



Raquette Lake Preservation Foundation

PO Box 210

Raquette Lake, NY 13436

www.rlpf.org

November 2019

"A View From Raquette Lake"

By Gail Morehouse, President

Shortly before I became the president of RLPF, my 6 year old granddaughter and I were hanging out in the playhouse just talking. I had to go to a meeting the next day and thought that she would be impressed that her grandmother was going to be the president of this organization that takes care of the whole lake. She said, "Are you sure you know what you're doing about that?" I laughed and said, "Well, not entirely, but I'll learn and it's really important." She then asked me what exactly was the "Raquette Lake Preservation Foundation"? I started to explain to her about some of the things we do and before I even finished she said, "Oh, so it's sort of like an animal rescue, only instead of taking care of animals, you take care of...the lake. You make sure you take out the bad plants so that the good plants can, you know, live." I hugged her and said, "Genevieve, how did you ever get so smart?" And she said, "Well, I act like a child because I am a child, but I really think like an adult." Since that day, she and her twin sister Sonya can't come back to the house from the lake without a bucket full of weeds and plants for our neighbor "Lenny" Schantz to identify. It's so important to try and see the world through the eyes of a child sometimes. Things are simple and clear and *everything* is exciting. Like collecting plants to identify.

I have many goals for the time that I spend as the president, and I would like to share them with you. First however, I would like to give you an update on the competitive grant that we were awarded from the NYS DEC Environmental Protection Funds, to develop a lake management plan to combat invasive species. We put out a request for proposals and decided to hire Northeast Aquatic Research, (NEAR). NEAR is a small limnologic research and lake management consulting company that "strives to provide objective scientific evaluation of waterbodies and watersheds for long-term understanding and management." Our goal is to have them guide us through a process that will give us a science based road map for the future

of Raquette Lake, to try and keep out introductions of other invasive species, and to understand the dynamics of our water quality.

The RLPF Board of Directors had a meeting with our 2 point people from NEAR on September 9, 2019. We agreed on the work plan, timeline, and performance measures outlined in our grant proposal to the State. Their first objective is to assess the current water quality record for Raquette Lake. NEAR has been gathering historical information that dates back to the 1930's on water sampling data, DEC/APA information collected, as well as anecdotal comments and observations. They have been given all the data collected from our water samplings from May through October. They are in the process of evaluating that data now, and hope to have a preliminary report to the board by the beginning of next year. They will be creating an aquatic plant abundance and distribution map, not only the invasive beds of Variable Leaf Milfoil, but all of the native plant life within the lake as well. They will be evaluating RLPF's current invasive species program and how effective it is. They will help us build management goals and help us identify ways to accomplish them.

NEAR will also be collecting information and perceptions of the community. This is very important. Sometime next year, all property owners in Raquette Lake will receive a survey asking about community perceptions, issues, and/or concerns they have. We will be holding 2 public meetings within the next two years to discuss the lake management plan and what it means. It is very important that all of our members take the time to complete the survey, and attend the public meetings, if at all possible.

Finally, NEAR will create a written Lake Management Plan for RLPF, and identify alternatives for financing the plan. Among those alternatives, because we will have a plan in place, we should be eligible for more grant opportunities through NYS.



Dick Gentry installed our new Raquette Lake Management Plan Sign

Now, on top of that, what is it that I would like to accomplish as president? I would like to build a better sense of community among our members and a better awareness of who we are. We are all so different in so many ways, and yet we all have so much in common, the greatest of which is our beautiful lake. Forget about everything else and keep it simple. We all want to protect, preserve and promote Raquette Lake for ourselves, our children, our grandchildren, our neighbors and friends. That task is not only the responsibility of our board members, but it is a shared responsibility of anyone who lives or visits here. We are one community.

In our last newsletter, several of us made a plea for more volunteers and I, for one, was very happy with the outcome. People I've never met came together to survey the lake for invasives, or joined one of our crews to collect water samples. Now we need more. We need to re-do our brochure and our website. We need a Facebook page, we need someone to help keep us in the public eye through press releases. Is there a graphic designer, a writer, a web designer out there in our membership who can help us out? If you are reading this, and you can just help us with a new brochure just one time, please get in touch with me! I want to build a "marketing team" of people with new ideas and technical know-how. I have the best board going, but we can't do it all.

I want to hold a social event so that we can get to know each other. Stronger communities are always built around "breaking bread together". We have 140+ members, but only 25-40 people regularly attend our annual meeting. It is always held the first Saturday of August at 10:00 a.m. That is also Durant Days weekend which is busy for everyone. Is there a better time? I would like to entertain the idea of raising our dues from the \$20 it has been for years and years, to \$30. That has to be done through a change in the bylaws which cannot possibly happen until our annual meeting and a vote of the membership. I will be sending out a survey to our membership asking for feedback on these and other issues. Please give me your feedback and I will listen.

Ken Hawks did an amazing job over the last 18 years as the president of RLPF. He handed me an organization full of opportunity, but it is also full of challenges and it will be open to change. Change is the only constant in life so in order to grow, you have to accept and recognize change. Let's change together with enthusiasm. The enthusiasm that comes with things like, oh, identifying plants for the first time in your life, because you know it's something that's like an animal rescue!

All the best.

Gail



“Water Quality Report”
Raquette Lake’s Blue-green Algae Bloom
By Lenny Schantz

Raquette Lake’s Blue-green Algae Bloom

By now, most members of the Raquette Lake community are aware of the blue-green algae bloom that occurred in Raquette Lake. The New York Department of Environmental Conservation (DEC) typically refers to this type of bloom as a harmful algal bloom or HAB. Not surprisingly, a common response from the Raquette Lake community has been, “How could this happen in Raquette Lake?” The answer to that question is complicated and contains uncertainty. Nonetheless, this article will attempt to answer it by explaining: 1) what are blue-green algae; 2) what exactly happened in Raquette Lake; and, 3) what does the future hold for Raquette Lake. First, a summary of my experience with blue-green algae. Before I retired, I was the Chief of Water Quality Operations for the Rochester Water Bureau. As early as the nineties, I was involved in research projects that focused on toxins from blue-green algae. I have participated in seminars on the identification of blue-green algae, their impacts and methods for testing toxins. My experience has exposed me to a broad range of bloom severity. That said, I’m far from an expert.

What are Blue-green Algae?

Blue-green algae is the common name given to a group of bacteria called cyanobacteria. They represent one of the simplest and oldest group of organisms alive today. They are likely found in every lake on the planet; and it’s reasonable to speculate that they were one of the first organisms to become established in Raquette Lake. Based on my microscopic examination of Raquette Lake samples, at least six different species of blue-green algae are found in Raquette Lake.

The problem with blue-green algae is that they can become blooms, and, in some cases, also produce toxins, hence the term harmful algal bloom. These toxins can make humans and animals sick. To be clear, no toxins were detected in the Raquette Lake bloom. Many species of blue-green algae also have the ability to control its buoyancy allowing them to move up or down within the water column. When conditions are right, blue-green algae cells will float to the surface where they can accumulate in high enough numbers to form a visible bloom. Calm, sunny days are ideal for bloom formation.

Not all blue-green algae produce toxins, and those that can produce toxins, do not produce toxins every time. For example, the organism (pictured below) that was responsible for Raquette’s bloom is a member of a toxin producing genus called *Dolichospermum*. Thankfully, the organism did not produce toxins for Raquette Lake’s bloom; however, it can produce toxins when conditions are right. Experts do not fully understand what condition(s) might trigger the production of toxins, but elevated nutrient levels and temperatures are suspected. For those reasons, experts also believe that lakes like Raquette Lake, which have relatively low nutrient levels and cooler temperatures, are less likely to produce a toxin producing blue-green algae bloom.

Exactly What Happened in Raquette Lake?

On October 21 three members of the RLPF board ventured out on the lake to collect our last water quality samples for the year. The day was sunny and extremely calm; in fact, the fog did not lift until almost 11 am. Water temperatures taken at one meter depths through the water column suggest that the lake was just starting to turnover, which might have provided a slight bump in nutrient levels available to the blue-green algae. The lake “turns over” each fall when the surface water temperature finally gets cold enough that it is heavier than the water beneath it, and so it “flips”.

Our first sample site was our deep water location (~85'), which is roughly between Bluff Point and Green Point. We anchored and began to notice patches of small green “flecks” (see picture) on the lake surface. If this had been the spring or early summer, we would have thought the material was pollen. We decided to collect a sample of the surface scum, which was shipped to DEC's HAB laboratory. Note that the bloom was widespread and evident everywhere we stopped in-route to our second sample location in Lonesome Bay. I'm not sure if this helps, but on a “bloom scale” of 0 to 10, with 0 being “no visible bloom”, to 10 being “a lake wide bloom that you wouldn't touch”; I would rate this bloom a 2. Later in the day, the wind picked up and the bloom dissipated. Five days later another board member noticed the same green “flecks” accumulating on the lake surface near Watch Point. According to all reports from people still on the lake, the bloom has not been seen again.

The DEC's HAB program is responsible for processing samples suspected of containing blue-green algae. The Raquette Lake bloom sample was analyzed for: 1) the presence of blue-green algae chlorophyll pigments; 2) the presence of blue-green algae via microscopy; and, 3) the concentration of total microcystins, a cyanotoxin. The laboratory quickly completed the first two tests and the results confirmed the presence of a blue-green algae bloom. However, the toxin test took several days to complete. The DEC forwarded the first two test results to the Department of Health (DOH). The DOH then notified the public that a harmful algal bloom was detected in Raquette Lake.

The DOH notified the public to not use water from Raquette Lake for drinking water because a blue-green algae bloom was present and toxins were also detected. After days of back-and-forth communication with the DEC and DOH, on November 1 the DEC finally informed me that no toxins were actually detected in our sample (<0.3 ppb of total microcystins). Later that same day, I also learned that the DOH never collected their own samples for toxin testing, and they had relied solely on the DEC test results.

What Does the Future Hold for Raquette Lake?

Consensus among experts is that over the last few decades there has been an increase in the frequency and the severity of blooms across the U.S. Possible reasons for the increases include: 1) higher water temperatures resulting from climate change; 2) changing rainfall patterns; and, 3) higher nutrient levels. The good news is that current research also shows that lakes in the Adirondacks are less likely to experience severe, toxic blooms because nutrient levels are generally lower. However, it's impossible to accurately predict what the impact will be from something like climate change, other than it's not going to help the situation.

This year's blue-green algae bloom was the first ever reported in Raquette Lake; however, I doubt that it was the first. The presence of blue-green algae in Raquette Lake is not something new. What is new is that this year there were more people on the lake trained to identify blooms and to collect samples. My expectation is that there will be similar blooms in the future.

A primary goal of the RLPF is to be a proactive advocate for Raquette Lake. A clear example of this work is the \$25,500 grant RLPF received from the NYS DEC Environmental Protection Fund to develop a Lake Management Plan to Combat Invasive Species. On the surface, invasive species and blue-green algae blooms might seem unrelated. However, there are numerous cases where the introduction of an invasive species resulted in an upset in the lake's plankton community that led to an increase in the frequency and intensity of blue-green algae blooms. The zebra mussel is a good example of this. Lakes are complicated, which is why RLPF has been working hard to develop: 1) a science-based understanding of current water quality conditions; and, 2) a science-based plan to manage our current invasive species and to prevent the introduction of new invasive species.

The board hopes that you will continue to support this work by maintaining your membership or by becoming a new member.

RLPF encourages you to learn more about blue-green algae by visiting these websites.

DOH General info: <https://www.health.ny.gov/environmental/water/drinking/bluegreenalgae/>,

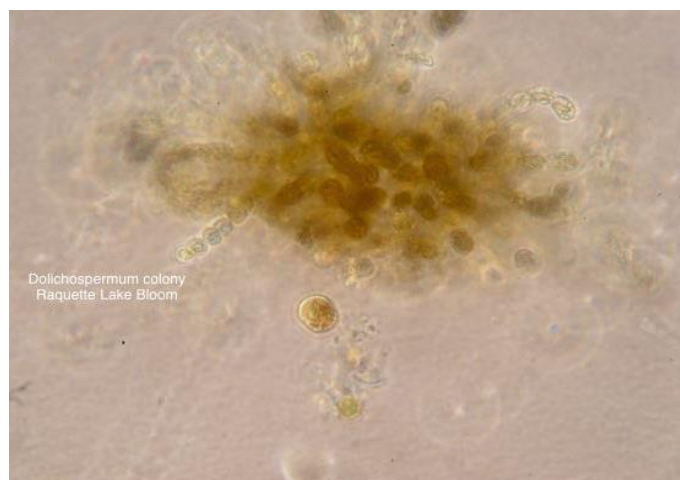
DOH home water treatment tips: <https://www.health.ny.gov/publications/6629.pdf>

DEC general info: <https://www.dec.ny.gov/chemical/77118.html>,

DEC Images of blooms: <https://www.dec.ny.gov/chemical/81962.html>.

DEC Images of blooms - <https://www.dec.ny.gov/chemical/81962.html>.

EPA information for water systems https://www.epa.gov/sites/production/files/2014-08/documents/cyanobacteria_factsheet.pdf





*A View From The Bottom”
By Pat Deyle*

First, a big thank you to all of our water watchers who helped us survey the lake for Milfoil this past summer. The bad news: it is still growing and spreading except in South Inlet where it is very dense, but not showing much new growth on the old plants. If you would like to be a water watcher with us please let me know and we can get you started next summer.

We concentrated our VLM (Variable Leaf Milfoil) removal last summer for 15 days both in the Marion River and in Otter Bay. We are the first organization to get an APA permit to remove milfoil in a stream or river. In the Marion River our divers removed 14 tons of milfoil from about 3 acres of the river (about 2000 feet in length) from the Sargent's Pond trail head towards the canoe carry. In Otter Bay we cleared the west side around the corner following the shore line east towards Burkes. The VLM in portions of Otter Bay near the road was very dense like the beds in the Marion River. Next summer with everyone's help and funding we would like to complete Otter Bay around to Blanchard's Boat House then continue up the Marion to Rachel's dock.

Thanks again for supporting our Kayak Raffle, as it is always a successful fundraiser. And thank you to Frisky Otter Tours for always supporting us in this endeavor as well. Another boat stays in Raquette Lake as Bob Rosborough of North Point and our Treasurer was the lucky winner. With all the flooding in Herkimer County, (where I live), I learned that all of the beavers out there do not know how to build a dam, but that's another story!

"Wireless Broadband for Raquette Lake"
By John Merriman

As many of you know, we have been working hard to find an option to Frontier's slow DSL internet service for Raquette Lake boat access properties since Frontier has no plan to upgrade their service. We finally found a local internet service provider (ISP) that utilizes wireless broadband, which facilitates deployment to remote locations without the need for direct wiring like DSL and cable. There are no towers involved and users will only need a small 8" receiver at their property. The initial phase has been installed at North end of the lake and is servicing folks at Watch Pt, Green Pt, the north side of Indian Pt and Sucker Brook Bay. There are some build-outs that will happen next spring to extend the northern coverage. The next phase during the summer will be to establish a system to service the southern portion of the lake. If you are interested in the service I would encourage you contact the ISP (see below) and let him know your location on the lake to assist in planning the system. Below are some frequently asked questions with answers from Fred Engelmann, the ISP.

>>What will be the cost?

Our starting package will be a solid (not 'up to') 6 Mb/s down and 600 Kb/s up, for \$59.95 / month. For those that need connection all year (e.g. for home monitoring) it will be \$54.95 / month (like getting one month free every year). Those speeds are likely to increase but the price will not. Also, no contracts and no data limits; no franchise fees, taxes or any other recurring charges.

>> What equipment is needed for the service?

Subscribers will need to purchase a pre-configured receiver from us for \$125.00 including tax and shipping, along with a Wi-Fi router of their choice (we recommend NetGear as one of the better consumer grade Wi-Fi routers).

The subscriber installation is typically self-installed, and I will assist for the first few until we grow the local knowledge base. Eventually we'll find a couple of people that are good at it and can help others. That worked extremely well on Lake George over the last 12 years or so.

> > How does someone get more information or sign up for the service?

They can email (fengelmann@mac.com) or call me, Fred Engelmann, at 518 494-0123. The actual signup process is done at the time of installation through our customer portal. That just requires a credit or debit card for the monthly billing.

Ken Hawks Recognition September 8

The RLPF had a recognition gathering to thank Ken Hawks (and Carol) for their 18 years of devotion to Raquette Lake. The Gentrys were fine host for the event and a great time was had by all.



Volunteer Recognition Long Overdue

As a non-profit organization we know that volunteers are essential to our success. We'd like to thank the following volunteers for their willingness to help our organization in various ways. This list is in no way complete. We are certain there are other volunteer names that should be on this list. We apologize for omitting you. Here's a special shout out to Jim Dillon. He is always behind the scenes giving us invaluable help and support. Here's another shout out to Nora and Michael Burke who allow contaminated boats to be washed at their marina. They keep their eyes out for invasive species on the boats that are launching there. They also allow us to send out and receive of all our water sample packages. We appreciate their help and that of everyone else so very much.

Dr Angela Pagano SUNY Cortland
Ann Hedges
Dr. Becky Urban SUNY Cortland
Chris Campbell
Dave Hedges
Ed Campbell
Ed Gregory
Glenn Morehouse
Jack Kolf
Jack Regan,
Jim Regan
John Sammon
Kathy Reilly

Ken Hawks
Kevin Hawks
Kim Humphery
Laurie Rosborough
Mark Bird
Michael Burke
Nora Burke
Patty Schantz
Riley Hawks
Tom Beckingham
Tom Gregory
Wendy Barrett
Will VanOsten

Renew Your Membership or Join RLPF as a New Member

We welcome new members and remind current members that your membership renewal is due for the calendar year of 2020, (unless you joined for more than one year which of course we welcome)! If you paid your dues at the annual meeting **and your membership was current**, the dues were for the year 2020. If you haven't paid your dues for 2020, please send them in by Dec. 31. The dues are \$20 but we ask that you donate another \$10 (or more) to help us fund our programs. We want to recognize that there are those of you who have given us generous donations to fund our work. Thank you. If you've read this newsletter you know how much we have been doing with our water testing program, our AIS program, our boat stewards, and now our hiring of NEAR to write our lake management plan. We need your financial support to keep going. Please ask friends, neighbors and family members who have in their heart a love of Raquette Lake to become members of RLPF. Thank you. There's a membership form on the next page. We will be emailing the newsletters to everyone who gives us an email address. The money we save on postage goes right to our programs. **Please send your check to RLPF Box 210 Raquette Lake NY 13436** *"Contributions and dues payments to RLPF are tax deductible under IRS rules."* *"A copy of our most recently filed financial report is available from the Charities Registry on the New York State Attorney General's website (www.charitiesnys.com) or, upon request, by contacting the New York Attorney General, Charities Bureau, 28 Liberty Street, New York, NY 10005, or at RLPF, Inc., PO Box 210, Raquette Lake, NY 13436. You also may obtain information on charitable organizations from the New York State Office of the Attorney General at www.charitiesnys.com or (212) 416-8401.*

To become a member, fill out the application below and mail it to
RLPF, PO Box 210 Raquette Lake, New York 13436 with your check.
www.rlpf.org

Please Print

Name _____

Home Address_Street_____

City, State, Zip_____

Email newsletters are sent via mail _____

Summer Address_____

Annual Membership dues are \$20. We ask for a \$10 donation to fund our programs.
We welcome you to join for more than one year at a time. Memberships are good for the calendar year
of January1-December31.

Date_____

The purpose of the RLPF is to promote the cooperation and friendship among the inhabitants of the area and to unite its members in the material understanding of Raquette Lake, New York, so that the entire membership will go forward carrying out the preservation and conservation of Raquette Lake and its watershed through education, advocacy and broad based community involvement. Please join us!

RLPF Officers

President -	Gail Morehouse	2022	gmorehouse@frontier.com
Vice President -	Pat Deyle	2022	cpat4parts@msn.com
Secretary -	Marion Goethals	2022	mariongoethals@gmail.com
Treasurer -	Bob Rosborough	2022	rrosboro@gmail.com

Board Members

Lynne Ballou-Gentry 2022	ballou1277@frontiernet.net	Dick Gentry 2021	rgentry1@rochester.rr.com
Ken Hawks 2022	hawksk@telenet.net	John Merriman 2020	jm345@yahoo.com
Kevin Norris 2021	knrl57@frontiernet.net	Len Schantz 2020	lschantz7412@gmail.com

Raquette Lake Board Members and Volunteers arriving at project site to work on the VLM



Join us! You too can be having fun in the sun while taking care of Raquette Lake.

