

ATTLEBORO LAND TRUST NEWS

November 2020

A Monthly Newsletter on Outdoor Adventure and Conservation

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IN THIS ISSUE

DROUGHT REDUX

Business, Politics, and the FDA

Land Trust Annual Meeting

REDUCING BEE DISEASES

Ways To Fight Climate Change

Mayflower 400th Anniversary

What's Happening on the Barrows' Farm in 1720

EarthShot: 50 - \$1,289,710 Prizes to be Awarded

Global Warming X Factor: Clouds, Y Factor: Ice

Updates, Comments, and Interesting Reading

Colonial Recipes

Ahhh November, bringing us the last fall foliage, cooler temperatures, Thanksgiving, and Black Friday, traditionally the day retail business books go from being in the red to being in the black. The crazy election will soon be over, hopefully leading to a better future away from what the **New England Journal of Medicine** calls, "Dangerously Incompetent Leaders". The pandemic is still raging around us and the numbers of infections and deaths are creeping up. We may be seeing another surge so we need to heed what the CDC initially told us of washing our hands frequently, wearing good masks, sanitizing, and avoiding groups of people. Unfortunately, the CDC has now become politicized and is no longer valid. However, that does not mean you can not do anything. Exercise is still critical to maintain our health and our trails are open for a brisk walk with nature. With leaf fall, there is more of a chance to see wildlife that previously was hidden.

The first Thanksgiving in 1621 was different from how it is celebrated now. Though there may have been a turkey there, the Native Americans donated five deer and hunters brought in fowl, most likely ducks and geese. There was probably pumpkin, but no pie since they did not have sugar and they had not yet learned about maple sap. There also was not any bread for stuffing, as there was not any wheat flour, yeast or leavening. They made a "boiled bread" of cornmeal often mixed with fruits and nuts for flavor.

This year Thanksgiving will probably be smaller gatherings but for those of us who are able, there will be a wide variety of foods available. We need to think of those who are suffering during this time due to the pandemic and donate what we can. Despite these hard times, we need to give thanks for what we have and the loved ones around us.

Join us for our November 17 Annual Meeting on Zoom.



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DROUGHT REDUX

As humans, we can communicate freely and grouse about things that bother us. This past summer, many of us may have complained about dry browning lawns, crisp looking plants with early leaf drop, or having to live with water restrictions. Hoping for rain to give some relief to the drought, we adjusted our normal lives and went on. As we looked around our own environment, sadly, it is just these superficial observations that caught our awareness.

Simplified, drought is an insufficient amount of soil moisture to sustain plant life. The severity of 2020's dryness showed an unraveling of nearly all natural systems to the point of near collapse. Some of the worst parts of the drought would only be noticed by a walk in the woods or fields in our area. The world you observed would be shriveled groundcovers, extremely dried leaf litter, likely no water in pools or seasonal streams, maybe fewer insects or flowers and premature fall color of understory trees.

Have you ever wondered what a severe drought means to our local bird and wildlife population? For them, the weather conflicts are a constant part of the rite of passage in their relatively short lives. The top of the natural world's food pyramid is best explained by the fact that plants and flowers equal food. As conditions limit the amount and quality of food, predation



and competition cause adjustments to the distances traveled or the types of foods selected as they attempt to fatten up for the winter. A drought can even trigger earlier migration in some birds with fewer choices for food. Our local wildlife is intelligent and can adjust, but there are still huge challenges for their survival.

The shortage of water and plant moisture creates smaller, less plump, or even non-existent fruit and berries. Seeds associated with flowers can be smaller than normal, never completely mature, or empty with no nutritional value, or simply not present. Many mammals get some moisture from the vegetative food they eat but that may not be possible under these drought conditions. The lack of water causes the search for food to be expanded further away from a normal more localized area. For these small-bodied creatures, being efficient with the energy expended can be the key to their success. Making every move and calorie count is critical to their survival.

We need to remember and appreciate the seemingly less verbal creatures that have alternative ways of communicating. They get through these harsh times by directing their young to food and water locations. This is why protecting habitat as much as we can is important to maintain that healthy balance for man and wildlife to live together. By doing our part, we can all look forward to a better 2021 and beyond to enjoy Nature's chorus and the colorful theatrical backdrop of Autumn's glory.

Phil Boucher



Business, Politics, and the FDA By Marlena Fitzpatrick AHS

The Food and Drug Administration, known colloquially as the FDA, is the organization responsible for monitoring American health and nutrition. Such basic and universal needs should be apolitical; everyone, no matter their party affiliation, wants to be healthy.

Yet, in an age where everything is a partisan issue, the FDA is no stranger to political pressure--and it may be eating us all alive.

America is a country built on commerce. Capital is the lifeblood of American culture and is intertwined with everything... even things it should not be. It is no secret that the way we process and consume food has changed a lot since the founding of the FDA in 1906. We have gone from farmers selling directly to mom-and-pop markets to grocery store chains supplied by factory farms to billion-dollar conglomerates like Nestle that own every food brand under the sun and lead the market in sales at a whopping 90.2 billion dollars a year. To make such a profit is to cut costs elsewhere. Cheap ingredients like xylitol, a 0-calorie sugar alcohol, are found in nearly every popular brand of gum. They have been known to cause gastrointestinal issues in humans and even kill dogs that got a taste of their owner's favorite sugar-free candy. The regulations on such ingredients are vaguely worded and confusing to the average consumer, claiming that as long as they are used in small doses, these highly processed ingredients are perfectly safe (despite complaints from consumers and recorded instances of long-lasting effects on humans).

So why would the FDA, an organization created to keep Americans safe and informed about their food, allow companies to cut costs and inflate profits by using potentially harmful ingredients? The answer lies in the power of the dollar: federally funded public services are simply no match for private industry



 Starburst Fruit Chews Ingredients:	 Starburst Fruit Chews Ingredients:
CORN SYRUP, SUGAR, HYDROGENATED PALM KERNEL OIL AND/OR PALM OIL, FRUIT JUICE FROM CONCENTRATE (APPLE, STRAWBERRY, LEMON, ORANGE, CHERRY), LESS THAN 2% - CITRIC ACID, DEXTRIN, GELATIN, FOOD STARCH-MODIFIED, NATURAL AND ARTIFICIAL FLAVORS, ASCORBIC ACID, COLORS RED 40, YELLOW 6, YELLOW 5, BLUE 1.	GLUCOSE SYRUP, SUGAR, VEGETABLE FAT, CITRIC ACID, CONCENTRATED FRUIT JUICES 1.4%* (APPLE, ORANGE, BLACKCURRANT, STRAWBERRY, LIME, LEMON), MODIFIED STARCH, MALIC ACID, DEXTRIN, FLAVOURINGS, MALTODEXTRIN, ANTIOXIDANT ASCORBIC ACID, EMULSIFIER SOYBEAN LECITHIN, COLOURS ANTHOCYANINS, CAROTENES, CHLOROPHYLLS AND CHLOROPHYLLINS.

advertisement. Important organizations like the FDA are criminally underfunded and are easily discredited by way of smear campaigns and crushing lawsuits. Even more damning is the fact that the FDA and other groups aiming to regulate public health and safety are already under attack by politicians, usually conservatives, hoping to cut nearly all federally funded social programs and consumer protections. The FDA faces an impossible choice: keep Americans safe with total transparency and integrity and risk being disbanded completely, or allow companies to bend the rules and continue to exist, if a bit precariously. Under the thumb of economic giants, the FDA has no choice but to sacrifice part of their core mission.

Much of America's economy hinges on food-related industries. Capital and compassion cannot coexist: either we lose profit, or we let Americans eat themselves into an early grave--and to the current administration, the latter seems to be favorable. In August, POTUS approved deregulation requests from meat industry leaders that allow the sale and distribution of "**diseased chicken**". Amid a pandemic transferred to humans via meat consumption, this decision is irresponsible at best and downright criminal at worst.

When our government makes policies based on the interests of private companies, we all suffer. The average American will never see the profits gained by allowing the consumption of harmful ingredients or diseased poultry--but we will see the effects on our health. The FDA is an ally that we cannot afford to lose, especially at a time when the government, that is supposed to be on our side, seems determined to abolish every last defense of consumer protection.

All we can do right now is vote for the change we want to see in our government. We must elect leaders that respect the American people enough to reign in the companies that are slowly poisoning us. However, until then, what is the average blue-collar American to do? How can we avoid supporting companies and buying products that actively harm us, when there seem to be no good options?

We can go back to 1906 when the FDA was founded; we can grow our food and buy from small businesses. We can make sure that the food in our communities is not only safe and delicious but an asset to our local economies. We can support each other, a skill that has been lost to time and the cold world of modern business. It will take time, and it will be a learning curve. At least until we can trust that the government will protect us, we can protect ourselves. No matter how insignificant big businesses would like you to feel, you as the consumer have all the power. And what a nice power to have: the ability to exist independently of billion-dollar companies, uplift local economies, and, most importantly, know exactly what you are eating.



Land Trust Annual Meeting

Save the date November 17th 7:00 pm via Zoom The 31st Annual Meeting of the Attleboro Land Trust

This year's guests promise an expert's look at the past 30 years of land conservation contrasted with an exploration of what the future holds for the local environment.

Our guests are uniquely qualified to guide us on this quest. They are:



Charlie Wyman



Mayor Paul Heroux



Ron Struminski

Charlie Wyman, former land protection specialist with the Massachusetts Audubon Society and Paul Heroux the Honorable Mayor of the City of Attleboro. And moderating their online discussion about our environmental future will be renowned educator and talk show host, Ron Struminski.

We'll also be recognizing some of our dedicated volunteers who have kept the Land Trust moving forward in spite of the pandemic, and letting our members in on some hot news about upcoming activities and projects.

The invitation will soon be posted on our website: attleborolandtrust.org Please plan to zoom in.

REDUCING BEE DISEASES

Some very interesting and encouraging research is coming out of the University of Massachusetts regarding potential natural help for our bee populations. Dr. Lynn Adler at the university labs is proposing new research to assess whether pollen from certain flowers can reduce bee diseases. This builds on her lab discovery that sunflower pollen dramatically reduces a common disease of bumble bees, both in the lab and on farms.

This new research would expand these results by testing pollen from sunflower relatives such as zinnias, dahlias, cosmos, black-eyed Susan and Echinacea that are grown as ornamentals in landscaping/horticulture and in the cut flower industry. Several of these flowers are being grown by gardeners in our own Attleboro Community Garden. Even without conclusive proof, I would hope that we could interest as many gardeners as possible to grow sunflowers and their kin this coming summer. Even if it helps just a little bit, it would be well worth the effort. We need bees.

There are several naturally occurring perennial sunflowers (*Helianthus*) as well as coneflowers (*Rudbeckia*) if you are into naturalizing. Growing sunflowers is easy and one could grow pole beans on the stalks of the taller varieties as it saves space by going vertical. Russian Mammoths are the perfect giant for this purpose and the birds love them.

UMass Extension is collaborating with Dr. Adler to disseminate information as this project evolves. It may take a couple of seasons to fully compile this research so stay tuned. Phil Boucher



Ways To Fight Climate Change by Cameron Foster AHS

The term "Climate Change" refers to a rise in the average global temperature due to an increase in the concentration of atmospheric greenhouse gases, resulting in numerous climatic shifts and impacts around the globe. These include warming temperatures and changes in precipitation, as well as the effects of the Earth's warming, such as rising sea levels. Most of us are poorly informed on what Climate Change actually means and its importance to the world. Climate Change is important since it helps determine future climate expectations. Using latitude, one can determine the likelihood of snow and hail reaching the surface. You will also be able to identify how much thermal energy from the sun is accessible to a region. Through "making the community green, recycling, and voting, we can come together to prevent Climate Change."

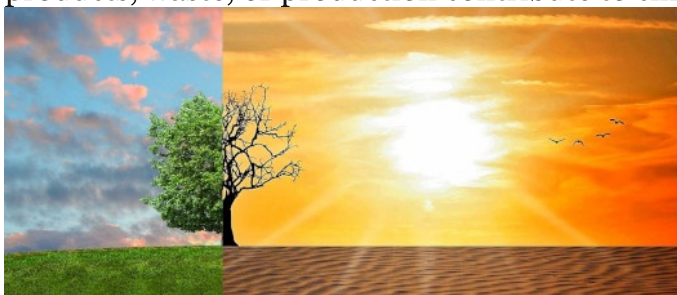
One way we can work together to stop Climate Change is making our community green. Millions of people drive to work every day. It is simply unavoidable in our modern-day society. However, the downside is that millions of cars emit greenhouse gases that destroy our atmosphere. Vehicle emissions are a close second when it comes to the top causes of Climate Change. There are other options that you can utilize to make your commute to work eco-friendly. For starters, taking public transportation to work is a great way to cut out emissions. Riding your bike to work is also incredibly helpful to the environment and is a great method to get exercise. In addition, electric cars like Teslas are a great way of keeping our climate healthy.



Another way to stop Climate Change is Recycling. We have all heard of recycling, but we may not realize how much our environment is benefiting from recycling. Recycling helps protect the environment. Recycling reduces the need for extracting (mining, quarrying, and logging), refining, and processing raw materials. All of these create substantial air and water pollution. As recycling saves energy, it also reduces greenhouse gas emissions, which helps to tackle Climate Change. By the last available statistics, solid waste recycling stopped 32.9 million metric tons of toxic materials from moving into the air.

The last way is not a physical change, but it is just as important. It is **Education**. It is very important to educate yourself, especially about Climate Change because of how essential topics like these are for the world and the safety of humans, nature, and our environment. The importance of educating others about Climate Change cannot be overstated in our modern society. Many platforms for us to utilize can allow us to spread the message easily. Whether you use word of mouth or social media, there are always ways to educate others on what climate change is doing to our planet. You can help protect the planet by educating others about the dangers of Climate Change and how to act against it.

It is also important to vote. One of the best ways to improve Climate Change is to help those who will fight against it get into office. This means voting for legislation and politicians that aid against the detrimental effects of Climate Change. Many corporations have politicians on their payroll and use them to lobby against legislation that would require more regulations. Voting the right people into office will help pass legislation that allows us to regulate corporations whose products, waste, or production contribute to climate change.



Hopefully, we can understand the importance of Climate Change and understand what could happen if we leave Climate Change alone. Overall, through "making the community green", recycling, and voting, we can come together as humans, and step-by-step prevent Climate Change from damaging our earth.

Mayflower 400th Anniversary

November 21 (old style calendar November 11) is the 400th anniversary of the landing of the Mayflower at Provincetown, Massachusetts. They had traveled for 66 days across the Atlantic during the storm season. Their charter had stated they were to set up a settlement along what is now New Jersey or Delaware. Though they tried, due to the weather they could not get there so they enacted the "Mayflower Compact" to form the new settlement in Massachusetts.

The group of 40 "Saints" and 62 "Strangers" and a ship's crew of about 30 - 50 stayed on the ship in New Plymouth harbor, more protected than Provincetown, throughout the winter. They were not called Pilgrims until the bicentennial. The "Saints" were Protestant Separatists who did not want to pledge allegiance to the Church of England and who, after first going to Holland and not finding religious freedom there, decided to go to the New World. The "Strangers" were hired hands, servants, and farmers who were supposed to go to Virginia. The group had initially started out in August on two ships but returned to England when the "Speedwell" developed a leak. They started out again after the passengers from the Speedwell crammed onboard the Mayflower. The delay meant some of their supplies had been used up and now more people had to be fed.

When they arrived late in the season, they could not plant crops or build a settlement. The New World was colder than England. Some Native Americans helped them but they still starved and suffered disease from being confined to the ship. By spring, they had lost 49 settlers and 18 of the crew, including 14 of the 19 women. They had not planned well and brought no fishing equipment so in a bay full of sea life they could not harvest the abundant resources. They sent out exploration parties but some of them died from the extreme cold and their inability to get through the snow without snowshoes.

The Mayflower left them off in Plymouth in April 1621 and sailed back to England, never to return. Captain Jones died in 1622. The "Fortune" arrived in 1621 and the "Anne" and "Little James" arrived in 1623 after being told by Captain Jones where they were.



What's Happening on the Barrows' Farm in 1720

It is not Thanksgiving. Not until Abraham Lincoln declared a national holiday in 1863 did Thanksgiving become popular. On the farm they are working to stock up and preserve foods. Some time was spent hunting and fishing to get protein rich foods to be smoked for the long winter. Normally you would think of salting fish but salt was expensive as it had to be imported or evaporated in salt pools, a long process. Some more oily fish such as trout, herring and salmon were dried but spring was the season for herring and summer for salmon.

They were also cutting down trees so they would have a supply to feed the saw mill. The frozen logs could be warmed in the feed shed of the saw mill during the winter to make it easier to cut.



The flax by this time should have dried so it was rippled to remove the seed. To ripple, the stalks were pulled through a rippling comb to separate the seeds from the fibers. It could be threshed with a flail but only if the seeds were to be eaten or crushed for the oil as the seeds could be cracked or crushed by flailing. Seeds to be planted had to be pulled off to prevent damage. The stalks were then laid down in the fields for retting.



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.

EarthShot: 50 - \$1,289,710 Prizes to be Awarded

From Earthshotprize.org:

The **Earthshot Prize** is centered around five ‘**Earthshots**’ – simple but ambitious goals for our planet which if achieved by 2030 will improve life for us all, and for generations to come. Each Earthshot is underpinned by scientifically agreed targets including the **UN Sustainable Development Goals** and other internationally recognized measures to help repair our planet.

Together, they form a unique set of challenges rooted in science, which aim to generate new ways of thinking, as well as new technologies, systems, policies and solutions. By bringing these five critical issues together, The Earthshot Prize recognizes the interconnectivity between environmental challenges and the urgent need to tackle them together. By 2030 we choose to:

Protect and Restore Nature

Clean Our Air

Revive Our Oceans

Build a Waste-Free World

Fix Our Climate

Each year for the next ten years five **£1 million** prizes will be awarded, one for each category. The £1 million in prize money will support environmental and conservation projects that are agreed with the winners.

Global Warming X Factor: Clouds, Y Factor: Ice

Climate change scientists have failed to count on an X and Y factor in global warming in doing their calculations. What keeps the earth cool? Reflectivity. Ice on the earth and clouds in the sky reflect back some of the sun’s heat. As the earth is warming, the ice is melting and soon it may be gone. At any particular time about 2/3 of the sky is covered by clouds but as it gets warmer it gets more difficult for clouds to form. Heavy enough clouds to reflect the sun require cool temperatures and higher pressures close to the earth. High altitude clouds are just wispy and do not reflect much while warm temperatures prevent water vapor from condensing to form clouds. The CO₂ and methane keep reflecting the heat back toward the earth burning off the clouds.



Studies of the Paleocene-Eocene Thermal Maximum era about 56 million years ago showed a rapid rise in temperature from a rise in CO₂. It appeared the earth hit a tipping point where the earth’s temperature suddenly shot up. Scientists were unable to determine the tipping point until they included a factor for ice and cloud loss.

A state-of-the-art supercomputer simulation indicated that a feedback loop between global warming and cloud loss could push Earth’s climate rapidly past a disastrous tipping point. They figure that after the earth’s temperature rose about 3 degrees C, it suddenly rose by another 6



degrees C (11F) and stayed there for 20 – 50,000 years. With the loss of clouds, there is a lack of rain causing massive droughts.

The Paris agreement's goal was to keep the increase in the Earth's temperature below 2 degrees C. Rhode Island has already gone up more than 2 degrees. Are we at or getting close to that tipping point?

Updates, Comments, and Interesting Reading

Experts say a combination of increased coastal development, natural climate cycles, reductions in air pollution, and man-made climate change have worsened storms.

Siberian tundra is warming causing upheavals and craters, releasing great amounts of global warming gasses, in particular, methane that has 30 times the global warming power of CO₂.

Governors want more say in their own states over habitat rules for at-risk wildlife than the federal government.

Cattle might be a secret weapon in the fight against wildfires, experts say. Their eating of forage in pastures limits the amount of flammable material to burn.

Micro boring: A 2009 report by the Rural Water Supply Network found between 10% - 65% of hand-pumps in 20 African countries were not working during a spot check. The reasons that wells fail include poor siting, design or construction. Finding the right site is particularly important: the availability of groundwater varies greatly over short distances.

A warmer and more acid ocean destroys hard reef-building corals while allowing soft bodied relatives to thrive.

The major grain exporters in Brazil have a “voluntary soy moratorium” on purchasing any soybeans from lands cleared after 2006.

An Arctic researcher doing studies this summer is warning that, “The ice is dying”. due to climate change.

In 20 years, the Great Barrier Reef has lost half its corals.

The most severe drought in 50 years has depleted the Paraguay River that flows through Paraguay, Bolivia, and Argentina.

As Global Warming warms the tundra in Alaska, Canada, and Siberia, it is causing fires. from the released methane.



Colonial Recipes

Longfellow's Wayside Inn Indian Pudding

Bring 2 qts milk to boil in a heavy pan, then add 1.5 cups of Grist Mill corn meal. Blend with a whisk until thick. Add 2 cups molasses, and a teaspoon each of salt, nutmeg, and cinnamon, plus a pinch of ginger. Bring the mixture to a boil once again. In a separate container, blend 2.5 cups of milk and 1.5 cups of whole eggs. Once blended, add in the hot mixture and stir. Place the entire mix in a buttered and sugared casserole dish, and bake for 1 hour at 350 degrees. Serve with whipped cream or ice cream.



Wampanoag Recipe

From Plimoth.org

Boiled Bread

Boiled bread is a small patty made mostly of cornmeal with crushed nuts and berries added in. It is dropped in a pot of boiling water and when done, rises to the top.

1 quart slightly boiled water
1/2 cup cornmeal
1/2 cup corn flour
1/2 cup dried cranberries, blueberries, and/or currants
1/2 cup crushed nuts or seeds (walnuts, hazelnuts or sunflower seeds)
Maple syrup or sugar to taste (optional)

Combine all ingredients in large bowl and mix thoroughly. After mixing, slowly add a spoonful at a time of slightly boiled water. When the mix is thick enough to be sticky, shape round patties (about 3 inches in diameter and 1/2 inch thick). Return water to slight rolling boil and drop in 1 or 2 patties, carefully making sure they do not stick to the bottom. Remove breads when they begin to float.

To make Curde Frittors from Plimoth.org

Curds are a soft cheese like cottage cheese or ricotta. These frittors are a lot like thin pancakes or crepes. This recipe is from the 1594 cookbook *The Good Huswives Handmaide for the Kitchin*.

Take the yolks of ten Eggs, and breake them in a pan, and put to them one handful Curdes and one handful of fine flower, and straine them all together, and make a batter, and if it be not thicke ynough, put more Curdes in it, and salt to it. Then set it on the fyre in a frying pan, with such stuffe as ye will frie them with, and when it is hot, with a ladle take part of your batter, and put of it into the panne, and let it run as smal as you can, and stir then with a sticke, and turne them with a scummer, and when they be fair and yellow fried, take them out, and cast Sugar upon them, and serve them foorth.

If anyone doesn't want to continue receiving this newsletter, they may optout by emailing to ALToptout@gmail.com and leaving their email address. Bill Lewis Editor