

President's Report by Donna Danis

On April 17th when I was putting my daughter to bed, I heard the first wonderful sound of spring—the loons calling out on the lake. After a very long winter and too many noschool snow days, it looks like summer is finally just around the corner. And across the lake, PLIA volunteers are gearing up for another busy season.

The **PLIA** was formed to monitor and act upon environmental and safety issues in the Pawtuckaway Lake Watershed area. The PLIA also provides education, information, recreation and other services to its members. Today, we have four major program initiatives that support these goals: Lake Host Program, Weed Watchers Program, VLAP (Water Testing) Program and Pawtuckaway Lake Kids. The following is an update on each of these important programs.

Protecting the Lake from Exotic Weed Infestation

Protection of our lake from exotic weed infestation involves two phases. The first line of

defense is our Lake Hosts who conduct courtesy inspections of boats as they are entering and exiting the lake. As a second line, the Weed Watchers look out for infestations so that corrective action can be taken to eradicate them. On Pawtuckaway, we are fortunate to have great volunteers leading the charge on both of these fronts.

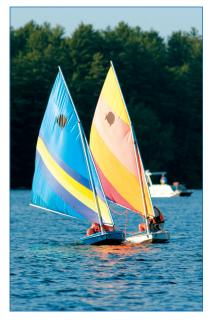
♦ Our Weed Warriors, led by Steve Soreff and Peggy Tucker, have organized training and regular weed watching patrols. This team has identified seven locations infested with Common Reed, also known as *Phragmites Australis, a very aggressive invasive plant*! Our Weed Warriors have worked throughout the summer and into the fall cutting, pulling and removing the reed from those locations by hand. Please read

the Weed Warriors report on page 8 of this newsletter to learn more about the current infestations and what you could be doing to help.

• During the summer of 2007, our Lake Hosts, led by Andrea Lawson, inspected 2,829 boats for invasive weeds at the Fundy and State Park boat ramps. Their efforts paid off with a "save", when a Lake Host found variable milfoil arriving on a boat trailer at the Fundy Boat Ramp. Learn more about our Lake Hosts by reading Andrea's report on page 3.

How important are these two programs to our lake? The cost of managing and controlling an exotic invasive aquatic infestation in a water body quickly becomes a local problem—that means the Town of Nottingham. There is currently no method to completely eradicate an exotic invasive aquatic plant infestation and plant management techniques range from \$350 to \$32,000 per acre. Imagine how that would impact our taxes!

During the summer of 2007 our Lake Hosts inspected 2,829 boats one of which was carrying variable milfoil.



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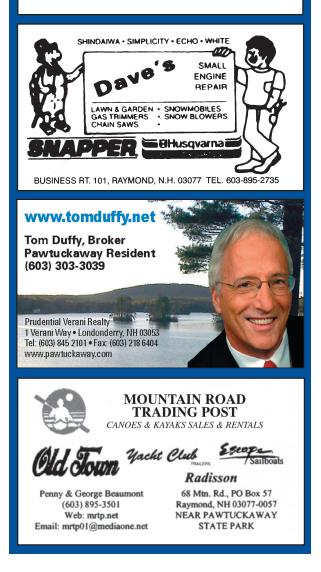
JOIN THE PLIA EMAIL Notification list

This list is for PLIA use ONLY. We send out notices regarding upcoming monthly meetings, special meetings, upcoming events, Town issues, etc. YOU MUST BE A PAID MEMBER. Send your email address to ddanis@comcast.net and we will add your name to the email; and if you already are on the email notice list and have changed your email address please send the corrected address to ddanis@comcast.net.



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Annual Meeting

June 7, 2008 • 9am-12 noon • Nottingham School *Guaranteed To Turn You Green!*



Featured Topic: New Comprehensive Shoreland Protection Act

The new Comprehensive Shoreland Protection Act amendment went into effect on April 1, 2008. Under this act, **A STATE SHORE-LAND PERMIT** is required for any construction, excavation or filling activities.

Derek R. Durbin, Esq., Environmental Policy Director for NH Lakes Association, will be speaking on how the new regulations for

shoreland protection and septic site assessments affect Pawtuckaway Property Owners.

PLUS: Greening Your Home to Keep Our Lake Blue \diamond Environmentally-friendly Septic Systems \diamond Kids Activities \diamond Food, Raffles, and more!

Mark Your Calendar! visit www.pawtuckawaylake.com for more details.

Annual July 4th Boat Parade

By George Voltz

This year we have the opportunity to have the boat parade on either Friday or Saturday. We are giving everyone the opportunity to decide which day would be better, should we stay with tradition by having the pa-



rade on Friday, July 4th or should we have it on Saturday, July 5th. The advantage of having the parade on Saturday, July 5th would be that more people will be able to participate and it also gives everyone the Friday before an opportunity to decorate their boats. Let us know your vote by choosing either July 4th or July 5th for this year's boat parade by going to the following website and placing your vote. Please vote by May 31st, we will announce at the PLIA Annual Meeting on Saturday, June 7th which day was preferred. To vote log on to: www.voltz.us/boatparade.

The Pawtuckaway Lake Improvement Association is a private, nonprofit association formed to monitor and act upon environmental and safety issues in the Pawtuckaway Lake watershed area and other issues of concern to its members. The Association routinely conducts water sampling under the New Hampshire Volunteer Lake Assessment program of the State of New Hampshire Department of Environmental Services.

President's Report continued

Assessing Water Quality

Another important program is our **Volunteer Lake Assessment Program (VLAP)**. This program establishes a regular volunteer-driven water sampling program to assist DES in evaluating water quality throughout the state. The vol-



unteer monitors of VLAP are invaluable to the state of New Hampshire for collecting data that are used to determine long-term trends.

On Pawtuckaway, we are pleased to welcome **Bob Rydeen** as Chairman of the Water Testing Committee. Bob will be tapping approximately 15 volunteers to help collect water samples in the lake (North and South locations) and in tributaries at Fernald's Cove, White's Grove, Mountain Road brook culvert, Round Pond Creek, Back Creek, and Fundy. Curious about the quality of Pawtuckaway Lake water? Please see page 5.

Educating Pawtuckaway Kids

Our newest program, the Pawtuckaway Kids Club, is helping to increase awareness about lake care with our youngest residents. Led by **Lauren Chaurette**, Pawtuckaway Kids combines education and fun activities. You'll find a list of activities planned for this summer on page 4.

A **FREE** Pawtuckaway Kids T-Shirt for the first Pawtuckaway Kid to call Tom Duffy on the phone and sing one verse of "Don't Pee in the Lake". Tom's number is 303-3039. If you get his voice mail, sing the tune and leave your name and phone number.

This year, the PLIA is once again sponsoring a 5th grade field trip to Pawtuckaway State Park. Coordinated by **Dale Scott** and supported by the DES and Tara Mayo, the new State Park Manager, this day-long event will introduce 5th graders to lake water sampling, stream surveys and watershed protection. This is a wonderful event and we are very pleased that the Nottingham School has joined us on reintroducing this valuable program. By the way, if you live on Pawtuckaway Lake and you are a parent of a 5th grader, I hope you will sign up to chaperone this trip.

Thanks to all of our volunteers

It's impossible in this short newsletter to thank every individual who is currently participating in our Weed Warriors, Lake Host, VLAP and kids programs. We are very fortunate to have such a great group of individuals willing to give up free time in order to protect and preserve Pawtuckaway Lake. If you aren't one of the individuals already involved—what are you waiting for? It's time to get motivated and get involved. And the best time to start is by joining us at the annual meeting on June 7 at the Nottingham School.

We hope to see you there!

2008 Lake Host Program

by Andrea Lawson

Lake Hosts Save Pawtuckaway Lake!

The Lake Host Program had a very exciting year! In 2007 we had 6 paid Lake Hosts and 9 volunteers. Lake Hosts inspected 2,829 boats for invasive weeds at the Fundy and State Park boat ramps and **our efforts paid off with a SAVE**! A Lake Host found variable milfoil on a boat trailer at the Fundy Boat Ramp. All it takes is one piece of a weed stuck on a boat trailer to find its way into the lake and within a year or two the lake can be infested.

The program is funded by the NH Lakes Association with a grant for \$6000 from the State of NH and by the PLIA. To keep this grant we are required to have a 50% match of volunteer time which we surpassed with a generous **\$13,000 worth of volunteer labor** and out of pocket expenses.

Other exciting news came from this spring's Nottingham town meeting when a warrant article asking for \$4,000 to help fund the program was approved. This, plus the \$6.000 grant that we were awarded from the NH Lakes Assoc will be enough to staff



Assoc. will be enough to staff *Ed Kotowski on his Lake Host shift at Fundy.* the Fundy Boat Ramp full time, for the first time, this summer.

With a growing number of NH lakes infested with invasive weeds (currently 72), this program is becoming more and more important. As the **Lake Host Program** becomes more popular, there is less money being offered to the many lake associations. To continue to receive the funding it is important that we have the volunteers to make the 50% match. Please help us with volunteering as much as you can this summer. The training is free and we need your help! Contact Andrea at: **alawson14@comcast.net** or call **236-1669**.

Wouldn't you like to be able to say "I saved Pawtuckaway Lake"? Now you have your chance. Even if you only have a few hours available, whether morning or afternoon, weekdays or weekends, you can make a big difference in our lake's future. The spread of exotic species of lake weeds is ruining lakes all over New Hampshire. Over 72 Lakes in New Hampshire have already been infested. In a shallow, nutrient rich lake like Pawtuckaway, these weeds can spread quickly and grow up to 20' in length and multiply until they fill the lake.



The PLIA isn't all work and no play, last year's Campfire night was great fun for all!

For advertising rates & information please call Bob Gifford 895-4768



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NEWS, EVENTS & ACTIVITIES

Pawtuckaway Kids! By Lauren Chaurette

Pawtuckaway Kids Coordinator

Get your kids involved in preserving Pawtuckaway Lake!

It's easy to do. Have them become a **Pawtuckawav Kid.** The Pawtuckaway Kids group was formed in 2006 as a way to involve the kids around the lake and throughout the Nottingham community with ac-



tivities on and around Pawtuckaway Lake. The focus of the group is fun, however educating the kids about the importance of preservation will know and care of the lake is the underlying goal. Kids can have a big impact on keeping our lake and the surrounding environment alive and well just by using reusable drink bottles,

recycling plastic drink bottles, using plastic

www.pawtuckawaylake.com containers to pack your lunch and snacks rather than plastic baggies, and using reusable lunch totes.

Another way to help the environment is to encourage your family to use eco-friendly products in your home, such as soap and shampoo. The next time you go grocery shopping with your parents, check out the organic and eco-friendly offerings such as Burt's Bees, Nature's Gate and Dr. Bronner's. There are a number of earth and body friendly products available right down the road at Hannaford. A few simple changes now can make a big impact on the future of our lake.

Did you know??? 100 billion plastic bags are used in the United States each year. These bags do not decompose, and pose a hazard to wildlife.

• When bleach leaks into a freshwater lake it can **poison** the fish and insects. Ask your parents to use lemon juice, hydrogen peroxide or vinegar in your laundry instead.

• By switching to cloth dinner napkins instead of disposable paper ones, your family can save money and cut down on the amount of trash in the local landfill.

Upcoming events: June 7th - PLIA Annual meeting and 2nd Annual Pawtuckaway Kids Meeting from 9am to 12 noon at the

Nottingham School. Come to the Annual Meeting while the kids attend their own supervised event! For more information contact Lauren Chaurette at tucklake@comcast.net.

Coming in July and August: Pawtuckaway Teen Night, Annual Family Paddle Day, and



the Annual Sandcastle day. Check the pawtuckawaylake.com website for more information on these and other Pawtuckaway Kids events!

Some great websites for kids to check out:

www.boatsafe.com/kids • www.nhnature.org • www.kidsites.com www.timeforkids.com
 www.pawtuckawaylake.com

PAWTUCKAWAY LAKE UNH Publishes Plankton Study

by Tom Duffy

Pawtuckaway Water Quality Report-1988 to 2007

The Big Picture: The quality of the lake water is worsening gradually over time. This is due to natural INTERNAL causes (internal phosphorous loading from bottom muck), EXTERNAL causes including runoff pollution, human landscapes, roads, boat ramps, new development, and septic systems. The phosphorous levels at the upper level of the lake increases 2% per year and 5.7% per year at the lower levels. This will eventually deplete the oxygen in the lake, increase algae and weeds. Algae consumes oxygen and phosphorous to grow. Algal blooms, particularly the harmful "blue green" cyanobacteria kind may increase over time.

Look Closer: We may be making progress. In the last 5 years there are indications that the rate of INCREASE is SLOW-ING in some measures. Phosphorous levels are stabilizing—not going down, but fluctuating in the lower historical range. Chlorophyll levels are similar. Transparency (clarity) is increasing. (Caveat: This may be due to "younger eyes" doing the secchi dish testing in recent years.) The statistics indicate that the peak in negative readings was 1996-2000, which coincided with our first Diagnostic Lake Study. Remedial steps began soon after that, and appear to be helping.

WE CAN DO IT!

Your Efforts are Working! Today we have more attention and money on the problem than ever before (see PLAC Grant.) NOW is the time to make maximum effort. Each homeowner can continue to do their part to restore the lake to 1970 levels and slow the pressure of deterioration. Septic care is primary. Shoreline Plant Buffers along the waterfront and landscape erosion control are highly effective to prevent runoff of pollutants. Best Management Practices during renovation or reconstruction is very effective. Silt fences and hay bales for winter runoff on boat ramps and hills. Every small effort really helps!

2008 Grant Update

by Tom Duffy

Controlling runoff pollution

The Pawtuckaway Lake Advisory Committee is a Town of Nottingham committee.

In 2007 the Town received a \$50,000 grant from the NH Dept. of Environmental Services (DES) to study and implement strategies to stop "non point source pollution"— oth-



erwise known as runoff pollution from entering the lake. \$30,000 is money spent on the study and design fees-mostly engineering fees. The other \$20.000 is "in kind" matching money from us local volunteers and the Town in the form of time, labor. and materials. The goals of the project

Erosion feeds algae and plant life and destroys habitat.

are to identify high priority areas for improvement, and install DEMONSTRATION SITES, so that property owners can see how easy it is to stop erosion and runoff.

Four sites on the lake have been selected for drainage fixes and landscaping. More details are available on the PLIA website. You can download or read the full report there. We are looking for volunteers to help provide the labor needed to make this happen and we must meet our goals by December 2008 in order to qualify for future grants.

We are making great progress. Now is the time to step up and contribute your time!

Mark your calendars! PLIA Coming events

SATURDAY, JUNE 7 Annual Meeting & Pawtuckaway Kids Meeting

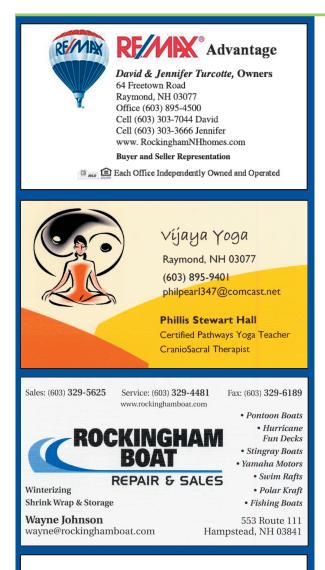
SATURDAY, JUNE 21 Amy Smagula - Weed Watchers Training

FRIDAY JULY 4TH OR SATURDAY JULY 5TH

Annual 4th of July Boat Parade - Cast your vote at: www.voltz.us/boatparade

COMING EVENTS TBA:

5th Grade Field Trip to Pawtuckaway State Park 3rd Annual Campfire Dinner Pawtuckaway Teen Night Annual Family Paddle Day Annual Sandcastle Day Updates will be posted at www.pawtuckawaylake.com





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While every effort has been made to ensure the accuracy of the information contained in this publication, we apologize for any errors that do occur.

Protect Your Property Value

Over the past winter, the Pawtuckaway Lake Taxpayer's Alliance has done a tremendous job putting the spotlight on Nottingham property assessment procedures and bringing significant change to the Town of Nottingham.

With summer approaching, now's the time to consider our property values from a different angle. For example, **what if Pawtuckaway Lake turned into a swamp as a result of an exotic weed infestation?**

The effect would be a dramatic decrease in our property values due to the poor water quality, remoteness of our homes, small lots, the condition of the dirt roads, and the large number of OUR properties that would most likely be for sale.

Here are five ways you can take action now to prevent this from happening:

1. DO YOU LOVE TO KAYAK? Join our Weed Warriors and become familiar with aquatic plants that are native to our lake and

those that are exotic and potentially harmful. Contact Steve Soreff at 895-6120 or email at soreffs15@aol.com to sign up for upcoming training.

2. DO YOU ENJOY BEING OUT-DOORS AND TALKING TO PEOPLE? Or, do you know a college student who is majoring in biology or environmental sciences? Consider volunteering for our Lake Host Program.

E ach one of us has an obligation to play some small part in protecting and preserving this precious natural resource.

Even a few hours a month can make a difference. Contact Andrea at **alawson14@comcast.net** or call 236-1669.

3. ARE YOU A MAD SCIENTIST AT HEART? Get involved in the VLAP program and play an active role in understanding and preserving the quality of Pawtuckaway Lake waters. Contact Bob Rydeen at **rydeen@comcast.net** or Karen Rydeen at



krydeen@comcast.net to find out how you can help.

4. DO YOU HAVE SCHOOL AGE CHILDREN? Get them involved in the Pawtuckaway Kids Club or some of the teen activities. They are the future property owners of Pawtuckaway Lake. (And won't it be nice if they let us come back to visit after they've inherited our

houses?) Contact **pawtuckawaylakekids@comcast.net** to get involved.

5. WANT TO KNOW MORE ABOUT GOING GREEN? Make sure you come to the annual meeting to learn about the New Comprehensive Shoreland Protection Act that went into effect on April 1.

It's easy to sit back and say, "the Town owes us this" or "why doesn't the State take care of that?", but the reality is—**THIS IS OUR LAKE**. We benefit from the recreational opportunities and yes, the increased property values. Each one of us has an obligation to play some small part in protecting and preserving this precious natural resource.

Membership

The PLIA has been ramping up its events and services over the years and has managed to stay within its limited budget. Recently, a number of important environmental and educational initiatives are straining our resources. For close to 20 years the PLIA membership dues have been \$10 a year. While the \$10 membership level is still an option, we have introduced a new structure for dues to help cover the cost of some significant additional initiatives.

Increasingly, government support for environmental, conservation, and educational programs is taking the form of matching grants. **The PLIA must provide large amounts of vol**

unteer hours and/or matching dollars to be eligible for government funding of these initiatives. Our members have very busy personal and professional lives and we are finding it increasingly difficult to accumulate enough volunteer hours to cover the PLIA's share of these matching grants.



Photo by John Caiati 6/05

Therefore, we need to make up the difference with dollars brought in by membership dues.

Members have the option to **join at one of three different levels**. Each level helps support additional conservation and community services. If you care deeply about these programs or you don't have the time to volunteer, joining at a higher level is a way for you to show your support. You can still join at the traditional \$10 per year or you can help fund these important expanded services by joining at a higher level. **\$10** - *Basic Membership Level*. This membership level covers the cost of the basic services the PLIA has provided for the past 15 years.

- Water Quality Testing Program
- PLIA Annual Meeting
- PawPrints Newsletter
- PLIA mailings
- Road & Island Cleanup Supplies
- PLIA contribution to NH Lakes Association, and other conservation affiliations

\$25 – Community Membership Level. This membership level, in addition, supports kids, educational and community programs.

- Pawtuckaway Kids Programs
- Community Events (ie. Campfire Night)
- Pawtuckawaylake.com Web Site
- Boating Safety Programs

\$50 – Conservation Membership Level. This membership level, in addition, helps fund the environmental and conservation initiatives that are protecting our lake for future generations.

- Lake Host Exotic Species Prevention Programs
- Weed Watchers Program
- Conservation Programs (ie. non-point source pollution/run off grant)
- Environmental Studies (ie. UNH Alewife Study) National/State/Local matching grants

Please invest in the future of Pawtuckaway Lake by becoming a member today! Mail your check to: PLIA, PO Box 30, Raymond, NH 03077

Membership Application		
Name	_ I have enclosed a check for:	
Mailing Address:	\$10 Basic Membership Level	
	□ \$25 Community Membership Level	
City State Zip	- \$50 Conservation Membership Level	
Lake Address:	 Please check your preference for receiving Pawprints: 	
Telephone	1	
Email	 Emailed PDF file (Choosing the emailed PDF copy saves the PLIA significant printing and postage costs) 	
Thank you for your support!	Printed copy - US Mail	

Weed Watch Warriors (W³)

by Steve Soreff and Peggy Tucker

With one training session, many weed watching patrols and seven expeditions in 2007, the Weed Watch Warriors (W³) are poised for an active and challenging 2008 season. We be-

gan with the training at the home of Peggy Tucker and Steve Soreff at 6 PM Friday July 27. Amy Smagula, a Limnologist/Exotic Species Program Coordinator for the NH Department of Environmental Services led the hands-on workshop. Attendees included Gayle Kenney, Meridith and Tricia Caiati, Karen Batchelder, Jeff Gurrier, Gary St. Pierre, Peggy Tucker

and Steve Soreff. The training began by becoming familiar with aquatic plants that are native to the lake so that we would be better able to identify potentially exotic or invasive ones. We learned that Pawtuckaway Lake, with its' shallow depth and long shoreline is a prime environment for exotic weed growth should it ever become infested.

The defense of the lake from exotic weed infestation involves two phases. The first is the Lake Host program. They do inspections at boat ramps to keep the weeds out of the lake. As a second line, the Weed Watch-

ers spot infestations, hopefully early, so that corrective action can be taken to eradicate them.

At the training, Gary provided his flagship pontoon boat which became a floating classroom. As we toured the lake, Amy raked up aquatic plants, discussed what she found and gave plenty of time for "hands on" identification and questions. We went as far as the floating islands in the Fundy. On a tip from Liz and Ed Kotowski, we made a key discovery between the Twin Islands. **Amy identified and confirmed we had a large area growth of the Common Reed**, *Phragmites Australis*. Amy indicated that it will take several years to eradicate beginning with pulling the entire plant including ALL of the root.



Where to begin . . .

This discovery lead to a summer and fall campaign against this exotic weed which has taken over many marsh areas and wet lands throughout the state and seashore. First, the team searched the lake for other infestations. We found a total of seven locations including the original site. We then commenced

> throughout the summer and into the fall cutting, pulling and removing the reed from those locations. We did evidence its strong ability to rejuvenate as we revisited some of our earlier efforts. But the new growth was less dense. In the fall, with the water level down, we attacked their extensive, protracted and lengthy rhizome root system with some success. The only way to permanently eradicate the *Phragmites Australis* is to not only cut them off but also to pursue their roots, aka rhizomes, all the way to their tips called points.





Making progress . . .

Satisfaction guaranteed!!!

Our plans for 2008 call for more training, for the development of an assigned monthly survey territory along the entire lake shoreline and to continue the "Phragmities war". On Saturday June 21, 9:30-12:00 noon Amy Smagula will conduct a weed watch program at 32 Dolloff Dam Road. There will be an onwater component to the training. Then, we shall assign Weed Watch Warriors sections of the lake to monthly survey for any new exotic weeds. Finally, we will continue our eradication efforts at the existing seven known Common Reed growths.

If you like to kayak, canoe or boat and would like to **help keep the Lake free of exotic weeds**, please contact Steve Soreff at 895-6120 or email at soreffs15@aol.com.



PAWTUCKAWAY WILDLIFE

Snapping Turtles by Elisabeth Danis

Snapping Turtles live on our lake. They are a type of turtle. They are fascinating animals that are large and have a long life. They live in the water and are slow on land, like other turtles. Their top shell is about 8-12 inches. The longest shell someone has found was 18.5 inches long! They can't move their head into their shell because their shell is too small; they are smaller than most other turtles. So, when an enemy is around, they can't protect

their heads. They grow to about 10-30 pounds. They are ranging in colors from light green to different browns. They are recognized by their long head, powerful jaws, and their tail. They are also very aggressive when they are threatened out of water. They have a hooked upper mouth and no teeth. Their beak has a rough edge that they use to tear food. Their name fits them because they will snap at attackers and prey. Snapping turtles live all around the lake and sometimes nest on peoples properties. Information found at: www.northern.edu/natsource/REPTILES/Snappi1.htm. Some information presented by Therese Thompson