

Power Boating: Polluting Maine Lakes?? Roy Bouchard, ME DEP

NO MOTORS

ALLOWED?

Watercraft are an everyday feature of recreating in Maine and more than 100,000 power boats are used on lakes. Despite the popularity of power boating, people consistently raise questions about negative effects including disturbance of wildlife, shoreline erosion, disruption of vegetation, resuspension of sediments, noise, safety concerns, and pollution. Conventional outboard engines and personal watercraft (PWCs) pass as much as 25-30% of their fuel into the water unburned and subsequently into the air. Of all categories of non-road engines, recreational marine engines contribute the second highest average level of hydrocarbon emissions. Pollution caused by power boats on lakes has aroused recent interest in the press. For example, popular accounts often state that each year outboard engines and PWC's release 15 times as much hydrocarbons into U.S. waters as the Exxon Valdez spill. In the face of such statements, what are we to think about the environmental effects of power boating? Is there cause for concern in Maine lakes?

Studies regarding the impacts of oil and gas discharged from motorized watercraft on the aquatic environment are not conclusive. Most of the monitoring studies to date suggest that lake water concentrations of compounds such as benzene or MTBE do not pose a known threat to human health and are not high enough to cause observable effects on aquatic life. More subtle chronic or sublethal effects may be occurring depending on the season, location in the lake, intensity of boating activity, and other factors.

continued on page 2...



Thoughts from Your President Joe Flanagan

Dear Friends,

It's been a cold, wet and snowy Spring, but we finally have a good day, and I'm inspired to write. This is just a short note to let each and every one of you know how much we appreciate your efforts on behalf of the VLMP.

With a new season starting and the waters still extremely cold, please use every caution for your safety.

In the past year, our growth and progress have been positive and rewarding. We

have been and continue to be a provider of excellent and accurate statistics used by many individuals and organizations.

We envision a future that is committed to the environment and to the people of Maine. My friends, your commitment and dedication and willingness to devote vast amounts of time and energy for the good of everyone are truly inspiring.

Again, Thanks!

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Effects on sensitive life forms and species not usually subject to laboratory evaluations are not fully understood.



While it will take time for more scientific work to clarify the picture, prudence suggests we should do what we can to reduce this obvious pollution source. EPA, California and other regional authorities have mandated phasing in more efficient technology over the next two decades which should reduce watercraft pollution by 70-90%. The New England states and New York have recently joined in promoting the more rapid conversion of outboards to efficient designs. We can also help by adopting a few simple practices. These include limiting full throttle operation, eliminating unnecessary idling, following recommended maintenance schedules, eliminating spillage when refueling, and properly measuring fuel and oil. Probably the best thing we can do is to replace older engines with cleaner alternatives whenever the opportunity arises. While the new engines are more expensive, they also offer ease of operation and long term cost savings that will offset their added cost. For all these reasons, if you are in the market for an outboard engine, help the environment as well as your pocketbook and inquire about the benefits of the new cleaner engines.





Invasive Aquatic Plant Update

Amy Shnur, Project Coordinator

A giant step has been made in the battle to prevent invasive aquatic plants from spreading to Maine lakes.

A new law now supports the efforts that started three years ago. With the support and assistance of the Maine Outdoor Heritage Program and the Maine DEP, the VLMP was able to produce informational materials and warning signs for distribution throughout the state to heighten awareness of a threat that is creeping towards our lakes.

Thanks to many volunteer monitors, educational materials have been placed at town offices, public meeting places and other key

areas visited by boaters and outdoor enthusiasts. Volunteer monitors are continuing to "spread the word, not the plant!" This summer the VLMP will add another piece to the prevention strategy. Volunteer monitors will be trained to screen their lakes for the invasive species that are listed in the new law .

Interested in helping out?

Many Volunteers have already expressed their commitment to prevention by offering to distribute Warning to Boaters flyers at their public boat landings and insure that Warning signs are posted.

If you would like to help to protect Maine Lakes and ponds from invasive aquatic plants, contact the VI MP.





Dear Friends,

Maine's lakes are the cleanest and least crowded in the eastern United States. They hold tremendous value for the people of Maine and beyond. Forty million people live within a day's drive of these lakes, and thousands enjoy the recreational opportunities associated with them—boating, fishing, camping, and the chance to encounter Maine's abundant wildlife. Our lakes help define the character of the state and form the economic backbone for many Maine communities.

Thanks to your dedication and commitment as part of the oldest, largest and most successful volunteer lake monitoring program in the nation, the VLMP collects data and information on water quality to support protection, education and planning efforts for Maine's lakes. Without the scientific information generated by the VLMP, protecting our economic and natural resources would be a far more difficult challenge. Volunteerism, in a strong partnership with the technical community, has resulted in a highly cost-effective and productive program. THANK YOU!

The work of the VLMP is essential for preserving the character of Maine as we know and appreciate it. We are an independent non-profit organization, and the financial support of people like you, who treasure the beauty and quality of Maine's lakes, is vitally important to our efforts. We are committed to broadening our base of financial support so that we may reduce our reliance on government funding and develop new programs that support our mission to protect Maine's lakes.

Your contribution to the Maine Volunteer Lake Monitoring Program will ensure that the VLMP will continue its work to protect Maine's 5,785 lakes and ponds. Please consider a gift to the VLMP this year.

Thank you for your interest and support!

Sincerely,

Joe Flanagan President





Development News...... Becky Welsh, Development Coordinator

The big news around the VLMP office this spring was the word that we've received two major foundation grants. The Sudbury Foundation of Sudbury, Massachusetts, has given the VLMP \$10,000 to upgrade its technology capabilities. These funds will purchase a laptop computer and projector to enhance our educational and outreach presentations. Thanks to Sudbury, we've acquired a scanner and high resolution color laser printer, which has immediately and dramatically improved the quality of our publications and presentations. We are all very excited about our new capabilities!

The Betterment Fund, a charitable foundation created by the Will of the late William Bingham II, a resident of Bethel, Maine, has awarded the VLMP a three-year grant of \$32,500. This grant will improve the financial stability of the VLMP by providing general administrative funding and will support the development of community-based fund raising initiatives. This grant is an appreciated endorsement of our endeavors.

Old Town Canoe Company has generously underwritten most of the cost of a canoe, which will be given away to a Volunteer Monitor in a drawing to be held at the Annual Meeting on June 17. Thanks to Steve Kahl of the VLMP Board for contacting Old Town, and many, many thanks to Old Town Canoe for their generosity.

And more...

The VLMP has received an extraordinary gift of \$1,000 from an anonymous donor. Thank you! We are deeply appreciative of this gift and of the support of every individual who makes a financial contribution to the VLMP. These gifts are so important because they provide funds for our general operating expenses and are the real backbone of the organization.



WAR DECLARED ON BIOLOGICAL INVADERS



Lakeside Notes

Scott Williams, Executive Director

Major advances have been made during the past few months in raising public awareness about the imminent threat to Maine lakes from invasive aquatic plants, and other biological pollutants. A statewide summit held in January, cosponsored by the VLMP, brought together a diverse group

of agencies and organizations to hear representatives from Vermont and New Hampshire discuss their plight with "aquatic invaders". Commissioner Martha Kirkpatrick emphasized the commitment of the Maine DEP to aggressively pursue all necessary means to prevent invasive species from reaching Maine lakes. The Commissioner acknowledged the important efforts undertaken by the VLMP during the past two years.

At the summit, Representative Richard Thompson and VLMP Board of Directors member Senator Sharon Treat announced that they were cosponsoring emergency legislation to keep Maine free of aquatic plants like Eurasian Watermilfoil. For several weeks following the Summit, the VLMP worked with the DEP, Senator Treat and the Maine Legislative Natural Resources Committee to support and refine the proposed legislation.

I am happy to report that on April 14, 2000 the Maine Legislature passed L.D. 2581, *An Act to Prevent the Spread of Invasive Aquatic Plants*. The Bill is comprehensive. It may be the most thorough legislation of this type in New England. The following are highlights from this legislation:

- * Eleven invasive aquatic plant species are listed (the list is available on page 6)
- * The transportation of *any* aquatic plant, or parts of any plant on the outside of a vehicle, boat/trailer, personal watercraft, or other equipment (fishing gear, bait traps, etc) on public roads is prohibited.
- * After September 1, 2000, the sale, or offer for sale of any invasive aquatic plant is prohibited.
- * The DEP will develop additional educational materials for broad distribution throughout Maine.
- * Warning signs will be posted at *all* state boat launch facilities.
- * The DEP will work with the MDOT and the Maine Turnpike Authority to provide signs and educational materials to motorists traveling roads at the State's borders, advising incoming boat owners that state law requires all boats and trailers to be free of any aquatic plant material.
- * The Legislation requires the DEP to investigate and document the occurrence of invasive aquatic plants.

* The Bill provides the DEP, or a party designated by the DEP, to attempt eradication of invasive aquatic plants when an infestation occurs.

* The Bill requires the DEP and DIF&W to submit a report to the Legislature by January 1, 2001. The report is to include the identification of other biological threats to Maine's waters, including invasive animal species. The report will also recommend the necessary funding to support a statewide prevention and control program. The DEP may be authorized to quarantine infested areas. The report will evaluate the effectiveness of enforcement of L.D. 2581. The legislation specifically mentions the VLMP as a party to be consulted in this effort.

The passage of L.D. 2581 is a great achievement of the Maine Legislature, the DEP, the VLMP, and others who have contributed to this effort. One shortcoming of the final product was that the Legislature weakened the enforcement language just before the Bill was passed. Nonetheless, a giant step forward has occurred toward protecting Maine lakes from the nightmare of invasive aquatic species.



Lakeside Notes continued from page 4...

The news media has jumped on the invasive aquatic species issue! Following the summit, and during the legislative hearing, there was extensive coverage on TV and in several regional newspapers. The VLMP coordinated with the Maine Marine Trades Association to set up an exhibit at the Portland Boat show. If you would like to provide your local newspaper with information about the threat of aquatic invaders, please contact the VLMP office. We can provide materials and assistance.



Quality Counts!

Linda Bacon, MDEP Advisor

Gearing Up! Volunteer Lake Monitors everywhere are performing summer preparation rituals such as installing docks, launching boats, and double checking moorings. I'd encourage monitors to check over all their sampling equipment before heading out to obtain those early season readings. In addition to the checklist included in last Spring's issue, it's a good idea to do a 'virtual' sampling trip in one's mind before setting out. Dust off all your equipment and make sure it is in working order. Be sure the anchor is handy and the rope is secure. Pack Data Sheets, the depth map and extra pencils. Review written procedures. Above all, please remember to put safety first in all boating activities and equip your vessel with the appropriate safety gear.

QA/QC Recertifications. Another sure sign of Spring is getting your QA/QC recertification workshop notice in the mail. The volunteers...you... are the most important part of this program. Without the volunteers, the program would cease to exist. The administrative portion of this program, is a very important part as well. This is where the data you collect is turned into information that can be used locally, regionally and nationally. The two components represent a partnership. Ongoing support is needed to provide equipment, training, educational resources and the other administrative functions. Most of this support is obtained from Federal and State sources that require adherence to the Quality Assurance Plan that EPA has on file for the program. Part of this plan requires attendance at Recertification Workshops for all participants (every three years for transparency, annually for all other parameters).

Dissolved Oxygen Recertifications are needed annually. Please contact your Regional Coordinator

to make arrangements to attend one of the scheduled workshops if you monitor Dissolved Oxygen levels in your lake.

Transparency Recertifications are moving toward a three-year recertification schedule determined by the region/county in which you are located. We are attempting to get monitors in Northern Maine (St. Croix International Waterway Commission, Allagash Wilderness Waterway, Aroostook, Hancock, Penobscot, Piscataguis, Somerset, and Washington Counties) will be targeted in 2001, 2004, 2007, and so on. Southern Maine (including Lakes Environmental Association, Androscoggin, Cumberland and York Counties) will be due in 2002, 2005, 2008. And monitors in Central Maine (including Cobbossee Watershed District, Acadia National Park, Franklin, Kennebec, Knox, Lincoln, Oxford, Sagadahoc and Waldo Counties), should be in-sync for 2003, 2006, and 2009.

Not all monitors are able to jump right into this rotation. Some may need an interim certification with only a one or two year span. We tried to keep this to a minimum but it was unavoidable for about 75 people, some of whom have either missed workshops or attended extra workshops in the past. Please try to attend a workshop this year if the letter you recently received from the program indicates you are due in 2000.

<u>OA Certification Numbers.</u> Please remember to record your new QA Certification number beside transparency readings on your Data Sheets. This is your personal number that links *your* eyes to *your* readings.

Have a safe and super summer!

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VLMP Welcomes Americorp Volunteer

Kyle King, MDEP/VLMP

As the newest member of the Maine Volunteer Lake Monitoring Program staff, I would like to let you know a little bit about myself. I hail from Hampden, Maine and graduated from Bates College in '99 with a Bachelor of Science degree in Biology.

Two years ago I studied Wildlife Conservation and Biodiversity in East Africa. From this experience I gained a particular interest in community conservation.

Last month I returned to the States after making my second visit to Africa. Now that I am back, I am eager to work with the public to confront environmental issues that Maine faces. For the next six months my Americorp volunteer service will be shared between the VLMP and the Maine DEP. My primary responsibilities include recruiting new volunteers, various outreach projects, and assisting the staff with all other activities. I look forward to your participation.

Species that Threaten Maine Waters

Eurasian Watermilfoil

Myriophyllum spicatum

Variable-leaf Watermilfoil Myriophyllum heterophyllum

Water Chestnut Trapa natans

Hydrilla Hydrilla verticillata

Fanwort Cabomba caroliniana

Curly-pondweed Potamogeton crispus

Parrot feather Myriophyllum aquaticum

European naiad Najas minor

Brazilian elodea Egeria densa

Frogbit Hydrocharis morsus-ranae

Yellow floating heart Nymphoides peltata



Lake Data on the Web

Maine Lake Water Quality data are available through PEARL

(Public Educational Access to Resources on Lakes) website thanks to the

University of Maine

Water Research Institute.

More information is

becoming available

(as the site is updated).

Please visit PEARL at: www.pearl.spatial.maine.edu

Use the "comments" option to send your suggestions on how to improve this service.

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DIP IN!



DIP IN!

The *Great North American Secchi Dip–In 2000* will take place July 1-16, 2000. Volunteers around the country contribute to a growing database of information on more than 4,500



separate waterbodies. Since 1994, the Dip-In has begun a volunteer monitoring network of networks, providing an international picture of transparency and water quality.

Last year, 144 programs participated in the Dip-In, representing 2,242 volunteer monitors. Maine is a

major participant in the Secchi Dip-In, consistently ranking 4th or 5th in terms of numbers of volunteers participating.

Keep up the good work!

By taking Secchi disc readings during the Dip-In and sharing your findings, you are not only helping your lake and Maine's lakes, but you are helping put together a picture of transparency across North America and the world!

All VLMP volunteer monitors will receive the 2000 Dip-In questionnaire and information. Be sure to participate, and keep Maine's lakes on the map.

Learn more about the Dip-In at :

http://dipin.kent.edu

VImp annual meeting YOU COULD BE A WIN-



Would you like to win a new Old Town Canoe? Thanks to a generous donation from the Old Town Canoe Company, we will give away a beautiful "made in Maine" canoe at the Annual Meeting on Saturday, June 17 at the Friends Camp on China Lake in South China. All VLMP attendees will be eligible for the drawing. If you *still* need an incentive to attend, consider the following:

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r L	There is no charge to volunteer monitors!
)• Ł.	Beverages, snacks, and a delicious lunch are provided.
૾ૡૢૼૺ૾ૡૢૼ	The meeting is an opportunity to hear interesting, relevant presentations on హీ lake water quality/ecology-related subjects. హ్లీ
Ĩ.	Come and socialize with other volunteers, DEP and VLMP staff, and the VLMP Board of Directors. $\hat{\ddot{v}}$
ۯؖ۠ۥڿڸٛ؞ڿٳ۠؞	One stone- two birds: meet your recertification requirements by attending the workshop after lunch.
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An agenda and registration form is included in this newsletter. We hope to see you there!

Secchi Data Needed In Specific Lakes for the 2000 season

Melissa Evers, MDEP



The DEP is looking for volunteer monitors for the 60 lakes listed below to help with an ongoing trend analysis of Maine lakes.

The trend analysis is based on secchi readings that volunteers and biologists have collected for the past 27 years on Maine Lakes. This analysis has enabled the DEP to statistically analyze and verify trends observed on the summary graphs of secchi readings. The trend analysis is possible because of the long-term commitment that volunteer monitors make to collect the data on a particular lake. At least 8 years of data is needed to compute the statistic, which then indicates whether or not the secchi depths are increasing or decreasing over time.

Some of these lakes have not had a monitor in recent years and more information is needed to strengthen the statistical significance or another year of data to make the 8-year threshold. A quick look at the list indicates that many of these lakes are a fair distance away from major population centers, but have camps on the them and are easy to drive to. Only a few are remote ponds that are not accessible by a road.

One goal of the analysis is to identify lakes at risk for algal blooms well before the secchi depth reaches 2 meters (Maine's definition of an algal bloom). The more we work together to identify the water quality status of Maine lakes the more effective our lake protection efforts will be.

Please contact the VLMP, if you, or someone you know, lives close to any of these lakes and ponds and would be willing to monitor them for the 2000 season.

MIDAS	LAKE	TOWNSHIP
119	Ell	Wells
269	Fitzgerald	Big Squaw
298	Piper	Abbot
404	Spencer	Middlesex
409	Arnold Brook	Presque Isle
1666	Black	Fort Kent
1776	Echo	Presque Isle
1808	Fischer	Fort Fairfield
1820	Monson	Fort Fairfield
2230	Upper Pond	Lincoln
2274	Etna	Etna
2336	Toothaker	Phillips
2592	Morrill	Hartland
2612	Sibley	Sibley

MIDAS	LAKE	TOWNSHIP
2756	Pleasant	TO9 R11 Wels
3176	Clemons	Hiram
3180	Trafton	Porter
3410	Wards	Limington
3526	Quimby	Rangeley
3534	Haley	Dallas Plt
3608	Brettun's	Livermore
3670	Pleasant & Mud	T6 R6
3692	Nubble	Raymong
3780	Halls	Paris
3788	Allen	Green
3876	North East	Lebanon
3936	Branch	Waterboro
3954	Kamankeag	Davis Twp

Continued on page 9.....

Volunteer Opportunities

The VLMP is seeking Regional Coordinators for **Aroostook**, **Kennebec** and **Washington** Counties. Regional Coordinator responsibilities include:

 Communicating with the VLMP staff to coordinate certification workshops, equipment needs and replacement requests from volunteer monitors.



- Making sure that all contact information for each volunteer is accurate. Tracking data and communicating with Data Entry Coordinator in the summer and fall to insure that data is received and entered.
- Mailing all data sheets and entry disks to the VLMP office in the fall for annual lake reports.

Please contact the VLMP office for additional information.

MIDAS	LAKE		I	MIDAS	MIDAS LAKE
3976	Shaker	Alfred		5406	
3998	Kennebunk	Lyman		5424	5424 Threecornered
4128	Garland	Garland		5458	5458 Pattee
4132	Garland	Sebec		5460	5460 Halfmoon
4284	Brewer	Orrington		5584	5584 Warren
4316	Long	Bucksport		5596	5596 Scituate
4406	Georges	Franklin		5658	5658 Tilton
4640	Walker	Brooksville		5682	5682 Sennebec
4702	Bottle	Lakeville Plt		5684	5684 Round
4832	Quantibicook	Searsmont		5690	5690 North
4886	Stevens	Liberty		8065	8065 Cobbossee(little)
5010	Isinglass	Waterboro		9683	9683 South & Round
5174	Sandy (Freedom)	Freedom		3838	3838 Mousam
5216	Parker	Jay		5349	5349 East
5246	Loon	Litchfield		9701	9701 Long
5250	Purgatory	Litchfield		9767	9767 Hanson Brook
5296	Fairbanks	Manchester		9779	9779 Trafton
5366	Adams	Boothbay		9931	9931 Togus
5368	Knickerbocker	Boothbay		9943	9943 Sewall

More lakes...



The **Water Column** is the newsletter of the Maine Volunteer Lake Monitoring Program, and is published quarterly. Please address questions or comments to: Scott Williams, editor, P.O. Box 445, Turner, ME 04282. We also welcome phone calls: (207) 225-2070.

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Inside this Issue : Power Boating: Polluting Maine Lakes?

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2000 QA/QC WORKSHOPS

DATE	LOCATION	MAP # - SECTION
May 20	KENNEBEC Great Pond, Belgrade	Map 20
June 3	LINCOLN/SAGADAHOC Pemaquid Pond, Pemaquid	Map 13, E-4
June 3	YORK Little Ossipee, Waterboro	Map 2, A-4
June 10	ANDROSCOGGIN Bear Pond, North Turner	Map 11, B-4
June 10	KNOX Alford Lake, Hope	Map 14, D-2
June 11	OXFORD Pennesewassee Lake, Norway	Map 11, D-1
June 17	VLMP ANNUAL MEETING Friends Camp, China	Map 13, B-3
July 8	FRANKLIN Webb Lake, Mt. Blue State Park	Map 19, C-2
July 15	CUMBERLAND Raymond Pond, Raymond (Charlie Turner's place)	Map 5, B-2
July 22	WALDO Sheepscot Pond, Palermo (Mary Hitching's Camp)	Map 13, B-4
July 22	HANCOCK Toddy Pond, Orland	Map 23, E-3

Note: All workshops begin at 9 a.m. and will be held at public boat landings unless otherwise indicated.

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WEBSITES of INTEREST

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 $\label{eq:http://www.state.me.us/dep/blwq/lake.htm (Extensive lake education information)$

http://www.umaine.edu/water research (Water Research Institute)

http://www.gwi.net/~cola (Maine Congress of Lakes Associations)

http://www.nalms.org (North American Lakes Management Society)

http://www.dnr.state.wi.us.org/water/fhp/lakes (Wisconsin Lakes Partnership)

http://wow.nrri.umn.edu/wow/index.html (Water on the Web, state of the art monitoring equipment deployed in lakes and real time data available along with in-depth educational material. It allows interested people to track lake conditions and learn more about lakes.)

http://www.dnr.state.wi.us/org/water/fhp/papers/lakes.pdf (Information about buffers and riparian management from Wisconsin)

http://www.pca.state.mn.us/water/lake.html (This Minnesota site has good information about lakes)



Please notify the VLMP if you have changed your address, phone number or email so that we may continue to send you the *Water Column* and other information.

If you're no longer able to monitor your lake, please contact the office as soon as possible. Your equipment and materials may be made available to someone in your lake association or other interested individuals who would be willing to continue your monitoring efforts.

New volunteers must contact the VLMP office to schedule an orientation and training workshop before they begin to collect data. If you are unable to find a replacement, please return the equipment to the VLMP office so that the scopes and Secchi disks can be "recycled". Thanks!

