



FALL 2017

Moose Pond Matters

The Shawnee Peak Tornado

by BRIAN FOX AND LEIGH MACMILLEN HAYES

The sky darkened to an eerie color around 4:30 p.m. on July 1st and I moved indoors. Suddenly—and I mean suddenly—the wind rose up. Torrential rain followed. And thunder and lightning. Wind circled around and first I was making sure all screens and doors were closed on one side of the house and then it was coming from a different direction and I ran to check the other side. Trees creaked and cracked. Limbs broke. And with one of those strikes that make you jump out of your skin, the lightning hit nearby.

That's when I checked my phone to see how much battery life was left. I saw two messages. One was an emergency weather alert: Tornado Watch. Huh? The other was from a friend warning me that there was a tornado watch for our area.

Not sure what to do, I stood between the kitchen door and the downstairs bathroom, where a hatchway leads to the basement. But, there was stuff in

the way and I really wanted to watch the storm. At the same time, I was frightened. Of course, in the midst of it all, the power went off.

Meanwhile, across Moose Pond on Thompson Lane, Brian Fox stood on the front porch to film the action, while his wife, Lili, tried to drag him inside.

My husband called me in the middle of the storm to make sure I was okay and I remember telling him I couldn't see our porch at that point.

Brian and Lili were also on the phone, in contact with their daughter, Heidi, who worked at Sportshaus. "She was in the basement while it was happening," says Brian, "and she had to leave her Jeep there and walk home as 302 was closed. I walked out to meet her part way down Thompson Road after it was over, but we had to leave the Jeep until the next day."

It didn't last all that long, as storms go, but the damage was incredible, *continued on page 3*



BRIAN FOX

Tips For Tornado Clean-Up

by COLIN HOLME

Last summer's cluster of tornadoes on Moose Pond, Long and Highland Lakes tore up numerous waterfront properties, damaged houses, buildings, and boats. And of course, they also left a wake of shattered trees... Huge limbs broke like toothpicks, trunks snapped in half and whole trees uprooted.

The destruction on some lots was incredibly devastating. Because of the unprecedented level of damage and the fact that many of the injured trees were already protected under shoreland zoning, several landowners who were hit called LEA for guidance on what to do next. Colin Holme, LEA's assistant director, visited several of the sites and gave out these pointers for folks tasked with cleaning up:

continued on page 3



BRIAN FOX

Greetings from Moose Pond! I am writing this note while sitting on our dock on the west shore of the middle basin having just finished my morning row. Just about every weekend day from May to October, I hop in my skull and row up and down the lake in one direction or the other depending on the wind direction. When I am out on the water, I am continuously amazed at the beauty of our special lake. I gaze at the mountain and often think of it as our protector for many reasons including the fact that it shields us from westerly winds.

Before I talk about our plans for next year, I would first like to thank three extremely active board members who retired from the board at the end of this summer. David Ehrman was the first MPA president. His leadership and dedication over the last 10 years was more than impressive. Steve Cavicchi, managed our database, unfailingly kept our mailing and membership lists up to date, picked up the mail, deposited checks and much more. Brian Thomas was our very dedicated CBI (Courtesy Boat/Milfoil Inspectors) coordinator and webmaster. The Moose Pond Association is indebted to these fine gentlemen and all the wonderful work they have done for us over the years.

The MPA board has some ambitious plans and challenges in the coming year. We have a committee working on a new website. We could really use a volunteer to manage it on an ongoing

basis. The new site will be very user-friendly and can be managed remotely. Board member Bill Muir has kindly agreed to be the new CBI coordinator. We want to start a LakeSmart program on Moose Pond to encourage responsible property management by our friends and neighbors. We need a couple of volunteers to work with Roy Lambert, the LEA LakeSmart coordinator, to educate waterfront land owners to become more lake water conscious/run-off aware. As you know, besides invasive species, phosphorus in our lake is the next biggest threat to its overall quality. Roy came over to my house this past summer to certify us as a LakeSmart property. Finally, we could also use a local volunteer to help with database/mailling list management and picking up the mail from the Bridgton Post Office. Please contact me at Mark@patco.com if interested.

We are also interested in recruiting more MPA board members. We are well represented from the middle basin – but would gladly accept more. We need a couple more representatives from the north and south basins. Most of the work of the board is done remotely through e-mail. We have a spring board meeting in May and a short meeting after the annual meeting in August. It does not require a lot of time. The more board members we have the more we can distribute the important work we are doing. Again, contact me if interested.



To close, I want to remind us all about the variable leaf milfoil outbreak on Long Lake this summer. We all need to be diligent in protecting Moose Pond from such a tragedy. The cost of mitigation can be expensive. The effect on the quality of the shorefronts infested with invasive plant life is shocking. The effects of waterfront property values with invasive plants on their shores is well documented.

Please continue your support of our association. If you can, step up your donation level so that we can do even more. Enlist your friends and neighbors to support us. Become involved! The quality and beauty of our special lake depends on it.

Have a great fall. I will see you on the lake.

Mark Patterson, *President*

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Upturned tree on Moose Pond

COLIN HOLME, LAKES ENVIRONMENTAL ASSOCIATION

Tornado *continued from page 1*

including telephone poles left standing at 45-degree angles on the causeway.

On the eastern side of the pond, the neighbors and I assessed our properties. We had downed branches and twigs. One neighbor's float shifted north from its usual anchored spot.

But what amazed us most—the view across the way. Trees had uprooted all along the western shoreline.

Teamwork became essential. Brian had tried to drive toward Route 302 along Thompson Lane, but was stopped within 100 feet by a downed tree. He and his neighbors were able to clear the trees enough that they could drive to the end of it by around 7:30 pm that night. Of course, that meant driving through his field and another neighbor's field further on.

Their road was a total mess. There was a lot of damage, primarily to trees, but a few buildings were hit, including Harold Arthur's garage and boat, and the Wheelers' old woodshed next to the lake.

A couple of other houses on the road ended up with trees on them but without substantial damage—one house did have part of its metal roofing blown off.

"The thing that amazed me most," says Brian, "is that the small cove in front of our house is thirty feet wide at most with trees on the mainland and also on the little peninsula. We lost nineteen trees on the shorefront but it didn't touch a single tree on the

peninsula – thirty feet away!"

The Foxes' neighbors just south of their home lost every single tree on the waterfront—nothing was left standing. "It was like that all up and down Thompson Road," says Brian. "It kind of hit a spot, skipped down the shoreline for a distance, then wiped out another section. I had heard people say that it sounds like a freight train—as I stood on the porch filming that was what it reminded me of."

At sunrise the next morning, he again stood outside, mesmerized by the beauty in the midst of such dramatic devastation.

The causeway was also a mess – the Bridgton Fire Department, Central Maine Power and Fairpoint descended on the evening of July 1st and the morning of July 2nd, while Lucas Tree worked to clear Thompson Lane so power could be restored.

"I actually gave a line worker a ride in on the road early on July 2nd," says Brian, "because he had 'gotten to pole number 4 and lost courage and interest'; his truck was a bit big to fit through the slot that we had created and under the trees hanging over the road. We were astounded that they had our power back on by around 4 in the afternoon!"

That day, poles were reset on the causeway and power was restored to many. But for weeks the hum of generators and buzz of chainsaws filled the air. "The cleanup is still continuing today," says Brian.



BRIAN FOX



BRIAN FOX

The National Weather service determined that the Shawnee Peak storm was an EF-1 Tornado with winds of 90-100 miles per hour. Another tornado also touched down on Moose Pond at the Denmark end of the lake.

It's unusual for Maine to have tornado warnings, but all in all it was determined that five tornadoes wreaked havoc on the lakes region that day.

Tips *continued from page 1*

Leave the root system in place: The roots provide stabilization along the waterfront and digging out the stumps further disturbs the shorefront. In addition, within 100 feet of the water, shoreland zoning prohibits digging up tree roots. If the roots are lifted vertical to the ground, cutting the tree might allow them to fall back down in place. This type of work is best done by professionals as upturned trees may be under extreme pressure and could be dangerous. When upturned roots don't fall back down and can't be pushed back into place with equipment, then talk to the Code Officer, before proceeding. In these situations, the tree root and stump can usually be taken out or cut

off with proper permitting.

Allow a tree to grow back near the one that came down: Trees are the filter that keep Moose Pond clean. If you want the clarity and quality of Moose Pond to remain pristine, the shoreline needs to remain forested. On developed lots without any seedlings, a tree may need to be planted nearby. Aside from more infiltration of stormwater (mature trees can absorb more than 100 gallons per day), you will also gain privacy, shade and habitat for the creatures that frequent the riparian zone.

Let impacted areas grow back: Cutting and cleaning up downed trees often means large equipment and temporary, necessary disturbance. After the equipment is gone, let vegetation

that was disturbed grow back. Low and medium vegetation around the water is resilient but only if you leave it alone. Don't let damage control be simultaneous with lawn expansion.

While your property can never be tornado proof, it is important to understand that trees growing next to each other are more resilient to high winds than those standing by themselves or in heavily thinned woods. For your safety alone, this concept is worth remembering before thinning around the water.

Still have questions? LEA staff are happy to make site visits or discuss vegetation standards and best management practices over the phone at 207-647- 8580.

Invasive Aquatic Plant Surveyors

by LORI THOMAE AND
BEN PEIERLS

On July 18, thirteen enthusiastic paddlers participated in the Invasive Plant Patrol (IPP) PLANT PADDLE, a 3-hour guided exploration in the upper basin of Moose Pond, hosted jointly by Mary Jewett, teacher/naturalist of the Lake Environmental Association, and Roberta Hill, Invasive Species Program Director of the Maine Volunteer Lake Monitoring Program (VLMP). This fun, informal workshop provided an on-shore introduction to plant identification of Maine's native aquatic plants, detection methods for the invasive aquatic plants that threaten these beautiful and ecologically-important habitats, and the importance of early detection and eradication. After reviewing safety protocols, specimen collection techniques, and demonstration of various scopes to maximize direct observation, participants were divided into survey teams, assigned an approximately 1,000-foot sector of shoreline, and sent out in kayaks to survey littoral or shoreline zones and to collect specimens.

Roberta, an aquatic ecologist and environmental educator, has been active in the field of lake protection and community outreach in Maine for over 20 years. Her interest in environmental science with a focus on lake ecology started in 1989 when her family camped near the Middle Basin of Moose Pond. Currently, she is the IPP program originator/coordinator and principal author of the Maine Field Guide to Invasive Aquatic Plants and co-author of Citizens' Guide to Invasive Aquatic Plant Management. Working in close collaboration with lake associations, conservation groups, and state government officials, the IPP program has now trained roughly 4,000 individuals (including volunteers, professionals, agency personnel, students, teachers, and others) to



MARY JEWETT

screen Maine waterbodies for the presence of invasive aquatic plants, and is viewed nationally and internationally as a leading model for citizen-based early detection.

Back on shore, Roberta physically sorted each group's specimens into trays for a plant identification exercise. Participants received a free "Quick Key to Ruling Out Maine's Eleven Most Unwanted Invasive Aquatic Plants," and practiced skills needed to spot the good native plants (eg, common or slender water weed) from suspicious plants (eg, hydrilla, variable water milfoil, curly leaf pondweed).

Using the Quick Key, the plant specimens were sorted into 4 categories:

- a. Plants with primary leaves floating (3 of the 11 invasive aquatic plants are found in this category);
- b. Plants with finely-divided leaves arranged on submersed stems (4 of the 11 invasive aquatic plants are found in this category);
- c. Plants with blade- or strap-shaped leaves arranged on submersed stems (4 of the 11

invasive aquatic plants are found in this category); and

- d. Everything else (if your plant does not fit a, b, or c, rule out all 11 most unwanted invaders).

According to Roberta, Moose Pond represents one of the cleanest lakes and intact ecosystems in the world and a valuable economic engine for the state of Maine. The Courtesy Boat Inspector program is a huge step in prevention by reminding boaters of harmful aquatic invaders. but the inspectors are not in every location and only a small percentage of lakes have CBIs at their boat landings.

Mary states, "In 6th grade, Roberta was my LEA instructor. She would come to Stevens Brook Elementary School once a month to teach us about watersheds and water quality. I remember distinctly her creating a watershed out of balled up newspaper with a plastic tarp on top. I use a similar lesson as an LEA instructor now....I am always amazed at how much knowledge Roberta has about the different aquatic plants in our lakes. I think the Plant Paddle was a great event and I know that the folks there learned quite a bit.

With the newly discovered infestation of variable milfoil in Long Lake, we will be relying on everyday citizens to keep us up to date on any suspicious plants in their lakes.”

As a follow-up to the Plant Paddle, Roberta and her colleagues held an IPP Workshop on July 25 at the LEA Maine Lake Science Center. Several of the paddle attendees took part in the all-day event, as did Science Center Research Director Ben Peierls. The presentations by Roberta and VLMP’s Christine Guerette provided an in-depth introduction into the invasive species issue, both in Maine and beyond, with aquatic plants being the primary focus. Through photographs and diagrams, participants learned the fundamentals of native and non-native plant identification.

This was followed by hands-on practice with living samples of invasive plants, along with their often similar looking counterparts. The workshop

ended with a detailed description of recommended procedures for plant screening surveys. Participants were encouraged to take the steps to become certified IPPers, with the workshop being the first.

Ben notes that “this workshop was quite informative and is a worthwhile

time investment for people interested in learning to recognize aquatic plants and the invasive species that could replace them in local lakes. Maybe if more people had taken this course or gone on the Plant Paddle, the Long Lake milfoil problem would have been caught sooner.”

What You Can Do

- Inspect the shoreline near your camp and look at all of the aquatic plants.
- Use the VLMP quick key criteria to detect slightly suspicious plants.
- If you find a suspicious aquatic plant, mark the location with a weighted buoy and carefully collect a specimen for confirmed identification. Do not attempt to remove the entire plant!
- Place the specimen in a container of water and store in a cool place.
- Take specimens directly to Mary at the LEA Main Street office in Bridgton OR take a photo and send to Mary by email for quick identification. Mary will send suspicious specimens to VLMP; VLMP will send suspicious specimens to a laboratory for DNA testing.

Err on the side of caution. If you find a milfoil, consider it a suspicious plant, collect a specimen, and submit it for identification as directed. Contact the Maine Volunteer Lake Monitoring Program at 207-783-7733 or vlmp@mainevlmp.org for further instruction or additional information.



MARY JEWETT

Mantaining your camp road



Few things symbolize summer at the lake like driving down a camp road. Many memories start with a turn off the pavement and down a tight, well-worn gravel track toward the pond. But these roads present major maintenance challenges and a poorly maintained road can cause drainage and runoff issues.

“A camp road in poor shape is not only hazardous, but contributes to the decline of nearby surface waters and wetlands,” according to Maine Department of Environmental Protection’s Gravel Road Maintenance Manual, an essential booklet on the subject.

Most camp roads date to the early 20th century, when builders of early camps and cottages would cut narrow swaths of trees 10-30 feet wide to establish a route. Though the roads have evolved some, most were built with little regard for runoff or a future

with year-round camps. As a result, many of these well-traveled paths could use a little attention.

Properly maintaining a camp road isn’t always easy, but it is worth it. A road kept in good shape will save owners and users time and money in road and vehicle repair. Keeping a road updated facilitates year-round use and makes it easier for emergency services to access a camp. And a road in the best shape will reduce runoff to the lake and increase property values.

The Gravel Road Maintenance Manual outlines three basic problems

A camp road in poor shape is not only hazardous, but contributes to the decline of nearby surface waters and wetlands.

plaguing camp roads that can cause runoff issues:

Road Surfaces: The classic tire ruts are not good enough. Make sure your road is properly crowned and built up from drainage ditches and routes. Take a peek at your road materials. A well-built road should not just be “dirt,” it should be a mixture of gravel, sand and fine particles. And if you are using the road year-round, consider your snow removal plan.

Culverts: Keep ‘em clear of dirt and debris! Build up entrances and exits with rocks and other materials to keep only water flowing through. Upgrade smaller, overflowing culverts. And replace crushed culverts.

Ditches: The right size is key. You want the right width and pitch to service runoff. Keep an eye on the sides and embankments to see that they’re not eroding away. And remove debris when necessary.



What Can You Do to Protect Your Lake?

- Prevent erosion of your camp road
- Maintain a buffer strip of vegetation near the shore. Seed and mulch bare soil. Don't disturb the pine needles or ground cover. Don't use fertilizer near the lake.
- Use riprap to stabilize the shoreline (permits required)
- Don't import sand to your beach
- Don't wash cars or bathe pets near the beach
- Use only non-phosphate detergents
- Check and pump septic systems every 3-5 years
- Remove all plant fragments from boats, trailers, and fishing gear before entering any lake

Information from "What Can You Do To Protect Your Lake?" published by LEA and the Portland Water District

Meet the board of directors



MARK PATTERSON*
PRESIDENT
Middle Basin



CHIP WENDLER*
VICE PRESIDENT
Middle Basin



LAURIE VANCE
TREASURER
Middle Basin



PHIL BLANEY
North Basin



PAUL DWYER
Middle Basin



SHEP HAYES
North Basin



FRANK MCGEE
Narrows



GORDON PULSIFER
Middle Basin



LL MUIR
Middle Basin

STEPHANIE CARABINE
CLERK
Lower Basin

The board is looking for directors from the south and north basins. Terms are three years, two meetings a year. If you are interested, talk with any of the directors.

LORI THOMAE
Middle Basin

The 2017 CBI numbers

Number of CBI hours in Bridgton
1591

Number of CBI hours in Denmark
455

Number of volunteer hours
30

Amount contributed by MPA
to fund CBIs
\$14,589.30

State grant money for Moose
Pond CBIs
\$1425.00

Number of plants found
47 at Bridgton
34 at Denmark

Number of invasive plants found
0!



MOOSE POND ASSOCIATION
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