

Out of the Blue



A Newsletter of the Lakes and Ponds Unit

Fall/Winter 1992-93 No. 5

Vermont Department of Environmental Conservation

Lake Iroquois Watershed Project Underway

The first phase of the Lake Iroquois Watershed Project is completed! Despite often inclement weather, the enthusiasm and support of interested landowners helped the study progress steadily through the summer of 1992. The project is the first of its kind in Vermont to look at improving a lake's water quality from the perspective of its entire watershed. The goals of the Lake Iroquois Watershed Project are to reduce and control phosphorus pollution and to prevent new sources.

Phosphorus Runoff Identified as the Problem

A 1984 study on Lake Iroquois investigating the cause of nuisance algae and plant growth indicated that the runoff of sediments from numerous small erosion sites throughout the watershed contributed to the accumulation of phosphorus in the lake. Phosphorus, which occurs naturally in soils, becomes a problem when large quantities of sediment are washed into lakes and streams from exposed surfaces. The elevated amount of phosphorus results in increased algae and aquatic plant growth.

No single construction project or land use in the Lake Iroquois watershed was identified as being a more significant source of phosphorus than the rest. The sources of soil erosion in the Lake Iroquois watershed are diverse. Numerous small sites of ditch, road and bank erosion combine to create significant sediment and

See "Iroquois" page 8

Lake Iroquois' Dedicated Monitoring Team

Every Monday, weather permitting, June through August, Bob and Helen Hall can be seen in their boat out on the waters of Lake Iroquois in Williston. They are not just out for a casual ride; Bob and Helen are two dedicated volunteer water quality monitors for the Department of Environmental Conservation's Lay Monitoring Program (LMP).

Both originally from Washington, D.C., they have been seasonal Lake Iroquois residents for thirty-eight years. Bob and Helen have tested the waters of the lake for the past twelve years. Bob, a retired Brigadier General with the U.S. Air Force, and Helen, a retired physical education teacher, also volunteer their time at the Medical Center Hospital of Vermont in Burlington in the transportation and rehabilitation of patients.

When asked why they monitor every summer, the answer was simple: "We enjoy being

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Possible Illegal Herbicide Use In Vermont Lakes Causes Concern

Aquatic biologists in the Lakes and Ponds Unit have noticed a potentially alarming trend - an increase in the number of lakes that appear to have been treated illegally with aquatic herbicides in order to kill nuisance aquatic vegetation, especially Eurasian watermilfoil (*Myriophyllum spicatum*). There is some evidence to suggest that individuals may be using aquatic herbicides without an Aquatic Nuisance Control Permit from the Vermont Department of Environmental Conservation (VTDEC), using herbicides that are not registered with the Vermont Department of Agriculture, and/or are using State Restricted Use herbicides without being a certified pesticide applicator. All of these actions are serious violations of State and/or Federal law.

While conducting statewide aquatic plant surveys over the past few years on lakes that are infested with Eurasian watermilfoil, biologists noticed that in several lakes (Lake Bomoseen, Lake Horton, Lake St. Catherine, Metcalf Pond), watermilfoil plants in many areas exhibited the typical types of abnormal growth seen when a watermilfoil plant comes in contact with low concentrations of an aquatic herbicide containing 2,4-D. Some of these symptoms include spatulate (spoon-like) or fused leaflets, curling plant tips and fat stems that may appear to be "bubbly". Since Eurasian watermilfoil is so sensitive to 2,4-D, these types of effects can occur in the plant even when 2,4-D concentrations are very low.

A scenario that could cause these conditions might go like this: A camp owner buys 2,4-D pellets from a mail order company and broadcasts them off his or her dock in order to kill aquatic plants that interfere with boating and swimming. Herbicide levels are high enough in the immediate treatment vicinity to kill watermilfoil. However, residues of the herbicide drift away from the treatment site due to wind and wave action. Farther away from the site, the herbicide concentrations are not high enough to be lethal to the watermilfoil plant, but they are still high enough to cause the abnormal plant growth described above. Symptoms of the herbicide may be seen a considerable distance from the original treatment site, depending on



Eurasian watermilfoil exhibiting abnormal growth from contact with 2,4-D

lake currents, weather and other factors.

VTDEC staff have collected sediment, plant and water samples in several of the lakes suspected of receiving illegal herbicide treatments. The samples were analyzed for 2,4-D residues. Detectable levels were not found; however, this does not necessarily mean that the treatments were not made. Herbicide residues may have dissipated enough in the areas sampled so that they were not detectable with the standard laboratory methods used at the time. The Department of Agriculture laboratory now has a much greater capability to analyze all types of pesticides. The VTDEC will continue to monitor all of the state's lakes that have Eurasian watermilfoil and in circumstances where it appears herbicides have been illegally applied, analytical techniques may be used to try to detect the pesticides and their breakdown products.

Both the VTDEC and the Vermont Department of Agriculture regulate pesticide use in the state. If an individual is caught using herbicides illegally, there could be substantial penalties, depending on the offense and the circumstances surrounding the case. The VTDEC administers 10 V.S.A., Chapter 47, which describes the Aquatic Nuisance Control Permit Program. The application of herbicides to waters of the State without a permit from the VTDEC is strictly prohibited. A person using an

See "Illegal" page 7

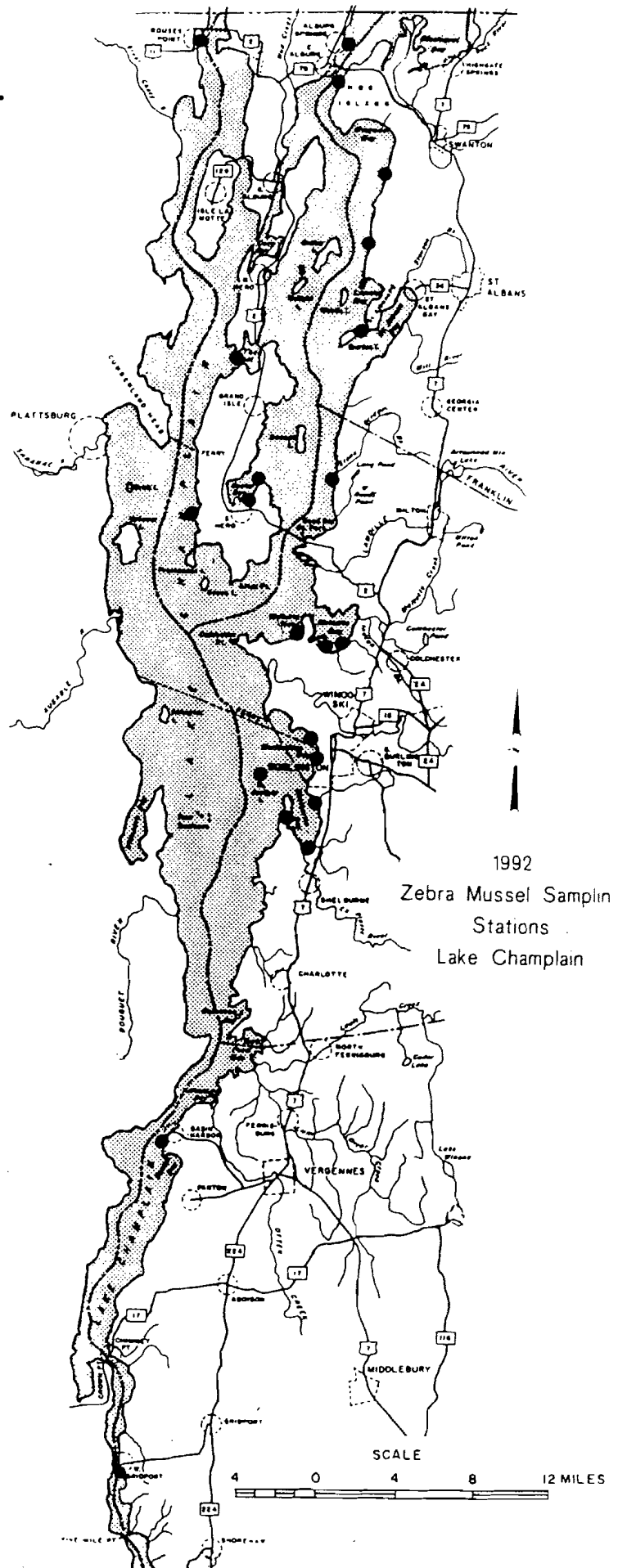
Search For Zebra Mussels in Lake Champlain



Zebra mussels have been documented in all of the Great Lakes. They are found in the greatest abundance in lakes Erie and Ontario, and in the St. Lawrence River at least as far south as Cornwall, Ontario. There also have been persistent rumors that a population exists in the vicinity of Montreal. What about Lake Champlain? Because of heavy sailboat and motorboat traffic entering Lake Champlain from Canada through the Richelieu River, it is possible that zebra mussels have already been introduced into the lake. This past summer, the Department of Environmental Conservation conducted an initial screening of Lake Champlain for zebra mussels. Department staff sampled for both immature (or veliger) and adult life stages of the mussels while volunteers sampled for adult zebra mussels. Sampling efforts were concentrated primarily in areas considered likely for zebra mussel colonization based on water quality requirements and transient boater traffic.

Beginning in late July and continuing until mid October, Department staff used three sampling methods to search for zebra mussels. First, the lake shore, mooring buoys and native clams at Burton Island Marina and Lighthouse Point Marina were examined for encrustations of adult zebra mussels. Boat hulls and props at Malletts Bay Marina were also examined for both adults and veligers. The second method used fine meshed nets to sample for veligers both vertically and horizontally in the water column. Sampling was conducted by boat or from the end of a dock at six different sites: Perkins Pier, Shelburne Shipyard, Malletts Bay Marina, Lighthouse Point Marina, Burton Island Marina and a site in the southern end of the lake. A standard biological method specific for zebra mussel veliger collection was also used, whereby plastic plates suspended vertically in the lake were tied to docks at Shelburne Shipyard, Malletts Bay Marina and Perkins Pier. No zebra mussel adults or veligers were observed at any of the locations sampled by Department staff.

Volunteers searched for adult zebra mussels via a presence/absence sampling program at 18 sampling stations between Bridport in the south and Alburg Springs in the north. Simple sampling devices consisting of a weighted plastic milk jug



suspended by a nylon rope were distributed to 15 of 31 Lake Champlain water quality monitors participating in the state's Lay Monitoring Program. Participating volunteers checked sampling devices weekly, June through September, for colonizing zebra mussels. No adult zebra mussels were found at any of the 18 sampling stations. None of the volunteers found mussels of any kind colonizing on the sampling devices.

Although zebra mussels were not encountered in these initial screening efforts, it is possible that the mussels have already made their way into Lake Champlain but their densities are too low to confirm that they are here. The Department will continue to watch for zebra mussels in the state and sampling efforts initiated in 1992 are expected to continue in 1993.

The Department extends a "thank you" to the 15 Lay Monitors who volunteered additional hours to assist with the search for zebra mussels in Lake Champlain.

WEEVIL (continued from page 5)

results. The proposed introductions for 1993 will hopefully shed some light on these questions. We do know that the weevils will **NOT** completely eradicate Eurasian watermilfoil from a lake. Additionally, it is possible that, at least in the beginning stages of a biological control program on lakes using other milfoil control methods, lake users may have to tolerate increased milfoil growth while waiting for the weevil population to become established. There are still many questions to be answered, but the results to date have been remarkable. Keep your fingers crossed.

ILLEGAL (continued from page 3)

aquatic herbicide without a proper permit may be fined up to \$25,000, imprisoned for up to 6 months, or both.

The Department of Agriculture administers 6 V.S.A., Chapters 81 and 87, and Vermont's Regulations for Control of Pesticides. Those regulations require that all pesticides be registered and classified as Restricted Use (Class A) or non-restricted use (Class B or C). It is illegal to use an unregistered pesticide. *Aquacide* (2,4-D) pellets are not registered in Vermont so their use by anyone is illegal. Any person who wishes to purchase or apply a registered Restricted Use pesticide must be a certified pesticide applicator. Most of the aquatic pesticides that are labeled for watermilfoil control are Restricted Use in Vermont. A few examples of Vermont Restricted Use products are *Aqua-Kleen* (2,4-D), *Aquathol*, *Hydrothol*, *Diquat*, and *Sonar*. Any violation of the Vermont Regulations for Control of Pesticides is subject to enforcement action by the Department of Agriculture. Again, depending on the circumstances, an individual could receive Administrative Penalties of up to \$1,000 per violation and Civil Penalties of up to \$25,000 or 6 months imprisonment or both.

The VTDEC recognizes the extreme frustration that lakeshore property owners and other lake users face when trying to deal with the Eurasian watermilfoil problem. There are few low maintenance control methods that provide good results at a reasonable cost. Lake users may resort to the use of chemicals because they see it as a "quick fix" to the problem. However, using herbicides illegally may be jeopardizing the health and safety of not only the person applying the chemicals, but those people who unknowingly come in contact with herbicide-treated water. **Remember.....**permits, product registration requirements, label restrictions and programs for training applicators all exist to protect those using chemicals as well as public health and the lake environment.

The VTDEC urges anyone with questions about the use of aquatic herbicides in lakes to call the Waterbury office at (802) 244-5638. If you have questions on product registration or how to become a certified pesticide applicator, call the Vermont Department of Agriculture at (802) 828-2420.

Please **DO NOT** use herbicides in your lake without the proper authority and guidance to do so. If you do have a permit to use a registered aquatic herbicide, adhere to **ALL** restrictions and cautionary statements on the product label. If you would like to report any illegal herbicide treatments, call the VTDEC or the Department of Agriculture at the above numbers.

phosphorus loading to the lake. While it is often assumed that large land uses such as farming and logging are the most significant sites of erosion, in reality, the cumulative effect of many smaller sites also can be important.

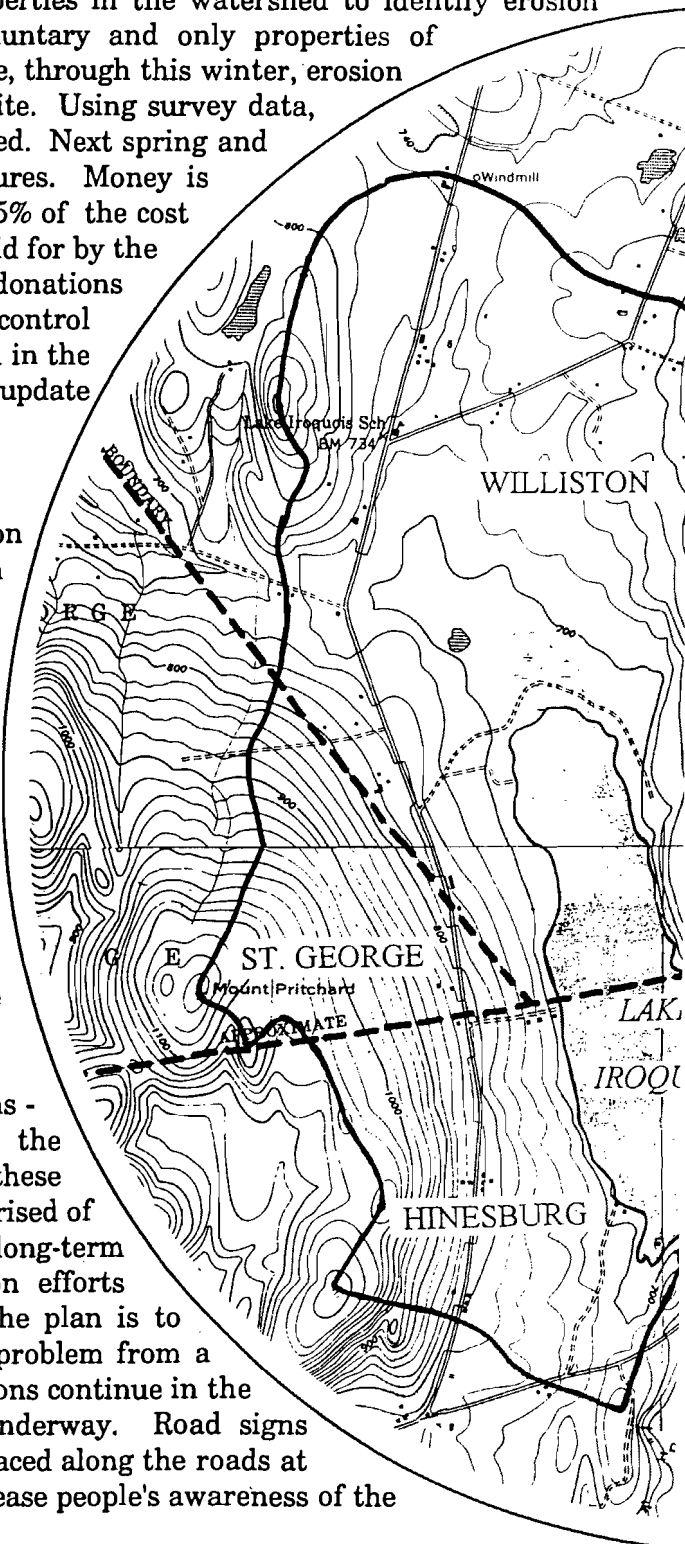
Site by Site Erosion Control

The Lake Iroquois Watershed Project focuses on **pollution control through erosion control**. The first phase of the project involved a survey of properties in the watershed to identify erosion problems. Participation in the survey phase was voluntary and only properties of interested landowners were surveyed. In the second phase, through this winter, erosion control measures are being developed for each problem site. Using survey data, the worst problem areas are being identified and prioritized. Next spring and summer, we will be implementing erosion control measures. Money is available to make small grants to landowners to pay for 75% of the cost of the corrective measures. The remaining 25% will be paid for by the individual landowner; volunteer assistance and material donations will also count toward the local share. Specific erosion control projects from the Lake Iroquois watershed will be featured in the next issue of *Out of the Blue*. Look for the next project update then!

Public Information About Land Management

The Lake Iroquois Watershed Project also focuses on helping the public develop an understanding of erosion problems and solutions since many solutions involve modifying common land use practices. A significant element of the work during the summer of 1992 was personal contacts with people who own property in the watershed. These landowners represent year-round and seasonal residents, homeowners and renters, and shoreline and non-shoreline property owners. About half of all landowners whose properties were surveyed had personal contact with the project staff, including meetings and phone calls. Eight informational meetings with neighborhoods, planning commissions, or conservation commissions have been held so far. Response from the public has been very enthusiastic and most people want to help improve water quality in Lake Iroquois.

Lake Iroquois' watershed lies in four different towns - Hinesburg, Richmond, St. George and Williston - and the project necessitates cooperation and coordination among these distinct communities. A Project Steering Committee comprised of members from the four towns is currently developing a long-term educational plan so that watershed and lake protection efforts continue after the project is completed. The focus of the plan is to increase the understanding of the phosphorus pollution problem from a watershed perspective and ensure that erosion control actions continue in the future. Several small education projects are already underway. Road signs reading "Entering Lake Iroquois Watershed" have been placed along the roads at points where the land begins to drain into the lake to increase people's awareness of the boundaries of the watershed.



Lake Iroquois as a Model for Other Lakes

The situation at Lake Iroquois is probably similar to that at many other Vermont lakes; the combined effect of every landowner's activities in the watershed adds up to excessive phosphorus and sediment loading to the lake. As a demonstration project, it is hoped other towns will use it as a model to promote water quality protection in their area.

Workshops for representatives from other Vermont lakes, and for town and regional planners, were held this fall. Participants toured the Lake

Iroquois watershed to view erosion sites, learned about potential corrective measures, and discussed municipal planning for watershed protection. Additional workshops will be held in 1993.

Readers interested in how they can survey their lake's watershed are invited to read the article "Learn About Your Lake's Watershed", found on page 13 of this issue of *Out of the Blue*.

**ENTERING
LAKE
IROQUOIS
WATERSHED**

These signs, posted along the main roads around Lake Iroquois, will increase awareness of the boundaries and extent of the lake's watershed.

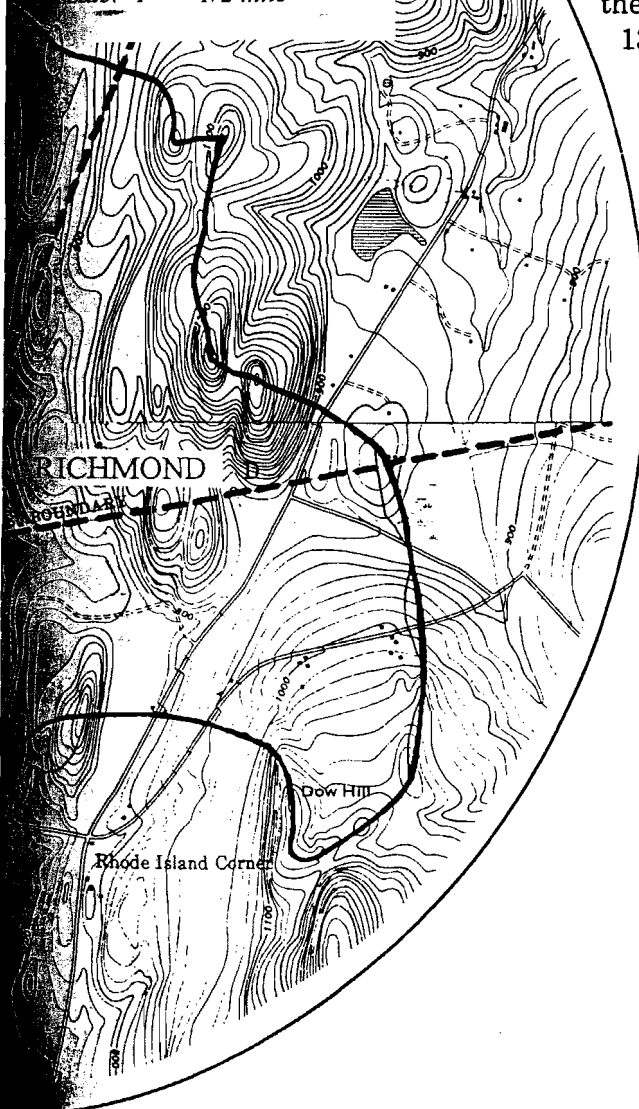
KEY

— Watershed Boundary

- - - Town Boundary

● Lake

Scale: 1" = 1/2 mile



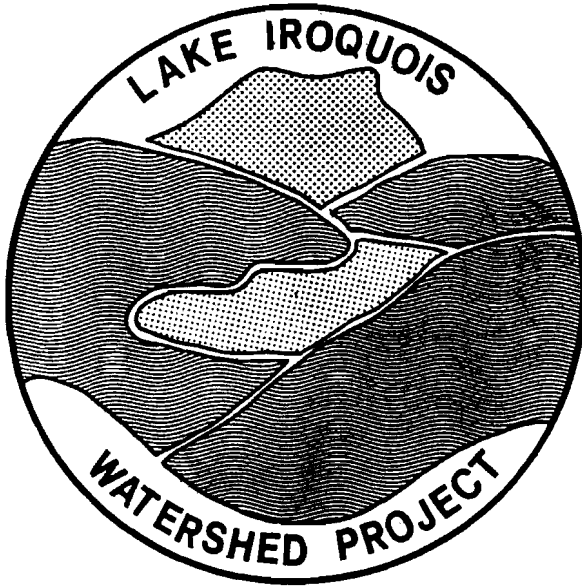
DEDICATED (continued from page 1)

program for the psychic income we get out of it and secondly, we do it for the health of the lake." They feel being involved has helped Lake Iroquois by "making sure someone is continuing to study the lake." The Halls keep a watchful eye on the area and occasionally chat with people at the boat access to educate them about the nuisance aquatic plant, Eurasian watermilfoil, discovered in Lake Iroquois in 1990.

The Halls are very concerned and dedicated people who say that "team work is the key to doing the monitoring together." The highlight of their years of monitoring was being on the television show "Across the Fence" to show off their water testing skills. Lake Iroquois and the LMP are fortunate to have the long term dedicated efforts of monitors like Bob and Helen Hall; their work is greatly appreciated.

This is the first article in a series of profiles on Lay Monitoring Program volunteers that will appear in future issues of Out of the Blue.

A Logo For Lake Iroquois



Students from Ruth Furman's art class at Champlain Valley Union High School (CVU) in Hinesburg submitted designs for a Lake Iroquois Watershed Project logo last summer. The logo is designed to bring extra recognition to the project and its goal of water quality protection.

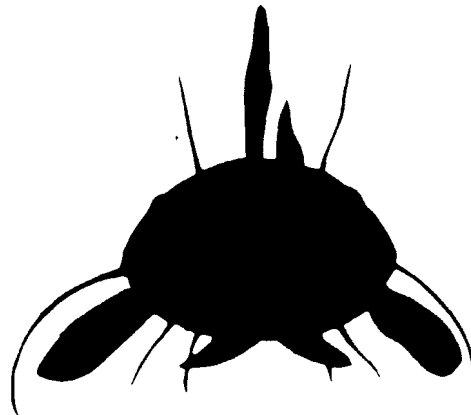
After viewing the choices, the project steering committee chose the logo designed by Aaron Delfausse of Williston as the winner. (Congratulations Aaron!) Kerry Lawrence of Charlotte designed the second choice. Aaron's logo was picked because it focused on the watershed surrounding the lake. He will receive a free family season pass to the Lake Iroquois Beach in 1993. The steering committee hopes that the logo will bring recognition to the Lake Iroquois Watershed Project. The logo was printed into colored stickers which will be distributed to landowners and other people who participate in the project.

Investigating the Causes of Excessive Phosphorus Levels in St. Albans Bay

Phosphorus concentrations in St. Albans Bay are still among the highest in Lake Champlain. The bay, located in the Northeast Arm of the lake, has a history of excessive phosphorus loading primarily from the city's wastewater treatment plant and from watershed agricultural runoff. Over the decades, elevated phosphorus levels have caused thick algae blooms, noxious odors and impaired fish habitat. The bay's phosphorus concentrations have been compared to Lake Erie's when Lake Erie received national attention for its deteriorating water quality.

Studies during the 1970's concluded that the wastewater treatment facility was the major source of phosphorus to St. Albans Bay. These findings resulted in an upgrade of the facility for phosphorus removal. The upgrade, completed in 1987, was responsible for reducing the phosphorus discharge from the plant by 90%. In 1981, a ten year project initiated by the U.S. Soil Conservation Service's Rural Clean Water Program began the implementation of Best Management Practices (BMP's) within the St. Albans Bay watershed to reduce agricultural runoff to the bay. Despite both these efforts, no reduction in phosphorus concentrations in the bay has been detected in recent water quality

data and the bay still has tremendous algae blooms. The St. Albans Bay Diagnostic Study was initiated in May 1992 by the Department of Environmental Conservation to determine why phosphorus concentrations remain high.



One possible cause of continued elevated phosphorus concentrations can be found in the lake bottom sediments. Phosphorus that was deposited and stored in the sediments prior to the treatment plant upgrade and the implementation of BMP's continues to be released into St. Albans Bay. The phosphorus release could be occurring in both the bay itself and in the Stevens Brook wetland, through

which the wastewater treatment plant discharge and the primary tributary enters the lake.

In order to determine if the lake and/or wetland sediments are a significant contributor of phosphorus, sampling was conducted weekly during the summer of 1992 at five stations in the wetland and eleven stations in the bay. The results will be used to model the movement of phosphorus from the wetland into the bay. Along with the weekly water sampling, sediment cores were collected in mid-August and are being analyzed for phosphorus. The results will be compared with a similar sediment study done in 1983 by the University of Vermont Geology Department to see if the sediment concentrations of phosphorus have decreased since the wastewater treatment plant upgrade was completed.

Sampling for the St. Albans Bay Diagnostic Study was completed in November 1992 and the results should determine the extent to which bay sediments and the Stevens Brook wetland sediments are the source of continued excess phosphorus in the bay. The results and conclusions from the study will be available in the spring of 1993.

Establishing Long Term Monitoring on Lake Champlain

Thousands of lake users ply the 110 mile length of Lake Champlain in search of fish and fun every year, making the lake a significant recreational and natural resource for both Vermont and New York. However, in recent years, there has been increasing concern over water quality conditions in the lake as signs of deteriorating water quality become more common and widespread.

A number of studies have gathered water quality data on Lake Champlain. Since 1979, the Vermont Lay Monitoring Program has sampled over 30 Lake Champlain sites for total phosphorus, chlorophyll-a and water transparency data. The Lake Champlain Diagnostic/Feasibility Study, conducted jointly by the Vermont Department of Environmental Conservation (VTDEC) and the New York Department of Environmental Conservation (NYDEC) from March of 1990 until July of 1993, will generate a predictive computer model to predict changes

programs have been valuable in assessing water quality conditions in the lake. However, if the water quality of Lake Champlain is to be managed effectively, there is a need to further understand the interrelationships of nutrients, and other chemicals, and the biological community.

In 1990, the Lake Champlain Special Designation Act was signed, authorizing the preparation of a pollution assessment and cleanup plan for the lake. The Lake Champlain Basin Program was created to oversee the formulation of such a plan. An important priority of the Lake Champlain Basin Program is to develop a lakewide water quality model for many water quality parameters. To address this, the "Long Term Water Quality and Biological Monitoring Project" for Lake Champlain was funded in 1992.

The Long Term Water Quality and Biological Monitoring Project conducted by the VTDEC and the NYDEC is a three year sampling program with five major goals:

- to create a complete water quality and biological database for modelling and trend analysis;

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in lake water quality based on various tributary phosphorus contributions. Both of these

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- to integrate the chemical and biological databases to determine how changes in water chemistry through the seasons and across the lake affect lake organisms;
- to assess the change in biological communities over time by comparing current and historical lake data;
- to monitor for exotic destructive organisms such as the zebra mussel; and,
- to establish a reference collection of Lake Champlain organisms to be housed at the New York State Biological Survey in Albany, NY.

With the first year of monitoring nearly complete, a detailed sampling program to address the Project's goals has been developed. For water quality assessment, twelve stations between Missisquoi Bay and two miles south of Benson Landing are visited twice monthly, with a host of chemical parameters including phosphorus, nitrogen and numerous metals being collected. In order to determine the movement of nutrients into the lake, the 18 largest Lake Champlain tributaries are sampled during high water and flood events, when nutrient concentrations in these rivers are highest.

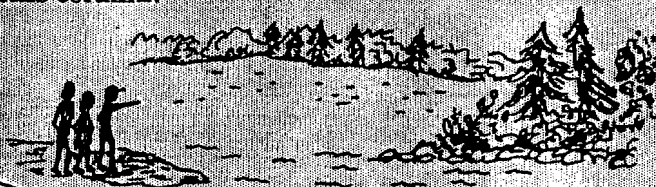
Assessment of the biological community is also part of the sampling plan. At the sites of the water quality sampling, zooplankton (microscopic animals) are collected, and are compared to existing water quality conditions. Bottom-dwelling invertebrates are sampled three times per season, at 52 sites on the lake. The opossum shrimp (*Mysis relicta*), a nocturnal shrimp that inhabits deep, cold water, is sampled monthly throughout the deep water lake areas. Opossum shrimp populations are highly sensitive to environmental change, and are therefore a good indicator of the general health of their surroundings.

The Long Term Water Quality and Biological Monitoring Project offers an excellent opportunity to gain a fuller understanding of Lake Champlain's ecosystem dynamics. Two more years of field sampling will be conducted. A report summarizing the first year's work will be available in April 1993.

Lake Association Information Wanted!

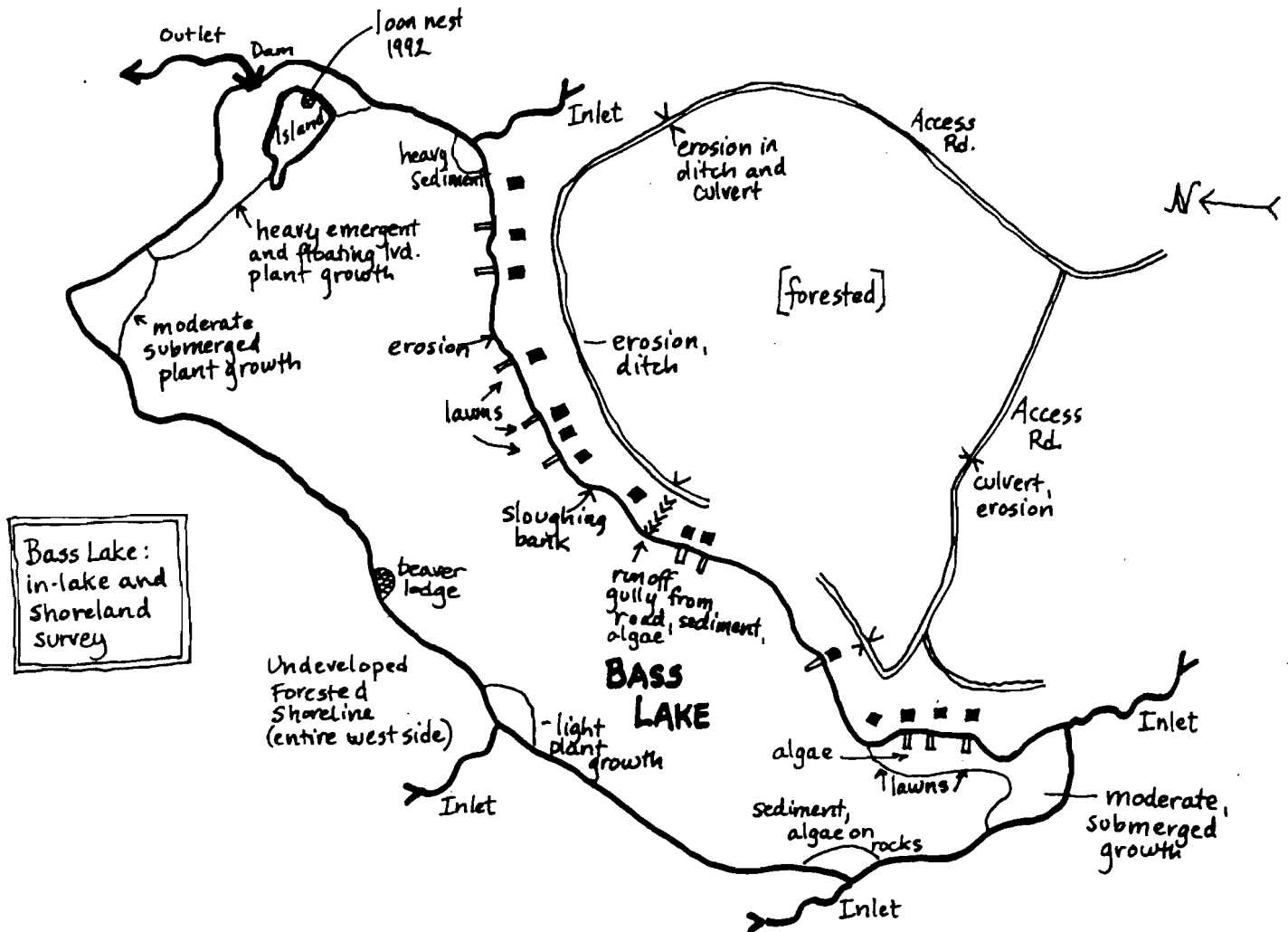
In upcoming issues, *Out of the Blue* will feature a regular column entitled "State of the Lakes". This column will provide Lake Associations, or other groups (towns, conservation commissions, etc.), with an opportunity to inform *Out of the Blue* readers about their groups' activities or report on lake projects of statewide interest.

Articles must be submitted to the *Out of the Blue* staff in early spring for the Spring/Summer issue and in early fall for the Fall/Winter issue. Contact Ann Bove or Susan Warren at 244-5638 if your group would like to contribute to this column.



Learn About *Your* Lake's Watershed

In conjunction with the Lake Iroquois Watershed project, a new survey form has been developed for use by lake associations, towns, and other local groups. The survey form will allow people to inventory the land area draining into a particular lake to identify existing pollution sources, and can be the first step in the development of a watershed clean-up and lake protection plan.



The purposes of the survey procedure are three-fold:

- to provide people with a means of identifying and mapping current or potential water quality problems or pollution sources within a lake watershed;
- to inform people about the kinds of land uses that affect water quality; and,
- to provide an outline for developing a lake protection program.

Surveyors are asked to map conditions along the lake shoreline, both in and out of the water, and to walk the streams and roadways in the watershed. During the process, the surveyors note and map occurrences such as eroding streambanks and roadsides, indications of failing septic systems, and excessive algae growth. Follow-up instructions will assist in the interpretation of the information gathered.

The Citizen's Watershed Survey is currently being field tested, and a final version should be available early next summer. For more information, or to sign up for a copy, please contact Susan Warren of the Lake Protection Program, 244-5638.

49th Annual Governor's Conference on Recreation

Swimmers, waterskiers, and canoeists all depend on good quality waters, lakes or rivers, for enjoyment. This seemingly diverse range of uses was brought together at the annual Governor's Conference on Recreation, which sought to emphasize common interests instead of conflicts. The Recreation Division of the Vermont Department of Forests, Parks and Recreation chose to focus this year's conference, "Water, Land and People", on water based recreation because the growing use of the resource has resulted in increased conflicts between users. The conference, held in early November at the Lake Morey Inn in Fairlee, was attended by 140 people representing a diversity of organizations and areas of the state.

Morning presentations provided attendees with information on resources available to assist people in carrying out recreation projects. Also, successful water-related projects, such as the establishment of municipal beaches, citizen monitoring programs, and surface use inventories, were presented.

In the afternoon, attendees were divided into discussion groups based on watershed areas (e.g. Lake Memphremagog drainages or the Winooski River basin) allowing people to learn about concerns and projects in their geographical area. The discussion focused on exploring potential cooperative efforts to resolve issues and conflicts, and identifying opportunities to enhance recreation. The result was a recognition of the need for continued discussions and cooperation between the diverse recreational interests. A group of about 20 conference attendees signed up to further discuss ways to bring about ongoing communication.

LAKE LINGO

Best Management Practices (BMP's) - in lake and stream management, actions which are considered best to control erosion, runoff, nutrients, pesticides or toxic substances.

Erosion - the loosening and resulting movement of soil particles from the ground; caused by water or wind.

Invertebrates - animals lacking internal skeletons, such as insects, clams and mussels, and crayfish.

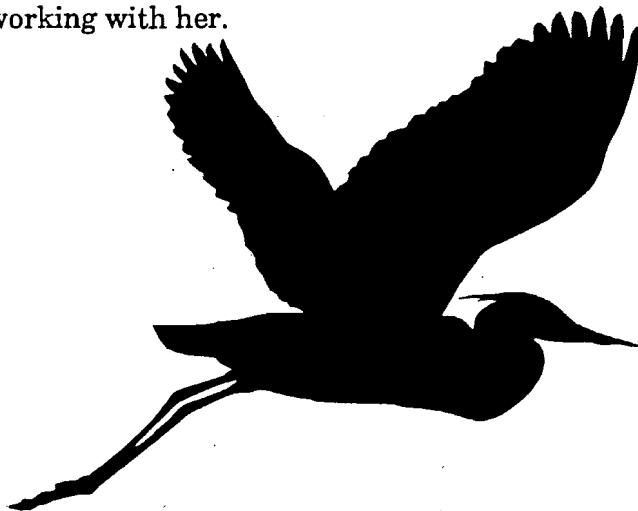
Pupal - the stage in the development of some insects characterized by many internal changes that result in the emergence of an adult form. For instance, the cocoon stage of a moth.

Veliger - the immature life stage of a mussel.

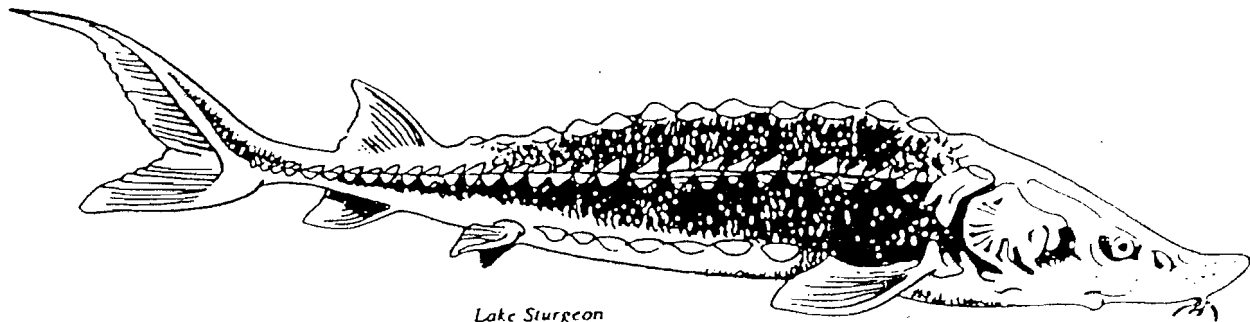
Watershed - the land surrounding a lake which drains into the lake. Also called a "drainage basin".

The Lakes and Ponds Unit Hires a New Lay Monitoring Program Coordinator

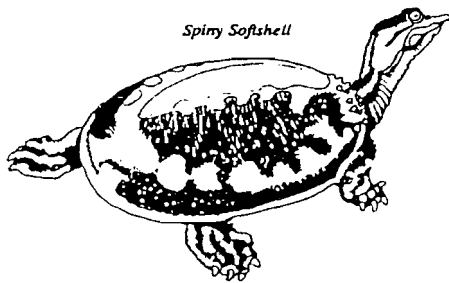
Amy Bentley Picotte has been hired as the new Coordinator of the Lay Monitoring Program. Schooled as a biologist at Johnson State College, Amy later received her teaching certificate and has worked in many educational positions, including the Peace Corps and Upward Bound. Most recently she has been employed at a private water chemistry laboratory. Amy brings great enthusiasm and a love of working with people to the job; we hope all the Lay Monitors will enjoy working with her.



The Nongame and Natural Heritage Program Protects Vermont's Rare Species



Lake Sturgeon



Spiny Softshell

What does the common loon have in common with the striped chorus frog, beach heather, lake sturgeon, lake cress, common tern, beach pea, osprey, Peregrine falcon, spiny softshell turtle, and Champlain beach grass? Answer: They're all threatened or endangered species found in and around Vermont lakes and ponds, and are protected through the Nongame and Natural Heritage Program (NNHP) of the VT Department of Fish and Wildlife.

The NNHP is a centralized repository of updated information on Vermont's native plants, animals, and natural communities. NNHP staff members and contractors conduct field surveys, assist with natural area acquisition, and help protect many of the state's rare, threatened, and endangered species. Besides sponsoring a loon monitoring program, the NNHP has also coordinated projects such as the placement of 20 osprey nest platforms and the management and monitoring of the Peregrine falcon, conducted winter surveys of small-footed bats, and worked with many individuals and agencies to keep records up-to-date.

Most of the funding for these projects comes from donations to the Nongame Wildlife Fund. The Department of Fish and Wildlife is

funded primarily through hunting, fishing and trapping license sales. Accordingly, through the years the Department has concentrated most of its management efforts on "game" species. In 1986, the Vermont legislature created the Nongame Wildlife Fund to give people an opportunity to help "nongame wildlife", those species that are not hunted, fished, or trapped. More than 75% of Vermont's wildlife species are nongame animals.

If you would like to participate in the Nongame Wildlife Fund this tax season, just "LOOK FOR THE LOON" silhouette on Line 11 of your Vermont Income Tax Return. Enter your contribution amount there. Your return will be reduced by the amount entered, or your payment will be increased by that amount. If you itemize your expenses, don't forget that last year's gift is deductible this year.

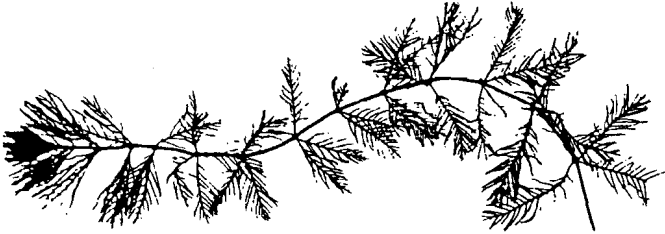
To find out more about nongame, threatened and endangered species in Vermont call the NNHP at (802) 244-7331.



Common Loon

Pressed Milfoil Specimens Available

Pressed, dried specimens of Eurasian watermilfoil plants are available from the Lakes and Ponds Unit to assist Milfoil Watchers and others in milfoil identification. Each specimen has been mounted on heavy paper and encased with a waterproof covering. Contact Ann Bove at 244-5638 to obtain a pressed specimen.



Fisherman Caught Transporting Milfoil

Transporting Eurasian watermilfoil in Vermont is against the law. In August, a State Police Marine Patrolman cited a fisherman at Lake Dunmore in Salisbury for transporting Eurasian watermilfoil. Milfoil was found attached to his boat trailer at the Fish and Wildlife public boat access. Although the fisherman has pleaded innocent, this incident is the first application of the milfoil transport law and hopefully, more lake users will take heed of this law and the seriousness of the milfoil problem.

VOLUNTEER WATER QUALITY MONITORS TAKE NOTE!

There is a national volunteer water quality monitoring newsletter available to anyone at no charge. *The Volunteer Monitor* is published twice yearly. To be added to the mailing list contact:

Eleanor Ely, Editor
1318 Masonic Avenue
San Francisco, CA 94117
Phone (415) 255-8049

VT Department of Environmental Conservation
Water Quality Division
Lakes and Ponds Unit
103 S. Main Street, 10 North
Waterbury, VT 05671-0408

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WATERBURY, VT
PERMIT No. 17

Address correction requested.