THE IPA NEWSLETTER

Mystic Lake, Middle Pond and Hamblin Pond in Marstons Mills, MA

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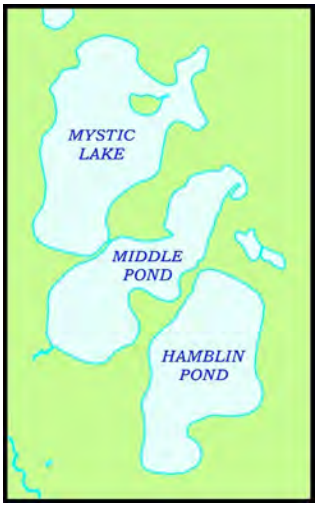

IN THIS ISSUE

IPA MAKES CASE WITH TOWN FOR MYSTIC LAKE ALUM TREATMENT

A team from the Indian Ponds Association (IPA) Board of Directors (Dr. Emory Anderson, Peter Atkinson, and Dr. Bill Hearn) together with Dr. Ken Wagner of Water Resource Services, Inc. met (via Zoom) on January 25 with staff from the Town of Barnstable to discuss how to proceed from the recommendations in Dr. Wagner's recently completed study of the nutrient situation in Mystic Lake, which had been funded by the IPA. Town staff included Elizabeth Jenkins (Director of Planning and Development), Darcy Karle (Conservation Administrator), Karen Malkus (coastal health resource coordinator at the Health Department), Amber Unruh (Senior Project Manager – Special Projects for the Department of Public Works), and Griffin Beaudoin (Town Engineer). Mark Ells (Town Manager), who was unable to attend the meeting, was sent a letter by the IPA president (Anderson) which summarized the meeting. That letter as well as Wagner's report are available on the IPA website (https://www.indianponds.org/).

The meeting focused on (i) the best approach to managing the nutrients that cause cyanobacteria blooms in Mystic Lake, and (ii) why prioritize the treatment of Mystic Lake over several other Town ponds that have considerably worse problems. As pointed out in an article in the fall 2020 issue of this newsletter, Wagner's report had concluded that internal loading (release to the overlying water from the sediments) of phosphorus is the dominant source of phosphorus in Mystic Lake and that **inactivation of this phosphorus with alum (aluminum sulfate) is the least expensive and the most likely way to achieve water clarity and algae management goals for the lake.**

In the discussion, Wagner pointed out, based on his vast experience in lake management throughout the Northeast, that adequate control of phosphorus is clearly the single-most effective means for limiting cyanobacteria blooms. Whereas some have argued that nitrogen is important in contributing to these blooms, various points were raised by the IPA team to counter this argument (see letter for more details). The IPA team presented a list of reasons (see letter for details) why the Town should be encouraged to authorize another alum treatment in Mystic Lake as soon as possible, noting that the 2010 alum treatment had been inadequate, and why the Town should prioritize the treatment of Mystic Lake over other Town ponds that currently have more severe cyanobacteria problems (see letter for details).

The meeting concluded without any decisions offered by Town staff other than that perhaps additional study or data might be necessary. However, the IPA feels that Mystic Lake is probably the best studied lake in the Town, and that additional investigation will not reveal anything markedly different from what is already known. Town staff acknowledged that a follow-up meeting might be appropriate, but at the time of this writing, no response has been received from the Town relative to either another meeting or a decision by the Town.

To express your support for a new alum treatment for Mystic Lake, please contact Town Manager Mark Ells (mark.ells@town.barnstable.ma.us), Elizabeth Jenkins (elizabeth.jenkins@town.barnstable.ma.us), or the two Town Councilors for Marstons Mills: Matthew Levesque (matthewlevesque02648@gmail.com) and Paula Schnepp (paula-barnstable@gmail.com), who are also the President and Vice President, respectively, of the Town Council.

Emory D. Anderson, PhD

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http://www.indianponds.org
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WEBSITE AND FACEBOOK PAGE UPDATE

Membership applications and renewals
You can now renew your annual membership or make a donation at https://www.indianponds.org/. Select the "MEMBERSHIP" tab at the top of the page, then select "Membership Application Form" from the drop-down menu. Complete the online form, check the CAPTCHA box, and select "submit".

This will bring up a second page offering you the options to (a) write a personal check and mail it to the address listed or (b) pay by credit card or Paypal. If you choose to pay online, select the "donate" button, complete your personal details, select the donate button, and check the CAPTCHA box if requested. All payments are tax deductible, your personal information will be encrypted, and you will receive a receipt by email which can be retained for your records.

Facebook
Our fledgling Facebook page is now up and running @IndianPonds.org. So please follow us and give us your feedback as we are genuinely interested in hearing from our members and neighbors as to what you and your family members most enjoy about the ponds, the changes, if any, you would like to see, and ideas you may have to improve our environment. We would also encourage you to share your photographs and stories of the ponds and their wildlife.

Newsletter
It doesn't matter if you are a full-time resident, snowbird, visitor, or just an interested donor. You can now receive email updates and our quarterly newsletters and news postings by submitting your email address through the subscribe section at the bottom of the home page on our website at https://www.indianponds.org/.

Technical support
Do you have coding or Wix/Velo programming expertise? Would you be willing to volunteer your time and knowledge to support the IPA? If you would, we would love to hear from you at info@indianponds.org.

Peter Atkinson and Wendy Bierwirth

SCHWARM MEMORIAL SCHOLARSHIP

The Indians Ponds Association would like to announce that we are again offering a $1,000 scholarship to a graduating high school senior who ilives in Marstons Mills. The Schwarm Memorial Scholarship was established in 2005 in memory of Edward Schwarm, a former IPA director and officer, who loved the lakes. In his memory, the IPA annually selects one or two students who plan to balance their professional careers with a continuing effort to preserve our environment.

The scholarship is available to graduating seniors residing in Marstons Mills and attending either public or private schools. Applications are available in the Barnstable High School Guidance Office, Sturgis Charter School, or on the IPA website.

Deadline for submission is April 1. We remind our students to apply early.

Betsey Godley

TO SEE NEWSLETTER PHOTOS IN FULL COLOR GO TO THE IPA WEBSITE: www.indianponds.org

CLOSING THE LOOP IN YOUR BACK YARD

When thinking about your landscape and how you can be a better steward of your land and protector of the ponds, think about closing the loop. By this we mean look at the resources you have already in your yard and use them, rather than importing resources like fossil fuel intensive fertilizers, etc. Here are a few things to keep in mind that could help:

- You shouldn't need to apply any fertilizer if you mulch your lawn when you mow. Nature has already created your fertilizer via photosynthesis and other chemical processes in the form of grass. Don't export that grass (aka nutrients) by removing them; recycle them back into your lawn.

- By skipping the fertilizer and mulching when you mow, you preserve and enhance the beneficial microorganisms in the soil which will facilitate nutrient cycling and make your lawn more resilient and richer in diversity.

- Invite the clovers to your lawn. Our atmosphere is 78% nitrogen, but it's not in a form that plants can use. Clovers and other nitrogen-fixing plants have a symbiotic relationship with special bacteria that live in the root nodules that take nitrogen from the air and transform it into a form that plants can use. So, your clover is feeding your grass. Have some respect for the clover. Plus, clover is a great bee plan, and we all want to help the pollinators we so depend on.

- In the fall when you want to clean up the leaves on your lawn, try mulching them with your mower instead of taking them away. By the time spring is here, they will have broken down and fed your grass. This method also saves you time – no more raking. In addition, spreading some lime every few years on your lawn will help to keep the pH in balance.

- Leave the underbrush in your yard. It seems to be the trend these days to clear out the underbrush in unused corners or borders of yards. The consequences are severe for the wildlife which need that cover to make homes in. If you are not actively using the space, leave it be. The whole ecosystem depends on that habitat. We are all so happy to see the bald eagles back on the ponds. These majestic birds are the top of the food chain that rely on the wildlife living in the underbrush at the corners and borders of our yards.

- When spring or fall clean-up comes around, please "leave the leaves". The leaves that end up under your bushes etc. will break down and feed your bushes. But even more importantly, they are homes to all sorts of critters such as turtles, toads, birds, mammals, salamanders, and other invertebrates. They need the leaf litter for food, shelter, and nesting material. There are even moths and caterpillars that overwinter in these fallen leaves. These are important parts of the foodweb we all depend on.

- Finally, reconsider if you use a leaf blower. There is a myriad of evidence articulating the down side of leaf blowers, but for this article, let's touch on the devastating effect they have on the insect populations in our neighborhoods. Insect habitats are obliviated by leave blowers, but also the blowing desiccates them, often killing them. Insect populations are reportedly down over the past 60 years by as much as 75% in some parts of the world, such as Germany, from a combination of pesticides and other human activities.

Let's not buy into this idea that every part of our yard has to be perfectly manicured. Listen to nature, observe her beautiful arrangements, and leave the leaves.

Kristie Kapp
Executive Director of Resilient Roots, a non-profit in West Barnstable whose mission is to teach people how to create landscapes that are productive and modeled after natural ecosystems. They offer classes, workshops, garden raisings, consultations, and landscape designs. You can find out more about them by going to:

Nitrogen-fixing nodules on the roots of a pea plant.
Photo credit: Greta Nelson.

TIME TO RENEW YOUR MEMBERSHIP AND PAY DUES

It's time once again to renew your membership in the Indian Ponds Association (IPA) either as a **resident member** (if you reside within the area bounded by Race Lane, Route 149, Lovell's Lane, River Road, Bog Road, and Old Mill Road, including both sides of these bordering streets) or as a **Friend of the IPA (FIPA)** (if you reside elsewhere). The remittance envelope included with this issue of the newsletter can be used for this purpose and to pay the annual dues of $25 per household or to make an additional donation to the Schwarm Scholarship fund or the Pond Restoration fund. Both the membership dues and any donations are tax-deductible as the IPA is a 501(c)(3) organization.

Beginning this year, you are also able to join the IPA and pay dues and contributions by logging onto the IPA website (https://www.indianponds.org/) and clicking "MEMBERSHIP" at the top of the home page, which will take you to "HOW TO JOIN" where instructions are given for joining and paying dues/contributions via PayPal or credit card. It is a very easy and simple process for anyone who wishes to do it all electronically. See article on Website and Facebook Page Update on page 2 for more details.

The IPA has depended on the generosity of its members in past years to support the work of the organization. We publish a quarterly informative and educational newsletter that is distributed to over 600 recipients, which costs around $3,600 per year for printing and postage. We support one or two Schwarm Scholarships per year at a cost of $1,000–$2,000. We funded a cyanobacteria monitoring program the last two years with the Association to Preserve Cape Cod at a cost of $3,000–$4,000 per year, and funded the recently completed nutrient study of Mystic Lake done by Dr. Ken Wagner, Water Resource Services, Inc. at a cost of $6,600. Other miscellaneous costs probably total close to $1,000 for pond sampling equipment and supplies, annual meeting expenses, annual reporting fees to state and Federal authorities, and the like. This important work would not be possible without the generous contributions by members. The above-mentioned expenses are not able to be covered by dues alone. Therefore, we can only continue to carry out the important work needed to preserve and protect the Indian Ponds and the surrounding land and watershed if our members generously contribute. I hope we can count on you.

Emory D. Anderson, President

CLIMATE CHANGE AND CAPE COD

The extreme weather conditions being felt throughout the country this winter are a clear sign that, as scientists have forewarned, global climate change is a very serious matter. Although the long-term intent of this newsletter has been to inform and educate our readers about environmental matters pertaining to the Indian Ponds and the surrounding land and watershed, it would be disingenuous to not draw attention to the impact of global climate change on local conditions. Therefore, it is our plan, over time, to provide relevant information and articles about changes that we can expect here on Cape Cod that can be linked to global warming. One immediate change that we can already report is that water temperatures in the three Indian Ponds are increasing. In the 2020 fall issue of this newsletter, we reported that the surface temperature measured in Hamblin Pond on August 4, 2020 was 27.8°C (82.2°F), which is the highest recorded on any testing date for the three ponds in recent years.

The Woodwell Climate Research Center in Woods Hole (https://www.woodwellclimate.org/), to quote from their website, "is an organization of renowned researchers who work with a worldwide network of partners to understand and combat climate change. For 35 years, we have combined hands-on experience and policy impact to identify and support societal-scale solutions that can be put into immediate action." On January 9, the Center hosted a special live stream broadcast featuring the Dalai Lama, Greta Thunberg, and a panel of renowned climate scientists on the subject of climate change. The event launched a new series of short educational films entitled Climate Emergency: Feedback Loops that focus on the problem of feedback loops that amplify the effects of climate change in new and dramatic ways. The series includes an introduction followed by forests, permafrost, atmosphere, and albedo. They can be accessed from the following page on the Center's website: https://www.woodwellclimate.org/woodwell-researchers-kick-off-2021-with-star-power/.

Another good source of information is the Cape Cod Climate Change Collaborative (https://capecodclimate.org/) which "is an all-volunteer 501(c)(3) organization whose mission is to reach carbon neutrality — or net zero — on Cape Cod and the Islands of Massachusetts by enhancing communication, collaboration, and activism among organizations, programs, and individuals committed to mitigating the climate crisis." They publish an electronic newsletter to which you can subscribe.

Emory D. Anderson, PhD

A WINTER BIRD

Most of the birds that come to my feeders are here year-round. I don't get many migrants and those few only hang around for a few days before moving along on their way to other pastures and other people's feeders. There is, however, the exception that proves the rule. When I see the slate-colored junco show up, I know that winter is truly on its way and that we can expect our first snow later that week. If my deck is not covered in snow very shortly, I don't see him again until it is, hence the nickname, "Snow Bird". The slate-colored junco is one member of a family of seven different Juncos, only six live and breed in the United States, while one, the cismontanus, breeds in the Yukon and British Columbia. Two of them, the slate-colored and the Oregon, have breeding areas that include parts of New England and Cape Cod. I have never, as far as I know, seen an Oregon, even though they are supposedly here. In addition, the cismontanus appears to be identical with the Oregon, as far as outward appearance is concerned.

There are also four other members of the family found in Mexico and Central America. These are the Guadalupe junco, the yellow-eyed junco which has four subspecies, Baird's junco, and the volcano junco. The four subspecies of the yellow-eyed junco are the Arizona yellow-eyed, the Mexican yellow-eyed, the Chiapas yellow-eyed, and the Guatemalan yellow-eyed. So, as you can see, it is quite an extensive family. If I have counted correctly, that makes around fifteen members. The slate-colored is to be found all over the United States except the south of Florida, the southern tip of Texas, the far south of California, and the southwest tip of Arizona. The Oregon is found all over the United States except the deep South. The gray-headed is found primarily in the desert southwest from mid way through Oklahoma and west to include most of California and everywhere south. The pink-sided covers most of that same range, but extends its northern range up through the Dakotas and Montana into Canada. The last American junco, the white-winged, has a very small range from southern Oklahoma north to the Black Hills of South Dakota.

Juncos are a small North American bird in the New World sparrow family. Their name appears to have derived from the Spanish term for the plant genus *Juncus*, meaning rushes. Juncos are seldom found among rushes which grow in damp or wet soil. Juncos prefer dry soil. Go figure. Juncos forage on the ground or on my deck because they know that chickadees are sloppy eaters and spill as much on the deck as they eat. They usually nest in well-hidden locations on the ground or low in a shrub. They eat mainly insects and seeds.

Slate-Colored Junco

Their breeding habitat is coniferous or mixed forest areas throughout North American ranging from subarctic taiga to high mountain forests in Mexico and Central America south to Panama. Northern birds usually migrate farther south. Southern populations are permanent residents, moving only short distances to avoid severe winter weather in the mountains. You might watch for juncos on your deck at this time of the year. Like most small birds, they are quick and flashy. You might look on the ground near your deck as they will eat any seed dropped by other species.

Dave Reid

GOLF AT HAMBLIN POND

Over 10% of the shoreline of Hamblin Pond abuts Burgess Park with its 18-hole disc golf course. Disc golf, commonly referred to as Frisbee golf, is a rapidly growing sport which, according to the Pro Disc Golf Association (PDGA), has over 120,000 members and lists and rates 8,000 golf courses throughout the world including the one at Burgess Park. Disc golf is played like regular golf except instead of using golf clubs and balls, you use your arm and a Frisbee. To accommodate the discs, the "holes", called baskets, are specially designed receptacles consisting of chains to dampen the arriving disc and a tray to collect the disc as it falls from the chains (see photo). Instead of having a set of golf clubs, each player carries several discs optimized for different characteristics: one for putts, several for long "fairways", and others for specific functions such as "hooking or slicing" to circumnavigate trees, doglegs, and other obstacles on the fairways. Discs for golf are heavier and more stable in flight than conventional Frisbees. Clearly, disc golf courses are not pristine landscaped lawns, but rather whatever is available wherever the game is played. This includes wooded areas (Burgess Park) or even old abandoned traditional golf courses.

Eighth hole at Burgess Park. Photo Credit Aaron Fishman.

To see how the game is played, visit youtube.com/watch?v:d7N5Z6fFAe8 and see an instructional video filmed right here at Burgess Park. The Town of Barnstable recognizes the value of the course, has honored the Cape Cod Disc Golf Club for their maintenance and care of the course, and donated 18 new cages (holes) worth $7,000. During the many tournaments held throughout the year, not a single empty parking space can be found at the large parking area provided. For many summer visitors, the eighth hole is particularly special for it is adjacent to Hamblin Pond and affords a chance to take a swim. This rapidly growing sport may soon have two new courses planned in Mashpee and Sandwich.

Aaron Fishman

"To preserve and protect the natural environment and ecological systems of the Indian Ponds and surrounding parcels of land and watershed and to participate in studies and work with other agencies, individuals, and groups to educate the public, serve the community, and promote and preserve the Indian Ponds and surrounding areas." IPA Mission Statement

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FORWARDING SERVICE REQUESTED