



NEWSLETTER

Newton's land trust working to preserve open space since 1961

WINTER ISSUE

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CONSERVATORS PROTECT CITY GOLF COURSE



- photo by Dan Brody

Newton Commonwealth Golf Course's eighty acres of relatively undisturbed open space is now permanently protected from further development under a conservation restriction the Newton Conservators have recently signed. Alderman Lisle Baker was the moving force for this project, and additional thanks go to Mayor David Cohen, Steven Small representing the City of Newton, Willis Wang, Jane Sender, Eric Reenstierna, Ted Kuklinski and Frank Howard for their work completing the deal. Because of these efforts, if the property can no longer operate as a golf course, it will remain open space.

As many of you know, for decades until the late 1970s, the property was a private golf course. It was put on the market in the late 1970s. A portion of the golf course immediately across the Boston line had already been sold and developed into apartment buildings and parking areas.

In 1981, the City of Newton acquired the property, to be operated as a public golf course but also for the enjoyment

of the citizens of Newton and the general public, as open space. Local Newton neighborhood and city-wide funds, funding from the federal Land and Water Conservation Fund Program, a sale of part of the land, and private contributions were used to finance the acquisition, which was the largest single open-space acquisition near Boston in a generation. Alderman Baker was also instrumental in that initial effort. Although a conservation restriction was prepared by the City of Newton at the time of the acquisition, it was not fully executed until now.

Under this agreement, Newton Commonwealth will continue as a public golf course. But, should the golf course property cease to be operated as a public golf course, it will continue to be available as open space for public outdoor recreational use. Moreover, the Conservators are now, along with the Newton Conservation Commission, responsible for ensuring that the golf course continues to be operated in a manner protecting the conservation values of the property and consistent with local, state and federal environmental statutes, rules and ordinances.

The Conservators prepared a baseline record of what the course looks like today and observed that even with the golfers and their errant golf balls, the golf course currently provide a healthy suburban wildlife habitat for birds, mammals, amphibians, and aquatic invertebrates and a pleasant green oasis for humans to have some fun. We are very pleased that we are able to safeguard the peacefulness of this place for generations to come.

- Jane Sender, President

WHAT IS A CONSERVATION RESTRICTION?

A conservation restriction (or a conservation easement) is a legal instrument that affects the use of real estate. It is a document that is recorded like a deed, at the county Registry of Deeds. A conservation restriction transfers some of the rights of a property owner from the party that holds title to the property to another party, usually a municipality or a land trust.

A conservation restriction is used to preserve a property in its present state. A historic façade easement is a form of conservation easement used to prevent extensive alteration of the exterior of a building. An agricultural easement allows continued use of a farm as a farm and typically forbids subdivision and development. A conservation easement or conservation restriction typically forbids development, as well.

Some conservation restrictions have only a 30-year life. Others are in perpetuity. The restrictions held by the Conservators are of the perpetual kind.

At Angino Farm, the easement held by the Conservators forbids development beyond the area occupied by the house and barn. It allows continued use as farmland, and, if that use should be abandoned, it forbids use other than as open space. A conservation restriction typically prohibits excavation and prohibits construction. The Conservators hold restrictions of this kind at Webster Park (part of Dolan Pond), at Elgin Street, and at Kessler Woods. Legal work remains to finalize conservation restrictions at some locations. Jane Sender's article at the start of this newsletter reports on the finalization of the restriction at the Newton Commonwealth Golf Course.

A conservation restriction can provide better protection than simple, unrestricted ownership by any one entity. An entity that is committed to preservation of open space (like the City) owns the land. A land trust (like the Conservators) owns the conservation restriction, as a second layer of protection. Through this mechanism, should the owner of the land come under pressure to convert it from open space to some other use, the conservation restriction presents a barrier against the conversion.

- Eric Reenstierna

PRESIDENT'S MESSAGE

According to the New England Wildflower Society (NEWS), "invasive plant species are among the greatest threats to the integrity of natural areas." The Conservators are raising awareness of invasives as well as working to prevent their spread in Newton. NEWS publishes an easy-to-follow color guide to help identify invasives in your yard and has helpful pictures on its web site to aid in identification.

Invasives need to be controlled in public spaces as well as in our your yards. Conservators' Board of Advisors member Eric Olson, Senior Lecturer in Biology at Brandeis and most recently heralded for his discovery of the only identified vegetarian spider (see *The Boston Globe*, October 19, 2009, "Scientists Discover a Vegetarian Spider Upending a Longstanding Assumption"), has been identifying and carefully removing invasives in Newton parks along with Board of Directors members Katherine Howard and Ted Kuklinski for a number of years. Board member Larry Smith has been also been active for years, carefully removing water chestnuts and other invasives from the Charles River.

Personal yard monitoring of invasives is also important. Some of our common yard invasives are garlic mustard, Japanese knotweed, common buckthorn, multiflora rose, Japanese barberry, Oriental bittersweet, and goutweed. In my yard I've had most of them. The toughest is goutweed, an invasive once planted as a groundcover that does its job far too well, growing huge root systems which travel between yards and seem to never give up. Neighbors joke that if you have it, the only solution is to move. Not wanting to move, I keep pulling, and I witness firsthand the problem with a non-native plant like this – it simply takes over native plants and resists all attempts to keep it under control.

This coming year we plan to continue and deepen our commitment to these efforts. Notices of invasive removal projects will be in our newsletters and on our web site, and we hope you will join us in this work come spring. Happy Holidays and best wishes for a wonderful 2010 to all.

- Jane Sender

INVASIVE PLANTS: WHAT'S WORST IN NEWTON

When I was young I read a science fiction work by John Wyndham called "The Day of The Triffids," published in 1951. In this book, a species of plant which originated in botanical experiments became a scourge when its seeds were set loose in the world. The plants grew to be seven feet tall, could walk in a cumbersome way, and carried a whiplash that stung animals as a defense mechanism. The sting of an adult Triffid killed humans. The narrator describes the early days of the infestation by noting an innocuous plant growing with other invasives behind the backyard fence. Civilization as we know it is destroyed by these plants. Hyperbolic? Yes. Insightful? The jury is still out.

I wish the real world were as cut and dried, with clear "baddies" and clear angels. But it does not work that way, for the most part, for me. Sorting out questions about the control of exotic and invasive species is worth some thought. One has to think about how to arrange the immediate environment over which one can exert control and do this with some awareness of more global implications.

There are plenty of exotic plants all around us. Many are moderate in their growth and populations, but some do particularly well in our area, having no traditional curbs on their growth here. Examples one can find with no problem are Japanese knotweed (*Fallopis japonica*, often called "fake bamboo"), garlic mustard (*Alliaria petiolata*), purple loosestrife (*Lythrum salicaria*), and Oriental bittersweet (*Celastrus orbiculatus*). European buckthorn (*Rhamnus cathartica*) is spreading and growing larger in our parks. The Norway maple (*Acer platanoides*) is an often planted and rapidly spreading invasive tree. An informative article on garlic mustard and Japanese knotweed by Katherine Howard of the Newton Conservators can be found at <http://www.newtonconservators.org/invasives2009.htm>. A Massachusetts web site covering many invasive species can be found at http://www.massnature.com/Plants/invasives/invasiveplants.htm#invasive_Plants__listed_by_common_name.

In particular, garlic mustard seems to disturb the symbiotic fungi that help nourish our native trees. Studies have been done that show this to be happening to sugar maples, red maple and white ash. (One is referenced at <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1440939/>.)



garlic mustard (top) and Japanese knotweed (bottom)
- photo by Ted Kuklinski

Garlic mustard was originally brought here from Europe and planted for its medicinal qualities. Because no one uses this plant in this fashion today, it has become useless and, more than that, a dangerous invader that is all over the parks in Newton. Garlic mustard does not use symbiotic fungi to aid it in growing.

Another study compares three strategies for control of garlic mustard and finds that removal of whole plants is most effective. Luckily the plant pulls up easily. But one should then bag and remove the pulled plants to prevent seeds from creating new plants. (See <http://www.bioone.org/doi/abs/10.1614/IPSM-09-011.1>.)

Japanese knotweed was introduced into Britain first, and then the U.S. as a landscaping ornamental. It has no redeeming features. It spreads quickly, and any portion of broken off root suffices to start a new plant. Eric Olson, a local biologist and advisor to the Newton Conservators, has been successful in eradicating stands of Japanese knotweed, by returning over several years and removing the plants. He digs up the big clumps of root material under the large, well established plants. The small, broken-off rootlets propagate into new, but smaller plants. Ted Kuklinski of the Conservators has also waged war on

CONSERVATORS WEED OUT INVASIVES

Japanese knotweed over a period of years. It is a multi-year fight. If you go to the national invasive species web site in paragraph one and go to MA, then plants, you can read about Japanese knotweed. The web site <http://www.jksl.com/japanese-knotweed-solution.htm> in Britain gives evidence of the nuisance level there.

The European buckthorn plant is a tall shrub in my experience in Newton. And it will soon grow larger, and more densely. It basically takes over, and fewer native flora, or diversity of flora, can result. To read about what is happening in one other place in our country, go to the article on the Appalachian National Forest found at http://www.nativetreesociety.org/invasives/buckthorn/european_buckthorn_infestation.htm.

I would differ from some of my friends in the matter of oriental bittersweet and multiflora rose. Oriental bittersweet can send huge ropey vines up trees and kill them. I remove it from my property for the most part but allow some to remain in jungley thickets in one area. It operates in our edges, in our impoverished suburban woodland mosaics. It is no threat to trees in a mature, deeply shaded forest. My reason for not focusing intensely on eradicating some exotic invasives like these is that they are full of late winter fruit which benefit wildlife, including birds.

We have, and are continuing to have, huge effects on our environment. We will never have the managed forests that the Native Americans had for centuries before us. We must decide how we are going to try to manage what we have. The new plants, insects and weather which are coming upon us fast will not go away. Our problem is to understand and to try to find a way to balance amidst the incredible changes that are sweeping through the natural world.

Since we will soon live in a place that is, on the average, warmer, why not provide some support for the beneficial species that are moving north? I have no illusions of actually eliminating garlic mustard or European buckthorn from Massachusetts. We can only take care of our own yards and, with communal agreement, our city parks.

Join the Conservators on a Wednesday walk for an hour, from 10 to 11 some week. Or go on a weekend walk with us to an open space so you can chat with people interested in these issues while you walk through the mix of invasive and native flora. All of these scheduled outings can be found at the Newton Conservators web site: <http://www.newtonconservators.org>.

- *Pete Gilmore*

In 2009 we built on the continuing invasives eradication activities of Eric Olson and Ted Kuklinski that have focused over many years on Dolan Pond, Hammond Pond/Webster Conservation Area, and Charles River/Blue Heron Bridge. We added several other sites (Sawmill Brook Conservation Area, Cold Spring Park aqueduct walk, and Webster Conservation Area at Elgin Street where the Conservators hold a conservation restriction), expanded the garlic mustard efforts, and publicized the events by including them in the Tab and on Newton Conservators' Spring Walks Schedule. We followed the City's requirements to file before and after reports to document our activities. The sessions were successful, although as always there is more to do and more help is needed.

Garlic mustard (GM) removal is easy, but there is a lot of it, so increasing our volunteer pool is key. The Conservators' Newsletter publicity was helpful. A GM article in the Tab generated quite a bit of interest. At the Spring plant sale at the Farm those coming and going were shown the GM just pulled from the slope above the farm. A door insert went in every home around the neighborhoods we were working in. I blanketed my neighborhood with signs and requests for help. These efforts generated some wonderful new volunteers (some being entire families!).

I spent much of my free time in 2009 removing the GM appearing in my neighborhood (Waban) and along my favorite walks. I have vowed not to let it take hold at the Charles River at Quinobequin Rd (where I worked on Newton Serves day with a DCR crew and then followed up every couple of weeks to get stragglers and new growth). I worked throughout my neighborhood where I found it all over, mostly in the wild areas at lot lines. I knocked on doors and engaged neighbors, showing them what I was removing and why, and usually getting their help with disposal in their trash.

The new Invasives Subcommittee of the Newton Conservators will be a wonderful way to extend the reach of the existing invasives group and to work on strategy and publicity to get more people involved. For example, these sessions are terrific for children and we have seen how dedicated and excited they can get about this environmental problem that they can physically tackle and do something about. The new Subcommittee will look for ways to reach schools and youth groups.

THE CRUCIBLE OF BIODIVERSITY AND GARLIC MUSTARD PULLS

“The sixth great extinction spasm of geological time is upon us, grace of mankind. Earth has at last acquired a force that can break the crucible of biodiversity... for the green pre-human earth is the mystery we were chosen to solve, a guide back to the birthplace of our spirit, but it is slipping away. The way back seems harder every year. If there is danger in the human trajectory, it is not so much in the survival of our species as in the fulfillment of the ultimate irony of organic evolution: that in the instant of achieving understanding through the mind of man, life has doomed its most beautiful creations. And thus humanity closes the door to its past.”

*- Edward O. Wilson
The Diversity of Life*



*a field of garlic mustard
- photo by Ted Kuklinski*

Another challenge is disposal of plant material. Once GM gets big in May and June, it is easy to pull, but pulling results in a huge volume of plant material. GM seeds are viable for years, so they should not go into yard waste but should be incinerated. This was a challenge last year (the large number of bags and the need to hide them as trash) but will be more so next year with the new trash system. This will be something the Subcommittee will work on. Possibly we can arrange for the City and/or DCR to help (DCR has a site for invasives disposal), or we may need to actually pay for disposal.

Despite my disappointment that we did not get more volunteers, it is always heart warming to meet and enjoyable to work with those who do come out to help (they were Conservators members, Tab readers, blog readers, concerned neighbors, flyer readers, etc.) – families and singles, of all ages. The sessions were fun and satisfying. Thanks to the volunteers and to the invasives organizers for all the hard work and dedication!

Your participation on the Invasives Subcommittee this Winter would be welcome. Feel free to contact me at howard_katherine@hotmail.com or contact the leader, Alison Leary.

- Katherine Howard

Life is truly amazing and the diversity of life is almost beyond comprehension. Yet, biodiversity on this planet is facing an immense and tragic threat that rivals some of the great extinction periods that has happened over the course of geologic time. We are on an extinction “fast track” that puts the very existence of the planet as we know it in peril. Yet, in a bizarre twist, we have yet to discover and catalogue most life forms. Thousands of additional species are recognized each year, and no one really knows how many species exist on the planet. To date scientist have catalogued 1.9 million species, but the best estimates put the total species on the planet, excluding microbes, at between 20 and 30 million. We have explored the moon, but we have only scratched the surface of our own planet. Dozens of new species were found during a survey of New Guinea’s remote mountains in 2006. These included amphibians, butterflies and a new species of bird in the honeyeater family. New species of primates were discovered in Tanzania in 2005, and two new species of lemur in Madagascar were also discovered in 2005.

Unbelievably, one of the most abundant elements of oceanic plankton, the photosynthesizing *prochlorococcus*, was not discovered until 1986. Closer to home you could go out in your backyard and dig up a bucket of dirt and possibly discover a new species of bacteria or microbe, perhaps some with important medicinal properties or economic value. A single gram of soil can contain millions of bacteria, representing thousands of species, so the idea

that the cure for cancer could be in your back yard is not as far fetched as you might think.

But the agonizing reality is that extinctions are happening much faster than our discoveries of the new life forms. Edward Wilson, Professor of Organismic and Evolutionary Biology at Harvard University, laments the soaring rate of extinctions, which he says are even more difficult to comprehend than the uncataloged life yet to be discovered. Professor Wilson believes that the threat is so dire that he is calling for the creation of an international body of experts to document species loss and propose plans to mitigate the potential catastrophe that could “break the crucible” of biodiversity. Threats to biodiversity have been in the shadow of climate change. And indeed climate change is a factor in the decline of biodiversity, along with the more immediate threats of habitat loss and invasive species.

The creation of biodiversity was a Herculean task, a tedious process taking some 3 billion years of painstakingly slow evolution to start the thriving bounty of animals that occupy the seas, the lands, and the rocks. Almost any crevice of space no matter how inhospitable seems to hold life forms. Thermophilic (heat loving) bacteria have been discovered in the geysers of Yellowstone National Park, living in water as hot as 140° F. Some newly discovered bacteria called *lithoautotrophs* (rock eaters) live on inorganic material inside solid rock over 3 kilometers (9,600 feet) below the earth’s surface. I’m amazed when I look down at a crack in my driveway and see tufts of grass pushing out, like a battered old warrior refusing to submit to this concrete invader. Tenacious, adaptable, and opportunistic: these are qualities of life that just may be our saving grace...for life finds a way even under difficult circumstances. Life will go on on this planet; it’s just possible that our species may be one of those that do not.

Why is the loss of diversity so critical? This answer is two tiered. On the species level, the short answer is that it limits how plants and animals can adapt to changing conditions because there is a smaller gene pool or “tool box” to choose from. And if you have read your Darwin, you know that it’s “adapt or die.” On a larger scale, diversity is critical to a healthy ecosystem, and a healthy ecosystem is more resilient and better suited to withstanding difficult conditions - exactly what we need in this age of climate change. We depend on an abundance of functioning, intact ecosystems to keep our water clean, enrich the soil to grow our food, and produce the very air we need to breathe.

A major threat to biodiversity is introduced invasive species. North America has been plagued with introduced species since the first humans explored the continent, but invasives really took off with the first European settlements. Some are relatively innocuous invaders and others as deadly and destructive as the blight that effectively wiped out the American chestnut tree, one of the most important food sources for wildlife. Within 40 years some four billion trees died. Non-native species are now so common and widespread that they have become part of our landscape. These include the European starling, the European house sparrow, purple loosestrife and oriental bittersweet. Others are more insidious and destructive. The gypsy moth, wooly adelgid, and Japanese longhorn beetle threaten millions of trees and the very character of our New England landscape. These are just some of the dozens of invasive species in our area that homogenize biodiversity, disrupt local ecosystems, out-compete native species and cause millions of dollars in economic damage.



*victorious invasives-removal team
- photo by Ted Kuklinski*

Last spring, in an effort to raise awareness about the threats that invasive species pose to our local ecosystems, the Conservators organized a number of “invasive pulls.” We targeted the removal of the ubiquitous, perennial herb garlic mustard, which spreads very aggressively in many

of Newton's open spaces. This plant can actually change the chemical composition of the soil to make it a less hospitable environment for native plants. There is little to keep it in check, and our native plants and trees have no recourse against this foreign enemy. We plan to organize more invasive plant removal activities again this spring. Remember, when it comes to maintaining biodiversity and keeping the invasive species in check in our environment, "think globally, but pull locally."

- Alison Leary

NAUGHTY NEWTON KNOTWEED

Have you ever been to one of those farm mazes where the corn is high and you have to find your way out? The Cumberland Path at West Newton's Dolan Pond Conservation area used to look like that - only the tall plants were not corn but rather Japanese knotweed (*Polygonum cuspidatum*). In late summer, the pathway would become almost like a tunnel with each tall stalk producing innumerable seed pods, causing even further spread of this invader into the sensitive wetlands.

My personal introduction to invasives removal came about in the summer of 1998. That was the year when Newton's Environmental Planner, Martha Horn, enlisted campers from the Environmental Science Program to help deal with the knotweed at Dolan Pond and asked for assistance in supervising the effort. No more does the old axiom "many hands make light work" apply than in dealing with the removal of invasive plants. The fifty or so campers showed up armed with shovels, pitchforks, wheelbarrows, rakes, giant tarps (for dragging pulled plants), and other implements of destruction. It was a hot, sweaty July day, but the campers attacked the knotweed with gusto, rooting out as much of the snakelike root systems as possible over approximately 3,000 square feet and generating an entire truckload of pulled knotweed. Little did I know that this was only the opening skirmish in our war on invasives.

Newton Conservator volunteers and students, parents, and teachers from Burr and Franklin schools assisted in laying plastic sheets over the pulled areas and covering them with a thick layer of wood chips. But you could almost hear the knotweed swearing, "I'll be back!" Over the years, the Conservators, boy scouts, high school groups, Newton Teen Center students, and more groups have fought to keep the knotweed in check. Today, you can walk the Cumberland Path and see that the wood chips

have turned into soil, other plants such as jewel weed have seeded in, and the Path has a much different look.

But there are uneven patches where the sheeting did not take and the knotweed has poked through. It is still there, plotting its takeover of Dolan Pond.

Sometimes it seems that nothing short of a nuclear explosion can kill off Japanese knotweed completely. Depending on the situation, various methodologies are used elsewhere, ranging from frequent cutting, prudent use of herbicides, chemical injection, burial, and even total soil replacement. Persistence is needed! Garlic mustard (GM) is also present at Dolan (and in most of Newton's other open spaces), and it has been a focus of recent multi-year experimental eradication efforts (initiated by then-NNHS student Leah Wang along with Brandeis researcher Eric Olson). What great satisfaction it is to see a huge pile of pulled invasives and an area cleared.

Many people don't recognize invasives. For years, I had walked by the knotweed jungle and those cute little white flowers (GM), not knowing what they were. There is a wealth of information online about invasives and quite a number of publications. The website "Invasive Plant Atlas of New England" (www.ipane.org) is a good starting point for information and management tips. Brooklyn Botanic Garden puts out a very nice book called "Invasive Plant - Weeds of the Global Garden." An Internet search will yield many more. One of our own Newton Conservator Lectures featured Peter Alden, renowned birder, biodiversity specialist, and author of the National Audubon Society's *Field Guide to New England* (useful identifying both the good and bad in nature), speaking on the problem of the worst invasive plants in the Newton vicinity. Find video of this lecture slideshow (Invasive Alien Plant Update) online at <http://environmentalshow.blip.tv/file/1522753> (Part 1) and <http://environmentalshow.tv/file/1522766> (Part 2). The lecture is rebroadcast during the remainder of December on the Conservators' Environmental Show on NewTV

And if you can't beat em, eat em - so says naturalist Russ Cohen in his lecture slideshow, "Wild Edible Plants of New England" (video at <http://environmentalshow.blip.tv/file/1522897> (Part 1) and <http://environmentalshow.blip.tv/file/1522913> (Part 2), or from the Newton Free Library [DVD 974.44 E61W](#)). In certain stages, both Japanese knotweed and garlic mustard are quite edible and may even be good for you. It turns out that knotweed is one of the best sources of Resveratrol, the same chemical so highly touted in red wine. When it's in its tender shoot stage it makes an excellent substitute for

rhubarb. Strawberry-knotweed pie anyone? Find lots of knotweed recipes online. Bon Appetit!

- Ted Kuklinski



*tree planting on Watertown Street
- photo by Katherine Howard*

TREE CONSERVANCY NEWS

The Newton Tree Conservancy (NTC) is in its second year and is going strong. This year's bumper crop of acorns may be evidence of NTC's efficacy; however we must not rest on our laurels but must continue to help matters along to ensure trees for future generations. The Newton Conservators sponsored NTC last year in its membership drive, and NTC gained many members as a result. This year we are asking for your support again to renew and expand our membership and scope of activities.

Year One, 2008, was a whirlwind: start-up, incorporation, generous grant from the Charles River Neighborhood Foundation, tax exemption from IRS, logo designed by Pat Robinson, website up supported by The New Studio, and finally a wonderful October 2008 kick off event at City Hall with speakers Marc Welch and Arnold Arboretum's Michael Dossmann.

Year Two, 2009, has also been a great year for the NTC:

- May 2 was our **Community Tree Planting**, as part of the City's Arbor Day observance, at five sites on Watertown Street in West Newton. The homeowners agreed to water the new trees during dry spells, a key to success.
- May 16 we "talked trees" at Newton Pride's plant sale at City Hall, getting the word out about the NTC.
- May 18, NTC (along with Newton Conservators, Friends of Hemlock Gorge, and Arnold Arboretum) sponsored "Tree Pests and Tree Health: Woody Plant Pests and Diseases" with speaker Julie Coop, Manager of Plant Health for the Arnold Arboretum. Julie talked to a packed Library auditorium about Winter Moth, Asian Long Horned Beetle, and other tree health issues. NewTV filmed.
- October 24, we had our 2nd annual Tree Walk at Newton Cemetery, ably led by Cris Criscitiello and Marc Welch, also filmed for NewTV. The event was well attended, despite a little rain.

We are now planning a greatly expanded 2010 Community Tree Planting initiative. Thanks to a generous grant from Newton Pride's Leo L. Levi Tree Endowment Fund, and with the help of neighbors and volunteers, we will plant about 40 trees at five to eight sites across the city in the spring of 2010. Many neighborhood groups submitted applications, agreeing to water the trees during dry spells. We are in the process of evaluating the applications and planting sites and planning spring activities. We were deluged with tree planting requests, most of which will go unmet until we can increase our planting capacity by getting more people involved and adding more creative tree programs.

Another Spring 2010 program is the Tree Steward training, an expansion of the Citizen Pruners program. Marc Welch will again share his knowledge of and enthusiasm for trees and train us in tree identification and planting techniques, in addition to tree pruning.

We hope you will renew or become a member. Let us know of people who should receive the NTC brochure, and participate in programs in 2010. We would also welcome your involvement on the NTC planning group or on our Board of Directors. Our Directors are Jay Berkson, Doug Dickson, Deb Howard, Julia Malakie, Marc Welch, and Jack Wittenberg. Membership information is on the NTC website, www.newtontreeconservancy.org, or by email at info@newtontreeconservancy.org. Checks to Newton Tree Conservancy can be mailed to 84 Fenwick Rd., Newton, MA 02468. Membership starts at \$25 for an individual and \$35 for a family. We need and appreciate your support.

- Katherine Howard
NTC President

EDITORIAL

This issue of the Newton Conservators' newsletter is all about invasives. Open space can be threatened in many ways. The primary threat for many years was from the loss of land to development. Today, with Newton's remaining open space largely in public ownership, a greater threat to the health of our open spaces is from invasives. In this issue, Pete Gilmore identifies the major invasives loose among us, Katherine Howard talks about the volunteer efforts that have already been made at removal, Jane Sender discusses our continued commitment, Alison Leary puts the fight against invasives in a global biodiversity context, and Ted Kuklinski shares war stories in the fight against knotweed. Removing invasives and giving native species room to return requires labor. The labor pays off. Next spring, look in this newsletter, in our email newsletter, and on our web page for notices of efforts where we can all pitch in.

The Newton Conservators Officers and Directors 2009

Jane Sender, *President*
Alison Leary, *Vice President*
AnnaMaria Abernathy, *Secretary*
Katherine Howard, *Treasurer*
Beth Schroeder, *Past President*

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Eric Reenstierna
Larry Smith
Willis Wang

The Newton Conservators Newsletter© is published four times each year by the Newton Conservators, Inc., in June, September, December, and April. Deadlines for these issues are the first Friday of each month in which an issue is scheduled to be published.

We welcome material related to our mission from any source. Send proposed articles or letters by email in MS Word or rich text format to ericreen@tiac.net. Digitized photographs, maps, and diagrams are also welcome.

Editor: Eric Reenstierna 617-530-0764
Production: Bonnie Carter 617-969-0686

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MISSION
Newton Conservators, Inc.

The Newton Conservators promotes the protection and preservation of natural areas, including parks, playgrounds, forests and streams, which are open or may be converted to open space for the enjoyment and benefit of the people of Newton. It further aims to disseminate information about these and other environmental matters.

A primary goal is to foster the acquisition of land, buildings and other facilities to be used for the encouragement of scientific, educational, recreational, literary and other public pursuits that will promote good citizenship and the general welfare of the people of our community.

The Newton Conservators was formed as a not-for-profit organization 48 years ago in June 1961.

**It is the time of year for membership renewal. Give yourself the gift of membership.
 And consider a gift for a conservation-minded friend.**



**NEWTON
 CONSERVATORS**

*Celebrating 48 years
 of open space advocacy
 in Newton*

Newton Conservators Membership Form
 PO Box 590011, Newton Centre, MA 02459 • www.newtonconservators.org

- YES, I'd like to start/renew my one-year membership with the Newton Conservators to help preserve open space in Newton. I'll receive informative newsletters and emails and be invited to participate in guided tours of local conservation areas, lectures, and other programs and activities.
- I'd like to make an additional tax-deductible contribution to support the work of the Newton Conservators: \$_____
-
- Please do not share my name and address with other groups.

MEMBERSHIP OPTIONS	
<input type="checkbox"/> Individual member	\$25
<input type="checkbox"/> Family member	\$35
<input type="checkbox"/> Sustaining member	\$50
<input type="checkbox"/> Donor	\$75
<input type="checkbox"/> Patron	\$100
<i>All amounts are tax deductible</i>	

NAME _____

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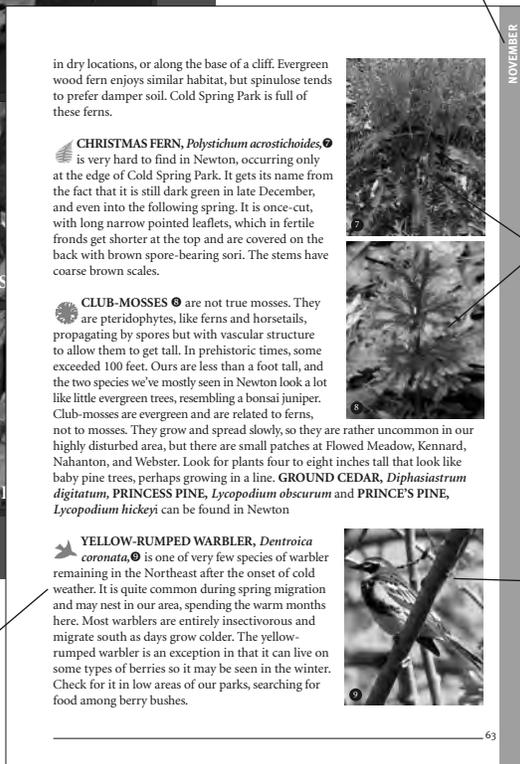
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