

Attleboro Land Trust News

August 2019



By the Education and Outreach Committee and Attleboro High School

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Whats Going on at the Land Trust?

We would like to thank Nick Wyllie, Conservation Agent and the City of Attleboro for putting in the rip-rap drain to the catch basin, at the vernal pool area on Wilmarth Street on the Richardson Nature Preserve. This drain prevents drainage from the street from contaminating the vernal pool, thereby preserving its inhabitants. Though they can't tell us, we're sure they are pleased.

Work is continuing on Deborah's Garden with the Colonial Garden, path, plantings and the irrigation system, thanks to the help of the girls, boys, and teachers of the AHS and NAHS School to Career program and our own volunteers. Everything is planted in the colonial garden and much has been cleared on the rest of the native garden. Work has been started on the garden shed.

There are branches down at other properties on which we need to work. We are always in need of volunteers to help keep our properties safe for recreational use by our visitors.

Upcoming Events

"Getting to Know Your Watershed" with Ben Cote, Friends of the Ten Mile at Larson Woodland, Watson Ave & Riverbank Rd Behind Willet School on August 10, 9:00 to 10:30 AM if rain Aug 11 same time

"Harvest Day" at Community Garden August 10, 9:30 to 11:30 AM

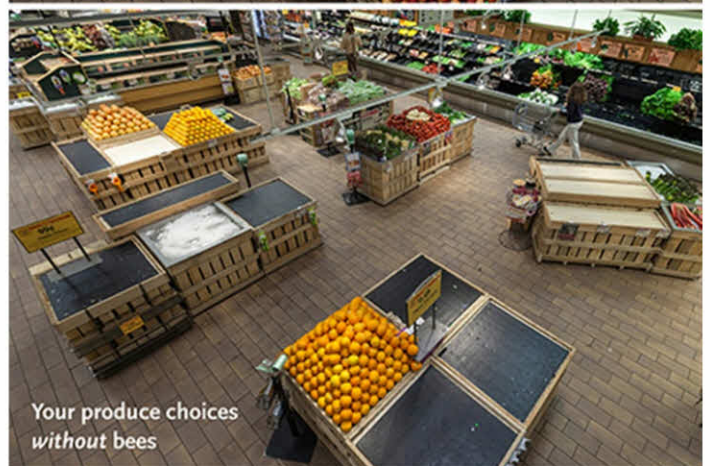
"Preserving your Harvest Workshop", at Community Garden August 10, 10:00 to 11:30 AM

Losing Our Bees, Means Losing Our Food Supply

Between October 2018 and April 2019, the U.S. lost 37.7% of its managed bee population. For the entire year, it was 40.7%, which reflects a 7% increase over the previous year and an 8.9% increase over the average of the past 13 years. Massachusetts fared worse than average, with cold temperatures driving losses up to 50%. Most wild bee populations are also faring poorly, with some species facing losses as high as 90%. Wild bees and wild pollinators in general, are on the decline globally.

So what does this mean to us as consumers? In the picture, you see that 52% of the produce that Whole Foods sells requires pollinators. Without pollinators, we lose most of those crops. Those we do not lose become extremely expensive, since they will have to be pollinated by hand. This is already happening in Japan, where they have had to hand-pollinate their apple crops. The losses also make it more expensive to manage beehives. All of these costs must be passed along to the consumer.

What is killing the bees? Primarily, it is parasites like varroa mites and tracheal mites, predatory species of beetles, diseases, and pesticides, particularly neonicotinoids. The methods of treatment are limited since any methods used, if too strong, also kill the



<https://media.wholefoodsmarket.com/news/bees>

bees and brood. This is further complicated by the fact that the mites are developing resistance to the treatments.

Now, when the U.S. is at an alarming level of loss, the **USDA** has announced it will no longer be tracking the bee losses because of budget shortfalls. It says it has other priorities.

What is the **Land Trust** doing? We do not use pesticides on any of our properties except spot administration for eradication of nests of dangerous wasps near the Barrows' house as we have small children playing there. This makes our properties havens for any managed bees in the area. We are also trying to cultivate native flowers and other native plant species for the benefit of bees and butterflies.

The Attleboro Land Trust is looking for Supporters either by making a Tax-Deductible Contribution and/or as a Conservation Volunteer. Contributions or Sign-ups as a volunteer can be made securely at Attleborolandtrust.org or by mail at Attleboro Land Trust, P.O. Box 453, Attleboro, MA 02703. Thank you for your support.

American Goldfinches I Observed

A few weeks ago, I had the chance to watch a pair of Goldfinch (*Spinus tristis*) as they busily went about looking for nesting material. Taking this time was not a hard choice to make since they are one of my favorite New England birds. They exhibit such happiness in everything they do with the varied chorus of sounds to go along with each duty they perform. The joy in their voices and rhythmic flowing flight are very recognizable and bring a smile from me nearly every time.



Hardly rare, they frequent open fields, woods margins, gardens and winter bird feeders, as they are mostly seedeaters. Small flocks can be seen and heard any time of day as they work their weedy spots for food.

Remember that I assumed that they were building a nest even though it seemed a bit off to me. Goldfinches are very patient birds and usually wait to raise their one brood when some of their favorite food sources are available. The activity I observed could also be that of a resident bird as they have a slight luxury of time on their side.

As I watched, they had found a piece of old woven clothes line hanging in a tree. Each took a turn ripping apart the cottony insides of the line until each had a substantial beak full. By now amazed, I could not stop watching them working. The line was fragile and easy to pull apart but how did they know to use this new found material? True it did resemble the wild thistle down so often used in their nests, but was that it?

I tried to follow them to find out about this mystery. For once, with full beaks of cotton fibers, their flight was silent and more direct as they were all business as they reached the edge of the woods. I lost them and if you do not scare up a Goldfinch on its nest, you are likely not going to find it. It can be from four to twenty-five feet off the ground and difficult to see from below at roughly three inches wide, well situated in a leafy branch or small forked crotch.

With no observed solution to this mystery, I thought that nowhere in the inherent Nest Building 101 would really explain this activity beyond instincts. Intuitive or was invention the key? When it comes to food, they and all birds are opportunists. Maybe that trait folds over to all parts of their seasonal lives. A late, wet spring may be part of the behavioral calamity for this pair that seemed to be working in nontraditional ways for their survival. I am glad that I observed them but wish that I had an answer. I do marvel at the idea of adaptation that I believe I am seeing as fragile little beings find a way to continue life in the face of change.



I will continue to enjoy their sounds and comic attacks on assorted landscape plants and the weeds and grasses in the fields. When the leaves fall and with reminders in my calendar, I will go to the place I lost sight of my elusive pair to check for a nest. If I find it, I know I will not solve the mystery but I might confirm the activity I saw and elevate my knowledge of nest building to 2.0. Then I will wait for their treasured spring song and their pulsing flight to fill the fields and suburban yards again. Phil Boucher

Attleboro Community Garden News

Ladybird, Ladybird Fly Away Home

On June 28th over 150 people attended the third annual ladybug release at the Attleboro Community Garden. The event was sponsored and conducted by Bloom Gardening for Good, a community charity farm stand and gardening partnership that aims to connect, feed, educate and give back to the greater North Attleboro area. This educational and fun program has been growing in popularity each year. The program attracts people of all ages but is particularly geared toward children.

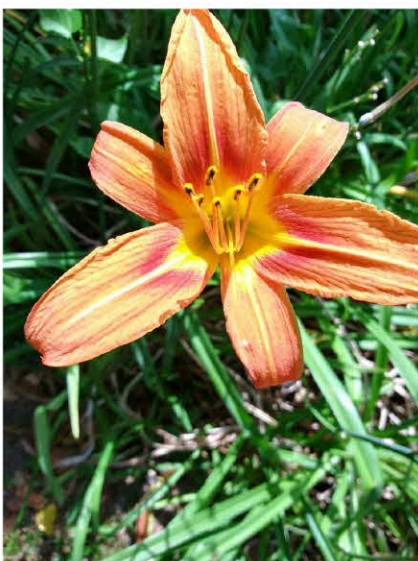
Participants first gathered and were given a brief overview on why ladybugs are good for the garden. They then took part in releasing 9,000 ladybugs into the garden. Some of the children were initially spooked as the ladybugs were crawling on them but soon were captivated and would run back to



get more ladybugs.

Mature and larva ladybugs are known for eating aphids, mealybugs, and other sap-sucking insects that kill plants. They lay their eggs on the bottom of leaves near infestations. Once the larva hatch, looking like mini alligators, they spend 10-14 days eating the infestation while going through four instars (replacing their exoskeletons) where they progressively grow larger. They then enter the pupa stage to become adult ladybugs. Though they are called ladybugs, there are both males (smaller) and females.

The release was over in half an hour and then people were looking for the ladybugs that stayed. Where are they? They tend to be on the bottom of the leaves where the aphids are hiding.



Day Lily by Zoe Letourneau- North Attleboro

Do you know what kind of flower blooms for only one day? The flower that blooms for only one day is called a daylily. There are many types of daylilies like Long Yellow daylilies, Amur daylilies, and many more. A bud will bloom for one day and then die as another on the stalk will bloom the next day. Daylilies are the most carefree of all flowers.

Many people believe that daylilies are a native American plant, but they are actually from Korea and China. They were introduced to North America by Europeans in the colonial period.

They come in a variety of colors, shapes, and sizes. They are found in Europe, Asia and now in North America. In China, they cook with the flowers in soups and moo shu pork. They are of the genus classification: *hemerocallis* in the family: *asphodelaceae*.

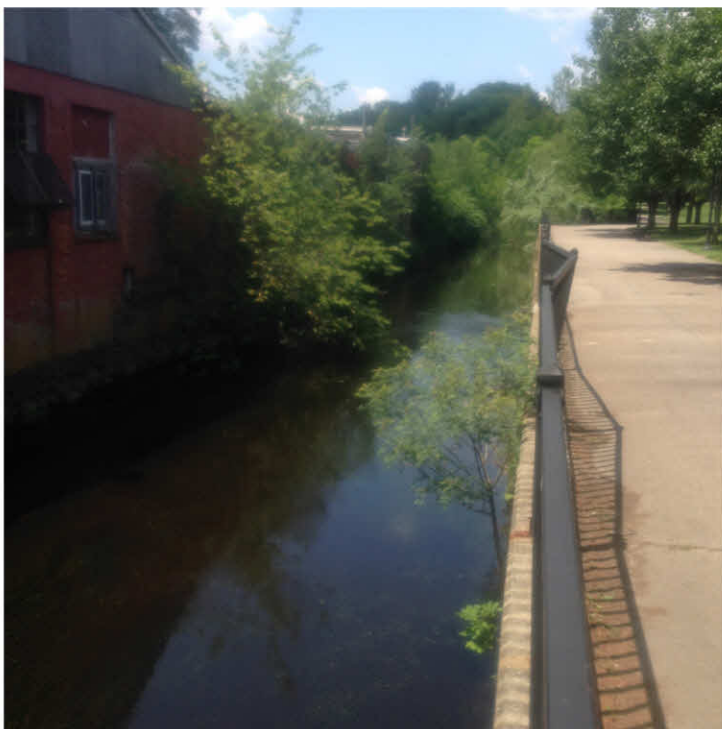
They are all over the place in the spring and summer. Have you seen them around?

The Legacy of Our Past Industrial Age: Polluted Waterways

The Ten Mile River is now a Class B waterway, which means it is suitable for fishing, swimming, and with treatment, as drinking water. It took a lot to bring it back to that status thanks to the Clean Water Act of 1972 and groups like the Friends of the Ten Mile and the Ten Mile River Watershed Council.

The Ten Mile River starts at Savage Pond in Plainville and goes about 22 miles, so much for the name, to drain into the Seekonk River in East Providence. It passes through Plainville, North Attleborough, Attleboro, Seekonk, Pawtucket, and East Providence. It even has a National Fish Hatchery in its upper reaches.

In its early days, the Native Americans used to harvest the large runs of herring and Atlantic salmon for both food and fertilizer for their crops (one herring per stalk of corn). They also caught the other species of fish that inhabited the river. As the colonists set up farms, they caught the fish but started to dam the river at various points to utilize as waterpower for



Ten Mile River behind old Balfour Co. where craftsmen would throw mistakes out the windows into the river.



Ten Mile River where old "Public Works" leaked oil, antifreeze and fuel into the river

their industries. This cut down on the herring and salmon runs and the river was used by industry to dump their wastes.

Along the river were tanneries, sawmills, textile and dying mills, felting mills, plating works, and metal working factories producing raw metals and finished jewelry. Later when waterpower was not needed, chemical and petroleum based industries sprouted up as well as service businesses that also dumped waste. These businesses felt it was cheap and convenient to dump in the river where it would be washed out to sea. Some was washed out to sea, killing the native wildlife in the process, but some of the heavier metals settled into the sediments. Most of this is now covered by subsequent sediment layers.

The Ten Mile is now a resource for both man and wildlife but it needs to be maintained.

On August 10, at 9:00 to 10:30AM Ben Cote, of Friends of the Ten Mile, will be giving a guided walk at Larson Woodland at Watson Ave and Riverbank Road (Behind Willet School). He will be speaking about "Getting to Know your Watershed". Rain date is the 11th at the same time. It is open to the public and welcome to all.

What's Happening on the Barrow's Farm in 1719

Everyone is busy working, taking care of the crops and animals. The main crops of maize, beans and squash are planted in the "smooth" fields, hay in the "rough" fields, flax in the wetlands, grazing is in rotating pastures and there is one or more "Kitchen Gardens."

The "Kitchen Garden" is actually a whole field, though they may have a small planting near the house. The colonists were only able to eat "greens" during the growing season except for sauerkraut in the winter, made with only cabbage, water, and salt. Besides the greens, they grew sweet potatoes, white potatoes, carrots, turnips, onions, beets, lettuce, cucumbers, radishes, melons, peppers, and herbs, both culinary and medicinal. They tended toward the root vegetables and hard squashes that would keep over the winter. They ate the "tops", beet, carrot, and turnip tops, at harvest time except for the ones they let "go to seed" so they had seeds for the next season's crops.

Seeds were very important and the main crops had a reserve. In the 1771 probate it listed "2 1/2 bushels of old corn". This was the reserve in case of crop failure due to weather or blight. At 90,000 kernels per bushel, it was a good reserve but their lives depended on it. Each corn stalk only produced one or two ears. There were no seed stores and if their crop failed, it was usually everywhere locally. The colonists also wanted to expand the crops they had planted. If they could get a single piece of fruit, they would harvest the seeds and carefully plant them the next year. It would take a long time to build up a crop or orchard but they were planning for the future.

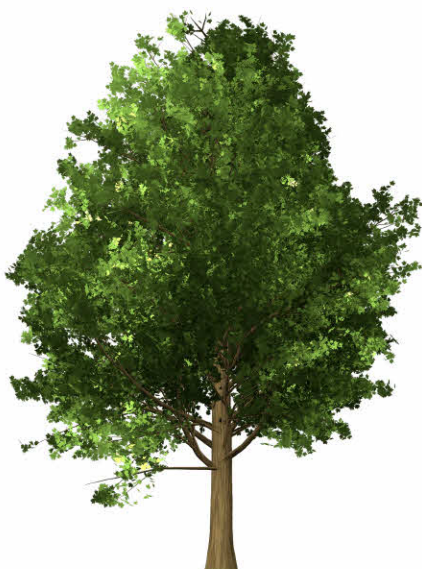
If they were lucky, they had some fruit trees such as apple, cherry and pear. If they could obtain sugar, which was expensive and brown, they could preserve these and any berries they found. Of course, they only ate a particular crop at its harvest time, which meant much was not available until the fall, unlike today when things are imported.

Their main sustenance during the winter, similar to England, was grains, beans, and meats with dried herbs to add variety. The more affluent would have a more diverse offering.

Everything depended on the weather. Too much rain and you get fungus and root rot, too little and the plants stunt or dry up. Hand watering the fields would be an enormous task but sometimes it had to be done.



Students and Phil digging ditch for irrigation piping at Deborah's Garden



How old is that tree?

Of course, you could find out the age of a tree by cutting it down and counting the rings. On the other hand, you could bore a core and count the rings but both of those methods damage the tree. So how DO you find out the age of a tree without any damage? The procedure is relatively simple. Measure the circumference at chest height and divide by 3.14. This gives the diameter. Multiply that by the growth factor. Growth factor of some local trees are; red oak 4, white oak 5, sugar maple 5.5, white pine 5, American beech 6, white birch 5, white ash 5, horse chestnut 8, spruce 4.5, scotch pine 3.5, and tulip tree 3. Hence a red oak with 34" circumference/ $3.14 = 10.83$ diameter x growth factor 4 = 43 years.



While cleaning out the shed, students found a couple juvenile northern ringneck snakes

Contact Us

Email:

Attleborolandtrust@gmail.com

Phone: 508-223- 3060 EXT 3604

Address:

Attleboro Land Trust

P.O. Box 453

Attleboro, MA 02703

For Subscription or comments
send email to:

Attleborolandtrust822@gmail.com



Plantain Weed- "White Mans' Footprints"

Plantain weed is one of the most widely spread medicinal herbs in the world. It was brought to the New World by the Puritans when they came from England. The Native Americans called it "white man's footprint". The seeds are sticky so they travel on the bottom of shoes to spread wherever the colonists roamed. It contains vitamins A, C, and K plus calcium, aucubin (anti-microbial), allantoin(anti-bacterial), and mucilage (pain reducer). As a tea it is used to treat diarrhea and stomach upsets as well as coughs, colds, and hay fever. It is made into a poultice for wounds, poison ivy, and bites. It was one of the nine sacred herbs of Anglo-Saxon tradition along with wormwood, watercress, betony, chamomile, nettle, crab apple, chervil and fennel.



NEVER eat or use it if you are DIABETIC as it affects insulin levels.

The young leaves can be eaten raw while the older leaves can be boiled. It has a somewhat bitter taste and is commonly designated as a food source during military survival training along with dandelion as they are both easy to identify. It is prevalent in most of the Land Trust properties where the rabbits particularly relish it, and is a common weed in many lawns.

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