

THE IPA NEWSLETTER

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

Spring 2019 A quarterly publication of the Indian Ponds Association, Inc.

Vol. 19 No.2



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ANDREW GOTTLIEB TO BE ANNUAL MEETING GUEST SPEAKER ON JULY 28

Andrew Gottlieb, Executive Director of the Association to Preserve Cape Cod (APCC), will be the guest speaker at the **62nd annual meeting of the Indian Ponds Association to be held Sunday, July 28**. He will talk about the APCC's mission, the state of our Cape Cod waters, the connection between environmental protection and economic development, and environmental trends effecting Cape Cod and Massachusetts, and comment briefly about the cyanobacteria monitoring program for the Indian Ponds in which the IPA and the APCC are collaborating.

Andrew is responsible for determining the focus of APCC's advocacy and educational efforts, implementing APCC's programs, coordinating fund raising and membership activities, and the overall management of the daily operations of the organization. He has more than 30 years of environmental protection experience in government and elected terms in municipal office, including appointment as Chief of the Office of Commonwealth Development under Governor Mitt Romney. Andrew has extensive experience working at all levels of government, having served as a local, state and county official as well as a legislative staff person. Gottlieb received a BA in government from Harvard University in 1985 and an MBA from Boston University in 1996. At the local level, he is the former head of the Cape Cod Water Protection Collaborative and is presently in his fourth term as a Mashpee selectman.



The 2019 Annual Meeting will be held outdoors from 4:00 to 6:00 pm at the home of John and Deirdre Kayajan at 32 Heath Row in Marstons Mills. Again this year, the meeting will be held under a spacious tent which will offer protection from rain or relief from a hot sun. The business meeting will include approval of the minutes and treasurer's report from the 2018 meeting, election of directors, a brief president's report, presentation of this year's Schwarm Scholarship recipients, presentation of a special IPA award, and the address by our guest speaker. This will be followed by our traditional social hour where attendees can enjoy good food, drink, and conversation. We look forward to seeing a large turnout this year.

Emory D. Anderson

DON'T MISS THIS:

The 2019 Annual Meeting will be held outdoors from 4:00 to 6:00 pm at the home of John and Deirdre Kayajan at 32 Heath Row in Marstons Mills.

**IPA OFFICERS AND
DIRECTORS 2018-19****President**

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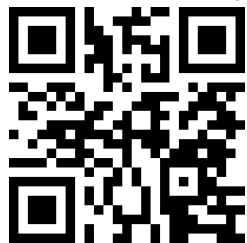
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**BARNSTABLE LAND TRUST ACTIVITIES
IN THE IPA AREA**

The Indian Ponds and associated waterways are among the most beautiful and important in the Town of Barnstable. In our efforts to conserve critical lands over our 35 years, Barnstable Land Trust (BLT) has protected four parcels along Middle Pond and a total of 125 acres in Marstons Mills ([see map on Page 6](#)).

Barnstable Land Trust was founded in 1983 at the height of the development boom on Cape Cod in order to protect the nature of Barnstable. Since then, BLT has worked with members and partners to conserve over 1,100 acres through fee purchase and conservation restrictions. (Conservation restrictions remove or restrict the development rights on a property.) In that time, the land trust also advocated for and supported the Town in the protection of another 10,000 acres of our most fragile and threatened ecosystems. BLT's goal has been to protect the drinking water, bays, and habitats that support our well-being and our economy.

Fuller Farm, the largest BLT-protected parcel in the Indian Ponds area, was conserved in 2013. BLT's vision for the property is to keep it open, safe, and beautiful. We have been exploring an agricultural use appropriate to the topographic and other constraints of the property. In the meantime, BLT has cleaned up the 10-acre woodland (removing 4 tons of debris) and re-established the trail for walkers. Volunteers have helped maintain a trail around the fields as well. This year, we aim to remove some of the invasive trees and vines along the roadway to open up the beautiful view to drivers on scenic Route 149.

BLT recently acquired the 2.18-acre Mill Pond Overlook property at Route 28 and 149. After clearing the property, it was reseeded (thank you Joyce Landscaping!). This year, we will build a trail from the Town land at the herring run. The trail will end at a viewing platform on the high end of the property. With the new road work and potential pond dredging, we envision this property will add to the beautiful green gateway to Marstons Mills.

We hope that by the time you read this, we will have been able to stabilize the dock on Middle Pond. The winters have been hard on it and we are doing our best to maintain this community asset.

Looking forward, BLT is developing a priority protection map to focus our conservation efforts. We welcome input from the community. If you have land that you wish to conserve or that you think would be suited for conservation, please let us know.

We also welcome volunteers, particularly those interested in helping care for land in their neighborhood. For more information about our properties, volunteer opportunities, becoming a member, or how to donate, please visit our website at blt.org. You may also contact Janet Milkman at 508-771-2585 ext.101 or e-mail janet@blt.org.

Janet Milkman, Executive Director, BLT

**TO SEE NEWSLETTER PHOTOS IN FULL
COLOR
GO TO THE IPA WEBSITE: www.indian-ponds.org**

2019 UPDATE ON THE MARSTONS MILLS RIVER HERRING COUNT



**Massive numbers of herring in Marstons
Mills River**

ently victims of predation during their journey from the Mill Pond ladder to the Middle Pond ladder. There may be other factors that would explain the lesser numbers counted at the Middle Pond ladder. Nevertheless, as mentioned in the summer 2017 issue of this newsletter, while the count at Mill Pond is important in determining the population size as a whole, the count at Middle Pond is more indicative of the number of fish that actually make it to spawning grounds in Middle Pond and Mystic Lake.

As of this writing, more herring are still migrating up the river. Large numbers of herring have been congregating in pools just below Route 28. The DMF has asked that we continue to count and monitor both Mill Pond and Middle Pond fish ladders until June 1.

Volunteers from Barnstable Clean Water Coalition and Barnstable's Department of Natural Resources were ready to start the annual count of river herring at the Mill and Middle Pond fish ladders on Monday, April 1. In Massachusetts, there are 100 herring runs located throughout 48 towns. Per the direction of the Massachusetts Division of Marine Fisheries (DMF), the counting of river herring at these runs begins every year on the first day of April.

Alewives are the first species of herring to begin migrating upstream to spawn when the water temperatures reach 51°F. We don't typically see herring at the Mill Pond fish ladder until mid-April. Volunteers were pleasantly surprised to find herring already traveling up the fish ladder and crossing into Mill Pond on the very first day of counting, as the water temperature was already over 53°F. We did witness 44 fish passing through the ladder on March 31, so we missed a few early arrivals.

The herring continued to run strong throughout the month of April and into early May. Water temperatures continued to climb and by mid-April were over 57°F, which is optimal for the second species of river herring, bluebacks, to begin their migration.

As of May 10, volunteers had counted 2,417 herring at the Middle Pond ladder. The numbers counted at this ladder have always been fewer than at the Mill Pond ladder. Although it is assumed that herring traverse both ladders at night when volunteers are not present, many herring are appar-



**Volunteer counting herring at Mill
Pond ladder**

*Heather Rockwell, Barnstable Clean Water Coalition
Amy Croteau, Town of Barnstable Natural Resources Program
Photos courtesy of Meg Materne, Barnstable Clean*

WHEN IS A CROW A RAVEN?

Crows and ravens are very easy to tell apart when you know what to look for. On the other hand, if you haven't found out the simple things to look for, they are both just black birds. Notice that I did not say "big" black birds. The raven is twice the size of a crow, but unless they are sitting side by side, that's a hard comparison to make.

Both birds occur over most of the United States, including Cape Cod. So, yes, we have both species here and you are liable to see either at any given time.

Let's explore the differences and then you need to practice.

As I said before, the raven is twice the size of a crow. So, if you see a mixed batch, the larger ones might be ravens. The next thing to look for is their language. The crow has a very limited vocabulary and is likely to emit only a CAAing sound, which I'm sure you will all recognize. The raven has quite a large vocabulary starting with a CRONKing noise and progressing through several other squeaks and squeals.

In the pictures, notice that the crow's head slopes in a straight line from the top of the skull to the tip of the beak, whereas the raven has a forehead and does not slope in an unbroken line. The raven's beak may have a hook on the tip.

When the birds are flying, the crow's tail is squared off, while the raven has a pointed tail. This can be hard to distinguish when they are sitting on a fence, but the crow's tail will still be squared off, while the raven's tail will appear more rounded.



Crow

When they are flying, the crow must flap its wings constantly to keep from falling out of the air. The raven is capable of soaring like hawks or eagles.

Crows are very social and some-



Raven

times form flocks (sometimes called murders) in the thousands. They are inquisitive and mischievous. They are common birds of fields, open woodlands, and forests. They thrive around people and since they are good learners, they have learned that people are a good source of food.

The raven has coexisted with man for thousands of years. It is the most widely distributed of all corvids, a family of birds that includes crows, ravens, jays, magpies, and nutcrackers. Worldwide, there are at least 120 species of corvids. There are at least eight subspecies of the raven with very little difference in appearance.

Common ravens can live up to 21 years in the wild. Young birds may travel in a flock (sometimes called a congress), but eventually mate for life. Each mated pair selects and defends a territory.

Part of their success is due to their omnivorous diet. They are extremely versatile in finding food, feeding on carrion, insects, grains, berries, small animals, nesting birds, and food waste.

Over the centuries, the common raven has been the subject of mythology, folklore, art, and literature. The common raven has been revered as a spiritual or god-like creature in the cultures of Scandinavia, ancient Ireland and Wales, and also in Bhutan and Siberia.

When you see either of these two on the ground, the raven will immediately impress you by his size, even if there is no crow around. The crow is big, but is truly just another bird.

Dave Reid

TWO 2019 SCHWARM MEMORIAL SCHOLARSHIPS TO BE AWARDED

The Indian Ponds Association Scholarship Committee is pleased to announce that we will be awarding two Edward Schwarm Memorial Scholarships this year, as we have two very deserving students. Our winners were selected on the basis of their academic achievements, extracurricular activities, and community service. The Schwarm Memorial Scholarship was established in memory of Edward Schwarm, a former IPA Director and Officer. Many thanks to the generous donors who have contributed and make these scholarships possible.



Christopher Bresnahan

Christopher Bresnahan, the son Kevin and Maura Bresnahan, graduated from Saint Paul II High School and will be attending Providence College in the fall. Christopher is a resident of the IPA area who has spent many hours on the lakes and has volunteered with Barnstable Land Trust. He is a member of the National Honor Society, Student Council President, and is involved with the ECHO program. Christopher was also the starting quarterback with the football team and Swim Captain at his school. He plans on majoring in biology and becoming a doctor.

Julia Wiseman is graduating from Barnstable High School and will be attending American University. Julia, the daughter of Christopher and Judith Wiseman, has a deep interest in conservation and the environment as well as a love of music and drama. She is a member of the National Honor Society, is involved with the BHS Peer Leadership program, and is a Student Council member. Julia was also Vice President of the Drama Club, Student Director for the high school musical, is in-

involved in Vocal Jazz, Chamber Choir, and is a poet. She plans to use her background in theatre in her future career as a teacher.

We will be pleased to introduce our scholarship winners to the membership at our annual meeting on July 28 when they will be presented with their checks. We wish our recipients congratulations and all best wishes for successful college careers.



Julia Wiseman

Betsey Godley

NEW CYANOBACTERIA MONITORING PROJECT

This year, the Indian Ponds Association (IPA) is undertaking a six-month effort to monitor for the presence of harmful cyanobacteria blooms in Mystic Lake, Middle Pond, and Hamblin Pond. Cyanobacteria, also known as blue-green algae, can occur in toxic concentrations between late spring and early fall. You may have heard of these microscopic organisms, which sometimes pose a threat to dogs or swimmers that accidentally or intentionally ingest contaminated waters. Adverse effects of these blooms are an emerging environmental issue tied to elevated water temperatures and increased nutrient levels. Growth of certain cyanobacteria are linked to nitrogen enrichment.

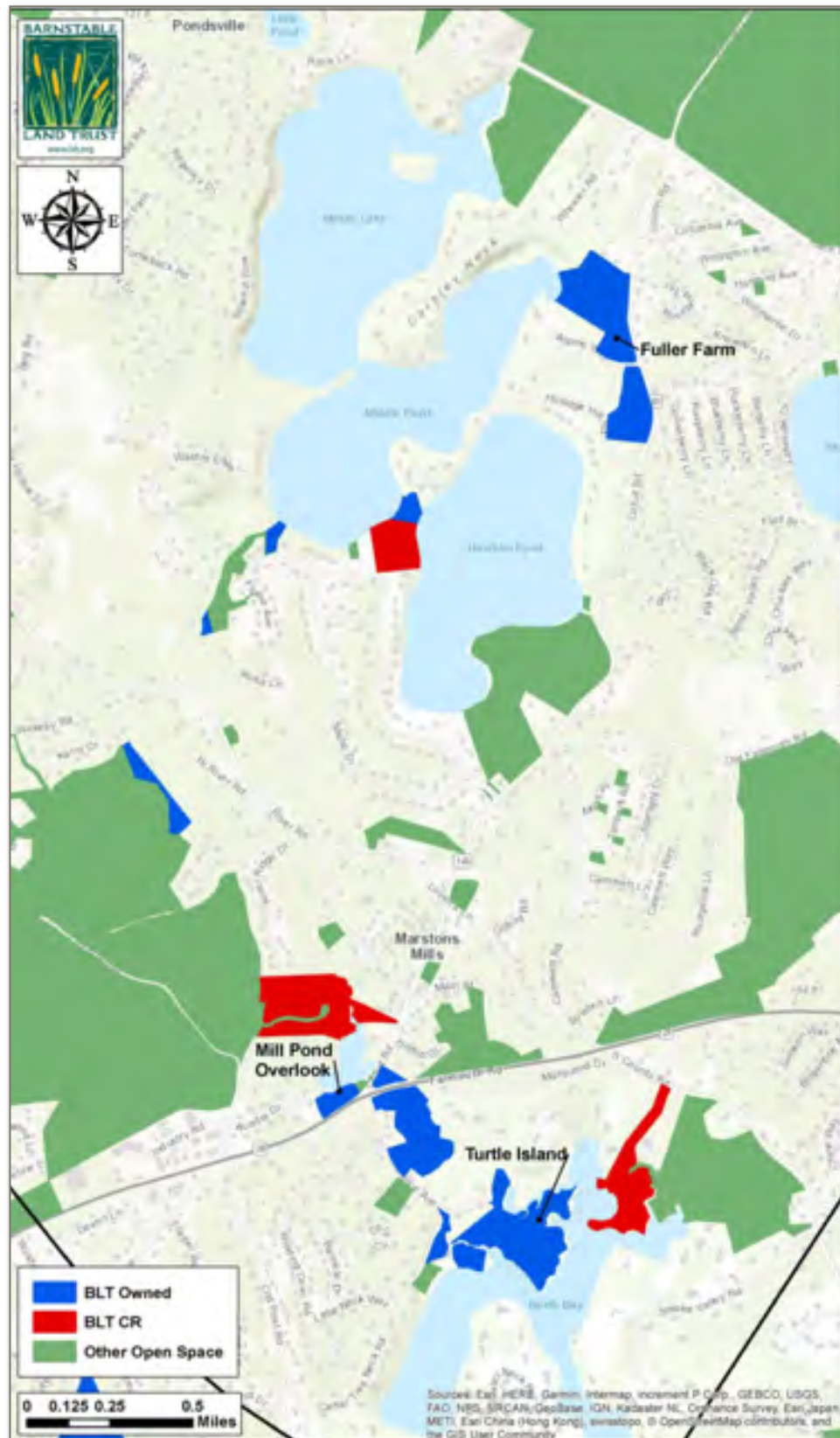
Blooms of cyanobacteria are thought to have caused a significant die off of freshwater mussels in Mystic Lake and Middle Pond during the summers of 2009 and 2010 (WRS 2018).^{*}The Town of Barnstable currently monitors levels of cyanobacteria at the four public beaches on the Indian Ponds (Mystic Lake public access at Race Lane, public beach on the southern end of Middle Pond, and the two public beaches on Hamblin Pond). IPA's new monitoring project will compliment this effort and be done at strategically located sites at the northeast corners of the three ponds, where prevailing winds generally concentrate these noxious blooms (see figure).

This monitoring project is being conducted in collaboration with the Association to Preserve Cape Cod (APCC), a 50-year-old environmental organization dedicated to the preservation and protection of the natural resources of Cape Cod. With the assistance of researchers at the University of New Hampshire, APCC has been monitoring cyanobacteria in local freshwater ponds using protocols developed by the Cyanobacteria Monitoring Collaborative (CMC) and approved by the US Environmental Protection Agency. Because of the costly nature of sample collection, the program depends on "citizen scientists" who volunteer to collect water and plankton samples for analysis that is done by trained APCC staff.

(continued on page 7)

^{*}WRS, Water Resources Services, Inc. Monitoring of Mystic Lake and Middle Pond in Barnstable, Massachusetts in 2017. A report prepared for the Town of Barnstable. 42 pp.

BARNSTABLE LAND TRUST ACTIVITIES IN THE IPA AREA



NEW CYANOBACTERIA MONITORING PROJECT

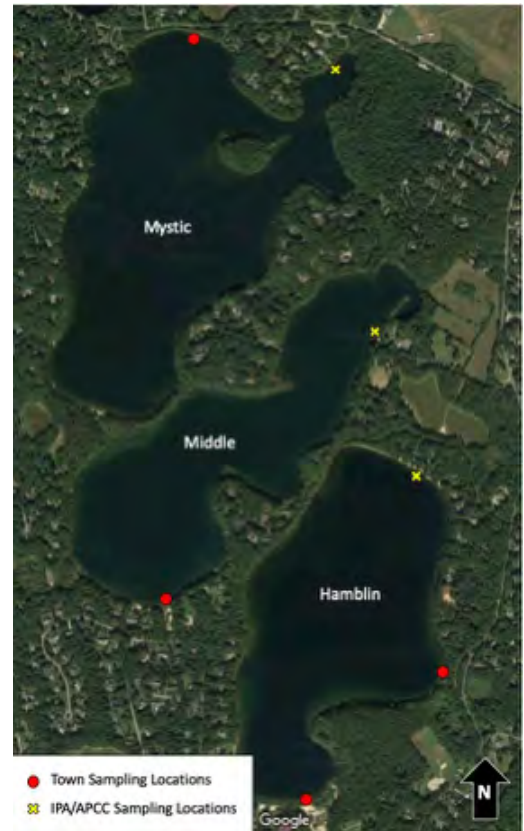
(continued from page 5)

Laboratory analysis involves a combination of microscopy (identifying distinct types of cyanobacteria) and fluorometry (photosynthetic pigment analysis) to document and track potentially harmful cyanobacteria in the ponds. If conditions reach potentially hazardous thresholds, water samples will be tested using cyanotoxin test strips to get a more accurate estimate of cyanotoxin concentrations. After each completed sampling event, APCC will update its online Cape Cod Cyano Map (www.apcc.org/cyano) with the latest results. If all data suggest hazardous conditions are present or imminent, APCC will notify the Town of Barnstable and IPA directors to recommend a public advisory to help protect public safety.

Bill Hearn, a new IPA board member, will lead our sample collection effort, and he will be trained by APCC to perform needed laboratory sample analysis. Sampling is planned to be done every two weeks from mid-May through October. After completing the six-month monitoring effort, APCC will produce a summary report to document the results and make recommendations for future seasons.



Bill Hearn pulling sampling net in Middle Pond.
Photo by Bryan Horsley, APCC



For those wishing to learn protocol and participate in the sampling effort, please contact Bill Hearn at Billhearn9@yahoo.com. For much more information about the Cyanobacteria Monitoring Collaborative, see <https://cyanos.org>.

Bill Hearn

LATEST WORD ON MIDDLE POND HERRING RUN RECONSTRUCTION

The project team is currently completing final review of the proposed design plans with the Natural Resource Conservation Service (NRCS). NRCS is funding a portion of the construction through Phase II funding of the Cape Cod Water Resource Restoration Project to supplement the Town's existing budget. Final approval and review by NRCS is required as part of this funding agreement.

The Town and Wright-Pierce completed the permitting needed prior to construction bidding with the extension of the existing Order of Conditions from the Conservation Commission and amendment to include the additional weir structure to be installed adjacent to the fishway entrance where the stream connects to the upstream cranberry bogs. Inclusion of this new structure will replace the need for the temporary mesh screen that is installed annually to try to prevent fish from getting trapped in the bogs. This structure will be more effective and also prevent fish injury, as seen in the past from fish getting caught up in this screen.

Final easements with neighboring landowners are underway. Once these are complete, the project will require review from NRCS and then the project can be put out to bid for construction. At this point, we are targeting to have the project to go out to bid this fall and anticipate construction in 2020; however, exact dates for bidding and construction are to be determined based on the time-line for review and approval by NRCS.

Griffin Beaudoin, P.E.
Town Engineer

"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

