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Web address: www.bctrust.org

To help us with our programs, please become a member by filling out the New Member Registration form on the back page.

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Comments and letters are welcome. Write to: Editor, *Common Ground*, P.O. Box 626, Acton, MA 01720.

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FROM THE PRESIDENT: Residents Flock to Annual Meeting



On March 28, the Boxborough Conservation Trust held its annual meeting at the Blanchard School. We set a record for attendance at an annual meeting – by a wide margin. Thanks to terrific organizing by Lisa St. Amand, superb publicity by Mary Fuhrer, and the draw of an outstanding program on owls by Marcia Wilson, the cafeteria was packed to capacity. Both children and adults were enthralled by Marcia's extremely knowledgeable presentation about owl habits and habitats, and by the chance to see six live owls “up close and personal.” Marcia's friends ranged in size from the tiny screech and Saw-Whet owls to the impressive Eurasian eagle owl. Thanks to all of you who supported the BCT with your attendance, your donations and your purchases of sweatshirts and t-shirts.

A compelling message of this presentation is that these beautiful and fascinating owls, which we got to know on a more personal basis, depend on us for the preservation of their habitat. The BCT sponsored this event because it highlights one of the important reasons for becoming involved in land conservation in the town of Boxborough. We hope that those who attended, and those who are learning about the program through *Common Ground*, will take to heart the importance of this mission and become more involved in land conservation. If you are a member, we need your

(continued on next page)

The Bedrock of Boxborough

BY ANNE GARDULSKI, BCT BOARD MEMBER

As you walk along quiet trails on Boxborough's conservation land, have you ever wondered what lies under the plants and rocky soil that you see? There is a fascinating story in the hard bedrock that is the “basement” of our landscape. The story goes back through hundreds of millions of years, and many chapters are not well understood. What we do know is that Boxborough lies on a block of rock called the Nashoba Terrane, a sliver of Earth's crust that is bounded by two major faults: the Clinton-Newbury Fault to the west, and the Bloody Bluff Fault to the east (see map on next page). The Nashoba Terrane has a very different geological history than the terranes to the east and west, which are as nearby as Lexington and Harvard. Fundamentally, Massachusetts was assembled from at least four different blocks of Earth's crust over the past billion years, the Nashoba Terrane being one of the important pieces.

During the Late Cambrian to Ordovician time (from about 500 to 450 million years ago), somewhere near the South Pole, a line of volcanic islands that would become the Nashoba Terrane was erupting. This volcanic arc drifted north over millions of years, colliding with our neighboring terranes along the way. About 380 million years ago, these terranes collided with and attached to North America. The final collision that affected Massachusetts occurred about

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Annual Meeting . . .

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help in the complex process of bringing land-conserving transactions to fruition, and in managing the land once it is protected. If you are not a member (and most who receive this newsletter are not), please consider joining us in this important work. We need donations of time, talent, and labor just as much as we need financial resources.

Finally, recognizing that the two primary goals of the BCT are land conservation and the stewardship of existing conservation land, the Trust recently donated the funds for a heavy-duty brush-cutter to the town of Boxborough, to be used in maintaining the town's conservation trails. The purchase of the machine was enabled in large part by a targeted donation from one generous BCT member.

I am very encouraged by the turnout at our annual meeting, and hope that it portends even greater involvement by many of our conservation-minded residents.

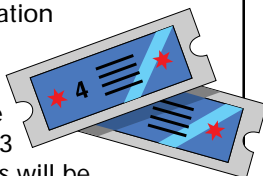
Jeffrey C. Fisher

Fifer's Day Raffles

BCT will raffle two items at Fifer's Day, June 26 at Flerra Field:

- 2 Red Sox tickets for the game on Wed., September 15 at 7:05 PM vs. the Tampa Bay Devil Rays. These are spectacular, front-row seats, behind first base.
- A dramatic framed photo of a snowy owl in flight, donated by National Geographic photographer Mark Wilson, husband of Marcia Wilson, who gave the terrific live owl presentation at the Annual Meeting.

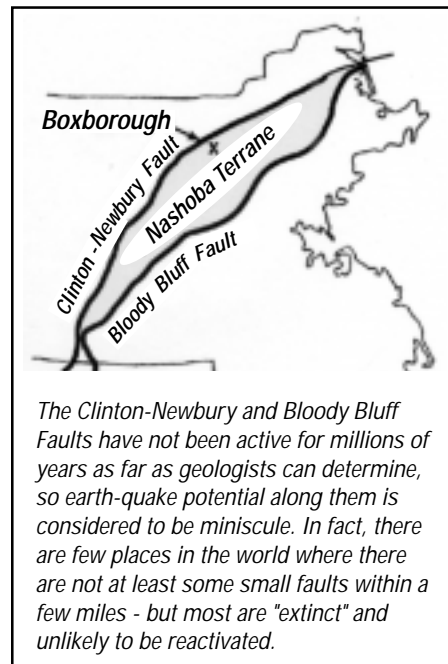
Raffle tickets are \$2.00 apiece or 3 for \$5.00. Tickets will be sold at the Transfer Station on 6/12 and 6/19, and at our booth on Fifer's Day.



The Bedrock of Boxborough

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250 million years ago. The ancient continent of Gondwana, which was made of Africa, South America, India, Australia, and Antarctica, docked against the eastern edge of North America to form the super continent of Pangea. This collision formed the enormous Appalachian Mountains, that have since been worn down by millions of years of erosion. During the Triassic and Jurassic periods (from 245 to 144 million years ago), Africa pulled away from North America as Pangea began to break up, and the modern Atlantic Ocean was born.



The Clinton-Newbury and Bloody Bluff Faults have not been active for millions of years as far as geologists can determine, so earth-quake potential along them is considered to be miniscule. In fact, there are few places in the world where there are not at least some small faults within a few miles - but most are "extinct" and unlikely to be reactivated.

All these collisions affected the Nashoba Terrane by changing the original sedimentary and volcanic rocks. At times, the rocks have undergone significant burial and heating, so that they have been metamorphosed – i.e. changed into rocks that have different minerals and appearance. The Nashoba rocks are called schists and gneisses (pronounced "nices"), which are types of layered metamorphic rocks. The relatively soft schists have a lot of mica minerals in them, and are often dark green or black in color. The harder gneisses have a lot of quartz and feldspar, and are light pink to white in color.

Evidence for the tremendous heating and pressure that affected them includes the formation of minerals, such as garnet, that only form at high temperatures. Also, the original layering in the rocks has been obliterated. The layers are now tilted vertically, and are intensely folded and contorted. Small intrusions of granite have also forced their way into the schists and gneisses.

The collisions and uplift that the Nashoba rocks experienced formed cracks and fractures in these high-grade metamorphic rocks. The fractures form an interconnected network through which groundwater can easily flow. This otherwise impermeable rock is our aquifer, hosting much of the town's groundwater.

In Boxborough, the Nashoba rocks are exposed in very few places, since glacial sediment and soils mantle the bedrock over most of the area. However, a beautiful outcrop of Nashoba rock is exposed on the north side of Route 111 at the 495 interchange just before Swanson Road. Here you can see folded, inter-layered schists and gneisses, and tiny maroon garnets along the edges of granite intrusions, especially at the east end of the outcrop. Another mineral, called sillimanite, occurs here as well. Sillimanite forms at temperatures high enough to have nearly melted these rocks, so geologists think that the Nashoba rocks were probably buried deeply (at least 5 miles?) in the Earth's crust at some point in their travels from the South Pole area.

In a future article, the glacial events that have sculpted the landscape will be presented – and there are many places in Boxborough to see the effects of the mile-thick sheet of ice that covered our town 18,000 years ago!

Skehan, J. W., Roadside Geology of Massachusetts, Mountain Press, 2001.

Dr. Anne Gardulski, a professor of Geology at Tufts University, moved to Boxborough 9 years ago, "drawn by the interesting geology, the undeveloped spaces, and the great bike-riding opportunities." Anne is a BCT board member.

HaveNot Pond Conservation Area

BY FRANK COOLIDGE, BCT BOARD MEMBER; WITH TARA ZANTOW, EDITOR

HaveNot Pond Conservation Area offers a variety of appealing walks. A logging/farm road that starts at Hill Road runs through woods, past the pond, and to a meadow. Part of the meadow is wetlands; the stream there can be navigated by crossing a ten-foot bridge. There is a lot of beaver activity in the pond and many other signs of wildlife in the wetlands and meadows. A huge beaver house completely obscures the island in the middle of the pond.

RECREATIONAL USES - Hiking, snowshoeing, cross country skiing.

CAUTIONS - Good waterproof boots are a requirement during the wet season. The

trails are well marked in wooded areas but currently there are no markers in the meadow areas.

PARKING - There is parking for about six cars at the Hill Road entrance to the property.

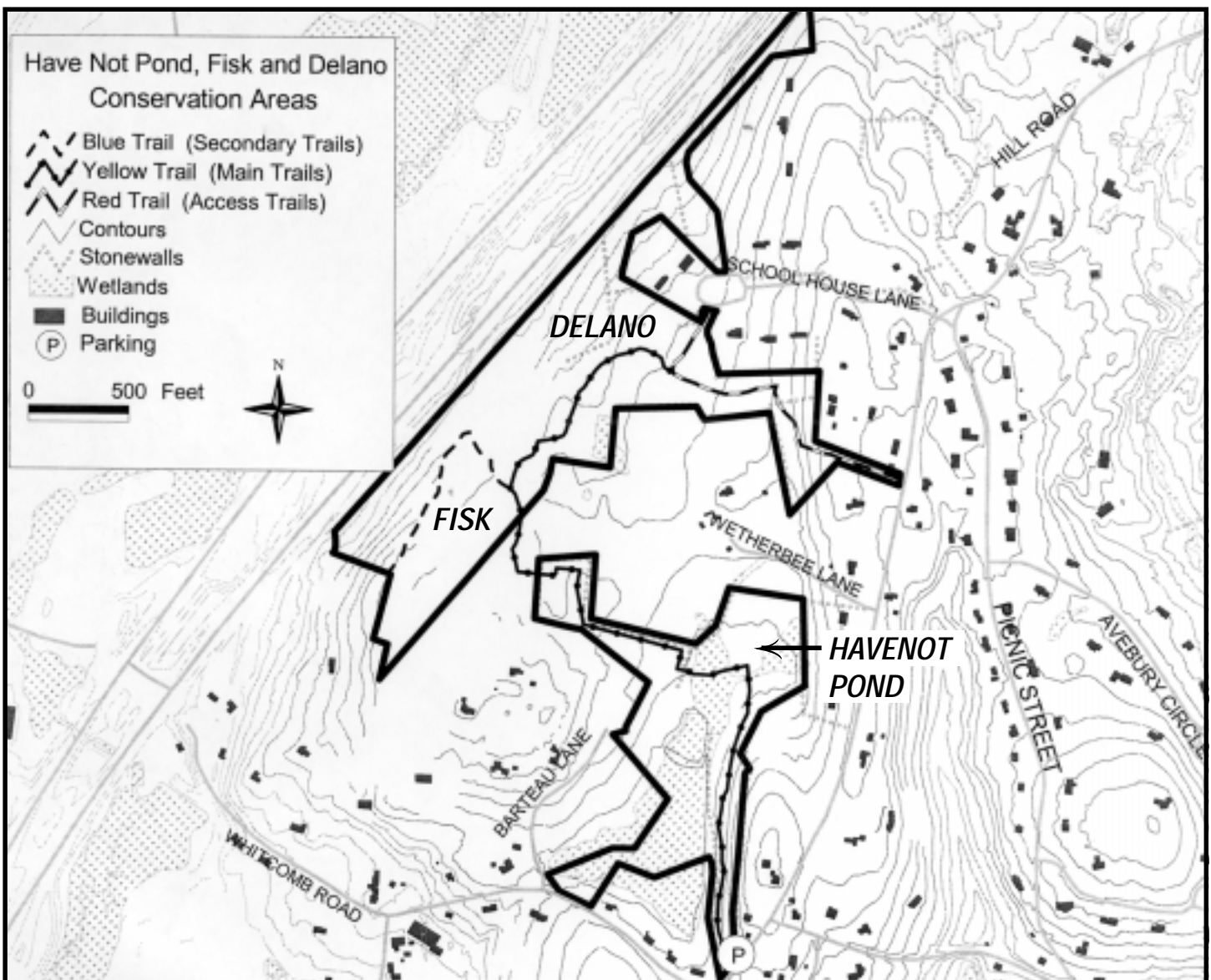
LAND AREA - 24.14 acres

STEWARDS - Emilie Coolidge; Jeff Fuhrer; and Frank Coolidge, who, with materials donated by the BCT, re-planked the bridge, and mows the fields.

HISTORY - Originally part of the High Pastures farm, this property was acquired by the town in 1999 as part of the negotiations for development of the rest of the farm.

Mrs. Sue Morse and her late husband, the Judge Thomas R. Morse, moved to Boxborough about 48 years ago and were very active in town government. Their former home, built in 1796, was a parsonage owned by the Rev. Joseph Willard and is located at the junction of Hill and Middle Roads. The property abuts the north cemetery, the Herb Garden (the foundation of the meeting house that burned down in 1953) and the HaveNot Pond Conservation Area. Sue, a member of the BCT, graciously shares her recollections of how the pond got its name.

“**S**ometime in the 1960’s, AT&T was buying easements through several properties on the west side of Mass. Ave. Among the landowners contacted was Henry Brooks, an artist who had built a



house at the very end of Barbeau Lane. In 1963 he bought the abutting Barbeau property, originally the Simeon Wetherbee farm. The telephone company hoped to bury their cable through the eastern edge of his property. Henry called my husband, a lawyer, to seek his advice as to how to proceed with the telephone company's offer. He said that Bob Ward, who lived on Cunningham Road, had received a dollar a foot for permission to cross his property. My husband Tom agreed to look into the matter and subsequently contacted the appropriate parties. The company eventually agreed to a substantially greater price-per-foot, the appropriate papers were signed, and Henry received a considerable sum.

Once Henry had the check, he called to thank Tom for negotiating on his behalf and said, "So what are we going to do with all this money?" As our property abutted the land in question, we were delighted to be included in thoughts of potential uses. We tossed around several ideas, and finally we enthusiastically embraced the idea of digging a pond in the already swampy area. The advantages were numerous - a fire pond, a swimming hole, and best of all, a natural habitat for birds and beasts. A pond it would be!

The heavy equipment arrived, much to the delight of the neighborhood children, and the digging began. When we unearthed an unexpected number of huge boulders, we had to decide what to do with them. An island! Just perfect for nesting geese and tired swimmers! So the rocks were heaped together in the middle, and before long the pond was formed, with an inlet on the north side and an overflow outlet to the south. It was indeed a lovely sight, and very soon it filled and became a favorite destination for nearby families.

But the inevitable question arose - what should this special place be called? That didn't take much thought. At the time, people were installing fancy in-ground swimming pools all around town. Certainly our humble, but beautiful site did not fit into that category, so we decided that those who had pools were the "Haves," and those of us who didn't, had a treasure, "HaveNot" Pond.

Boxborough Land Stewardship Committee (LanSCoM) Formed

BY LIZ MARKIEWICZ, LANSCOM COORDINATOR

The BCT has long supported the Conservation Commission (ConsCom), and now the newly formed LanSCoM subcommittee, in managing town lands. Several members of the BCT have signed on as stewards.

The LanSCoM is off to a great start. The March organizational meeting attracted 26 people and, at this writing, we have 30 signed up as stewards. Our first task is to assess the condition of the conservation trails in town and start clearing overgrown sections. The ConsCom has already clearly marked the trails in red, yellow and blue. To encourage greater use of the conservation properties, the LanSCoM (with help from the DPW) will be installing kiosks at trail entrances with updated trail maps and other information for hikers.

Stewards have not been the only ones active on the trails. On April 30, ABRHS Community Service Day, twenty high school seniors helped spread wood chips on some poorly drained trail sections at Beaver Brook Meadow and Steele Farm. The DPW helped by trucking in several loads of wood chips for the project. Boy Scout Troop 1 moved a massive section of rock wall that was blocking a trail at Patch Hill. Improving the accessibility and quality of our conservation lands has become a real community effort.

Later in the spring we will focus our energies on eliminating some of the invasive plants that are crowding out the more desirable native flora. Of particular concern are Oriental bittersweet, multiflora rose, burning bush and Japanese knotweed.

The LanSCoM will also be involved in other projects such as building board walks, initiating a blue bird monitoring program, and researching grassland management to protect ground-nesting birds.

We are always looking for volunteers. If you are interested in learning more about LanSCoM and opportunities to help, please contact Liz Markiewicz at ainslie78@comcast.net or (978) 264-4626.

T-Shirt Design Contest

We are pleased to announce the winner of our annual fourth grade T-shirt design contest: Lindsay B. Her compelling Great Blue Heron design is reproduced below.

We would also like to acknowledge our first and second runners up: Michael S. and Sean F., respectively; and our honorable mentions: Molly B., Illana H., Dan H., and Shane H.



T-shirts imprinted with the winning design (white ink on blue background) will be on sale at the BCT booth at Fifer's Day for \$15.00. Sweatshirts and t-shirts bearing the BCT logo will also be available for purchase.

GAIA, CLIMATE & THE AMAZON



Peter Bunyard, internationally renowned ecologist and the author of **Gaia in Action: Science of the Living Earth and Breakdown of Climate: Human Choices or Disaster**, will speak about climate change on Thursday, June 17 at 7:30 PM at the Boxborough Congregational Church.

No admission will be charged, although donations are welcome.

A Sheep in Wolves' Clothing?

BY GLYNIS HAMEL

It has been jokingly called the official plant of Boxborough (indeed, you may have noticed the attractive vine gracing the border of the lovely town quilt that hangs in the Boxborough Library). You'll find this plant in the sun and in the shade, in wet areas and in dry. Sometimes it grows as a shrub, other times as a vine. You have some (or a lot) growing on your property. You hate it. It's poison ivy.

"Few plants in the United States are more disliked or feared", writes Lawrence J. Crockett. And with good reason. Approximately 70% of the population is allergic to urushiol, the colorless oil that oozes from any bruised or cut part of the plant, and which causes the familiar rash that is often accompanied by redness, swelling, blisters, and severe itchiness. Contact with urushiol can happen by either directly touching any part of the plant, by touching something that has touched the plant (such as a tool or clothing), or by being exposed to or inhaling airborne particles (a danger when the plant is burned). Urushiol is remarkably resistant to decay. Documented cases exist of people developing a rash after handling 200-year-old herbarium specimens. Interestingly, only humans and some primates exhibit allergic reactions to urushiol. Dogs may run through the woods with no ill effect, but the urushiol on an animal's fur remains a hazard to people.

What should you do if you suspect you have come into contact with poison ivy? The American Academy of Dermatology recommends that all exposed areas of skin be washed with cold running water within five minutes of contact. If that is not possible, try one of the post-exposure products on the market, such as Tecnu or Gunk. Of course, prevention is key. "Leaves of three, let them be" is a good place to start, but the fact of the matter is that poison ivy is a highly variable plant. Leaflets vary in size and may appear glossy or dull, with either

smooth or toothed edges. One species of the plant (*Toxicodendron rydbergii*) grows as a low shrub, another (*T. radicans*) as a vine. And even if you manage to identify and avoid poison ivy during the growing season, the stems and roots of the plant pose as much of a danger to the unwary winter hiker as the leaves do to the gardener during warmer months.



Source:
Ouellette001.com

Eradication of poison ivy can be a tricky business. Environmentalists who wouldn't think of using an herbicide in any other situation suddenly lose their compunction when it comes to poison ivy. If you do decide to resort to a weed-killer, keep in mind that several treatments will probably be necessary, and that even dead stems will remain hazardous unless removed or allowed to decay completely. The decaying process can be hastened by covering the dead stems with a layer of newspaper or cardboard, over which a thick layer of mulch has been applied. I have had success in eradicating poison ivy from small areas by simply pulling the stuff up. (I do NOT recommend this course of action to people who are highly sensitive or who do not know how sensitive they are to the plant!) I am mildly allergic; even so, I first apply Ivy Block (a pre-exposure product) to my neck, wrists, and ankles, then cover myself completely (hat, gloves, long pants, long-sleeved

shirt, and duct tape around my wrists and ankles) and follow my pulling-spreed with a shower and a visit to the laundry.

Poison ivy is a menace. And yet, I can't help but feel ambivalent about it. The fruit of poison ivy is ranked among the ten most important foods to wildlife. It's an attractive plant; in some parts of the world it is cultivated for its brilliant fall color. And poison ivy is a plant native to the Northeast. Although it may seem aggressive, in comparison to non-native invasive plants the growth habit of poison ivy is rather restrained. It doesn't produce the copious amount of seed characteristic of invasive plants, and thus is not able to readily establish new populations at great distances. When a poison ivy vine climbs a tree, it does no harm to its host; a vine of Oriental bittersweet, on the other hand, will strangle a tree or smother it in dense shade. I can't go as far as environmentalist and author Sara Stein, who advocates the planting of poison ivy against bridge abutments and buildings to act as a deterrent to graffiti artists. But I do agree with her when she asks that poison ivy growing in an out-of-the-way place be left alone. Our efforts to manage the landscape can be put to better use elsewhere.

So, I have a love-hate relationship with poison ivy. OK, mostly a hate relationship. But given a choice between an acre of poison ivy and an acre of Oriental bittersweet, I'd take the poison ivy any day.

Sources:

- Crockett, Lawrence J., **Wildly Successful Plants**, Collier Books, 1977
- Cullina, William, **Native Trees, Shrubs, and Vines**, Houghton-Mifflin, 2002
- Dyer, Sarah, **But Will it Grow in Massachusetts?**, Circulation Service, 1990
- Kingsbury, John M., **Deadly Harvest: A Guide to Common Poisonous Plants**, Holt, Rinehart, Winston, 1965
- Stein, Sara, **Planting Noah's Garden**, Houghton-Mifflin, 1997
- http://home.comcast.net/~little.sarah/wpaclawnguide.htm#_Poison_Ivy

New Member Registration



BCT welcomes new members to join in the effort of preserving and protecting Boxborough's undeveloped land. Anyone may join. Voting members must be 18 years of age or older and residents of Boxborough. All others are nonvoting members. Membership is on an annual basis. There are several giving levels. Please indicate the level of your tax-deductible contribution.

Name(s) _____ Date _____

Address _____

Telephone _____ Email _____

- \$25 - Individual
 \$50 - Family
 \$75 - Friend
 \$100 - Associate
 \$250 - Patron
 \$500 - Sustaining
 \$1000 - Sponsor
 \$2500 - Preservationist
 _____ Other

Please make your check payable to: The Boxborough Conservation Trust, and mail, with this form to: Treasurer, BCT, 110 Barteau Lane, Boxborough, MA 01719.

An acknowledgement of your tax-deductible contribution will be mailed to you.

Please contact your employer to see if matching funds are available.

The BCT does not release information about members to third parties.

Boxborough In Season



BY RITA GIBES GROSSMAN, BCT BOARD MEMBER

On a warm evening around dusk, look overhead for bats, that make an audible, electronic-sounding squeak. The most common species in our area are the little brown bat and the big brown bat. When not visiting as uninvited guests in your attic, bats are very useful – they can consume up to 600 insects per hour, especially our least favorite native species: the mosquito.

☘ In early May, listen for the mew-like call of the catbird perching in shrubs, and look for the brilliant orange and black plumage of the Baltimore oriole. Mid-May is peak migration season for warblers; best viewing times are early

morning or at dusk.

☘ With late spring and summer come insects! Tiger swallowtail butterflies hatch in early June. Look for "June bugs," officially known as May beetles, buzzing around lights after dark. Also look for the flicker of fireflies or "lightning bugs," harmless beetles whose abdomens flash a yellow-green light every 2 to 3 seconds when courting.

☘ After hiking always check for ticks! The reddish colored adult deer tick and its offspring, the black nymph (the size of the pepper fleck), carry Lyme disease. The nymphs are very active in early summer and are easy to overlook.

☘ On a mid-July night, listen for the gentle hum of crickets, katydids and the somewhat noisy, staccato whine of cicadas.

☘ July will host two full moons - the first on

the 2nd and the "Blue Moon" on the 31st.

☘ In late July look for the mystical-looking, white, waxy Indian pipe plant. Found in shaded, moist woodlands, the stems are translucent and scaly, and the blossoms are drooping extensions of the stem with 4 or 5 petals. It is a true find that can only be appreciated *au naturel*, because if you pick the plant, it quickly turns black and dies.

Sources:

Massachusetts Audubon Society: <http://www.massaudubon.org/Nature>

Farmer's Almanac: Full Moon Days web site: <http://www.almanac.com/details/moondays.html>

Alden, Peter & Cassie, Brian. **National Audubon Society Field Guide to New England.** New York: Knopf. 1998.



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Exciting Wildlife Opportunity . . . in Town!

Do you see yourself as a trailblazer, developing uncharted territory?

Do you like working with others and leading them to achieve enriching goals? Are you passionate about preserving the local flora and fauna? Do you enjoy hiking and working in the great outdoors? If so, then we have an opportunity for you!

Boxborough needs a Stewardship Team Leader.

The key requirements for this position are a passion for the environment and the ability to energize others to share your excitement. Possibilities for enhancing Boxborough's hundreds of acres of conservation land might include the implementation of a beaver study, a bluebird recovery program, a flora/fauna trail guide, the development of a Boxborough arboretum or bird sanctuary, building a bridge, upgrading the kiosks at trailheads, or recruiting a team of like-minded residents to cut a new trail or redirect a wet one. The possibilities are endless!

Working with the Boxborough Conservation Commission, you will help set the agenda for the future of the town's conservation lands.



This is a rare opportunity to be the one to marshal the resources of the town's residents, the Boy Scouts and Girl Scouts, local students, and other interested organizations (such as the Boxborough Conservation Trust) to support the efforts to improve, maintain and encourage recreational use of our most precious resources. The stewardship of our conservation land needs your leadership, and Boxborough needs the right person to build an organization from scratch. Although the monetary rewards are few (none, to be exact), the personal reward in knowing that you did something to make a difference makes it all worthwhile!

Interested parties should draft a one-page document outlining their interests and ideas for the position and forward them for consideration to Michael Wierbonics, Boxborough Conservation Agent. Michael's email address is: michael.wierbonics@town.boxborough.ma.us and his mailing address is: Boxborough Town Hall, 29 Middle Road, Boxborough, MA 01719; (978) 263-1116.