NEWTON CONSERVATORS

FALL ISSUE

NEWSLETTER

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

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Emerald Ash Borer Detected in Newton

By Julia Malakie, Member Urban Tree Commission and president of the Newton Tree Conservancy

Ash Tree at Underwood School

Emerald Ash Borer

D-shaped Exit Hole

What is Emerald Ash Borer?

Emerald Ash Borer (EAB), Latin name *Agrilus planipennis*, is a small, metallic green beetle of the family Buprestidae (also known as "jewel beetles" because they are shiny). EAB feed on ash leaves, but the real damage is done by EAB larvae, which kill ash trees (genus *Fraxinus*) by burrowing under the bark, thereby disrupting the tree's circulatory system for water and nutrients.

It is native to northeastern Asia, where it is a minor pest, kept in check by several species of native Asian wasps. In North America, it's an exotic, invasive, species. **Since EAB was first detected near Detroit in 2002, it's been spreading outward across the U.S. and Canada and has caused the death or removal of over 100 million ash trees.** Depending on underlying tree condition, EAB may kill a tree in anywhere from two to seven years.

Its impact has been so great in much of the Midwest that researcher Geoffrey Donovan used the 'natural experiment' of rapidly declining urban tree canopy to study the association between trees and human health. His well-publicized study compared deaths from lower respiratory disease and cardiovascular disease (for which poor air quality and stress are risk factors) between 1990 and 2007 in EAB-affected and unaffected areas. He found that EAB was associated with 21,000 additional human deaths.

Like the more well-known (at least in Massachusetts) — but so-far-contained — invasive Asian Longhorned Beetle (ALB), EAB likely arrived in North America on wooden shipping materials in the mid-1990s. It spreads by flying from one tree to another, but its rapid spread before first being detected is most likely due to movement of firewood. And despite the "Don't Move Firewood" public education campaign to slow the spread of ALB, EAB, and other invasive tree pests, firewood and vehicles with hitchhiking beetles probably still are a vector of spread.

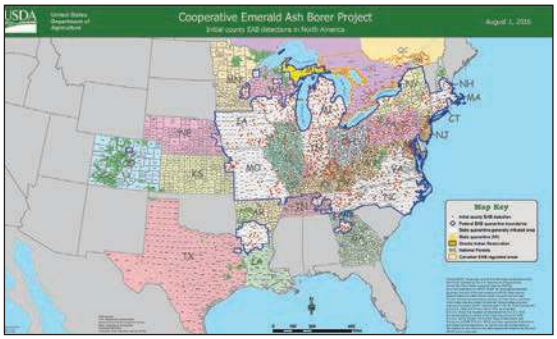
EAB in Massachusetts

It was inevitable that EAB would arrive in Massachusetts. It was uncertain how soon, but when it became clear in the late 2000s that EAB was spreading faster and wider than initially anticipated, demand for ash trees essentially dropped to zero. By 2010,

Continued on page 2

…Emerald Ash Borer Detected in Newton continued from page 1

Newton's Director of Urban Forestry Marc Welch had stopped planting ash trees.



Map of Initial County Detections

EAB was first detected in Massachusetts in August 2012, in Dalton, Berkshire County, not long after it was found east of the Hudson River in New York. It was found in North Andover, on town-owned open space, in the fall of 2013, when someone noticed signs of damage on ash trees. One EAB turned up in a trap at the Arnold Arboretum in July 2014. It was found in Worcester in 2015 by the Department of Conservation and Recreation during monitoring for ALB. And it's always been assumed that it's in many more places than have yet been found.

How are EAB infestations detected?

Probably the earliest sign of EAB in an ash tree is dieback in the upper canopy, although not every dying ash tree has EAB. (Epicormic shoots — suckers and water sprouts below the dead canopy also are symptoms, but also not unique to EAB-infested trees.)

A more reliable indicator is unusually high woodpecker activity on an ash; that's what led to EAB detection in Concord, N.H., in 2013. Woodpeckers pecking for EAB larvae and pupa can also cause the outer layer of bark to flake off, creating a "blonding" effect on the tree trunk.

Blonding on an Ash Tree

Definitive signs of EAB are the S-shaped serpentine "galleries" (tunnels left by feeding larvae), which are revealed when bark is stripped off, and D-shaped exit holes left by emerging beetles.

But by the time D-shaped exit holes are visible from ground level, a tree is likely in very bad shape since infestations tend to move from the top down.

Methods of early detection of EAB arrival in a new area include: 1) the use of traps (purple or green) usually with a pheromone or other lure; 2) "trap trees" intentionally girdled so the scent of the cut will attract the beetle, and 3) Wasp Watchers, a program to monitor colonies of the *Cerceris fumipennis* wasp, a native, non-stinging, ground-nesting wasp which hunts Buprestid beetles generally, and will find EAB if it's nearby. The first EAB in Connecticut were found at a Wasp Watchers' site.

Finding EAB in Newton: Wasp Watchers works, and so does looking at trees!

Since 2012, I've been a volunteer Wasp Watcher for the Massachusetts Department of Agricultural Resources (MDAR), monitoring Cerceris wasp colonies as well as looking for new colonies between late June and mid-August, when the wasps are active.

Cerceris colonies are typically found in hard-packed, sandy soil, in full sun but within a couple of hundred yards of trees where the female wasps will hunt Buprestid beetles, paralyze them, and bring them back to their nests to become food for growing wasp larvae. It's "Wild Kingdom" in miniature. Baseball field base paths are a common location. Monitoring colonies means collecting dead Buprestid "discards" — beetles inexplicably dropped by the wasps, and, when possible, netting any wasps returning with prey, releasing them after they drop their prey.

A colony I'd found in the summer of 2015, in the Dog Park at Hunnewell Playground in Newton Corner, was rather small but seemed promising. There were discards (some thrifty colonies don't seem to throw any beetles away); it was near a highway (all it takes is one EAB flying off a truck); and there were several ash trees along the Turnpike side of the fence.

Still, it was rather startling on my very first visit in late June this year to find an intact EAB discard. That was followed by four more EAB discards, some a bit bedraggled, over a three-week period. (This represents 38% of the total of 13 beetles collected at the site this season, but maybe they're just easy for the Cerceris to spot!) MDAR searches of the park and neighborhood did not turn up an infested tree, and the best guess is that the source is in an inaccessible woodsy area along the Turnpike.

One infestation in Newton would be reason enough to assume EAB could be anywhere in the city. But it turns out that EAB had already killed an ash tree in Newtonville! Early in August, while doing a "windshield survey" — driving every street in the city to find unreported "dead or risk trees," Forestry Director Marc Welch spotted a dead young ash tree (about 5" diameter) on the Washington Park island. He got out to take a closer look and found D-shaped exit holes. This tree has already been removed and chipped, which destroys any remaining beetles in it.

What happens next?

Unlike with ALB, where infested and at-risk trees must be destroyed to prevent further spread, the EAB horse is already out of the barn. And individual healthy trees can be protected with early insecticide treatment. Cities and towns across the Midwest have been facing the dilemma of removal versus treatment for years, often with ash trees being a significant percentage, on the order of 25%, of their city trees. Many have chosen to treat their most valuable or prominent ash trees while removing the rest in phases to spread out both the cost of removals and the visual impact.

In Massachusetts, for better or worse, our dominant street tree species is Norway maple, not ash. Locally, both Somerville and Cambridge are already treating a majority of their ash trees. Cambridge began in 2014, treating 750 trees every other year (375 each year) while removing and replacing 100+ trees in poor condition. Cambridge chose TreeAzin insecticide because it's a neem oil extract listed as acceptable by the Organic Materials Review Institute. Similarly, Somerville, whose approximately 900 ash trees represent 7% of public trees, also began treating good-to-fair condition ash with TreeAzin. They will monitor borderline trees and plan to remove and replace 100+ poor and dying ash.

In contrast, Watertown's tree warden hasn't found any of their 60 public ash trees worth trying to save, given their budget limitations, and the inefficiency of treating scattered trees. Similarly, Brookline, with 3-4% ash trees, began monitoring for EAB with traps in 2015, but does not plan to treat any trees. This is due to already existing ash tree health issues, and concern about the risk to pets of inadequately supervised tree trunk injections.

Here in Newton, we probably have about 900 city ash trees (about 4% of our 21,000 or so street trees), with about 300-400 being 4" diameter or less, according to Marc Welch. He feels that limited city funds are better spent on replacing ash with new trees of other species. One possible exception is a very large 43" diameter ash at Underwood School playground, which could be treated, subject to approval by the IPM Committee and probably also the School Committee, since it is on school grounds.

What can residents do?

For residents with ash trees on their property, it's time to start paying closer attention for signs of EAB. If you have a healthy ash tree, in a good location, that you want to keep, you may want to consider beginning treatment before any signs of infestation appear. Mass NRC has a decision-making guide here: http://bit.ly/2bbAiEx. Untreated ash will need to be removed sooner rather than later since dead ash become brittle and hazardous more quickly than other species.

The website emeraldashborer.info has information on all aspects of the EAB problem and efforts to combat it, including a report on the effectiveness of different insecticide options.

Ash leaves and bark

All residents can keep an eye on city ash trees in their neighborhoods. Ash trees can be easily identified by their opposite branching (as opposed to alternate branching) and their compound leaves, usually with five to seven leaflets. Mature ash tree bark is quite similar to that of Norway maples, but twigs are thicker. Newton Tree Conservancy directors hope to complete at least a partial ash tree inventory and mapping this fall, to get a better picture of the condition of Newton's ash tree population, and to identify individual or clusters of ash that might be worth saving.

While it may not make financial sense for the city to treat its ash trees, it's my personal hope that individuals or groups will be permitted to adopt trees they care about for purposes of treatment. Otherwise, this entire genus could become as rare in Newton as the American chestnut is.

Is there a long-term solution?

The USDA began researching biological controls shortly after the initial EAB detection in 2002. Three different species of parasitoids (tiny stingless wasps) were identified to be natural enemies of EAB in its native range. After determining that they would not pose a significant risk to native-American insect species, the USDA began releases of these parasitoids in 2007, beginning with Michigan and then in other EAB-infested states. The hope is that while they may not eradicate EAB, they will help bring it under control.

Looking to a future when it's safe to plant ash trees again, a large-scale seed banking effort is underway to collect large quantities of ash tree seeds from across their geographical range in order to preserve the genetic diversity and repopulate. ■

President's Message

Dear Members,

As usual, the Conservators have been involved in many projects throughout Newton over the summer months. Here is information on what you can do to help with three of our current issues.

Invasive Plants in Cold Spring Park

Our Invasives Removal Team has been hard at work throughout the spring and summer. Do you know that most of the wooded area of Cold Spring Park has lost its healthy understory? Because invasive buckthorn shrubs have taken over from the tree seedlings that ordinarily would grow in a healthy environment, there are no young trees to take over when the current generation of trees dies. Unless action is taken, there will be no natural succession in that wooded land.

How can we prevent that from happening? Members of the Invasives Committee have identified a section of the woods from which they will methodically remove all of the buckthorn, through a combination of pulling small shrubs and cutting the larger ones. Subsequently, they will monitor the section to remove any regrowth and then will work to encourage the return of tree seedlings.

Webster Woods

Mayor Setti Warren tours Webster Woods

The effort to preserve Webster Woods, now owned by Boston College, continues. Mayor Warren has been engaged with BC officials in an effort for the City to acquire a public easement on the unbuilt portion of the land to preserve its wooded state. The next step in that process is for the City to obtain an appraisal of the wooded land.

Note that a "public easement" would not necessarily protect the land and prevent building in the future. It is important for us to continue to let the mayor and other elected officials know how important it is to preserve that land, not only because it is home to a vernal pond and associated wildlife like salamanders but also because it is a critical link between existing state and city conservation land. Building on the BC land would negatively affect the drainage patterns and the conservation value of the other two parcels.

If you'd like more information about the campaign to save Webster Woods, visit the Friends of Webster Woods' Facebook page (www.facebook.com/fowwnewton) or email Jacob Stern (jacobstern2@gmail.com) to request a lawn sign.

West Nile Virus

As of August 2, West Nile Virus was detected in mosquitos in Newton. Earlier in the summer, in an attempt to reduce the mosquito population, the City's health department treated catch basins with a bacteria that kills mosquito larvae but is harmless to other animals and plants. In spite of their efforts, we have a population of mosquitos that are carrying the disease.

Birds (especially our local corvids — blue jays and crows) are at great risk for harm from the disease. People also are at risk (although a much lower one) from the disease. See the Letter to the Editor on page for an example of that. Also, see our summer issue of the newsletter for more information on ways to minimize the mosquito population near you: http://bit.ly/2alZwSW.

The most important thing that you can do is to eliminate all standing water on and near your property. Culex mosquitos, those that transmit West Nile Virus to birds and humans, can lay their eggs in as little as half a cup of water.

We look forward to seeing you at our table at the Newton Community Farm's Fall Festival on September 25 at Harvest Fest in Newton Centre on Sunday, October 16.

Letter to the Editor

Dear Editor,

Thanks for writing the article about West Nile Virus in the recent newsletter. It is very informative and very timely.

You may not know this but I was in the hospital for five days with neuroinvasive (spinal meningitis) West Nile Virus in August 2012. There were 33 human cases that year in MA and I was #4; it was a very bad year in this state and in the US.

It took me a year to recover but I fared well compared to some others that year who are now permanently disabled. DPH decided I was probably infected in my front yard in Newton (about 1 mile south of route 9). I had been paying careful attention to ticks that year in an attempt to avoid Lyme disease (picked 22 ticks off my dog after a February walk by the Charles that year!) but wasn't attentive to WNV and mosquitoes.

Interesting though that just a few weeks before I became ill there were dead birds in our neighborhood and I didn't know why. I wish I had known more about the connection to WNV at that time and I wish there had been more and earlier public information about the risk and indicators. I think it is terrific you are giving people a warning through your article and I hope a lot of people read it.

Terrific summer newsletter in general.....my husband and I both enjoyed reading it. Newton Conservators brings so much value to this community!

— *Dede Vittori*

If you haven't renewed your membership already, now is the time.
And consider a gift for a conservation-minded friend.

NEWTON CONSERVATORS

Newton Conservators
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Newton Centre
MA 02459

2016 MEMBERSHIP RENEWAL

YES! Please renew my tax-deductible membership at the level checked below:

- ☐ $125 Patron
- ☐ $100 Donor
- ☐ $75 Sustaining Member
- ☐ $50 Family Member
- ☐ $35 Individual Member
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- ☐ Additional Contribution___

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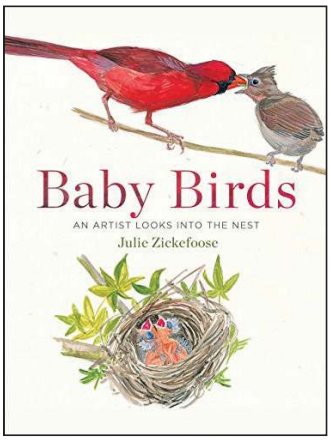
Please make checks payable to Newton Conservators, Inc.
Visit our website at www.newtonconservators.org if you wish to renew your membership online.

Yellow Warbler
Photo by Suzette Barbier

Parenting Young Birds

By September most young birds have fledged and no longer visit their nests. They have learned from their parents to find food and to avoid predators, which means that they have acquired the compulsive behavior of looking for food while constantly staying alert. In addition to these challenging survival behaviors, they soon must become strong enough and quick-witted enough to migrate to their winter homes for the first time. The timing of the raising of young birds is crucial to their survival.



In this regard, a new book, *Baby Birds, An Artist Looks into The Nest* by Julie Zickefoose, is a marvel. She paints seventeen species of infant birds and follows their growth day by day, sometimes painting several poses in the same day as the first feathers appear. Along with the sequences of paintings for the seventeen species, she muses on the natural history of particular species.

Of the seventeen species, fifteen nest in Newton. (Only the Prothonotary Warbler and the Indigo Bunting are not Newton nesters.) All of the birds are protected under the Migratory Bird Treaty Act that was signed by Canada, Mexico, Japan, Russia and the United States. It was originally signed in 1918 by the United States and Great Britain for Canada. Later amendments added the other three countries. (House Sparrows and European Starlings are not protected under this act.) Julie has both federal and Ohio state permits to handle migratory birds.

The first bird in the book is the Carolina Wren. Our Carolina Wrens took a big hit during the severe winter two years ago. But if you listen for their song, you can hear that a comeback is occurring this year. Looking through Julie's sequence of paintings over the thirteen days from hatching to fledging gives you a very close feel for Carolina Wren childhood and parenthood.

Eastern Bluebird

In Julie's description of this series of paintings of the wrens, she writes about the development of the Eastern Bluebirds that she painted simultaneously in 2002. The Eastern Bluebirds are the second species in her book. She painted them for twelve days and had to stop because she was scheduled to lead a group of National Audubon Society campers on a birding walk on Hog Island, Maine. She completed the Eastern Bluebird paintings from another nest in 2013. The bluebirds take about three weeks to fledge, according to the *Birds of North America Online* web site of the Cornell Lab of Ornithology. Thus, they are slower than the wrens to mature.

Tree Swallows

The third species in Julie's book is the Tree Swallow. This species nests in Nahanton Park. (They were the main focus of my article "*The Tree Swallows of Nahanton Park*" in the summer 2015 issue of this newsletter. Julie's sustained and close observations are at a much deeper level than the article a year ago.) She comments on the first flight of these graceful birds with their small feet. Their first flight out of the nest box must carry them to a safe perch because they are not comfortable on the ground at first. As a result of their discomfort on the ground, this first flight of the young birds turns into a surprisingly strong one. Later in the summer, when large flocks of more mature Tree Swallows gather together to migrate, you do see groups of them sitting on the sand along the shore.

All three of these species feed their young on protein-rich insects as soon as the chicks can handle that sort of food. There is instinctive knowledge that the chicks must mature soon enough to survive and migrate, if that is also a need. Any species that survives primarily by eating insects must get out of New England during our winters. Cathi Gilmore took the photo of the Tree Swallow feeding its chick, above.

In reading her book, one admires the scope of Zickefoose's work and the persistence and patience required to complete it.

One of Julie Zickefoose's later revelations surprised me. I had heard of crop milk, a secretion from the lining of the pouch near the throat that is regurgitated to young birds, but had not realized that young Mourning Doves grow very fast on this rich diet without any protein from insects. Both male and female parent Mourning Doves undergo an incredible change in the lining of their stomachs when their

eggs are ready to hatch: the lining thickens, and glands in the lining begin to produce a rich milk. Males too! In this way, the vegetarian parents produce milk that provides rich protein. Julie notes that the baby Mourning Doves have a faster growth than even the smaller, insect-fed Carolina Wrens. If you Google "*Mourning Dove feeding crop milk to chicks*" on You Tube, you can watch it happen.

These doves may have ancestral dinosaurs that produced crop milk. This speculation by experts may be one of the amazing features that evolution has produced.

I watched a completely different mother bird feed her airborne youngster in July of this year. The birds involved are Northern Harriers, which we called "marsh hawks" years ago. They nest on or close to the ground in open wet, marshy areas. One such area lies along the west bank of the Charles River, which we can view from the Helen Heyn Riverway trail south of Nahanton Street. (If you go online to eBird and explore the species maps under the "Explore Data" menu, you can find dated reports of Northern Harriers along this stretch of the Charles River.) Four of us were watching three of these hawks, guessing that we were looking at a hen and two young birds. The hen flew off, away from us. When she returned, one of the young birds flew up to her, and she deftly dropped a rodent, which the young bird caught and took back to the marsh.

Northern Harrier with food for her young

Northern Harrier feeding young airborne

Once at the marsh, the hawk with the rodent was challenged by its sibling, who wanted the free lunch. The sibling was rebuffed, and the first young bird settled into the marsh to dine. The event is captured in the incredible Lanny McDowell photos pictured to left and above.

Even these large raptors have to elude predators such as raccoons, skunks, foxes, coyotes and our own dogs and cats around their ground-hugging nests. I can't offer anything close to Julie Zickefoose's detailed studies of other birds, but this vignette, which took all of five minutes to play out, was a contact with nature that stays with me.

Such moments can't be planned. Newton has great places for all of us to visit. It is in these green spaces in our city that you will have such experiences. Take some time, un-plan that time, and use it to wander through one of our open areas. ■

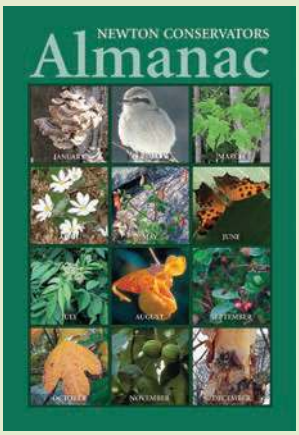
Note: The Helen Heyn Riverway Trail referred to above is in the Newton Conservator's Guide to walks in Newton (*Walking Trails in Newton's Park and Conservation Lands*; See http://www.newtonconservators.org/parkmap.htm) and is featured in the following article by Mike Clarke.

Pete Gilmore

Enjoy the Beauty of Fall

Shop online at www.newtonconservators.org/books.htm to purchase Newton Conservators publications.

Discounted prices for members paying by credit card: Almanac $18.45, including shipping; Trail Guide $8.95, including shipping.



The Mysterious Group and the Helen Heyn Riverway

Editors Note: *In June, I received the following message from a Newton resident:*

> I was doing some research on the Conservators web site, into the Helen Heyn Riverway, when I found a reference to something called the Newton Knights of Tunsion. I'm very curious about this mysterious sounding group. Can you enlighten me?

I had no idea about the group, and a Google search was of no help, but in answer to my e-mail query to the board, Mike Clarke answered with the explanation below. I thought it should be shared with all our members.

I was wondering when somebody might ask. Sometime in the early 1990s, I acquired a copy of the Conservation Commission's 1975 plan for the Charles River (CR) pathway through Newton. Since I had been maintaining a mountain trail in New Hampshire, the meandering path on flat ground near the Charles looked like an easy trail construction. I talked with Martha Horn, then Newton's Environmental Planner, about it, and in 1995 I applied to the Conservation Commission for a construction permit and corresponded with the MDC (now DCR) to clear the section of the CR pathway from Nahanton St. to the Oak Hill trails behind Solomon Schechter School on Wells Ave.

Although I could do much of it alone, there were densely brushed sections, mainly of high bush blueberries with branches six feet high that often curved back and re-rooted in the ground and that were covered with greenbrier, which were tough, annoying and prickly painful to cut through. Therefore, I needed help, and at different times recruited a group of Conservators, including Bill and Dotty Hagar, and the Newton Knights of Tumsion (the correct spelling is with an "m" and not an "n"), who are a shady passel of characters, who prefer to remain anonymous, with whom I have canoed for over thirty years. It took several months, but the path got done with two entrances each opposite the two parking areas in Nahanton Park off Nahanton St.

Although I would periodically maintain the trail, several years later a group of Newton Serves volunteers, including me but organized by George and Deborah Perry, made the path better with additional clearing and widening. Years later in 2005, at the suggestion of Martha Horn, I drafted a letter (which then President of the Conservators Eric Reenstierna adapted) to propose naming that area along the river as the "Helen Heyn Riverland Conservation Area." It became the Helen Heyn Riverway Conservation Area.

As many Conservators remember, Helen Heyn was a founding member of the Newton Conservators in 1961 as well as of the Newton Conservation Commission in 1966. She also served as secretary of the Charles River Watershed Association when it was founded in 1965. In 1967, Mayor Basbas appointed her to the Conservation Commission, on which she served as secretary until 1979. On Helen's watch, the city took title to many critical conservation areas, including Houghton Garden, Baldpate Meadow, Frank Barney Pond, Dolan Pond, Flowed Meadow, Goddard-Christina, Kennard, Martin, Charles River Pathway at William Street, Charles Cohen, Oakdale Woods, Saw Mill Brook, Varick Hill, Hunnewell Woods, Norumbega Park and Wilson Conservation Areas. Helen died at 89 in 2009, and I've often thought there should be a kiosk memorial to her at one of the entrances to the Riverway.

Helen Heyn Riverway

The Riverway is accessible from both the Nahanton Park parking lots on Nahanton St. In 2012, Boy Scout Troop 355, led by Eagle Scout Noah Carlen, resurrected the entrance path opposite the upper parking lot by paving it with wood chips and adding a log bench.

The Riverway is a beautiful walk and is used particularly by inhabitants of the Wells Avenue office park for lunchtime strolls.

Unfortunately, it's necessary to connect its various segments by walking out to Wells Avenue to bypass a stream or a marsh. It especially needs a footbridge over College Brook to make it more continuous and scenic. The original plan proposed a side path, which I did not put in, to connect to an isolated drumlin that would afford nice view of the river and marshlands.

So, now you know the history of the Helen Heyn Riverway and the contribution of the Knights of Tumsion. ■

Michael Clarke

Salamanders Need a Home

By Jonathan Regosin and Richard B. Primack, **Reprinted from the *Newton Tab*, August 10, 2016**

Spotted Salamander

Children in Newton often see 2- 3-inch-long red-backed salamanders when turning over rocks, logs and boards in forests and backyards. Newton also has larger yellow-spotted and blue-spotted salamanders. However, you would be lucky to see even one of either of them in decades of turning over rocks. The adults live underground for 11 months of year. Nicknamed mole salamanders, they are like a rarely seen neighbor who never leaves the house.

The recent sale of a large section of the Webster Woods to Boston College threatens what is likely Newton's largest population of yellow-spotted salamanders. Thoreau spoke forcefully of the need to protect such wild animals from destruction, remarking, "I am glad to recognize [a great blue heron] for a native of America why not as an American citizen?" Taking our cue from Thoreau, we hope that Newton residents will act to protect our fellow salamander "citizens" who make their homes in Webster Woods.

Compared to red-backed salamanders, spotted salamanders are massive. They are 4-6 inches long, have the girth of an index finger, and look almost pudgy. People usually see adult spotted salamanders on the first warm rainy nights of March, when they migrate to breed in vernal ponds — small ponds that dry out in summer and lack predatory fish. Spotted salamanders congregate at the shallow margins of such pools, looking for mates.

After the eggs hatch, children can find juvenile salamanders in the water and catch them (for brief observation) with dip nets. When the pools dry out in summer, the young salamanders depart for the surrounding forests, and then return to breed in later years. Many other amphibians such as wood frogs and a great diversity of insects also depend on fish-free vernal pools to complete their life cycles.

In Newton, blue spotted salamanders are found at only one location along the Charles River. Yellow-spotted salamanders live in a few Newton locations, and most abundantly in the Webster Woods at Bare Pond on land now owned by Boston College. It is called Bare Pond because it dries out or is "bare" during the summer. In the spring, nature lovers enjoy lying on rocks at the edge of the small pond where they can study the diversity of small insects, red water mites, and assorted crustaceans moving through the shallow water. Later in the year, many Newton residents enjoy the colorful autumn leaves and bring children to skate and run around on the ice in winter.

It is hard to know how many yellow-spotted salamanders live in Webster Woods, but a reasonable guess would be several hundred adults. Spotted salamanders are protected by state law; people are not allowed to collect or possess spotted salamanders, and vernal pool habitats and the surrounding forest are given some enhanced protections. In some Massachusetts communities, local bylaws give vernal pools even greater protection than state wetlands law, and roads are even temporarily closed to protect salamanders during their spring migrations.

Newton's parks and conservation areas support an incredible diversity of native plants and animals and offer unique opportunities for nature study, research, and reflection. As the effects of climate change and warming temperatures continue to be felt, and invasive species such as buckthorn and garlic mustard spread, we can monitor the persistence of native species in the face of these changes— and in some cases intervene to restore native habitats. For example, the Newton Parks and Recreation Department and the Newton Conservators are restoring a meadow for American woodcocks in Nahanton Park, both protecting nature and enhancing the quality of life for Newton residents. With an already high population density and with more home construction on the way, our open spaces offer valuable resources for people to experience nature firsthand, whether to see displaying woodcocks at Nahanton Park, vernal pools in the Webster Woods, or wildflowers and turtles along the Charles River.

The future of Bare Pond and the surrounding upland forest habitat where adult spotted salamanders live now hangs in the balance with the recent sale of a large part of the Webster Woods to Boston College. Developing any of the land just beyond the pond could directly harm salamanders living in the ground and indirectly damage the water quality of the pond.

A little over a decade ago, the city was at a similar crossroads, with Newton's last farm for sale and at risk of being developed. Although many people said it couldn't be done, the community came together to save the farm, and we now have a thriving, economically self-sustaining community farm that is held up as a model for the use of Community Preservation funds. We now face a similar opportunity where action is urgently needed to protect a unique natural area in the Webster Woods for the yellow-spotted salamander, other forest creatures, and future generations of Newton residents. ■

Jonathan Regosin and Richard B. Primack are longtime Newton residents and biologists. Regosin works for the Massachusetts Division of Fisheries and Wildlife. Primack is a professor at Boston University.

Newton Conservators Invasive-Plant Pulls Fall 2016

Newton Conservators fights invasive plant species to preserve and improve the native habitat at our parks and conservation areas. Sessions may be weather dependent — call the leader if in doubt. Check our website (newtonconservators.org) for updates to this schedule.

About the Plant Invaders


PHOTO: WIKIPEDIA

Garlic Mustard, native to Europe, was brought here in the 1800s as a medicinal and garden herb and is now an invader of our backyards, parks, forests, and conservation areas. It quickly covers vast areas, including low light forested areas, shades out other plants, chemically alters the soil to inhibit germination of competitor seeds, and alters habitat for native insects such as butterflies. In areas where it is just starting, it takes only a small effort to eliminate—it is a biennial easily identified and pulled when the second year plants are flowering in April/May. If not, each plant will scatter hundreds to thousands of seeds that will become first year plants the next year or will remain as viable seeds for several more years. Because the seeds stay so viable, the plants must be disposed of as trash, not as yard waste. Our efforts are effective. Garlic Mustard can be controlled with easy hand pulling, vigilance, and determination. The areas worked are much improved and require only periodic visits to catch stragglers to avoid re-infestation. The areas NOT worked are worse. ***We need more help to get them under control.***


PHOTO: WIKIPEDIA

Japanese Knotweed is a bamboo-like invader from Asia that can create dense 8' tall single-species stands. It is a tough adversary, not because it's spiny or strong or even particularly hard to pull, but because any small root fragments left behind spring back to life the following year. Scientists seek biological control agents, but until then we must control by hand. Persistence pays with this species, and eradication is possible, but it takes several years to truly finish the job.

Our sessions also tackle black swallow-wort, multi-flora rose, tree of heaven, and black locust.

Sunday, Sept. 25, 9:00 am – 12:00 pm

Invasives Pull at Sawmill Brook Conservation Area. Opposite 120 Vine St., Newton, MA 02467
www.newtonconservators.org/26sawmill.htm

Sawmill Brook Park is a lovely, long, natural trail that connects Newton to West Roxbury. It has garlic mustard and black swallow-wort infestations at its entrances and along Lagrange St. and Wayne Road borders as well as invasions of buckthorn, barberry, and burning bush. We will spend a few hours removing those invasive plants and patrolling previously worked areas. In case of poison ivy, wear long pants and garden gloves. Trash bags will be provided; the plants must be disposed of as trash, not as yard waste. Meet at the Vine Street entrance. ***Leader is Katherine Howard, 617-527-1796 (home) or 617-721-2571 (cell).***

Saturday, Oct. 1, 9:00 am – 12:00 pm

Invasives Pull at Hemlock Gorge. Near 2 Ellis St., Newton, MA 02464
www.newtonconservators.org/21hemlock.htm

We have expanded our efforts to control buckthorn, bittersweet, burning bush, multiflora rose, and barberry infestations inside beautiful Hemlock Gorge Park. Help us keep the invaders out of this beautiful park! In case of poison ivy, wear long pants and garden gloves. Trash bags will be provided; the plants must be disposed of as trash, not as yard waste. Meet at the parking lot at corner of Quinobequin Rd. & Ellis St. at Rt. 9 intersection. ***Katherine Howard, 617-527-1796 (home) or 617-721-2571 (cell).***

Saturday, Oct. 15, 9:00 am – 12:00 pm

Invasives Pull at Auburndale Cove. Near 104 W.. Pine St., Newton, MA 02466

We will continue the work started by the students of the Environmental Science Program to remove invasive knotweed from the Cove. The students used weed whip tools to cut the plants back in June, greatly reducing the amount of above-ground biomass present for July's work with the youth, but the resprouting was (as always) impressive. By doing a mix of cutting and digging, we can gradually eliminate this infestation, and certainly stop its spread into Flowed Meadow forest, but work has happened only a few times a year. Once a year is nearly worthless. If we can do one more event this year, we'd be that much further ahead. Depending on our turnout, we can first work to get more roots out, then weed whack any plants we don't have time to dig. In case of poison ivy, wear long pants and garden gloves. Trash bags will be provided; the plants must be disposed of as trash, not as yard waste. Meet at the Auburndale Cove Parking Lot, West Pine St. ***Leaders are Eric Olson, 617-872-9928 and Katherine Howard, 617-527-1796 (home) or 617-721-2571 (cell).***


PHOTO: ERIC OLSON

Enviromental Science students and leader Geneva Boyer removing invasive knotweed in Auburndale Cove in July.

WALKS SCHEDULE FALL 2016

www.newtonconservators.org

Please note: Walks meet at different times. Some trips are weather dependent. Please call trip leader if in doubt.

Sunday, Sept. 11 at 1:00 pm

Canoe and Kayak Trip at Nahanton

This canoe/kayak trip will start in Nahanton Park. We'll paddle upstream on the Charles against the current to the far reaches of Needham, Dedham and Wellesley. Bring your own canoe or kayak, or rent one at the canoe/kayak rental stand in Nahanton Park. The area up-stream is a region of significant beauty and almost pristine conditions. Fall is a good time to view the many turtles and other wildlife along this stretch of water. We should see numerous fish, including pickerel, bass and carp. We also will see many birds that make their spring/summer/fall homes in this habitat. We'll pass by Powell's Island, Millennium Park, and the large Dedham Ditch, then stop for lunch on Cow Island. On the return trip, the current will help carry us back. It's an interesting trip for adults and children and usually is completed within three hours.

Trip Leaders: Bill & Dottie Hagar (617-964-2644)

Sunday, Oct. 2 at 8:00 am

Nahanton Bird Walk With Haynes Miller

Nahanton Park offers a mix of woodlands, wetlands, edge habitat and meadows along the Charles River, making it one of the best birding spots in Newton for fall migrants as well as resident species. Bring binoculars if you have them. Beginners as well as experienced birders are welcome. Walking shoes are recommended. Co-sponsored by Friends of Nahanton Park & Newton Conservators. Meet at the Nahanton St. entrance between the JCC and the Charles. Parking is available inside the park. Cancelled if steady rain. If concerned about the weather, please call.

Trip Leader: Haynes Miller (617-413-2419)

Saturday, Oct. 8 at 9:00 am

Bedrock Geology of Newton and Environs

The geology of the Newton area tells a fascinating story of a time about 585 million years ago when Newton was part of the great southern continent of Gondwana and not far from the south pole. The rocks record a history of great volcanic eruptions and sedimentary basin deposits (the famous puddingstone!) in areas between the volcanoes. Join us and learn a bit about how the rocks tell us their story. This trip will not be one of the usual "walks" since we will need to carpool to travel to 4 different sites in and around Newton to see the different rock types. Meet in the parking lot at the entrance to the Hammond Pond MDC Reservation area-east, at the west end of Hammond Pond off of Hammond Pond Parkway near Rt. 9, behind "The Street" complex near the movie theatre (see *Newton Conservators Walking Trail Guide*, p.35). We will visit rocks in the woods near here, then carpool to the other exposures. Cancelled if steady rain. Trip will last 2-3 hours.

Trip Leader: Chris Hepburn (617-964-1137)

The Friends of Hemlock Gorge fall cleanup will take place on Saturday October 15 from 9:00 A.M. to 12 noon and be followed by lunch at the Stone Building off Route 9 (see details, pg. 10). There's a lot going in Hemlock Gorge. We're applying for funds for a new fence at the circular dam, treating the hemlocks for hemlock wooley adelgids and hemlock scale, and working with the MWRA to fix the railings on top of Echo Bridge. Check in frequently.

— *Brian Yates, President of Hemlock Gorge*

Do You Use Amazon for Purchases for your Home or Business?

Welcome to amazonsmile

As explained in past newsletters, Amazon Smile is a program through which Amazon donates .5% of most purchases to a nonprofit (501c3) organization of your choice.

Even with relatively few members using the program so far, the rewards have grown. For the first quarter we participated in 2014, we received $22.32. For the most recent quarter in 2016, we received $38.31.

We do encourage you to support our local bookstores, but as most people know, you can buy almost anything on Amazon, and we hope that you will let your purchases work on behalf of open space in Newton.

If you have any further questions about the program, check the FAQ page: http://smile.amazon.com/about.

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NEWTON CONSERVATORS

NEWSLETTER

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

FALL ISSUE

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ILLUSTRATION:

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IN THE FALL ISSUE:

Fall Fawn
Photo by Suzette Barbier

Go Green! ...and all the other colors of the rainbow. You can view this newsletter at www.newtonconservators.org/newsletter.htm. To elect not to receive a paper copy of the newsletter, update your membership profile at www.newtonconservators.org