Friends of Thacher State Park

Emma T Thacher Nature Center ● 87 Nature Center Way ● Voorheesville, NY 12186
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ARE WE FEELING THE "BURN" YET?

A long time ago, long before anyone was a twinkle in anyone else's eyes, the earth's atmosphere contained 412 ppm [parts per million] of CO_2. Trees flourished in the Antarctic but there were no folks nor even dinosaurs to enjoy it. Large sharks roamed during this Pliocene Period but most scientists feel that *Homo sapiens* did not evolve until CO_2 was under 350 ppm closer to a million years ago.

Well today, thanks to the Industrial Revolution and the continued burning of fossil fuels, CO_2 is back up to 412 ppm, nearly double what it was before the Industrial Revolution began in 1760.

"So what?" say the Doubting Thomases, "Climate naturally fluctuates." They are correct, it does. Volcanoes, minor fluctuations of the heat of the sun's surface, the earth's wobble, El Nino, ALL these will tinker with climate. When Pinatubo erupted in 1991, which was the last significant vertical volcanic eruption in the tropics, the earth did indeed "cool" down a degree Fahrenheit [^oF] during 1992 to 1993.

Since then, with few exceptions, the earth has resumed a warming trend which actually began in the 1980s. For the past 421 months, temperatures across the globe have been warmer than the thirty year mean! Yes, you read that last sentence correctly. Meanwhile, the last 9 out of 10 years have been our warmest years ever.

The Roaring 2020s began with the warmest January on record (sixth warmest in Albany). Oslo Norway, nearly 60 degrees from the Equator, putting it close to the Arctic circle, had only ONE day where the high temperatures did not go above freezing and had nay a flake of snow! The Antarctic reached 65^oF in early February (their equivalent of early August), the warmest temperature ever recorded there. Wild fires that raged in Australia are now being replaced by flooding rains.

Closer to home in the Greater Capital District, a woman I used to work with told me her dog had 60 ticks on it from walking in the Pine Bush at the end of January! It used to be that the ground was usually frozen and covered with at least half a foot of snow at that time of year.

A birder friend of mine has indicated several birds have moved up from the South that never used to be found this far north back in the 20th century. One is the Red-bellied Woodpecker, others are the Black Vulture, Tufted Titmouse and Northern Cardinal. There are possibly a few others as well. While mosquitoes carrying West Nile virus have reached our area, there has been a precipitous drop in honey bees and bats.

The black locust tree, an invasive tree typically found in the Mid Atlantic has found its way to our Pine Bush area.

This winter, like many recent ones, has been frustrating for ice skaters (at least locally). There is often ice on the ponds tempting folks to get out on. However, since our temperatures have consistently been getting above freezing much of the time, the ice has not had a chance to thicken up to four inches, which is considered safe to walk on.

So, you say, what is the big deal, we are having a mild winter. That's a fair question, winter temperatures fluctuate. If you look at last winter, it too was milder than normal; in fact the last four have been. Our last colder than normal winter was 2014-15 when we actually had our second coldest February on record. It was brutal, I remember it well. However, while we were shivering, most of the country outside of the Northeast was basking in yet another mild winter. The fact is, our 30 year average temperatures for winter have risen over 5^oF since 1970!

This winter cold air has been locked up in Alaska similar to what we had in 2015.

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The warmth we have been experiencing this winter has been happening without any El Nino in the Pacific. Instead the waters have been "neutral" (La NADA) which means they are near normal temperatures. Sunspots which can tinker with temperatures, have been unusually low meaning a slightly cooler than normal surface on the sun. Volcanic activity has been a little higher than normal with a little more ash in the atmosphere but nowhere near the level of Pinatubo.

We need CO_2 to survive. The gas traps heat and up until now our atmosphere has been the perfect blend of oxygen and CO_2 to allow life as we know it. The CO_2 has kept the earth's average temperature pretty close to 57°F. CO_2 is naturally emitted by animals, volcanoes, oceans and ourselves. When we started burning fossil fuels our temperature actually cooled a little possibly because the aerosols were blocking the light of sun, trumping any warmth from additional CO_2.

As we reached the 1980s, cleaner air courtesy of stricter EPA regulations made it easier to breath. However, we continued to burn oil, cleaner coal, and of course there are car and jet emissions. While the air has been somewhat cleaner (but not everywhere), one thing is for sure: CO_2 continues to rise at an alarming rate.

Many scientists argue we have 10 years to significantly reverse this trend or we will be in trouble. Many have gone on to say if we were to raise the earth's temperature 8°C, mankind as we know it would cease to exist. A rise of just 0.5°C would get us to full climate crisis. So far, the earth has warmed ONE degree Celsius (1.8°F) but most of that warming has been in the past 35 years. We are close to melting the entire Arctic ice cap at least during the late summer. If and when that happens, the albedo (reflection of the sun) will be gone allowing for much more heat to be added to the surface. Also, there will be more opportunity for methane, an even more sufficient heat trapping gas, to be released in areas where the ice has covered it up.

This process would likely increase the rate of warming at a much faster pace which could easily blow us by the 0.5°C threshold, and perhaps perilously close to the 8°C threshold before 2100.

No one knows how this will all pan out. However, one thing is clear. We need to diminish the burning of fossil fuels as quickly as possible. Even if you think a climate disaster will not happen in your life time, think of your children, nieces and nephews as well as their children and future generations. They will be the ones that will truly suffer.

If you feel the burn, there are many ways we can start the ball rolling. Perhaps one of the quickest ways would be to have NYS declare a Climate crisis right now as London and San Francisco have. Call Governor Cuomo's office at 518-474-8390 (Extension One). Tell him "Governor Cuomo, please declare a climate emergency for the state of New York which means an immediate ban on all new fossil fuel infrastructure." Call often leaving the same message.

Try to replace at least one car ride per week with public transit, walk or bike ride if possible. If everyone did this, we would make a difference.

Thank you

Hugh Johnson

Hannaford Helps Reusable Bag Program

For the **month of March**, each time a **$2.50** reusable Community Bag is purchased at the **Voorheesville Hannaford** (5 Maple Road, Voorheesville NY)**, $1** will be donated to the Friends of Thacher Park! This is a great way to support the environment and fundraise for our cause, especially with the start of the carryout plastic ban on March 1. Stock up on these wonderful totes and help a good cause. Thank you!

Save the Date!

Saturday, May 2, 2020
9am - 1pm

I LOVE MY PARK day
www.ptny.org

"I Love My Park Day"

Help us spruce up Thacher Park for summer. The Friends will provide a complimentary barbecue for all volunteers! Please register online at www.ptny.org.

Friends of Thacher Park Meeting Dates for 2020

March 11 (*the March meeting takes place at the Emma Treadwell Thacher Nature Center!)*, May 13, July 8, September 9, and November 11 (*all other meetings at Thacher Visitor Center*).

7:00 pm. Come join us!

Welcome to our Interns

In January we welcomed our two new interns, Katie Blaylock and Audrey Trossen, as they began their 10-month internships at Thacher. The positions are part of the Student Conservation Association (SCA) Hudson Valley Program and are sponsored by SCA, Americorps, and NYS Parks.

Katie is our Environmental Educator and will be working in the Nature Center assisting with educational programs and projects. She came here from Cincinnati, Ohio and received a Bachelor's degree in Wildlife and Fisheries Resource Management from West Virginia University. She's especially interested in wildlife and participating in survey and monitoring projects. Audrey is our Geology Educator and will begin working in the Visitor Center as we move into spring. She is from Saugerties and received a Bachelor's degree in Geoscience, with a concentration in Museum Studies from Smith College in Massachusetts. She is particularly interested in developing accessible programs and working with collections.

Audrey and Katie have been learning about the Hemlock Woolly Adelgid and surveying hemlock trees in the park, recording data for Project FeederWatch, using trail cameras to survey wildlife, preparing for upcoming programs and projects. They've also been receiving trainings through SCA and participating in events and projects with other interns in the region. Please join us in welcoming Katie and Audrey!

- by Nancy Engel

A Spring Wildflower for Smoking — Wildflower Puzzler

This month's article is in the form of a riddle. I have listed interesting facts about a common spring wildflower that you can see at Thacher Park. Work your way down the list and see how many clues you need before you figure out what that wild flower is. If all else fails you'll find the name of the flower tucked away somewhere else in this newsletter.

* The Romany people (Gypsies) smoked the dried leaves for pleasure.
* In 16th century England, asthmatics breathed in the smoke to ease their coughs.
* Ashes from the burnt leaves were used to season food.
* Scottish Highlanders soaked the leaves in a saltpeter solution to burn as a torch.
* In the Middle Ages, the sign of an apothecary shop in France was the shape of its leaf.
* The flower is a good source of pollen and nectar for insects early in the spring.
* The hairy stem of the flower has red tinged scales which are thought to help absorb warmth from the early spring sun.
* The seeds can travel as far as 8.6 miles.
* The plant is mucilaginous and its Latin name is a clue for its medicinal uses.
* There are cottony hairs underneath the leaf which help to keep the plants roots wet. These hairs were used for tinder.
* You can see this wild flower in Thacher Park while driving by in a car.
* Peasant names for this plant are Dovedock, Sowfoot, Bull's-foot, Clayweed, Foalsfoot, and Dummy weed.

Pat yourself on the back if you have figured out what the plant is. If you haven't, search for its name in the newsletter. Either way, come up to Thacher Park to enjoy this welcome touch of spring.

- by Sigrin Newell

Check for updates at www.friendsofthacherpark.org

As always, call (518) 872-0800 or (518) 872-1237 to verify activity times and dates.

Please feel free to call board members with questions or suggestions.

Many thanks to Hugh Johnson, Sigrin Newell, Nancy Engel, and Brian Horl for their contributions to this newsletter.

Want to contribute? Please email me at cgervasi@albany.edu. Christine Gervasi—Editor

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Next:

Wednesday, March 11, 2020

Board Meeting

7:00 pm at the Nature Center

. . . Full Moons 'til June. . . .

Today we use calendars to keep track of important dates and times throughout our year but our ancestors did not have that luxury. They kept track of these things by following the moon cycles; when to plant, when to harvest and many other important dates. There are 12 to 13 full moons during the course of the year. They come every 28¼ days. Many cultures gave these moons names to mark their importance in their lives. Whether they be Celtic, Old English or Native American, they all held importance. The following is a list of the full moons for the first half of the year.

January is the Wolf or Storm moon. The month has a tendency to be stormy and the wolves could be heard clearly in the cold air. February is the Snow moon. This month can be the snowiest in the Northern Hemisphere. Native Americans also called it the Hunger moon because food supplies would start to run low at this time. March's moon goes by several names of which two are the Worm moon and the Seed Moon. The worms begin to come to the surface which in turn brings the Robins; a sure sign of the coming of spring. It was also the time to begin sowing early seeds. April brings us the Hare Moon. The hare was a sacred animal in Roman legends associated with springtime and fertility. It was also known as the Sprouting Grass Moon, the Egg Moon and the Fish Moon (common to coastal tribes). May is the Flower or Dyad Moon. Spring flowers are in full bloom by now. The Dyad comes from a Latin word for a pair and refers to the twin stars of the constellation Castor and Pollux. June brings the Mead or Strawberry moon. The meadows or Meads would be mowed for hay and strawberries were ready to be picked. The Strawberry moon was one of the few names universal to all Algonquin tribes.

I hope this adds some interest to your moon gazing.

Looking at the night sky from the porch -

- Brian Horl

Photo by Christine Gervasi

As always, you can find a color version of the newsletter at www.friendsofthacherpark.org