

ATTLEBORO LAND TRUST NEWS

April 2021

A Monthly Newsletter on Outdoor Adventure, Conservation and History

A publication with Attleboro High School Collaboration



In This Issue

Preservation in a Digital Age

The Hunt for Nature

Larson Woodland

Attleboro Community Garden

Warbler Wanderings

What is Happening at the Barrows' Farm in 1721

Noted Barrows Descendants

Updates, Comments, and Interesting Reading

The Attleboro Land Trust During the Pandemic

The pandemic combined with the summer drought put a big crimp on Land Trust (ALT) activities last year. Things are looking better this year. Evan, the TerraCorps Member working with the Land Trust, has run a few family-oriented activities and has more in store. Registration is limited due to Covid restrictions and all safety protocols will be followed. He is scheduling several of the same activity for each event to make up for it. He is also expanding the ALT's social media presence and will soon be hosting Facebook Live events on Fridays at noon. Cait, the intern from Rhode Island College, has been working on ALT's properties to expand her studies.

Maintenance on the equipment and the property at the Richardson Preserve is ongoing and plans for more development on Deborah's Garden is in the works. The Land Trust was able to obtain the "Otto File Corn" which is the descendant of the "New England Corn" that was wiped out during "The Year Without a Summer" and it will be planted in the "Three Sisters" manner of the Native Americans as well as the colonial row method.

The latest "Farm to Table" class has started at AHS and members from the Attleboro School Garden Collaborative, which includes Land Trust members along with volunteers from URI Master Gardeners, will be reskinning the AHS greenhouse for them to use. The Land Trust is looking forward to working with students from the "School to Career" program again this summer on several worthwhile projects as well as giving them instruction.

The Land Trust also hopes to start the "Guided Walks" series again. As more activities become available, information will be posted in this newsletter and on the ALT's Facebook page and website. The Land Trust is always looking for individuals to join with us for our projects and activities.



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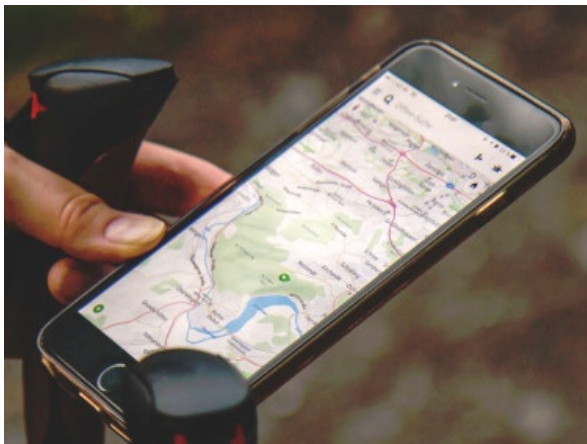
Preservation in a Digital Age by Jason Burby

It is evident that people are spending a disproportionate amount of their day in front of a digital screen. Whether watching television, on a tablet, or phone, “recreational” screen time and inactivity is replacing time once spent outdoors exercising or enjoying nature. Consequently, one might think that technological innovation is at odds with the goal of preserving open space and promoting the healthy use of that space for recreation and enjoyment. Used incorrectly, technological innovation has the potential to harm, but utilized effectively technology can be used as a tool to assist in environmental sustainability, land preservation and the promotion of outdoor recreational activities.

GPS is not a new technology having been developed over forty years ago by the U.S. Government for military use. The application of GPS technology has changed drastically over time and is now widely used to address various environmental concerns. GPS data can assist in evaluating an area’s wildlife and terrain. GPS technology can be used to understand and forecast climate change, mitigate natural disaster or track the migratory patterns of a species. Positional data collected through GPS can be imported into a geographic information system (GIS) software, combined with satellite imagery, and other numerical data to provide insight on the environmental impact of a change to municipal infrastructure. GIS has been used in applications to manage agricultural, water and forest resources. (<https://www.GPS.gov/applications/environment>)

UAVs or “Drones” are another type of technology with a steadily expanding use case when it comes to scientific or environmental protection efforts. Drones provide a cost effect method of mapping land and identifying conservation issues. Drones are being used to track wildlife, whether by monitoring sea birds in Australia, saving Tanzanian Chimpanzees or counting seals in Canada. Amazonian Tribes in Brazil have even been given drones to track deforestation in Brazil and assist in preservation efforts. (<https://www.msn.com/en-us/news/world/amazon-tribes-are-using-drones-to-track-deforestation-in-brazil/>)

A cell phone does not necessarily have to be a distraction from enjoying the outdoors. Software or Phone “apps” have been created to accentuate outdoor experiences. In developing their “All



Persons Trails”, Mass Audubon has created audio tours for the visually impaired which can lead them through specific trails either by cell phone or a loanable device. Many park or trail maps can be found through various phone applications or by utilizing Google Maps. The Geocaching community utilizes a robust phone application in combination with GPS satellites to promote exploration of outdoor spaces for all ages. Websites or Social networking apps are utilized to promote open space, coordinate volunteer efforts and share events with the community.

The Attleboro Land Trust recognizes the importance of effectively utilizing technology to assist with meeting its mission. A volunteer is carrying the Land Trust’s GPS unit while attempting to walk all the trails in Attleboro. This data can be utilized in creating more detailed maps of our existing properties or assist in identifying land in which conservation efforts should be applied in the future. We have begun adding QR Codes to our property kiosks. Once scanned by any phone a trail map is shown for use when hiking trails. Recently we have expanded our online presence including accounts on video sharing sites to create and share educational videos featuring our properties. These efforts are just the start of a focused effort to use technology to effectively manage our properties and to reach a larger and more diverse population of residents within our community.

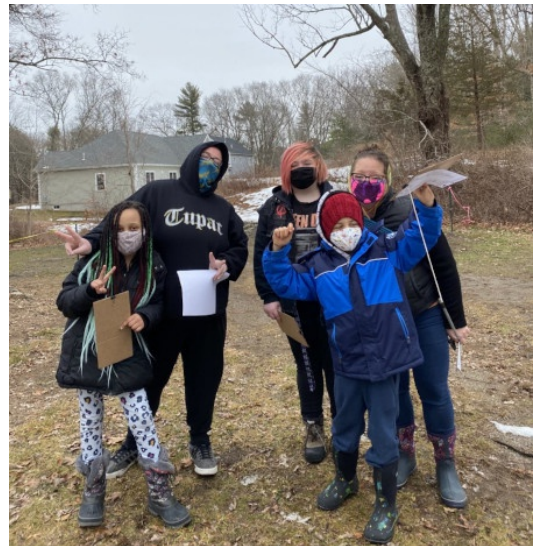
The Hunt for Nature! by Evan Foster



Flaherty Family

With patches of ice and snow scattered around the Deborah and Roger Richardson Nature Preserve, the Nature Scavenger Hunt was sure to bring adventure to the participants' day. A keen pair of eyes along with steady feet and a positive attitude were the only requirements for the day's event. The excitement filled the air as the families started to arrive on the property. Conversation sparked as everyone was ecstatic to be outside and exploring nature. After a long, hard year filled with isolation and fear, it was comforting to interact with people from our community in a safe and healthy manner. After the initial introductions and instructions, the makeshift clipboards were handed out to the kids, with pens attached, ready to go. Off they went in search of something greater than just items on a list.

For me, this event was much more than simply a game of scavenger hunting. It was a chance for kids and parents to experience an incredible property. Most of the families that attended the event had never visited any of the Attleboro Land Trust's properties before. This event was a vessel to guide people to the natural wonders that exist in their backyard in Attleboro. A simple walk in the woods can be one of the most effective remedies to calming the mind and soul. We have seen the power that these natural areas have played for us over the past year when things have felt uncertain and scary. Call it what you will; a distraction, a break, a moment, a second, a breath, but it all adds up to be a time of reflection and appreciation for the things around us: the appreciation for your kids smiling and laughing or the squirrel that scurries across the trail or the pine tree swaying in the wind or the bird flying high above in the sky.



Willette Family



Watkins-Wong Family

The kids continued through the list checking features off: hiking trail, snow, other hikers, stump, animal tracks, clouds, field, trees. From the piece of paper to the world in front of them, their eyes flashed all around. What a wonderful sight to see! They were truly looking, truly seeing, and truly hearing! To them this was just a game called a scavenger hunt, but it was much more. By looking beyond their assumptions of what they thought they would see, they were allowing themselves to truly notice the things around them. Pushing their minds to expand and grow with the world around them. The families spilled out of Deborah's Garden laughing and smiling as their checklist was fully completed with the final item checked off, the garden! The list of items on the piece of paper now lives inside each of their minds.

Every walk that these kids take in the future will be exactly this: a distraction, a break, a moment, a second to breath and notice!

LARSON WOODLAND by Phil Boucher

With the grind of winter now firmly in our rear view, the prospect of returning to the work at Larson Woodland has instant appeal. To recreate this gem of a property so close to the heart of the city would be unlikely and not feasible. To help preserve and enhance this verdant spot with its trails that cut through the undulating topography leading to the edge of the Ten Mile River is the obligation of the stewardship of the Attleboro Land Trust. The crossing trails lead to pleasing vistas and openings to the water that make the property seem much larger than the four acres of woodland it occupies. The serene sound of water moving over the dam or the sight of the dip and glide of the swallows drinking from the water gives instant peace. The shading of the tall tree canopy also makes for a cool summer's walk.

It is a very popular place and deserves our attention. The work that we, with the help of the Friends of the Ten Mile and Bucklin Brook, are doing at this property is the removal of invasive plant species and replanting with native plants to protect and reestablish the balance of this site's biodiversity. This job involves identifying the offending trees and plants throughout the property and then digging to remove them as completely as possible. We started slowly in 2019 and continued, though somewhat obstructed by the pandemic in 2020, to remove the targeted plants of Norway Maple,



Bittersweet, Wisteria, Multiflora Rose and Honeysuckle, clearing the way for our replanting efforts. The severe drought really compromised part of our work and a prudent choice was made to wait a year before replanting.

The term biodiversity should bring to mind the general health and balance of the plants that naturally occur in our Southeastern Massachusetts woodlands. This is what nature was able to do before invasive species of plants and trees arrived, rapidly increasing, thus throwing off that natural balance. The invasive plants can out compete the native species both as young seedlings and saplings by occupying and dominating the sunlight and available root space impeding access to water and nutrients. In the understory, invasive species begin to restructure the balance and soon can dominate a space. This is accomplished by having no natural pests or diseases here to retard their progress, by having high seed production, and the ability of roots to chemically alter soil aspects that discourages competition. In successive years, the process continues in a leapfrog manner until large colonies exist with the ability to exclude any native plants from an ecosystem.

The problem of invasive plants is widespread on many of our properties. The Larson Woodland was chosen due to its size and what appears to be a manageable project for a volunteer driven organization. It will not be easy but if we can measure our success here, we can determine how well we can perform similar work on our larger properties. The worst that can happen is that we have only one cleaner and healthier property. It would become an improved habitat for wildlife, enhancing the woods as a natural filter for both air and water and in turn stabilize the holding capacity of the soils against erosion. This property, though small, is still a living system operating within the laws of biology and ecology that requires a little of our help to maintain this gem that many think is bound by flowing water and city asphalt.

This is not just the challenge of the moment for the Land Trust. There is science behind what defines our concern and need for protecting and restoring the biodiversity. Hopefully, our success will demonstrate how important and meaningful local work is on helping to solve this



problem. The lasting impact of doing nothing may not be quickly understood but we would eventually see the impact of a reshuffled habitat. The follow-up and maintenance to help the new plants succeed will be ongoing for years. We can not simply say, 'wake me when it's over' as this will not end soon and will fall on the next generation to complete. Success here at the Larson Woodland can likely produce an ecosystem that can prosper and endure as we move through the next twenty-five years. Let us keep in mind that planting trees now is an investment for the future not just for us.

Attleboro Community Garden

Happy Spring, Gardeners!

Mark your calendars, Gardeners! The 2021 Season Opening Day of the Attleboro Community Garden is Saturday, April 10, 2021 from 10am-12pm

Whether you are at the Attleboro Community Garden or home gardening, here is some information on getting your plot or garden ready, written by **Stephanie Furlong** of the Attleboro Community Garden.

Plot Preparation RESOURCES

Preparing your plot can be achieved in 3 easy steps!
Weed & Pest Management ⇒ Soil Preparation ⇒ Fertilization

Key Items:

- Soil •Fertilizer •Mulch (Optional) •Landscape Fabric (Optional)



Preparing your plot can not only help you maximize your yields this growing season, but it can also help prevent damage to your plants from weeds and pests! Many common issues can arise from weeds. Did you know that weeds can not only damage and kill your plants, but can also attract pests? It is important to thoroughly weed your plot prior to direct sowing or transplanting. Following these easy steps can make plot maintenance a breeze during the growing season!

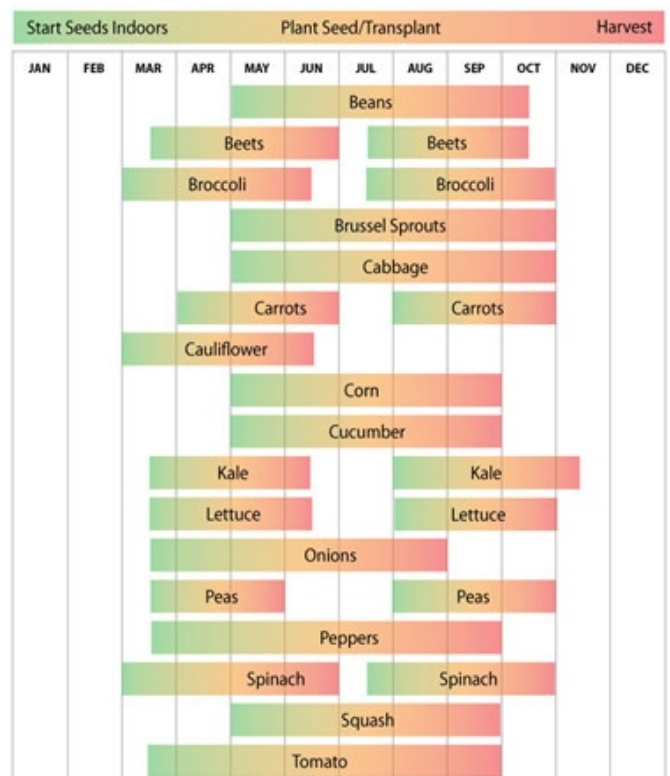
First, remove all weeds from your plot. This includes the roots! After weeding your plot completely, turn over the existing soil 6-8 inches from the top of your plot. Break up large clods of soil. Once this is achieved, add some fresh soil to your plot, if you have any, but be sure to mix this with your existing soil. Next, choose a fertilizer. It is best to fertilize your plot a few weeks before planting. There are great choices for fertilizer that include: manure, compost or store-bought organic fertilizers.

If you are sowing seeds directly into your plot, you can add a layer of landscape fabric to prevent weed growth. If transplanting, you can add a layer of mulch to retain moisture, and to deter weed growth. Following these steps can ensure a fruitful growing season...a little garden humor. Get it?

Seed Starting

It's time to start seedlings in Zone 6! Plot preparation is the first step to seed success! Determine whether your plants are best directly sown into your plot, or whether they are best started indoors. You can find this information on the back of your seed packets. Check out the chart to the right to determine the appropriate time to start your seeds, and when to expect a harvest.

According to the Old Farmers' Almanac, The Last Frost Date for Norton, which is right next door to Attleboro, is May 10.



WARBLER WANDERINGS by Phil Boucher



Lorraine Minns Audubon

A few years ago, in the early spring, I had the opportunity to walk in the woods of the O'Donnell property with Don Ouellette prior to it becoming part of the Land Trust. I was excited to see both the wildlife signs and the number of birds there. With such wildness at hand, I went back in about four weeks and it seemed that the migration had simply singled out this spot to occupy and refuel for their further flights.

Fast forward to the now O'Donnell Nature Preserve with a new entrance and an organized trail, I have been scouting out places to renew some bird adventures. Specifically, I want to see the warbler population that I saw on my first visit. I have had good luck at both the

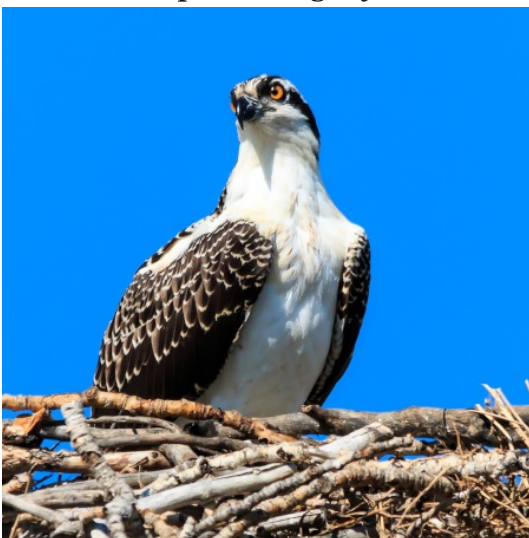
Nickerson Walking Woods and the Richardson Preserve in the past few years, but I think the O'Donnell Preserve has a reasonable habitat for warblers as well. I have not had the chance to see these particular wet areas in bloom with the tender green leaves or the delicate catkins on Birch and Alder that seem to excite foraging birds.

Along with the spring peepers' serenade, the first colorful covering overhead will be the red haze of the Swamp Maple followed by the creamy white blooms of the Shadbush against the brown near leafless woods. These wet areas are spots to see the expanding tops of Skunk Cabbage or the beginning of the yellow flowers of Marsh Marigolds. The timing of knowing when or where to go in a new area is a little bit of experience and a lot of luck. An old key to seeing warblers was when the willows began leafing out. There are native willows in the wetlands and in people's yards, so watch and try your luck. I enjoy going out when I think others do not go which makes for far less noise and commotion.

In the warmth of mid to late April, the tree and understory leaf buds and needle bundles begin to expand which creates just enough insect activity to attract birds. Taller and smaller trees offer a terrific platform for food, so look up as well to see what is flitting about higher up, especially in the White Pines and our many Oaks with their early blooms. Their voices can easily be heard before you will ever see them, so binoculars are a necessity when watching these little birds. Some of the earliest Warblers may not be the birds that remain here through the summer. That is why it is a good idea to go as early as you can since a few species might just be refueling to move on to their upper range.



Shirley Donald Audubon



I recommend a bird book or get an app for identifying these colorful little wonders. Both the Massachusetts and Rhode Island Audubon are very helpful when it comes to finding out what has been sighted in the area. Do not rule out Cape Cod. The email cape.sightings@massaudubon.org or 508-349-2615 in Wellfleet provides information. If you are looking for a little less buggy spot to see warblers, consider the Swan Point Cemetery on Blackstone Boulevard, in Providence, often referred to as a warbler hole. Park and head back towards the river where along with small birds there is usually an eagle or an osprey nesting. It is a fascinating spot which will draw you back more than once.

What's Happening on the Barrows' Farm in 1721

Spring is here at last. They are working on the "Rock Harvest" and looking for new rocks that have popped to the surface since they cleared the fields last month, an indication frost is still around. All frost has to be gone before planting deep rooted plants which in this area can extend 30 – 36". Now that the upper soil has softened, they start pulling the stumps from the winter cleared land to make way for more crops. The stumps will be piled in a corner to age, dry out, and have the rain to wash the dirt away. Later they will be used for firewood or special wooden implements from the twisted roots. They will be using the horses for the pulling as the Milking Devons they use as oxen will have given birth to their calves and will now be getting milked. Working them cuts down on their milk supply.

At the end of the month the herring will be running in Chartley Brook. They will harvest some during the day to use for food. And some will be used for fertilizer, as taught by the Native Americans. They let them bypass the dam during the night. The food ones will be dried or salted to last the whole year. Most are dried as salt is awfully expensive during colonial times. Due to this, some colonists set up salt evaporation ponds on the coast to serve the colonists rather than the expensive salt provided by the East India Company.

The "kitchen garden" has been planted but if the nights will be cold, they will cover the seedlings with leaves, straw, cloth, or even buckets. Sometimes they will take the coals from the fireplace, place them between the plants, and cover with some slightly damp straw. The straw will smolder all night and the smoke will help keep the plants warm.

The children, besides taking care of the animals, will be getting the maize kernels off the cobs. The cobs have been drying all winter and should be thoroughly dry. Working over a big tub made by their father, the cooper, they will rub two cobs together to break loose the kernels. It is not an easy task for young children because it takes some pressure, but it is safer for young children than some of the spike tools that were sometimes used.



Noted Barrows Descendants

Henry Francis Barrows (1827-1904) formed H. F. Barrows Company which was the largest company in Attleboro at the time having a workforce of 125+ workers. They made rolled plate and chain.

John Phares Barrows (1735-1816) Harvard Graduate, Schoolmaster

Milton Barrows (1769-1847) owned Lanesville Mill making calico. 2,000 spindles, 50 looms, 400,000 yards/year.

Carlas (Carlos) Barrows (1777-1852) founding member "Attleboro City Manufacturing Company" (City Factory). They produced 1,800 yards/week of cotton cloth.

Alfred Barrows (1800-1866) had a jewelry shop in Attleboro making watch keys, finger rings, guard chains, breast pins, etc.

Edward E. Barrows (1839-1898) E. E. Barrows Co. did chemical metal plating.

Ira D. Barrows (1859-1944) was a physician.



Updates, Comments, and Interesting Reading

Waste plastic roads are in the news again. In India all roads near large cities are mandated to be composed of at least 10% waste plastic in the road material. In other areas it is even greater. Bike paths in the Netherland are made of almost all recycled plastic with a thin layer of aggregate on top. The really good aspect of these roads is virtually all types of plastic can be utilized including types that can't be recycled by other methods such as plastic straws and bottle caps. The heat from the production process also sterilizes the plastic so no cleaning is required. The new plastic roads last longer and withstand greater temperature fluctuations.



Today farmers, beekeepers, and livestock producers are using satellites, drone technology, micro sensors, and artificial intelligence to monitor their agricultural and livestock production. Micro sensors are planted in animals, on beehives and in fields to monitor their product, detect changes and allow them to utilize less water, fertilizer, insecticides and feed to produce their crops and livestock.



Scientists are finding out about lemongrass and other compounds that will reduce the methane in livestock burps. We reported about seaweed reducing up to 82% of methane in sheep and cow rumens earlier but now they say lemongrass will reduce it by 33%.



With the International Maritime Organization requiring a reduction in CO2 emissions by 2050, the maritime shipping industry is looking at many ways to cut emissions. We are seeing where they are looking at rotors, kites, and sails. Now they are looking at alternative fuels such as compressed air, Green Hydrogen and Green Ammonia which are produced using wind farms and solar to power big ships in the future. The alternative fuels can be utilized for engines or fuel cells to produce electrical power. Many cargo ships use electrical generators to power electric motors as it gives them better control.



A study published in Nature Energy shows that utility companies around the world are continuing the trend of investing heavily in fossil fuel power generation while independent utility companies are investing in renewable energy sources. The big utility companies are undermining the goal of net zero emissions by 2050. Many countries have set the goal and if the utility companies don't change their pattern then there will be a shortage of renewable energy when 2050 comes around.



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