified Natural Shoreline Professional was developed by the MNSP and equips contractors working on inland lake shorelines with the means to expand their business services to include natural shoreline landscaping and erosion control techniques. MNSP members include the Michigan Department of Environmental Quality, Michigan State University, industry representatives, trade associations and non-profit organizations (including McNALMS). MNSP certifies that participants have successfully completed the four-day training course (three days classroom and one day field) and a 100-question certification exam.

Taught by MNSP experts, this intensive training is packed with information on native plant landscape design, bioengineered erosion control methods, shoreline environments, lake health and shoreline permits. It includes a training manual, lectures and small group exercises during which participants learn to design natural shorelines (Figure 1). The field day involves hands-on construction of a bioengineered natural shoreline project on an inland lakeshore.



Figure 1. Contractors working in small groups practice natural shoreline design concepts during the classroom component of *Certified Natural Shoreline Professional*. Photo: Jane Herbert



The Cadillac CNSP class completed the course in late May 2011 with a field construction experience on Lake Cadillac at the Cadillac Lakefront Park (Figure 2) to gain hands-on experience installing bioengineered (plant-based) shoreline erosion control. (Results of an exit survey indicate 92 percent of respondents found the field experience to be extremely or very important to the overall CNSP training experience.)

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Figure 2. Contractors gain hands-on experience while installing a 100-foot natural shoreline demonstration site at Cadillac Lakefront Park during the field component of *Certified Natural Shoreline Professional*. Photo: Jane Herbert

Continued from 5 **Newly Installed Natural Shoreline Demonstration Site
Part of McNalms Pre-Conference Tour**

Materials and plants to construct the demonstration site were provided by the city with project design provided by MNSP and construction labor provided by CNSP participants. The project includes a six-foot wide buffer strip of 900 native wetland and emergent aquatic plants to stabilize soils, slow runoff and create habitat for fish, frogs, turtles, song birds and butterflies. Biodegradable coir log wave-breaks protect the project against wave and ice action. Although lake levels were unusually high, the new shoreline demonstration site was successfully installed and, like many newly planted areas, will take about three years to fully mature (Figure 3). Temporary waterfowl exclusion fencing was constructed to protect the young plants from grazing ducks and geese.

The partnership is currently making plans to offer CNSP training in 2012 with locations to be determined. Shoreline property owners looking for more information on the benefits of natural shorelines and native shoreline plants to their lakes are invited to visit the partnership's website at www.mishorelinepartnership.org. Those looking to hire a Certified Natural Shoreline Professional will find the official statewide list of certified contractors at this same site.

McNALMS Annual Conference attendees interested in natural shorelines are invited to join Jane Herbert for a guided, pre-conference tour of the Cadillac demo on Thursday, September 22, 2011.

For more information about the Michigan Natural Shoreline Partnership and its activities, please contact Jane Herbert at jherbert@anr.msu.edu or John Skubinna at skubinnaj@michigan.gov.



Figure 3. Newly installed 100-foot natural shoreline demonstration site at Cadillac Lakefront Park complete with temporary waterfowl exclusion fencing to protect the young plants.
Photo: Jane Herbert

Continued from 3 **Michigan Inland Lakes Partnership Looks to the Future**

Non-governmental organizations, educational institutions, and government/tribal agencies that have not yet been active in the Partnership are encouraged to join! While individual lake associations are not eligible for membership – they are represented in the Partnership by larger organizations, such as Michigan Lake and Stream Associations and Tip of the Mitt Watershed Council – applications for membership are encouraged from larger organizations.

There are no fees for membership; Partners contribute time, expertise, and other resources to help achieve collaborative goals. For more information on becoming a member of the Partnership, please visit the web site (<http://michiganlakes.msue.msu.edu>) and click on "About", or contact the Partnership facilitator, Dr. Jo Latimore of MSU, at latimorj@msu.edu or 517-432-1491.

Invasive *Phragmites* Threatens Wetlands, Wildlife

By Lois Wolfson, Ph.D.

It's in wetlands, along highways, encroaching on your lake and often seen in low wet areas. It's called the common reed, and in Michigan there are two varieties of this perennial grass, one native and one not. It's the latter one, an invasive, non-native species, which has been causing major problems. Many people, however, refer to this plant more by its scientific name, *Phragmites australis*. *Phragmites* is a very aggressive plant and outcompetes nearby vegetation. It readily colonizes wet and disturbed soils and forms monoculture stands. It reduces habitats for a variety of animals, and blocks the view from a shoreline by growing to heights up of 15-20 feet. The native type usually reaches about 6.5 feet, and is much less dense.

The invasive *Phragmites* was likely introduced from Europe through ship ballast water, but is now found throughout the continental U.S. and in southern portions of six Canadian provinces (Swearingen and Saltonstall 2010).



It is thought to have arrived in the Great Lakes region in the late 19th century. The native variety has probably been here for over 3000 years, based on peat core records.

Non-native *Phragmites* grows in dense stands, both above and below ground. Nearly 80 percent of its biomass is underground in the form of roots and rhizomes (underground stems capable of sending out roots and shoots). The above ground portion consists of hollow, but rigid stems or stalks, and long stiff, flat grass-like leaves alternating on the stem with each leaf tapering to a point.

When flowering, *Phragmites* produces a purple-brownish feathery looking plume with seeds at the end of each stalk. The plumes can be from 6-20 inches long with numerous branches and are present by late July. While a mature plant can produce as many as 2000 seeds annually, reproduction also takes place vegetatively when the rhizomes produce new shoots as they expand horizontally to over 60 feet in length (Great Lakes Commission 2010). New stands, however, form from seeds.

Overall, the native stands of *Phragmites* have fewer plants per area and tend to have lighter green leaves than the darker green invasive stands. The leaves of the invasive form are tightly clasped to stems that are green or tan in color. The native species have loose leaf sheaths and produce a reddish-purple color on their stems.

Thick stands of *Phragmites* shade out understory vegetation, alter wetlands hydrology, and have impacts on wildlife. In one study, rapidly expanding *Phragmites* in a northern latitude reduced suitable nesting habitat for several species of turtles. The plants' growth during a season altered the microenvironment of turtle nests by affecting nest temperature, which is a critical factor for embryo development (Bolton and Brooks 2010).



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Continued from page 7 **Invasive Phragmites Threatens Wetlands, Wildlife**

By Lois Wolfson, Ph.D.

Another found that not only the interior part of the stand but also the edge of the stand did not provide good habitat for nesting waterfowl (Cross 1989).

An integrated, long-term approach for controlling the plant typically involves the use of herbicides along with one or more of several other methods such as mechanical removal, burning or managing water levels. Also, identification of the plant is essential to insure that the invasive species and not the native ones are being treated. A more detailed guide to determine the difference between the two is available at: www.invasiveplants.net/Phragmites/phrag/morph.htm.

The two herbicides most often recommended for treatment are broad-spectrum herbicides with the active ingredient of either glyphosate or imazapyr. Both are commercially available under a variety of trade names. Because these chemicals are non-selective and will kill many native plants as well when they come into contact with the stems or leaves, proper application is essential. A pesticide use certification is required by the Michigan Department of Agriculture and Rural Development when using imazapyr. It's also recommended when using glyphosate. For either herbicide, a permit for use is required when applying it in either standing water (lakes and wetlands) or below the ordinary high water mark of the Great Lakes and Lake St. Clair (MDEQ 2007).

Following the initial herbicide treatment, a second method is recommended to remove the excess biomass. Prescribed fire is a preferred method following the herbicide treatment, particularly when stands are dense. The burn should occur the following year in either late summer or winter. Mechanical removal, by either hand cutting or mowing is another method employed following the herbicide treatment, particularly when burning is not feasible. Timing is important, and at least two weeks are required between the herbicide treatment and the mechanical removal to insure that the plants have absorbed the herbicide. A third alternative may be considered when water levels can be manipulated, and the area can be flooded. More detailed information on the various methods of treatment, timing of application, and permit requirements is provided by the MDEQ (2007).

As with many invasive non-native species, eradication of *Phragmites* is not likely once it successfully invades an area. However, with proper control methods and annual maintenance, native plant populations can be reestablished, wildlife and wetland habitat improved, and recreational opportunities restored.

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Legislative Updates

The following bills in the Michigan legislature may impact lakes and lake management.

House Bill 4379 would amend the law governing the implementation and operation of lake improvement boards established by local units of government. If passed the bill would expand the available procedures for dissolution of a lake improvement board. Property owners being assessed two-thirds of the cost of the project may petition for termination of the board.

House Bill 4746 would change zoning law regarding extraction of natural resources (mining). If passed the bill would significantly limit the ability of townships and local units of government to include mining operations in zoning land use restrictions. A recent Michigan Supreme Court finding had made mining subject to the same standards as other land uses for zoning purposes. HB 4746 would require that the standards applied to mining be those established in a 1982 court case.

House Bill 4133 would allow local units of government to establish "Water Quality Alliances" for the purpose of monitoring and addressing water quality issues. These Alliances may: 1) monitor for contamination and contamination threats, 2) Conduct public surveys and distribute informational materials, and 3) design and implement projects to protect and restore public health and water quality conditions. Membership in the Alliance by local governments and districts is voluntary and the Alliance does not have the authority to assess or collect taxes directly for individuals or property owners.

Opportunities to Serve

Like all nonprofit organizations, Michigan Chapter North American Lake Management Society (McNALMS) could use more people who would like to be involved. Every organization has its dream list of projects that could be undertaken, if there were a few more partners. McNALMS would like to expand our Internet presence, keep better track of legislative and policy issues as they evolve at the State legislature and in the Governor's office and we would like to promote and keep better track of our members and their needs.

If you have experience in web page design and maintenance, we could use your help with the web site. McNALMS has a good web page now, but it could be improved and updated more frequently to better serve our members. Granted, keeping track of Michigan legislators is like nailing jello to a tree, but it has to be done if we want to have input into governance in Michigan. While Board members and the Executive Director would be responsible for responding to appropriate legislative actions, we could use help identifying and tracking local and state issues. Finally, the Membership Committee can always use help expanding and maintaining the organization's membership.

If you would like to help McNALMS protect Michigan's inland lakes we would appreciate a helping hand. If you have an interest you may contact Executive Director, Howard Wandell at wandellh@yahoo.com.

Thank you.

Continued from page 2 **Looking Beyond Your Individual Lake and Its Watershed**

These results support the importance of wetlands within lake watersheds to reduce regional agricultural effects on lake nutrients. Therefore, it is important that we look beyond the confines of the individual lake and its watershed to consider regional landscape effects on lakes.

For more information see: Fergus, C.E., P.A. Soranno, K.S. Cheruvellil, and M.T. Bremigan. *In press*. Multi-scale landscape and wetland drivers of lake total phosphorus and water color. Accepted by *Limnology & Oceanography* July 2011.

C. Emi Fergus is currently a PhD graduate student at in the Department of Fisheries and Wildlife at Michigan State University. **Patricia A. Soranno** is an Associate Professor in the Department of Fisheries and Wildlife at Michigan State University.

Calendar of Events

Sept. 23, 2011

Michigan Chapter North American Lake Management Society will hold its annual conference at the Kettunen Center, Tustin, Michigan (just south of Cadillac). Information is posted on the Society website www.mcnalms.org. In conjunction with the Conference on Sept 22 the Society will hold a training session for lake associations who would like to learn the First Order Management Plan to take the first steps in lake management. The training session is limited to 10 communities and the communities should have 5 to 8 years of Cooperative Lake Monitoring Program data.

Oct. 26-28, 2011

The North American Lake Management Society will host the 31st International Symposium on Lake Management. Information about the conference is available at <http://www.cvent.com/events/nalms-2011-spokane-washington/event-summary-0819feed2a9549578c4910e8eb46bf0d.aspx>

Feb. 16-18, 2012

The Michigan Association of County Drain Commissioners will host their winter conference at Grand Traverse Resort, Acme Michigan.

April 30– May 4, 2012

The National Water Quality Monitoring Council will host its 8th National Water Monitoring Conference in Portland, Oregon. For more information please visit <http://acwi.gov/monitoring/conference/2012/SaveTheDate.Portland2012.pdf>.

Continued from page 1 **Presidential Tidbits**

Many more opportunities are available, far too many for me to include all of them here. For example, the Michigan Natural Shoreline Partnership (www.mishorelinepartnership.org) has established very popular training courses for landscaping professionals and for lakefront property owners, promoting natural shorelines and soft engineering techniques that both reduce shoreline erosion and provide favorable habitat for aquatic and riparian plants and animals. Michigan Sea Grant's Clean Boats, Clean Waters program (www.miseagrant.umich.edu/cbcw) offers no-cost training and materials to lake communities, enabling them to educate boaters about invasive species and simple steps boaters can take to reduce their spread via watercraft. The Michigan Inland Lakes Partnership (michiganlakes.msue.msu.edu) continues to promote stewardship by building collaboration among the many organizations and agencies that are involved in lake protection and management, and is seeking new members. Read on and enjoy this issue of the McNALMS newsletter, and learn about these opportunities for stewardship and more!

Continued from page 1 **Notes from the Executive Director**

The longer we are content to manage the immediate effects of land and water use, the more difficult sustainable management will be for future generations. We need to get more serious about habitat loss, exotic species introductions, watershed management, water use, and the production and use of hazardous and polluting products used in our everyday activities.

We don't need to give up our excellent effects management tools, we just need to be more attentive to and engaged in sustainable management of our lakes. Sustainable management is more difficult, requires greater community communication and cooperation, and affects us directly - the location of our house and lushness of our grass. But, if we don't adopt sustainable management will we be like the herders in developing nations with a seriously degraded resource in need of massive restoration?

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