



News from Crystal Lake Conservancy

September 2011

The Crystal Lake Conservancy is dedicated to the preservation and protection of Crystal Lake for the benefit of the public by promoting and supporting the unique natural beauty and enjoyment of the Lake.

Water Sampling, Testing and Survey Update

This summer, with the help of many volunteers, the Crystal Lake Conservancy carried out three major activities for Crystal Lake. We conducted a survey of the Crystal Lake watershed, collected multiple water samples during both wet and dry periods and monitored weekly water visibility and temperature readings.

Watershed Survey

Volunteers noted storm water drainage, vegetation, erosion, land use and any sources of pesticide or herbicide use for 34 streets in the Crystal Lake watershed area. The primary objective of this survey was to develop a baseline understanding of how storm water moves through the watershed, including identifying potential pollution problems. A second and equally important objective will be sharing what we have learned in an educational manner with watershed residents and the greater community on how land use influences lake water quality.

Water Sampling

Volunteers assisted with a very involved water sampling program. Maria Rose, the City's environmental engineer, provided regular advice in correct sampling techniques and collection sites. Water samples, taken from land and by boat, were collected from 11 different locations around the lake at 6 different time periods. Samples were analyzed by a State Certified G&L Laboratory in Quincy MA. The comprehensive water sampling of Crystal Lake included bacterial analysis and counts (E. coli and Enterococcus); herbicides and pesticides; fertilizer components such as nitrite, nitrate, ammonia and phosphorus and arsenic. Dissolved oxygen levels, deepwater phosphorus and temperature readings were also measured as they are important for wildlife and vegetation at various stratification levels in the lake.

Water Testing/Monitoring Program:

For the second year running, a group of volunteers conducted weekly monitoring of the Lake. Both temperature and visibility readings, at 3 different depths, were recorded at 6 different sites around Crystal Lake.

Next Steps

We will share what we have learned with the community at our Annual Meeting on Monday, October 24, 2011 at the Newton Public Library (see insert on page 2). A follow-up educational program of "What You Can Do To Keep Crystal Lake Healthy" will be created during the winter.

To learn more about the Crystal Lake Conservancy, visit our website at www.CrystalLakeConservancy.org

Recognizing Our Volunteers

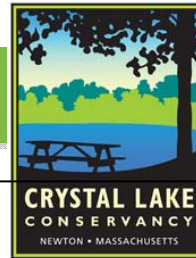
We wish to acknowledge the time and dedication of many of our volunteers who have worked diligently this past summer on our community's behalf.

Water Survey: Simone Taubenberger, Joanne Baker, Don Cantor, Penny Caponigro, Robert Fizek, Hubert Jessup, Cindy Kaplan, Gabriel Kaplan, Naomi Lev, Hal Lichtin, Alan Lobovits, Sally Pian, Lisa Rosenfeld, Lynn Scheller, Art and Judy Tischler, Barbara Wales, and Beth Wilkinson.

Water Sampling: Janice Bourque, Naomi Lev, Irwin Jungreis, Denise Freed, Sally Pian, Lynn Scheller, and Beth Wilkinson. Special thanks to two young men Nathaniel Lichtin and Calvin Jungreis for their efforts!

Water visibility and temperature monitoring: Jean Artin, Frank Bachner, Joanne Baker, Cindy Kaplan, Al Levinson, David and Ursula Mangoubi, and Phil Warburg.

Special thanks to Ellie Day for summer boat storage and Zvi Bar-Yam for access to his property for water sampling; and City staff Maria Rose (Engineering Dept) and Carol Stapleton (Parks & Recreation Dept) for their advice and guidance.



Join the Crystal Lake Conservancy

Stay informed and help sponsor our environmental testing and our work for a healthier lake!

Name: _____

Address: _____

City: _____ State: _____ Zip: _____

Telephone Number: _____

E-mail Address: _____

I am paying by enclosed check

Please note: If paying by credit card, please go to www.CrystalLakeConservancy.org and use the Paypal link.

- | | |
|--|---|
| <input type="checkbox"/> Individual membership (\$40) | <input type="checkbox"/> Patron membership (\$500) |
| <input type="checkbox"/> Family membership (\$75) | <input type="checkbox"/> Non-profit membership (\$100) |
| <input type="checkbox"/> Supporting membership (\$150) | <input type="checkbox"/> Corporate membership (\$1000) |
| <input type="checkbox"/> Sustaining membership (\$300) | <input type="checkbox"/> Conservation Council membership (\$5000) |

If you wish to pay by check, please send your membership and contact information to:
The Crystal Lake Conservancy, PO Box 610038, Newton Highlands, MA 02461

Help us stay green AND save paper and printing costs—sign up for our electronic newsletter by going to our website at www.CrystalLakeConservancy.org

Harvest Fair Booth

Please visit our booth during the Harvest Fair, **Sunday, October 16, 2011** at Newton Centre green.

Holiday gifts?

Do you know someone who has fond memories of swimming at Crystal Lake? Support our efforts and browse through our merchandise to find that unique gift of a mug, water bottle, pin, poster, swimming pass lanyard or T-Shirt.

Come learn more about the Conservancy's efforts, find out how to become involved, become a member or sign up to volunteer!

Crystal Lake Conservancy Annual Meeting

Monday, October 24, 2011 7:00pm-9:00pm

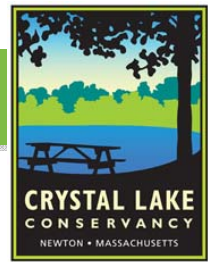
Newton Public Library

Larry Beals, limnologist, will be one of two guest speakers at this year's Annual Meeting. Mr. Beals has guided the Conservancy Board members during the past two years in establishing and conducting the testing at Crystal Lake. Mr. Beals is the president of Beals Associates, Inc., an environmental engineering firm.

Laboratory results from our water sampling and the temperature and visibility testing will be presented and discussed while exploring potential issues, sources and steps the community and the City could take to address any issues.

The entire watershed was surveyed on foot over the course of the summer by a large group of volunteers. The data gathered from the survey will be presented. Understanding potential contaminants from the watershed and possible solutions will be discussed.

Our second speaker will be Maria Rose, Newton's Environmental Engineer, who will give a presentation on an upcoming project at Crystal Lake, as well as discuss additional storm water quality measures the City has undertaken.

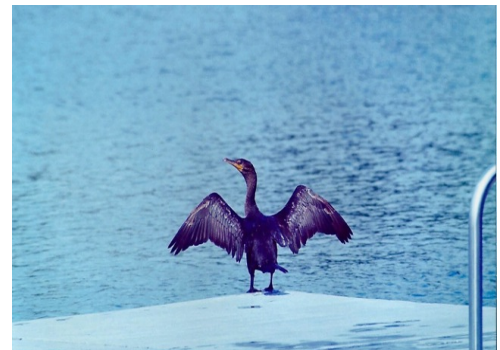


Who lives at Crystal Lake?

The human residents of Newton share Crystal Lake with many other animals. Like most everywhere else in Newton, there are squirrels and chipmunks running through the grass and trees by the lake, but the lake also is home to animals found only in the few aquatic areas of the city.

“Louie” the Cormorant

The most popular water bird at the lake this summer was a cormorant (probably a Double-Crested Cormorant), named Louie by the young swimmers who shared the dock with him. Louie often was seen on the dock with his wings outstretched to form a capital “M.” Because their feathers are not waterproof, cormorants must dry them in the sun after diving for food. It’s easy to distinguish Louie from the ducks because cormorants swim low in the water with only their necks and heads above water. Cormorants are social birds that usually live in colonies, so it is odd that Louie lives alone on the lake with only occasional visits from other cormorants--possibly from the colony at Bullough’s Pond.



“Louie” the Cormorant

“Harry” the Great Blue Heron

There has been another beautiful lone bird on the lake this summer: a Great Blue Heron, named Harry by the young swimmers. Harry often is seen standing at the edge of the lake by a clump of birches on a peninsula near the Green Line tracks. Adult Great Blue Herons grow to a height between 3 and 4 feet, but because of their hollow bones, they weigh only five pounds. Harry, like all herons, wades in shallow water to search for the fish that he loves to eat.



“Harry” the Great Blue Heron

Muskrats

Harry shares the bank of the lake near the birches with a sleek muskrat. The Crystal Lake muskrat is seen most often as a brown body streaking through the water. Muskrats are able to swim under water for twelve to seventeen minutes; they are able to do that because (like whales and seals) they are less sensitive than most mammals to the build-up of carbon dioxide in their bodies. They also are able to do something that many human swimmers might envy--to close off their ears to keep the water out.

Belted Kingfisher

A family of Belted Kingfisher birds has been seen around the lake this summer. It is suspected that they live on the bank with Harry the Great Blue Heron and the muskrat, but no one has been able to discover their home. Kingfishers, a beautiful gray-blue with a white belly and a blue breast band, are unusual in the bird world because the female is more vividly colored than the male: she has an additional reddish brown band beneath her blue chest band.

Fish

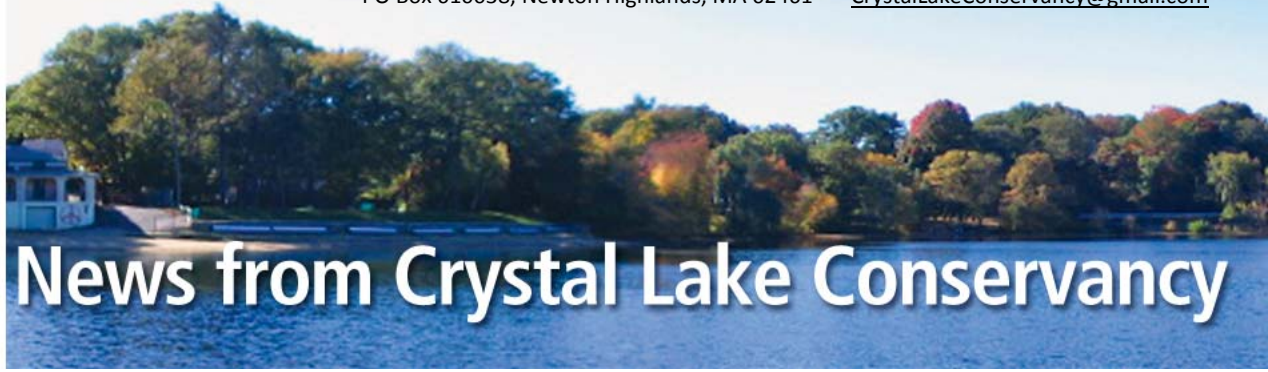
There are plenty of fish for the birds--and people--to catch. Every spring, the State Division of Fisheries and Wildlife stocks the lake with 350 two-year-old trout that were raised in state hatcheries to help to keep balance in the aquatic environment and to support state residents who like to fish in Great Ponds like Crystal Lake. As the water warms up, the trout retreat to the cool water at the bottom of the lake. Other fish are Bluegills, which prefer to hide in the plants in the shallower and warmer water, and Pickerel, the largest fish in the lake, which also eat smaller fish. When you walk by the lake, you should thank the Bluegills because they help limit the insect population by eating a variety of insect larvae that float on the water; an adult Bluegill is a voracious eater that can consume up to six times its own weight in a single summer. Visitors have seen two large white Koi with orange spots in recent years. The best guess is that someone closing a backyard fishpond released them into the lake. Releasing non-native species like these Koi into lakes is illegal. Why? Because they will either eat the young native fish or out-compete them for the available food.

Turtles

Turtles come to sun themselves on a series of boards that have been placed at the edge of the swimming area. Painted Turtles are the most popular. In the past month, a snapping turtle was seen in the water with only its distinctive head exposed. Although snapping turtles usually swim away and avoid confrontation with people, they can be aggressive if approached, and their bites can be dangerous, so it is best to avoid interactions with them.

Children and adults spending time often report their discoveries to Carol Stapleton, the Manager of the bathhouse. She uses those discoveries to help the children learn to love and respect nature. The bulletin boards of the bathhouse are filled with photos of insects and birds, and the shelves in her office hold field guides that she shares with the budding naturalists.

How many of the creatures listed above have you seen? Have we missed one of your favorites? We’d love to hear your stories--and might even include one in a future newsletter.



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Swimming By the Numbers!

The Crystal Lake bathhouse swim area had another busy summer with 45,238 individual visits over the summer season. While 33,863 of these visits were from members who swiped their entrance passes, almost one-third (10,014) were visits by Newton resident students who purchased day passes. Overall visits also include 1162 adult Newton resident day passes and 199 non-resident day passes. An average day at the bathhouse includes about 800 visitors, but during the 103 degree temperatures of July 22nd, 1122 people came to cool off at the lake!

The attendance numbers do not include the children from nine different Newton-based day camps who come to enjoy the lake. Bathhouse manager Carol Stapleton explained that camp visits adhere to a schedule so that overcrowding does not result.

Newton offered 90 need-based scholarships for season passes this year (down a bit from last year's 102). In addition, 335 children enrolled in swim lessons at the lake this summer (up from 305 last year). Overall, the numbers present a typical season at the bathhouse, which demonstrates how the Newton community enjoys Crystal Lake.



Creating Summer Memories for Two Boys

Welcome to our Newest Board Member

Debby Carr lives in Newton Highlands with her husband and two children and has been a resident there since 1997. She is the Manager of Capital Budgeting and Strategic Planning at the Commonwealth of MA's Division of Capital Asset Management (DCAM), where she manages the Five Year Capital Spending Plan for hundreds of DCAM's design and construction projects throughout the state. She also oversees the "Knowledge Center" intranet and acts as one of the webmasters for DCAM's website. Formerly, she has had planning positions in both public and private entities. Debby received a Bachelor's degree in social anthropology from Harvard College and a Master's degree in City and Regional Planning from Cornell University. Debby has been active in the community as PTO co-president at Bowen Elementary School for two years and a Girl Scout leader for the past six years. She has been the "webmaster" for the Crystal Lake Conservancy website for more than one year and looks forward to supporting the mission of the Crystal Lake Conservancy as a board member.

Board Members: Janice Bourque (Co-President), Schuyler Larrabee (Co-President), Srdjan Nedeljkovic (treasurer); Barbara Wales (clerk), Jean Artin, Deborah Carr, Robert Fizek, Simon Taubenberger and Beth Wilkinson.

Holiday Shopping Ideas!

Stock up on CLC merchandise for the Holidays! Merchandise bearing the attractive CLC logo makes perfect holiday gifts and supports the Conservancy at the same time. Check out the website for the full array of products ranging in price from \$3 to \$15. Go to www.crystallakeconservancy.org then click on the "Order" tab at the top. If you submit the order form on-line, someone will contact you ASAP for delivery.

PRODUCT IMAGES ARE AVAILABLE ON OUR WEBSITE:

Swim Pass Lanyards	\$ 3	Water Bottles	\$15
Shopping Bags	\$ 5	Logo T-shirts	\$15
Pins	\$ 5	Sizes:	
Mugs	\$10	ADULT: Sm, Med, Lg, XL	
12" x 18" posters	\$10	CHILD: Sm, Med, Lg, XL	