Susquehanna Sierran September 2019



EXPLORE, ENJOY, PROTECT THE PLANET

Confluence Park Pollinator Garden 2019, and a Little Q & A -Jim Taft

Your editor posed a few questions to project leader (and Master Gardener) Sarah Hodder.

- Q: Who proposed the pollinator garden?
- A: Not sure, although Scott Lauffer first approached me about it.
- Q: What constraints did the City's Parks & Recreation impose?
- A: Binghamton did not want any large trees. We stuck to native small trees—Amelanchier Serviceberry and Dogwood.
- Q: What help has been provided by the City?
- A: The partnership with the City has been good. They provide mulch, and purchase plants. They placed our trees and signage.
- Q: What was the original condition of the site?
- A: Basically grass, and some evidence of drug use. The weeping crab apple was there but nothing else.
- Q: How many volunteers have contributed time & labor?
- A: On most work days there are 3 to 7. Installation and major tasks have required increased numbers. 25 volunteers receive updates and scheduling dates. We work every other week from mid-April thru the end of September. Those with time available show up—the help is greatly appreciated!
- Q: What are your favorite plants there?
- A: That is an unfair question. I like them all for various reasons.
- Q: What are the most successful plants there?
- A: For pollinators, visual impact, and ease of care, I would say: Partridge Pea (Chamaecrista fasciculate), Cardinal Flower (Lobelia cardinalis), Joe Pye (Eutrochium purpureum), Sedum (Hylotelephium telephium), Purple Coneflower (Echinacea purpurea), and Anise Hyssop (Agastache foeniculum).
- Q: Are there pollinators present?
- A: Yes. If we provide for the butterflies, bees, & birds--even in a small area—they will find the plants. As stewards of this planet it is our responsibility to do what we can to assist them.
- Q: What has been the biggest challenge?
- A: Some of the public. Plants have been pulled out of the ground. Shrubs/flowers have been trampled. Recently a serviceberry tree branch was broken off and the bark torn down 6". Stones that make up the "fake stream" were perhaps thrown into the river. But we are always encouraged by the many people that pass by when we are working and extend "thanks" to the Sierra Club for making the garden beautiful.



NYDOT Project Updates – Jim Taft



434 Greenway – bike/pedestrian trail which will connect the Binghamton south side with the BU Campus. Update kindly provided by Project Manager Jillian Newby.

"NYSDOT is currently finalizing the Draft Design Report for the construction of the NYS Route 434 Greenway from Pennsylvania Avenue to Murray Hill Road. (Project Identification Number 903826) for review by the Federal Highway Administration (FHWA). Once the FHWA has an opportunity to review the report a public hearing will be scheduled and will allow the public to provide formal comments on the report. Anyone on the project mailing list or who attended previous meetings will be notified of the public hearing. Prior to the public hearing the design report including the preliminary plans will be available for public review. The project is expected to be put out for competitive bids late next summer and construction work may start next year or in 2021. Construction may be progressed in one or more phases. If you would like to be added to the mailing list email Route434Greenway@dot.ny.gov"



Project Area in RED

Map: NYDOT

343 Gateway — redesign of Northshore Drive area providing calmed traffic, improved public access to the Susquehanna River, additional traffic connections to downtown Binghamton, and park/recreational spaces. DOT Public Involvement Leader Jennifer Taylor kindly responded to questions from the Susquehanna Sierran.

Q: How close is final design?

A: It is estimated that it will take at least a year to select a final design alternative.

Q: What is next on the project?

A: The traffic models are currently being evaluated to determine feasibility of design alternatives.

Q: Will there be more public presentations/meetings?

A: Yes, the Department is planning to hold a public meeting in the future.

Susquehanna Group

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

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To become a candidate for the Susquehanna Group Executive Committee for 2020

mail by November 20, 2019 a candidate statement of 150 words or less to:

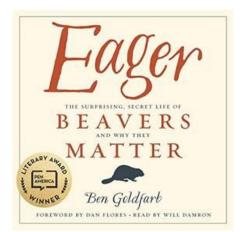
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PO Box 572

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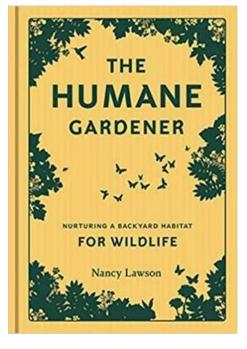
The Nominating Committee will create a slate of candidates by the end of November 2019, and ballots will be mailed with the December 2019 Newsletter. For more information contact Scott Lauffer (lauffer.scott@gmail.com).

Book Recommendations – from Sierran correspondent Colleen Wolpert



Eager: The Surprising, Secret Life of Beavers and Why They Matter — by Ben Goldfarb

The narrator does a great job expressing the enthusiasm shared by the author about the many benefits of allowing beavers to create habitat for insects, birds, and more. The book is rich in history of not only the beaver, but the development of our nation and the personalities involved with beavers. I learned how it got its name, *Castor canadensis*, and how complex a beaver compound can be with its different ponds for different uses.



The Humane Gardener: Nurturing a Backyard Habitat for Wildlife — by Nancy Lawson

The Humane Gardener is an awesome resource for those looking to improve habitats on their property. I want to take the opportunity to promote this book again.

NYS Bluebird Society Annual Membership Meeting

FREE & OPEN TO EVERYONE

Saturday, Sept. 28th **Town of Chenango** Community Room, 1529 NY Rte 12, **Binghamton**

7:15-8:45 Early Morning Bird Walk--Chenango Valley State Park with Rick Marsi. Walk begins at the Beach Parking Lot

Morning Refreshments Provided at 8:30-9:30 Town of Chenango Community Room

Welcome; Annual Meeting; Awards 9:30-10:25 Rick Marsi- "The Mystery of Migration" 10:30-12:00

Optional Catered Lunch-\$10.00 12:00-1:00

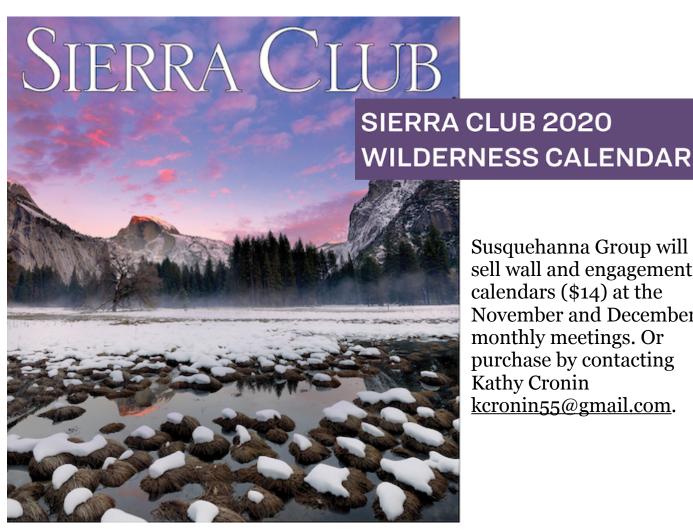
*Reservations required.

Dean C. Rust-"The Ecology & 1:00-2:10 Management of the Eastern Bluebirds"

2:10-END Live Auction & Silent Auction Results



*For Reservations: NYSBSRESV@aol.com or call 315-676-485. For more information: www.nysbs.org or call 607-242-8807



Susquehanna Group will sell wall and engagement calendars (\$14) at the November and December monthly meetings. Or purchase by contacting **Kathy Cronin** kcronin55@gmail.com.

Chris Rounds' Book Corner



The Cure for Catastrophe: How We Can Stop Manufacturing Natural Disasters

Robert Muir-Wood, Basic Books, 2016

The introduction tells us what Robert Muir-Wood hopes to accomplish: "This is the story, across continents and history, of the search for a cure for catastrophe." His background prepares him well to tell the story. He is the chief research officer of Risk

Management Solutions, Inc., a visiting professor at London's University College, has a Ph.D. in Earth Science, and was a lead author on two IPCC Reports. He is also, much to the relief of this reader, a terrific story teller.

As one might imagine, the book is full of tales about hurricanes, earthquakes, volcanic eruptions and wildfires. It also explores how people and their governments have responded to those disasters. Over the centuries, cosmic explanations involving the displeasure of one or more gods have been replaced by scientific understanding; human sacrifices and the ringing of church bells have been replaced by new building codes, warning systems and social organization. Yet the human toll of disasters keeps growing, and earthquakes in particular seem remarkably resistant to prediction. You would think this might lead to at least a modicum of human modesty. If it were only so.

Amid the welter of fumbled opportunities and misread messages, the author highlights one country to celebrate: the Netherlands. This "low country" has since first settled dealt with flooding. When one person's feet got wet, everybody's feet got wet. And it happened with depressing frequency. The result, over the centuries, is a country that has learned together and works together. It relies on both high technology and personal responsibility. Its response to the prospect of catastrophe has been both bottom-up and top-down. A 'hydraulic society,' the Netherlands has had no choice but to develop a government that responds creatively to challenges, and both creates and enforces effective regulations.

Muir-Wood makes an important distinction between rich and poor countries, and within countries, between haves and have-nots. In wealthy countries the human costs of disaster almost always fall on the poor. Their houses are more vulnerable, their communities more exposed, and their ability to respond to challenges compromised. They get hit harder and are slower to recover. In poorer countries the same contrast between rich and poor is, if anything, more extreme, and government itself tends to be weaker. When and if improved construction codes are passed they are poorly enforced. The author includes a painful example from China where, during an earthquake, several recently built schools collapsed and hundreds of children were killed. Builders had bribed inspectors and local governments looked away.

The author includes a chilling example involving construction using a combination of cement and rebar. Used correctly, guided by structural engineers and following detailed regulations, such builds are likely to withstand significant earthquakes. When the same materials are used by less experienced hands, the results can be catastrophic. Muir-Wood observes: "To allow an untrained builder to create a building out of cement without the attentions of a structural engineer is like giving a child a loaded automatic weapon." [p110]

In a world where hurricanes, violent rainstorms, mega-fires and 500-year floods seem increasingly common, Muir-Wood offers valuable guidance regarding what we need to do and what we're apt to get wrong. And he is very clear about who will pay the highest price when governments fail to respond to emerging challenges. Inevitably, it is the weak and the marginalized who are liable to lose what little they have, and the wealthy who remain snug and protected.

Dispatch from the Other Side of the Planet: The Adani Mine

By Georgia Kerkezis (Binghamton U student studying in Brisbane, Australia)

Here in Brisbane, Australia there is a growing movement to #StopAdani. The hashtag refers to the Adani Carmichael coal mine proposal for central Queensland which after years of back-and-forth efforts, has just received final environmental approval (1). The Adani coal mine would be Australia's largest, capable of producing up to 60 million tons of coal per year (6). The coal would be exported to India through the Abbot Point terminal on the coast of the Great Barrier Reef World Heritage Area (2,3) imperiling the reef and the many species which depend on it. The Adani company has a history of environmental mismanagement. For example, after a 2017 hurricane the company spilled coal-laden water into the Reef's World Heritage Area at levels 8 times the allowable limit (2,4).

The mined coal is expected to produce 4.6 billion tons of carbon dioxide over its lifetime (2) further exacerbating the climate crisis and coral bleaching of the already-dying Great Barrier Reef. Approval of the Adani mine will unlock the entire Galilee Basin to additional coal mine development, including six current mining project proposals (1). It is essential for governments to pursue renewable energies, yet Australia expands fossil fuel development.

The mine is to be built on indigenous people's land after a dubious indigenous vote on an agreement with Adani. Over 1,300 hectares of Wangan and Jagalingou land was stripped of Indigenous legal status by the Queensland government without public announcement (5). Cultural burial and ceremonial sites are now threatened. Doongmabulla Springs—the tribes' most sacred site as well as one of the world's last remaining desert oases—is at great risk of being permanently drained by Adani's unlimited access to groundwater (6,8). Water concessions to Adani would occur in spite of Queensland's current drought (7).

The majority of Australians oppose the Adani mine, yet the Queensland government still pursues it (9). However, there is reason for hope. Indigenous Australians, environmentalists, and young people are fighting legal battles, marching through cities, and performing other direct forms of action. Contradictions and controversies surrounding Adani's practices are being revealed. The government's decision to allow the Adani mine is being challenged.

- https://mobile.abc.net.au/news/2019-06-13/adani-carmichael-coal-mine-approved-water-management-galilee/ 11203208
- 2. http://www.marineconservation.org.au/stop-adani-wrecking-our-reef/
- 3. https://www.abc.net.au/news/2016-12-05/what-we-know-about-adani-and-the-carmichael-mine-project/8094244
- 4. https://www.abc.net.au/news/2019-02-13/adani-facing-government-probe-abbot-point-wetland-release/10805206
- https://www.independent.co.uk/ news/world/australasia/australiaindigenous-lands-coal-mineadani-queensland-wanganjagalingou-galilee-basina9086746.html
- 6. https://junkee.com/adaniexplainer/203739
- http://statements.qld.gov.au/ Statement/2019/5/1/almost-twothirds-of-queensland-nowdrought-declared
- 8. https://www.stopadani.com/ robs our water
- 9. https://www.abc.net.au/news/ 2019-05-16/federal-election-votecompass-adani-mine-response/ 11110408



photo: Studio 9001, Brisbane

Climate Crisis Wake-Up Calls - Valdi Weiderpass

<u>Wake-up call, 1959:</u> Physicist Edward Teller, 'father of hydrogen bomb,' gives a keynote speech at 100th birthday of the oil industry, hosted by American Petroleum Institute (API) and Columbia University in a room filled with 300 guests, including oil industry executives, government officials, economists, historians and scientists. Teller surprises the audience by warning about continued reliance on fossil fuels causing the greenhouse effect from CO2, and recommending transitioning to other energy sources to avoid climate problems including melting of glaciers and sea level rise. After the speech Teller is asked to summarize the potential effects. He estimates that global temperatures would rise perhaps 2°F by 1990, and the range would be about 1° to 5°F.

America and the world hang up on the wake-up call and go back to sleep. Business as usual. (1) Climate denial by omission, 1967: Chairman of the Board of API Robert Dunlop testifies to U.S. Senate: "We in the petroleum industry are convinced that by the time a practical electric car can be mass-produced and marketed, it will not enjoy any meaningful advantage from an air pollution standpoint. Emissions from internal-combustion engines will have long since been controlled." He conspicuously leaves out a mention of carbon dioxide (CO2). (1)

Wake-up call, 1968: Stanford Research Institute quietly provides results of a study to API, which commissioned the study, stating: "Significant temperature changes are almost certain to occur by the year 2000, and these could bring about climatic changes. [...] there seems to be no doubt that the potential damage to our environment could be severe. [...] pollutants which we generally ignore because they have little local effect, CO2 and submicron particles, may be the cause of serious world-wide environmental changes [...] CO2 concentration could reach 400ppm by the year 2000." *Oil industry hangs up. Business as usual.* (2)

<u>Wake-up call, 1977:</u> Exxon Corporation's senior scientist James Black gives a dire warning about CO2 and its effects to an internal management committee: "In the first place, there is general scientific agreement that the most likely manner in which mankind is influencing the global climate is through carbon dioxide release from the burning of fossil fuels." The following year, he warns Exxon that doubling atmospheric CO2 gas concentration would increase average global temperatures by two or three degrees F, a rise consistent with the scientific consensus today. He also warns that "present thinking holds that man has a time window of 5 to 10 years before the need for hard decisions regarding changes in energy strategies might become critical." (3) **Exxon knew!**

<u>Wake-up call, 1988:</u> NASA scientist, James Hansen tells a Congressional hearing that global warming is already going on. (3) *Exxon responds by helping found the 'Global Climate Coalition' to create public doubt of climate change.* (3)

<u>Wake-up call, 2018</u>: Intergovernmental Panel on Climate Change reports global net human-caused CO2 must be cut 45% from 2010 levels by 2030, reaching 'net zero' around 2050, to save a habitable climate.

Wake-up calls now ring louder. There are warnings from scientists, writers, activists, and political leaders. There is increasing severity/frequency of droughts, floods, storms, wildfires, polar ice melts. Climate change is a driver of the planet's predicted sixth mass extinction. Please become active to help move public policy toward urgent action on climate. Contact elected officials, protest, donate and help candidates who promise to act urgently and comprehensively on climate. One helpful site is <u>5calls.org</u>. (4) Let's **WAKE UP before the hour glass runs out.**

References:

- 1. Franta, Benjamin. https://www.theguardian.com/environment/climate-consensus-97-per-cent/2018/jan/01/on-its-hundredth-birthday-in-1959-edward-teller-warned-the-oil-industry-about-global-warming, The Guardian, London, 1 January 2018.
- 2. Center for Information Environmental Law (CIEL) https://www.smokeandfumes.org/documents/16, which hosted excerpts from Stanford Research Institute report of 1968.: Robinson, E., and Robbins, R.C. *Sources, abundance, and fate of gaseous atmospheric pollutants. Final report and supplement.* United States: N. p., 1968. Web.
- 3. Hall, Shannon. https://www.scientificamerican.com/article/exxon-knew-about-climate-change-almost-40-years-ago/, Scientific American, United States, 26 October 2015.
- $4. \ Intergovernmental\ Panel\ on\ Climate\ Change.\ \ \underline{https://www.ipcc.ch/2018/10/08/summary-for-policymakers-of-ipcc-special-report-on-global-warming-of-1-5c-approved-by-governments/\ ,\ Switzerland,\ 8\ October\ 2018.$

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.

- Eagles and the Bluestone Wind Project Tom Salo of the Delaware-Otsego Audubon Society (DOAS) will discuss eagles and the Bluestone Wind Project in eastern Broome County. DOAS became involved in the project's Article 10 review. It conducted independent eagle surveys in fall 2017, spring 2018 and winter/spring 2019. DOAS documented exceptionally high numbers of eagles, including the highest numbers of wintering golden eagles ever observed in New York. The Bluestone project is located a few miles from the Cannonsville Reservoir and Delaware River, a major concentration area for wintering and nesting eagles. Concerns about eagle impacts, gaps in Bluestone Wind's eagle data, and insufficient mitigation measures contributed to the DOAS decision to oppose licensing of this project. DOAS generally supports wind power and other sources of carbon neutral energy. Tom Salo has been involved in raptor research in New York since 1989. He organized multiple data gathering projects on migrating and wintering golden eagles in New York, including 10 years of organized camera-trapping and GPS-tagging of eagles in Delaware and Otsego Counties. He manages at the Franklin Mountain Hawk Watch near Oneonta.
- Oct 15 Climate Change in East Africa: Learning from Farmers in Kenya and Uganda Terry Woodnorth will discuss his May, 2019 Africa journey, and the East Africa Climate Witness Project Bootcamp where participants learned about regional/local impacts of climate change. The trip was sponsored by the Climate Witness Project and World Renew, the relief, development and justice agency of the Christian Reformed Church. Terry will share what he learned of climate change impacts in these communities, photos and stories of wildlife and society in East Africa, and how we can address climate change. Terry is an Endicott resident, an IT specialist at Columbian Financial Group, a member of Valley Christian Reformed Church and Sierra Club, and board Vice-Chair of the Binghamton Regional Sustainability Coalition.
- **Nov 19 Tornadoes, Floods and 50° Below, Oh My!** Ed Nizalowski presents. The weather is a normal topic of conversation and in upstate New York certain weather events have made the news and the historic record. Tioga County has experienced its share of extreme weather events from the Year Without a Summer (1816) to the Flood of 2011.
- **Dec 17 Tioga County's Environmental Past** Ed Nizalowski presents. The cornucopia of animal and plant life in the Southern Tier was significantly altered within the first hundred years of settlement. The decline in agriculture following the Civil War resulted in the return of much of the natural world.



Susquehanna Group PO Box 572 Endicott NY 13760 https://www.sierraclub.org/atlantic/susquehanna