

BELGRADE LAKES ASSOCIATION

To protect and improve the watershed of Great Pond and Long Pond through Preservation, Education and Action.

Introducing the ILOON PRESERVATION PROJECT

Photo courtesy of Craig Killingbeck

A MESSAGE FROM OUR PRESIDENT

Greetings,

After a long winter, and seemingly longer spring, summer has arrived! The snowbirds are filtering back, Memorial Day marked the unofficial opening of many summer camps, the loons are calling - and yes - even the mosquitos are also saying, "Hi there!" And how about the new look to the village? I think we were all concerned when we heard the road was being reconstructed and trees were coming down. However, while change is not easy, I think the result is wonderful. And we have a wonderful new park -The Village Green - that anchors the southern end of the village.

Your Belgrade Lakes Association is hard at work with projects to protect both Great Pond and Long Pond. We continue to monitor water quality and are gathering the appropriate data needed to make a decision on when and how to tackle the phosphorous issue. This winter the 7 Lakes Association and BLA took sediment

Carol Johnson, BLA President

samples from both our lakes in February. One advantage of our long cold winter was an extended "rest" for the lakes while they were iced over. These samples are among the last pieces of the puzzle to our complex solution. Early results from the 2018 alum treatment on East Pond are positive, and this summer will provide valuable data on the success of that project. We will have an update at our annual meeting on Sunday, July 28th at 3:45 PM.

We continue to support the Courtesy Boat Inspectors (CBI's), who are on duty from 7 AM to 7 PM seven days a week through Labor Day, as well as the Youth Conservation Corp (YCC). This year we are adding a third crew to the YCC which is a testament to its success and the work of our LakeSmart folks. If you haven't had your waterfront evaluated, please call and schedule an appointment.

Last fall we completed a Watershed Survey of Great Pond as this is a requirement for a permit from DEP prior to any in-lake treatment approval. Thank you to everyone for allowing us to inspect your property. There were only a very few folks who opted out of survey. The results are posted on our webpage. We are currently preparing for a similar survey on Long Pond. It must be completed every ten years, and the last one was done in 2009. Our Adopt-A-Shoreline and Milfoil programs are running full speed ahead. Their progress is noted in the coming pages.

We have a new Loon Preservation Project this year! We recognize how important these birds are to our lakes and our wellbeing. We want to do whatever we can to increase chick survival, but it can't be done until a study is made about what is keeping their survival numbers so low. Please read all about it and consider helping us with this initiative.

How do we fund all of this? It is possible because of our members and their contributions. We are in great need of more members. Please help us to find them and let them know the good work we do. And please encourage the next generation in your family to be involved...to continue our work into the future.

Finally - about our raffle this year. The Grand Prize is a shiny white Sunfish Sailboat (see page 9) that is perfect for enjoying our lakes. We thank our members for their continued support and our donors for their many terrific prizes. We can always use help at the raffle table – please consider volunteering. And consider buying an extra book of tickets to help with our efforts on our two ponds.

Have a wonderful summer. Enjoy the lakes. Listen to the loons. Find your quiet space. Breathe!

See you at the annual meeting,

Carol Johnson

Carol Johnson



BLA BOARD MEMBERS ASSIST 7 LAKES ALLIANCE STAFF WITH SEDIMENT SAMPLING

BLA board members Dick Greenan, Bert Languet, and Pete Kallin assisted the 7 Lakes Alliance staff by taking sediment samples on Great Pond and Long Pond this past winter. The weather varied from extremely cold (the electric auger froze) to raining on the last day of collecting sediment samples. Bert and Dick drilled the holes, and then the staff could send down the sediment "claw" to pull up the mucky bottom. 7 Lakes also took samples from all of the Belgrade Lakes chain.





Bundled up and ready to collect sediment samples.

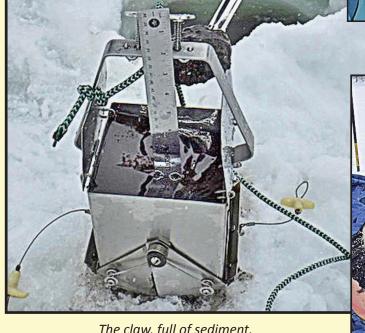


Danielle ready to lower the claw through the ice.



Spooning the sediment into a labeled baggie to be analyzed at Colby College.

Pulling gear out onto the lake.



The claw, full of sediment.

INVASIVE MILFOIL BATTLE WAGES ON

by Lynn Matson

We started battling invasive milfoil in 2010. After almost a decade we're still at it. So what's the assessment, and what does the future hold?

Invasive species are everywhere. In some places on our planet there are more invasive species than native. Hawaii is a good example.

The reason these plants and animals are so pervasive is that they have no natural enemies in their adopted environment. Invasive milfoil is native in the waterways of our gulf states. There, it's naturally kept in check, but in Maine the only thing stopping it is our own unrelenting effort. Nature is not lending a hand.



Milfoil renders a propeller useless.

The good news is that we have kept it in check. Except for a few

isolated plants and small patches, it has not spread far from Great Meadow Stream and North Bay. And it has not found its way into Long Pond. Your ongoing support and financial donations have been critical to this success. Thank you!

The bad news ... the reality ... is that we're not going to eradicate this stuff, at least not any time soon, with current control methods. That means 10 years from now you will still be reading these **STOP MILFOIL** articles. As much as we may want this battle to be over, we can't turn our back on it now.

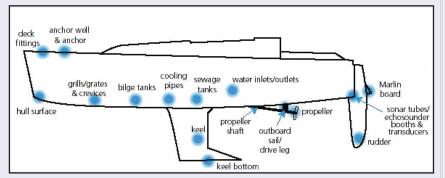
This summer we are stepping up our attack. We're going to hit it even harder in an effort to significantly reduce the number of plants in Great Meadow Stream.

After a couple of years of very low water levels and ideal growing conditions, the invasive milfoil in the stream has really gained a strong foothold. Sharon Mann, the 7 Lakes Alliance Milfoil Removal Manager, reported at the end of last year that invasive milfoil is now the dominant plant in Great Meadow Stream. We've got our work cut out for us.

So here's the plan for this summer:

- The 7 Lakes Alliance **STOP MILFOIL** crew is working right through mid September this year, 7 more weeks than last year. They will be pulling milfoil plants and searching for new outbreaks, just as they have in the past. But they are doing it in a much more efficient manner this year. That's because in 2018 they identified all the shoreline areas that are good milfoil habitats, places where the plant can grow. That's where they are focusing their search this year for new outbreaks instead of covering all the shoreline. The time saved will be spent pulling plants. We're very fortunate to have Sharon Mann back again and leading the team.
- New England Milfoil is also back this summer for 9-10 weeks, a good three more than last year. They will be in the water with their DASH boat to pull milfoil 3 weeks in July, 3 weeks in August, and 3-4 weeks in September to mid-October.
- Great Meadow Stream is again closed to all motorized watercraft. We're pushing to further expand Adopt-A-Shoreline. And this year's STOP MILFOIL Annual Appeal is well underway. Thanks for your generous support.

You should also know that the 7 Lakes Alliance is taking the lead in variable milfoil research right in Great Meadow Stream. With the approval of Maine DEP, Sharon Mann is conducting a test to answer one of the great unknowns about invasive milfoil...



The blue dots show potential milfoil hiding places.

ADOPT-A-SHORELINE 2019

By Lauren Pickford

Adopt-a-shoreline is a volunteer-powered coalition that fights against the threat of invasive aquatic plants. After a short hands-on training, Adopt-a-Shoreline volunteers survey a section of shoreline for invasive plants throughout the summer. Shorelines can be surveyed via snorkel, kayak, canoe, or even a paddleboard! Adopting your shoreline is a great way to get involved with the STOP MILFOIL program, protect your waters, spend time outside, and stay educated on local events.

Prior to 2018, 46% of Great Pond's shoreline had been adopted by Adopt-a-Shoreline volunteers. Last season we were pleasantly surprised by a new wave of volunteer support who claimed another 24% as their survey territory. By the end of 2018, 70% of Great Pond's shoreline had been adopted by local residents and business owners like yourself!

The Adopt-a-Shoreline program was developed in 2014 as a door to door campaign. Since 2014, the program has evolved quite a bit. Now we have technology to report suspicious plants online, interactive maps on our website, and several staff members who are all trained to support volunteers. Please contact Lauren Pickford at lauren.pickford@7lakesalliance.org and let us know if you are surveying your area!

If you would like to adopt some shoreline or if you are surveying your area, please contact Lauren Pickford at lauren.pickford@7lakesalliance.org. We will be



hosting four 1.5-hour training sessions for new Adopt-a-Shoreline volunteers this year. We will also be hosting six invasive aquatic plant paddles where volunteers can survey alongside the STOP Milfoild crew. Information on this can be found at <u>www.7lakesalliance.org/milfoil.</u>

The Milfoil crew will also be holding Milfoil Talks. These talks are a great way for folks to learn about the latest research taking place in Great Meadow Stream, the progress of our removal efforts, touch base with our staff, ask questions, and voice your concerns. The talks will be held at the 7 Lakes Alliance building at 137 Main Street in the Belgrade Lakes Village. By the way, if you find a suspicious plant, please report it to Sharon Mann at <u>sharon</u>. <u>mann@7lakesalliance.org</u> immediately.

Please see the 7 Lakes Alliance's website, <u>www.7lakesalliance.org</u>, for updates on events, information on programs, membership information, and interactive maps!

INVASIVE MILFOIL BATTLE WAGES ON (continued from page 4)

...does it flower and produce seeds this far north of its native habit? Results of her work could help us understand how this plant is able to spread so quickly and in such great quantity. More on the findings from her work in later issues.

So the battle continues. I would encourage all of you to stop by the Maine Lakes Resource Center sometime this summer and get a first hand report on our progress. We're counting on you to help us continue this fight. Please spread the word to neighbors, family, and friends about keeping an eye out for new outbreaks when you are on the water and by checking your boat, trailer, and gear for plant fragments.

Thank you for your vigilance and very generous donations. With your ongoing support this is a battle we will keep right on winning.

IN-SID-I-OUS

By Maggie Shannon

[inˈsidēəs],

adjective: proceeding in a gradual, subtle way, but with harmful effects synonyms: stealthy, sneaking, indirect, treacherous



Nonpoint Source Pollution (NPS) is insidious, and it's the leading cause of lake impairment. By definition, NPS is small, spread out, and slow to build impact. The public's lack of scientific knowledge and the fact that accumulating damage can remain hidden for years let NPS fly below the radar. Then, when the final drop in dissolved oxygen kills fish or kicks off an algal bloom, we are surprised. But be advised and make no mistake; though not inevitable, this "unthinkable" outcome can befall any lake in a developing watershed, no matter how clear its water is today.

In 1998, the head of Lake Assessment, at the Maine Department of Environmental

NPS is stealthy, like this Air Force fighter.

Protection, informed BLA we had maybe 20 years to avert serious damage to water quality in Great Pond. Although it hasn't bloomed yet, Great Pond's area of anoxia at depth is 35 times greater than it was in 1983, and professionally guided research suggests we haven't long to wait. Two upstream lakes in our chain of ponds bloom, and a third is flirting with it at fall overturn. One of these three was treated with aluminum phosphate in 2018 and enjoyed a summerful of clear water for the first time in 30 years. Remediation cost the community \$2,000,000, and in the words of the primary fundraiser, "It was worth every penny." This is no doubt true, but the fix is not permanent and may need to be repeated around 2040.

The point is, NPS is a Stealth Enemy, and it's vital for all of us to fight it. Getting good information is key because we haven't been taught how to deal with the



The East Pond alum treatment alleviated the algae bloom (seen above) that has plagued that lake for years and will help protect local property values.

issue. LakeSmart's unique delivery method, a visit from a lakeside neighbor trained to combat NPS, is a pleasant and easy way to learn what you can do to keep our lakes healthy. Think of the last book you read or movie you saw. Did a friend recommend it? Well, you have a Great or Long Pond neighbor who would like to become friends for the sake of our lakes.

Sign up for LakeSmart now before more harm can enter our lakes. Call Sabine Fontaine, LakeSmart Director, at 512-5150.



LAKE TRUST UPDATE

By Maggie Shannon

The Lake Trust is a 7 Lakes Alliance forum where the Belgrade Lakes Association (BLA), East Pond Association (EPA), North Pond Association (NPA), McGrath Pond-Salmon Lake Association MP-SLA), and Friends of Messalonskee (FOM) share plans, collaborate and socialize. The group gathers several times a year, and meetings are lively, so if lakes are your "thing," you will want to join us.

We recently had a prodigious, delicious potluck dinner provided by Friends of Messalonskee at the Snow Pond Center for the Arts. Our special guest, Senator Russell Black of Wilton, District 17, summarized recent lake legislation, led a discussion about lake protection policy, and invited new initiatives. We discussed mooring policy,



Senator Black, left, and Lauren Pickford, center, amid convivial Lake Trust representatives hosted by FOM

houseboats, and invasive plant prevention at multi-boat locations. The meeting also focused on plans for Oak Fest in Oakland on July 26 and 27 as an opportunity for lake education, and highlighted associations' summer plans, especially NPA's watershed-wide workshop, *Are You Buff Enough?*

Earlier meetings have highlighted East Pond's alum treatment (largest in-lake remediation ever in New England), the LakeSmart Challenge, and winter water quality measurements.

Last January, Trey Michonski and other UM Farmington students filled us in on their study of how lake associations can more effectively engage youth in their lake conservation work. We always learn something new and the potlucks are delicious. Please join us at our next confab on August 21! Call Danielle Wain at 207-495-6039 for details.

CHANGES IN BELGRADE SHORELAND ZONING

By Marcel Schnee

Recently, the Chair of the Town of Belgrade Planning Board, Peter Rushton, sent a letter to all local realtors outlining recent changes to the Town's shoreland Zoning Ordinance. The following paragraphs (slightly abridged) are excerpts from that letter:

"...Septic systems (subsurface waste water disposal systems) within the Shoreland Zone are to be inspected by a State certified inspector prior to the property's purchase. Systems found to be malfunctioning are to be reported to Belgrade's Local Plumbing inspector, Gary Fuller, and will need to be repaired or replaced. A copy of the inspection report is to be provided to the land owner and is also to accompany future Shoreland Zoning construction permit applications submitted to the Planning Board within 3 years of the property sale.

The objective of this requirement is to help in the discovery and correction of malfunctioning subsurface waste water systems that may be contributing nutrients and bacteria to the Belgrade Lakes and possibly pose a health hazard. This is not unlike a similar State requirement in all coastal communities and individual municipal ordinance requirements in some other lake communities in Maine. It also builds on similar inspections already required by some lending institutions.

The legal responsibility to ensure this requirement is met lies with the purchaser of a property. This requirement does not apply town-wide, but is limited to the Shoreland zone – that area within 250 feet of the shoreline of Belgrade's lakes, ponds and some streams and wetlands...

For more information, Belgrade's Shoreland Zoning Ordinance is available on the Town website (<u>www.townofbelgrade</u>. <u>com</u>). The inspection requirement can be found on page 42 of the Shoreland Zoning Ordinance. If you...wish additional information or have questions, feel free to contact Gary Fuller, Belgrade plumbing inspector and code enforcement officer at the Town office at (207) 495-2258.

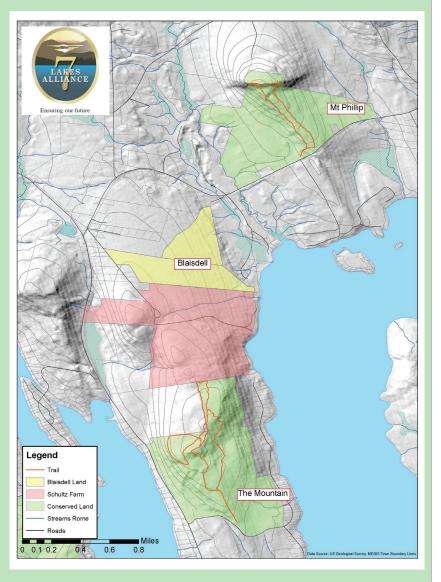
MT. PHILLIP AND THE MOUNTAIN TRAILS TO BE JOINED

By Laura Rose Day, President of 7 Lakes Alliance

On the northern shore of Great Pond, a largely forested corridor of land, interspersed with farm fields, connects two cherished peaks - The Mountain and Mt. Phillip. Whether by land, air, or from the water, the landscape has remained untouched and its character unchanged for many generations.

In May, the 7 Lakes Alliance purchased 120 acres of land from the Blaisdell family. This land lies in the corridor between the two peaks and overlooks Great Pond. The Blaisdell family, whose ancestors were early settlers of Rome, owned the newly conserved property for generations. Stanley Blaisdell, a longtime supporter of efforts to protect water quality in the area, had expressed to his grandchildren his wishes to conserve the land. Accessible by a paved town road, the property was especially vulnerable to development.

The Blaisdell property has long been recognized for its ecological, water quality, and community values. The land is level at the top of the hill near the road and then slopes steeply to Great Pond to the east. Most of the property (110 acres) is forested. Conserving the property helps protect the lake from the potentially negative impact of clearing or development.



This acreage is also a major element needed to create a continuous trail that will connect the summits of Mt. Phillip and The Mountain. The property is also part of a relatively undeveloped 863-acre habitat block and is connected to several other large undeveloped habitat blocks (see map above).

Songbirds abound. Four intermittent streams at the base of the hill drain to significant wetland and riparian habitats adjacent to Great Pond.

With the Blaisdell Project, 7 Lakes builds upon a legacy created by enduring conservation partnerships to protect the Belgrade Lakes. The Belgrade Lakes Association, with generous funding from hundreds of community members, purchased The Mountain, then transferred the land to the Belgrade Regional Conservation Alliance. Mt. Phillip, purchased from the Blaisdell family in 2004 by the BRCA and Pine Island Camp, and The Mountain are both now owned by the 7 Lakes Alliance. Today, 7 Lakes Alliance stewards these lands, and oversees their many uses long-cherished by the local community and visitors alike.

7 Lakes had already assessed the importance of this corridor to its overall land conservation efforts and decided to secure this time-sensitive purchase for the community. They received a conservation loan from the Norcross Wildlife Foundation that enabled them to purchase the property. Project cost is expected to be approximately \$145,000 including funds to purchase and to properly steward the land according to best practices of the Land Trust Alliance. 7 Lakes seeks to raise full funding for the project from diverse sources and partnership efforts.

2019 RAFFLE IS IN FULL SWING!

By Andy Cook (our new Rafflemeister!)

The Belgrade Lakes Association's Summer Raffle is one of the most important fundraisers we have in support of our mission: "To protect and improve the watershed of Great Pond and Long Pond through Preservation, Education and Action." The successful "LakeSmart" program and the "Stop Milfoil Campaign" are just two of our ongoing projects that your BLA dollars and volunteer efforts continue to expand – and, as always, we never rest on our laurels!

For the 2019 Summer Raffle, our valued local supporters are back – with more prizes! The grand prize is the world's most popular sail boat – a LaserPerformance SunFish! It is perfect for families, young sailors, and competitive racers. It is great in "light airs" and perfect for the Belgrade Lakes! Hammond Lumber is back with their 3 sections of ShoreMaster Dock and raised the ante with a 4,000-lb ShoreMaster Boat Lift. Hammond's ongoing support of the Belgrade Lakes Association and our programs is sincerely appreciated!

Our faithful volunteers started selling Raffle Tickets Memorial Day weekend at both the Village Post Office parking lot and the Farmers Market at the 7 Lakes Alliance building. For convenience in the off hours, you can purchase your Tickets along with your supplies at Day's Store. So, if you're in the Village, please drop by, say Hello, and purchase YOUR winning Raffle Tickets.



A great boat for beginners or experienced sailors.

We wish you all good luck!



Our motley crew of hard-working volunteers.



Lee Attix, our local loon expert, dropped by to buy some tickets from Polly (our newsletter volunteer).

INTRODUCING BLA'S 2019 LOON PRESERVATION PROJECT

By Dick Greenan

Inspired by a most successful project conducted in the Kezar Lake Watershed by Lee Attix of Loon Conservation Associates, the BLA has begun a comprehensive common loon (Gavia immer) study on both Great and Long Ponds in order to help support and grow the loon population in a sustainable manner. With this plan, we will also be better prepared to establish and maintain nesting areas that are both sensible and well-protected.



We are all grateful for what these beautiful birds represent within our environment. Every year many of us have proficiently canvased the waters for the annual Audubon Loon Count. This year, the BLA's Loon Preservation Project will significantly ramp up efforts to better assess the numbers and health of these birds who are our "canaries in the coal mine."

The impact of recent weather patterns on our environment is telling. It's up to us to understand its impact on our resources better and, in particular, how it affects the habits of the common loon. As opposed to wondering in ten years time about what happened to all of the loons, the BLA has been seeing these changes and has elected to be proactive in supporting our loon population.



The nest has a cover to prevent eagles and hawks from snatching the loon chicks.



Dick Greenan towing the nest to its mooring site. "Look Ma, no wake!

Our survey is to be led by Lee Attix, a demonstrated research and conservation professional. The project will consist of an initial two year survey of the two lakes to ascertain the most effective loon management strategies. This will include public presentations, volunteer training, and contaminant analysis to help us better "protect and improve the watershed of Great and Long Pond through preservation, education and action. "Protecting and strengthening the common loon population, to the best of our ability, is our goal."

Your continued support of the BLA and its worthy programs is most appreciated. If you would like to help us with this effort, please visit our website (belgradelakesassociation.org) and select the Loon Project under the Donate button. Any contribution would be most sincerely appreciated and will be used for loons only.

So now when you're on the ponds, please be careful of all of our feathered friends and give them a wide berth. Remember that all of the nests, floating and otherwise, are within Maine's 200' no wake zone. If you do encounter a loon or a nest, please give them a wide berth.



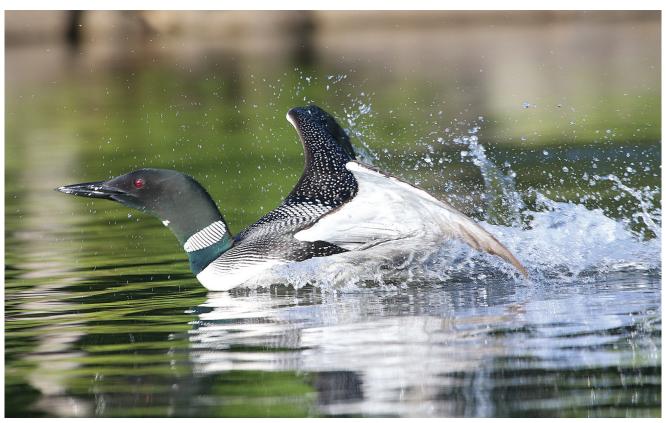
Let's give our loons their privacy and natural quiet.



The nest is installed and ready for feathery occupants!



Drawing by Sue Ellen Greenan.



In for a landing on Long Pond runway! Photo by Craig Killingbeck, local loon-whisperer.

VILLAGE UPDATES

By Marcel Schnee



The Elms, a guest cabin for the luxurious Belgrade Hotel, with the hotel driveway and the West Road in the foreground.



The new Village Green gazebo and sitting wall are located where The Elms cabin used to stand.



The new brick sidewalk.

Installing granite curbing.



Working in snow.

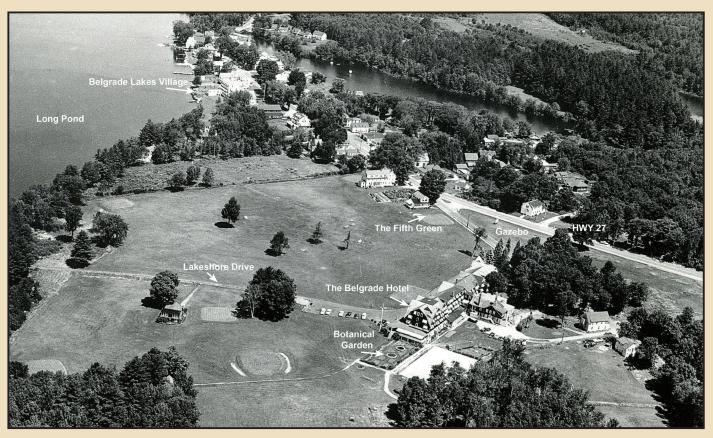


Rte 27, stripped down to dirt as it was 100 years ago.



Installing lamppost bases.

FLASHBACK



An aerial view of the Belgrade Hotel and its grounds. Can you spot the golf course? The Sunset Grill sits on the former site of the golf course's 5th green according to a local resident who used to caddy for hotel patrons.

Recipes EMILY'S FAMILY FAVORITES

<u>Grilled Brie with Summer Fruits and Bal-</u> samic Glaze

- Appetizer or Sweet/Savory Dessert: (Served with Grilled Baguette)
- 1 French Baguette, sliced
- 7-10 oz. Mini Wheel of Brie
- 1/3 cup Strawberries, finely diced
- 1/4 cup Blackberries, quartered
- 1/4 cup Blueberries, halved
- 1 tsp. Fresh Chives, minced
- 2 tb. Fresh Basil, finely chopped
- 1 tb. Balsamic Glaze (to be drizzled on Brie after it is grilled and unwrapped)
- Place Wheel of Brie on large piece of Aluminum Foil. Drizzle with 1 tb. of EVOO (extra virgin olive oil) Top with finely chopped fruits and herbs. Wrap wheel of Brie, fruits & herbs with remaining foil (you can add more foil if so desired)
- Place foil-wrapped Brie on Grill 5-10min or until cheese melted.

Grilled Baguette

Slice Baguette and baste each side of slices with EVOO or melted butter (about 3tb worth). Grill approximately 2min each side. Serve with Grilled Brie. Grill Heat: Medium

Grilled Veggies (can be paired with coconut rice):

- Grilled Summer Veggies in Foil
- 15-20 Mini Sweet Peppers, whole
- 3 Medium Zucchini, sliced
- 2 cups Fresh Pineapple, chunks
- 1 Large Onion, peeled & cut into chunks
- 1/4 cup EVOO (extra virgin olive oil) 1/2 tsp. Salt
- 1/2 tsp. Pepper
- 2 tb. Fresh Basil, chopped
- Place Chopped Veggies Aside.
- Mix together in medium-large bowl the EVOO, Salt, Pepper & Fresh Chopped Basil. Add Chopped Veggies to EVOO mixture and coat well. Wrap coated veggies completely in Foil.
- Grill Heat: Medium-High. 20min or until Veggies are cooked to your liking.

Maine Red Pepper Jelly Grilled Chicken

- 6 (approximately 1.25lbs) Boneless Chicken Breasts (or thighs)
- *poke raw chicken multiple times with fork for "flavor holes"
- Marinade:
- 2/3 cup (5.3oz) Maine Red Pepper Jelly 1.5 cups (13.5oz) Unsweetened Coconut Milk (or milk of preference)
- 2 tb. Coconut Aminos (or soy sauce)
- Mix marinade VERY well. Marinate chicken for 20-30min, stirring marinade and flipping chicken every 5 min for best flavor.
- Grill Heat: Medium-High. Grill chicken breasts 8 minutes on each side or until meat is not pink in the middle.

Prep Time: 35min (includes marinating) Cook Time: 16-20min Total Time: 50min

Coconut Rice

- 1 & 3/4 cups (14oz) Coconut Milk, Unsweetened
- 1 & 1/4 cups Water
- 1/2 tsp. Coconut Sugar
- Dash of salt
- 1 & 1/2 cups Rice (most people prefer jasmine)

In a saucepan, combine coconut milk, water, sugar, and salt. Stir until sugar is dissolved. Stir in rice. Bring to a boil over medium heat. Cover, reduce heat, and simmer covered, 18-20 minutes, until rice is tender.

WATER QUALITY TREATMENT DECISION COMING SOON!

By Danielle Wain, PhD, Lake Science Director

Climate change in Maine has resulted in an increase in average temperature by 2F and an increase in precipitation by 6" over the past 100 years. Increasing temperatures lead to stronger and longer stratification in our deep lakes like Great Pond and Long Pond. The increase in precipitation means more runoff of nutrients from the watershed into the lakes. Because of feedback loops between precipitation, water clarity, and temperature, Maine's lakes are warming at a faster rate than the air temperature.

Through the 7 Lakes Alliance and Colby Water Quality Initiative, there has been intensive sampling on Great Pond and Long Pond since 2015 which continued last summer in 2018. Great Pond is deep, so it stratified early and stayed stratified into October (Figure 1). While the oxygen started dropping almost immediately after the onset of stratification, anoxic conditions below the thermocline (at depths > 30 ft) only set in in August. Because the deep holes (where the sampling locations are) in Great Pond are funnel shaped, the portion of the water column that is anoxic grows quickly once it starts. But the water clarity remained good throughout the summer, indicating that, despite this, there were no blooms.

Like Great Pond, Long Pond stratified early and stayed stratified until the end of October (Figure 2). The shallower upper basin (top panels) went anoxic below the thermocline (depths > 30 ft)for much of the summer. The deeper lower basin (bottom panels) went anoxic in July, but in much less of the water column. These oxygen graphs show how interconnected the lakes are. Water comes into Long Pond from Great Pond and organic matter is deposited in the deep hole in the upper basin.

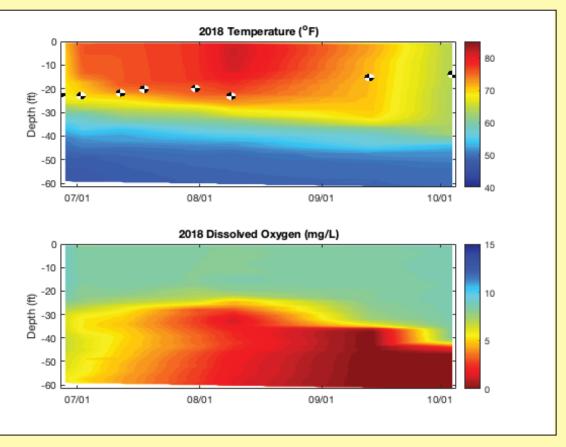


Figure 1. Water quality data measured at the deep hole at Goldie in Great Pond.

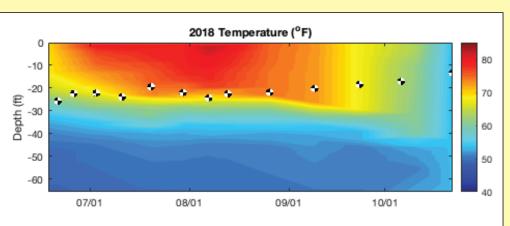
As this organic matter decomposes, it uses up oxygen near the bottom. In the lower basin, while we have some anoxia near the bottom below 80 ft, more striking is the oxygen minimum in the middle of the water column. This is due to the degradation of organic matter that likely comes from the upper basin of Long Pond and settles in the thermocline where there is a strong density gradient. The water clarity was good through the summer on both basins of Long Pond.

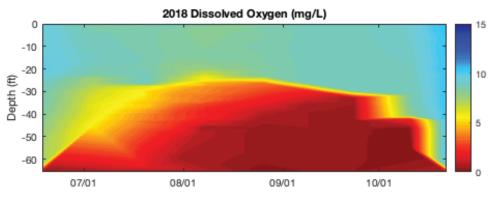
We are currently taking a multi-pronged approach to estimating the phosphorus budget for the lakes. The in-lake phosphorus measurements give us a rough estimate of how much phosphorus comes from the sediment, but the watershed surveys conducted by BLA are key to understanding what portion of the phosphorus comes from internal load in the lake and external load from the watershed. Over the next months, BLA, 7 Lakes Alliance, and

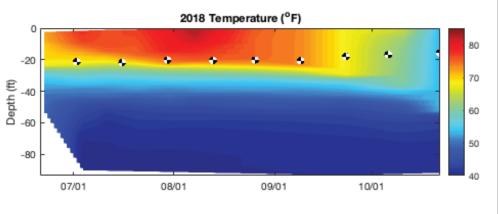
WATER QUALITY TREATMENT DECISION (continued from page 14)

partners will be analyzing the results of the Great Pond watershed survey to quantify the watershed load to the lake as part of an EPA 319 grant.

Understanding this balance of external and internal loads is essential to determining management plans. In East Pond, over half the phosphorus load was from an internal load, thus an in-lake treatment was deemed the most appropriate solution. While alum will almost always remove phosphorus from the water column and bind phosphorus in the sediments, if the external load of phosphorus is significant, then any treatment will not be long-lived and may be a poor investment. Over the winter, 7 Lakes Alliance and Colby College collected sediment samples across Great Pond (with many thanks to Bert Languet for driving us around and making holes in the ice for us!). These samples are currently being analyzed at Colby to determine the phosphorus, aluminum, and iron content, so that we can estimate the alum dose that would be needed (and thus the cost). By the end of this year, combining the watershed survey results, the in-lake phosphorus measurements, and the sediment analysis, we should be able to determine the breakdown of the phosphorus load, whether that indicates that an alum treatment is the best option for management, and a rough estimate of how much a treatment would cost.







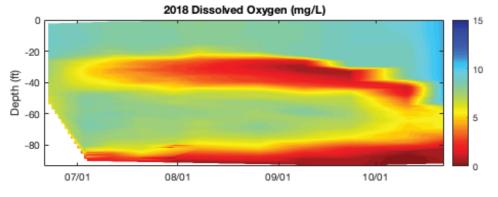


Figure 2. Water quality in Long Pond in the upper basin (top panels) and lower basin (bottom panels).

ADVENTURE ON GREAT POND

By John Gibbs

After a long day of ripping up an old rotted walkway at my camp on Hoyt's Island, building a new one, stopping for a union break for 20 minutes to share some time with my cousins Lou Ann and Kevin Gorman from Waterville down at the dock, I decided to go for a sail at about 5:00 PM. It was sunny with a 6-knot westerly breeze. I did not check my weather radio, but the skies looked benign, so I headed out to round the 2-mile-long Hoyt's Island.

It is now 8:30 PM, and I just got back to camp from sailing the Hoyty Toyty (my 17' sloop rig) after being knocked down in a fast moving thunderstorm on the east side of Hoyt's and riding out the high winds, pelting rain, white caps, and lightning under very dark clouds for 30 minutes while standing on the bottom of a perfectly executed turtled sloop rig (mast straight down for you non-sailors). I pulled on that darn center board for over 1/2 hour, and it would not roll over, no matter how sweetly I asked. Somehow, I ended up about 200+ yards from the East side of Hoyt's Island with no boat traffic coming along while my life jacket floated 30 yards away in rough waters, ahem, because someone forgot to put it on.



Captain John in his Maine cap.

It was hard to believe that just 3 hours earlier I was gently sailing along, sitting on the cockpit floor, cutting between Indian and Crooked Islands with my back against the transom, with my feet up on the port side seat soaking up the sun in this wonderful paradise, and with both main and jib behaving nicely with barely a hint of heeling. As a matter of fact, I was thinking there may not be enough wind to round the island unless I moved away from it toward Jamaica Point to catch the light westerly's which were moving a bit freer there away from Hoyt's high impeding ridge.

Sailing another 1/2 mile, about halfway down the island, I sensed a slight wind shift coming from the north and was now sailing more on a run than a broad reach. I also noticed things starting to look a bit darker. At first, I thought it was just my sunglasses until I took them off and looked north toward Mt. Phillip where dark clouds were forming. I decided to sheet-in and head for Hoyt's on a starboard tack, hoping to get closer to the island in case that storm was indeed coming my way. The winds were still light, around 6 knots, and I wished I were making better time as the northern sky continued to grow progressively darker. I watched a white hulled motorboat, illuminated by the sun, speeding somewhere to the safety of the far shores past Crooked Island and the sunlit red flash of another one racing toward the channel between Jamaica



The Hoyty Toyty underway.

Point and Chute Island; they definitely could see the storm coming. A sailboat, two miles south that I had been watching, and which offered me a false sense of company from afar, seemed to find its comfortable home in time somewhere on the east side of Baxter Point; its white sails luffed while being dropped and then disappeared. I was starting to feel very lonely now about 400 yards off Hoyt's eastern shoreline while "reaching" for the closest cove when the rain started. I thought, oh well, if this is all it does, who cares; I am in my bathing suit, and it's warm.

After another hundred yards I looked back and could see a solid white sheet 300 feet high (a wall of rain reflecting the light) with pure black clouds crowding above and moving angrily toward me between Indian and Crooked with dark razorback waves ripping up the water before it. I had never personally witnessed such a terrifying phenomenon and took this as very bad sign that heavy stuff was now certainly on its way. Come on Hoyty, move it, move it! But my apparent wind was still light, and there was no way to outrun the storm. I furled in the jib and sheeted out the mainsail as far possible preparing for the impact of 30+ knot winds since; at this point, there was no time to drop the main. It hit when I was now less than 300 yards from shore. WHAM! It felt like the hand of God was lifting me up out of the water as the storm's wind smashed into the sails. I capitulated immediately, knowing my weight was no match for the wind's leverage, and was only looking for a nice spot to dive with a good toe point for improved style points as I flew through the air and entered the water. Too bad nobody was there to judge. When I came up, it was as if I had entered an altered state of reality with the Hoyty completely capsized, foot-and-a-half high white caps crashing all around, and heavy rains pounding down with winds howling. At that point I was very grateful for the generous gunwales on the Vanguard Nomad that allowed easy access to the upside-down hull.

ADVENTURE ON GREAT POND (continued from page 16)

I rode out the initial round of lightning by just hanging on for dear life and lying low on the hull. Lightning bolts were crackling down from the heavens to the left, the front and to the right of me. The thunder seemed instantaneous to the flashes, meaning they were very close. This persisted for ten minutes or more, and I must say I was terrified and feeling perhaps more helpless than any other time in my life. My mind raced on, contemplating what a million volts of lightning might feel like and if the probabilities of getting hit were better with the mast down, or was it worse because lighting always seeks a grounding point and that might be the perfect path? After a while the lightning moved further away, so I decided to get to work. From the constant pressure of pulling on the centerboard attempting to right the boat, my arms and back were getting tired, so from time to time I stood in the channel of the gunwales in order to rest. It was, oddly, a very comfortable place to stand while watching the white caps crash over the hull occasionally, giving me hope that the boat might flip to lee with one perfectly timed wave and a tug on the centerboard. It was to no avail. I felt like Steve McQueen in the movie Papillon looking for that magic seventh wave, but it never came.

As I stood there in my white Maine baseball cap and blue bathing suit (without shirt or shoes, looking buff and piratelike, at least in my opinion), the beauty of the moment overwhelmed me and all was relatively well with the world as warm water boiled about the hull. High winds buffeted my ears, thunder rolled in the distance, and rain spattered about, less intense than the brunt of the storm several minutes ago. I had a great view of Indian and Crooked Islands to the north, and there was something philosophical and calming to observe that scene from such a vulnerable position. Both centerboard and rudder were sticking straight up and must have been an odd sight from afar, especially with a man leaning against the centerboard from time to time; but there was no one around to witness as all the smart folks were in their cozy camps out of storm's reach. I waited and waited. I pulled and pulled, but the sloop didn't budge; and no rescue boats appeared. The storm had passed, or at least the first storm had, when suddenly more lightning and thunder pierced my sense of tranquility just after I had made peace with my solo, yet unresolved predicament.

Usually I get out of sticky situations quickly with the proper combination of brains and athletic ability; however, it's usually the improper mix of these two that gets me into them in the first place. I was running out of time, and the physics of the Vanguard Nomad were deadly set against me, as was the weather. Maybe I am just getting too old for this kind of thing at 58 and am not as strong as I once was, but at that moment I still felt 25 and was only thinking about my next move. I could see more dark clouds several miles off in the distance heading my way from the north. As much as I like an adventure, in addition to doing the right thing such as sticking by your boat after an accident or a knock down, I did



not particularly relish the thought of riding out another set of white caps, high winds and lightning; so I calculated my chances of swimming to shore, bushwhacking 3/4 of a mile over the ridge of Hoyt's Island through the woods back to my camp with my bare feet, feeding the dog (our sweet 12 1/2 year old Black Lab, Gracie), getting my powerboat, and returning to rescue the Hoyty Toyty. Fortunately, nobody other than one hungry Gracie was waiting for me back at the camp as my wife Lynne had to go back home to MA for a couple days' work, so nobody was sitting around worrying; however, I was concerned that if the sloop drifted much further south, it possibly could hit the Ledges which would certainly damage the mast and the sails. For now, the mast was safe in 50 feet of water; however, I could not make the same claim for myself. Where were all those boats? Help!

After vacationing here in Maine for almost two weeks, I was in pretty good shape and ready for this challenge. Even though no boat was in sight, I felt guilty thinking what would happen if I did leave the Hoyty Toyty and

Captain John's Route

17

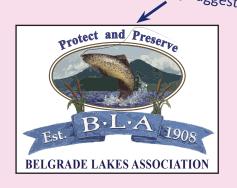
DONATING TO YOUR FAVORITE CHARITY (we humbly suggest...)

Donating to your favorite non-profit does not have to wait until December

People often think about charitable gifting towards the end of the calendar year. Considering donating to a charity does not have to wait. The needs that charities/ non-profits have are year-round. Many non-profits year-end is June 30th.

The Rules

You may deduct charitable contributions of money or property made to qualified organizations if you itemize your deductions. With the Tax Cut and Jobs Act of 2017, the standard deduction was raised to \$12,000 for individuals and \$24,000 for joint returns which may mean that many folks no longer itemize. Generally, the deduction is up to 50 percent of your adjusted gross income for cash contributions



and 30 percent for appreciated securities. Donations to foundations are limited to 30 percent and 20 percent respectively. Deductions in excess of your adjusted gross income can be carried forward up to five years.

For cash donations of \$250 or more there must be a written acknowledgment from the charity that indicates how much was given and whether you received anything in return from the charity. You will need to determine the net deduction by deducting the value of anything you received from the charity from your cash contribution, unless there was an exemption.

Gifts of property require more documentation. In general, the fair market value of the property can be deducted. Deductions of \$500 or more require completion of IRS Form 8283. If you claim a deduction of more than \$5,000, then you will need a qualified appraisal of the property, unless it is publicly traded, such as a stock. Gifts above \$500,000 require you to attach an appraisal to your tax return. Gifts of automobiles and other vehicles, which are special categories, may require specific treatment; the charity should provide instructions on how to handle them.

The Protecting Americans From Tax Hikes (PATH) Act of 2015 made "qualifying charitable distributions" from traditional IRAs and Roth IRAs permanent. This allows an individual to direct from the IRA trustee a contribution to the qualifying charitable organization with no intervening possession by the IRA owner who is at least 70 ½ years of age up to \$100,000, avoiding the potential to trigger the 50 percent of the Adjusted Gross Income (AGI) limit. The transfer can satisfy the donors Required Minimum Distribution (RMD) for the tax year as well.

What to Give?

When giving to a charity it is often beneficial to give appreciated assets such as stock, artwork, or property and let the charity sell the asset, as they will not pay taxes on the capital gains. Smaller gifts are often in the form of cash as it is more convenient. Your own financial circumstances will dictate what you should give.

How to Donate?

Other than directly giving cash or assets, what are some ways to give funds to charities or non-profits?

Donor Advised Fund: With this fund, you can donate cash, stocks, or other assets and then decide where the money goes later while getting the deduction today. The fund is managed specifically to allow you to later direct to which charities you want funds sent.

Charitable Remainder Trust (CRT): In this type of trust, an individual establishes a trust and names a charity as the remainder beneficiary. Once the trust is funded, the assets are typically converted to income producing assets if not currently allocated in that manner. An example would be a piece of property that is sold, and the cash is used to purchase a portfolio of stocks and bonds that will generate a stream of income and dividends. You receive a tax deduction in the year of the gift. The CRT must distribute at least five percent of its initial value each year. You decide who gets the income and for how long. The income can go to yourself and/or your spouse and ceases upon the second death at which time the remaining assets pass to the charity.

Charitable Gift Annuities: With this type of annuity, you donate an asset to a specific charity, and it becomes an irrevocable gift. The funds become part of the general fund of the charity. In exchange for your donation, the charity makes payments to you for life, and when you die, the charity keeps the remaining funds and the payments cease. Part of your donation is tax deductible and part of your income is tax free. Always speak with a trusted tax advisor to fully understand how your gift will impact your taxes and lifestyle.

Before considering making a gift to charity, first consider your own financial situation. Will this gift or gifts detract from your own lifestyle? What is the best way to leverage the gifts for the most impact to the receivers? Discuss the potential gifts with your CPA, financial planner, and/or attorney to come up with a plan that assists your intended recipient(s) and makes the most financial sense for you.

Bert Languet, CFP[®] is an LPL Financial Advisor who works with Maine seniors, business owners, and nonprofit organizations. Bert is Vice President of Golden Pond Wealth Management and has been assisting clients for more than 25 years. He can be reached at 1-800-897-1338 or bert@goldenpondwealth.com

The opinions voiced in this material are for general information only and are not intended to provide specific advice or recommendations for any individual.

MORE REVENGE ON GREAT POND!

By Maggie Shannon

Some people are born with more energy than they know what to do with – at least when they start out. As hyper-active kids they earn a rep for mischief early on, but then often grow up to better the world. My neighbor Jack, who taught me to swim at age 4 by having me hop vigorously through the water on one leg and flail all my other limbs until buoyancy took over, never was a real rule-breaker, but boy, did he love to push the envelope!

Take, for instance, the infamous Joyce's Island ferry-sinking incident. Or the summer that Jack took up early morning birdwatching coincidentally timed to the minute with pre-breakfast skinny dips enjoyed by his neighbors on the cove. The year my friends Diana (now Jack's wife), Mitzi, and I sped about Great Pond in our 3 little outboards, camping out wherever we wanted on vacant shores, happened to be the summer Jack befriended the local telephone operator who connected the calls on our party-line. (He was housed in a stuffy trailer on 225 near the Moulton's store in Rome—"Eat Here and Get Gas" the store's sign said.) We



Maggie Shannon, age 17, modeling for Dunham's Store in Waterville. (Diana used to work there, too.)

three young women stringently guarded the privacy of our all-girl adventures but, no matter how secret our plans or devious the route to rendezvous, Jack always found us out. We never once evaded sorties by his gang in the dark of night (We later discovered that Jack had bribed the telephone operator to listen in on our calls and to report our plans to him)! Jack's playful "drowning" raids on me and my pals swimming off my family's float became the last straw, though he claimed the treatment was a just return for all the girl noise driving our neighbors nuts.

Insults accumulated. Resentments grew. Revenge beckoned. Eventually, too many guests at Hatchway (Jack's family's camp) occasioned Jack's bunking for the night at our camp. This gave my half-drowned pals and me The Chance. We jerry-rigged a stuck door at the bunk where Jack was to stay, slathered the door handle with slippery Pond's cold cream, spread marbles on the floor, and shortsheeted the bed to welcome his arrival. Long after midnight, the perpetrators were rewarded by shouts and loud thumping from the boys' cabin. This may be somewhat tame by comparison to sinking the Joyce's Island ferry perhaps, but it was revenge enough for this 13-year old!

ADVENTURE ON GREAT POND (continued from page 17)

someone did, indeed, come across my capsized sloop to find nobody in sight? Would unnecessary concern ensue? Maybe it would set off a search and rescue. I visualized myself coming around the point 1 1/2 hours later to upright my boat only to find Belgrade Lakes Fire Station rescue boats and scuba divers everywhere; so I thought I would leave a sign before swimming ashore to let them know I was alright by hanging my Maine baseball cap on the tip of the center board; but after a couple trials, it seemed a good gust would just blow it away. Not wanting to lose the cap or to add to the mounting forensic evidence should someone come along before I got back (a floating baseball cap, a drifting life preserver, a capsized boat, what would you think?), I put it on backwards, dove into the water, and started to use my swim stroke to crawl for the 300 yards to shore. I had a blue-colored dock in sight and could see it well even while wearing my sunglasses and while peering through the water spots. The waves were still rough, but at least most of them were not whitecaps. Halfway in I decided to use the breaststroke, thinking it was best to save some energy for the long barefoot walk across the rocky wooded island. I was not looking forward to the painful bushwhack all the way back to my camp.

(To be continued in next newsletter...)

¹ The newsletter staff (Polly, Liz and Marcel) hope you enjoy this edition. ¹ Printed by The Print Shop in the Village, <u>marcelprints@outlook.com</u>



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2019 ANNUAL MEETING - JULY 28TH!

The BLA Member Reception and Annual Meeting will be held on Sunday, July 28, 2019, from 3:45 to 6:00 pm at the Belgrade Lakes Golf Club. This is always a fun and information-packed meeting. Here's what's in store:

Mouth-watering hors d'oeuvres will be served by Shari Hamilton and her staff from Hello Good Pie, and a cash bar will be provided by the golf course staff.



I love the BLA thisssss much!

We have an interesting lineup of guest speakers who will update us on recent land conservation activities, the success of East Pond's alum treatment, Long Pond and Great Pond water quality work and findings, the STOP Milfoil campaign, and our LakeSmart and Youth Conservation Corps programs, plus the new loon project update.

Please make reservations by calling the BLA office at (207) 512-5150, or email info@BLAMaine.org no later than July 20, 2018. Invite your lake neighbors and friends to join us. See you there!

