the Water Column

MVLMP
Maine Volunteer Lake Monitoring Program

A Publication of Maine Volunteer Lake Monitoring Program

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BOAT INSPECTIONS WORK!

Courtesy Boat Inspectors Stop Three Invasive Plants from Entering Maine Waters

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Inside

Photo by Teg Rood

What's Inside

To Contact Us:
24 Maple Hill Road
Auburn, Maine 04210
207-783-7733
vlmp@mainevlmp.org
www.MaineVolunteerLakeMonitors.org

Editorial Staff
Scott Williams, Editorial Comm.
Roberta Hill, Editorial Comm.
Jim Roby-Brantley, Layout

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Mary Jane Dillingham
VLMP Board President

Thoughts from your President

Hello Everyone! My name is Mary Jane Dillingham and I am the new VLMP Board President. It is with great pride that I accepted the honor of this position. I have been in the "water world" for about 18 years. I have worked in marine water research, wastewater treatment, bottled water, and public drinking water. The one thing that holds true for all of my work experience is my passion for clean water.

My position as Water Quality Manager for the Auburn Water District and Lewiston Water Division allows me to connect with all the aspects of delivering safe drinking water to our customers. Lake Auburn, our unfiltered source of supply, is a beautiful lake and although well protected it remains vulnerable, and that will very likely continue into the future for as long as the lake exists! I hope all of our lakes and ponds in Maine will be protected and monitored far into the future. The VLMP is likely to be here for a very long time in the forefront of such efforts, so for me, it is well worth the commitment.

The VLMP is a "true to its mission" organization. And *you* are the VLMP. Each and every one of you who monitor water quality, survey a lake or pond for invasive plants, collect and crunch the data, offer financial support or volunteer on the Board of Directors or one of its committees, demonstrate your commitment to protecting Maine's lakes and ponds. The staff and volunteers of the VLMP and Maine Center for Invasive Aquatic Plants (MCIAP) are the catalysts for all of the great work that is being done. I am wholly impressed by what is accomplished through this organization! I am grateful to the staff for all the assistance they eagerly offer us. The big picture is much larger than the individual water bodies that we keep close watch over - all of Maine's lakes and ponds benefit from your efforts. Our potential for expansion is substantial - and if you haven't noticed, the VLMP has grown every year for the past decade.

As President, I am an ex officio officer off all the committees. Two very important committees at this time are the Fundraising and Development Committee and the Building and Maintenance Committee for our home at the Brackett Center in Auburn. I see the Board of Directors taking active and passionate roles in these areas to ensure that the VLMP remains secure and solid, both financially and physically as it grows and develops new and dynamic programs. The opportunities are exciting. For instance, look at what the MCIAP has accomplished in just three years. Have you had the opportunity to visit the Brackett Center? If not, please visit with us at your next opportunity. It is a great place and best of all it exists of, and for you!

What we do is not just about the work though. It is about all the diverse ways in which each of us enjoys our lakes. For example knowing that people have safe water to drink gives me great satisfaction. Those Secchi disk readings mean a lot to me. Hearing the loons at night, seeing the bald eagles fishing, counting painted turtles on the logs and rocks is also part of what we are preserving and protecting. Shouldn't everyone have the chance to enjoy the bountiful beauty of the natural aquatic world? Amidst all of the strife and the degradation of natural resources in the world, I truly appreciate these sacred places. Thank you all for your efforts. Thank you for caring about Maine's lakes and ponds.

Lakeside Notes

Scott Williams, ***Executive Director***

Several years ago I purchased a few cords of firewood from my crusty octogenarian neighbor, Lester. It was November, the sky was cloudy and the air was crisp. A few flakes of snow fell as I loaded the wood into my truck. Lester approached to make sure the transaction would take place smoothly. I made the comment "feels like winter is coming, Lester", to which he dryly replied "well, you know, it always has."

And so summer has come - and passed, again! The 2004 lake-monitoring field season will soon be history. I have four more Secchi disk readings to take in October (five including one for QC documentation) and the job will be complete. Few of us will continue to collect data in November because nearly all of Maine's lakes and ponds will have cooled and de-stratified (mixed). With the cooling and mixing comes a replenishment of oxygen in the water, a change in the composition of the algae community and at least temporary reduced stress to most lakes and ponds.

The retirement of our Secchi disks for several months marks the onset of an intense effort on everyone's part to produce the individual lake reports for volunteers, and the VLMP Annual Report - all before the onset of lake monitoring the following spring. You may wonder how it could take several months to get through this process. I'm glad you asked!

First, the data have to be in hand - all of it! That process alone can take months, and it involves the personal schedules of several hundred individuals. Without every Secchi disk reading (not to mention phosphorus, chlorophyll and dissolved oxygen data), the statistical analysis for the individual lake summaries, as well as the State averages, may have to be changed or adjusted several times. Then comes the process of reviewing each of the thousands of data forms. Each one is scoured by multiple reviewers prior to entering the information into a master database at the DEP. Next comes data analysis, database entry, the writing of the Annual Report, the printing of individual lake reports and the Annual Report, the compilation of the spring mailing to volunteers, and finally - it ends up in your hands - often only a few weeks or days before the onset of spring lake monitoring. VLMP volunteer monitors, Regional and Data Coordinators, staff and Maine DEP staff spend many hours on these tasks.

We're attempting to expedite this process by making the Annual Report and individual lake reports available on the VLMP website. Last year the Annual Report could be downloaded from the website weeks before it was ready to be mailed. It is possible that the individual lake water quality summaries will also be available through the website in 2005 - stay tuned. You may be aware that data forms can already be downloaded.

We are continuously looking for ways to make the processes more efficient and cost effective. However, we must be very careful not to sacrifice quality assurance and quality control for speed! Thanks for your continued patience.

Welcome New Board of Directors

At the Annual Meeting this year four new members were elected to the Board of Directors.

Dick Bredeau, Adams and Knickerbocker Ponds Water Quality Monitor for Boothbay Region Water District
Tom Hannula, Sebasticook Lake Water Quality Monitor and Plant Patroller
Mary Nelson, Cushman Pond Plant Patroller, Friends of Cushman Pond
Peter Vaux, PEARL Advisor and George Mitchell Center for Environmental & Watershed Research

Littorally Speaking

Roberta Hill, Program Director, *Maine Center for Invasive Aquatic Plants*

Three Strikes, They're Out!

In response to the threat to Maine lakes, ponds and streams posed by invasive aquatic plants, many Maine communities have established "Courtesy Boat Inspection" programs. If you launched a boat into Maine waters this summer, you may have encountered this voluntary public education program in action. Inspectors are trained to examine boats, trailers and other gear for hitchhiking plant fragments, to educate boaters about the invasives threat, and to encourage lake users to adopt the "check-your-boat-every-time-you-float" habit. For those who are keeping score on the success of this initiative--the 2004 inspection season was a banner year in which there were not one, but three confirmed cases of potential invasions being successfully averted by vigilant inspectors. Two of the invaders were bound for Sebago Lake; the third was snagged before entering Great Pond in Belgrade. In all three cases, the fragments intercepted were plants officially listed on Maine's watch list as imminent threats to Maine waters, all capable of taking root once introduced. In each case, the seized plant fragments were sent to the Maine Center for Invasive Aquatic Plants where their identities were confirmed.

This fragment of Eurasian Milfoil was removed from a boat entering Great Pond. by Lea Ramirez, a volunteer CBI.

Strike one:

In July, a sprig of curly leaf pondweed was caught by the wary eyes of Mark Dixon, a paid inspector contracted by the Raymond Waterways Protective Association to greet boaters at the Raymond boat launch on Sebago Lake. The personal watercraft carrying the fragment had last been launched in Candlewood Lake in Connecticut, a lake with known infestations. The owner, though thoroughly cooperative, assured Mr. Dixon that the gear was clean, as it had been recently washed at a high-pressure washing facility. Mindful that there is no substitute for a careful visual inspection, Mr. Dixon conducted a thorough inspection anyway, quickly finding the inconspicuous, yet potentially disastrous, fragment.

Curly-leaf pondweed (*Potamogeton crispus*) is an invasive aquatic plant, not native to Maine, that once established can form thick surface mats that interfere with recreation. Like all of the invasive aquatic plants on Maine's watch list, curly-leaf also poses serious threats to lake ecosystems and local economies. Native to Europe, curly-leaf was considered the most severe nuisance aquatic plant in the Midwest until Eurasian water milfoil appeared. It was accidentally introduced along with the common carp some time in the mid 1800s, and is now present throughout much of the US. The first rooted infestation of curly-leaf pondweed in Maine was confirmed in West Pond in the town of Parsonsfield in 2004.

Strike two:

The second close call occurred just a week or so later, when several stems of European naiad, again headed into Sebago Lake, were snagged by an inspector hired by the Portland Water District to monitor the Standish boat launch. The boat had a New York registration, but the "waterbody of origin" is unknown.

European naiad (*Najas minor*), also known as spiny-leaf naiad, can easily reproduce by fragmentation during the growing season. However, unlike most aquatic plants, European naiad is a true annual, relying upon seed production to return the following year. As prolific seed bearers, well-established populations may produce millions of seeds per acre. Once a healthy seed bank is established, European naiad is virtually impossible to eradicate. There are no known occurrences of European naiad in Maine, but this

Portland Water District Courtesy Boat Inspector instructs a boater at the Standish boat launch on Sebago Lake.

year two infestations were confirmed just across the border in New Hampshire.

Strike three:

On September 3, Lea Ramirez of Waterville was performing her routine duties as Volunteer Courtesy Boat Inspector on Great Pond in Belgrade when a boat from Rhode Island arrived at the launch. The boat did not have the required Lake and River Protection Sticker and Ms. Ramirez was quick to find a tangled mass of dried plant material dangling from the boat trailer. The visiting anglers, who generally fish in Chapman Pond, Rhode Island, had never heard of milfoil or invasive plants, and when asked if there were lots of weeds in Chapman Pond, answered "yes, that's why we fish there!" Ms. Ramirez removed all visible plant material and the boaters, now seemingly more concerned, cooperatively headed off to purchase a sticker. That was the last Ramirez saw of them. Ramirez bagged the plants and, following standard procedure, brought them into the CBI program coordinators at the Belgrade Regional Conservation Alliance.

Mike Little, Director of BRCA, though somewhat startled to see it, was quite sure he knew what they had. He sent samples to the Maine Center for Invasive Aquatic Plants, where his suspicions were confirmed: the plants Ms. Ramirez had snagged were definitely Eurasian water milfoil (*Myriophyllum spicatum*), widely considered to be the most aggressive member of the invasive milfoils. There are three milfoil species on Maine's watch list. Only one, variable leaf milfoil, is known to be established in Maine waters. Maine is currently the only state in the continental US with no known occurrence of Eurasian water milfoil.

Testimony to the indestructible nature of this particular invader, the dried, completely dead-looking plant fragments removed from the Rhode Island boat were placed in water just to see if there was any chance that they were still viable. The test was first conducted at BLCA, and then repeated at MCIAP. In both experiments, once back in water, the plants quickly rebounded, and in a few days time were "looking quite green and perky."

Congratulations are in order all around on this "winning season" for the State of Maine. There can be absolutely no question that the CBI program is working! With over 6000 lakes and ponds and thousands of miles of stream habitat, local groups and concerned volunteers play a very important role in the effort to prevent the spread of invasive aquatic plants in Maine. The Courtesy Boat Inspection program is coordinated by Lakes Environmental Association and Maine Congress of Lakes Association.

A "sister" initiative to the CBI program, creating a second line of defense against the threat of invasive aquatic plants, is the "Invasive Plant Patrol." To date over 1200 volunteers have been trained by the Maine Center for Invasive Aquatic Plants to survey Maine waters for the presence of invasive aquatic plants. The earlier an infestation is detected, the greater the hope for eradication. Almost all known infestations in Maine were first detected by alert and informed citizens. The Courtesy Boat Inspection program and the Invasive Plant Patrol program are both made possible with support from the Maine Department of Environmental Protection and boater participation in the Maine Lake and River Protection Sticker program.

Maine is winning the battle against aquatic invaders, one Courtesy Boat Inspection, one Invasive Plant Patrol at a time! For more information on how you can get involved in this important effort please contact the Maine Center for Invasive Aquatic Plants at 207-783-7733.

Quick Key for Ruling Out Invaders

MCIAP is pleased to announce a new tool for detecting suspicious plants.

The Quick Key is a water proof, tear-resistant pocket sized guide to help identify whether or not a plant is on the watch list of eleven invaders. Using the key, Plant Patrollers and Courtesy Boat Inspectors can identify an invader by answering questions about the plant's unique characteristics. The Quick Key includes drawings of all eleven invaders and is printed on rip and water proof paper.

To request a copy contact MCIAP at vlmp@mainevlmp.org or 783-7733.

Monitoring Metaphyton:

The Green Cotton Candy Clouds in Your Lake

Scott Williams

A similar article to this was published a few years ago in the Water Column. *The recent increase in public interest in, and concern about this poorly understood phenomenon has prompted us to revisit the topic. This time, however, we are asking for your help in unraveling some of the mysteries of metaphyton.*

If you spend time on Maine's lakes and ponds, surely you have seen it: wispy, puffy, greenish-yellow cotton candy-like clouds of algae that appear in shallow water along the shoreline throughout the summer. Sometimes the clouds appear to be floating beneath the surface, or they may be attached to the stems of rooted aquatic plants, hanging limply, or waving in the water currents - looking very much like cobwebs of the freshwater world. These colonies fall into a somewhat broad class of algae referred to as "metaphyton."

Metaphyton clouds may be a foot or so in length or width, or they may be enormous, sometimes reaching 20 or 30 feet long and several feet wide. These "blooms" tend to be more localized than the more widely distributed planktonic algae that are measured with a Secchi disk. But in spite of the apparent rich texture of metaphyton clouds, attempts at grabbing a handful are rarely fruitful. A few stringy, slimy threads are generally all that can be had.

The long filaments of the algae that form metaphyton clouds, or "blooms" exist in lakes and ponds with a wide range of water clarity and water quality. But unlike the planktonic algae that result in whole-lake blooms to varying degrees, metaphyton do not effect lake transparency, unless one were to attempt to take a Secchi disk reading through one of the puffy clouds. They derive most of the nutritional matter needed to sustain their growth from sediments and organic debris that is stirred-up from the shallow lake bottom of the littoral zone, where water temperatures may be somewhat higher than in the open lake, and where phosphorus and nitrogen levels may also be higher. It may therefore be possible for a lake or pond that has relatively low concentrations of phosphorus and planktonic algae (and relatively clear water) to support a very healthy crop of metaphyton. In fact, lakes with clearer water may be more likely to experience metaphyton growth. However,

Metaphyton Bloom Photo by Roland Paegle, Barrows Lake

much of this is speculative, and that leads to the real purpose of this article: the need for more solid information, so that this phenomenon may be better understood.

Volunteer lake monitors may be able to assist with documenting the frequency and abundance, or concentration of metaphyton growth in Maine lakes over a period of time. During the winter months, VLMP and DEP staff will develop methods for volunteers to begin the process of assessing metaphyton growth. The information will be available at regular volunteer training and re-certification workshops in the spring. Volunteers who are interested in participating in the metaphyton survey project will be provided with instructions, survey forms and other materials (if any) necessary to participate in this project. Please contact the VLMP office if you have noticed more metaphyton growth in your lake in recent years, or if you wish to participate in the survey.

Learning Experiences

Interns Lauren Perreault & Jordan Mora prepare for the annual meeting

Spring and summer is a whirlwind of activity at the VLMP office as we prepare for water quality monitor training, plant patrol workshops, the annual meeting, and providing technical support and outreach to volunteers and the public. This year those tasks were made immensely easier by the work of the energetic students who spent their summer as VLMP interns. Their hard work allowed us to start several new projects such as the construction of bucket scopes (to be used for invasive plant surveys), assisting a screening survey on Little Wilson Pond and collecting material for the virtual herbarium.

2004 VLMP Interns
Jordan Mora, Denison University
Takeshi Morita, Bates College
Lauren Perreault, Bates College
Christina Steinbrecher, Sterling College
Sarah Winslow, U. Maine at Farmington

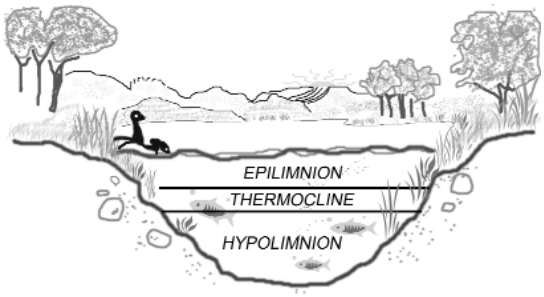
If you know of anyone who might be interested in a VLMP internship, please ask them to contact us.

VLMP Staff gets a boost from summer interns.
Sitting: Richard Jennings, Keith Williams
Standing: Jordan Mora, Jim Roby-Brantley, Scott Williams, Roberta Hill, Sarah Winslow. Christina Steinbrecher

Lake Lingo

Thermal Stratification

This complex-sounding term can be defined simply as the tendency of lakes and ponds to develop temperature "layers." When thermal stratification occurs during the spring, summer and early fall months, the warmest water layer, the epilimnion, is situated at the surface. It may be several feet to several meters in depth, depending on the time of season and the weather. The temperature in the epilimnion is somewhat uniform. Beneath this layer is an area of transition, the thermocline, in which the water temperature typically drops quickly over a vertical distance of 10-15 feet. Beneath the transition zone is the hypolimnion, the coldest region of the water column, in which the water temperature once again becomes more stable. When the water surface is covered with ice, reverse stratification can occur, in which the coldest water temperatures are near the surface. The reversal can be explained in terms of density. Cold water is more dense (and therefore heavier) than warm water until it reaches 4°C, at which time molecules start to form a crystal structure and spread out becoming less dense.



Temperature layers in a lake can have a profound influence on lake dynamics and water quality.

The phenomenon of thermal stratification has a profound influence on lake ecology and water quality. Most of the physical, chemical and biological processes in lakes and ponds are influenced in some manner by stratification. Deeper lakes are subject to stronger, longer-lasting stratification than shallow ponds. In between summer and winter stratification periods, most lakes mix - also known as "turnover," when the water temperature is somewhat uniform throughout the water column. Maine lakes generally experience some degree of thermal stratification between the months of May and October, depending on the depth of the individual water body, the air temperature and other weather influences.

Close the Cottage with Care

William LaFlamme, Maine DEP
From *In Our Back Yard* a weekly column of the
Maine Department of Environmental Protection

The summer months have flown by. It seems like just yesterday you were opening up your cottage for the summer. Things were so hectic then; cleaning, repairing, hooking up the waterline, installing the dock and mooring, and launching the boat, in anticipation of those fun-filled days on the water. Now it is time to get the cottage ready for the harsh fall and winter months ahead. You probably have a list of things to do to ensure that expensive repairs will not be needed next spring.

When going through this yearly winterizing ritual, it is important to consider possible impacts to waterbodies and the surrounding environment from these activities. After all, one of the main reasons you go to the cottage is to enjoy the area's unspoiled beauty.

Now is the time to prepare your camp for winter

Winterizing a cottage requires preventing pipes from freezing. Unless the structure is heated year round, most owners drain the water system to ensure that it won't freeze. In the past it was common practice to use antifreeze to protect plumbing. Antifreeze is toxic and it poses a threat to ground and surface waters not to mention the danger of it being ingested by pets. Adding antifreeze to plumbing fixtures is not necessary, provided all the fixtures are completely drained. If you can't do this, use low toxicity antifreeze to minimize potential threats.

To make sure that shorefront areas will not succumb to ice or wave damage, inspect the shoreline thoroughly. Stabilize any eroding areas with vegetation or rock riprap if necessary. If using riprap, or patching a retaining wall, anything more than minor maintenance and repair will require state and local permits, so plan accordingly. This is also a good time to inspect parking and landscaped areas for signs of erosion. When removing docks and boats from the water, try to store them in an area that will not kill vegetation. A stable shoreline and healthy vegetation are important in keeping eroding soil from harming water quality.

Regarding boat motors and other power equipment, do not try to drain gasoline from fuel tanks. Instead use fuel stabilizer (available from your dealer or auto parts store) to keep fuel fresh for next season. Winterize your engine(s) away from the water. When changing lubricating oils, collect the oil and bring it to a recycling facility for proper disposal. Wash boats away from the water, preferably at a commercial car wash. Many detergents and motor oils contain chemicals that can pollute waterbodies.

Following these simple rules when winterizing your cottage will go far in protecting the natural resources you so enjoy as a cottage owner. We all must work together to ensure that our natural resources remain in good shape for future generations.

Maine Lakes Forum

Creating an online community for monitors to exchange information and equipment was proposed by volunteers at last year's coordinator meeting. The Maine Lakes Forum is a resource to communicate with monitors across the state. You can post questions, respond to inquiries, and share stories at this website.

Discussion topics include

- Equipment Exchange
- Water Quality Issues
- Resources at the Brackett Center
- Sharing Experiences
- Invasive Plant Patrol Strategies
  - Prevention
  - Detection
  - Response

Special thanks to Marc Civittolo, water quality volunteer on Dyer Long Pond, for developing the site.

Log on now to join!
From the address below click on a subject of interest and post your comment by clicking "*New Topic*."

www.MaineVolunteerLakeMonitors.org/forum

"A Place on Water" Reflections

Robert Kimber, Wesley McNair
and Bill Roorbach
From Tilbury House Publishers

Review by Richard Jennings
Lovejoy Pond Plant Patroller

At the VLMP Annual Meeting last June, a few passages from "A Place on Water" were read to attendees. Volunteer Richard Jennings offers this review for our readers.

Though by conventional wisdom these authors are "from away," they are now very active in the creative writing program at the University of Maine at Farmington and clearly have acquired a basic and fundamental sense of Maine, Mainers, and "the way life should be." As consequence they have produced this very warm and comfortable collection of three essays leading to my own reflections. This book, like Drury Pond, the protagonist, achieves the distinction of being ultimately simple, and, at the same time, somewhat complex…

One can read it as a portrayal of how three families came together in a seemingly accidental and casual manner, to form a bond of friendship and intimacy which, I think, most of us would envy. The Pond dictates the character of the relationships. Though small and unpretentious, "no lipstick, no mascara," Drury is a powerful force, gradually exerted over time. Ultimately in it one finds the strength and utility of its beaver lodge - seemingly a mess of colossal proportion, but in fact a structure of amazing intricacy and impressive solidity.

But there is a deeper level available for the reaching. This account provides, "a vision of what could be in the world beyond the pond, if only that world would let it."

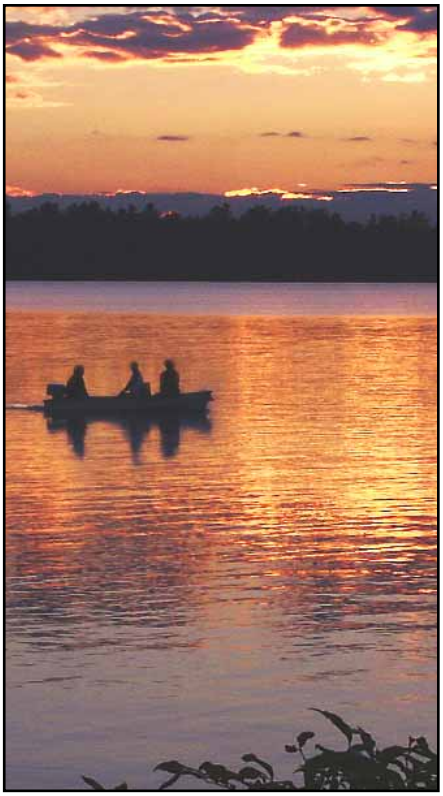
My pond, though larger by far than Drury, is still a small pond, but not small enough to provide the freedom from big boats, jet skis, and other abuses - a freedom for which I yearn and of which I dream. On a larger scale I dream of a world in which we might have a similar level of respect and companionship as found on Drury. I wonder, in my dreams, if ever we might learn, on my pond, or in the World, to let Nature take care of us, rather than our trying, hopelessly and in futility, to out manage Nature. And then, in my worst fear, I see our natural resources, our lakes, forest, oil, coal - on and on - vanish.

Evolution will roll over and eliminate us should we continue on this track. "Survival of the fittest" is NOT survival of the strongest. Insects are indeed the champions of survival. With all of our civilization, are we becoming less fit?

In conclusion, I do believe the lessons of Drury Pond, and of "A Place on Water," are deeper by far than the pond itself. Such lessons are overlooked, or ignored, only at our peril.

The views and opinions expressed by our contributors do not necessarily represent those of the Water Column staff, editors, or the VLMP.

Maine Lakes Photo Contest



Your photo could be on the cover of the 2005 VLMP annual Report!

To enter the contest simply send us a photo by December 1st. Photos should either feature a lake or volunteer(s) in action.

The winner will be announced in the next newsletter. Runner up photos may be used on the VLMP website or in future newsletters.

Last year's winner was David Hodsdon who submitted a beautiful sunset photo of Clary Lake.

New Water Quality Monitors

The following new volunteer lake water quality monitors were trained and certified in 2004. Welcome and congratulations!

Marvin Anderson	Schoodic Lake, Cherryfield
Tom & Anne Barnes	East Grand Lake, Weston
Sal Bartolotta	Little Pond, Damariscotta
Roy Bischoff	Rocky Pond, Otis
Daniel Bishop	Lakes Environmental Association
Dennis Blair	East Grand Lake, Weston
Robert Brown	Mattakeunk Lake, Lee
Kathy Burke	Bog Lake, Northfield
Mike Cloutier	Sabbathday Lake, New Gloucester
Charles Corliss	Schoodic Lake, Cherryfield
Honey Cronin	Upper Richardson Pond, Adamstown
Jeffrey Leigh Crosby	Molasses Pond, Eastbrook
Joel Croteau	Parker (Barker) Pond, Lyman
James Crowley	Gulf Island Pond, Turner
Tracy Dorgan	Abrams Pond, Eastbrook
Scott Dunham	Great East Lake, Acton
Debbie Duplises	Pocasset Lake, Wayne
Bob Ellis	Spednik Lake, Vanceboro
Andy Fisk	Nehumkeag Pond, Pittston
Paul Fortin	Lovewell Pond, Fryeburg
Deon Gagleman	Passamaquoddy Env. Dept.
Frank Gilcreast Jr.	Little Ossippee Lake, Waterboro
Nicole Grant	East Grand Lake, Weston
Eric Hall	Allagash Wilderness Waterway
Tom Harmon	Allagash Wilderness Waterway
Peter & Linda Harvey	Love Lake, T19 ED BPP
Rick Hoddinott	Livermore Falls School District
Peter Holtby	Wilson Lake, Acton
Mark Johnson	Upper & Lower Hadlock Pond and Jordan Pond, Mount Desert
Eben Joslyn	Watchic Pond, Standish
Ed Keenan	Forest Lake, Windham
Joshua Kempf	Kidder Pond & Boody Pond, Vienna McIntire Pond, New Sharon
Robert Labelle	Little Ossipee Lake, Waterboro
David Lamon	Somes Pond, Mount Desert
Ann Marie Marson	East Pond, Smithfield
Mikoo Mendoza	Boyden Lake, and Penknife Lake
Thayer McKeith	LEA
Joe Musante	Passamaquoddy Env. Dept.
Alex Nicholas	Passamaquoddy Env. Dept.
Carl Nicholas	Passamaquoddy Env. Dept.
Emile Nicol	China Lake, China
Kevin Nowak	Alewife Pond, Kennebunk
Elizabeth Payne	Wesserunsett Lake, Madison
Adam Perron	Lakes Environmental Association
Charlie Pichette	Duckpuddle Pond, Nobleboro
Frank Pike	Lakes Environmental Association

Nehumkeag Pond Monitor Andy Fisk takes a Secchi disk reading on Lake Auburn. Andy is one of 75 new water quality monitors that were certified in 2004.

Meredith Podgurski	Allagash Wilderness Waterway
David Randall	Pocasset Lake, Wayne
Laura Richter	Lake George Canaan
David Rier	Indian Lake, Whiting
Pamela Rogers	Ward Pond, Sidney
Barry Sanford	Lake George Canaan
Joan Scollo	Damariscotta Lake, Jefferson
John Sewell	Passamaquoddy Env. Dept.
Jay Seyfried	Allagash Wilderness Waterway
Paul Slack	Upper & Lower Hadlock Pond, and Jordan Pond, Mount Desert
Harrison Smith	Pleasant Pond, Turner
Todd Soukabasin	Passamaquoddy Env. Dept.
Christie Souza	McGrath Pond, Oakland
Shawn Sprague	Boyd Pond, Bristol
Steve Sprengel	Mosher Pond, Clearwater Pond and Crowell Pond, Industry
AJ Stafford	Lakes Environmental Association
Robert Stessel	Little Pushaw Pond, Hudson
Samuel Stessel	Little Pushaw Pond, Hudson
Laura Swauger	Abrams Pond, Eastbrook
Michael Taflas	Little Ossipee Lake, Waterboro
Bob Tracy	Thompson Lake, Oxford
Bobbi Twitchell	Abrams Pond, Eastbrook
Kelsey Waiton	Lakes Environmental Association
John Wedin	China Lake, China
Lew Wetzel	Pleasant Lake, Otisfield
Jesse Wheller	Somes Pond, Mount Desert
Glenn Williams	Abrams Pond, Eastbrook

New Monitors Certified May 8 at the Long Pond workshop

Certified Plant Patrollers

More than 285 individuals attended IPP training workshops in 2004. The following individuals went the extra mile and became officially certified!

Susan Adams
Donald M. Ahern
Sarah Ahern
Jessica Ahern
Linda Stetson Amar
Morris Amar
Marie T. Arnold
Ben Barr
Michael Bernstein
Martin R. Blaney II
Jennifer Brockway
Philomena Brown
Alvena Buckingham
Philip Burrill
Janet Carpenter
Jake Carvitto
Peggy Chapin
Jim Chapin
Diane Clay
Bruce Cook
Pat Cook
Rachel Ste. Croix
Frederick Cummings
Jane Davis
Buffy DeMatteis
Mary Jane Dillingham
Brian Dodge
Pam Dodge
Pat Donahue
Don Dreves
Guy Dunkle
Cynthia C. Dunlap
Robert D. Dunlap
Christine Evani
Eileen Fair
Bruce Fenn III
Deborah Ferrell
Daniel Fortin
Patrick C. Foster
Diane Freelove
Bettie Jayne Frosch

Diane Clay, Buffy Dematties & Susie Wilding-Hartford certified plant patrollers for Tacoma Lakes, identify plant samples.

Emily Gabranski
Carol F. Gabranski
Ben Geiger
Carol Gestwicki
Ron Gestwicki
Frank Getchell
Cathy Goddard
Peter Goheen
John L. Gordon
Bob Hall
Neal D. Hallee
Thomas Hannula
Nate Hardy
William Hart
Diane Harting
Anne Hayes
John Helmstadter
Bob Heyner
Jean Hoekwater
Peter Holtby
Polly Howells
Betsy Huebner
Alfred Huff
Kevin Hughes
Linda Ilse

Rick Johnson
Kevin C. Kaserman
Margaret Kennedy
Bob Kramer
David Lamon
Nick LeBlanc
Chris Lee
Heather Lee
Mike Little
Diana Lucek
Kip McCarthy
Sharon McClatchey
Bob McClatchey
Paul McCue
Michael Mclellan
Micah Miller
William Otto
Betty Parsons
Liz Petterson
Joan Pollini
Deborah Poor
Dave Potter
Christian Poulin
Lea Ramirez
Dave Raymond

David Rier
Karen M. Robbins
John Roberson
Wiggie Robinson
Brad Rounds
Arthur Schilling
Claudia Scholz
Jack Schultz
Ronald Schutt
Maggie Shannon
Roger Shannon
Steve Smith
Susan Sokol
Sherrie Sprangers
Don Sprangers
Liz Stanley
Christina Steinbrecher
Laura Swanger
Susan B. Terrell
Susan Therrien-Fenn
Moe Vachon
Dan Vallee
Mark Varney
Laura Warren
Harry H. Watson
David Welch
Eric Werthman
Ralph Whedon
Jesse Wheeler
Bruce White
Mark Whiting
Randy Widmer
Paul Wight
Susie Wilding-Hartford
Mary (Pixie) Williams
Keith Williams
Jan Woerheide
Jay L. Woolsey
Joan Yanker

Thank You!

Many thanks to the following individuals, organizations and foundations for their generous support of the VLMP in 2004.

Individual Donors

Ruth Anne Abbott
Martin Arnold
Linwood Carville
Phoebe Hardesty
Ken Holt
Brigitte Kingsbury
Steve Lewis
Mary G. Lynch
Bill Monagle
Jeff Rackliff
William Reid
Matthew Scott
Mariana Tupper
Fred Weston

Foundations

Betterment Foundation
Davis Conservation Foundation
Roy A. Hunt Foundation
Water Resources Research Institute

Associations & Businesses

Baxter State Park
Belgrade Lakes Association
China Lakes Association
Clearwater Lake Improvement Association
Cold Stream Camp Owners Association
Crawford Pocomoonshine Watershed
Embden Pond Association
Five Kezars Improvement Association
The Groundskeeper Landscape Services
Hancock-Sand Pond Association
Lake Anasagunticook Association
Lake Auburn Watershed Protection Association
Little Sebago Lake Association
Little Wilson Pond Improvement Association
Maine Water Utilities Association
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Portland Symphony Orchestra
Portland Water District
Raft Maine
Reny's Department Stores
Schotts Motorcycles in Lewiston
Slates Restaurant & Bakery
The Public Theatre
Theatre at Monmouth
Thos. Moser Cabinetmakers
Whittemore & Sons
William Atwood Lobster Company

Passings

Margaret Morrill
The Volunteer Lake Monitoring Program has lost an outstanding volunteer. Margaret Morrill was a dedicated friend of Maine lakes, going far and above the call of duty. She monitored Clearwater Pond in Industry for 21 years and volunteered as Regional and Data coordinator for Franklin and Somerset counties. She will be very much missed by the monitors who worked in her region, the Clearwater Lake Improvement Association, and the VLMP Board of Directors and staff.

Dr. Walter Reiter
Walt Reiter was a passionate advocate for Pocasset Lake in Wayne. He was an active volunteer monitor for 13 years, before retiring from the program due to illness in 2003. Walt was also a strong supporter of the VLMP. He would often call our office just to ask how the program was doing. His cheerful optimism and unwavering support for Maine lakes will be missed.

VLMP Fall Work Day

at the Brackett Center

The 2nd Annual Fall Work Day is set for October 30, and we need your help!

Mark Fuller, owner of The Groundskeeper Landscape Services and Master Gardener Steve Drane, Ph. D. will be on hand to guide volunteers and answer questions.

Following the morning chores we will provide a delicious harvest lunch and an afternoon of fun.

If you are interested in helping out for the morning and joining us for lunch please contact the office at 783-7733 or vlmp@mainevlmp.org.

Work Projects Include

Transplanting Shrubs
Planting Herbs
Flooring the Bathroom
Removing Old Stovepipe
Painting Bookshelves
Eating Treats!

Jessie Mae MacDougall clears the cobblestone steps at the 2003 work day.

Welcome New Regional Coordinators

The VLMP would like to welcome two new Regional Coordinators to the program. Hancock County volunteers' new Regional Coordinator is Liz Petterson from the Hancock County Soil and Water Conservation District who brings a wide range of professional experience to her VLMP position.

In Kennebec County, a husband-wife team has volunteered to become Regional Coordinators beginning in the 2005 season. Bruce and Susan Fenn spend their summers in the Belgrade Lakes area and have become full time volunteers. They are water quality monitors on Great and Long Ponds, and are also active with Courtesy Boat Inspections, the Belgrade Lakes Association, and the Belgrade Regional Conservation Alliance.

Volunteer Regional Coordinators Wanted for:

- Aroostook County
- Franklin County
- Piscataquis County
- Somerset County
- Washington County

If you are interested in these positions please contact the VLMP office for more information.

Highlights of the VLMP Annual Meeting

A few of the volunteers who were recognized for their outstanding efforts at the VLMP Annual Meeting

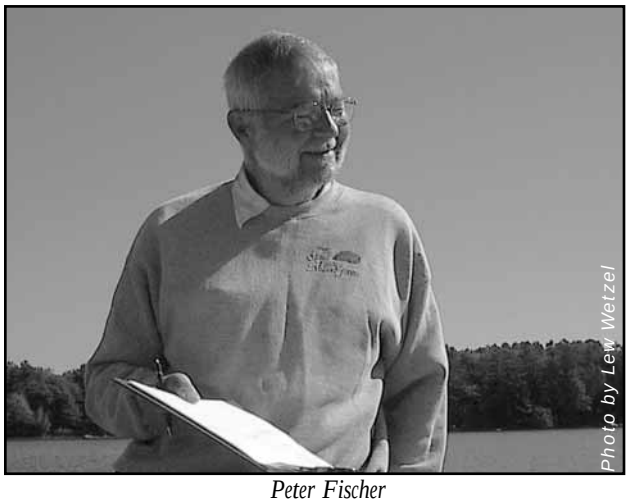
Volunteer of the Year

Peter Fischer has volunteered his time and energy into every aspect of the VLMP. He started as the water quality monitor for Boyd Pond in 1989. He has since expanded his commitment to the program as Regional Coordinator for Lincoln and Sagadahoc Counties.

Peter has served on the VLMP Board of Directors for many years, as its President from 2001 - 2004 and he currently serves as Board Treasurer.

Those who have met Peter know of his warmth, friendly nature, dedication to environmental concerns, Maine pride, and skill at story telling.

The VLMP staff and Board applaud Peter for his irreplaceable role and contribution to the program.



Peter Fischer

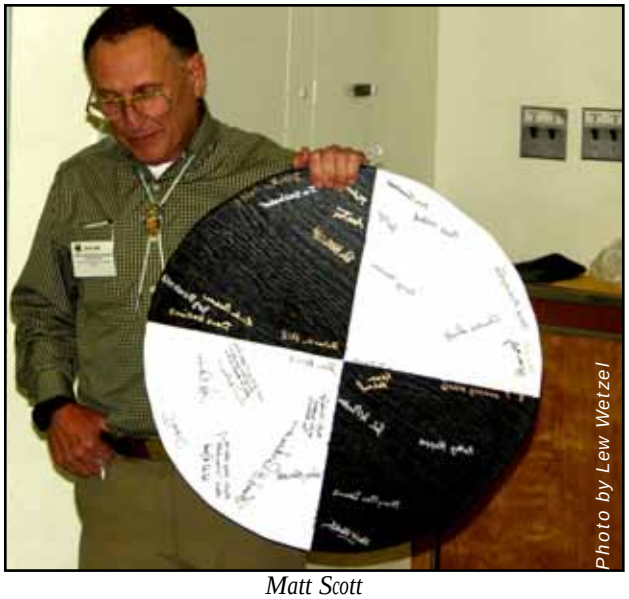
Lifetime Achievement Award

In 1972 **Matt Scott** was working in the Lakes Section of the Maine Department of Environmental Protection. With the passage of the Clean Water Act, Matt and his staff were collecting data on problem lakes in Maine. As concerned citizens [*see The Lake Sebasticook Story in the Summer 2004 Water Column*] joined the effort to protect their lakes, Matt organized a group of trained volunteers to collect water quality data. This group was the beginning of the Maine Volunteer Lake Monitoring Program.

Matt is the founder of the VLMP, and one of the most dedicated friends of Maine lakes! He has committed much of his professional life to protecting the quality of Maine waters.

Matt's accomplishments include:

Pleasant River Lake Water Quality Monitor
Maine Board of Environmental Protection Member
PEARL Steering Committee
George Mitchell Center Endowment Advisory Board
Maine Department of IF&W, Deputy Commissioner
DEP, Chief Biologist
Project SHARE (Salmon Habitat and River Enhancement)
American Fisheries Society, Emeritus
American Institute of Fishery Research Biologists, Emeritus
North American Lake Management Society, Past President



Matt Scott

Invasive Plant Prevention Action Award

Friends of Cushman Pond

In 1995, Gerry and Mary Nelson were out canoeing on the pond when they noticed a strange submersed plant. The plant was large, with long bottle brush-like tentacles and brilliant red stems. Relatively unknown in Maine at that time, the plant was identified by VLMP staff as Variable Water Milfoil. A survey of the pond soon revealed that the milfoil growth in Cushman Pond was quite extensive.

The all-volunteer "Cushman Pond Survey" team was created after an experimental application of herbicides failed to resolve the problem. Five times a year, for the past six years, Cushman Pond property owners and supporters conduct a thorough and methodical screening of the entire littoral area of the pond to locate, remove and document every milfoil plant they encounter. The team is led by SCUBA diver Doug Faille, and comprised of divers, snorkelers, boat tenders, shoreline assistants, and a support team.

This dedicated team has not yet eradicated the plant from the pond, but they are effectively controlling it, finding fewer and fewer plants each year. They have not only saved their small pond from a dismal fate, and helped reduce the chance of spread to nearby waterbodies, but they have gained experience, perfected skills and methods, and set upon a course of committed and concerted action that benefit us all. For the last three years Doug has been the instructor for Maine's Rapid Response SCUBA team, teaching others what he has learned as one of the true pioneers of this work in Maine. Gerry serves as Co-Chair of the Lovell Invasive Plant Protection Committee, and is involved with protecting the Kezar Lake Watershed from further infestation of invasive plants. Gerry and Mary bost serve on the VLMP Board of Directors.

Gerry Nelson & Doug Faille

Plant Patrollers of the Year

Fred Cummings and **Mary (Pixie) Williams** got their initiation into the IPP program last year when they participated in the IPP Field Survey Methods workshop on Crystal Pond. Pixie with her extensive background in plant systematics and Fred with just as extensive a background in building useful things with his hands, joined together with a great enthusiasm for the work at hand. They have become a stellar IPP team: thorough, resourceful, proficient, and ever eager to explore and learn.

During their first year of working together, using wide-angle scopes designed and constructed by Fred, they conducted complete (level three) surveys on six waterbodies in Casco and Otisfield, compiled detailed reports for each including a description of the major littoral areas and lists of dominant native plant species, and shared their findings with MCIAP, so that their data may be added to the Statewide IAP Screening Survey database. They are MCIAP's first officially-certified Invasive Plant Patrollers.

In addition to their extensive survey work, Fred and Pixie are now creating a pressed specimen herbarium collection for the Casco and Otisfield lakes. Both Fred and Pixie provide education outreach, program reports and updates to municipal and local groups. Fred heads up the local Courtesy Boat Inspection program and is assisting with the milfoil removal project in Lily Brook.

We commend them for their work to protect Maine lakes from the threat of invasive plants, and for providing such a shining example for us all.

Fred Cummings & Pixie Williams

Maine Volunteer
Lake Monitoring Program
24 Maple Hill Road
Aubun, Maine 04210

Data Submission Reminder!

Water Quality Monitors:
Please submit all data to your Regional Coordinator as soon as possible if you wish the data to be published in the 2004 Annual Report.

Phosphorus Samplers:
Please be sure to record the lab results and sample date on your datasheets before sending to your Coordinator.

Invasive Plant Patrollers:
Please submit your IAP Screening Survey Forms to:
MCIAP, 24 Maple Hill Road, Auburn, ME 04210.