

THE LAKER

NORTH LAKE PROTECTION ASSOCIATION

www.northlaker.org

JULY 2020

NLPA MISSION: *To protect the ecological, recreational and aesthetic well-being of North Lake.*

ZOOM ANNUAL MEETING

Monday, August 03, 2020 – 7pm

Due to virus concerns, the Annual Meeting will be held via ZOOM. Everyone for whom we have a valid email address will be invited to participate. You will receive instructions via email.

AGENDA

1. Review/Approve 2019 Minutes
2. Treasurer's Report
3. Old Business
 - a. Camp Burt Shurly Update
 - b. SAD Update
 - c. MICORP Update
4. New Business
 - a. Algae problems/control
 - b. Other New Business
5. Election of Officers
6. Adjourn

\$10 NLPA DUES

Please support your NLPA. Please make checks out to NLPA and send to Dick Frendt in the enclosed envelope. **Please include your email address if you did not receive the recent test email. We keep it confidential and only use it for important lake notices.**

MUTE SWANS

The non-native Mute Swan reduction program initiated by the MI DNR in 2013 is having a substantial impact on the Mute Swan population levels. The DNR estimates for 2019 indicate about 7900 swans in the state; a 48% reduction from the pre-reduction program estimates.

S.E. Michigan saw a nearly 50% reduction in 2019, from about 4800 in 2018 to about 2500 swans in 2019. The North Lake population also appears to be lower than recent years although an official count has not been made.

ICKY ALGAE!

Dave Pruess and Paul Lammers have been busy this year patrolling the lake, documenting the algae growth, coordinating with the county consultant and application contractor, and keeping the NLPA Board informed of inspection and treatment activities. They provided key input to this article regarding the extent and strategies for algae control. Other sources came from [Clemson.edu-aquatic weeds](http://Clemson.edu-aquatic-weeds), University of Minnesota Pollution Control agency, Michigan Department of Environmental Quality, interswim.com, wikipedia and other internet sites.

The green slime floating on the surface of the lake, sticking to our boats and docks, and being a general nuisance, has manifest itself in a big way this year. In 2018 we had an algae problem early in the spring, but storms dissipated the slimy stuff. In 2019 it was worse and we treated the lake once and it disappeared again. This year it is an even bigger problem. Once a large bloom occurs, it is more likely to happen again. This is probably due to the fact that dead cellular remains of previous blooms provide sustenance to future generations of algae.

We are fortunate not only to have our SAD (Special Assessment District) to financially support our weed treatment efforts but also our professional advice and services from Dr. Doug Pullman from Aquest Corporation, Jeff Knox from Aquatic Services who applies the treatment, and Lauren Koloski from Washtenaw County. Dr. Pullman continually states that North Lake's weed and ecosystem is about the best in the surrounding area.

This algae situation is very similar to the original Eurasian Milfoil infestation that occurred many years ago in North Lake. That was the first time we had to treat the weed growth in the lake. You may recall that besides the Aquatic Services chemical treatment of the lake, we heavily invested in alternative methods of weed control such as harvesting and weevil introduction. Both of which were not the greatest successes. We should also recall that both of these methodologies were highly touted at that time. This algae problem is another issue that needs to be significantly investigated to be controlled. We should be very happy to have the fiscal and professional resources as mentioned above to fight this new issue rather than being on our own as in previous times. Whatever methodologies we employed will be within the EGLE guidelines and supported by the professional community.

Extensive algae appeared in the spring and the lake was treated on June 1st; however EGLE imposed stricter rules this year. Last year we could treat from shoreline to 300' out into the lake. This year the limit is only 100' from shore. The result of our initial treatment was not what we hoped, as a great deal of algae remained. EGLE mandates a minimum of 15 days between treatments and we treated again on June 18th. We are restricted from treating undeveloped lake frontage and therefore the camp shoreline and the north shore along North Lake Road are not treated. The net result between this and the 100' limit is we only treated about 35 acres of the 226 acres of lake surface. The algae grow throughout the lake although the wind moves floating mats from shore to shore. On June 26th Dave Pruess reported the algae had largely dissipated in North Lake. One type of algae is plant-like; Chara and Stary stonewort fall into this category. You can see pictures on page 6 of this newsletter. The other is the green, slimy stuff (spirogyra) that is causing the problems. Thousands of other types of algae

(Con't. on pg. 2, col. 2)

CAMP BURT SHURLY NEWS

At last year's Annual Meeting Ken Myers, President of Consulting Resource Associates, addressed our members about the plans for capital improvements at the camp. He was deeply committed to the camp and the kids it serves. Sadly, Ken passed away in January of this year. He will be dearly missed by the camp and all who knew him.

The camp is closed this year due to the virus. Please direct any camp questions or comments to Mary Lou Frendt, our camp liaison.

MICORP LAKE MONITORING

The program we have participated in for the past six years has been cancelled for the coming year due to lack of funding by the state government. It was deleted from the state budget by line item veto of the governor. It will return next year by alternative funding sources.

The monitoring of phosphorus and chlorophyll-a are the parameters we will not sample this year. Charlie Taylor will continue the secchi disk, temperature and dissolved oxygen monitoring since we do not require state lab support for these measurements.

In 2019, our Secchi Disk readings averaged 14.5 ft. compared to 12.9 for the average of all other lakes in Michigan that participate in the program. Our phosphorus and chlorophyll-a readings were slightly higher than the state average and slightly higher than North Lake readings of recent years. The Secchi Disk (transparency) readings were better than recent years.

LAKE LEVEL LOG

The Lake Level Chart is omitted this year to make room for other news. In 2019 the season started higher than normal and stayed high throughout the season. On September 1, the level had receded 3 inches, but at the end of September it was only 1 inch lower than the April 15 level. The normal drop is over 8 inches.

2020 started near the 2019 level for May 15th. So far, it has tracked about two inches lower than last year's levels.

exist in lakes including the dangerous blue-green algae (cyanobacteria) of Lake Eire fame. These may occur in wide areas or small patches in the lake. In early July, potentially toxic algae were sampled in the lake and analysis indicated nothing to be concerned about at this time. There is some possibility of it growing into a more serious issue and follow-up inspection is scheduled for mid July, too late to include in this newsletter. We will inform you via the northlaker.org website and email if there are health concerns.

Toxic blue-green algae (not all blue-green algae is toxic) is poisonous to fish, humans and animals. It is sometimes confused with the harmless green algae we see floating in the lake. The University of Minnesota published a simple test on their website to determine the difference. Dip a long stick into the scum and slowly retract it. If the residue on the stick hangs in strands it is the harmless algae. If a blue-green coating remains, it's likely blue-green algae.

Life begins with plants and algae in the lake. They need nutrients and sunlight to get started and grow. There are plenty of most types of nutrients like calcium, potassium, magnesium and sodium that are needed for photosynthesis, but there are limited amounts of phosphorus and nitrogen unless there are pollution sources. Higher levels of these two nutrients bring more algae and plants. In the spring seasons of 2018 through 2020, we experienced higher than normal rainfall which likely washed higher than usual amounts of nitrogen and phosphorus into the lake.

We know photosynthesis creates oxygen, and we know a well-oxygenated lake is healthy for fish and plants. So you would think more algae, which create oxygen through photosynthesis, would be a good thing. The problem is that during the day when the sun is out, algae make oxygen but a good deal of it escapes to the atmosphere. In fact, about three-quarters of the oxygen in the atmosphere is generated by marine algae. When night comes (or a cloudy day) the algae and plants *absorb* oxygen, sometimes more than they produce during the sunshine. The algae bloom will collapse if there's insufficient dissolved oxygen in the water and the dead algae will turn the water brown or black blocking the sunlight and compounding the problem. Fish kills and stinky water may result. We haven't reached that point yet on North Lake but continuing high levels could put us there, or even worse, toxic algae could appear, killing fish and even pets.

What can we do to help? We don't know for sure what caused the high level of algae, but we do know that phosphorus and nitrogen are essential nutrients for its growth. Some fertilizers, and nutrients from burning leaves are contributors to the problem. Please be kind to North Lake, avoid adding to the problem.

WHAT'S IN NORTH LAKE?

We know there's lots of water in North Lake, about 870 million gallons, and we know it completely flushes through the 18" culvert under Hadley Road about every three years according to the Fusilier studies of the 1990s. Part of the year the water is cold with an ice layer, and part of the year it's comfy, especially at the sand bar. How does the lake change with the seasons and how does it affect the things living in it?

At this time of year, the water is warm at the surface; the top 10 feet has temperatures in the eighties. The bottom 30 feet, in the deepest part of the lake, is cold with temps in the forties. Warm water is less dense than cool water and so it "floats" on top of the cool water. In the middle there is a layer called the thermocline, normally 10 to 20 feet thick, where the temperature drops rapidly from the warm surface waters to the cold depths.

The thermocline blocks dissolved oxygen (DO) produced by aquatic plants (photosynthesis) in the warm upper layer from reaching the lower cold layer. In addition to photosynthesis, oxygen is absorbed at the water surface

JOE MECURIO'S FISH TALE

In 2010 or thereabouts Joe had a problem. Muskrats were burrowing into his shoreline tearing up the embankment. Joe and his family live at the end of Eisenbeiser Road and the muskrats apparently approved of this location for a homestead.

Joe was not in a communal frame of mind when it came to muskrats, so he set a live-trap for the unwelcome invaders. To his surprise, a large, largemouth bass visited the trap and became Joe's main prisoner. A small bass also was caught, but no muskrats!



The fish was about 18" in length, which makes it about a three pound "catch", so to speak!! Joe set them both free. They must have warned the muskrats as Joe never trapped the furry pests.

PAUL LAMMERS' DOGFISH STORY

"About ten years ago, I was fishing along the North Lake shore near my place when I caught about an 18 inch dogfish. I had heard that this fish was not good eating. However, I usually need to determine for myself if what I hear is true so I filleted the fish and breaded it for frying.

After frying, I was ready to munch into this dainty morsel. When I took the first bite it was like chewing on a rag and the taste was even worse. Needless to say, the test ended as I recalled that eating dogfish is not recommended. I certainly can attest to that."



Freshwater Dogfish, aka Bowfin

when wind blows across the water ripples.

Fish are cold blooded and therefore need far less oxygen than mammals. Also gills are much more efficient than lungs at extracting oxygen so bluegill, largemouth bass and perch are fine on only five parts per million dissolved oxygen and can survive for a time on 3ppm. Pike need even less; they can survive indefinitely on 1.5ppm. In the summer months, North Lake has about 8ppm dissolved oxygen in the upper layer of the lake. That is a good amount based on the water temperature. The amount of DO the water can hold varies with the water temperature; cold water can hold more DO than warm water. The surface water of North Lake is usually at or near the saturation point; the most it can hold given the temperature.

In the late fall, the surface water temperature falls to a critical point of 39°F. Water is most dense at this temperature and the surface water sinks, mixing with the lower levels. Over the next few days the entire depth reaches 39° and DO is mixed throughout lake.

Plants die back as sunlight diminishes and fish slow their metabolic rate in response to the cold water. When the water temperature decreases by about 20°F, the metabolic rate of fish decreases by half. Fish feed sporadically during the winter, but are opportunistic if prey presents itself (as ice fishermen know). The reduction in water temperature means far less oxygen is needed to overwinter.

Then spring finally rolls around. The ice is usually off in March and the critical 39°F is reached and the lake mixes again, sometimes with an audible whoosh. As the days grow longer, more sunlight penetrates the water. Life regenerates.

Aquatic plants reach for the sun, stretching toward the surface. Simple, single cell algae propagate by photosynthesis, limited only by the amount of sun and nutrients in the water. Zooplankton feed on algae detritus setting up a banquet for the small fish that will soon hatch.

Pike spawn first, when the water is 40°F and above. A female releases thousands of eggs in shallow, weedy areas which are fertilized by one or two males. She often doesn't release them all at one time, but in several spurts over a few days. Many of the eggs sink to the bottom and never have a chance. Small fish and other creatures eat some and some just die in the silt. The eggs are sticky and some of them attach to plants where they hatch in two or three weeks depending on the water temperature. They have a yoke sac attached to their head and this sticks them to a plant for another 10 days while they continue to develop. When they release from the plant they swim to the surface to feed on zooplankton and then float back to the shelter of the plants. Most are eaten by fish, birds and turtles.



Northern Pike

In a month, survivors have grown to finger length and begin to feed on other fish. A year from now, any still living will be 12 inches long and will seek out cooler water as the lake warms. Since they need less oxygen, they can remain in 15 to 20 feet of water except to feed on the warm water fish.

We all know the basics about the food chain from grade school science classes. In North Lake, it follows the pattern for all temperate freshwater lakes: nutrients > plants & algae > zooplankton > prey fish > predator fish, animals and birds. But North Lake has unique attributes that yield specific outcomes. One is that it has no significant inlets. What's in North Lake

ROB IDESON'S FISHING LESSON

"My parents moved our family back from FL to MI in the mid 80's. Before I lived on the lake, my Dad's good friend Bruce Gaffney would let us stay at his cottage on Sauer Dr for a week in the summer. Having grown up on a canal in FL and fished for bass everyday between the ages of 5 and 8, it was my favorite time of year to enjoy a solid week of fishing in Michigan on North Lake. I was probably 9 or 10 at the time and finding bass wasn't too difficult,

One morning I decided it would be fun to catch some fish for a fish fry, so I got my stringer out of my tackle box and went to work to try to catch some 'eaters'. I don't target bass anymore as a species to eat, but at that time I did. I still remember the calm morning not far from the public access where I anchored in about 10' of water hoping to catch some fish for dinner and make everyone proud. I was well on my way with a handful of nice bluegills and a 12"-13" bass. With my catch secured to the stringer I wouldn't have reason to worry about my dinner not being fresh.

Before I pulled anchor, I wanted to admire my catch on my stringer and looked over the boat at the fish I'd caught. Despite their eventual demise, I was thoughtful, feeding out enough line on the stringer so the fish could be near the bottom where it was cooler and there were plenty of weeds. Soon I discovered my mistake. What I saw when I looked over the side was a very large pike, it was trying to swallow the bass that I had caught! It had also managed my nice bluegills with his sharp teeth!! My catch was ruined, but I learned a valuable lesson...never trust your stringer in pike country - or get yourself one of those wire baskets to protect your catch."

NEW BOAT CLEANING LAW

. Michigan passed a new law in 2018 (effective in March 2020) to help combat the spread of invasive species. After trailering boats and before getting on the road, boaters must pull plugs, drain water, and remove plants and debris from all watercraft, trailers and other conveyances.

The law also prohibits release of bait fish into the lake. Please spread the word and don't spread the problem!

comes from North Lake and its 950 acre watershed; we don't get discharge from other lakes flowing into our lake. We do get invasive material carried in by boats and birds.

Pike grow fast, about 10-12 inches the first year, 5 the second year and 2 inches per year the next 4 to 5 years. This makes them about 24 inches at six years old. They continue to grow at a slower rate, about an inch per year, and may live to be 25 years in the wild. In captivity they have lived up to 75 years! The record northern pike in Michigan is 51.5 inches (39 lbs.).

Not many are reported in North Lake, but in 2018 I saw a boat of anglers whooping it up over a 33" northern caught about 100 yards from my dock (the Frenndt dock). Perhaps more are lurking in the depths.

In the "Icky Algae" article, the problem of too much algae was discussed. Algae are present in all lakes and in the right balance are essential elements; zooplankton eat it.

Zooplankton come in thousands of varieties, but in North Lake the most common species are daphnia and a myriad of rotifers. Both consume algae, bacteria, and detritus (dead plant and animal debris). Daphnia are mostly found near the surface where algae propagate, while rotifers are mostly bottom dwellers. Daphnia eat more algae, rotifers more detritus.

Daphnia may grow to a millimeter long; rotifers are about half that size. Daphnia are complex little animals having about twenty percent more genes than humans! Rotifers are the smallest known animal with a brain, heart, mouth, stomach, and anus. Daphnia are known as "water fleas" because of the way they swim with their legs. Rotifers generally use more "crawly" locomotion. When a puddle with rotifers in it dries up, they just wait for the next rain; they have been known to regenerate after 27 years of dust-like existence! What if a bit of their DNA was inserted into mine? When it rained on my grave would it be *The Rise of the Zombies*?

Zooplankton includes the larvae of insects such as dragonflies and other small creatures like clams and worms. Collectively, zooplankton are the second level of the food chain; they eat algae and detritus and are eaten by stuff on the third level, fish.

Fish feed on zooplankton and on aquatic plants. North Lake has shiner minnows, bullhead minnows and other fish that love zooplankton. Even larger fish will eat the stuff. Sunfish and juvenile fish of larger species eat it. Six inch perch are known to graze on daphnia.

We know from fish studies and by our own experience that North Lake has sunfish (including bluegill), perch, black crappie, bullheads, suckers, largemouth bass, and northern pike. The big ones eat the little ones.

Pike and largemouth bass are aggressive and attack almost anything that moves. Pike have been known to partially swallow another pike of the same size, and swim around with half the other fish protruding from its jaws until it digests enough to swallow the rest. Bass and pike continue to grow until they die. Some claim that bass have a memory of only fifteen minutes, resulting in the same fish being caught multiple times.

In Michigan, largemouth bass grow to 3-4 inches the first year and will likely be 12-14 inches in three years. It may take 20 years to reach 10 lbs (25 inches) and only one in 25 to 30 million reach that size! In the south, bass grow much faster, since they feed year round, but they don't live as long. In Michigan they may live to be 20 years old. The record largemouth bass in Michigan is 27 inches (11.9 lbs.)



Largemouth Bass
(Con't. pg. 5, col.2)

LILY PAD PROBLEMS ?

For the past six years, we treated lily pad problems at requested docks. Under our DEQ permit we can treat a 20 foot wide access from your dock to the open water in the lake. This is done on a case by case basis. We currently have 35 lakefronts enrolled in the program but only a few required treatment in 2019. *If you want an access cleared to your dock, you must send a written request, along with a photo of your dock from the lake with your home/access in the background for identification purposes.* We want to treat your dock area, not your neighbor's. Send your Lily Pad request, by **August 6**, to:

Richard Frendt
7837 Stonehenge Valley Dr.
Gregory, MI 48137
Or email your request to:
rjfreundt@aol.com

If you requested your dock area treated in 2019 or earlier, do not send a request this year. We will continue to treat your dock area assuming problems persist and the treatment is approved.

NLPA BOARD

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THANK YOU !!!

Thanks to all who make North Lake and the NLPA the terrific environment we enjoy, and especially to Mary Lou Frendt for all her help!

The University of Illinois conducted a study on largemouth bass over a 20-year period. They used a 15 acre impoundment with controlled fishing. Every fish caught was tagged and recorded over an initial four-year period. One fish was caught three times in the first two days. Another was caught 16 times in a year.

After four years the lake was drained and 1700 fish captured. Two hundred had never been caught. These were called Low Vulnerability fish and were segregated into another pond. Several generations of the Low Vulnerability (and a second pond of High Vulnerability) fish were tracked. The Low Vulnerability group became even harder to catch in succeeding generations while the High Vulnerability group remained about the same. The researchers didn't speculate on how this occurred but some anglers thought it was due to better eyesight in the Low Vulnerability fish. Others thought it had to do with the sensitivity of the lateral line on the side of the bass.

The researchers believe some lakes develop fish populations that are difficult to catch because High Vulnerability Bass are caught while protecting their nests, leaving the eggs and fry open to predation. The Low Vulnerability fish are more likely to have their progeny survive, making more hard-to-catch fish. The researchers suggest a ban on fishing during the spring spawn period would improve fishing over time.

So if you fish for largemouth bass in North Lake, you may want to avoid the two or three week period that begins with the first full moon after the bullfrogs croak. According to bass aficionados, that's when largemouth bass spawn! This year, a full moon occurred on April 7 and so the balance of the month was likely the nesting period. Or perhaps the bullfrogs croaked later in April and the full moon on May 7 started the cycle. When did you hear the bullfrogs?

The above article was based on numerous internet sites, including lakeaccess.org, impact.extension.org, animaldiversity.org, sciencing.com, lakechamplain.org & wikipedia.org

VIRUS CAN'T STOP FIREWORKS OR BOAT PARADE

The boat parade kicked off a fabulous Fourth of July Saturday with *Red, White & Brew BBQ* taking first prize. The Mickevicius Families of Stonehedge Valley Dr. & Gilbert Dr. earned the "giant" trophy with plenty of competition, including runners-up, *Little House on North Lake*, & *Tiger King* along with *Bananas for the USA* and many other terrific boats. Thanks to Kim & Scott Broekhuizen for managing this event.

That night the skies filled with the *Rockets Red Glare*, not to mention the white, blue and every other color that Dave Steinbach and his crew exploded over North Lake. What a welcome celebration in the midst of this dreary year of social distancing!

When other communities give in, North Lake gives us a sense of strength and pride in our country.

AQUEST LAKE REPORT

The following is derived from the 2019 North Lake Management Annual Report (link to full report at www.Northlaker.org) prepared by Douglas Pullman, PHD, of Aquest Corp. & Gabrielle Metzner-Gustafson, Project Scientist, Kaiser & Associates, LLC. They are retained by Washtenaw County to assess lake conditions, recommend treatments and prepare an annual report.

The 2019 North Lake Management Report shows the lake to be doing well and improving in general. The report has changed format from previous years and is difficult to excerpt from *The Laker*. In lieu of that, the following page shows the significant plants in North Lake per the annual report. To understand the following page you need to know Aquest has divided the lake into 149 distinct management areas averaging about one acre each. These areas are for the most part the 20 feet and shallower perimeter of the lake. The deeper areas of the lake have few plants and are not tracked (and have no management area assigned). The Management Areas are surveyed twice a year to determine the species of plants, where they are located and how predominate they are compared to the other plants in the lake.



Chara



Starry Stonewort

THE DOZEN MOST COMMON PLANTS IN NORTH LAKE IN 2019 (NINETEEN TOTAL SPECIES OBSERVED)

Chara – Makes up 52% of the plant coverage in the lake and occurs in 86% of the lake management areas. Very good plant (algae); good fish cover, chokes out bad plants. Grows in shallow water, usually 1-2 feet tall. Sometimes tangles boat props in shallow water. Sometimes called Muskweed or Skunkweed. It has a bad odor when crushed.

Starry Stonewort – Makes up 20% of the plant coverage in the lake and occurs in 70% of the lake management areas. An invasive species related to Chara but grows in deeper water and is bad for fish; they won't nest in it. Chokes out other plants and fouls boat motors. It is actually an algae, not a plant.



Illinois Pondweed



Var. Leaf Pondweed

Illinois Pondweed – Makes up 6% of the plant coverage in the lake and occurs in 53% of the lake management areas. Grow up to 6 feet tall with leaves up to 7 inches long. Good structure for fish.

Variable Leaf Pondweed – Makes up 4% of the plant coverage in the lake and occurs in 69% of the lake management areas. Leaves are of two types; the submerged leaves are longer and narrower (4"x1/2") than the floating leaves (3"x1").



Water Lily



Ebrid Watermilfoil

Water Lily – Makes up 4% of the plant coverage of the lake and occurs in 39% of the lake management areas. It is illegal to remove these plants except for access to dock or small swim area. A state permit is needed for removal.

Ebrid Watermilfoil – Makes up 3% of the plant coverage in the lake and occurs in 47% of the lake management areas. The invasive Eurasian Milfoil has interbred with Native American Milfoil. This plant when uncontrolled creates dense mats that choke out other plants, destroys fishing beds, and fouls boat props. It was the original target of weed control efforts in North Lake.



Wild Celery



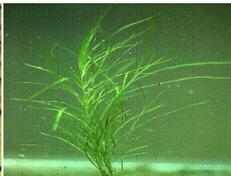
Elodia

Wild Celery – Makes up 3% of the plant coverage in the lake and occurs in 52% of the lake management areas. This plant has been expanding each year in the lake. When uprooted it can drift to new locations and re-root. Ducks feed on it. There is no known treatment to control its spread. In late summer, the wind may blow large mounds of this decaying mass to the North and West shores.

Elodia – Makes up 2% of the plant coverage of the lake and occurs in 16% of the lake management areas. This plant is widely used in aquariums as it is an excellent producer of oxygen. It may grow to only 3 inches tall or in certain conditions can grow to 3 feet but usually between these extremes. It is also known as American Waterweed and Canadian Waterweed.



Water Shield



Flat Stem Pondweed

Water Shield – Makes up 1% of the plant coverage of the lake and occurs in 17% of the management areas. Floating leaves about the size of a silver dollar with round to oval shape. The undersides of the leaves are reddish and are covered with a jellylike slime. The plants secrete a number of chemicals that kill or inhibit growth of a wide range of bacteria, algae, and other plants. By this mechanism, water shield kills off competing vegetation. The young leaves and stems (before they are covered with slime) are eaten in salads in parts of Japan.

Flat Stem Pondweed – Makes up 1% of the plant coverage of the lake and occurs in 20% of the lake management areas. Also known as Narrow Leaf Pondweed and Sago Pondweed. Provides cover for fish and food for waterfowl.



Spladderdock



Curly Leaf Pondweed

Spladderdock – Makes up 1% of the plant coverage in the lake and occurs in 14% of the management areas. Similar to Water Lily but with yellow flowers.

Curly Leaf Pondweed – Makes up less than 1% of the plant coverage of the lake and occurs in 31% of the management areas. Invasive species that may crowd out native plants and may have large die-off in summer, causing floating, decaying debris. Not a significant problem recently.

Fish & Chips ?

A monastery is in financial trouble, so it goes into the fish-and-chips business to raise money. One night a customer knocks on its door. A monk answers. The customer asks, "Are you the fish friar?"

"No," he replies, "I'm the chip monk."