



PARKER POND ASSOCIATION NEWSLETTER

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The new season is almost upon us and Parker Pond Association is gearing up for a challenging and exciting year of activities: boat inspections, loon counts, trail maintenance and water quality measurement to name some! All of you who are receiving this Newsletter are in some way interested in Parker Pond or affected by your proximity to it. It is a special place and the all volunteer PPA needs your participation and support to preserve it, and even make it better. By joining or renewing your membership in the Parker Pond Association now we will be able to afford all the tasks needed to keep Parker so special. Membership fees (\$20/yr) are modest and tax deductible; additional tax deductible contributions will allow us to fund even greater invasive plant and animal monitoring and interdiction, as well as educational programs to diminish eutrophication of the lake and to inform about local boating laws both of which protect our eagles, loons, swimmers, and boaters. Volunteer a little time to do boat inspections, plant surveys, island clean up, or something else which will help us all enjoy the lake even more. And, it's a chance to meet some other folks that share your interests. We now can do all these things with the support and collaboration of your neighboring towns and lakes through the vehicle of the 30 Mile Watershed Association which I describe elsewhere in this newsletter.

As some of you know, I was asked to step in as president this February to replace Jerry Healy, the current president, who had to

resign for personal reasons. But the job is gratifying and do-able because Parker Pond has a long history of an actively supportive membership which has done many innovative

couple years ago. The hiking trail around it is spectacular and reached from a parking lot at the end of the Fellows Cove Road, or from the tip of the Headland itself; try it if you haven't already.

We include phone numbers and emails of our executive committee in this newsletter. Contact any of us with ideas for projects or funding, or to volunteer. Sign your neighbors up too. Nor does one have to live on Parker to be a "Friend of the Pond" member (for example, our secretary Cindy Hoeh) of the Parker Pond Association. Send in your membership form today and be ready for a great summer as part of the Association!

Dan Onion, Acting President, 19 Klir Beck Rd, Vienna 04360 293-2076
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Volunteer to Protect Parker Pond from Hitchhiking Plants

Boating season has begun, and with that comes the risk that someone launching his or her boat will be carrying a plant fragment from another lake that is infested with invasive plants. All it takes is one small piece, and a new plant species could dramatically change the lake. It is important for all boaters to understand this threat and know how to inspect their own boats upon leaving and entering the lakes. Here on Parker, we strive to educate as many boaters as possible through participating in Maine's Courtesy Boat Inspection Program (CBIP). Volunteers stationed at the Tower Road launch inspect boats for plant fragments and while doing so demonstrate what is every boater's responsibility.

This year our boat inspection program will be part of a larger effort managed by the 30 Mile

River Watershed Association (see separate newsletter article for more information). The coordinator, Parker Pond resident Alecia Tenny, will be organizing and scheduling volunteers throughout the watershed. This year we will be working to recruit many new volunteers. Being an inspector is not difficult, nor does it require plant identification skills. Most of my volunteer time last year was spent relaxing on shore with a good book, interspersed with friendly conversations with other people who enjoy the lake. Training is only an hour, and you can sign up for as many or as few inspection hours as you would like. This year we are using a Website where volunteers can schedule themselves.

This summer we also plan to expand our plant survey program, surveying shallow areas for invasive plants that may already be growing in the lake. We need volunteers who can look for plants by boat or with a snorkel, in July or August. Training is available. To learn more or to volunteer, contact Alecia Tenney at mtenney@fairpoint.net, 512-2309 or Lidie Robbins at lidiew@hotmail.com, 293-2181. Lidie Robbins, Chair of Invasive Plants Committee

Dam Report - April 23, 2008

Last October I wrote a detailed and ecstatic account of the long-needed repairs we made in late September. With the exception of some tracks added by a meandering moose, nothing has changed at the dam. The lake is high, and the brook is babbling rapturously. The dam stands "rock ribbed." The State Dam Inspector would like to have a gate added. For now, I will be bold and say it has never been stronger during its tenure as an earthen-dike dam.

We had a long and snowy winter this year. I thank Margaret Barrow for keeping an eye on the dam. It was very difficult to get around in the deep snow. I thought we might have severe flooding if we had heavy spring rains, but the snow went gently. The very last of the lake ice drifted into the cove this morning.

The loons are back. They will be courting in May and nesting by Memorial Day. The chicks will fledge by late June (hopefully). Please let them have peace, quiet and space. With only one

chick on the entire lake last year, their future is precarious. The dam will be there.

Steve Cowperthwaite, Chair of Dam Committee.

Lake Usage Committee

This article is mostly for those "Parker Ponders" from away (of which I am now one). It deals with snow, that quaint white stuff we look at on Christmas cards, magazine pictures and TV newscasts. The stuff we vaguely remember from when we were kids.

Well, Maine had a heck of a winter and Caribou recording over 186 inches (that's almost 16 feet, folks). The Parker Pond area faired better with just about 42 inches +/- of snow pack depth as of March 11th . Not a glacier, but enough to potentially cause problems to the local wildlife.

I should remind all our readers that information concerning snow, rain, watershed loading, snow density, depth, etc., can be viewed by going to the US Geological Survey website, usgc.gov, and navigating the various options. [The PPPA website: parkerpond.org has links to these reports.] With the Department of Inland Fish and Wildlife, in a KJ article, predicting a severe animal kill-off, I contacted several hunters and guides for their first hand appraisals.

Of particular interest is the winter's impact on deer and turkey populations and any unusual reports on coyotes, bobcats and wolves.

So here it goes, keeping in mind that this is a limited survey, albeit by very reliable sources.

Deer: individuals report that there has not been any unusual loss to known herds. Though an occasional dead animal is seen, this is consistent with normal winter loss. Deer have been showing up in numbers on roads and know yards in normal, or pre-winter, numbers.

Turkey: each respondent reported that numerous turkeys were seen in areas known to offer food and protection to these birds. While there were no know dead animals seen, it is expected that a normal kill off occurred (whatever that amounts to) but that nothing significant was noted.

There has been an increased viewing of bobcats and coyotes. It is probably only the bobcat presence that has any appreciable impact on the turkey population.

I would suggest that the reason the above animal groups were not grossly impacted (at least as reported here) by the winter snow is

that temperatures were not uniquely severe. A combination of unusually low temperatures and heavy snow cover could have created conditions for a severe kill off.

We do not know how this winter has impacted most of the other critters: birds, reptiles and mammals. So, if you have information concerning this topic, please contact me, Marty Arnold, at marnold@att.net. I'll attempt to pass all information in a following newsletter.

WATER QUALITY REPORT

The water quality monitors on Parker Pond need some help. We would like to teach anyone interested, including young folks, (especially young folks, as we are getting aged) how to test the lake water for clarity and dissolved oxygen. We will also teach how to collect water samples to send to the lab in Augusta. So come join us as we have a great deal of fun and we need the next generation to step up to the Secchi disk.

We tested the water clarity 3 times last year which is a significant drop in data collection since Ray Anderson moved off the pond. He lived full time on the lake and was able to go out frequently. The samples we did collect were good, with an average of 7.3 meters of clarity depth. The 2007 season was remarkable for water clarity as the average transparency for Maine Lakes jumped to 5.65 meters, which was the forth clearest year for Maine lakes since 1974. Now the weather has a big influence on water clarity as does human activity because of stormwater runoff into the lakes by rain and then unchecked sediment flowing into the lake. But regardless of whether the majority of phosphorus in the water is from the watershed, or from sediments already in the lake, it make sense that reduced stormwater runoff during spring and summer, when the lakes are more likely to produce algae will result in lower concentrations of sediments, resulting in less food for the algae, and less sediment particles in the water, which increases the clarity of the water.

The phosphorus samples that we collected in the 2007 season showed total phosphorus readings of 0.008 mg/L, un-changed in the core samples from June to September. The grab sample where internal recycling takes place was higher at 0.011 mg/L.

The dissolved oxygen readings had a significant drop from June to September which indicates that internal recycling is taking place in the late season. When you look at the trend data for Parker becomes obvious that there is less and less oxygen available in the late season from year to year which contributes to algal growth.

We need to be so vigilant about continued runoff into the lake as our beautiful natural resource becomes more and more fragile.

Deb Cayer, Chair debbiecayer@fairpoint.net

Gloeotrichia echinulata – What is it and what does it mean?

How would you describe the small, fuzzy plankton colonies that have bloomed in Parker Pond for the past few years? I think they look like small galaxies floating near the surface of the water. I've heard them described as floating golf balls but they're only 1-2 mm in diameter so I don't think this fits. Some might say they resemble very small pom-poms. Whatever you choose to call them, their scientific name is *Gloeotrichia echinulata* which is pronounced glee-oh-trick-ia eh-kin-u-lah-tah. What a mouthful!

Gloeotrichia echinulata is a cyanobacteria with a unique life cycle (see fig. 1):

- (1) The spores of this species lay dormant at the bottom of the pond from September until early June.
- (2) In the spring, they respond to the changing light and temperatures and begin to grow. They capture and store phosphorus as they grow from the rich bottom waters and sediments.
- (3) As light continues to change, the small colonies build trichomes (or spines). The tips of the trichomes are filled with gas and the whole colony rises quickly to the surface like a child with many inflatable arm bands.
- (4) At the surface, the colonies harvest light using photosynthesis. They rapidly grow and multiply in these conditions along with many other species of plant plankton.
- (5) When essential nutrients such as phosphorus and nitrogen become scarce, other plant plankton species slow their growth. This species continues to thrive, however, because it is able to draw upon its

phosphorus stores and because it is able to fix nitrogen from gas dissolved in the water. *Gloeotrichia echinulata* can thrive throughout the summer in this way even as other plankton cycle and die.

- (6) Finally, when phosphorus stores become low and / or they detect the changing light in the fall, the colonies shed their trichomes and sink to the bottom as spores to wait through the winter for the next spring.

Is *Gloeotrichia echinulata* an indicator of good or poor water quality? The answer is not so cut and dry. This species can only germinate where light penetrates to the bottom sediments so it is more commonly found in ponds with good water clarity. For this reason, we could consider the presence of *Gloeotrichia echinulata* as a compliment to our clear waters. Like other species of cyanobacteria, however, *Gloeotrichia chin-ulata* is more successful in ponds with higher phosphorus concentrations. For this reason, the arrival of *Gloeotrichia echinulata* may indicate that we have more nutrients in our pond than in previous years. Nutri-fication will eventually alter the balance in our lake ecosystem. We should all heed this early warning sign and make efforts to reduce our nutrient output to the lake. Stop using fertilizers close to the shore, buy phosphorus free dish detergent, and check that your septic system is leak free. All of these are simple ways to reduce your nutrient footprint.

Is this species harmful? At very high concentrations, this species may cause mild skin irritation when swimming or mild stomach queasiness if consumed in large quantities. This is caused by the chemical defenses the colonies have to deter predators. Be aware and use proper precautions, especially in coves where the wind can concentrate populations. Most of us, however, will never feel the impacts of these chemical defenses.

Will *Gloeotrichia echinulata* harm Parker's wildlife? Again the answer is uncertain. In one scenario, this species may decrease the plankton diversity found in Parker Pond. *Gloeotrichia echinulata* is a very good competitor for light and nutrients. Competitor species may die of starvation. The impact of this population change is uncertain but many species in the pond

depend upon plankton as a food source. Alternatively, *Gloeotrichia echinulata* may increase plankton populations in Parker Pond. By carrying the precious phosphorus from the bottom sediments to the surface waters, this species may increase the amount of phosphorus available to other plankton species and increase growth over all. Large algae populations can lead to low oxygen levels. This is because the bacteria that decompose the dead algal material consume large amounts of oxygen. Wherever events play out, we should be watchful of the impact this species may have.

In conclusion, the jury is still out on *Gloeotrichia echinulata*. There still is a lot to learn about the behavior and impact of this species. Whitney King, of Colby College, is currently studying the *Gloeotrichia echinulata* population in the Belgrade Lakes. Many conclusions from this study will be relevant to Parker Pond. I recommend going to the Belgrade Lake Association website where you can find a comprehensive literature review and the preliminary data from 2005.

Until then, go down to your dock and make your own observations. How do you think this changing population will impact Parker Pond? In this age of rapid ecological change, our pond needs as many lookouts as we can provide.

30 Mile River Watershed Association: Purpose and Plans

The 30 Mile River Watershed Association was incorporated as a Maine non-profit organization in January, 2008. It's purpose is to preserve, improve and protect the land and water quality in the watershed which extends from the Kennebec Highlands of Vienna, down to the entrance of the Androscoggin Deadwater into the Andro-scoggin River above Lewiston. The water-shed includes the towns of Vienna, New Sharon, Mt. Vernon, Fayette, Chesterville, Leeds, Wayne, and Readfield; extant lake associations are: Kimball Pd, Flying Pd, Parker Pd, Echo, Lovejoy Pd, David/Basin /Tilton, Pocasset, and Androscoggin; current land trusts: Kennebec and Androscoggin Land Trusts and the Belgrade Regional Conservation Alliance (BRCA).

The Association is a coalition of towns, pond/lake associations, and land trusts which have a direct interest in the watershed. Each of these eligible entities designate a representative director to the Association's board of directors, from which the officers are elected. Terms are 1 year each, with the president being restricted to only two consecutive terms but with no other term limits on directors or officers. It grew out of the Vienna lake warden program of the past 8 years when several "downstream" towns and lake associations asked to participate. Vienna has graciously offered the successor program the lake warden boat and continued its financial support. There are several other similar watershed associations across the state undertaking similar projects.

I represent Parker Pond Association and serve as president; Bill Dunham who represents Chesterville is vice-president; Dick McKeen of Echo Lake association is secretary; and Lloyd Irland who represents Wayne is treasurer. Other Parker Pond Association members who serve on the board of 30 Mile River WA include Lidie Robbins who represents Vienna and chairs the invasives committee, Bill Swan who represents the BRCA, and Deb Cayer who represents the David/Tilton/Basin Pond Association,

The organization plans to accomplish its purpose by initiating and supporting major activities in three areas:

- 1) Invasive plant and animal education, interception and detection
- 2) Water quality/safety monitoring
 - a) Point and non-point pollution education, detection and prevention
 - b) Watershed/wetland education and protection
 - c) Shore land zoning education and compliance
- 3) Boat law education and compliance

These activities will include a collaborative invasive plant education and detection project each summer at public and private boat launches. This program will seek local volunteers to do boat inspections and will be coordinated by an invasive plant coordinator hired by the Association in April, Alecia Tenney who lives in Chesterville on the Sandy River Rd. She has a Bachelor's degree in environmental policy from

Unity College and has done similar work in the past for the Damariscotta River Association. To volunteer to help, Parker Pond residents should contact Alecia whose email is mtenney@fairpoint.net, and telephone 512-2309, or Lidie Robbins, Parker Pond invasives committee chair .

The Association also plans eventually for a seasonal director position to manage implement the goals of the association and a seasonal, towns-appointed lake warden (s) (under state inland harbormaster laws) as well as part-time and volunteer positions.

The Association is funding its activities from a mixture of sources including financial support from its member towns, pond/lake associations, and land trusts, as well from government (Maine Department of Environmental Protection milfoil inspection and 319 non-point pollution programs) and foundation grants. The Association has filed with the Internal Revenue Service to become a 501c3 non-profit organization so that it may solicit tax-deductible contributions to further its purposes.

Dan Onion

The Green Witch

I have been asked to write a story I heard from Helen Caldwell Cushman. It's a ghostly tale about Parker Pond and Thirty-Mile River. It is best told by a campfire when the Dog Star is in the sky and cool nights trigger that touch of melancholy that comes with summer's end. It's too long for the *Newsletter*. I will have copies to pass out at the Annual Meeting.

Helen was a journalist, historian, writer, storyteller. She was playful, articulate, fascinating. Visiting her was an experience to remember. Eventually the conversation would turn to the supernatural, ghosts and witchcraft. She called herself the "green witch," but claimed witches do not exist. She argued that evil does exist and that people have been strategically placing green boughs to ward off evil for eons. She said evil cannot pass green. She lived at Greentrees, the Noah Greeley house at the corner of the Ithial Gordon Road and Route 41. The house was full of stuff, and everything had a story.

Helen said her house was haunted by Gertrude Greeley, daughter of Noah. Her spirit had become rather disgruntled and restless when a subsequent owner of the property removed all of the slate stones from the family cemetery to make steps for his new cow barn.

Helen's father was the athletic director at the University of Virginia. In the summer he brought athletes to Parker Pond for summer camp. Helen, other siblings and her mother came early in the spring and stayed until late fall. She attended schools in Charlottesville and Mt. Vernon and graduated from the College of William and Mary.

She was married to Erskine Caldwell. They had three children, and he wrote *Tobacco Road* and *God's Little Acre* during those 13 years. Helen edited and corrected his manuscripts. Eventually she married Mr. Cushman. They lived happily at Greentrees.

Helen had a radio program on a local station for many years and told stories. I don't think any recordings exist. She was not a frightening person, but she could tell a frightening tale. She had a wonderful ability to make up stories about this area.

She died more than twenty years ago. There was a celebration of her life at Greentrees that ended with the scattering of her ashes by the shore of her beloved Parker Pond. It was a warm but lowery day. As her ashes were scattered, incredibly, there was a roll of thunder in the west. Some laughed; some gasped.

Steve Cowperthwaite