ATTLEBORO LAND TRUST NEWS

December 2020

A Monthly Newsletter on Outdoor Adventure and Conservation

A publication with Attleboro High School collaboration

In This Issue

We are now in the holiday season. Despite the pandemic, we should still be able to have a joyous time as long as we take the appropriate precautions and limit where we go and with whom we associate. The unity of the members of our immediate household should strengthen during this time as well. This is always a good thing.

The Land Trust has important things happening as well.

TerraCorps, an **AmeriCorps-affiliated** environmental nonprofit, has selected the Attleboro Land Trust as a partner for the 2020-21 TerraCorps program year. This partnership will allow the Attleboro Land Trust to host one "Land Stewardship/Community Engagement Coordinator" in a full-time 8-month service position from December 2020 to July 2021.

The Attleboro Land Trust's member will focus on (1) activities to enhance and protect the 492 acres of conservation land under its care and (2) engagement with the public to increase awareness of and involvement with the land trust's mission across all sectors of the community.

If you are interested in applying visit terracorps.org

For questions about serving with TerraCorps,
Contact Lianna Lee,
admin@terracorps.org

For questions about the position in Attleboro,
Contact Charlie Adler,
attleborolandtrust@gmail.com

More information on the last page.

Position and Benefits:

Members join the TerraCorps program and serve an 8 month term, from December 2020 to July 2021. During their term of service, members receive:

- A living allowance of $10,366 (pretax)
- Education award of $4336.50 (pretax)
- Mentorship, trainings, career development opportunities
- Loan forbearance, health care, child care, and more!

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EXTENDING OUR REACH

After living through almost all of 2020 I am now looking forward to what is my best first step for 2021. Beyond my own generosity to my fellow man, I think about the severe drought we experienced and what it meant to wildlife and birds in our area. Setting up the annual bird feeder seems a pretty normal thing to do to help make up for the natural food shortfalls. In current circumstances asking others to buy food for birds is difficult; hopefully the native population and new arrivals of our birds may survive by working a bit harder.

Beyond the feeder, there are many things that we can do to safeguard birds. Grow native plants where possible to provide shelter, nesting sites, and food such as seeds, insects and berries. Keep tabs on your cat as they instinctually hunt and kill. Watch the birds and share what you see with others. It is always an interesting reason to be outdoors. A good site to use if you are starting out is the Cornell Bird Academy (academy.allaboutbirds.org).

The drought and the many other hazards are all interconnected factors that are leading to bird decline. More far reaching than just our backyards or city, a report released in Science magazine in October 2019 estimated three billion birds across 529 species have been lost in the last fifty years. Roughly ninety percent are from twelve different families including many sparrows, finches, warblers and swallows. Hazards like light pollution, loss of habitat, agricultural practices, declining insect populations, climate change and predators were listed as responsible. Although sad, these factors and figures come as no surprise.

Almost sixty years ago, in the 1960's called the decade of awakening, Rachel Carson's book, "Silent Spring" spelled out the pesticide poisoning of America and the world. Traction was slow as the environment vied with civil rights and the Vietnam War for the nation's attention. It was the 1970's, dubbed the "environmental decade" when laws were passed. Along with the Clean Water Act, the National Environmental Policy Act had a series of programs designed to clean waterways, repair strip mines, plan forests and protect farmland. After a mild environmental recovery, enthusiasm for nature waned and government spending was cut. Today, we are faced with similar issues and sadly we have not learned all that much from previous years. We do not have time to waste. Now is our last best chance to turn things around.

So what can we do? Continue to watch the birds and enjoy one of the reasons to be active. Through classroom studies learn all that you can and join a committed organization such as the Sierra Club, Audubon, The Trustees or your local Land Trust. These organizations are responsible for the increases in waterfowl and wetland bird populations and have now focused on the peril of grassland birds. Increasing membership numbers will help as they speak for you when dealing with government agencies and grant applications. Rather than being depressed, let us all find an opportunity to conserve our ecology and become climate activists. The more we know about the frailties of nature, the more we will want to help conserve it. Locally, if we make the investments in habitat conservation, we can turn things around. Get involved with your local commissions and committees to voice your concerns. We need to be thoughtful about our development plans and be concerned about having natural areas. Working together with purpose, we can certainly extend our reach and come closer to success.

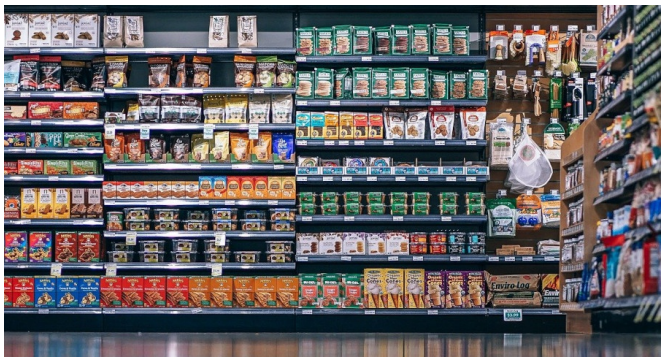
Three billion (+) birds! Electing officials who will advocate for conservation can have an enormous impact. We need to hold that thought and hold it tight. Watching birds from a window or on foot is restful. In a time where life has new stressors our ability to observe the calmness and diligence of small creatures is important. It is such a positive to know that there are individuals and organizations that are working to slow or stop the disappearance of these colorful creatures from our ecosystems. As someone that has always found good 'reason to be outdoors', I will continue to write about birds and their activities. A difficult thought, but maybe I am preparing myself for and dreading the day that we have silent skies. Phil Boucher

How Ultra-Processed Food is Less Nutritionally Sufficient by Abigail Fortune

Ultra-processed foods are defined as formulations of several ingredients which, besides salt, sugar, oils and fats, include food substances not used in culinary preparations. In particular flavors, colors, sweeteners, and other additives are used to imitate different qualities of unprocessed or minimally processed foods and their culinary preparations or to disguise unwanted qualities of the final product. Ultra-processed foods are less nutritious than unprocessed foods which have more natural nutrients. Ultra-processed foods can lead to different health problems such as obesity, diabetes, heart disease and vascular disease. A study in the British Medical Journal tied eating convenience food to cancer risks. The researchers tracked the eating habits of 104,980 men over the span of 5 years. The men who ate the most ultra-processed foods were most likely to get some form of cancer over the testing period.


INGREDIENTS: WHEAT FLOUR, WATER, SUGAR, VEGETABLE OIL (SOYBEAN AND/OR PALM), DEXTROSE, EGGS, VEGETABLE SHORTENING (PALM OIL), YEAST, WHEY, INVERT SUGAR, WHEAT STARCH, SOY FLOUR, MONO- AND DIGLYCERIDES, MODIFIED CORNSTARCH, CINNAMON, SALT, MOLASSES, NATURAL & ARTIFICIAL FLAVORS, OAT FIBER, TAPIOCA DEXTRIN, SODIUM STEAROYL LACTYLATE, CORN FLOUR, CELLULOSE GUM, CALCIUM CARBONATE, SOY LECITHIN, MALTODEXTRIN, POTASSIUM SORBATE (PRESERVATIVE), SPICE & COLORING, AGAR, XANTHAN GUM, ARTIFICAL COLOR, PHOSPHORIC ACID, CALCIUM SULFATE, SORBITAN MONOSTEARATE, CITRIC ACID, VITAMIN A PALMITATE, BETA CAROTENE (COLOR). CONTAINS WHEAT, SOY, MILK, EGG. MADE IN A BAKERY THAT MAY ALSO USE TREE NUTS. R18-262

Ultra-processed foods, but not all of them, tend to have low amounts of fiber and other important nutrients, though if they have nutrients added, they are from chemicals. Chemicals cannot be used by the body as effectively as naturally occurring vitamins and minerals. Some studies find that ultra-processed foods, regardless of their nutritional content, do not satisfy as whole foods do. Dr. Dariush Mozaffarian, a cardiologist and dean of Tufts University's Friedman School of Nutrition Science and Policy in Boston, said, “The basic problem with ultra-processed foods is that some have not been designed with health in mind.” The USDA’s 2015-2020 Dietary Guidelines for Americans recommends, “Consuming no more than 10% of your daily calories from added sugars and saturated fat, and capping sodium intake at less than 2,300 mg per day. Instead, the majority of your calories should come from nutrient-rich foods such as vegetables, fruits, whole grains, legumes and lean proteins.”



A far more rigorous investigation from the National Institutes of Health showed that subjects eating ultra-processed foods consumed significantly more calories and gained more weight than the same subjects gain when they ate minimally processed or whole foods. "Our data suggest that eliminating ultra-processed foods from the diet decreases energy intake and results in weight loss," the researchers wrote. Why do processed foods induce more eating and weight gain than unprocessed foods? The NIH trial was not designed to answer that question, but Hall and co-workers uncovered an interesting possibility. When eating ultra-processed foods, subjects consumed calories 50 percent faster than when eating minimally processed foods.

There are many ways of limiting your consumption of ultra-processed foods, such as shopping the perimeter of your local grocery store, getting into the habit of checking ingredient lists and nutrition facts, making smart choices while dining out and cooking more at home.

Attleboro Community Garden

The Attleboro Community Garden held two Growing Garlic workshops on November 7th. On a beautiful, sunny and unseasonably warm day, gardener Juliet Teixeira led the two hands-on workshops that were limited to 6 people each in order to maintain proper social distancing. Gardeners learned about the garlic growing cycle from planting, harvesting and then curing. Gardeners then planted garlic in their plots.


Karen St.Amand

In New England, garlic is typically planted mid-October to mid-November. In early June, gardeners usually pull or cut the garlic scapes so as to not take away energy from the garlic bulbs that are growing beneath the garden surface. Garlic scapes have a mild garlicky taste and can be used in stir-fries, garlic pesto, soups and stews. Garlic is harvested in July and then cured for several weeks. Once cured, it will last up to six months. Some of the garlic that has been grown can be used as seed garlic to plant in the fall.


Karen St.Amand

$55 was raised from the sale of packages of seed garlic that Ms. Teixeira had put together from garlic she had grown and harvested earlier in the year. Supermarket gift cards were purchased with the proceeds and were donated to the Murray UU Church Food Pantry. Juliet Teixera


Karen St.Amand


Karen St.Amand

Climate Change is Releasing Long Frozen Microbes

According to Scientific American, the warming of the permafrost in Artic regions due to climate change is bringing back to life long frozen microbes and fauna from as far back as 2.5 million years, plus diseases thought eradicated from buried remains. This is a problem, as we do not know what the consequences will be. Already cases of Alaskapox have appeared that causes skin lesions, and smallpox, anthrax and other diseases long dormant are returning. Many diseases such as Covid-19 can remain viable for millennia when frozen.


CNN

Some bacteria that produce methane from the carbon in the soil have been found. Methane is a greenhouse gas 20 times more potent than CO2. As these bacteria become active, they will take the carbon sequestered in the permafrost, converting it to methane and cause a massive acceleration of climate change. This will accelerate the occurrence of the “tipping point” mentioned in an article last month. Bill Lewis

Using Manure as a Power Source by Aidan Dirienzo

Manure, an animal's dung that may be used as fertilizer, has other important uses. Farmers have learned that manure produced by cows can go through a separation process and methane gas can be extracted and used to power their farm. The remaining liquid can be used as fertilizer and the solid material as sanitary bedding.

Years of research on cleaner energy sources has not brought us to a clear and immediately effective answer on how to save our ozone layer and protect against climate change. We can only rely on smaller, less effective ways to create greener energy. Processing manure, created by the common farm animal, is just one of these ways. In order to accomplish this, we must use a digester. A digester is a large vessel in which animal waste is liquidified and processed. After it is liquefied, the manure is heated up, and continuously mixed, speeding up the process of methane production. After some time the methane that is produced (after some additional refining) is identical to the natural gas found on our planet (CH_4). The unfortunate part of this process is the expenses that would have to go into a dairy farm to have an onsite digester. Some people believe them only to be beneficial with two-thousand cows or more, and are scared to make the transition. However, a dairy farm in Vermont says that with only one-thousand cows, they can produce 2,500-3,000 kilowatts of electricity daily, which is enough power for approximately 200-300 homes.

It is also important to mention that this biofuel created by manure is used for more than just electricity. We can use this duplicate of natural gas, as a source of fuel for cars. Many farmers that create the biofuel have in turn put it into many trucks, cars and even busses. With more forms of transportation using this new fuel, whether for commercial use, or even public transportation, the more we are helping our planet.

Leftover food and scraps can also be added to this separation process, which produces more methane. As a community, we can help by saving our left over foods and delivering it to one of these digester compounds, where they can use it to increase production. Scraps in restaurants, schools, and in our homes, can all be added and contribute. Some areas have pickups.

The benefits of this process outweigh the cons by far. We can create a cheaper, safer, and a much better alternative to extracting natural (methane) gas found underground. We get rid of the piling up of manure that did not have a use before (if they weren't being used), we are creating a better alternative to the harmful methane gas that currently destroys our ozone layer, and are able to dispose of trash from communities in a more productive and beneficial way. The problem is the price of a digester, where they are placed and proper maintenance. They cost around $325K - 1.2 million dollars and the air they emit contains nitrous oxide, another GHG that needs to be captured, but if it helps repair or at least is less harmful to our ozone layer, then it is a must buy, in all cases.

Student Instruction

On November 11th, I had the opportunity to teach four young homeschooled students about colonial life at the Richardson Nature Preserve. The children did not need masks as they are always together but the adults wore masks the whole time.

First, their grandfather Mike taught them about the indigenous people coming from Asia 20,000 years ago and not getting to New England for 10,000 years. I informed them it could be because 14,000 to 15,000 years ago, where they were standing, there was one mile of ice above them from the glacier. Mike then moved on to Columbus, who never set a foot on America, the pilgrims, and how Attleboro came about.

I then told them about how Benajah Barrows bought 100 acres of land of the North Purchase from Samuel Bliss on 22 December 1705 and developed the land. He first built the earthen dam and sawmill which gave him the lumber to build the center third of the house. East and west additions were added later. By 1708, his wife Lydia Bucklin, his first child, and he were living there. We went over how life was like back then even for children as young as they were. They saw the two hog pens, where the common and horse barns were, the former well, and chicken coops.

They then went on a scavenger hunt picking up small natural items such as acorns and made posters. Bill Lewis

What's Happening on the Barrows' Farm in 1720

The weather has turned cold with freezing at night and possibly all day. The animals had to be tended every day but with the cows' milk having dried up(cows only produced milk for 9 months) and the chickens stopping laying eggs, those chores could be bypassed. It was mainly feed and watering. The sawmill demand for lumber would be down so they would concentrate on making staves for coopering, casks, and shingles and shakes for the upcoming season. It was mostly indoor work though they did haul in previously cut logs when the ground was frozen, as they would slide easier. Their horse and oxen would have winter shoes that provided better grip on the snow and ice. Lydia and the children would be working on the wool and flax that had been harvested earlier and some basic learning.

Though they were religious on Sundays, they did not celebrate Christmas, which they thought was a stolen Roman holiday. The First Congregational Church on the Post Road in North Attleborough (Attleborough at the time) was 8 or more miles away. With a horse drawn cart only going 2 – 3 miles/hour and an oxen one going 1 ½ - 3 miles/hour it would be rare for the family to go there to church plus the roads were mere cart paths except for the Post Road. Instead, they would do bible study with the reading of the bible being a reading lesson for the children.

Updates, Comments, and Interesting Reading

New studies have shown Climate Change slows the weakening of hurricanes once they make landfall.

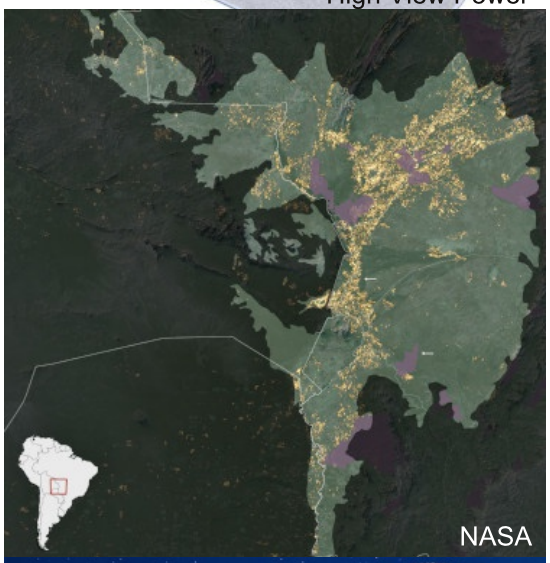
The current EPA plans to put in effect regulations that would paralyze the agency from doing any enforcement or make any new regulations based on science. news.yahoo.com/trump-epa-170000404.html

Work is ongoing to use phase-change materials for thermal energy storage of excess energy generated from solar or nuclear power sources. It is cheaper and more efficient than batteries. www.azom.com/article.aspx?ArticleID=19885

Saudi Arabia is setting up a solar plant that produces Green Hydrogen to be used as fuel.

The UK is working on an initiative to utilize liquid air for energy storage and marine propulsion from renewable energy sources. www.bbc.com/news/business-50140110

1/3 of our food comes with pesticides due to imports of fruits and vegetables that we cannot produce ourselves.



During the Dust Bowl drought, northern C3 grasses, which normally require more water, replaced southern C4 grasses that require less. As droughts continue because of climate change this factor can help in plans to cope with the droughts since 30 - 40% of the land surface is grasslands. Modern dust bowls are starting again.

28% of the world's largest wetlands in Paraguay, Bolivia and Brazil have burned.

Global temperatures could exceed crucial 1.5 C target in the next five years.

Australian spotted jellyfish the size of basketballs have been spotted off the Carolinas.

Animal populations worldwide have declined nearly 70% in just 50 years, a new report says.

Horseshoe crabs produce limulus amebocyte lysate, LAL in their blood, which is used by pharmaceutical companies to protect vaccines. LAL detects bacteriological contaminations in vaccines and drugs. They are now endangered and unless protected, vaccines and other drugs will not be able to be produced. This is critical during this pandemic.

Colonial Receipts

Though the Puritans did not celebrate Christmas, here are some recipes they might have served around that time of year.

"Pease porridge hot, pease porridge cold, pease porridge in the pot nine days old."

The old rhyme actually had meaning. Homes would have a pot hanging at the side of the fireplace. Meat and vegetables left over from regular meals would be put in the pot. To fortify it, more dried peas, beans, and/or corn plus water would be added periodically. It could be brought on as a full meal later or just left for people who got hungry. Inns and taverns at the time would have regular meals at fixed times placed on the tables with the price set by the colony. The drinks were extra. If someone arrived late or was still hungry after the food as gone, they could get some of the porridge. Though you might think of it as unsanitary, by being constantly reheated, it would kill any bacteria.

Jonnycakes

1 cup cornmeal
1 TBL sugar if they had it
½ tsp salt
1 cup boiling water
2-4 TBL milk
Mix until it can be dropped easily from a spoon and fry on both sides in a pan with bacon grease.

The following are recipes compiled by the **Jamestown-Yorktown Foundation**:

Soops of Butter'd Carrots

Take fine young carrots and wash them clean; Then have a skillet or pan of fair liquor [water or broth] on the fire, and when it boils, put in the carrots, give it a walm or two [parboil] and take them out into a cullender; let them drain, then mince them small, and put them in a pipkin [small pan] with some slic't dates, butter, white wine, beaten cinnamon, salt, sugar, and some boild currants, stew them well together, and dish them on sippets finely carved [toast].

The Accomplisht Cook, 1660Robert May

The Lord of Devonshire his Pudding

Take manchet (bread) and slice it thin, then take dates the stones cut out, & cut in pieces, & reasins of the Sun the stones puld out, & a few currance, & marrow cut in pieces, then lay your sippets of bread in the bottome of your dish, then lay a laying of your fruit & mary on the top, then antoher laying of sippets of briad, so doo till your dish be full, then take crame & three eggs yolds & whites, & some Cynamon & nutmeg grated, & some sugar, beat it all well together, & pour in so much of it into the dish as it will drinke up, then set it into the oven & bake it.

Elinor Fettiplace's Receipt Book,1604

Pears Stewed Purple

Pare six large winter pears, and either quarter them or do them whole: they make a pretty dish with one whole, the rest cut in quarters, and the cores taken out; lay them in a deep earthern pot, with a few cloves, a piece of lemon-peel, a gill of red wine, and a quarter of a pound of fine sugar; if the pears are very large, they will take half a pound of sugar, and half a pint of red wine; cover them close with brown paper, and bake them till they are enough.Serve them hot or cold (just as you like them), and they will be very good with water in the place of wine. To Stew Pears in a Sauce pan put them into a sauce-pan with the ingredients as before; cover them and do them over a slow fire; when they are enough take them off, add a pennyworth of cochineal, bruised very fine. The Art of Cookery Made Plain and Easy, 1745Hannah Glasse

Attleboro Land Trust
Position Available

TERRACORPS: Connecting land and people for life

TerraCorps works at the intersection of the land trust and urban agriculture movements to create a future where land is the foundation of health and well-being for ALL people in EVERY community.

We are looking to fill the following position:

Land Stewardship/ Community Engagement Coordinator

This TerraCorps member will serve with the Attleboro Land Trust to help lead efforts to care for our protected lands, while building awareness and involvement throughout the community.

As a TerraCorps member you can:

Help communities conserve land
Teach future farmers how to grow organic food
Build trails for all abilities to exercise on
Organize volunteers at community farms
Help kids grow vegetables at schools
Educate youth about nature
Grow food in urban spaces
Preserve farmland for future generations
Care for wildlife on public land
Support local nonprofits

TERRA CORPS

AMERICORPS A TERRACORPS

ATTLEBORO LAND TRUST

To apply, visit terracorps.org

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