

ATTLEBORO LAND TRUST NEWS

February 2021

A Newsletter on Outdoor Adventure and Conservation

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A Thank You to our Outgoing President by Jason Burby

On behalf of the Attleboro Land Trust, I would like to thank Roy Belcher for four years of esteemed leadership as President. Roy played an integral role in ensuring the organization kept on a clear path towards meeting its mission. During his tenure, Roy promoted a high level of structure and coordination between the group's various committees and worked to ensure our valuable volunteer resources were positioned correctly to best suit our needs. This could be seen most clearly in the tireless efforts put into improving the Richardson Preserve, culminating in its highly successful grand opening celebration in 2018, shared with over 200 members of the community.



Roy's "behind-the-scenes" work can be felt in numerous advancements made in the areas of community education and outreach, which have bolstered ties with outside organizations, and the City of Attleboro and its surrounding communities. These initiatives will continue to be an area of focus in the future. Providing educational opportunities in partnership with the area's school system was at an all-time high prior to COVID-19 restrictions. We look forward to the day when these activities can resume fully. Signs can be seen popping up around town for the 'Hike Attleboro' initiative. Once fully realized, this coordinated effort between the Land Trust, the Massachusetts Audubon, and the City should provide great benefits to the community and provide new avenues for which the Land Trust's mission can be shared.

Roy began each board meeting with a "mission moment" highlighting a current event dealing with areas such as climate control and preservation of open space. Candid moments like these will be missed and show clearly the level of commitment Roy has for the overall wellness of our environment. We look forward to his continued presence and assistance in ensuring the Land Trust works to preserve and share open space.

Thanks again Roy!

Jay Burby

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LOOKING BACK AND LOOKING AHEAD by Roy Belcher

On January 19th the Land Trust Board of Directors elected a new President – Jay Burby who moves up from his role as chairman of the technology committee. It's a good time to reflect on the challenges and accomplishments of the last four years, and to look ahead at new opportunities. In January, 2018, we held a Planning Day and set some strategic goals. I'm glad to report that we've made progress on most of them.

- We've used social media to engage the public in our mission of preserving open space
- We've included more young people – especially high school students
- We've demonstrated how land preservation counters climate change
- We've targeted high-value land for preservation and courted potential land donors
- We've reached out to North Attleboro to preserve open space in that community
- We've poured the foundation for an endowment to ensure the sustainability of our organization
- We've completed the build-out of the Richardson preserve with its new parking lot

Looking ahead, there is still much to do. While new developments have sprung up all around the city, very few significant parcels have been preserved, putting an ever tighter strain on wildlife and changing the character of our city. Preserving open space is our highest priority.

While we attempt to keep a healthy balance of open space with occupied land, we often find too few hands to maintain the property we already own. Thus, recruiting new volunteers requires constant effort.

A long-term aspiration is to reach the next level as an organization – the ability to engage a part-time, staff person to provide professional management.

I've derived deep satisfaction from my years as your president and have great appreciation for the many hard-working volunteers who keep the Attleboro Land Trust vibrant and successful. Cheers!

Roy



Roy Belcher



C. Adler

Tree Planting at Richardson



Roy at Invasive Plant Removal Project at Larson Woodland

How will Road Repairs be Financed When Electric Vehicles Predominate?

As we move forward in the fight to reverse Global Warming we must plan ahead for the consequences of changing the fossil fuel and energy industry. It is easy to say get rid of fossil fuels but not easy to make the change effectively.

This fiscal year, Massachusetts is projected to collect \$847.7 million in motor fuel sales taxes. The federal government will collect just a little less than that from MA motor fuel sales. These taxes are designated for road and bridge upkeep and new construction. It actually costs more than that amount to keep up our current roads and bridges in MA, let alone any new construction. We are seeing a decrease in those tax incomes each year due to more electric and hybrid vehicles and increases in telecommuting to work, particularly now with the pandemic. As the country works toward “Zero Emissions” travel will still occur on our roads and cause deterioration. How will we pay for road repairs?



Some states, such as Texas are proposing an annual electric and hybrid vehicle tax to supplement Transportation Department funding. Other states like New York, Kentucky, and Oregon are looking at a Vehicle Mile Tax (VMT). This would work by vehicles that have built in GPS systems transmitting that data to the registry, or for vehicles without, by the mileage records of the distance traveled between inspections. Individuals would then be sent a bill. Many of you have seen the overhead recorders on Rhode Island main roads that track tractor-trailers. They are sent a toll bill for the mileage driven on those major roads.

The current motor fuel tax is something we do not think about, as it is included in our purchase of fuel. However, when you start getting bills to pay for your travel, it will be a different situation. In addition, individuals with newer vehicles that transmit GPS information to the registry will be concerned that their privacy is being invaded by tracking where they drive. In actuality, we are being tracked far more extensively by our cellphones. Your cell phone carrier and Google know far more about where you go than the government ever will.



Motor fuel taxes, annual EV taxes, and VMT are repressive taxes as they impact those with lesser income greater than they impact the rich. Oil companies pay far less percentage of taxes than most companies and individuals because of special tax deductions, plus they also are subsidized with tax incentives and deferrals. Yet they still provide a good amount of federal, state and local income.

As we work toward “Zero Emissions” and correcting Climate Change, we must keep an eye on how those changes affect the infrastructure around us. We must prepare solutions for these changes or watch our infrastructure decline.

The Attleboro Land Trust is looking for Supporters by becoming a member, making a Tax-Deductible Contribution and/or as a Conservation Volunteer. Membership, contributions or volunteering can be done securely at Attleborolandtrust.org or by mail at Attleboro Land Trust, P .O. Box 453, Attleboro, MA 02703. Thank you for your support.

WINTER WALKS by Phil Boucher

We think of winter walks as cold but quieter and better for alone time. The brisk temperatures make it too cold to stand still for long. Being alert and walking with our thoughts, we can easily see and hear the activities that can make these outings rewarding. Hardly silent, the winter gives its own sounds to the open spaces we enjoy. To date, this winter has not provided much snow, so a woods walk has little or no crunch to it.

Winter frequently means wind and I enjoy Nickerson Woods for the shelter that woodland provides. Even lightly subdued wind is the conductor of the sounds as it moves the bare clacking branches about. A stronger wind moves from treetops to the under story with a deeper rustling right beside the trail and tests the warmth of gloves and coat. The pines have a whisper mostly that sharply contrasts to the noisier oaks and beech trees with their persistent brown leaves carried through the winter. Moving closer to the open corridor of the power lines to the east, the wind can quickly erase any benefit of the sun.

Bird activity can be your constant companion while walking. Winter is not the time to add to your lifetime bird list as the usual species are likely the only ones you will see. They do not seem to pay too much attention to us, so watching their search for food is easy and invaluable if you are interested. A good day will have chickadees, titmice, nuthatch or woodpeckers working the bark, buds or seed remnants on all types of trees and shrubs. This is a continual job that consumes their waking hours. This winter does give them a bonus of open ground to patrol the woody duff and to inspect minor ground plants. A blue jay or two may cruise through loudly commenting about our presence before moving on in their routine. Though very used to people and what we can provide, the odd sentinel crow watches and soon chides the walker for having no offerings.



What effects a winter walk the most is the amount of daylight you are comfortable with and the temperature. Timing is always important for a walk as in the early morning or staying into the late afternoon you can watch the play of the sunlight on the high tree branches. Often the very tips can look like fire sticks as the sun is going down or the morning light can welcome you as it creates the bright sparkle of frozen moisture on the branches. A gray day can offer discoveries as well but you need to be willing to look.

With such great technology at our fingertips when it is less than inviting outside, we may be tempted to armchair our winter experience in warmth. The closer first hand outdoor experience is best. Rather than watch a nature program with narration, go out to be the recipient and the narrator of your own local excursion. It might help if you can share it with a friend. Winter walks are not silent. We will wait to see how much if any crunch develops through the next two months. Dress warm, enjoy a tour, and watch the visible cloud of your breath being expelled.



1816 The Year Without a Summer

The year 1816 was called the “Year Without a Summer” or “Poverty Year”. There was a volcanic winter caused by the massive eruptions of Mount Tambora in Indonesia in 1815 and Mayon in the Philippines in 1814. The sulfur ash cloud spread over the northern hemisphere. New England, Atlantic Canada and western Europe were most affected with the average temperature of the entire world dropping by about 1 degree F. A dust fog covered New England causing reduced temperatures, and sunlight. There were frosts every month. While some vegetables and fruits survived, the entire New England Eight Row Flint Corn crop, the variety cultivated by the Native Americans in the area, was wiped out. Many people left New England and moved to the Midwest because of this starving time.

Luckily some of the Eight Row Flint Corn had been exported to Italy to be used to make polenta, so the variety isn't extinct. This year we will try to grow this finicky variety in the Colonial Garden. It only produces one ear per stalk.



What's Happening on the Barrows' Farm in 1721

February was the coldest part of winter, but work still had to be done. Animals were tended to first thing in the morning and then Benajah would go to the sawmill with his oldest son John, age 12, and his son Joseph, 7. They would probably not run the sawmill since in the extreme cold there was too much chance the expensive saw blade might crack. Instead, they made shingles and shakes from cut logs they had prepared in warmer weather. Benajah would use the froe and mallet to split and rive the two to three foot lengths of logs into shakes and shingles. John would then take the split pieces placing them in the shaving bench and using a drawknife, would smooth both sides of shingles and one side (bottom) of



the shakes. Shingles were used on the outside walls of the house and were needed to seal to keep the wind out. While shakes which were thicker and used on the roof needed to have ventilation so they would not rot from staying wet. By placing the rough side up and the overlapping smooth side on top, air could get in-between to allow them to dry. Joseph would keep the fire going with the shavings and splinters and stack the finished shakes and shingles. On the way back to the house at the end of the day they would again tend to the animals before it got dark.

Meanwhile back at the house, Lydia with daughter Deborah, 9, Nehemiah, 5, Benjamin, 3, and baby Elijah, 8 months, would be working on the wool they had sheared from their sheep. It had to be cleaned and combed (carded). Nehemiah and Ben would pick out all the grass and dirt while Lydia and Deborah would comb out the wool after soaking and washing it in hot water to remove the lanolin and remaining dirt.

All but the youngest worked to keep the family going. This was normal in their secluded colonial farm life. During the short days and cold winter weather, they worked indoors as much as possible.



Updates, Comments, and Interesting Reading

During the last two summers, a hypoxic “blob” has formed on the bottom of southern Cape Cod Bay. It is killing lobsters, crabs and bottom dwelling finfish. Lobster fishermen are teaming up with scientists to monitor the situation by attaching data loggers to lobster pots so every time a pot is hauled, it transmits a signal to an on-deck monitor and it is transmitted to the scientists. The “blob” appears to be formed by excess nutrients and warming oceans causing a phytoplankton bloom that dies, sinks to the bottom, and decays. Excess nutrients come from fertilizer washing into rivers and streams while the warming is caused by climate change. Starfish wasting syndrome appears to be caused by the same problem.

Climate Change is killing Bumblebees, a critical pollinator. There is a 46% reduction in North America and 17% in Europe. Some species have gone extinct.

In 2019, Attleboro was sprayed with Anvil 10 + 10 to stop mosquitoes carrying Eastern Equine Encephalitis. It has now been shown that Anvil 10 + 10 contain PFAS “Forever Chemicals.” These chemicals have been known to leach into the ground water and hence the reservoirs and have caused cancer, diseases, and low birth weights.

Most farmed seaweed is consumed in food. Extracts are used in a wide variety of products such as toothpaste, cosmetics, medicines and pet food, which contain hydrocolloids derived from seaweed for gelling or thickening. Other companies are working on using farmed seaweed in textiles, plastics or plastic alternatives, which might include biodegradable packaging, water bottles, and drinking straws.

Large marine ships cause significant amounts of pollution and carbon emissions. Now companies like Norsepower and Anemoi are installing Fletner rotors on ships. They act like sails and if the wind direction is correct can save up to 30% in fuel costs for ocean crossings.

A Finnish company AW-Energy has developed a Waveroller that generates energy from the movement of waves. It is anchored to the ocean bottom at an ocean depth of 25 – 65 feet. The rocking motion generates electricity that is connected to the grid. One unit can generate between 350 – 1,000mw.

Researchers in Norwich England have come up with the first vaccine for plants using RNA to protect against viruses, stopping the need for certain pesticides that kill pollinators.

Saphon Energy of Tunisia has developed a wind turbine that is bladeless with the claim of being 2.3 times as efficient as bladed ones. It appears to be only able to be used for small-scale projects.



TripAdvisor



KimberlyHosey



Laramir



Civileats



Anemoi



AWEnergy



Saphon

2021 TerraCorps Member at the Attleboro Land Trust – Evan Foster

My name is Evan Foster, and I will be serving as the TerraCorps member at the Attleboro Land Trust for the next several months. TerraCorps members are a part of the larger AmeriCorps National program whose mission states “making service an indispensable part of the American experience.” TerraCorps service members are placed in community-nonprofits across the states of Massachusetts and Rhode Island. The TerraCorps mission is to engage and mobilize future leaders to get involved with local communities and conserve land for both people and nature. Equity is at the heart of what TerraCorps strives to achieve. TerraCorps members understand that individuals, in underrepresented communities, do not have the same access to these public lands and aim to create opportunities for those communities to experience them. The future of land conservation lies in the same goal of making land more equitable. To understand more about the TerraCorps mission, I highly recommend you visit their website to read more: (<https://terracorps.org/equity-in-land-conservation/>).



Growing up in Boxborough, MA, in a family that highly valued outdoor recreation, my passion for environmental work was formed at a young age. My childhood experiences ranged from skating on a backyard rink, to attending a canoe summer camp in Canada, to swimming in the local pond, to running cross-country in high school. I developed a love for the outdoors, and it has shaped everything that I have done so far. When it was time for me to think about attending college, I landed at the University of Vermont because of its strong environmental program. Living in Burlington, Vermont gave me access to an endless number of outdoor activities including cross-country and downhill skiing, snowshoeing, road/mountain biking, rock climbing, and numerous hikes throughout the Green Mountains. My degree in Environmental



Science was complimented and enhanced by all of these activities. I soon discovered another passion through my Geospatial Technologies minor, which involved using satellite imagery for a variety of reasons including creating maps, analyzing spatial data, and much more. I continued with this passion into my undergraduate job at the Spatial Analysis Lab where I gained experience creating Land Use/Land Cover maps for cities and towns across North America. I developed an indispensable skill that I hope to bring to the Attleboro Land Trust.

I am extremely excited to be serving with the Attleboro Land Trust and am ready to put my education and knowledge to use! Feel free to reach out to me if you have questions or want to get to know me better (evanfosteralt@gmail.com).

Happy winter!

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