

the Water Column



A Publication of the Maine Volunteer Lake Monitoring Program

Vol. 13, No. 3

Provided free of charge to our monitors and affiliates

Winter 2009

*The Water
Column
overflows
onto the
world
wide
web!*

See Lakeside Notes on page 2
for details.

Send us your thoughts using the
survey form on the back cover.

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See this photo in color online at
www.MaineVolunteerLakeMonitors.org/WCWinter2009

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Lakeside Notes

The Future of *The Water Column*: It's Up To You!

This edition of *The Water Column* may look a little different to you, and we want to know what you think about the change. Over the past few years the newsletter has grown substantially in volume, with most editions ranging from 15-20 pages in length—a large newsletter by any standard, and a lot of material to write, print, mail—and read.

As activities of the VLMP and our volunteer monitors have grown in recent years, so has the volume of relevant information that we try to make available to our readers. The formation of the Center for Invasive Aquatic Plants several years ago effectively doubled the size of the newsletter. And as other new directions and initiatives develop, we're doing our best to keep you informed.

The costs associated with developing, printing and mailing the newsletter have increased along with the size of the publication. Many of the great photos taken by volunteers and staff can not be printed because of space limitations, the fact that when converted to black and white they just do not look as good, and printing color photos is quite expensive.

Some of our readers have chosen not to receive a mailed copy of *The Water Column*, opting instead to read the online version on our website. If you are on our email list, you already receive an e-notice with a link to the online, full-color edition of the newsletter, sent just before the printed copies are mailed.

Taking all of this into account, we have decided to experiment with alternative versions of the newsletter, and we're asking for (and depending on) your feedback to help determine the future format of the publication. In this edition, longer newsletter articles have been summarized briefly in the printed copy, with a link to the



By Scott Williams
VLMP Executive Director

full version on our website. This allows us to include color photos and graphics, as needed, without having to be as concerned about space and cost. Shorter articles are printed in their entirety.

The online version of the newsletter is in full color, and of course, individual articles, or pages of interest can be printed by readers. This change in format has the potential to save program funds through reduced printing and mailing costs, while still providing those who receive the mailed copy with an abbreviated overview of the online version. Fewer printed pages will also conserve natural resources, as well as reducing solid waste and the need to recycle. But although this alternate format is easier on our budget, we want to know if it meets your needs.

Some of you may not have ready access to the internet and our website, and we certainly don't want to exclude anyone from access to the newsletter. If you are unable to access our website, and you prefer to receive the full printed copy, please let us know!

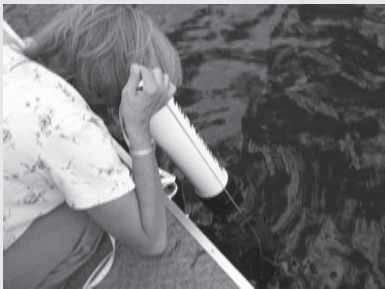
The Water Column is published for your benefit. Whether or not the changes in this edition reflect our newsletter of the future will very much depend on your feedback and ideas. Please complete and send us the survey form on the back of this newsletter.

What's in the Online Edition of *The Water Column*?

www.MaineVolunteerLakeMonitors.org/WCWinter2009

The Secret Life of Data

Have you been wondering how the data you collect are used to benefit your lake – and Maine lakes, in general? This article, written for *The Water Column* by Maine DEP's Linda Bacon and Roy Bouchard, provides a comprehensive answer to that question. In fact, after reading the article you will understand how nearly *all* of the research on Maine lakes, *all* of the protective standards and laws created for our lakes and ponds (local, state and federal), *all* of the lake watershed assessment and mitigation projects throughout Maine, and *all* of the lake awareness and education efforts by other lake-focused organizations throughout Maine depend on your data, and that of hundreds of other VLMP lake monitors! This is a must-read for all volunteer lake monitors.



DEP Grant Reports Online

VLMP volunteer lake monitors are beginning to think more about monitoring the health of their watersheds, and of ways to address both existing and future threats to their lakes. Stormwater runoff is the primary means by which pollutants from watershed development reach Maine's waters. This article directs readers to websites that provide summary overviews of projects throughout the state that have helped reduce or eliminate pollution caused by stormwater runoff.

Camp Roads: Highways for Pollution

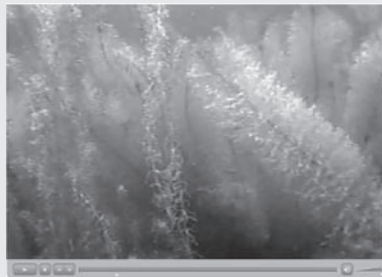
Nearly everyone who owns lake-front property, or who spends time on a Maine lake during the year travels over a "camp road" to get there. We all depend on camp roads, but have you ever thought about how those quaint gravel roads funnel phosphorus and other pollutants right into your lake? This article by Maine DEP's Barb Welch tells that story, along with suggestions for making camp roads more lake-friendly.



New on the VLMP website

More and more volunteers are sending us their lake photos and videos, including some amazing underwater images. If you have photos or video that you would like to share with volunteer monitors and others, please contact us. Check out recent videos submitted by volunteers on our website.

www.MaineVolunteerLakeMonitors.org/videos



Lake & Watershed Connections

Lake watersheds influence the physical, chemical and biological characteristics of lake ecosystems because nearly all water in the lake flows through the watershed before reaching the basin. Lakes exist in a state of dynamic balance with their watersheds. As watershed vegetation is removed and replaced with roads, buildings and other structures over time, stormwater runoff to the lake changes in ways that alter the natural lake/watershed balance. Unless conservation practices are used to offset the effects of development, lake water quality will decline with time.

Volunteer lake monitors can play an important role by taking the data that they collect into their watershed communities and using the information to foster lake and watershed stewardship, and ultimately to help restore the natural balance between a lake and its watershed. VLMP volunteers have played key roles in lake and watershed monitoring, protection and restoration projects throughout Maine. Future articles will highlight some of these success stories.



Plus full color versions of all the articles in this print edition!

President's Message

Challenges Ahead

I would like to begin by wishing all a very happy and prosperous New Year. Looking back on the past year it was by all accounts a very positive and productive one here at the VLMP. Financial support for the organization in 2008 was at an all-time high, but the program faces tough challenges in the year ahead. As most of you know, in the last few years, the VLMP has stepped up its campaign for private donations to offset the lack of growth in the level of financial support provided by the state and federal government. As a result of your generous support, we have just concluded a very successful year. Even so, the level of unrestricted support received from foundations and grants was less than forecast, and as a result, the program's reserves have had to pick up the slack.

The 2009 fiscal budget was a top agenda item at the January VLMP board of directors meeting, and in looking



Bill Monagle
VLMP President

ahead to the coming year, it was agreed that the program must (and will) stay on course. The staff and the executive committee will closely monitor the budget throughout the year, to insure that the program has the resources necessary to provide essential training and support to our hundreds of volunteer lake monitors throughout Maine. **The Directors also noted that the VLMP is a vital program in a state rich in lake resources such as Maine, and that there really is no alternative or substitute organization in Maine prepared for, or**

capable of, providing the services that we do.

We fully recognize that reducing or eliminating programs is not an option at this time, while acknowledging that maintaining the program cannot be accomplished for less than what is being budgeted for 2009. Mindful of the strain that the current economy imposes on all of us, I hope you agree that Maine's beautiful lakes and ponds deserve the highest level of attention provided by hundreds of dedicated volunteer monitors and invasive plant patrollers throughout the state, the program staff, and of course, the private individual donations needed to help maintain the effort. On behalf of the VLMP, I'd like to close by thanking all who contributed to the VLMP in 2008. We look forward to your continued and thoughtful support in 2009.

Save the Date!

*2009 VLMP
Conference
July 11, 2009*

At The Great Outdoors
on Pleasant Pond
in Turner, Maine.

More information
& registration will
be posted in our
spring newsletter.

*2009 Water
Quality
Workshop*

*Tentative
Schedule*

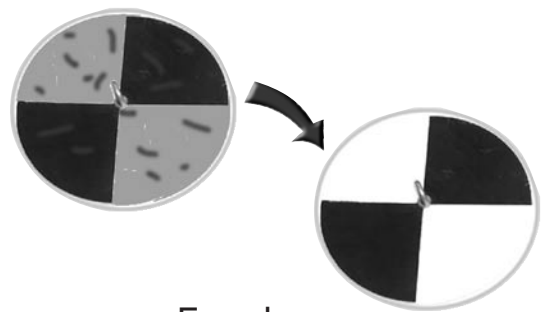
New Water Quality
Monitor Training:
May 9
May 19
June 27

New DO Monitor:
June 13

*2009 Invasive
Plant Patrol
Workshop*

Schedule TBA

Has your Secchi disk lost its luster?



Freshen up
with a new Secchi
sticker.

Contact the VLMP at 783-7733 or
vlmp@mainevlmp.org
for a new Secchi sticker and instructions.

Quality Counts!

If Your DO Meter Could Talk, might you hear...

“Oh no...another season shot”, Marly meter declared in dismay. “I was afraid it might come to this. If Pat had followed those recommendations, our temperature/oxygen data wouldn’t have been rejected. I **know** Pat has a copy – it sits right under me in this case. And we even went to visit that nice lady last spring – and she said the same thing. Sometimes I just get so discouraged. I know Pat is really devoted to collecting the data I measure. Pat takes me out week after week, month after month. We spend a good half-hour out on beautiful Artichoke Lake – I just wish it were **quality** time. I **can** take accurate measurements...I just know I can. Now I’m waiting here for Pat to winterize me so that I can take my long winter nap. If Pat would just remember those few items...if...only if...” zzzzz - *Marly falls into dreamland...*

Wow! It is so good to be awake again! I feel so fresh. Pat put me to bed last fall exactly the right way. Pat removed my batteries so I didn’t get any acid leakage in my belly – *its not like they make Prilosec for meters*. Pat removed my membrane and rinsed my probe with distilled water then set my probe in a small plastic bag to keep it clean. You know, one’s probe can never be clean enough.

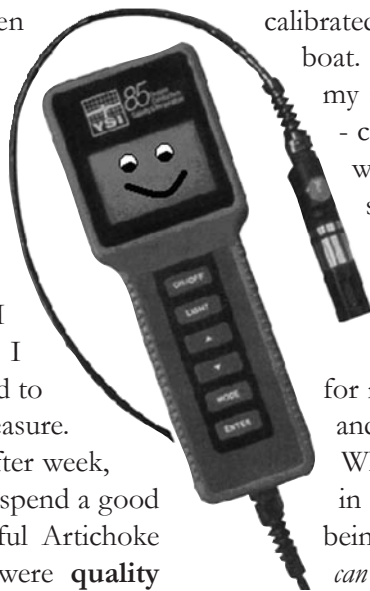
Pat has just installed my fresh batteries – ooh they feel so good. And now Pat is putting fresh electrolyte in my probe and installing a new membrane. Wow! I feel so good! And he turned

me on! Last year I never got to warm up until we were on the boat and all us meters know that just doesn’t do it.

We **NEED** to be warmed up **AND** calibrated before we get on the boat. I wonder if Pat will wet my sponge... Ooh YES - cool and damp – exactly what my probe likes – it sort of tickles! Now Pat is having coffee. What a change. This means he might actually wait long enough for my electronics to warm and my probe to be in fog. What a switch, my probe in a fog instead of Pat being in a fog (*good thing Pat can’t hear me...*).

I don’t think Pat realized how important it is for probes to be ‘in the fog’ before calibration. That wet sponge makes sure there is 100% humidity around my probe. But getting there takes 15-20 minutes. Kinda like that humidifier Pat uses. A room doesn’t have moist air just because the humidifier has been turned on; there has to be water in it (like my sponge) and it takes a little while for moist air to fill the room.

Now Pat is calibrating me. I can’t believe it! Pat has pulled that table of expected oxygen readings from under me to double check his calibration and I’m within 0.3 ppm of the expected reading! Cool. I’m gonna do a **GOOD** job today. I just hope he remembers to take those duplicate readings and chooses good depths for them.



I’m really enjoying the sunshine today. Pat is finishing up my first profile of the season. I’ve been in tip-top form so far. Now

where is Pat going to take those extra readings? The water is well mixed today because the temperature and oxygen are almost the same from the top of the lake to the bottom so it doesn’t make much difference. These extra readings prove to those bureaucrats that I’m doing a good job. As the waters warm, it is important for my probe’s temperature and oxygen readings to stabilize before Pat writes down the numbers, especially when he’s taking those extra readings on the way up!. We go down a meter at a time but when Pat pulls me up, we skip lots of meters and it takes me extra time to adjust. It is also important for Pat to choose a depth where the temperature and oxygen levels are nearly the same one meter above and one meter below, so that instead of measuring differences in the water, I’m showing how good I am at repeating the measurements under the same conditions. Fussy those bureaucrats are... They keep saying my readings might have to stand up in court...I have no idea what that means...

So...is your meter living the nightmare or living the dream???



By Linda Bacon
Maine DEP Technical
Advisor

Thank you for contributing to VLMP's record fundraising success in 2008

During the past year many individuals and organizations have been concerned about the impact of the economy on their well-being, and the VLMP is no exception. Yet here we are at the end of our 2008 fundraising year feeling fortunate and very grateful for the support we have received from our volunteers and friends. 2008 was a record year for fundraising, and we can't thank all of you enough for the support you have provided to help make the VLMP a stronger organization. It is obvious through the generous donations that we continue to receive that our volunteers and friends are passionate about Maine's lakes and ponds. We are deeply appreciative that you recognize the importance of supporting the VLMP, as we and our dedicated volunteers continue to keep a watchful eye on the health of Maine's lakes and ponds for future generations. If you feel there are any errors or omissions to this list, please contact me at (207) 783-7733.

Jackey Bailey, *Development Coordinator*

2008 Agency & Foundation Support

Anonymous
Margaret E. Burnham Charitable Trust
Maine Community Foundation through the Androscoggin County Fund
Maine Community Foundation through the H. King & Jean Cummings Fund
Maine Department of Environmental Protection
Roy A. Hunt Foundation
John Sage Foundation
US Environmental Protection Agency

2008 In-kind Gifts

Belgrade Canoe & Kayak	Dr. Ryan Thum
DeLorme	Symantec Corporation
Farmingdale Canoe & Kayak	Adobe Systems Incorporated
Patagonia	Clark Marine
Beaver Cove Marina	Christine Smith
Ross & Bunny Wescott	
Dr. Keith Williams	

2008 Previously Unlisted Donors & Supporters

Due to the timing of donations, the following individuals and organizations who have donated, or have provided other forms of financial support to the VLMP, were not listed in previous newsletters.

Cynthia & Bob Dunlap	Lake Anasagunticook Association
Geraldine Finch	Lake Auburn Watershed Protection Commission
Lawrence & Dianne Fleury	Great East Lake Improvement Association
Yolande Gay	Hancock-Sand Ponds Association
Randall Gates	Maine Congress of Lake Associations
Diane Harting	National Semiconductor
Daniel Orino	Portland Water District
Charles & Antoinette Tarbell	Lake Wesserunsett Association
Carden & Ann Welsh	

2008 Annual Fund Gifts

As of January 31, 2009

Lake & Watershed Groups

Lake Auburn Watershed Neighborhood Association
Thompson Lake Environmental Association
Saturday Pond Watershed Association

Individuals

Anonymous (4)	Kenneth Holt	Karen M. Robbins
Lynda & William Allanach	Ellie Hopkins	John Sanders
Matt & Stefany Arsenault	Linda Ilse	Charles A. & Arlene C. Schaefer
Laura & Ed Atlee	Gilliam Johnston	Rich & Lonny Schneider
Susan Bailey	Steve Kahl	John & Claudia Sholz
Jackey Bailey & Jarrett Poisson	Robert & Patricia Keeler	Ron Schutt
Pat Baldwin	Brigitte & Harold Kingsbury	Matt Scott
Barbara Barnes	Carol Lafond	Maggie Shannon
Howard & Sally Barter	John Laskey	Keith Shaughnessy
Ewald & Susan Bender	William & Christina Latham	Robert & Beatrice Simmons
Roy R. Bischoff	Elden & Deborah Lingwood	Marshall & Judy Sonksen
Bill Blaine	Joanne A. Luppi	Rick & Becky Southwick
Joel W. Bloom	Mary Griffith Lynch	Rudolph & Marguerite Stanzel
Phil & Claudette Boissonneault	Edith Manns	Norman & Deborah Stiles
Kim Borges-Therien	Bert & Betty Mason	Carl & Sarah Stillwell
Mr. George Bouchard	Robert & Delphine McLean	William & Sara Stockwell
Kathleen & James Boutselis	Bruce J. & Virginia A. Micucci	Bob & Peggy Susbury
Leon Bresloff & Mary Bayer	Bill & Grace Monagle	Kathi Sutton
Mike Bridges & Maureen Flanagan	Earl & Joanne Morse	Brian & Meredith Thomas
Betsy Brisk	Wynn Muller	Eben B. & Susan Thomas
Gurdon Buck	Richard Neal	Jim & Janet Timmons
John & Mary Bussell	Gerry & Meg Nelson	Clyde D. Walton
Charles & Halina Byrne	Kirsten Ness	Bob & Jackie Warren
Louise Carpenter	Dr. Bernard & Janet Norwood	Virginia Warrren
Katie Carville	Whitney Wing Oppersdorff	Beatty & Bill Watts
George A. Cross, Jr.	Donald & Barbara Paiton	The Waugh Family
Joan & Charles Dattelbaum	Kathy Parlee	F. W. Weston, Jr.
Jane & Libby Davis	Pamela Parvin	Bill & Marcia White
Fred Dillon	Rodger & Patricia Patterson	Ann K. Williams
Thomas A. Dionis	Elizabeth Payne	Mary (Pixie) Williams
Deidre & Michael Donovan	Barbara & Wally Penrod	Scott Williams & Roberta Hill
Joel & Rosemarie Dulberg	Roscoe (Russ) Perham	Tom & Susan Withrow
Sandra & Donald Dumont	John & Shirley Pierce	Gordon Wright
Cynthia & Bob Dunlap	Mr. Joseph J. Potts	Callie Wronker
Ann M. Dyer	Buddy Potts	
Jim Easton & Melissa Evers	Turner Ragsdale & Linda Courtiss Ragsdale	
Joe Emerson	Lea & Jose Ramirez	
Jim & Aubrie Entwood	William Reid	
Owen & Ruth Evans		
Eileen Fair		
Jean Ferrari		
In memory of Bob Foye		
Robert & Sibyl French		
John & Carol Gabranski		
Larry R. Gaudreau		
Yolande Gay		
Ralph Gould		
Dan & Lori Guerette		
Bart & Mary Ann Hague		
Barbara Hamor		
Phoebe Hardesty		
Bob Heyner		
Ken Hodsdon		
Roberta Hodson		

*“Volunteer lake monitors have consistently stepped forward to provide support for the VLMP, recognizing that this is **their** organization! Our volunteers commit thousands of hours to monitoring Maine’s lakes every year, not to mention time spent in working with their watershed communities. Your ongoing **voluntary financial support** allows us to train the next generation of volunteer monitors, and to continue to provide the level of technical guidance that our monitors depend on to do their essential work!”*

Scott Williams, Executive Director

What is That “Green Cotton Candy” in the Lake?

Volunteer Experiences with Surveying Metaphyton

Have you ever seen algae in the lake that looks like clouds or clumps of “green cotton candy”? In shallow shoreline waters, it forms in balls or long tubes along the bottom, or attached to pondweeds. Its color can vary from light to bright green or have a tinge of brown. If you try to pick it up, it slips right through your fingers and disperses. This filamentous algae breaks up easily with a strong wind or

rain event and can be gone the next time you go back. It is called metaphyton, a group of algae that are usually localized and seem to bloom the most when summers are especially dry and warm.

More and more people have been noticing this growth in Maine lakes. We understand it occurs in very pristine northern waters as well, and is

not necessarily an indication of nutrient loading. However, the VLMP Survey Project was developed to document the frequency and concentration of metaphyton in Maine lakes over a period of time. As part of this Survey Project my husband Dick and I have been observing metaphyton over the past three summers.



By Dick & Betsy Enright
Volunteers on
Salmon Lake

Volunteers participating in metaphyton monitoring surveys complete observations periodically through the summer, and record and submit their findings to the VLMP. We visit a cove in the littoral zone on our lake several times, and record how metaphyton changes, grows and moves during the season. We note the depth and surface temperature of the water, describe the color, size, shape and length of the metaphyton and describe if it is scattered or in concentrated amounts.

Our observations include the time of day, weather conditions (clear/sunny/cloudy, etc), wind direction and speed. The best time to check for metaphyton is early morning (8-9am), on a sunny day, before the sun is high and causes reflection on the water. A calm day with no wind is also best, so ripples or waves do not affect visibility. A recent storm, with wind, heavy rain and run-off can impede observations due to reduced water clarity.



See this photo in color online at
www.MaineVolunteerLakeMonitors.org/WCWinter2009

metaphyton blooms in Salmon Lake
photo by Betsy & Dick Enright

We started our surveying, with a very small 100-ft. by 100-ft. grid marked off in a chosen cove, and we quickly found that with changing conditions sometimes nothing was there! That was a little boring and impacted our motivation, especially when we could see metaphyton 6 feet outside of our grid. We then enlarged our area to include about 5 acres of the south end of this cove. We travel from east to west in 100 foot increments from the south shore. This takes more time, but we have learned a lot about this mysterious algae. We have refined our “observation techniques” over the years and learned from our mistakes. We did our first observations in kayaks, but soon changed to a boat for a higher and drier perspective. If you are good at multitasking, one person could do this task alone, but once you try to drive the boat in a straight line, find the algae, take photos and record the descriptive data, you’ll probably decide to have a friend along. We aim for bi-monthly observations, but weather, schedules and an occasional “sleeping in” can cause you to miss that perfect day on the water. We learned relatively fast that pads of paper or forms quickly became stacks of wet paper. Now we use our laptop in a pontoon boat, for quick organized recording of information. We use a digital camera that helps us keep track of the time and date, and we submit photos that match our observations.

We have chosen a shallow location in the littoral zone to survey over time. We survey our cove by decreasing our distance from the south shore in 100-ft. increments. The depths in this cove vary from 2-5.7 ft. We travel a grid east to west and repeat until we are about 50 ft. from shore...in very shallow water. We are careful to raise the prop and coast if there is any chance that we will stir up the sediments.

During the summer of 2008, we completed a total of five observations.

In June, there was no metaphyton in any area of the cove. By July 4th, 100 ft. from shore we found a couple of patches of metaphyton, 1 x 2 ft., bright green in color and opaque; 50 ft. from shore there were clumps, light green in color, translucent, and 3-4 in. long. Due to a recent rain, the visibility was poor in the deeper sections of the cove, making the 200, 300 and 400 ft observations impossible.

On July 12th, as we moved along the transect 100 ft from the shore in 2.6 ft. of water, we observed metaphyton in 4-6 inch clumps, long and light green in color. On the west side the metaphyton clusters were bright green, 1-3 ft. long and 18 in. diameter. A ten-foot tube of bright green metaphyton was observed in 2.6 ft. of water, 200 ft. from shore. This tube lay on the bottom North to South.

Our last observation of the summer was on August 18th. The surface water temperature was down to 73 F. Interestingly, there was no metaphyton at all at the 400ft. track; at 300 and 200ft., there was no metaphyton in the east and center of the cove. However on the west side, we noted tubular growths in the lily pads 4x1 ft. at 300 ft., as well as irregular globs that measured 1x3 ft. in diameter, light green and completely opaque. At 200 ft. on the west, there were multiple tubular globs 8x3 ft., light green, as well as some dark green growths 2.8 ft. long, 6-8 in. wide. Our observation at 50 ft. from shore demonstrates how these filamentous algae connect with each other. At a depth of 2.1 ft. on the east we saw a “monster formation” with 4x6 ft. tubes growing out from a center irregularly. The longest section extended about 25 feet. (See Photo) The color was bright green and

had a brownish tinge in one location. The rest of the shallow cove contained multiple connected and singular masses and circles, bright green to light green in color. It is interesting to note that despite the vast amount of metaphyton on this day, the surrounding water was very clear.



metaphyton blooms in Salmon Lake
photo by Betsy & Dick Enright

With coffee in hand and the quiet lake calling, we have found it amazing how this little ecosystem changes over the summer. Not only do we enjoy observing the metaphyton and helping to learn more about it, but we also observe the water quality change with temperature, wind, storms and runoff. We see the different varieties of pond weeds come in and grow, blocking out light. We watch the baby fish mature, the loons, eagles and osprey nest and fledge, and the circle of life completing itself every season. This is our reward.

More volunteers are needed for this project, because data from many individuals, on many lakes, for many years are needed in order to accurately characterize metaphyton growth in our lakes and ponds. If you are interested in surveying metaphyton on a Maine lake near you, please contact the VLMP at 207-783-7733 or vlmp@mainevlmp.org, or by mail to: VLMP, 24 Maple Hill Rd, Auburn, ME 04210.

See an example data chart that the Enright's use to track metaphyton in the online article.

www.MaineVolunteerLakeMonitors.org/WCWinter2009 click on Metaphyton

Littorally Speaking

Update from the Front Lines:

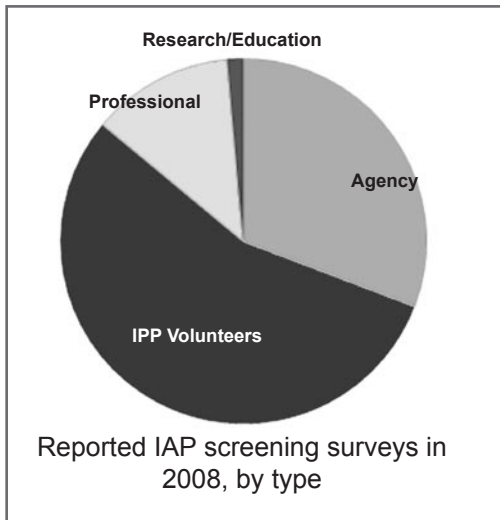
2008 Invasive Aquatic Plant Survey Activity in Review

By Roberta Hill

Program Director, VLMP's Center for Invasive Aquatic Plants

Invasive aquatic plant (IAP) screening survey data has poured in steadily all summer and fall. We are impressed once again by both the quantity and quality of the surveys that are being conducted in Maine, and are especially proud of the contribution of VLMP's Invasive Plant Patrollers to this important statewide effort. Below is a brief summary of the 2008 survey season:

- A total of **255** IAP surveys were conducted & reported by **216** surveyors (this is up from 205 surveys in 2007)
- **221** of these surveys were conducted & reported by **115** Certified Invasive Plant Patrollers (Certified IPPs conducted ~87% of all 2008 surveys!)
- Survey activity was reported on **135** Maine waterbodies (up from 133 in 2007)
- **21** waterbodies reported survey activity for the first time (this is down from 41 newly reporting waterbodies in 2007)
- The total number of Maine waterbodies surveyed for IAP to date from 2002-2008 is **373** (the total was 352 through 2007)
- Repeat activity – **192** waterbodies have been surveyed more than once from 2002-2008 (this is up from 169 through 2007)



Volunteer Invasive Plant Patrollers survey the littoral area on Damariscotta Lake

All of this reported survey activity is extremely encouraging and bodes well for the future of Maine's early detection efforts, especially when one considers that this "reported" activity may very well be only the tip of the iceberg. The VLMP Center for Invasive Aquatic Plants has now trained nearly 2,000 individuals through the Invasive Plant Patrol program, yet only a small percentage of these individuals submit data on a regular basis. What are those hundreds of non-reporting plant patrollers up to? This winter a concerted effort is underway to answer this question. In November, along with the end-of-season data submission reminder, a twenty-two question survey form was sent out by email to all Plant Patrollers. Though the response was not overwhelming, those that did respond confirmed our assumption that active plant patrollers engage in significant invasives outreach to their respective communities, in a number of "unreported" ways. The email survey did not, however, help to reveal what kind of *survey activity* is undertaken by those who have been trained, but have not yet actually reported a survey.

In an attempt to connect more specifically with the *non-reporting* population, a telephone survey was initiated in January. A sample population of 2008 IPP workshop attendees was identified, with the goal of conducting telephone interviews with a statistically significant number of trainees. The phone surveys are still ongoing, but preliminary results, are indeed illuminating. Here are the results in brief:

- the majority interviewed have either engaged in survey activity, or plan to engage in survey activity next

year (though almost none of these 2008 surveys were actually reported)

- *all* respondents said they routinely keep an eye out for invaders when they are on the water, though they do not officially report this activity
- most we spoke to wish to continue on to advanced IPP training; the most popular courses being the Field Methods and Advance Plant ID workshops
- the majority are using the field guide and find it helpful and user friendly
- one-third wish to take the next step and become Certified Plant Patrollers in 2009
- *all* believe the VLMP's Invasive Plant Patrol program is important (95% say "very important") to the statewide prevention effort

We thank those of you who have now taken the time to assist us with our end-of-year survey. For those of you whom we have missed this time around, please do not let that stop you from weighing in. What are you doing on your lake and in your community with the knowledge and experience you have gained through the Invasive Plant Patrol training? Please let us know!!

Watershed Maps Available

Contact us for a watershed map of your lake.

207-783-7733 or vlmp@mainevlmp.org



Lake Lingo

Plankton

Plankton are the small or microscopic plants and animals that float or drift in the open water. Plankton communities are adapted to suspension, but movement through the water is dependent on the wind and currents. Although individual organisms are very small, the plankton constitute a significant percentage of the total biomass in most lakes and ponds.

- **Phytoplankton** (phyton is Greek for plant) are the portion of the plankton community comprised of tiny plants, including the algae. Because they are able to use the energy of the sun to metabolize through the process of photosynthesis, phytoplankton are the "primary producers" of food and energy in lakes and ponds, upon which all higher life in a body of water is dependent. There are many types of algae in most lakes, and dominant species vary throughout the year, depending on water temperature, circulation, nutrient concentrations and sunlight.
- **Zooplankton** are small or microscopic animals that float or drift in the water. Unlike phytoplankton, the zooplankton are not able to produce their own food. They are therefore "consumers" in lake ecosystems. Like phytoplankton, there are many types of zooplankton. Among the most significant in lakes and ponds are the cladocerans, or "water fleas." These filter-feeding crustacean zooplankton graze on algae. Their size and abundance can influence the concentration of algae in lake water.

Maine's Invasive Plant Patrollers Highlighted in National Journal

The challenge is this: How does an organization go about the task of motivating hundreds, if not thousands, of individuals from all walks of life to engage in a search of unprecedented proportions, using new skills and meticulous care, scanning the broadest possible areas repeatedly, with dedication, year after year, all the while hoping that the object of the search will never be found?

The VLMP took up this challenge with enthusiasm in 2002, when we launched our Invasive Plant Patrol (IPP) program. Since that time, we have trained nearly 2,000 Invasive Plant Patrollers, and the majority of all screening survey activity now reported in Maine is conducted by IPP volunteers.

So begins the feature article in the current issue of the EPA's national journal, *The Volunteer Monitor*. Since its inception in 2001, the VLMP's Invasive Plant Patrol program has increasingly been seen as model for citizen-based invasive aquatic plant monitoring in other parts of the globe. This winter we were asked by the editors of *The Volunteer Monitor* to share story of how the VLMP adapted its well-established model for citizen-based water quality monitoring to the threat of aquatic invaders. The story, along with its highlighted sidebars, provides numerous illustrations of the critical role that VLMP volunteers have played, and continue to play, in the evolution of the Program.



Maine Volunteer
Lake Monitoring Program
24 Maple Hill Rd
Auburn, Maine 04210

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The Water Column Survey

Notice: You can also take this survey online at
www.MaineVolunteerLakeMonitors.org/WCWinter2009

1) How much of the newsletter do you read on average?

0% 25% 50% 75% 100%

1-A) Do you have access to the internet?

Yes No

1-B) Have you visited the VLMP website?

Yes No

1-C) Have you viewed previous editions of *The Water Column* on the VLMP website?

Yes No

2) Would you prefer a shorter printed/mailed newsletter

a) with synopsis of online articles?

Yes No Maybe

b) fewer articles?

Yes No Maybe

c) other _____

3) Articles that appeal to me most are:
(check all that apply)

- technical topics on lake ecology
- water quality monitoring
- invasive species and monitoring
- new and honored volunteers
- statewide efforts to protect lakes
- watershed monitoring and protection

4) Other Comments _____

Please return by March 28, 2009 to:

VLMP, 24 Maple Hill Rd, Auburn, Maine 04210
or call in your responses to 207-783-7733.

★ All returned surveys will be entered into a drawing for a **Delorme Maine Fishing Depth Map**.