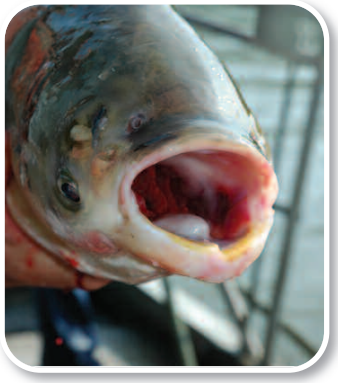
Current Reflections
SPRING 2010
Tip of the Mitt Watershed Council

Asian Carp Update

Asian carp is the poster child for invasive species. Escaping from southern fish farms during flooding, the Asian carp have made their way north to the Illinois River and are now knocking on the doorstep of the Great Lakes. Agencies have been monitoring the progression and installed an electric barrier in an attempt to prevent introduction of the Asian carp into the Great Lakes. However, in November of 2009, eDNA (see box below for explanation) monitoring tested positive for the presence of Asian carp beyond the barrier, just six miles from Lake Michigan.



After Asian carp eDNA was found past the electric barrier, Michigan Attorney General Mike Cox filed suit in the U.S. Supreme Court against the State of Illinois for allowing Asian carp to potentially invade the Great Lakes through the Chicago Canal. The first of two motions asked the high court to immediately close the locks to stop the migration of the Asian carp toward Lake Michigan. On January 19th, the Supreme Court refused to order emergency measures sought by the state of Michigan. However, the Court's order did not dispose of Michigan's other plea, seeking to reopen a decision from 80 years ago that allowed Chicago to divert a certain amount of water from the Lake. Just hours after the Court issued its ruling, the U.S. Army Corps of Engineers announced that DNA from Asian carp was found in Lake Michigan for the first time. The Michigan AG then filed a renewed motion with the U.S. Supreme Court asking for a preliminary injunction to close Chicago-area locks based on this new information. This renewed motion was recently denied on March 22nd.

On February 8, there was a White House "Carp Summit" with Great Lakes' Governors and Obama Administration officials which resulted in a $78.5 million plan that outlines over 25 short and long-term actions designed to combat the Asian carp. The plan calls for reduced openings of Chicago's navigational locks, increased fish collection efforts through electro-shocking and netting operations, expedited turn-around times on eDNA verification and doubled testing capacity, construction of additional barriers, additional chemical treatments in the case of barrier failure, and studies and research efforts.

Tip of the Mitt Watershed Council staff submitted testimony for a February 9, 2010, Congressional hearing in Washington DC. In addition U.S. Representative Dave Camp and U.S. Senator Debbie Stabenow introduced the CARP (Close All Routes and Prevent Asian Carp Today) Act in January 2010 to immediately close the barriers and locks into the Great Lakes along with other protective measures.

The Tip of the Mitt Watershed Council is calling for emergency and long-term permanent actions to ensure that the Asian carp do not enter the Great Lakes. First and foremost, the agencies need to take every action necessary and possible to keep Asian carp out of the Great Lakes. Then we must expedite the permanent solution of restoring the ecological barrier between the Great Lakes and Mississippi River Basin. This long-term solution is the only way to permanently address invasive species from moving back and forth between two of our country's largest and most important bodies of water.

What is eDNA?

Environmental DNA testing (eDNA) was developed at the University of Notre Dame to improve monitoring of invasive species. All fish, including Asian carp, release DNA into the environment. The DNA comes from mucus, intestinal lining shed with feces, cells from the urinary tract shed in urine, and cells from gills, or a combination of. The presence of species can be detected by filtering water samples, and then extracting and amplifying short fragments of the shed DNA. The objective is to use eDNA testing as an early detection tool to identify Asian carp locations. The eDNA provides indications of likely presence, but it does not yet provide information about Asian carp quantity that may be present, age, size, how they got there, or how long they may have been there.

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Gail Gruenwald
Executive Director

Reflections From Our Director

I have written on several occasions in this column about the tragedy that has befallen our water resources from the introduction and proliferation of aquatic invasive species. I firmly believe that in Northern Michigan exotic invasive plants and animals have disrupted our ecological systems more than any other single danger. My comments have reflected our organizational commitment to eradicating current invasive species from our resources and working to prevent new introductions through policy reform.

Now it would appear one exotic invasive species, the Asian carp, has finally caught the attention of the politicians and we are seeing efforts to understand the potential impacts from this species on the Great Lakes and inland waters and a push to take action before it's too late. Recently, I have been asked, why now, why haven't we seen this kind of interest on the part of policy makers for all the other 180 plus invasive plants and animals even though the impacts have been devastating?

One possible explanation is the dramatic image of one variety of Asian carp leaping from the water actually injuring people in their boats. Another explanation is the certain impact of the Asian carp on the Great Lakes and inland waters fishery if a breeding population of Asian carp takes hold. Michigan and other Great Lakes states benefit economically from the commercial and recreational fishing industry and the Asian carp has the potential to decimate entire fisheries. This has caught the attention of government officials, especially during these poor economic times.

Whatever the reason, we all must rally behind all possible efforts to keep the Asian carp out of the Great Lakes. More details on this can be found in the cover article. We will continue to be the voice for our waters in the debate over possible solutions to this potential disaster.

The Tip of the Mitt Watershed Council will continue our efforts in Washington D.C., Lansing, and throughout our service area to enact strong policies to prevent the continuing stream of exotic species entering our waters. We will remain focused on this for the long term to ensure the restoration and protection of the Great Lakes, inland lakes, streams, and wetlands.

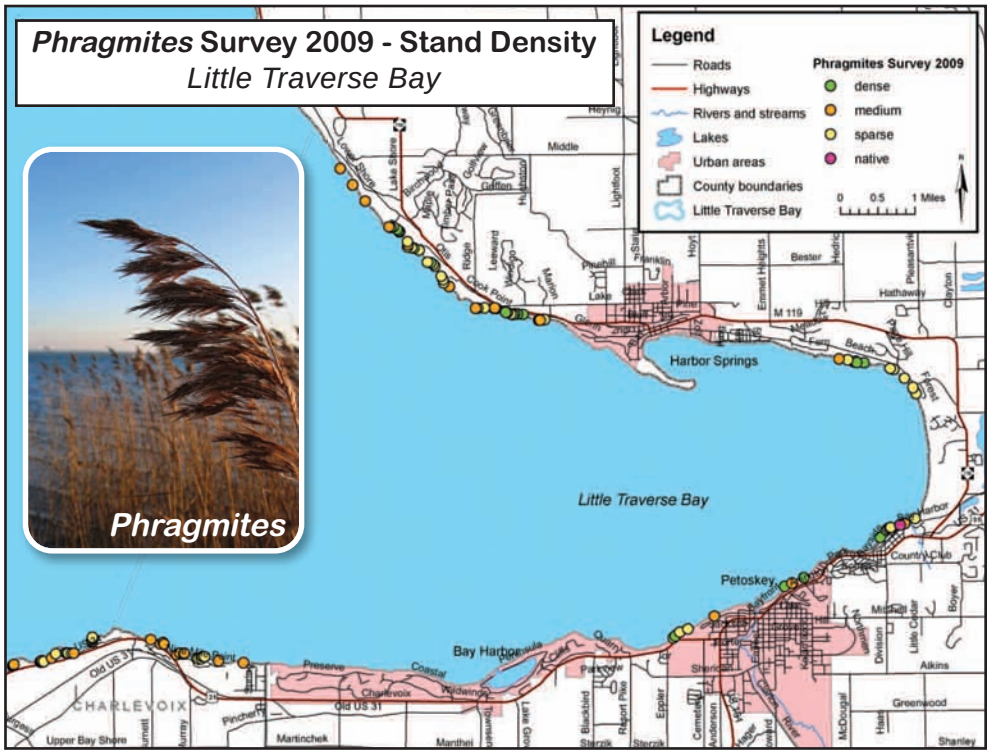
Great Lakes Day

(Left to Right) Brad Petzke, Dave Nyberg, Congressman Fred Upton, Jennifer McKay, and Matt Torreano.

In 2009, Great Lakes advocates helped secure huge victories for the Great Lakes including an investment of over $1 billion to repair aging sewers and restore habitat and a historic $475 million for the new Great Lakes Restoration Initiative aimed at restoring habitat, cleaning up toxic pollution, and confronting invasive species. These accomplishments are significant. But our work is not done. To help ensure that decision-makers in Washington, D.C. continue to follow through on Great Lakes restoration promises, Tip of the Mitt Watershed Council staff participated in the annual Great Lakes Day in D.C. in February 2010. Joining over 100 Great Lakes advocates and partners, we visited with members of Congress urging them to support maintaining or expanding funding for the Great Lakes Restoration Initiative, passing a Great Lakes restoration bill, and stopping Asian carp.

Phragmites on Little Traverse Bay

For the past few years the Watershed Council has been actively involved in the management of an invasive plant called *Phragmites*. *Phragmites* is a perennial tall grass growing up to 15' high that inhabits wet areas ranging from wetlands to lake shores. There is a native variety found in Northern Michigan that lives in harmony with other plants and animals in the ecosystem. However, an invasive *Phragmites* variety has moved into the region, particularly along Great Lakes shorelines. The invasive *Phragmites* poses a serious problem due to its tendency to grow rampantly out of control, dominate areas in which it grows, displace native plants, degrade habitat for waterfowl and animals, alter local hydrology, and become a serious nuisance to recreation and enjoyment of our beloved lakes, streams, and wetlands.



Over 110 non-native *Phragmites* stands were found along the shoreline of Little Traverse Bay in the summer of 2009.

During the summer of 2009, the Watershed Council and West Traverse Township collaborated to survey all shoreline properties in Little Traverse Bay from Nine Mile Point at the southern boundary to Seven Mile Point at the northern end. A total of 112 *Phragmites* stands were found along the Bay's shoreline, all but one being of the invasive type. Stands ranged from a few square yards in size to over 15,000 square feet! Although invasive *Phragmite*s was not found on every shoreline property, there is now a distinct possibility for it to pop up anywhere on the shoreline. Therefore, to preserve the character of the Bay, maintain unobstructed access and views of the Lake, and to protect the Lake Michigan ecosystem, it is extremely important that all shoreline property owners become aware of the problem and take steps to control it.

Phragmites is an aggressive, densely growing plant that is difficult to control. Although tall and formidable, the majority of the plant (80%) is actually under the ground in its root/rhizome structure! Thus, simply cutting it down is not an effective way to control it unless it is a very small stand and you are very, very diligent about cutting it every time a new sprout comes up (and note that it spreads underground as well and may start popping up in other areas along your shoreline). In general, the Watershed Council does not advocate the use of chemicals in or near water bodies, but where *Phragmites* is concerned, there is currently no other viable alternative for controlling it. We believe that the ecological damage caused by this invasive plant outweighs the damage caused by chemical application. Permits from the Michigan Department of Natural Resources and Environment (MDNRE) are required and both selecting the proper herbicide AND timing of application are critically important for effective control.

For more information about *Phragmites* and Watershed Council efforts to manage this invasive species, please visit our web site at www.watershedcouncil.org or call Kevin at (231) 347-1181, ext. 109.

To help you identify *Phragmites*, we have developed an identification sheet that shows the common characteristics of non-native vs. native *Phragmites*. Identification sheets are available on our website at www.watershedcouncil.org/learn or by calling 231-347-1181 to request a sheet be mailed to you.

The roots of a dream stream monitoring team

For some people "work" is synonymous with "play", which is particularly true for Tip of the Mitt Watershed Council volunteers that "work" to protect our lakes and streams. What is it that motivates our volunteers? Why are they so interested in and committed to our waters? To find out, we focus on one stream group, exploring their pasts and life paths that led them to volunteer monitoring.

Horton Creek is a small tributary flowing into the north side of Lake Charlevoix, monitored as part of our Volunteer Stream Monitoring program. Local residents adopted and have monitored Horton Creek since 2005. These volunteers come from different walks of life, but all are bound together by Horton Creek.

The consistent, enjoyable monitoring occurring on Horton Creek over the last five years is undeniably rooted in great leadership. Audrey Etienne, Horton Bay Club resident and former Tip of the Mitt Watershed Council board member, stands at the helm, mustering the troops and leading the way! Although teaching U.S. government and international relations did not prepare her for such work, Audrey has become quite adept at monitoring aquatic macroinvertebrates. Regarding work as play, Audrey comments: "Working with an enthusiastic team is catching and even on rainy days we have fun."

Scot Egleston, team collector, is quite literally a natural for stream monitoring due to his educational background in zoology and environmental biology. Scot's professional life parallels his volunteer life as he works for a firm in Gaylord, conducting environmental assessments and cleanups of contaminated sites. Furthermore, he is a lover of the outdoors; backpacking, fishing, kayaking, hiking, and skiing. Scot helps because he believes "that it is important to monitor the streams to ensure their future protection."

"Working with an enthusiastic team is catching and even on rainy days we have fun."

For over 30 years, Bill Henne has kept an eye on Horton Creek, fishing it with his son and even canoeing it once. About his involvement, Bill comments that "taking care of Horton Creek fits right into my philosophy of life." Throughout his career with the Charlevoix County Health Department, Bill was involved with monitoring ground and surface water, which he fondly remembers as "my favorite part of that job." Bill is now the president of WATCH (Water and Air Team Charlevoix), where he continues his "life long commitment to protecting the environment."

Out of deep concern for the environment, Rick Dexter helps monitor Horton Creek. A retired industrial manager and former Tip of the Mitt Watershed Council board member, Rick is committed to Northern Michigan's waters and particularly concerned about "how increased development in our part of Michigan affects our wetlands and water quality." About the experience, Rick comments that "I enjoy getting out on Horton Creek and assisting in the survey plus having the camaraderie of others with like interests." As to the extent of his commitment to our waters, he hopes "to continue being on the team for many years to come."

It's plain to see that the Horton Creek team consists of a variety of interesting and engaged volunteers that have come together to protect a resource they truly cherish. Each volunteer brings a unique element to the team that enhances both the monitoring and social experience. If you would like to get involved, contact our monitoring program coordinator, Kevin Cronk, today at 231-347-1181, ext. 109.

The Horton Creek Stream Team having fun as they examine samples they have collected.

AQUAVIST NETWORK

{ **Aquavist** ('ä-kw-vist) noun: A member of Tip of the Mitt Watershed Council's Local Activist Network; from Aqua - water, and Activist - one who seeks change through action. }

Great Lakes Coastal Wetlands Threatened in Cheboygan

On March 4, Tip of the Mitt Watershed Council testified at a Department of Natural Resources and Environment public hearing concerning development of Lake Huron coastal wetlands near Duncan Bay. The applicant proposes over 10,000 cubic yards of fill, impacting nearly 4 acres of wetlands, to build a luxury motor coach RV park. In a prior hearing, we commented to the city that re-zoning from residential to a Planned Unit Development (PUD) would only be appropriate if all required permits were first secured. Per the city's zoning ordinance, PUDs should ensure preservation of natural features within the PUD; wetlands are natural features providing key functions for water health. Destruction of such a vast wetland tract will absolutely impact the health of the Cheboygan River and Lake Huron, due to vital hydrological connections.

For over a century, Great Lakes coastal wetlands were not understood. However, for the past 40 years, scientific advances have shown that protecting these wetlands is essential to the lakes – not "maybe" we should protect them; not "let's study it further" – they ARE essential. The studies are done, results are in, and funding is even available based upon that work. Right now, $475 million from the federal government is being distributed to protect the Great Lakes, with a high priority placed on restoring coastal wetlands.

Why would we allow destruction of the exact same kind of rare wetlands that we are trying to restore? Laws have been in place to protect them for decades, and that was well-known when this property was purchased a few years ago. It is up to any buyer to beware of challenges connected to developing wetlands. Many Aquavists wrote letters of opposition during the public comment period…stay tuned!

Introducing: DNRE

Michigan's Department of Natural Resources (DNR) and Department of Environmental Quality (DEQ) have been combined into one agency, now called the Department of Natural Resources and Environment (DNRE). The new Director is former DNR Director, Rebecca Humphries. The new website can be found at: www.michigan.gov/dnre.

Phragmites invades the shoreline of Little Traverse Bay

Phragmites in Emmet County: Building on Success

Along Lake Michigan, from Charlevoix to Manistee, shoreline communities worked together throughout 2009. Their efforts were aimed at controlling the invasive reed *Phragmites*, and despite hiccups in getting the funding they expected, treatment was done and follow up steps are now underway. This year, Lake Michigan coastal townships in Emmet County are building upon those successful actions.

We are working with the Little Traverse Bay Watershed Management Plan Advisory Council to bring in all affected local governments in Emmet County. In addition to helping identify stands of *Phragmites* for treatment, we will also coordinate permit applications and help with funding sources. The application deadline for permits is August 15 because to be effective, treatment is done in the fall. Again… stay tuned!

Your Aquavist Web Site

Don't forget to visit your Aquavist Website, full of useful resources plus news and information about the hottest topics in your county. For more information, visit www.watershedcouncil.org/aquavists/ or contact Grenetta Thomassey, policy director at grenetta@watershedcouncil.org or (231) 347-1181 ext. 118.

Want to join the Aquavists or add a resource to our website?

Contact Grenetta Thomassey at (231) 347-1181 ext. 118 or by email at grenetta@watershedcouncil.org.

First place: "Frost/Fog/Fern" by Nancy Payne of Boyne City

WATERSHED AWARENESS:

Crooked Tree Arts Center hosted their 29th Annual Photography Exhibition focused on "Watershed Awareness" January 16th - April 8th, 2010. CTAC worked in cooperation with the Tip of the Mitt Watershed Council, the Leelanau Conservancy, and the Watershed Center of Grand Traverse Bay to create an exhibition with images taken solely with these watershed lands. As part of the exhibit, Gail Gruenwald was the featured speaker at the Crooked Tree Arts Center's "Coffee at 10" lecture and discussed issues that are effecting our local watershed as well as the Great Lakes.

(Left)
Watershed Council staff enjoyed viewing the photo exhibit at the Crooked Tree Arts Center.

(Below)
Gail Gruenwald discusses water related issues during the lecture held in the art gallery.

START SAVING for a Rainy Day

Grandma always told me to save for a rainy day, but she didn't mention I could save for a sunny day too. Now you can conserve household water, reduce water pollution, and save a little green on your water bill by using a rain barrel.

What is a Rain Barrel?

Rain barrels collect and store rainwater from your rooftop which can be used for a variety of non-potable uses including watering your indoor plants and outdoor landscape.

Healthier Plants and Lawns

Since rainwater is naturally soft, it is more oxygenated, contains almost no dissolved minerals or salts, and is free of chemical treatment. It also lowers the pH of soil, giving plants and lawns more access to nutrients. Rainwater collected in rain barrels can supplement or replace uses of household water.

Environmentally Friendly

Rain barrels help slow down rain runoff so it can drain naturally into the ground. It also assists in keeping excess water out of sewer and septic systems and keeps rain runoff from collecting pollutants (fertilizers, pet waste, salt, gas, oil, etc.) as it flows into storm drains leading to nearby waterways.

You can help reduce water pollution and conserve household water by purchasing a rain barrel during our Rain Barrel Sale. See the order form inside this newsletter for details. **For additional information or to download an order from, visit www.watershedcouncil.org**. Proceeds from this fundraiser benefit Tip of the Mitt Watershed Council. Sale ends August 1, 2010.

RAIN BARREL SALE

Stop in and see our rain barrel display. Two types of rain barrels available. Choose a recycled plastic or white oak rain barrel this year!

Wood barrels are made locally by:

michigan rain barrels

VOLUNTEER HIGHLIGHT:
Claire Rasmussen

Improving our world at Tip of the Mitt Watershed Council, especially in the area of our Policy and Advocacy Team, has been a very special volunteer: Claire Rasmussen.

Last year Claire attended several of the "Ice Breaker" winter education series and was so impressed with the capability and caliber of the Tip of the Mitt Watershed Council staff that she decided to begin volunteering for us. "After listening to Grenetta Thomassey present on various policy issues, I spoke with her about opportunities to volunteer in her group as a means to keep my professional skills fresh, learn more about the specific watershed issues facing Northern Michigan, and contribute to community," said Claire.

Policy director Grenetta Thomassey stated, "Claire is an amazing asset for us, and I am so grateful for her high quality work. She helps us with everything from complicated research to organizing events, and lots of stuff in between. She is a gift that keeps on giving, and a great example of why volunteers are a critical part of Tip of the Mitt Watershed Council."

Claire Rasmussen

Claire retired in 2009 from working in the life sciences/ chemistry field for 33 years. She and her husband, also retired, moved to Northern Michigan in mid 2008. They have four grown children and a delightful grand-daughter. Claire's main passion is riding and showing horses in jumping and driving disciplines. She also plays in the Charlevoix Community Band and is a member of the Board of Education for Northwest Academy. Thank you so much Claire!

If you have a love of our area and a passion to protect and preserve our water resources, then you may want to check out our many volunteer opportunities. Volunteers are needed for monitoring lakes and streams, data entry, policy and advocacy research, and much more. For a list of volunteer opportunities visit our website at www.watershedcouncil.org.

Fertilizer by the Numbers

Trying to determine what fertilizer to apply on your lawn can be an overwhelming task. Should you get the bag of 10-10-10 or the bag of 5-10-5? And what the heck do those numbers mean anyway?

Before selecting a fertilizer, first determine what nutrients are deficient in your soil. A soil test will not only let you know what nutrients are lacking, but also what soil amendments are needed. Soil test kits are available at local home and garden centers, or from Michigan State University Extension (MSUE). For more information visit http://web1.msue.msu.edu/monroe/soilweb2/testing.htm or contact your local county MSUE office. MSUE will provide you with the materials needed to gather soil samples from your property. The soil samples will then be tested at the lab and a complete report, including recommendations for your soil type, will be provided for a small fee.

Once you understand what nutrients will benefit your soils, you can choose the appropriate fertilizer given its nutrient formulation, which is indicated on every fertilizer label – put there by law – by the three large numbers such as 10-20-10 or 10-10-10. These numbers represent the percentage (by weight) of the three major nutrients required for healthy plant growth, always in the same order: nitrogen-phosphorus-potassium. Each of these nutrients affects plant growth differently.

The first number is the percentage of nitrogen in the bag. So a bag of 24-8-4 has 24 percent total nitrogen. Nitrogen provides plants with the ability to produce more chlorophyll, which in turn allows plants to grow quickly.

The second number is the percentage of phosphorus in the mix. For example, a bag of 24-8-4 would contain 8 percent phosphorus. Phosphorus aids in root development and increases flowering ability and bloom size. Although all nutrients can contribute to excess growth of aquatic plants and algae in our lakes and streams, phosphorus is most often the culprit because it is the limiting nutrient in Northern Michigan's surface waters. Accordingly, fertilizers containing phosphorus should not be used along shorelines, in communities with stormwater systems, or where runoff is directed to a lake, stream, or wetland. Instead look for "lake safe" fertilizers that contain zero percent phosphorus or consider skipping synthetic fertilizers altogether and amend your soils, as appropriate, with compost, shredded leaves, or some other form of organic matter.

The third number represents the percentage of potassium found in the product. A bag of 24-8-4 has 4 percent potassium in the mix. Potassium has many functions. It guards the plant against diseases and aids in drought protection and cold tolerance. It also serves a role in improving root development and helps in the process of photosynthesis.

You may have noticed that the sum of the percentages doesn't equal 100 percent. That's because there are other nutrients and filler product in fertilizer mixtures. This filler helps to apply the nutrients evenly over an area. When applying fertilizer, remember that more is not better. Apply only the recommended amount and keep all fertilizers a minimum of 30 feet from any water body.

Big Project. Big Success.

Completion of the Cheboygan River Watershed Restoration Initiative

Last November, the Tip of the Mitt Watershed Council successfully completed its multi-faceted, two-year Cheboygan River Watershed Restoration Initiative (CRWRI). Funded through the National Fish and Wildlife Foundation's Great Lakes Watershed Restoration Program, this comprehensive project included identifying, developing, and implementing a number of restoration projects in the Cheboygan River Watershed in partnership with lake associations. As an ambitious effort to protect the diversity of aquatic habitats and maintain excellent recreational opportunities within the Cheboygan River Watershed, the CRWRI goals were met through various projects designed to control and manage contributions of sediments, nutrients, and aquatic invasive species.

Extensive field surveys of the Watershed's major lakes and rivers, as well as roadsides where appropriate, identified occurrences of non-native *Phragmites* and quagga mussels. *Phragmites* surveys were conducted on Burt, Mullett, Pickerel, Crooked, Long, Black, and Twin Lakes, and the Black, Cheboygan, and Indian Rivers. Of the 182 *Phragmites* occurrences documented, only four were of the invasive variety and they were found in roadside ditches. Steps to address these stands were initiated. Quagga mussel surveys were conducted on Crooked, Pickerel, Burt, Mullett, and Black Lakes, and the Indian, Cheboygan, and Lower Black Rivers. Fortunately, not one invasive quagga mussel was found in the lakes and rivers sampled, which re-emphasizes the need for continual education and outreach to residents to prevent the introduction of these mussels and other invasive species to the lakes and rivers of the Cheboygan River Watershed. Based on these results, the Watershed Council developed a management plan for preventing the introduction and spread of invasive *Phragmites* and quagga mussels. The plan also addresses actions that should be taken to control the targeted invasive species when found.

A comprehensive shoreline survey was performed on Mullett Lake to document conditions that potentially impact the Lake ecosystem or its water quality. Survey results indicate nutrient pollution at 59% of shoreline properties; erosion at 12% of properties; greenbelts in poor condition at 64% of properties; and shoreline alterations at 58% of properties. Subsequently, the Watershed Council will be working with the Mullett Lake Area Preservation Society to carry out follow-up activities in 2010, which will entail presentations to the public to share results and working with individual landowners to assess properties, identify problems, and find solutions.

Comprehensive aquatic plant surveys were conducted on Pickerel, Crooked, and Mullett Lakes to document native and non-native species and to map aquatic plant communities and densities. The Crooked and Pickerel Lakes survey documented 31 aquatic plant taxa, including one invasive species. The Mullett Lake survey documented 42 aquatic plant taxa, including Eurasian watermilfoil (EWM) and two other non-native species. As an effective method of biological control, approximately 3,000 weevils were subsequently released in Mullett Lake to control heavy EWM infestations. Weevil progress will be evaluated and additional management steps taken as necessary.

Another biological control project was implemented to control purple loosestrife stands identified as part of a previous Tip

Intern, Katie O'Neill, documents an invasive stand of non-native *Phragmites* growing along M-27 (Straits Hwy.) in Cheboygan County.

(Left)
Kevin Cronk examines mussels. Fortunately, only zebra mussels were found; all lakes and streams surveyed remain free of quagga mussels.

A sample of aquatic plants from the Mullett Lake survey.

of the Mitt Watershed Council field project. Over 2,500 *Galerucella* beetles were released in the Burt and Mullett Lake areas.

Tip of the Mitt Watershed Council staff also performed shoreline and streambank erosion assessments throughout the Watershed. As a result, one streambank site on the Pigeon River and four shoreline sites (Pickerel Lake, Twin Lakes, and two on Burt Lake), were selected for restoration. In total, over 700 linear feet of streambank and shoreline were stabilized with bioengineering methods.

In addition to on-the-ground restoration and management efforts, presentations were given to lake associations and other organizations to educate watershed residents regarding water quality, best management practices, invasive species, surveys, and restoration efforts.

The success of the CRWRI is due to the collaboration and commitment of its many project partners including: Mullett Lake Preservation Society (MAPS), Burt Lake Preservation Association (BLPA), Pickerel-Crooked Lake Association (PCLA), Black Lake Association, Twin Lakes Association, Emmet County, and Columbus Beach Club (Burt Lake). In addition, valuable technical assistance was obtained from the University of Michigan Biological Station, the NOAA Great Lakes Environmental Research Laboratory, the Michigan Department of Natural Resources and Environment (MDNRE), and the Little Traverse Bay Bands of Odawa Indians.

Twin Lakes Association volunteers work together to install a coir log at Owens Spillway. Their effort helped to stabilize and restore approximately 40 LF of shoreline.

WELCOME New Members

October 22, 2009 - March 12, 2010

The future of our waters and our quality of life ultimately depend on what we do today to protect them. In order to continue to protect and enhance water quality in our region, the Watershed Council depends upon individual members, like you, for strength and financial support. We would like to thank all of our members for your continued support and extend a special welcome to our new members.

Cynthia Abbott
Victoria Anderson
Mr. and Mrs. John S. Benson
Birchwood Construction Company
Ms. Donna M. Boris
Mr. and Mrs. Gerald Breen
Mr. Michael T. Brode
Mr. and Mrs. James Brown, Sr.
Mr. and Mrs. Willard A. Brown, Jr.
Ms. Cheryl R. Brunner
Mr. and Mrs. William F. Burtis
Mr. Robert Bytwerk
Mr. and Mrs. Michael L. Carson
Katherine Carswell
Cheboygan Yacht Club
Dr. Robert Cooke
Mr. and Mrs. Donald Criner
Peter and Bonni Curran
Ms. Olga Deak Trust
Col. and Mrs. Peter DiMercurio
Mr. and Mrs. Stephen Duncan
Mr. Thomas Dworman
Mr. and Mrs. Charles E. Ervin
Dennis Faurot
Ms. Janet Forgione
Kenneth Freeman
Mr. and Mrs. John L. Goble
Mr. and Mrs. Thomas E. Graham, Jr.
Mr. and Mrs. Douglas Hail
Elise and Rip Hayes
Heather Hewett
Mr. and Mrs. Alan Hughes
Mr. Edward Hulefield
Mr. Kirk Jabara
John T. Kelly, III
Ms. Carolyn Klender
Jack, Laura and Kateley
Klingbeil and Kateley
Mr. and Mrs. Keith L. Lamkin
Helen Leitz
Mr. Joel D. Lerman
Mr. William Lorne
Dr. and Ms. Robert G. May
Mr. and Mrs. James Mc Mahon, III
Mr. and Mrs. Dan Mishler
Mr. and Mrs. Bradley D. Moffatt
Mr. and Mrs. Dennis Morse
Mr. and Mrs. Gregg A. Motter
Ms. Eva J. Nelson
Lisa Nicol
Renuka S. O'Connell
Carol A. O'Keefe
Helen O'Toole
Dana C. Peters
Karen A. Peters
Ms. Ann Pringle
Linda and Fred Rachwitz
Ms. Christine G. Redman
Mr. and Mrs. Edmund C. Risdon, III
Mr. and Mrs. Richard Roberts
Mr. and Mrs. David Roche, III
Mr. David L. Root
Peter Rubino
Mr. John T. Santinga
Mr. and Mrs. Gerald Saxton
Mr. and Mrs. Rex Schlaybaugh, Jr.
Mr. and Mrs. Andy Siudara
Mr. and Mrs. David Stine
Mr. and Mrs. Todd Strauss
Mr. and Mrs. Momcilo Teodosic
Mr. and Mrs. Ralph E. Thayer
Mr. and Mrs. Mark Tompkins
Mr. and Mrs. J. Jordan Truman
Mr. and Mrs. Greg Voelker
Mr. and Mrs. Josef Wandeler
Mr. and Mrs. Dell J. Weitzel
Ms. Mary Lou Wickowski
William A. Fisher, II
Family Foundation
Ms. Mary Jane Williams
Joan Wilson
Mr. and Mrs. John W. Woody, Jr.
Warren and Linda Woolcott
Mr. and Mrs. John R. Zahnow
Pat Zawislak
Mr. and Mrs. Vasco Zucchiatti

Memorials & Honorariums

October 28, 2009 - March 12, 2010

Memorials and Honorariums are a meaningful way to celebrate the memory of a loved one or pay tribute to somone who cares about the preservation of our beautiful water resources.

In Honor of:

Linda Badalucco
Linda Heller

Kevin Cronk
Shore Drive Study Club

Arthur Curtis
Mr. Owen Curtis

Mr. and Mrs. A.W. Hallett
Mr. and Mrs. Charles Forsberg

Jennifer McKay
Kathleen S. Glass

Grenetta Thomassey
Lori Lind and Jill Ryan

In Memory of:

Perry Jerrini
Heidi Hill and Bruce Davis

Mary Ellen Pulaski
Gary and Lindy Buffington

Leonard D. Slutz
Mr. William L. Slutz

Thank You VOLUNTEERS

We could not accomplish the many tasks and projects that need to be done without the help of our volunteers!

RSVP Volunteers

Sharon Brown
Marge May
Marian Juries
Virgie Corpus
Tillie Cone
Alice Hill
Ann Burek
Carolyn Snead

Inventory and Filing

Alan Beyer
Andrew Beyer
Cody Beyer

Policy Team Assistance

Claire Rasmussen

Data Entry

Sally Kraegel

WELCOME
Maureen Stine

Maureen Stine is the new Development and Communications Director for Tip of the Mitt Watershed Council. After earning a Bachelor of Science degree in Forestry from Southern Illinois University, in 1999, Maureen 'Mo' Stine spent the following years trekking around the country working for agencies including the National Park Service at Craters of the Moon National Monument in Arco, Idaho, the USDA Water Conservation Laboratory in Phoenix, Arizona, and directing the Wolf Lake State Fish Hatchery Visitor Center in Mattawan, Michigan. Originally from Chicago, Illinois, Maureen relocated to northern Lower Michigan in the fall of 2002. Most recently she pioneered the interpretive services program at the Oden State Fish Hatchery. Maureen now volunteers at Young State Park and serves as the Co-Manager of the Petoskey Community Victory Garden with Farming for our Future. She attends Virginia Tech (on-line) pursuing her Masters of Science in Life Sciences with an emphasis on Agricultural Plant Science & Pest Management.

Maureen married her husband Dave in Emmet County on the ice of Crooked Lake in January, 2009. They live in Indian River with their dog, Haus and together enjoy all types of outdoor recreational activities. They are both avid ice anglers on Burt Lake.

Maureen replaces long time Development and Communications Director Leslie Burk who recently left the Tip of the Mitt Watershed Council to start her own business in Petoskey. We wish Leslie well with her new venture and thank her for many years of wonderful service to our waters.

THANK YOU

Irish Boat Shop for purchasing and installing a new compass on the Boston Whaler.

Roast & Toast for providing delicious coffee for our events and meetings.

Brian Kozminski from Trout Unlimited for being a guest speaker for our Ice Breaker Series.

Stephanie Neal from the Grand Rapids Arts Museum for being guest speaker for our Ice Breaker Series.

Kevin Putman, Youth Worker at Northwest Academy, and his students for helping assemble over 3,000 "Boater Bundle" packets.

SPECIAL EVENT
Beloved Naturalist Visits NCMC

Jack Hanna, one of America's most beloved naturalists and adventurers, will speak at North Central Michigan College on Thursday, April 29, at 7 p.m. His lecture is open to the public and free of charge. It will be presented in the Student and Community Resource Center on NCMC's Petoskey campus. Doors open at 6:30 p.m. For more information visit www.ncmich.edu.

Mark Your Calendar...

A complete list of upcoming events will be mailed in May.

April 29	Jack Hanna at NCMC Stop and see our booth.
May 8	Volunteer Stream Monitoring Training Day
May 15	Prescription & Over-the-Counter Drug Collection Day
May 20	Deep Injection Well Education Workshop
May 21	Volunteer Lake Monitoring Training Day
May 22	Volunteer Stream Monitoring Field Day
June 6	Volunteer Stream Monitoring Indoor Identification Day
June 7-11	Commute to Work Week
June 21	Lake Association Summit
June 28	Day on the Bay - Charlevoix
July 12	31st Annual Meeting
July 16 & 17	Whale of a Sale
August 2	Lake Michigan Summit Harbor Springs, City Hall
August 9	Lake Michigan Summit Charlevoix, Public Library

Wednesdays on the Water

A complete list of upcoming events will be mailed in May.

June 2	Great Lakes Coastal Plants Walk
June 23	Pigeon River Kayak Tour
July 7	Hanley Cove/Intermediate Lake Pontoon Tour
July 21	Douglas Lake Kayak Tour
August 4	Thumb Lake Kayak Tour
August 25	Maple River Kayak Tour

2010 Volunteer Stream Monitoring Potluck

Volunteer Stream monitors and friends enjoyed a snowshoe hike to collect and examine samples from the Boyne River followed by a delicious potluck lunch.

A HUGE Rummage Sale for Water Recreation Lovers!

A Whale of a Sale

Friday and Saturday
July 16 & 17, 2010
8:00am - Noon
Rain or Shine

Irish Boat Shop Storage Building
Fairview Street ~ Harbor Springs
Located behind Meyer Ace Hardware in Fairview Square off State Road.

Boats will be sold by silent auction.
You do not need to be present to win an item.

Proceeds benefit
Trip of the Mitt Watershed Council

Watershed Council

The voice for Northern Michigan waters.

Watershed Council
426 Bay Street
Petoskey, MI 49770

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