

THE IPA NEWSLETTER

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

Spring 2014

A quarterly publication of the Indian Ponds Association

Vol. 14 No. 2



GENEROUS DONORS FUND IPA BOAT AND TECHNOLOGY

The Winter Newsletter, published in late February, carried an article specifying the equipment the IPA would need to carry on the work of Bob Nichols, who has moved to New Hampshire: a boat with a trailer so it could be used in all three Indian Ponds, a depth sounder with GPS to map bathymetry and *Hydrilla* locations, a hand-held depth sounder to assist in water quality testing, a digital microscope to identify and photograph algae, an underwater camera, and various other items. Thanks to the generosity of IPA members, these needs have been fully funded, and Bob Nichols's legacy of applied science and technology can be perpetuated, to the benefit of the ponds.

Former IPA Vice President Carl Thut has donated his 14' fiberglass boat with an 8-hp. Honda engine and trailer, a sturdy craft that will provide a stable platform for IPA work. The IPA has also received two astonishingly generous donations of money earmarked for boats and the equipment list, and to help underwrite annual operating costs of pond work. These were \$2,000 from the Allan Williams Family and \$5,300 from Jane and Don Smith. Jane was an IPA Director for six years. Although Jane and Don moved to Sacramento, CA, several years ago and deeded their waterfront lot on Middle Pond to the Barnstable Land Trust, they continue to maintain their IPA membership. All three of these unexpectedly large donations underline our membership's commitment to pond stewardship and encourage us in the direction we're headed.

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IPA ANNUAL MEETING SUNDAY JULY 13

Thanks to the continued generosity of Jon and Debby Halpert and Janis and Michael Maloney, the IPA will again hold its annual meeting at 4 pm, Sunday, July 13, at their lovely waterfront home, overlooking both Middle Pond and Mystic Lake. President Alex Frazee will conduct a brief business meeting, in which we will award a Schwarm Scholarship to a deserving high school senior and elect new Directors to the IPA Board. Following the business meeting, we will hear from our invited guest speaker, and then adjourn for wine and hors d'oeuvres under the trees and for conversation with our neighbors. It is a delightful social occasion in a beautiful place, hopefully to be graced with perfect summer weather.

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IPA Annual Meeting on the lawn at the Halperts', with Middle Pond in the background.

IPA OFFICERS AND DIRECTORS, 2014

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Scan the above QR code with your smartphone to go to the IPA website.

The IPA is a 501(c)(3) organization and a registered public charity. All dues and contributions are tax deductible. This newsletter, with a circulation of 700, is a forum for the exchange of ideas on matters concerning the IPA mission, and the views expressed by authors of articles do not necessarily represent official IPA policy.

SCHWARM MEMORIAL SCHOLARSHIP TO BE AWARDED TO JACK RILEY OF MARSTONS MILLS

The IPA is happy to announce that the recipient of the Edward Schwarm Scholarship for 2014 is Jack Riley, a senior at Barnstable High School. Jack was selected by the IPA Scholarship Committee based on his academic achievement, extracurricular activities and his community service related to the mission of the IPA.



Schwarm Scholarship winner Jack Riley.

Jack is an outstanding candidate in many ways. In addition to great letters of recommendation and a grade point average of 4.4, he participated on the tennis, baseball, and swim teams, and is a member of the Greek Club. He has been a herring counter. He has the distinction of having been selected for membership in the National Honor Society.

Jack is the son of Michael and Christine Riley of Marstons Mills and plans to pursue a career in either law enforcement or the military. He will attend the University of Massachusetts, Amherst, this fall.

Jack will be presented with his \$1,000 check at the IPA Annual Meeting on July 13.

JOIN THE JULY 4TH BOAT PARADE!*

Decorate your boat with flags, banners, lights, or anything in the spirit of the occasion and meet at the Race Lane Beach at 2:00 p.m., July 4th.



***This event is not sponsored by the IPA, nor can the IPA be responsible for any accidents. Individuals will be responsible for their own safety**

IPA ANNUAL MEETING SUNDAY JULY 13

(Continued from p. 1)

The speaker for this year has not yet been confirmed, so please come and be pleasantly surprised!

The Halperts' home is at 470 Turtleback Road, Marstons Mills. Look for the "IPA" signs and balloons at the corner of Old Mill Road and Turtleback. Follow the signs to the parking area at the end of Turtleback. In case of rain, we will meet indoors at the home of IPA Director Lewis and Nancy Solomon at 28 Heath Row, Marstons Mills, off of Regency Drive.

All current members of the IPA are welcome to attend. Reminder postcards, including directions to the Halpert home, will be sent to IPA members of record two weeks before the meeting. If you have forgotten to renew your membership, you may do so at the registration desk as you arrive. We look forward to seeing you there!

--Alex Frazee

GENEROUS DONORS FUND IPA BOAT AND TECHNOLOGY

(Continued from p. 1)

In addition to the above donations, there were other thoughtful and much appreciated contributions. Bob Kohl, a former IPA Director, has agreed to allow the IPA to moor a Mystic Lake and Middle Pond boat at his dock for the entire 2014 season free of charge and has offered the use of his underwater camera when needed, as well as help with outboard motor winterizing. Bob Nichols has supplied a software program he wrote to map depth soundings and *Hydrilla* locations with GPS accuracy. He has also turned over to the IPA the large spreadsheet that he developed listing every patch of *Hydrilla* by location, the dates and kinds of control methods applied to it, and the results. Additionally, he has offered the use of his GPS depth sounder, which plots lat/long positions of soundings, for the mapping of Hamblin Pond, which we hope to complete this summer.

All of these contributions in response to a single Newsletter article were amazing in their vision, spontaneity, promptitude, and generosity. They will hugely increase the IPA's ability to protect the Indian Ponds as we move into the future. The total contributed to pond work this year comes to over \$10,000 plus a fine boat. Everyone who lives near or uses the ponds should be grateful to these thoughtful donors for their magnificent gifts. To all of our supporters and contributors, great and small, we extend our deepest thanks.

--Holly Hobart



HERRING REPORT

The weather has been unbelievably cold, so the fish have been hiding and waiting for it to warm up a bit. But we are still having some come fish come through. We did a comparison from year to year, and we are now at day 22 of the count.

--By day 21 in 2014, we had counted 2999 fish.

--In 2013, at day 21 we had counted 3324 fish and we still had 3 more weeks to go with a final total of 8082 fish.

--In 2012, we had only counted 52 fish by day 21 but we had 5 more weeks to go and that was our best year so far with a total of 8892 fish counted.

--In 2011, we had counted only 53 fish and the count was already over!

We're not doing so badly! So, dress warmly and continue counting! As the weather warms up, the fish will follow. Please look at the schedule online and fill in some of those empty spots! And thank you so much for all your help.

--Judy Heller, 3Bays

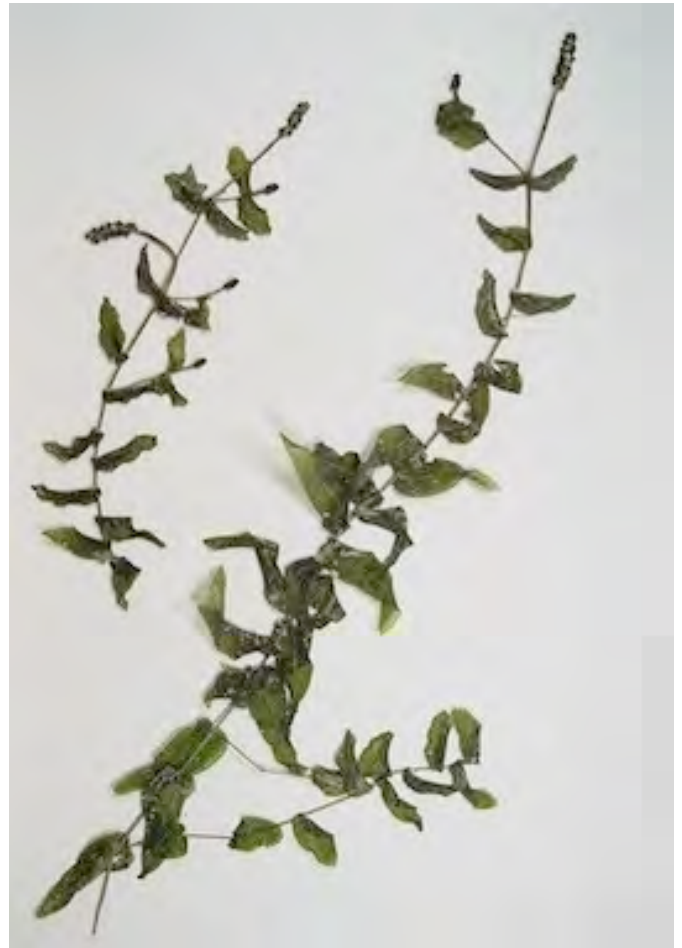
DISCOVERING AND REPORTING INVASIVE AQUATIC PLANTS

Aquatic Plant Identification Class To Be Held July 11

The Indian Ponds are home to a number of interesting native aquatic plants, called “macrophytes”, or “large plants” to distinguish them from algae. Plants exploit many types of habitat in and around the ponds. Some of them grow along the shore, others stick up out of the water, such as cattails, others grow completely submerged, some spend their lives afloat on the water’s surface, and yet others, such as water lilies, have leaves and flowers that float while the rest of the plant is submerged. Each species of aquatic plant grows in a place that meets its particular needs for light, water clarity, current speed, and soil type. Plants compete with each other for these resources. Each established plant forms its own micro-habitat within the pond, providing a place to live for some pond-dwellers, food for others. All of them photosynthesize and oxygenate the water, to the benefit of fish and pond invertebrates. Most produce flowers and seeds or spores to reproduce; many also spread by cuttings or underground tubers. When the vegetation dies back in the fall, it decomposes and contributes to the nutrients that sustain life in the pond.



Elodea, seen in aquariums and also in the Indian Ponds, is easily confused with *Hydrilla*. Note that *Elodea* only has 3-4 smooth-edged leaflets in a whorl and smooth leaf edges; *Hydrilla* has more leaflets per whorl and they have toothed edges.



Potamogeton richardsonii, a native submergent plant common in Mystic Lake and Middle Pond. Note that the leaves “sit” directly on the stems. Some *Potamogeton* species have floating leaves.

Plants that are native to an area are well-adapted to conditions there. Plant competitors, as well as a host of predators and consumers, from zooplankton to birds, keep native plant populations under control. Each native plant contributes to a balanced and diverse community. When a non-native plant is introduced into this community, it upsets this balance. Unthreatened by local bacteria, viruses, or creatures that eat it, the newcomer can out-complete the locals for light, space, and nutrients, and rapidly replace them to become an invasive nuisance. Waves of disturbance move through the pond’s ecosystem, as habitats and food sources disappear and diversity is reduced.

DISCOVERING AND REPORTING INVASIVE AQUATIC PLANTS

(Continued from p. 4)



***Vallisneria*, like *Elodea*, is found in both aquariums and in the Indian Ponds. Its common name is Water Celery. It is not a grass, and not related to salt-water eelgrass. The leaves carry distinctive vertical stripes. There are many species, but they all have the typical strap-shaped leaves. Tropical species, used in aquariums, may become invasive if they find their way into ponds.**

Apart from ecological damage, invasive aquatic plants can become an expensive menace as well, not just locally but globally. The *Hydrilla* that currently infests Mystic Lake and is now spreading into Middle Pond is an example. Getting Long Pond's *Hydrilla* infestation under control has cost the Town of Barnstable \$250,000 and thirteen years of herbicide applications so far. Over the past four summers, Mystic Lake's *Hydrilla* has been hand-pulled,

shaded out by benthic barriers, suction-harvested, and treated once with herbicide, but it still continues to spread, despite having been recognized and attacked the first year it appeared. It is a tough, tenacious enemy. Besides *Hydrilla*, our ponds are threatened by many other invasive aquatic plants. People who use the ponds frequently are well-positioned to spot these destructive newcomers and distinguish them from the friendly and familiar natives.

Waterfront property owners who use their beaches frequently can quickly learn to recognize the plants that make up their local aquatic plant community. Patrolling your own stretch of waterfront and observing what grows there, you get to know the locals pretty well. Then, when something new and strange appears in your watery garden, you will notice and can report it.

To help us learn how to identify aquatic plants both native and invasive, the IPA, in conjunction with the Wequaquet Lake Protective Association and the Massachusetts Department of Recreation and Conservation, are holding a free class on the subject at Cape Cod Community College early this summer. This is an enjoyable and interesting class to take, and you will come away armed with much useful information and a handsome booklet to help you recall what you learned. **It will be held on Friday, July 11 at 10:00 AM in the Science Building of CCCC, probably lab # G-7.** It will be 2-3 hours long and will feature live specimens of both natives and invasives. It will be conducted by Tom Flannery, Aquatic Ecologist with the Massachusetts Department of Conservation and Recreation Lakes and Ponds Program and Gail Maguire, Ph.D., Professor of Biology, Department of Natural Sciences and Applied Technology, Cape Cod Community College.

To register for the aquatic plant class or to report a suspicious aquatic plant, please drop a note to: Greg Cronin, the IPA's *Hydrilla* Manager, at gregory.m.cronin@gmail.com or phone him at (508) 428-4205. If you see an unfamiliar plant, take a sample (a whole plant, including stem, leaves, and roots), keep it cool and wet, and report it immediately to Greg.

--Holly Hobart

ACT REPORTS TO TOWN ON HYDRILLA CONTROL WORK IN 2013

The Town of Barnstable awarded the 2013 contract for *Hydrilla* management at Long Pond (Centerville) and Mystic Lake to Aquatic Control Technology (ACT) of Sutton, MA. ACT issued a project completion report in early February, summarizing their activities, observations and recommendations for future management.

The results from Long Pond were highly encouraging. Early season (June 11) and late season (August 19) snorkeling surveys did not find any *Hydrilla* and analysis of numerous sediment samples showed no evidence of tubers. Based on these findings, ACT recommends that the Town closely monitor the pond's vegetation for any signs of *Hydrilla*, but does not anticipate the need for an active management program in 2014.

At Mystic Lake the herbicide treatment of a 5.5 acre area in the northwest corner was the focal point of ACT's program. A pre-treatment lake wide shoreline survey was conducted on July 5, 2013. On July 22 and 23, the contact herbicide Aquathol K was applied to the 5.5 acres where the most vigorous and concentrated patches of *Hydrilla* are located. This is the "ground zero" cove area where *Hydrilla* was first discovered by IPA members in 2010. The liquid herbicide was applied subsurface using weighted hoses from an 18' skiff equipped with a specialized low pressure spray system. The treatment was made in two equal applications spaced 24 hours apart, in an effort to increase concentration exposure time.

Post treatment surveys of the treated area were conducted on August 7, 19, and October 15. The *Hydrilla* plants eventually showed typical signs of herbicide exposure, turning a yellowish brown, and becoming brittle, but impacts from the treatment were slow to develop. Native vegetation remained healthy throughout. Pre and post-treatment tuber sampling was also conducted, showing a modest reduction in the density of the tubers after treatment.

ACT's recommendation summary calls for continued use of Aquathol K in the 5.5 acre cove area with a split-dose treatment, but shortening the time between applications to 6-8 hours in an effort to prolong the continuous lethal level exposure time. Studies have shown that the herbicide degrades quickly and the 24 hour interval between applications may have been too long. ACT recommends continuation of other aspects of *Hydrilla* management,

which have been done principally by IPA, including snorkel surveys, hand-pulling and installation of benthic barriers.

TOWN COUNCIL FUNDS HYDRILLA CONTROL IN 2014

On April 17, 2014, the Barnstable Town Council approved funding of \$75,000 for *Hydrilla* management at Long Pond (Centerville) and Mystic Lake, to be appropriated from the Capital Trust Fund. This represents an increase of \$25,000 over last year, with the bulk of the funds to be targeted for work at Mystic Lake.

The RFP (Request for Proposals) issued by the Town outlines the scope of the work expected of the contractor. Because no evidence of *Hydrilla* was found at Long Pond in 2013, efforts there could be limited to reconnaissance surveys. But it is anticipated that the contractor's role at Mystic Lake will be more involved in 2014 than previously, in part due to the loss of IPA's most valuable volunteer.

The work at Mystic Lake, scheduled to begin in June, will involve:

- surveys to document *Hydrilla* distribution
- handpicking and benthic barriers as needed to assist IPA
- intensive control efforts in "Area A" (the 5.5 acre "ground zero" cove) using Aquathol K (contact herbicide), Sonar (systemic herbicide) or Diver Assisted Suction Harvesting (DASH).
- post treatment vegetation survey
- final report and presentation.

The contractor's proposal should recommend a selected type of treatment and a basis for that recommendation, but any option will be flexible, depending on the results of pre-treatment surveys. The RFP deadline is May 7, 2014, and the contract will be awarded in time for the June 1 project start date.

There is no mention of Middle Pond in the funding or RFP. IPA volunteers will need to be vigilant about monitoring Middle Pond for signs of *Hydrilla* growth (because nobody else will!) and learn to recognize and report additional infested areas in Mystic Lake.

--Greg Cronin

TO VOLUNTEER FOR HYDRILLA CONTROL AND SURVEYING THIS SUMMER, PLEASE PHONE GREG AT (508) 428-4205. YOUR HELP IS NEEDED!

LET'S GO ON VACATION

The idea of migration fascinates me. I don't mean migration like some of the snowbirds on Cape Cod pull but the migrations accomplished by birds, the ones that create a whole new population of birds for me to look at starting in September and April.

When we set off on a round trip south of snow, we encumber ourselves with maps, tour guides, GPSs and all other kinds of paraphernalia to help us get to where we are going. When birds, tiny in comparison and without steel armor, leave for the south all they have is a brain smaller than a walnut. Yet they manage to fly thousands of miles with unerring accuracy, wind up in the same location each year, and then turn around at some given signal and fly back those thousands of miles winding up in the same backyard that they left last fall. If I ever doubted that, the little female Hummingbird that owns our deck is right there to say "Hey, remember me?" the first time we see each other.

I have also found that south is a relative term. The winter ducks that we see each year have, in fact, flown south. As cold as it sometimes gets on Cape Cod, our weather is far more hospitable than the weather on their home breeding grounds. The beautiful little Common Goldeneye and the more rare Barrow's Goldeneye are probably the best examples of this idea that the Cape is more hospitable than home. They are the absolute last to leave their breeding grounds in the Canadian Arctic and they don't leave until there is no more open water. They then fly south, jumping from open water to open water, until they finally get within reach of the Cape and even then they don't come much further out than Falmouth.



Migratory flyways in the United States.

Recently, science has advanced a new theory that the birds that we think of as non-migratory, such as Robins and Chickadees, do in fact, migrate. They just don't go very far. According to them, the Robins that we see in the winter are not the ones that we see in the spring and summer. Winter Robins have flown south as little as several hundred miles and have been replaced by others from several hundred miles North.

The illustration on the left will look much better on the website than in the newsletter but I think you will get the idea. There are a series of major highways that birds follow south and you will notice that Cape Cod is right on the Atlantic flyway.

I have never had the opportunity to get out to Kearney, Nebraska to see the Sandhill Cranes migrate through, but we have been to Bosque del Apache National Wildlife Preserve in Socorro, New Mexico to see them arrive at their wintering grounds. I would really recommend either trip as highly worthwhile. Thousands of Cranes and Snow Geese flying out to feed and flying back in to roost is a really impressive sight. Noisy, too!!

--Dave Reid

Photo Credits: Cover, Robert W. Kelley; page 1, Michael Maloney; page 2, (boat parade) Betsey Godley; page 3, Betsey Godley.

Errata: 1) The Newsletter regrets the inadvertent omission of Roberta Gough's name in the list of IPA Directors in the Winter issue. Roberta is an active member of the IPA Board, and is in her second year in charge of the IPA's annual Schwarm Scholarship awards program. 2) Cost of insuring a boat by the IPA, as stated in the Winter issue, was a preliminary figure, and was too high. We have received a firm quote of \$500/year for one boat.

SAVE THESE DATES!

**4th of July Boat Parade July 4, 2:00 Race Lane Beach
Aquatic Plant Identification Class July 11, CCCC Science Bldg.
IPA Annual Meeting July 13, 4:00 at the Halperts**

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