

THE IPA NEWSLETTER

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

Winter 2017

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2017 HERRING COUNT SEASON



Once again, herring count season is upon us. So far we have been spared the bone-chilling temperatures we've experienced in the last few winters, so we're hoping it's a positive sign that the herring will arrive sooner this year. In that light, we have scheduled a herring count training session at Liberty Hall on Saturday, March 18 from 1:00 to 3:00 pm. **Amy Croteau** will once again update us on the status of herring runs throughout the Town of Barnstable and detail some exciting news for our runs here in Marstons Mills.

The Association to Preserve Cape Cod (APCC), along with Three Bays Preservation, has been awarded a grant from the Commonwealth of Massachusetts to study stormwater issues in the Three Bays area. APCC is also applying for a National Oceanic and Atmospheric Administration (NOAA) grant that would allow for the rebuilding of the herring ladder at Middle Pond situated off of Flume Avenue. Accordingly, the State is requiring that we have some herring numbers at that ladder. Amy has graciously agreed to spearhead the effort to conduct a herring count at Middle Pond this year. This means we will be in need of counters for Mill Pond as well as Middle Pond. We have not worked out the logistics yet, but we are hoping to get a tremendous response for volunteers.

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1891 INDIAN PONDS MAP



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AND MORE ...

Our Indian Ponds, as shown above on the 1891 George H. Walker & Co. Atlas of Massachusetts. The ponds are collectively named "Hamlin's Ponds", a likely misspelling of Hamblin, and only Mystic Lake is individually identified. An 1880 map referred to three as the "Cotuit Ponds." "Pond Village" was more commonly referred to as "Pondville" (and still is--try searching for it on Zillow!) Note how Race Lane makes a sharp 90 degree left turn at Crocker Road, just to the north of Mystic Lake.

—Greg Cronin

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Project Completion Report for 2016 *Hydrilla* Management Tasks Performed at Long Pond, Mystic Lake and Middle Pond – Barnstable, MA

In December 2016 SOLitude Lake Management (formerly Aquatic Control Technology) issued its final report to the Town of Barnstable summarizing the *Hydrilla* management programs at Long Pond, Mystic Lake and Middle Pond in Barnstable. A full color copy of the report can be found on the IPA website at

<http://www.indianponds.org>

The map below shows the pre-treatment *Hydrilla* distribution:



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LATEST NEWS ON GRAY WILLOW REMOVAL PROJECT

In the fall 2016 issue of this newsletter we reported the IPA had launched a new initiative to encourage more waterfront homeowners to have invasive gray willows removed from their properties. Letters were sent in early November to about 60 owners on whose properties gray willows are thought to still exist, based on a survey done by the IPA in 2006–2007 and taking into account the roughly 60–70 properties where gray willows were cut during the previous extensive removal project in 2008–2010. These letters contained background information explaining what the IPA had done in the previous project, why their removal is important, and encouraged owners to write to Bartlett Tree Experts, PO Box 177, Osterville, MA 02655 or call **Steve Heywood**, manager of Bartlett Tree Experts' Cape Cod office, at 508-428-2397 (or e-mail him at sheywood@barlett.com) to schedule a time for him to visit their property to determine a cost estimate.

As of this writing, 12 property owners have responded and contacted Bartlett Tree Experts to request cost estimates, with some already having signed contracts to have the work done.

IPA officers and Steve have been meeting with **Darcy Karle**, Barnstable conservation administrator, to discuss the necessary permitting requirements for this project. As soon as the permitting requirements and necessary CONCOMM hearing can be completed, work can begin. In light of the current low water levels in the ponds, gray willows on all of the properties inspected thus far by Bartlett Tree Experts are accessible via land (in some cases because of neighbors granting access). If the cutting and removal of willows can be done from land without the need to use boats and rafts, costs to owners will be less.

CALLING ALL COLLEGE-BOUND SENIORS

The Indian Ponds Association (IPA) is delighted to again offer one or two \$1,000 scholarships to a graduating senior(s) from Marstons Mills. The Schwarm Memorial Scholarship was established in 2005 in memory of **Edward Schwarm**, a former IPA director and officer, to support his legacy and the IPA's goals. We will select a student(s) who will balance his/her academic and professional career with a continuing effort to preserve our environment.

The scholarship is available to any graduating senior residing in Marstons Mills and attending either public or private high school. Applications are available at the Barnstable High School Guidance Office, Sturgis Charter School, or on the IPA website at www.indianponds.org. Deadline for submissions is April 1st. We encourage candidates to apply early.

If you are a property owner who received a letter in November and you have not yet contacted Bartlett Tree Experts for a cost estimate, you are strongly encouraged to do so. Complete removal of all invasive gray willows on the three Indian Ponds is our ultimate objective in order to prevent the willows from gradually taking over the shoreline and shading out and destroying native plant species on which animal life depends for habitat and sustenance.

—Emory Anderson

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

2017 MIDDLE POND HERRING COUNT

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Here are the herring counts that we've documented for the past 11 years:

2006	719
2007	1,741
2008	5,232
2009	1,332
2010	478
2011	494
2012	87,308
2013	56,987
2014	47,006
2015	23,840
2016	13,954

So, please, if you want to get involved, be a part of your community and help with a very worthwhile cause, attend the training meeting on March 18. You can sign up for either location, or both! We would love to see these herring numbers increase!!!

—Judy Heller

With the Middle Pond herring run located in the middle of the IPA area, and with the IPA having a long history of involvement in the management and improvement of the run and ladder, it behooves all of us as IPA members to volunteer to help count herring this spring. It's actually a fun task and doesn't take much time, but in doing so, the IPA will help to ensure that the application to NOAA for grant money to rebuild the ladder is secured and the work can be done.

Middle Pond Herring Count Program

Barnstable Marine Environmental Affairs is pleased to announce an additional count program established for the Marstons Mills River and is combining a training session for interested volunteers with Three Bays Preservation (runs count for Mill Pond)!



When: Saturday March 18, 2017 at 1:00PM

Where: Liberty Hall, 2150 Main St, Marstons Mills

Come learn why counting river herring is so important and get involved! 10 minutes of your time can help make a difference!

Light food and refreshments will be served



Questions? email amy.croteau@town.barnstable.ma.us for more details

NEW WATER SAMPLING EQUIPMENT

The IPA recently purchased new equipment for use in our seasonal bi-weekly water sampling program of the three Indian Ponds. This new equipment includes a dissolved oxygen/temperature meter and a water bottle sampler. The total cost for these two items and their supporting accessories was \$1,570 and was paid with funds in our Pond Restoration Fund account.

Sampling of the Indian Ponds has been ongoing for about 20 years by various volunteers, beginning with **Alex Frazee** in Middle Pond in 1996 and with **David** and **Nancy Dawson** and **John Hansen** in Mystic Lake in 2001. This work was initially begun at the request of the Town of Barnstable Health Department, with assistance from Three Bays Preservation in Osterville, an organization dedicated to conserving West, North, and Cotuit bays, the coves, ponds, rivers, and streams that form this watershed and its ecosystems. Later, beginning in spring 2004, the IPA launched a major study of the water budget and water quality of the three Indian Ponds in collaboration with the Cape Cod Commission's Water Resources Office and the Town of Barnstable, which entailed the collection of water quality data in both 2004 and 2005 at approximately two-week intervals from May to November. Data collected by IPA volunteers during the study included measurements of dissolved oxygen and temperature at 1-meter intervals from the surface to the bottom and water clarity with a Secchi disk, as well as water samples at 3–4 depth locations for subsequent laboratory analysis to determine the levels of nitrogen, phosphorus, alkalinity, chlorophyll a, and pH.



**YSI Pro20 Dissolved
Oxygen/Temperature
Meter**

Following completion of the study, IPA volunteers have continued to collect bi-weekly data on dissolved oxygen, temperature, and clarity every year as well as single-day water samples in late summer as part of the Cape Cod Commission's Pond and Lake Stewardship (PALS) program.

Throughout all of this sampling, IPA volunteers primarily depended on the use of equipment loaned or given to us by the Town, the Commission, or Three Bays Preservation. When the IPA's pond study was begun in 2004, the IPA purchased a dissolved oxygen/temperature meter which was used continuously until this past year.

This meter was also serviced each year by **Dale Saad** of the Town of Barnstable. When it became apparent in 2016 that this meter had exceeded its useful lifespan and was no longer functional, the IPA borrowed a meter from the Commission. However, with ample funds in the IPA's Pond Restoration Fund account, thanks to generous contributions over the past few years by members, the IPA board felt it was time to purchase new equipment, which it did last December. The acquisition of new, state-of-the-art equipment should enable IPA volunteers to continue collecting accurate and valuable data for monitoring the well-being of the water quality of all three ponds.



**WaterMark® Horizontal
PVC Water Bottle**

—Emory D. Anderson

Project Completion Report for 2016 *Hydrilla* Management

(Continued from page 2)

After multiple treatments with Sonar, Mystic Lake was tested for the residual dose of Sonar to ensure the water's safety. By October 4, 2016, the levels had dropped from over 4 parts per billion to around 1.5 parts per billion. A post-management survey was performed on October 11, 2016, which showed no *Hydrilla* regrowth although there was impact on native plant maturity and distribution.

The management recommendations to the Town of Barnstable were:

"Despite not having found *Hydrilla* in Long Pond for several years, a few patches were discovered in August in 2015 and further abbreviated in June 2016, where no *Hydrilla* regrowth was identified in the late-season survey. Similar results occurred with Mystic Lake. One of the difficulties in managing *Hydrilla* is the dormancy of the tubers. Somewhat like seeds, these reproductive bodies can remain dormant for five-plus years before sprouting, making treatment-years or other control measures difficult to quantify.

Due to the scattered dense patches observed in both basins of Long Pond and along the western shoreline of Mystic Lake, we recommend continuing the whole lake Sonar treatment program. As with previous Sonar treatment programs at Long Pond we recommend an initial Sonar application of approximately 10 ppb at the onset of widespread *Hydrilla* growth (late June). A Sonar concentration of greater than 5 ppb should then be maintained for a period 40-60 days by performing low dose booster applications.

Although treatment worked well, we recommend a slight change at Mystic Lake for 2017. In light of new data, the Massachusetts National Heritage and Endangered Species Program is allowing the use of pellet formulation Sonar in lakes with rare mussels (which are present in Mystic Lake). Slow release pellet formulation allows for longer contact time with the plant. We believe this would be a more effective approach at managing the *Hydrilla* growth in Mystic Lake if approved.

Given the low density of tubers found in recent surveys we feel that we should discontinue the tuber sampling in 2017. There is no meaningful data given the patchy low density nature of the growth. Unless the Town would like to continue the tuber sampling we recommend discontinuing in 2017."

—Kathy Bryan



A bald eagle enjoyed spending time on Mystic Lake in January 2017.

—Photo by Greg Fearn

VOLUNTEER SPOTLIGHT — ALEX FRAZEE

Alex Frazee conducting the 2015 IPA Annual Meeting.
—Photo by *Betsey Godley*

Alex Frazee has been responsible for critical initiatives at the IPA for many years. Starting as a director in 2011 and assuming the role of president in 2012, Alex has worked diligently to support the IPA with regulators, spearheading the actions to control invasive *Hydrilla* and other invasives, conducting regular water sampling, and handling the day-to-day administration of the IPA tirelessly. While she stepped down as president in 2016, Alex remains active as a director.

Alex is also a committed volunteer in the community. She is a Master Gardener who works with the Children's Community Garden at the Long Pond Conservation Area here in Barnstable. She and her husband Bob are founding members of the Barnstable Land Trust (BLT), where she served as director, clerk and president.

Alex grew up in Pennsylvania, graduated from Wheelock College and taught nursery school in the Boston area as well as on the Cape. She has been a shopkeeper and an innkeeper in Barnstable for many years. After moving to Wheeler Road in 1995 with her husband and children, Erin and John, she became involved with Rivers 2000 and the BLT. Regular water testing efforts and work with the IPA soon followed.

Alex has brought high energy and enthusiasm, insight, a deep love of nature and keen appreciation for the environment to her work with the IPA. We are deeply indebted to Alex for her commitment and contributions. Thank you, Alex!

—*Kathy Bryan*

"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

