

Susquehanna Sierran

JUNE 2021



Founded 1892

EXPLORE, ENJOY, PROTECT THE PLANET

Coming to Endicott: iM3NY's Li-ion Battery Factory

– Valdi Weiderpass

Start-up company Imperium3 New York, Inc. (iM3NY), will manufacture advanced lithium-ion batteries at the Huron Campus in Endicott NY. The batteries will have improved capacity and safety, longer cycling, and lower cost than current Li-ion batteries. The project will involve a technology license agreement with C4V™, a Binghamton-based R&D company, and use of a proprietary BMLMP (bio-mineralized lithium mixed metal phosphate) process. See Solar Builder Magazine of April 26, (<https://solarbuildermag.com/news/details-on-im3nys-lithium-ion-gigafactory-and-its-bio-mineralization-tech/>)

Imperium3 just announced that extra production equipment will boost production line capacity from 1.2 to 1.8 Gigawatt-hours (GWh) per year. An extended-range Tesla Model S carries 100 kWh of energy capacity. iM3NY will in its first year produce the energy capacity of 18,000 Tesla Model S cars, and it plans to steadily increase production. By 2028 it plans to produce the energy capacity equivalent of 320,000 Tesla Model S cars.

iM3NY is the vision of Dr. Shailesh Upreti who has been working for 12 years on lithium-ion battery chemistries and manufacturing methods at Binghamton University, while being mentored by BU professor Dr. M. Stanley Whittingham, a 2019 Nobel Prize winner in Chemistry for development of Lithium-ion batteries. Dr Upreti was born in Uttarakhand state in northern India, and holds degrees in technology and international business management. He has several patents related to battery development.

iM3NY plans to focus on markets in energy storage for both solar and other electricity generation. It projects 60 employees by end of this year, 150 by beginning of 2023, and 2,500 employees by 2028. Dr. Upreti states that iM3NY batteries will have 95% US material content and an 85% lower toxic and carbon footprint: <http://www.im3ny.com/news-release/>

The iM3NY plant will help revitalize Endicott, validate the work of Binghamton University's Center of Excellence, and benefit from state and federal government entities along with private investments from USA and Australia. Cutting edge high-growth technology can not only be developed but also manufactured in the USA. iM3NY can accelerate the transition to renewable energy that is needed to help save a habitable climate.



Dr. Shailesh Upreti and daughter
Koffman Center, Binghamton
photo: iM3NY

434 Greenway – Jim Taft

The Two Rivers Greenway system (spanning Broome and Tioga Counties) will be getting a major element added. NYS DOT has authorized building the 434 Greenway, a multi-use trail to ultimately connect downtown Binghamton with the Binghamton University campus. After much planning, community input, property acquisition, soil analyses, bid-letting, contracts, etc., construction proceeds apace. There was resistance from some neighbors about connecting Vestal Avenue to the Greenway at Ivanhoe Road—however the connector remains in the final plan. There is some disruption of highway traffic on the Binghamton section of the Vestal Parkway, and there will likely be more when construction reaches the intersection of Vestal Avenue and the Parkway where fast, moderate and slow-moving transit modes come together in a small area.



April 8, 2021

photos J Taft



A few neighbors apparently think the project will destroy the City's south side.

Funding Available for Local Conservation Projects – Jim Taft

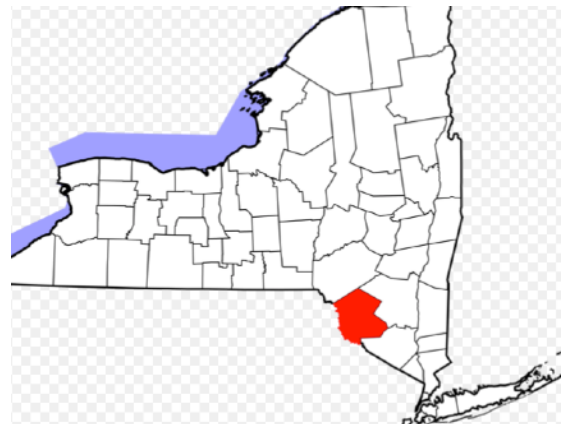
Sierra Club Atlantic Chapter can help fund Group conservation projects in amounts up to \$3000. A wide range of projects may receive funding. For guidelines see:

<https://atlantic2.sierraclub.org/sites/newyork.sierraclub.org/files/documents/2015/04/Securing%20a%20C3%20Grant.pdf>

Susquehanna Group To Be Enlarged

– Jim Taft

Susquehanna Group territory currently includes Broome, and most of Chenango, Delaware, Otsego, Tioga Counties. To the southeast is the Ramapo-Catskill Group (Orange and Sullivan Counties) which has asked to be disestablished. The Atlantic Chapter Executive Committee has agreed, with the understandings that Susquehanna Group would absorb Sullivan County, and the Mid-Hudson and Lower Hudson Groups would absorb different parts of Orange County. This will leave 10 active groups in the Atlantic Chapter, which is coterminous with New York State. Expected final approval will come from the Club's national office. Note: Group boundaries are based on zip codes and seldom strictly follow county lines.



Susquehanna Group

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

Chair	*Valdi Weiderpass
Vice Chair	*Scott Lauffer
Secretary	*Karen Boba
Treasurer	*Joann Lettis
Political Chair	*Allan Hochberg
Chapter Delegate	*Jim Taft
Newsletter Editor	*Jim Taft
Membership Chair	*Chris Harasta
Outings Chair	*Chris Harasta
Conservation Co-Chairs	*Doug Gausman, *Mary Cronk
Webmaster	*Chris Harasta
Alt. Chapter Delegate	*Joann Lettis
	* Member Executive Committee

To become a candidate for the
Susquehanna Group's Executive
Committee, mail by November 1, 2021
a candidate statement of up to 150
words to:

Susquehanna Group
PO Box 572
Endicott NY 13760

The Nominating Committee will create
a slate of candidates, and ballots will be
mailed with the December *Sierran*.

COMING EVENTS

Note: Club meetings during the pandemic continue online for the time being. To join an online Event use a Zoom app.

June 15, 7:30pm, General Meeting: [https://us02web.zoom.us/j/3644665286?
pwd=VS9kUoNBaUttMnpRa3BSNngwci9TUTO9](https://us02web.zoom.us/j/3644665286?pwd=VS9kUoNBaUttMnpRa3BSNngwci9TUTO9)

Deb Smith, Broome County Director of Solid Waste Management, discusses Extended Producer Responsibility in NYS – proposed legislation to force producers to take responsibility for the packaging and end-of-life of their products.

Atlantic Chapter's Transportation Committee

– Jim Taft

Atlantic Chapter's Transportation Committee ceased to exist in 2018 when Chair Mark Benedetti moved out of state. Several individuals and entities are currently working to re-form the committee. The committee's entire scope is under discussion, but it would likely include:

- participating in NY's transition to low-carbon systems including electric vehicles, enhanced public transit, and land-use planning
- seeking and sharing information on NYS transportation problems and initiatives,
- collaborating with relevant entities on advocacy,
- establishing a searchable repository of documents.



If interested in joining the committee, please so indicate to Jessica Enzmann jessica.enzmann@sierraclub.org

photo: Austin TX Transportation Department

Seven Steps to a Butterfly and Pollinator Garden

– Michael Fry

- Choose your location:** Butterflies enjoy basking in the sun. Gardens should be planted in sunny spots, with some protection from the wind.
- Take a look at your soil:** Break ground to see the consistency of the soil in your yard. Soil may influence the kinds of plants you can grow, or may require special considerations. If you find that your soil type doesn't match the plants you'd like to plant, you might consider building a raised bed or using flower pots.
- Prep your soil:** If you're planting in your yard, remove the lawn and current plant cover and rake the soil. Additional soil can be helpful no matter the location and is necessary for raised beds and flower pots - add your soil to the bed or pot.
- Choose your plants:** Find a nursery near you that sells native and local plants and milkweed for your area. Native plants are ideal because they require less maintenance and tend to be heartier.
 - Choose plants that have not been treated with pesticides, insecticides or neonicotinoids.
 - Plant perennials to ensure your plants come back each year and don't require a lot of maintenance.
 - Choose a diversity of plants that bloom throughout the seasons to ensure pollinators benefit in the spring, summer and fall. This will also ensure that your garden is bright and colorful for months!
- Choosing seeds or small plants:** Small plants that have already started growing in a nursery are simple and show instant return on pollinator visits, especially if you are planting in a small space. Seeds are best if you have more time. If you'd like to use seeds, plan ahead to plant in spring or fall, giving the seeds time to germinate. Seeds can also be best if you are doing a very large garden as they generally cost less. Remember to water your seeds even before you see plants.
- Plant your flowers and milkweed:** For small plants, dig holes just big enough for the root system. Cover the roots with soil and reinforce with soil or straw mulch to reduce weed growth. For seeding, spread seeds across your freshly prepared garden and cover them with soil. Consider adding some flat rocks so butterflies can bask in the sun!
- Wait, watch, water and weed your garden:** It may take some time, but you will eventually see butterflies and other pollinators enjoying your garden. Make sure to weed and water your garden to keep it healthy.



Best of luck, and thank you for helping monarchs, bumble bees and other pollinators!

POLLINATOR PLANTS FOR SMALL AND RAISED BED GARDENS

Sarah Hodder-Master Gardener, and Colleen Wolpert, Local Naturalist, NY Floral Association

Height	Scientific Name	Common Name	Color	Blooms
1-2 ft	Yarrow	Moonship	Yellow	Early – Late Summer
1-2.5 ft	Asclepias Tuberosa	Butterfly Weed	Orange	June – August
3-4 ft	Baptisia Australis	Blue False Indigo	Blue or White	Early – Late Summer
1-2 ft	Coreopsis Lanceolata	Lanceleaf Coreopsis	Yellow	May – July
2-4 ft	Echinacea Purpurea	Coneflower	Purple/Pink	June - August
3-4 ft	Eutrochium Fistulosurr	Pye Weed	Mauve/Pink	Late Summer/Fall
2-3 ft	Liatris Spicata	Blazing Star	Purple	Early Fall
3 ft	Monarda Didyma	Bee Balm	Red/Pink Purple	Late Spring
3ft	Solidago Canadensis	Goldenrod	Yellow	Mid July – Sept
3-5 ft	Penstemon	Beardtongue	Many	Mid Spring – Early Summer
4-6 in	Phlox subulata	Creeping Phlox	Many	Spring
2 ft	Rudbeckia Fulgida	Black/Brown Eyed Susan	Yellow	Mid Summer – Early Fall

Others: Mountain Mint, Zinnias, Snapdragons, Marigolds

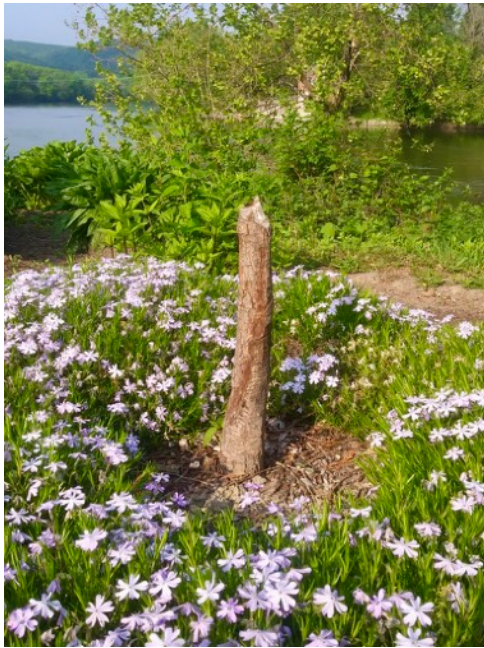
An Important Gardening Practice (Mulch)

– Sarah Hodder

'Tis a busy season at the Susquehanna Group's Pollinator Garden at Binghamton's Confluence Park.

Volunteers are:

- replacing with “Ginger Wine” Ninebark the “Cherokee” Dogwood a beaver dragged off,
- planting additional perennials and annuals that pollinators and butterflies enjoy,
- watering, needed since precipitation was scant in most of May,
- mulching.



Vandals, in this case beavers, appropriated the garden's dogwood tree.

Photo: Sarah «Hodder

Mulch provides crucial benefits:

- natural, non-dyed mulch helps make the garden more attractive by providing a uniform finish with crisp edges with the lawn,
- it insulates the soil thereby providing a buffer against summer heat,
- it helps keep roots moist thereby reducing the need for watering,
- in winter it protects plants from the cold and helps prevent plants from heaving upward as temperatures fluctuate,
- it prevents heavy rain from washing away soil by absorbing the rain's force,
- a generous 3” layer of mulch inhibits weeds by keeping sunlight from weed seeds,
- as it decomposes it can add important nutrients to the soil, creating a healthier environment for the plants.

Various types of mulch are available. A little research should indicate what will be the best for your garden. So, after planting, weeding, and watering remember to add up to 3” of non-dyed mulch. Your plants will appreciate it.

Pandemic Lessons. . .and Questions

Susquehanna Group leaders have learned to conduct virtual general membership and committee meetings. Zoom software has been invaluable, though personal contact has been diminished. Leaders learned advantages of virtual meetings: •attendees save time and reduce carbon footprints, •meetings/presentations can be easily recorded and accessed at any time, •meetings, announcements and some activities can be easily joined by far-flung members in our 5-county geography, or for example, someone visiting Arizona, •there can be savings regarding facility rental expenses. We must decide how best to conduct post-pandemic gatherings. Leaders will much appreciate members' thoughts on this. Please send them to:

sierraclubsusquehannagroup@gmail.com

Post-pandemic outings and outdoor projects will no doubt continue as they did pre-pandemic.



Susquehanna Group
PO Box 572
Endicott NY 13760