



# ILLINOIS

## Volunteer Lake Monitoring Program

### NEWSLETTER

### ILMA's 23rd Annual Conference

The 23<sup>rd</sup> annual Illinois Lake Management Association (ILMA) conference was held February 28 – March 1, 2008 at the Route 66 Hotel and Conference Center in Springfield, Illinois. It was great to see so many familiar faces and to meet new ones!

This year's program was excellent. Some of the highlights included presentations on improving your lake, watershed planning and BMP's, GIS mapping, lake improvement projects, emerging contaminants and fish health concerns, an invasive species update, a panel discussion addressing what defines a good lake and let's not leave out the volunteer lake monitoring program session. This session included a one hour mini-workshop on

making sense of the data you collect and a presentation given by one of our very own volunteers demonstrating how to graph and interpret ten years of lake data for his lake.

During our annual awards event, several very deserving individuals received recognition for their outstanding achievements in lake management and stewardship.

The Lake Guardian Award is presented to a lake professional in recognition for exhibiting exceptional effort in preserving Illinois lakes. This year's Lake Guardian is Alan Alford.

In addition to serving on numerous committees and having been past president of ILMA, Alan works for the City of Charleston Wa-

ter Treatment Plant where he has been the caretaker of Charleston Side Channel Reservoir and Lake Charleston for many years. He has also been a dedicated volunteer in the VLMP for 23 years.



Congratulations Alan!

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### Need Money to Restore and Protect Your Lake?

Diane Caruso, Biologist, IEPA—Des Plaines Regional Office



Do you want to enhance your lake's aesthetic and ecological quality? Are you short the funds needed to implement simple projects that could improve your lake, such as, installing buffer strips along the shoreline which help provide shoreline stabilization and filter runoff from the watershed? Or perhaps you want to install aerators that can help cir-

culate water, increasing habitat for fish and other aquatic life. The Illinois Environmental Protection Agency (IEPA) may have just what you need.

IEPA is seeking grant applications for the Priority Lake and Watershed Implementation Program (PLWIP). This is a reimbursement grant program designed to protect, enhance, and restore priority lakes'.

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## Notes from the Statewide Coordinator

Welcome to the Spring/Summer edition of the Illinois Volunteer Lake Monitoring Program Newsletter. Can you believe that monitoring season is already here and, even more astonishingly, we're starting our 28th season?!

A few thoughts as we kick off Monitoring Season 2008:

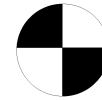
- Secchi monitoring forms have been sent out, so please feel free to go out on your first Secchi transparency monitoring trip of the season anytime in the first two weeks of May. Remember, you want your first trip to be on or before May 15 and your second trip of the month should be between May 16–31. Continue monitoring Secchi transparency twice per month through the end of October.
- For water quality participants (Tier 2 and Tier 3), your coordinator will contact you regarding training location, date and time. You will receive all necessary forms, bottles and equipment at training.

- Before going out on the lake, please carefully inspect all equipment to make sure it is clean and in good working order. If a piece of equipment needs to be replaced, notify your coordinator immediately so that a replacement can be provided in time without delaying your monitoring efforts.



I would like to thank all of you for your tremendous efforts in making last year's monitoring season such a success. As always, if you have any questions, please feel free to call me at 217/782-3362 or E-mail at [sandy.nickel@illinois.gov](mailto:sandy.nickel@illinois.gov).

Have a great season!



## Clean Boats Campaign Leah Miller, Izaak Walton League of America

### **ANNOUNCEMENT: Izaak Walton League of America Launches Clean Boats Campaign to Combat Invasive Species**

Every day, boaters and anglers unknowingly introduce harmful invasive species into their favorite lakes and streams. These plants and animals hitch a ride in boat hulls and on propellers, muddy boots, and other equipment. The Izaak Walton League of America is launching the Clean Boats Campaign to raise awareness of this problem and educate boaters and anglers on how to properly clean their gear. The campaign kicks off with a sweepstakes for a \$2,500 boater's shopping spree and other prizes. Participants enter to win by visiting [www.cleanboats.org](http://www.cleanboats.org) and taking our Clean Boats Challenge to see if they know how to keep their boats and waterways clean and safe from invasive species.

Because invasive species, such as zebra mussels and round gobies aren't native to American waters, they are safe from the predators and diseases in their native habitat. As a result, they reproduce exponentially and out-compete native fish and wildlife populations, threatening biodiversity. They can also ruin boat engines, jam steering equipment, increase the operating costs of drinking water and power plants, affect human health, and reduce property values. In the Great Lakes region alone, at least 184 aquatic invasive species are already established, with a new one discovered every eight months.

"Each year, the United States spends \$9 billion trying to control the spread of aquatic invasive species that are damaging our waterways and wildlife," says Leah Miller, director of watershed programs for the Izaak Walton League. "If you can detect them early enough, it may be possible to eradicate them. But in most instances, it is too late. That's why it is important for boaters, anglers, and other water users to inspect and clean their boats and gear every time they leave the water. This keeps invasive species from spreading to new waters."

For more information on the Clean Boats Campaign, please contact Leah Miller, (301) 548-0150, ext. 219, [lmiller@iwla.org](mailto:lmiller@iwla.org).

Founded in 1922, the Izaak Walton League of America protects America's outdoors through community-based conservation, education, and the promotion of outdoor recreation. The League has more than 40,000 members and supporters nationwide.

Leah Miller  
 Director of Watershed Programs  
 Izaak Walton League of America, Inc.  
 707 Conservation Lane  
 Gaithersburg, MD 20878  
 (301) 548-0150 ext. 219  
 (301) 548-0146 - fax  
[www.iwla.org](http://www.iwla.org)



# Focus on Exotics: Zebra & Quagga Mussels

As lake enthusiasts and avid lake monitors residing in a Great Lakes state, we should all be concerned and on the look out for two very harmful exotic invasive species: the Zebra Mussel and its cousin, the Quagga Mussel. Some scientists call these mussels the worst of all exotics that have invaded the Great Lakes. These small mussels wreak havoc in lakes by clogging water intake structures, disrupting delicate natural ecological life cycles, hurting the commercial fishing industry and damaging recreational equipment, such as, boats and motors.

As you may recall from your VLMP training manual or through our Lake Notes Publications, Zebra Mussels (*Dreissena polymorpha*) and Quagga Mussels (*Dreissena bugensis*) are very small mollusks that are native to waterbodies in eastern Europe and western Asia. They found their way to our Great Lakes system when ocean going vessels emptied their ballast water into Great Lakes' ports. A thriving population of both Zebra and Quagga mussels were discovered in 1988 and 1989, respectively.



Photo Courtesy of:  
J. Ellen Marsden  
Lake Michigan Biological Station

These freshwater mussels average one to two inches long and can be identified by the alternating dark and light stripes on their shells. The shell of the Zebra Mussel looks like the stripes on a zebra, whereas the stripes on the Quagga Mussel are typically lighter and form concentric rings on the shell. Also, their shells are very sharp and can cut your skin.

What makes these exotic invasive mussels especially bothersome and costly to remediate is that they adhere firmly to substrates. Over time they build up layers as they adhere to themselves which causes flow restriction and blockages in pipes, such as, intake structures or screens to power plants, public water supply plants and industrial facilities. Additionally, these mussels can adhere to boat hulls and motors. Once colonized on boats,



Photo Courtesy of:  
S. Van Mechelen  
University of Amsterdam



Boat hull encrusted with Zebra Mussels  
Photo Courtesy of:  
David Britton  
U.S. Fish & Wildlife Service

mussels can cause damage that is costly to repair. While Zebra Mussels prefer warm water and hard substrates, Quagga Mussels can adhere to either hard or soft substrates and can survive in the frigid depths of lakes.

Both mussels are very effective filter feeders. These food chain hogs gorge themselves

on plankton, the base of the aquatic food web which supports all aquatic life. In doing so, they severely disrupt the food chain by depriving or limiting the food supply for native mussels, zooplankton and fish. This causes a chain reaction both above and below their place in the food chain, contributing to a decline in prey fish which in turn causes predatory fish to be smaller in size. Smaller fish and smaller populations of fish negatively impact the commercial fishing industry's bottom line.

As the mussels gobble up the phytoplankton and suspended particulate matter in the lake, lake water transparency increases. While some people would like to have greater clarity in their lake, this method of achieving increased transparency carries severe ecological consequences. In addition to all the problems caused by Zebra and Quagga mussels previously described, greater clarity in a lake means greater light penetration into the water column which provides the opportunity for proliferation of aquatic plants which can alter the entire ecosystem. Also, the mussels continually filter water which means waste products are created in abundance. As the waste products breakdown, oxygen levels decrease, which can cause fish kills, not to mention, a smelly lake.

By now, you may be wondering, "How can I stop these mussels from entering my lake?" Well, most inland lakes in the Great Lakes region are at risk for becoming infested with exotic mussels (and other aquatic exotics as well!), especially when your lake is in close proximity to a lake with an infestation. To minimize your risk, first educate yourself and other lake users about the hazards of spreading aquatic exotics and just as importantly, how they spread. Here are some steps you can take to help minimize the spread of aquatic exotics:

- Inspect boats, trailers and equipment for exotic mussels and plants before leaving the waterway.
- Drain all water from the boat, including bilge, transom well, engine cooling system, motor and livewell before leaving the waterway.
- Set up washing stations in launch areas.

(Cont'd on Page 4)

## ILMA Conference Awards (Cont'd from front page)

In 2002, the ILMA Board of Directors established the Frank Loftus Conservation Award in recognition of Mr. Frank Loftus' tireless volunteer effort and commitment to Apple Canyon Lake, Jo Daviess County. This award provides an opportunity for Illinois lake organizations or individuals to nominate a local resident for state-wide recognition of their personal commitment, dedication, and stewardship efforts to address local lake issues. The award is presented each year at the Annual ILMA Conference.

This year's Frank Loftus Award was presented to the Round Lake Management Commission. There are six individuals on the Commission that received this award: Tim Pasternak, Doug Vehlow, John Gutknecht, Niel Flamm, Marty Nelson and Ken Schnur.



Congratulations Round Lake Management Commission!

## Focus on Exotics (Cont'd from page 3)

- Dry the boat and trailer in the sun for at least 5 days or use a pressure sprayer to rinse off the boat, trailer and anchor between waterbodies.
- Do not transport live bait from one waterbody to another.
- Post signs informing boaters on how to inspect their boats and trailers for mussels and aquatic plants. Moreover, if your lake is known to have an established population of aquatic exotics, post a sign informing boaters of the exotic(s) present in your lake and instruct them to wash their boat and trailer before entering another waterbody.

You can monitor for adult mussels by immersing a hard substrate, such as a concrete block, in areas of the lake susceptible to aquatic exotic introduction, including in-flowing streams and public boat launches. Check the substrate's surface monthly by feeling for hard, crusty

### Past recipients include:

**2002– FRANK LOFTUS**, Posthumously awarded, Apple Canyon Lake, Jo Daviess Co.

**2003– LOU LISKA**, Bruce Lake, DuPage Co.

**2004– BRUCE WALLACE**, Silver Lake, McHenry Co.

**2005– RICHARD A. HILTON**, Wonder Lake, McHenry Co.

**2006– MADELYNN WILHARM**, Lake Galena, Jo Daviess Co.

**2007– JIM ROBERTS**, Twin Oaks Lake, Champaign Co.

If you are interested in nominating one of your peers that exhibits the characteristics of a Frank Loftus Award winner, please go to the ILMA website and submit your nomination. Nominations must be received by January 1st of each year. For more information or to submit a nomination, go to: <http://www.ilma-lakes.org/pages/frankloftusaward.html>

Congratulations to all past recipients. You are excellent stewards of Illinois lakes and model VLMP participants!

bumps. If you suspect the presence of exotic mussels or other aquatic exotics, notify your VLMP coordinator or call the Illinois-Indiana Sea Grant located in Zion, IL at 847-872-8677.

Be an informed boater! Know your risk when you enter a waterbody and know what to do when you leave a waterbody before you enter another and potentially carry aquatic exotic hitchhikers with you.

For further information, here are a few useful websites:

Illinois Aquatic Nuisance Species website  
[www.iisgcp.org/il-ans](http://www.iisgcp.org/il-ans)

The USGS Zebra Mussel Information Site  
<http://nas.er.usgs.gov/zebra.mussel>

100th Meridian Initiative website  
[www.100thmeridian.org](http://www.100thmeridian.org)

# ILMA/IEPA Scholarship Awards Announced



The 2008 Illinois Lake Management Association/ Illinois Environmental Protection Agency scholarship awards were announced at the annual ILMA Conference held in Springfield. Two \$1000 scholarships funded by ILMA and the Illinois EPA and two \$500 scholarships funded by long-time ILMA member Robert Esser were awarded to two very deserving candidates. The ILMA/IEPA scholarships are awarded to Illinois residents who are full-time undergraduate or graduate students enrolled in natural resource curricula related to lake or watershed management at accredited colleges or universities in USEPA Region V (Illinois, Indiana, Wisconsin, Minnesota, Michigan and Ohio). Selection criteria include academic achievement, major field of study, career goals and volunteer activities related to the natural environment.

This year, awards were presented to Robert 'Trip' Krenz and Nicholas Wahl. Trip Krenz is a Master's Candidate at Eastern Illinois University in Charleston. His interests are focused in freshwater ecology. Last summer, he participated in field sampling of Illinois Lakes for the National Lakes Assessment. His research goals are to use

historical data to characterize the environmental gradient of lakes and reservoirs in Illinois, to identify reference sites along this gradient, and to examine phytoplankton assemblages of Illinois lakes to determine assemblages that best reflect the environmental gradient.

Nicholas Wahl is a Master's Candidate at Southern Illinois University in Carbondale. He is conducting research on Campus Lake on the SIU campus. Mr. Wahl's research focuses on planktivore biomanipulation to improve water clarity.

The Robert Esser scholarships are awarded to Illinois students attending an accredited Illinois College or University and majoring in a lake-related curriculum. The Esser Scholarship recognizes academic excellence and commitment to volunteerism. The 2008 Esser Scholarships were awarded to Trip Krenz and Nicholas Wahl. Both of these young men have extensive volunteer experience and are focused on applying an ecosystem approach to the management of Illinois' lakes.

Congratulations to both of these award recipients!

## Lake Education Assistance Program (LEAP) Steve Kolsto, LEAP Coordinator



The Lake Education Assistance Program (LEAP) is the Illinois Environmental Protection Agency's grant program available to teachers, schools and not-for-profit organizations for the study of lakes, ponds and their watersheds. This grant of up to \$500 is available twice a year and can be used to purchase equipment, transportation, educational materials and registration to lake-related conferences and workshops.

LEAP has awarded nearly \$500,000 to over 1,000 applicants across Illinois since it began in 1995. In addition to teachers and students, many groups have benefited from LEAP grants to teach and learn about lakes, including scout troops, cities and environmental organizations. Projects have ranged from studying small farm ponds to Lake Michigan.

Some examples of projects that have been funded by LEAP include:

- Pond installation at a school
- A class in Williamsville, Illinois conducted studies on their city pond and presented their findings and recommendations for how to restore and protect the pond to the city council.
- A high school in Bunker Hill, Illinois had the rare opportunity to study a lake since its "birth." When the city dug the new lake in their local park in 2003, Clarine Dobos and her high school science classes

began to monitor and keep recorded observations of the lake and have done so every year since.

- In 2001, Christine Geiselhart and her fourth grade students from Butterfield Elementary began a study of Lake Michigan. Around the same time, students from Siberia were conducting studies on Lake Baikal. In 2002 (the 30<sup>th</sup> anniversary of the Clean Water Act), Christine and others from her school took a trip to share the results of their lake studies with their counterparts in Russia. The entire Lake Michigan/Lake Baikal story is in the 2002 Summer/Fall issue of Environmental Progress which can be found on our website at <http://www.epa.state.il.us/environmental-progress/index.html>.

If you have any questions or want to find out more about LEAP, please contact Steve Kolsto of the Illinois EPA Lakes Unit at 217-782-3362.

The deadline for LEAP applications is September 30 and January 31 of each year.





## PLWIP (Cont'd from front page)

The program is open to publicly owned lakes including state park and forest preserve lakes, municipally owned lakes and lakes that are partially owned by a municipality with public access.

To apply for this competitive program, please submit a project plan to your local regional IEPA biologist which focuses on protecting or restoring an identified problem within the lake or watershed. The plan should also identify the entity responsible for management, implementation and maintenance of the project. If you are unsure which regional biologist is in your area, contact the PLWIP Coordinator, Steve Kolsto, and he will direct you.

PLWIP grant requests can be between \$10,000 and \$40,000 and is specifically offered for short term projects (to be completed within 1.5 years). Although the grant can fund up to 100% of the project, a dollar or in-kind service match receives additional consideration when prioritizing grant recipients. An application with a list of project and eligibility requirements is available online at <http://www.epa.state.il.us/water/surface-water/forms/plwip-app.pdf>.

Contact IEPA if you have questions about the grant or your lake's eligibility. Preserve your lake's aesthetic and ecological quality with a PLWIP grant.

### PLWIP Coordinator

Steve Kolsto  
1021 N Grand Ave East  
Mail code #15  
Springfield, IL 62702  
Phone: 217-782-3362  
E-mail: [steve.kolsto@illinois.gov](mailto:steve.kolsto@illinois.gov)

### Regional PLWIP Contacts:

#### Northern Monitoring Unit

Diane Caruso  
9511 W Harrison St  
Des Plaines, IL 60016  
Phone: 847-294-4000  
E-mail: [diane.caruso@illinois.gov](mailto:diane.caruso@illinois.gov)

#### Central Monitoring Unit

Phyllis Borland-Lau  
1021 N Grand Ave East  
Mail code #10  
Springfield, IL 62702  
Phone: 217-557-8761  
E-mail: [phyllis.borland-lau@illinois.com](mailto:phyllis.borland-lau@illinois.com)

#### Southern Monitoring Unit

Mike Bundren  
2309 W Main  
Marion, IL 62959  
Phone: 618-993-7220  
E-mail: [mike.bundren@illinois.gov](mailto:mike.bundren@illinois.gov)

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<sup>1</sup> Priority lakes identified in IEPA report, *Targeted Watershed Approach-A Data Driven Prioritization* (Document No. IEPA/

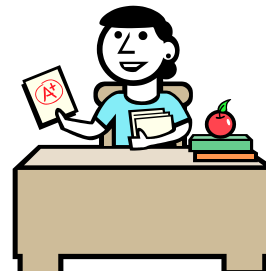
## Environmental Education - Dive In! Steve Kolsto

If you read the last VLMP newsletter you know about Illinois EPA's Bureau of Water *Dive In!* Program. For those of you who didn't get to read the last issue, *Dive In!* is a day of water education for fourth grade students and their teachers.

For the past six years, *Dive in!*, formerly known as Make-a-Splash, was held at Rock Springs Garden in Decatur, IL. This year *Dive In!* has found a new partner, the Environmental Education Association of Illinois (EEAI). The Environmental Education Association of Illinois' mission is to maintain a vital network that supports and advances quality environmental education throughout the state. As luck would have it, EEA has Regional Directors throughout the state, which makes it possible for *Dive In!* to go on the road!

Since most Regional Directors work at such places as park districts, forest preserves, the U.S. Fish and Wildlife Service and even own their own environmental education

businesses, they are familiar with environmental educators in their area who are interested in giving presentations. This makes it easy for *Dive In!* to move around the state and continue to provide quality, exciting water education. The first *Dive In!*/EEAI event will be held this fall in Rushville, IL at the Peace of Earth Environmental Learning Center. If you are interested in using the resources EEA has to offer or you are interested in joining, visit their website at [www.eeai.net](http://www.eeai.net).



# “Lake Notes” Fact Sheets

“Lake Notes” is a series of publications produced by the Illinois Environmental Protection Agency about issues affecting Illinois’ inland lakes. These fact sheets are intended to provide information on various topics concerning lakes, their watersheds and actions that can be taken to protect these valuable resources. Twenty-six fact sheets have been completed to date. They are available on the Agency’s website at [www.epa.state.il.us/water/conservation-2000/lake-notes/index.html](http://www.epa.state.il.us/water/conservation-2000/lake-notes/index.html) or in hard copy, free of charge, by contacting Steve Kolsto at 217-782-3362. Available Lake Notes include:

- Aquatic Exotics
- Aquatic Plant Management Options
- Artificial Structures For Fish Cover
- Beavers and Muskrats
- Canada Geese and Your Lake
- Common Lake Water Quality Parameters
- Determining Your Lake’s Watershed
- Fertilizers and Pesticides
- Home and Yard
- Illinois Clean Lakes Program (ICLP)
- Illinois Lakeshore Birds
- Illinois Volunteer Lake Monitoring Program (VLMP)
- Lake Aeration and Circulation
- Lake Dredging
- Lake Education Assistance Program (LEAP)
- Lake Stratification and Mixing
- The Milfoil Weevil
- Monitoring Lake Quality
- Pressure Treated Wood
- Septic Systems
- Shoreline Buffer Strips
- Shoreline Stabilization
- Stormwater Detention Ponds
- Waterborne Pathogens
- Where to Go For Lake Information
- Zebra Mussels

**SAVE THE DATE:** The 24<sup>th</sup> annual ILMA conference has already been scheduled. We will be meeting at the Hotel Pere Marquette in Peoria, Illinois February 18 – 20, 2009. Please check the ILMA website for updates and information at: [www.ilma-lakes.org](http://www.ilma-lakes.org). You can also check this website or contact your local VLMP coordinator if you are interested in becoming a member of ILMA.

## Important VLMP Contacts to Know

### Regional Coordinators:

#### **Statewide Coordinator**

Sandy Nickel  
Illinois EPA  
Springfield, IL  
Phone: 217-782-3362  
E-mail: [sandy.nickel@illinois.gov](mailto:sandy.nickel@illinois.gov)

#### **Northern Coordinator**

Holly Hudson  
Chicago Metropolitan Agency for Planning  
Chicago, IL  
Phone: 312-454-0400  
E-mail: [hudson@cmap.illinois.gov](mailto:hudson@cmap.illinois.gov)

#### **Southern Coordinator**

Ike Kirkikis  
Greater Egypt Regional Planning & Development Cmsn.  
Carbondale, IL  
Phone: 618-549-3306  
E-mail: [gerpdc@midwest.net](mailto:gerpdc@midwest.net)

### Illinois EPA Regional Office Biologists and Technical Support:

#### **Northern**

Diane Caruso  
IEPA Des Plaines Regional Office  
Phone: 847-294-4000

#### **Central**

Phyllis Borland-Lau  
IEPA Springfield Regional Office  
Phone: 217-557-8761

#### **Southern**

Mike Bundren  
IEPA Marion Regional Office  
Phone: 618-993-7200



Illinois Environmental  
Protection Agency

1021 North Grand Ave. East  
P.O. Box 19276  
Springfield, IL 62794-9276

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“A lake is the landscape’s most beautiful and expressive feature. It is the earth’s eye; looking into which the beholder measures the depth of his own nature.”

~ Henry David Thoreau



**28 in 2008!**

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