

Susquehanna *Sierran* June 2019



EXPLORE, ENJOY, PROTECT THE PLANET

Pollinator Garden at the Confluence, 2019 – Sarah Hodder

The Susquehanna Group is in year 2 of partnership with Binghamton Parks & Recreation on the Pollinator Garden at Confluence Park. The garden is located in a small, historic park where the Susquehanna and Chenango Rivers meet. If you haven't been there yet, try and get there to enjoy the beauty, look for pollinators such as butterflies, and simply relax for a while.

A part of any garden includes challenges as well as disappointments. The Confluence Garden is no different. One of the challenges encountered since the garden was installed is the “fake stream” added to handle water runoff. It appears as though visitors are using it as a walkway and relishing tossing the stones into the river. Another disappointment is the plants that do not survive or disappear.

But, overall—including the work associated with preparing the garden for the public to enjoy its full glory—there is the wonder and excitement of watching the tender new growth that takes place in spring. There is something one can't put their finger on about digging in the soil, planting and tending new plants, and the many varied chores done by dedicated volunteers which makes the garden come to new life.

Early spring finds the Amelanchier, Dogwood and other pollinator-friendly plants signaling new beginnings and promising more to come.

***To join this project contact me at
shaddow@stny.rr.com***



Climate Crisis for U.S. Food Production – Valdi Weiderpass

Although mainstream media underreports it, climate change is causing this year's inundation of much of the central U.S. by causing the jet stream to migrate south and to stall in location for weeks or months. This continually brings up moisture from the Gulf to the central U.S. In Baton Rouge, Louisiana the Mississippi River has been above flood stage (the level at which areas normally not underwater are flooded) since early January. At Vicksburg, Mississippi it has been above flood stage since February 17. All counties of Oklahoma were in a declared state of emergency as of May 31. Major flooding has occurred in the Missouri and Arkansas River watersheds. Eight states along the Mississippi River have experienced the longest-lasting flood since the Great Flood of 1927. Communities, farms, levees, dams, water systems, roads, bridges, rail lines, and the economy are already damaged and will experience more.

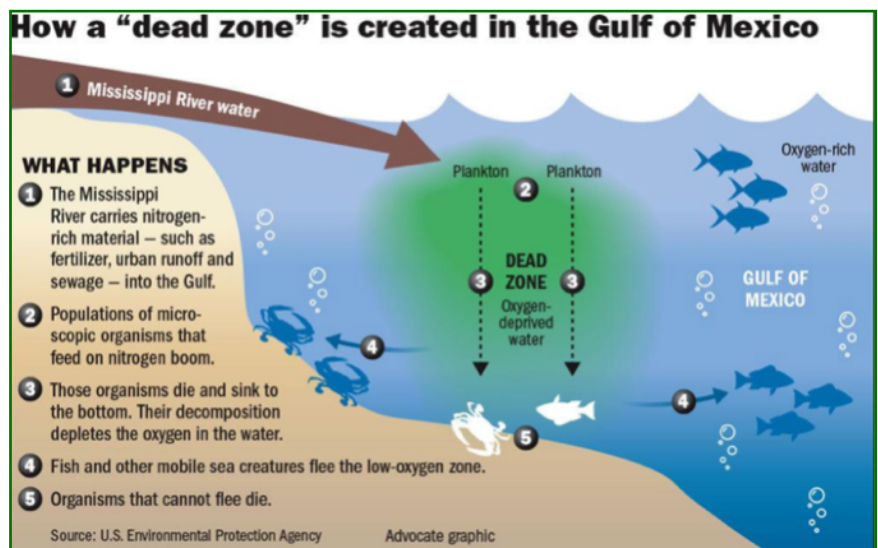


Burst grain silos, Fremont County Iowa, U.S. March 29, 2019, REUTERS/Tom Polansek. <https://www.reuters.com/article/us-usa-weather-iowa/u-s-disaster-aid-wont-cover-crops-drowned-by-midwest-floods-idUSKCN1REoBU>

By this point in the growing season farmers normally have planted 90% of the country's corn crops, but this year just 58% has been planted—the slowest pace in recorded history. Farmers have so far managed to plant only 29% of soybeans compared to the normal 66%. The planting window will soon close, substantially reducing yields and likely causing numerous bankruptcies. Due to the trade war with China, farmers had stored a staggering amount of wheat, corn and soybeans, hoping that they would get a better price if the trade war was resolved. Now much of that is ruined by the flooding. Much livestock has been lost. Just one Nebraska family lost several hundred cattle. NASA Earth Observatory reported in late May that the entire continental U.S. has had

its 12 wettest months (ending April 30) since modern record-keeping began in 1895. Flood damage to topsoil will take many years, if not decades, to recover. The floods have carried away tons of precious soil and washed much fertilizer into the Gulf of Mexico. The nutrients and fertilizer, combined with sewage and pollution, are expected to cause extensive oxygen depletion and record dead zones in the Gulf, and reduced seafood catches. Many of these facts are in an article at <https://thinkprogress.org/flood-arkansas-mississippi-oklahoma-climate-ef9fb99e9ef6/>. An excellent explanation of Climate Change's effect on the jet stream is at <https://www.carbonbrief.org/qa-how-is-arctic-warming-linked-to-polar-vortex-other-extreme-weather>.

The UN's IPCC in October 2018 warned that to save a habitable climate we have until 2030 to cut greenhouse gas emissions in half, and until 2050 to get to 'net zero.' We are stealing our children's future! We have the technology to transition to an economy based on renewable energy and regenerative farming which replenishes topsoil and captures carbon. Please tell others, sign up for solar (10% savings on supply) or wind electricity, get politically active, call your government officials, and support leaders willing to take **drastic** action on climate.



Graphic from TheAdvocate.com May 16, 2019. https://www.theadvocate.com/baton_rouge/news/environment/article_b28f1bd0-77e7-11e9-a33d-97289e73dd28.html

Susquehanna Group

(All of Broome, & parts of Chenango,
Delaware, Otsego, Tioga Counties)

| | |
|-----------------------|-------------------------------|
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Thank You to Kathy Cronin, eagle-eyed proofreader, Treasurer till year's end, and former newsletter editor. Warning: We'll not forget those valuable talents, and we have your contact info. And thank you to Joann Lettis for graciously stepping into the Treasurer position.



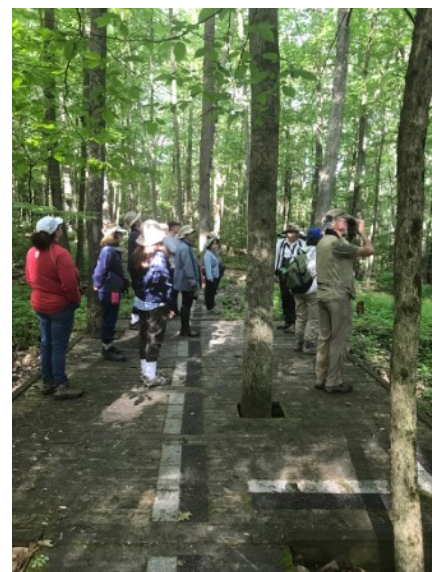
Hey! We need some photo help here! This is the rather homely 'banner' photo used by the Atlantic Chapter to represent the Susquehanna Group.



It's wintry, devoid of greenery, out-of-date. Please dear reader, during this growing season take some panoramic photos—anywhere in Broome, or most of Tioga, Chenango, Delaware, southern Cortland and Otsego Counties. Let's give them a lovely new photo. Send digital submissions to jimtaft7@gmail.com.

BIRDING !

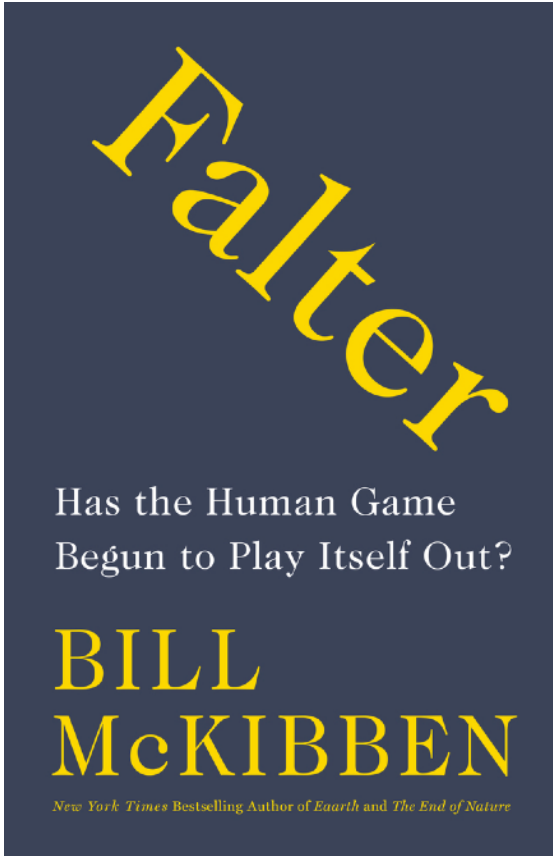
June 8, 2019 Bird watching outing at and hosted by Waterman Conservation Education Center, led by Ritchie Lettis. Identifying birds by location, size, coloring, behavior, calls, bill, etc. Ritchie has encyclopedic knowledge of birds and a fund of stories. Chris Harasta started us early with hot coffee and fresh-baked scones.





Falter: Has the Human Game Begun to Play Itself Out?

by Bill McKibben; Henry Holt, 2019



Bill McKibben has been active in climate change discussion for decades. *The End of Nature* (1989, Anchor) painted a pretty bleak picture of the impact humans have had on the global environment. I suspect his *Hope, Human and Wild* (2007, Milkweed) was a kind of antidote to the despair engendered by the first. *Hope* celebrated what communities were doing to reduce that damage. Anyway, he's on the subject again. I found *Falter* to match the earlier works for clarity of writing and depth of research.

The author builds *Falter* around the metaphor of “the human game” which he defines as everything humans do in the world, in all its depth and complexity. His concern is that because of the scale of what we're doing, the power of human technologies, and the power accumulated by a tiny elite, humans are imperiling our future. We've dumped more CO₂ into the atmosphere and oceans in the last 30 years than in all of our previous history on the planet.

Falter is about more than climate change. McKibben talks about power, who has it and how they use it. He relates that power to inequality in both political and economic arenas. Some members of this elite, including the Koch brothers and their network, are in fossil fuel industries, and some are in Silicon Valley.

The political dimension might strike some readers as a bit jarring. Why does McKibben keep shifting his focus from the environment to the influence of Ayn Rand, to the obsession of some Silicon Valley Moguls with longevity-enhancing drugs, artificial intelligence, and space colonization? What's he trying to get at?

His point is that had it not been for the actions of certain elites, we could have begun to effectively address the issue of climate change back in the 1980s—since then, as geophysicist Michael Mann observed, “what would have been a bunny slope was now a double black diamond.” [p. 79]. Corporate leaders at Exxon and other oil and coal producers made a choice: engage creatively with the solution of this problem, or promote profits using denial, obfuscation, and political payoffs. This history was cataloged by Naomi Oreskes and Erik Conway in *Merchants of Doubt* (2010, Bloomsbury). Curiously, in all of McKibben's detailed notes and in the text, that work and its authors are not mentioned.

McKibben highlights several bright spots in an otherwise dark tale. One example is the near miraculous impact of solar panels in parts of rural Africa the traditional power grid has not reached. Another is the transformative change introduced in an older home in Rutland, Vermont where Green Mountain Power worked creatively to encourage full-spectrum investment in weatherizing and solarizing with no out-of-pocket costs for the family. McKibben notes that the family in question had no particular interest in the issue of climate change, that their focus was on reducing heating costs and making their home safe and comfortable. So people are doing things right in some places some of the time. The question McKibben leaves us with is: can we, through mobilizing communities in defense of the planet, overcome the power of a tiny but incredibly powerful elite? He encourages the reader to stay engaged and to join the fight if he hasn't already.

The Green New Deal (GND) Resolutions, submitted in February 2019 by Representative Alexandria Ocasio-Cortez (D, NY 14th) and Senator Edward Markey (D, MA), brought considerable attention to the need for strong legislative action on climate change. Ocasio-Cortez has weathered mockery of her dancing and personal finances, but I suggest that she welcomes mockery when it brings attention to the GND. Though it was ignored during the 2016 presidential debates, climate change has now been forced to the forefront of the national political dialog.

The GND proposes sweeping changes in both energy policy and socio-economic initiatives that will benefit disadvantaged and left-out communities through an economic model in which all participate. Americans would share investment in the country's future, and lead international efforts to preserve a habitable planet.

There is opposition to transforming to a clean energy economy, particularly by fossil fuel industries. Yes, the GND would cost trillions of dollars. However the impacts of Climate Change would cost far more. Rather than being a “job killer” it guides a transformation of energy sector employment.



Dr. Dan Schrag, Professor of Environmental Science and Engineering at Harvard University: “The goal of carbon neutrality in 10 years is not technically feasible, for a host of different reasons....But to me, that’s missing the point of the excitement of the Green New Deal. The activism and enthusiasm, partly triggered by Ocasio-Cortez, seems to tie the climate problem in with a variety of other issues — including jobs for all, living wages, health care for all — and that coupling is a new twist in this story, and I think it’s really exciting.”

As older generations have failed to secure a healthy planet, the young are bringing their voices to the problem. The Sunrise Movement, for example, is capturing much of their sentiment and challenging the political system to respond to climate crises. And the Binghamton University student group GROW states “We are the first generation that will feel the impacts of climate change and the last generation that can do anything about it. This crisis is not of our making but it must be of our un-making. This un-making begins with un-telling. We must challenge all the stories that have driven us into this crisis.”

The young must be brought into the decisions affecting their future. Leaders from both parties must stop obstructing them. They can then do the unmaking which may ultimately help prevent the increasingly obvious rush to an unlivable planet.

Generation Repairing Our World – Georgia Kerkezis

When Binghamton University student George Elliot first heard about the IPCC’s October 2018 climate report, he was shocked by its depiction of what has now become known as the “climate crisis.” He was even more shocked, however, that hardly anyone else was talking about the crisis or knew what it was. Immediately, he and a group of students joined together. They ran a week-long series of Climate Crisis Teach-Ins to educate students about the climate crisis and open up a conversation about what we can do about it. This was just the beginning. What started out as a handful of passionate BU students has transformed into a coalition comprised of students and community members across New York’s 22nd Congressional District. This coalition is called Generation Repairing Our World (GROW), and it’s up to some big things.



GROW meeting, Binghamton U.
Photo: Pipe Dream - Koio Senoo

In April, the founding students of GROW were invited to speak on a panel at a general meeting of the Susquehanna Group of Sierra Club. Here, they shared the four questions they ask themselves when understanding and dealing with climate change. What do we need to stop? What do we need to keep? What do we need to give up? And what do we need to recover? The students encouraged community members to use these questions to think constructively and critically when creating climate solutions.

By the end of April, GROW also succeeded in hosting a town hall with Congressman Anthony Brindisi. After BU Professor Carl Lipo spoke, BU Professor Molly Patterson presented on the science behind climate change, specifically referencing her research on Antarctic ice sediments. Then members of various BU organizations questioned Brindisi about the Green New Deal, food system reformations, and disaster preparedness. Attendees also asked how he plans to work more collaboratively with constituents on issues of climate change, his response to which was the greatest success that came out of the town hall. Brindisi declared that he was willing to create a regularly-meeting Climate Advisory group. The group’s first meeting was just after Memorial Day. In attendance were representatives from New Hartford Climate Group, Northeast Organic Farming Association of NY (NOFA NY), Federal Emergency Management Agency (FEMA), NY Farm Bureau, NY Soil and Water Conservation, Trout Unlimited, Siemens, United Climate Action Network, Binghamton Regional Sustainability Coalition, Sierra Club, Broome County Legislator Suzy Ryan, a professor of Environmental Studies/Climate Change at Hamilton College, an educator from Utica, and BU students and a professor.

At the meeting, Brindisi asked for the group’s help in identifying the easiest climate solutions to pursue with the greatest success, or the “low-hanging fruit,” so to speak. He also asked them to identify businesses working on things related to climate change, and the impacts of climate change county by county. When discussing how to best build public support and communicate with constituents, the group came up with the idea of having Brindisi put out a newsletter or notice about climate change, which would include information about its local impacts, personal narratives, and ways people can get involved in mitigation efforts. The Climate Advisory group plans to meet again in the near future, possibly when BU’s fall semester begins in late August. Going forth, the group also looks to recruit representation from farmers, laborers, and low-income people of color. GROW hopes that a great amount of climate action will be accomplished through this advisory group. At the same time, GROW continues to pursue other avenues of action, including building a collection of open-access educational resources, holding educational events at schools and colleges, and putting on more town halls and panels across Congressional District 22.



Rep. Brindisi Town Hall, Binghamton U,
April 25 Photo: Pipe Dream

Hope for Hemlocks *UPDATE* – Doug Gausman

Biocontrol measures to effectively control the spread of hemlock wooly adelgid (HWA) continue thanks to the New York State Hemlock Initiative. NYSHI, a Cornell University collaboration with NYSDEC, works with volunteers to obtain and release two promising biocontrol predators: *Laricobius* beetles and *Leucopis* silver flies. The last beetle release was in March/ April 2019 in Harriman State Park, Letchworth State Park, and at Pepactin and Schoharie Reservoirs. A similar release last year showed promising results. Spring season involves a shift to silver fly releases. Silver flies are obtained from HWA infestations in the Pacific Northwest. NYSHI is also attempting to rear silver flies at its Cornell lab. Silver flies control HWA by eating their eggs during spring. Neither biocontrol measure is yet available to landowners.



Laricobius beetle dining on hemlock wooly adelgid eggs.
Photo: NYS Hemlock Initiative

HWA controls currently available to landowners are systemic pesticides. These include Imidaclopid and Dinotefuran—both neonicotinoids also toxic to beneficial pollinators and other invertebrates. They are best applied using low pressure spraying of the bottom 4 to 5 feet of a tree's trunk, and must be done by a certified pesticide applicator with an EPA FIFRA 2(ee) recommendation. Use of poisons by private landowners (without a pesticide applicator certification) is limited to soil drench using *Imidaclopid*, available as *Bayer Advanced Tree and Shrub*. For more information, see the Cornell NYSHI website <https://blogs.cornell.edu/nyshemlockinitiative/>

Coming Events

General Meetings are open to all and held at **Central United Methodist Church, 17 Nanticoke Ave, Endicott, 7:30 PM** on the 3rd Tuesday of the month, with the exception of July and August.

June 18 The Future of Natural Gas Pipelines. Chris Burger on what to do with natural gas pipelines which cross our countryside and are buried under our streets. The safety of these pipelines has become a national concern. Does it make sense to invest in replacement or new pipeline infrastructure when we are in the process of transitioning away from fossil fuels towards renewable energies? Should we let gas pipelines die a natural death (simply don't replace them as they wear out) or should we engage in a more strategic decommissioning process? Pipeline safety will be discussed, as well as a vision for a clean, renewable energy future, and the obstacles that inhibit the transition.



Susquehanna Group

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