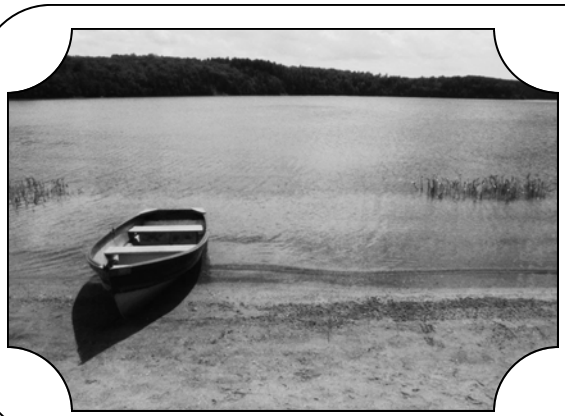

Cattail Chronicles

Issues Affecting the Surface Waters of Lake County

Lake County Health Department and Community Health Center
Irene Pierce, MSN, Executive Director

Volume 19, Issue 1 Summer 2009

Invasive Plant is Big Problem for Lakes and Ponds

Brazilian Elodea (*Egeria densa*, also known as Brazilian Waterweed) is spreading into Midwest lakes and streams. It is an exotic and invasive plant from South America. Until 2008, the Midwest Invasive Plant Network (MIPN.org) reported that this invasive aquatic plant was only known in 17 counties in the Midwest and Ontario, with only one known population surviving the cold winters of central Minnesota.

Previously not known to Lake County, two populations of Brazilian Elodea were found in Libertyville during the summer of 2008 by the environmental consultant Integrated Lakes Management (ILM) while conducting routine maintenance of two ponds owned by the Village of Libertyville. ILM reported the populations to the New Invaders Watch Program (NewInvaders.org), a regional early detection program for invasive species in the Chicago region. Identification was confirmed by the Illinois Natural History Survey. On January 22, 2009 the Lake County Health Department - Lakes Management Unit (LMU) sampled the ponds and found that the Brazilian Elodea was overwintering beneath 8 inches of ice covered by 6 inches of snow. The Village plans to begin removal of the populations in early spring of 2009.

Once established, Brazilian Elodea is difficult to completely eradicate. Brazilian Elodea can grow aggressively in our lakes and streams; infestations can cause a decline in water quality, restrict water movement, interfere with navigation and traditional recreational uses, and reduce the abundance and diversity of native plants, such as our native American Elodea (*Elodea canadensis*) also known as Common Waterweed.

Aquatic invasive plants can spread as contaminants on non-invasive water garden plants, as hitchhikers on recreational vehicles, trailers and equipment, and through the dumping of unwanted plants or plant parts from aquariums. Unfortunately, this plant is widely sold as an aquarium and water garden plant and an "oxygenator" for water nurseries under the name "Anacharis." The problem occurs when the plants from aquariums or water gardens are improperly disposed of and put into a neighboring waterbody instead of the garbage. This harmful practice is common with other invasive aquatic plants as well. The LMU has found the exotics Parrot Feather, Water Hyacinth, and Water Lettuce while monitoring lakes. All three species are popular water garden plants sold

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For information contact:

The Lakes Management Unit
Environmental Health Services
847- 377- 8030
http://www.lakecountyil.gov/Health/want/BeachLakeInfo.htm

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Health Department and
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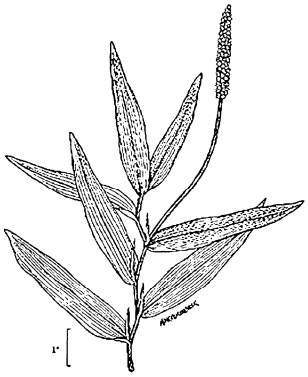


White Stem Pondweed
(Potamogeton praelongus)

Spotlighting Plants: White Stem Pondweed

By: Kathy Paap

If you are out on a glacial lake in Lake County this summer, keep your eyes out for this submerged plant species as it is definitely a rarity to see. As the name implies, this pondweed has a white stem which zigzags along its axis. Leaves are often more than 10 cm long and 2 cm wide. It also has stipules (appendages extending from the base of the leaf) protruding from the base of the leaf. You will have to look into the water in order to see this plant as none of its leaves break the water surface. This should not be a difficult task as this plant is only present in clear lakes, and its white zigzagging stem and stipules make it stand out from other plants under the water. It might be difficult to pick this plant out from others if there are just too many other plant species present in the lake (diverse plant community) or it may be confused with Claspingleaf Pondweed (*Potamogeton richardsonii*), a closely related species. Some features you can use to distinguish White Stem Pondweed from Claspingleaf Pondweed are: the stipules, which are quite pronounced in White Stem Pondweed are absent or easily disintegrate in Claspingleaf Pondweed, the leaves of White Stem Pondweed barely clasp the stem, while Claspingleaf Pondweed entirely clasps the stem, and White Stem Pondweed has longer leaves and they curve at the tip forming a boat bow or canoe shape, which when pressed splits slightly.

White Stem Pondweed is a northern species and is found in many glacial lakes in the upper Midwestern and Northeastern United States. It is a rare find in Illinois, only occurring in three counties; Lake, McHenry and Cook, almost extending beyond its range. White Stem Pondweed is very sensitive to water quality changes, such as increases in turbidity due to erosion and nutrient loading within the lake and its watershed. The water quality in Lake County lakes, like other counties in Illinois that contain glacial lakes, has diminished over time. This is likely a catalyst in the listing of this species as an Illinois state-endangered species.

In 2008, it was found in two Lake County lakes, Deep Lake and Cedar Lake. It has also been found in the past in Cross Lake (1999) and Schreiber Lake (1999), however was not found in subsequent visits to these lakes. Wooster Lake has historically harbored a population of White Stem Pondweed, although the numbers have been dwindling. In 2007 there were only a few plants found and none in 2008. It was identified in Bangs Lake and West Loon Lake by the IDNR in 1991, but not since then. Absence of White Stem in these lakes may not mean it is gone forever. It is possible that it has not been detected due to changes in sampling techniques or annual variation. However, it could be the plant was originally misidentified or that the water quality of the lake has been compromised. Another potential threat to the plant is the use of aquatic herbicide treatments which has occurred on all of these lakes, except Schreiber.

White Stem flowers by mid summer and its robust seed heads, which remain on the stalk throughout the summer, are a treat for ducks and geese. It is also a food source for mammals such as beaver, muskrat, and deer. The plant provides habitat for aquatic insects such as damselflies, dragonflies and moths and their larvae which are food for fish as well.

It is important to have a diverse plant community as it provides a various habitats for other organisms using and living in your lakes. White Stem Pondweed is a species that lake managers and users should consider as a plant that makes their lake unique due its rareness. It is known to be an indicator species of good water quality since it is sensitive to decreases in water quality or over management and may disappear from lakes that are disturbed.

Kelly's Corner Kitchen

Grilled Salmon Skewers

1 lb salmon filet **without skin**	1/2 c soy sauce	1/2 c honey
2 T rice vinegar	2 t minced ginger root	2 clove garlic minced
Pinch of ground pepper	12 lemon wedge	12 skewers

1. Slice salmon lengthwise into strips, and thread onto a soaked wooden skewer. Place in a shallow dish.
2. Whisk together the soy sauce, honey, vinegar, ginger, garlic, and pepper. Pour 1/2 c marinade over skewers. Let stand for 30 min.
3. Lightly oil grill grate. Thread 1 lemon wedge onto the end of each skewer. Cook on medium-high preheated grill for 4 min. per side, brushing often with reserved marinade, or until fish flakes easily with a fork.

Fish Consumption in Lake County

By: Kelly Deem

Fish are a healthy, low-fat source of protein, but some Illinois fish contain harmful contaminants. The Illinois Department of Public Health (IDPH) announced the 2009 consumption advisories for sport fish caught in Illinois waters. There were several additions and changes to the advisory this year including the Fox Chain-O-Lakes in Lake County. These additions are the result of expanded and directed sampling by the Fish Contaminant Monitoring Program (FCMP) and do not suggest that Illinois fish are becoming more contaminated. Each year the Illinois FCMP screens fish samples from about 40 water bodies for contamination from 13 banned pesticides and industrial chemicals. The program is a joint effort of the Illinois Environmental Protection Agency (IEPA) and the Departments of Agriculture, Natural Resources, and Public Health. The fish are collected by the Illinois Department of Natural Resources (IDNR) and tested by the IEPA. IDPH issues an annual consumption advisory based on the IEPA test results. This year's advisory is included in the 2009 Fishing Information Guide, which is available from IDNR and businesses that sell state fishing licenses and at the IDPH web site **http://www.idph.state.il.us/envhealth/fishadv/2009_fish_advisories.pdf.**

"The advisories are not meant to discourage people from eating fish, but should be used as a guideline to help anglers and their families decide the types of fish to eat, and how to prepare fish for cooking to reduce possible contaminants," said Dr. Damon T. Arnold, state public health director.

The three most common contaminants in Illinois fish are polychlorinated biphenyls (PCBs), Chlordane, and Mercury. PCBs and Chlordane are no longer used in the U.S. PCBs are man-made oils that were used in many industrial processes and products. Chlordane is a man-made chemical that was used as an agriculture pesticide and to control termites in homes. Mercury is a metal that can be naturally occurring, but mainly comes from coal burning power plants and from household and industrial waste. These contaminants are slow to break down and remain in the environment for many years. PCBs, Chlordane, and Mercury accumulate in sediment and water. Fish that live and feed in contaminated waters accumulate these substances in their bodies. Over time, harmful levels of PCBs, Chlordane, and Mercury can build up in your body without knowing it. Mercury can cause reproductive damage and have adverse effects on the central nervous system. PCBs are known to cause low birth weights and delays in physical development. The advisories are based primarily on protecting sensitive populations, including women of childbearing age, pregnant women, fetuses, nursing mothers, and children younger than 15 years of age. Mercury is stored in the meat of fish. Chlordane and PCBs are stored in the fat of the fish. With careful selection and preparation, there are ways to reduce your risk to exposure.

Choose the Right Fish:

- Avoid older or bigger fish. They have had more time to build up contaminants in their bodies.
- Choose fish that do not eat other fish.. Fish such as Walleye and Northern Pike tend to have higher levels of mercury because they may eat other contaminated fish.
- Avoid fish with a lot of fat. Fatty fish such as carp and catfish tend to collect more Chlordane and PCBs in their fat.

Special Advisory

Fox Chain-O-Lakes

Channel Catfish
18-26" limited to one meal per month

Common Carp
Larger than 17" limited to one meal per month.

Due to elevated levels of PCBs

Properly Clean and Cook your Fish:

- Clean the fish and trim away the fatty areas such as the belly, top of back and the dark meat along the side.

- Remove or puncture the skin before cooking to allow the fat to drain off.
- Broil, grill, roast, or steam the fish to allow fat to drain away.

- When broiling, grilling or roasting the fish, throw away the fatty drippings.

UPDATE Viral Hemorrhagic Septicemia (VHS)

The Illinois Department of Natural Resources has been sampling many of our watersheds in Illinois in conjunction with a Southern Illinois University project funded through USDA Animal and Plant Health Inspection Service. In June 2008, samples taken from Winthrop Harbor verified the presence of VHS in the Illinois waters of Lake Michigan. IDNR is currently half-way through their sampling effort. About 3500 samples have been analyzed and NO VHS positives have been found. IDNR is still working on additional surveillance and wild fish sampling for the future. As additional data is gathered IDNR will likely make adjustments to the rules for fish movements and stocking. Currently residents need to be diligent in their efforts to stop the spread of the disease to our inland lakes by following the emergency regulations still in place implemented by the IDNR.

CURRENT VHS REGULATIONS

http://dnr.state.il.us/pubaffairs/2008/July/vhsvirus.html

- Eliminate natural water from all equipment when leaving a body of water.
- Empty and drain all bait buckets, livewells, baitwells, bilges, etc. or any other compartment capable of holding natural water when leaving a body of water.
- Do not remove live VHS-susceptible species from any waters. Anglers may catch and keep VHS-susceptible species, but may not transport those fish live from the waters where caught.
- Use of wild-trapped fishes from within the state as bait will be restricted to the waters where legally caught.

Spotlighting Watershed Groups: Indian Creek Watershed Partnership

By: Tori Trauscht

Why is it helpful to have a citizen based watershed planning group? Because if you organize as a group you can have a larger voice that can have an impact over an entire watershed. Our organization, the Indian Creek Watershed Project, Ltd. (ICWP), is unique in Lake County because it is sub-basin oriented and we are a non-profit that is working across municipal and township boundaries. Our watershed encompasses parts of unincorporated Lake County as well as portions of the villages of Mundelein, Vernon Hills, Hawthorn Woods, Long Grove, Lincolnshire, Libertyville, Lake Zurich, Kildeer, Buffalo Grove, Indian Creek, and covers the townships of Fremont, Ela, Vernon, and Libertyville.

When we formed the ICWP as a little non-profit group in south central Lake County in 1999, we were citizens who were worried about the declining water quality of our lakes and streams and increasing area flooding. We started organizing and having meetings to promote citizen based watershed planning. Support from the Upper Des Plaines Ecosystem Partnership and Illinois state and county agencies like the US Dept. of Agriculture's Natural Resources Conservation Service (NRCS), the Lake County Stormwater Management Commission (SMC) and the Lake County Health Department-Lakes Management Unit enabled a more formal watershed planning approach to take place. SMC adopted our effort, applied for watershed planning grants and this resulted in a finished watershed plan in 2004 and a fully EPA-compliant plan in 2008. Our watershed plan has become the most important tool for promoting better practices in our watershed, but it never would have happened if we did not form a group to lead the effort at a grassroots level.

In 2000 our watershed board decided to formally file as a non-profit organization because we wanted to implement some watershed projects. We originally wanted to apply for a grant to educate area citizens and heighten awareness about our water issues. Most funding agencies will only award projects to public governmental bodies, like villages, townships, park districts, schools or public agencies, or non-profit groups. Our group was awarded our non-profit status in January of 2001. The following February we were awarded our first Environmental Protection Agency Clean Water Act Section 319 grant. This grant was awarded to help prevent nonpoint source pollution (indirect pollution of our waters, like pollution from runoff of roads, yards, development, etc) and to educate residents about the benefits of trying to improve conditions in the watershed while restoring a historic sedge meadow stream corridor in one of the highest quality areas of the Indian Creek Watershed, the Reed-Turner Woodland. That was 10 years ago. To date, the ICWP has partnered with at least 20 other villages, townships or groups on at least 15 grants. We are honored that our Indian Creek watershed plan, developed with key support from the Lake County Stormwater Management Commission and the IL EPA, is the first EPA compliant plan in the State of Illinois. Amazingly, as of 2009 over $4 million in area projects has been completed or awarded within this little sub-watershed of the Des Plaines River. We are doing our part to help the Des Plaines River which flows into the Illinois River, which eventually flows into the Mississippi River. So it just started with a group of concerned people and the effort has spread as more and more projects are being completed throughout the watershed.

Continued ….

Environmental Links

Recycle Fish **http://www.recyclefish.org**
Anglers living a lifestyle of stewardship, both on and off the water

Indian Creek Watershed **http://www.indiancreekwp.org/**
Watershed stakeholders dedicated to the preservation, protection, and improvement of the Indian Creek Watershed

Water on the Web **http://wateronthweb.org/under/waterquality/index.html**
Information about the principle types of water quality problems impacting our lakes and streams.

Why watershed planning groups are important?

Continued from page 4
Now, $4 million in projects is no small task, and we are grateful to our associated communities who have stepped forward, budgeted matching money to implement projects, worked tirelessly to manage those projects for the two or three years it takes to finish them, and then maintain the project areas after they are fully completed to keep them improved. We have seen projects completed that stabilize our stream corridors, help our lake shorelines and produce lake manuals to help educate communities. There have been projects to restore wetlands, stream buffer areas, and install rain gardens to help with infiltration and lessen flooding. Detention ponds are being restored and severely eroding banks preserved in area parks and open lands. We have also encouraged Adopt-A-Highway projects to help keep garbage out of our streams and rivers, as well as lake monitoring so that citizens can regularly check the health of our important lakes. These are all projects that have happened because people have gotten involved for the benefit of their watershed.

There are many unsung heroes in the Indian Creek Watershed and we are grateful to them all, including Vernon Hills, Lincolnshire, Buffalo Grove, Fremont Township, Long Grove Park District, Mundelein Park District, Sylvan, Countryside Lake, the Lake County Forest Preserve District and Reed-Turner Woodland Stewards. We are grateful to the agencies who have helped us take stock of our resources, like SMC with their stream and detention inventories and the Lake County Health Department/Lakes Management Unit (LMU) who continually monitor and generate reports for our lakes. The LMU staff helped us with emergency sedimentation monitoring, stream fish and habitat assessments and public meetings on phosphorous and other lake problems.

We are proud that four communities (Vernon Hills, Long Grove, Countryside Lake, and Sylvan Lake) have adopted positions that promote a ban on the use of phosphorus in fertilizers. If everyone would use non-phosphorus fertilizers, limit their salt use in winter, and not mow within two feet of our lakes, streams and ponds, we could greatly lessen the erosion and pollutants moving through our waterways.

These are a few ways that people can help their watersheds. We hope that watershed planning and more watershed groups will form so that we can collectively improve conditions in the Des Plaines River and even have a ripple effect all the way downstream to the Gulf of Mexico. Recognition is building for the effectiveness of subwatershed efforts because they educate local stakeholders and planners while building support over multiple jurisdictions. There are more than 100 such watershed efforts in the state of Illinois. Many believe that sub-basin planning efforts are the best way to help improve main stem river and lake conditions because of grassroots networking, project oriented planning and public education throughout the watershed. It takes a bit of coordination and funding to start a watershed group but the rewards can be exponential. Our waters need help and watershed groups can do a lot to help get on the ground projects implemented.

We are proud to be a leader in watershed protection and improvements in the state of Illinois and we thank all of our partners who have worked so hard to help us become a model in northern Illinois. Perhaps your group can develop a vision for your watershed like we have. The mission of the Indian Creek Watershed Project (ICWP) is as follows:

The Indian Creek Watershed Project is comprised of watershed stakeholders dedicated to the preservation, protection, and improvement of the Indian Creek sub-watershed of the Des Plaines River. Our mission is to realize a long-term vision for a healthy watershed and an educated citizenry. Our goal is to educate while building partnerships to improve water quality, reduce flooding, and preserve and restore wetlands, woodlands, and other natural resources for future generations.

Summer: Calendar of Events

Citizens for Conservation: Adventures in Nature
Children use their senses to explore the Flint Creek Savanna
June 10, 10-11:30 (847) 382-7283

Heron Rookery Watch:
View waterfowl taking advantage of the restored
Almond Marsh Saturday mornings April-June
www.lcfp.org/calender

Free Boat Safety Inspection
U.S Coast Guard recognized boat safety inspection
Call (847) 381-0669 for event dates and times

Using Online Data and Tools for Your Watershed Workshop
June 22, 9-4:00 p.m. in Chicago
Learn how to find data about your local lake or stream
More Information: **www.prairierivers.org**

Help!! The fish in my lake are going belly up!!

By: Leonard Dane

We often receive phone calls from concerned residents about dead fish washing up on their shoreline. Fish kills can be natural or caused by pollution. Natural fish kills are caused by stressed fish succumbing to a pathogen or low dissolved oxygen conditions in the water. Pathogens are naturally present in the environment and may not affect the fish until the fish becomes stressed. There are generally three times of the year when fish kills occur – winter, spring, and summer.

The winter fish kill is generally caused by low oxygen stress. As a lake goes through turnover in the fall, it becomes fully oxygenated prior to ice up. Aquatic organisms consume the oxygen and while sunlight penetrates the ice, plants and algae produce oxygen. However, once snow covers the ice and blocks sunlight, less oxygen is produced than is being consumed through respiration by fish, plants, and bacteria decaying organic matter. If there is a prolonged period of snow cover, fish become stressed as the oxygen becomes depleted. Also involved is a simultaneous rise in carbon dioxide from ordinary respiration of fish, plants, and bacteria and an increase in hydrogen sulfide, a poisonous gas, which is a product of bacterial respiration in the absence of oxygen.

Fish require less oxygen during the winter to maintain life. However, if the oxygen drips too low, and the carbon dioxide (which acts as an anesthetic to fish) rises to an anesthetic level, and hydrogen sulfide rises to a poisonous level, the fish get hit from three different directions at once, and winterkill occurs. In general, winter fish kills affect many sizes and species of fish.

After the ice melts off a lake and water temperatures rise, biological activity increases. The bacteria in the water respond to the rising water temperatures quicker than fish, which are already stressed from the winter. In addition, the sexually mature fish begin preparing for the spawning season which compounds the stress levels. To cope with the extra stress the fish produce hormones called cortisols. However, these stress relieving hormones suppress the immune system making the fish more susceptible to disease. The most common disease is Columnaris disease. Caused by the bacterium *Flexibacter columnaris*, this disease is stress mediated meaning the worse the stress, the more fish are affected. The most common fish species affected are larger Bluegill, Crappie, Carp, and Bullheads. The loss of fish starts slow and gradually peaks over a period of days and then tapers back off. It occurs in the spring when the water reaches approximately 68° F, which is shortly before or during the spawning season. Although many other species of fish may be present in the lake, none will appear to be sick or dying. Columnaris disease can affect from 50 to several thousand fish depending on the size of the lake and the severity of the outbreak. The fish populations are almost never seriously affected and the disease will subside on its own as the first spawning period passes and the water temperatures begin to stabilize.

As the summer progresses and water temperatures increase, the next type of fish kill can occur. Many of the lakes of Lake County are very fertile (i.e., high nutrient levels). The increased water temperature (which holds less oxygen than cooler water) and elevated fertility generally produce more aquatic life. Several cloudy days in a row can cause a collapse of the heavy population of one-celled organisms. The abnormally high levels of bacteria in the pond begin to decay the recently dead organisms. At this point, like in winter, the consumption of oxygen through biological processes may exceed oxygen production and may drive the oxygen level in the lake to near zero. Even if the oxygen does not go to zero, extended periods of low oxygen can place heavy stress on fish. After a week to 10 days a disease can break out. The first indication of this type of kill will be the fish coming to the surface in the early morning hours. Seldom, if ever, will a summer kill wipe out all of the fish in a lake. Typically the small fish (Bluegills and Green Sunfish) less than one inch and Bullheads survive and larger Largemouth Bass and Channel Catfish perish.

Fish kills can also be caused by pollution. Pollution can be from chemical spills running off into a body of water. Also, if aquatic herbicide treatments for plants and/or algae are done when the water temperatures are too high and oxygen levels are too low, a fish kill can occur. A fish kill caused by pollution generally wipes out all species within 24 to 48 hours.

If a fish kill occurs on a lake our pond in your neighborhood it is recommended that the dead fish be collected and disposed of in the trash. Also, a fisheries survey should be done to see the extent of the damage done by the fish kill before any stocking program is initiated.

If you have a lake or pond that experienced a fish kill, please report it to the Lake County Health Department—Lakes Management Unit 847-377-8030

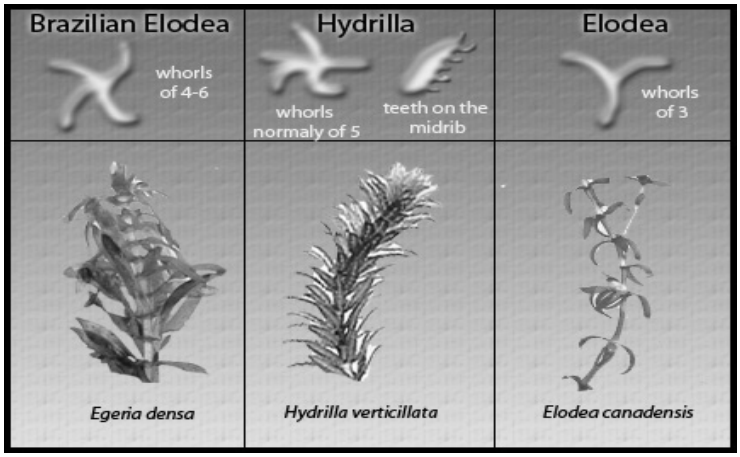
Continued from Page 1: Invasive Plant is Big Problem for Lakes and Ponds

at many local stores. However, unlike Brazilian Elodea, these species have not yet been found overwintering in Lake County. If you have water garden or aquarium plants that become over abundant, please dispose of the excess plants in the trash.

Brazilian Elodea has the potential to be our next "Eurasian Watermilfoil"– a widely abundant and problematic aquatic invasive plant throughout much of the Midwest. Detection and rapid control of small, isolated populations increases the likelihood of successful, cost effective, eradication. In states where it has become established, management efforts focus on keeping beaches free of plant growth, clearing boat lanes from the shore to open water, maintaining favorable plant cover for fish populations, and restoring the diversity of submersed plant communities all of which are very costly. Established populations of Brazilian Elodea are also controlled to prevent further spread by fragmentation. Control measures are conducted early in the year before fragmentation occurs. Management objectives for Brazilian Elodea control should involve prevention and eradication.

To stop the spread of aquatic invasive plants like Brazilian Elodea, follow these rules: 1) Do not release any aquatic plants into any waters; 2) Rinse your aquatic garden plants before planting to remove hitchhikers; 3) Properly dispose of any unwanted aquatic plants in your water garden; and 4) Clean and drain all recreational vehicles, trailers, and equipment before leaving any lake or river.

Brazilian Elodea prefers moderate water temperatures, therefore optimum growth occurs in the spring and fall. During the summer and winter, growth may slow, or cease completely. When water temperatures become extreme, plants will die back to the roots. Areas on the stems known as double nodes play an important role in food storage and reproduction. Roots and branches are both produced from double nodes on the stem. If a Brazilian Elodea fragment does not have a double node, it can not grow into a new plant. Regeneration of plant fragments containing a double node is the only means of reproduction. Since only male flowers are present on plants found in the United States, no seeds are produced.



Identification:

Brazilian Elodea is a rooted, submersed perennial with bright green, finely toothed leaves densely arranged in whorls of 4 to 6. The leaves are 1 - 3 cm long and up to 5 mm wide with a pointed tip. Having more than 3 leaves per whorl, and leaves more than 1 cm in length help to distinguish this plant from American Elodea – *Elodea canadensis*. Branches form irregularly along the stems. The plant appears dense with leaves because whorls grow close together on the stem. The slender roots are pale and unbranched. In our region, the plant reproduces vegetativly through fragmentation.

The monitoring, control, and education about this plant has been a collaborative effort by groups from the private sector (ILM), local government (Village of Libertyville), county government (LMU and Lake County Forest Preserve District), state government (Illinois Environmental Protection Agency and Illinois Department of Natural Resources), and non-governmental organizations (Midwest Invasive Plant Network, Illinois Natural History Survey, and Illinois – Indiana Sea Grant). If you are concerned about invasive, exotic plants in a waterbody near you, please contact any of the following:

Lakes Management Unit – (847) 377–8030 or ldane@lakecountyil.gov
Illinois Department of Natural Resources – Steve Shults – (618) 435–8138 or steve.shults@illinois.gov
New Invaders Watch Program – Debbie Maurer – (847) 968–3285 or http://newinvaders.org
Illinois – Indiana Sea Grant – Kristin Tepas – (847) 872–0141 or ktepas@illinois.edu
Integrated Lakes Management – Sarah Denny – (847) 244–6662 or sdenny@lakesmanagement.com

ILLINOIS DEPARTMENT OF NATURAL RESOURCES
LakeCounty Health Department and Community Health Center
Sea Grant ILLINOIS - INDIANA
ILM Integrated Lakes Management, Inc.
Lake County Forest Preserves

Can You Name This Lake?

Clues:

This 13.5 acre impoundment lake is located within the Squaw Creek Watershed and the surrounding land are owned by the Lake County Forest Preserve District. Previously known as Burr Oak Lake, it was a seasonal retreat for camping and recreational vehicles. Now this preserve is a year-round haven for people and wildlife. Visitors enjoy trails, picnicking, bird watching, and nature observation. In addition, it is scheduled to be sampled by the LMU in 2009. Name this lake!

Lakes Scheduled to be Sampled in 2009

Bangs Lake*
Betty Lake
Cedar Lake*
Countryside Lake*
Cranberry Lake*
Davis Lake
Helen Lake
Highland Lake
Hook Lake
Lake of the Hollow
Lake NaPaSuWe
Long Lake*
Nippersink Lake
Old Oak Lake
Owens Lake
Ozaukee Lake
Patski Lake
Round Lake
Schreiber Lake
Sullivan Lake
Summerhill Estates Lake
Third Lake*
Wooster Lake*

* Sentinel lakes monitored annually, 2005-2009

Inside: Spotlighting The Indian Creek Watershed Partnership

In the Indian Creek Watershed

Creek Stabilization

LakeCounty
Health Department and
Community Health Center

Environmental Health Services
3010 Grand Avenue
Waukegan, IL 60085

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