Founded in 1997.
Logo art of Tall Goldenrod,
Solidago altissima,
by Nat Cleavitt, 2006.

Solidago

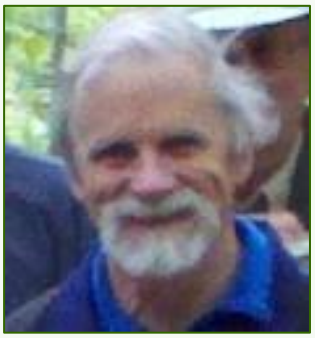
Newsletter of the
Finger Lakes Native Plant Society

Volume 26, No. 1 ☙ March 2025

Appreciations

Mark Inglis

by Rosemarie Parker



Those who have been in the Finger Lakes Native Plant Society for decades will likely remember Mark Inglis for his wide smile and love of the outdoors. He joined the Steering Committee in 1998, and remained in that capacity until he sustained serious brain injury from a car accident in 2008. (He was walking.) He remained a member of FLNPS until his death, and occasionally participated in walks, but aphasia limited his conversation and participation. And what a change that was! Mark grew up on a farm near Rochester, and was always talking about how his grandfather introduced him to nature, and reminiscing about plants he recalled from his youth. He was anything but silent.

Mark wrote plant profiles (*Acer rubrum*, *A. saccharinum* & *Salix* spp.) that are still on the website. He searched out ethical sources for native orchids. He was an enthusiastic native gardener and helped with public garden projects in FLNPS' early days. I remember he was very particular about finding the correct color of rock for the "scree slopes" in the gorge garden at Museum of the Earth. We should not have the more northerly dark rock; we must have the color that corresponded to the nearby Taughannock gorge. And he found some.

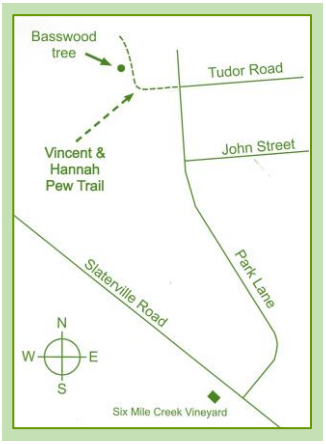
Beyond the plants, Mark's cards and letters had lovely calligraphy. An architect, he designed and sent some amazing fold-out holiday cards to friends; he loved cats, and he loved his classic van. Although his native plant friends have not seen much of him in recent years, he is remembered fondly.

His official obituary with a photo of a young Mark (same smile!)
can be found in the January 11, 2025 issue of *The Ithaca Journal*.

☙

HONORS

Basswood, Adrianna with Fischer Award Plaque, Eloise, and Jay. (*Photo by Mike Smith*)



Location of Adrianna's Basswood Tree in Tudor Park, east of Ithaca, N.Y.

Adrianna Hirtler

Wins the Richard B. Fischer Environmental Conservation Recognition Award

by Di Florini

with input from **Lori Brewer** (Town of Ithaca's Conservation Board), **Mike Smith** (Town of Ithaca Senior Planner), and **Robert Dirig**

The Town of Ithaca's Conservation Board annually awards the ***Richard B. Fischer Environmental Conservation Recognition Prize*** to a person or a group for a project or other activity contributing to the improvement of the Town's natural environment. The 2023 Fischer recognition was awarded to our FLNPS member, and former Steering Committee member, ***Adrianna Hirtler***. She was nominated by the Community Science Institute's director for "her years of dedicated engagement in monitoring the health of the streams and biological communities of the Cayuga Lake watershed. From her chalkboard outreach kiosk on the Six Mile Creek bank in Titus Triangle Park, to her field trips wading creek riffles for Benthic Macroinvertebrate sampling with interested youth and their families, to her evening open BMI Langmuir Lab nights, and help analyzing possibly harmful algal blooms brought from lakeshores to Community Science Institute's laboratory, Adrianna has brought her enthusiastic interest in Ithaca's waters both to the public and to a scientifically sound database rich with important information about them." People from the Conservation Board, the Community Science Institute, and the Gayogo̲hó:nǫ' Learning Project came together on May 30th 2024 to plant an American Basswood (*Tilia americana*) in Tudor Park (east of Ithaca, N.Y., *see map above*). Participants also were treated to Basswood tea.

Eleven years ago, several ***Finger Lakes Native Plant Society*** members helped plant a Northern Red Oak (*Quercus rubra*) near the Juniper Drive trailhead of the South Hill Recreation Way, Ithaca, N.Y., on May 4th 2014, to celebrate their 2013 Fischer award. The announcement said "We thank them especially for their work weeding out invasive Stilt-Grass [*Microstegium vimineum*] from Sixmile Creek, for their annual plant sale, and their educating citizens in the use and appreciation of native flora and the habitats that depend on them." [Find a report and photos in *Solidago* 15(2), June 2014, pp. 1–2.]

Please see https://townithacany.gov/richard-fischer-award/ to see past recipients and how to nominate someone for a project or activity in 2025.

The Conservation Board would welcome more members.
Contact conservationboard@townithacany.gov for more information.

Please Contribute to *Solidago*

We welcome contributions that feature wild plants of the Finger Lakes Region of New York and nearby. We include cryptogams (bryophytes, lichens, fungi, and algae) as "flora," and recognize that green plants provide habitats and substrates for these and many animals, especially insects. We are interested in zoological associations as long as plants are an integral part of the story.

We can use a wide spectrum of material in a variety of writing styles. Our regular columns include **Local Flora** (plant lists or details of species from specific sites), **Outings** (reports of FLNPS-sponsored excursions), and **Plant Profiles** (on specific local plants). We also occasionally publish **Appreciations** (memorials to local botanists and naturalists), **Reviews** (of books, talks, meetings, workshops, and nurseries), **Letters** (commentaries and letters to the editor), **Essays** (on botanical themes), **Verse** (haiku, limericks, and poems of less formal structure), **Art** (botanical illustrations, plant designs, pencil sketches, decorations), and **Photographs** (stand-alone images, photo essays, and full-page composite plates, or originals that can be scanned and returned). We also can always use **Fillers** (very short notes, small images, cartoons) for the last few inches of a column.

Solidago

Newsletter of the
Finger Lakes Native Plant Society

Volume 26, No.1 March 2025

Published quarterly at Ithaca, New York, USA.

FLNPS (founded in 1997) is dedicated to the promotion of our native flora. We sponsor talks, walks, and other activities related to conservation of native plants and their habitats. *Solidago* is published as a colorful online version, and a B&W paper version that is mailed. The online format is posted 3 months after publication. Please see **www.flnps.org** for details of membership, past *Solidago* issues, and updates about our programs.

Meliscaeva cinctella*, Banded Thintail (a hover fly) on Hobblebush (*Viburnum lantanoides*). *Photo by Kristi Sullivan. See p. 10.

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*Please send *Solidago* contributions & correspondence to Robert Dirig, Editor, at editorofsolidago@gmail.com

Deadline for the June 2025 issue is May 15th !

Name That Plant Contest

The photo from last issue's Name That Plant Contest [*Solidago* 25(4), p. 4] was of **Lizard's Tail (*Saururus cernuus*)**. A plant of swamps, bottomlands, and slow-moving stream edges in New York, it often forms large stands. While the common name refers to the appearance of the inflorescences, it is the leaves that bring me much satisfaction. As Susanne Lorbeer wrote, "Nice one! (Aren't they all?)." Thanks to all who entered the contest, and congratulations to the winners: **Bob Dirig**, **Fred Haynes**, **Susanne Lorbeer**, **Gin Mistry**, and **Rosemarie Parker**.

This issue's mystery plant is shown below.

Common and/or scientific names are acceptable, and more than one guess is allowed. Hints and suggestions are often provided to contest participants who try. Please submit your answer to

David Werier (Nakita@lightlink.com).

The photographs were taken in New York on May 26, 2014 in Cortland Co. (background, whole plant, and inflorescence), and on August 1, 2009 in Otsego Co. (infructescence), by David Werier.

Letters

Good Morning Bob,

I was looking through the December 2024 *Solidago* this morning, and just had to let you know how much I enjoyed it. Mr. Wesley's *Photo Essay* was especially interesting to me, as the mosses hold a special place in my heart. Mr. Trigoboff's *Plant Trivia* always gives me a chuckle. Thank you for all you do, Bob !

Betsy Crispell
31 January 2025

Hello!

I'm writing to bring you great news! Governor Hochul has signed the NYS Native Plant Seed Supply, Development and Enhancement Program bill, amending the Agriculture and Markets law to include a native plant seed supply program — step #1 in developing a supply chain for native plants in NYS. Here's a link to A-9043, and to the bill's text.

The bill received unanimous support in both chambers before it went to Governor Hochul last month. This most likely would not have happened without all of your support and advocacy, either signing on to our letters or writing your own.* I must say that it was really cool to get such great responses to our calls to action on this bill last summer. People from all over this great state jumped in to support the bill! Thank you, and please keep your eyes open for more calls to action in 2025. There are more bills to support native plant landscaping and restoration coming our way!

Warm regards,
Janice Wiles

30 December 2024
Owner, Go Native! perennials, LLC.
Growing native perennial plants for restoration and landscaping to protect Skaneateles Lake drinking water and provide critical wildlife habitat

[* Individual FLNPS members and friends had responded to her request.]

Review


Robert Wesley setting up the wild plant ID quiz.

SOLSTICE 2024

by Rosemarie Parker

Native plant lovers with diverse expertise and passions gathered to discuss all things plant last December. While the group is still not as large as we hosted pre-Covid, the numbers go up every year, and 2024 easily passed the bar for congeniality. I hope more members and friends will try to make this must-be-there event next year. Judging from the positive comments afterwards, you will enjoy it.

Robert Wesley prepared a winter plant ID quiz that was challenging. At the reveal, he gave a bit of lore and clues for identifying each plant. No one identified them all, even to genus, but **Ellen Lane** had the most correct and claimed the first door prize. Other books, sculptures, gift certificates, and wine donated by attendees were parsed out by lottery.

AUDREY BOWE, Mundy Wildflower Gardener, with seed table stats.

The seed table resembled a bee-hive on a sunny day, *with avid propagators pinching seeds into packets and consulting on what might grow where. Thanks to everyone who helped by donating food, prizes, and seed. Thanks also to those who helped with setup and cleanup. A huge thank you to* ***Cornell Botanic Gardens Natural Areas*** *for sharing the bounty of seeds collected and cleaned by Mundy Wildflower Garden and FLNPS volunteers.*

Attendees choosing seeds for home propagation.

Photos by Rosemarie Parker

Savory & sweet dishes with regional plant connections.

Tables of food with native, naturalized, or indigenous cultural ingredients *provided a bit-of-everything feel to dinner. A few recipes from the evening are reprinted on the following pages.*

2024 SOLSTICE RECIPES

Elderberry & Blueberry Olive Oil Cake

Mary Squyres

I pretty much followed this recipe from the website food52, who got it from the restaurant Maialino, in NYC. The link to the recipe is https://food52.com/recipes/26709-maialino-s-olive-oil-cake

***My own notes**: I baked it in two layers, in 9" pans, so I could fill it. I used a good quality elderberry jelly for the filling. I also melted some additional elderberry jelly to use as a glaze for the fresh blueberries I heaped on top.*

Ingredients:

2 cups (250 grams) all-purpose flour
1 ¾ cups (350 grams) sugar
1 ½ teaspoons kosher salt
½ teaspoon baking soda
½ teaspoon baking powder
1 ⅓ cups (285 grams) extra-virgin olive oil
1 ¼ cups (305 grams) whole milk
3 large eggs
1 ½ tablespoons grated orange zest
¼ cup (60 grams) fresh orange juice
¼ cup (55 grams) Grand Marnier

Directions:

Heat the oven to 350° F. Oil, butter, or spray a 9-inch cake pan that is at least 2 inches deep with cooking spray and line the bottom with parchment paper. (If your cake pan is less than 2 inches deep, divide between 2 pans and start checking for doneness at 30 minutes.)

In a bowl, whisk the flour, sugar, salt, baking soda and baking powder. In another bowl, whisk the olive oil, milk, eggs, orange zest and juice, and Grand Marnier. Add the dry ingredients; whisk until just combined.

Pour the batter into the prepared pan and bake for 1 hour, until the top is golden and a cake tester comes out clean. Transfer the cake to a rack and let it cool for 30 minutes.

Run a knife around the edge of the pan, invert the cake onto the rack and let it cool completely, 2 hours.

Squash with Cranberry Stuffing

Rosemarie Parker

https://www.tasteofhome.com/recipes/acorn-squash-with-cranberry-stuffing/

I used cubed butternut squash, microwaved (until soft, ~12 min. with cover), and mashed (no added liquid or oils) layered in a 9×11 pan. I poured the fairly liquid "stuffing" in a layer on top of the squash for easier serving. If I make it again, I will cut the sugar a bit.

Ingredients:

2 medium acorn squash
¼ cup chopped celery
2 tablespoons chopped onion
2 tablespoons butter
1 medium tart apple, peeled and diced
½ teaspoon salt
½ teaspoon lemon juice
⅛ teaspoon pepper
1 cup fresh or frozen cranberries
½ cup sugar
2 tablespoons water

Directions:

Cut squash in half; discard seeds. Cut a thin slice from the bottom of squash halves so they sit flat. Place squash hollow side down in an ungreased 13×9-in. baking dish. Add ½ in. water. Cover and bake at 375° for 45 minutes.

Meanwhile, in a small skillet, sauté celery and onion in butter until tender. Add the apple, salt, lemon juice, and pepper. Cook, uncovered, over medium-low heat until apple is tender, stirring occasionally. Stir in the cranberries, sugar, and water. Cook and stir until berries pop and liquid is syrupy.

Turn squash halves over; fill with cranberry mixture. Cover and bake 10-15 minutes longer or until squash is tender.

See another recipe on the next page ➤

Scalloped Root Vegetables

Leo Louis

[This recipe does not have native or naturalized ingredients, but I bet you could add foraged wild parsnips to the mix, and do the roadsides a lot of good. — Rosemarie]

I am not a super close recipe follower, so this is my best estimate of ratios. Feel free to adjust based on personal preferences. I used Better than Bouillon for my vegetable stock, but either homemade or other store-bought broth would likely be good too. Pay attention to salt content as you may want to adjust how much salt you add depending on the stock you use.

Ingredients:

2 pounds root vegetables (I used a mix of rutabaga, celery root *aka* celeriac, and potatoes)
¼ cup olive oil
4 cloves of garlic
8 sprigs fresh thyme
½ cup grated parmesan
⅓ cup vegetable stock
1 tsp Salt
½ tsp Pepper

Directions:

Preheat oven to 375.

Peel and thinly slice root veggies (I cut them in half and then sliced them crosswise into semicircle rounds).

Mince the garlic (I use a little electric herb grinder).

Finely chop the thyme leaves.

Place the sliced root vegetables in a bowl with the olive oil, minced garlic, thyme, salt, pepper, and parmesan (reserving a little), and mix around until they are well coated.

Layer the root vegetables into stacks and place them in the pan sideways so that the thin edges are sticking up.

Add vegetable stock to the pan cover with tin foil and bake for 45 minutes to an hour. Checking for tenderness.

Once they are tender enough to eat remove the foil and add the remaining parmesan, cooking for an additional 5-10 minutes.

Plant Trivia ◆ *by Norm Trigoboff*

1.a. What is the most widely grown non-food plant in the world?

1.b. Which plant has killed the most people in the world?

1.c. Which native vertebrate kills the most people each year in North America? Hint: It usually eats plants.

2. Of the five highest volume chemicals produced in the world, sulfuric acid, propylene, sodium hydroxide, sodium carbonate, and ammonia, some are key players in the fertilizer industry. Which ones?

3. How can you tell real from plastic plants with your eyes shut and without harming the plant?

4. The Roman expression *De'eis thai selinon*, to need only parsley, refers to:

A. a near perfect woman.
B. someone who has one foot in the grave.
C. much too dilute booze.
D. an illogical joke.
E. all of these.

5. True or false:

A. Open grown trees have more wood than forest grown trees.
B. Forest grown trees have more wood in their trunks than open grown trees.
C. Forest grown trees have wider crowns.
D. Forest grown trees generally live longer.
E. The longest-lived trees are forest grown.
F. Open grown trees get taller than forest grown trees.
G. Open grown trees are used in more illogical jokes than forest grown trees.

6. What do all of these plant-animal pairs have in common: milkweed-monarch butterfly, white snakeroot-cow, dogbane-dogbane beetles, ragwort-African variegated grasshopper, ragwort-cinnabar moth?

7. Name the odd one out: boxelder, sugar maple, staghorn sumac, white ash, *Cercidophyllum* (katsura), ginkgo, Osage orange, aspen, willow. Hint: think plant sex.

8. Flora and Fauna are two kingdoms of multicelled living things. What logical third term that starts with **F** may add to the consonance of catchy slogans?

9. Name the odd one out: parsley, curly leaf parsley, flat leaf parsley, root parsley, garden parsley, common parsley, German parsley, Chinese parsley, Hamburg parsley, parsley fruit, parsley root, rock parsley, turnip-rooted parsley.

10. What do these plants have in common: cycad palm (*Macrozamia moorei*), Italian arum (*Arum italicum*), wave of love (*Philodendron melinonii*), sacred lotus (*Nelumbo nucifera*) and skunk cabbage (*Symplocarpus foetidus*)?

A. Their odors have been banned in Boston.
B. They have been tried as parsley substitutes.
C. They sequester heavy metals more than most plants.
D. They generate heat.
E. They have been used to adulterate tobacco.
F. They are often used in illogical jokes.

Hint: they have something in common with the tuna.

See answers on page 11.

Tompkins Pollinator Pathway – Supporting Biodiversity in Our Community

The **Tompkins Pollinator Pathway** is a collaboration between Cornell University and the Tompkins County community, whose mission is to bring people together to conserve and connect pollinator habitats across our county, with a focus on **native plants**. Habitats that form the pollinator pathway can be large, such as parks or natural lands, or small spaces, like backyards and flower boxes.

Pollinators are critical for growing our food crops and supporting natural ecosystems. We aim to develop an extensive connective corridor facilitating the movement of pollinating insects and birds to find food and nesting sites in our local ecosystem. To do so, we encourage individuals and organizations to take action to support pollinators, particularly by creating and protecting habitats full of native plants, and by avoiding the use of pesticides. Our small, voluntary team maintains a website with links to resources and an evolving map of the pathway of pollinator gardens and habitats in our county: https://blogs.cornell.edu/tompkins_pollinatorpathway/. We offer occasional workshops (*e.g.,* seed gathering, winter sowing, meadow tours) and outreach events, often in collaboration with community partners, throughout the year.

FLNPS members have a great deal of native plant knowledge, gardening know-how, and interest in habitat conservation, so we would love to get your input and invite you to join our efforts. We use a listserv to send out occasional e-newsletters and announcements of relevant events — our own or those of other organizations such as FLNPS. If you would like to join our listserv, please email us at tompkinspollinatorpathway@gmail.com with "Request to be added to the Pollinator Pathway Listserv" as the subject of your message.

Our website links to a short on-line Qualtrics form for people to describe the size, location, and categories of native plants in their habitat. If you are growing native plants, please fill in this form to add your garden, yard, or other habitat to the map at https://blogs.cornell.edu/tompkinspollinatorpathway/take-action/get-on-the-map/. Then we can add your data to the map, and you can pick up a free yard sign. (To protect privacy, exact locations of private gardens are not visible on the map.) Please list your home habitats as private. We also map existing *public* pollinator habitats where people can go to see and learn about native plants, so if you know of places we've missed in Tompkins County, please let us know!

By connecting people with nature and assisting the pollinators that serve our local food system, we aim to support our local ecosystem and the health and well-being of people throughout our communities. We recognize and appreciate the expertise and activities of FLNPS, which align so well with our goals. Please be in touch if you have ideas on how to collaborate!

Kristi Sullivan & Kate Dickin, Tompkins Pollinator Pathway
tompkinspollinatorpathway@gmail.com

Halictus ligatus*, Ligated Furrow Bee/Sweat Bee, on Black-eyed Susan (*Rudbeckia hirta*), *photos by Kristi Sullivan

Bombus perplexus*, Confusing Bumblebee, on Wild Bergamont (*Monarda fistulosa*), *photo by Kristi Sullivan

See another pollinator photo on page 3.

Plant Trivia Answers ◆ *by Norm Trigoboff*

(*from page 9*)

1.a. Cotton.

1.b. Tobacco. (Some sources say tobacco kills only a third of the people who use it.)

1.c. Deer (by car accidents).

2. Sulfuric acid, among its many uses, dissolves phosphorus from rocks. Later steps put the phosphorus into fertilizer. Forming ammonia from nitrogen and hydrogen is the first step to putting nitrogen in fertilizer. Sodium hydroxide has a more minor use: raising the pH of soil. See https://chapelboro.com/town-square/columns/common-science/the-highest-volume-chemical-produced-in-the-world-is

3. Real plant leaves usually feel cool because water evaporates from them.

4. B. Both Ancient Greeks and Romans linked parsley to death. See: https://nourishingdeath.wordpress.com/2013/12/30/parsley-the-herb-of-death/

5. A. Open grown trees do have more wood overall. The other statements are false.

You can spot very old open grown trees by their low height (the tops have died back), big bole and long, fat, low horizontal branches — if these have been left untrimmed and perhaps supported. Though hikers may stop to admire very old trees, few landowners like to keep them.

6. All these plants have poisons that accumulate in the herbivores. This protects some of the herbivores, some of the time, from some of the predators and pathogens. It harms some of the herbivores, some of the time, and some of the carnivores that eat all those herbivores. Some of the time, some of the people who drink milk or eat meat from cows who have grazed on white snakeroot may be poisoned (as was Abraham Lincoln's mother).

7. Sugar maple is monoecious. The rest are dioecious. Trivia: red maple (and some other trees) may self-identify as male or female, but in some years change their sex and go from, say, having only male flowers to having both.

8. Funga. Look it up. It's new and oh so hip, like me.

9. Chinese parsley (*Coriandrum sativum*), also known as coriander or cilantro, is a different species from the rest (*Petroselinum crispum*). Corn parsley (*Petroselinum segetum*) has a similar flavor to garden parsley, but is far less often grown.

10. D. They, like tuna (and you and me), are thermogenic. See: Seymour, R.S., 2010. Scaling of heat production by thermogenic flowers: limits to floral size and maximum rate of respiration. *Plant, Cell & Environment*, 33(9), 1474-1485.

BLOOM INTO SPRING WORKSHOP AND BIOBLITZ,

SATURDAY, APRIL 26, 2025, 9:30 AM TO 11:30 AM, AT FILLMORE GLEN STATE PARK, RT. 38, MORAVIA, N.Y.

Target audience: Adults and children, families
Cost: Free workshop, parking, and park admittance
Morning light refreshments
Sponsored by Friends of Fillmore Glen State Park and Moravia Area Garden Club

"Bloom into Spring" will be an informative presentation on Native Wildflowers for all ages, and will include fun activities, a 'bioblitz' (or alternative wildflower scavenger hunt), and hike options. Fillmore Glen State Park has long been known for its abundance of native plants, and spring is an especially exciting time to visit the park to view its diversity.

During the bioblitz, participants will record all wildflower species found with the **iNaturalist** app, so be certain to bring your smart phone if you wish to learn about and use this feature. Biodiversity of Fillmore Glen State Park is an existing project in iNaturalist, to which the group will submit observations. For those who prefer a device-free experience, there will be a wildflower scavenger hunt.

Many species can be found in the lower park, which has easy, relatively level terrain. A more intensive, optional hike will follow the snowmobile trail to the upper park to explore more.

The presenter will be ***Carlin Shew***, a FORCES (Friends of Recreation, Conservation and Environmental Stewardship) program specialist and local naturalist for the New York State Office of Parks, Recreation and Historic Preservation. She works on environmental stewardship and educational programs in the Finger Lakes Region. Originally from Buffalo, NY, Carlin studied at the SUNY College of Environmental Science and Forestry before moving to Ithaca, NY, in 2017.

For more information, please email
fofgnsp@gmail.com

REVIEW

Gleanings From New Directions in the American Landscape Course*

by Rosemarie Parker
with significant input from Margot Brin and Janice Wiles

Last December several FLNPS members took advantage of a group discount to take a 3-session course entitled "Landscaping with Nature: Turning Battles into Partnerships" given by Larry Weaner Associates. His experience is vast and applicable to central N.Y. and worth the effort to attend. Below are some of the new ideas and important reinforcements from the course, in no particular order.

Even experienced gardeners can discover new garden "basics" in Weaner's ecologically based approach to landscaping. For example, "The concept that we are not just plopping many native plants hither and thither but creating a community of plants that interact with each other as well as with arthropods, mammals and birds. [And] that our maintaining our gardens will be much easier if we match the plant to our soil and not the soil to the plant which requires constant amendments and attention." To accomplish this, Larry recommends studying local and regional plant communities so that you know what already grows together. We are lucky to have an excellent source in the 2006 *Guide to the Plant Communities of the Central Finger Lakes Region* [Ref. 1] or the New York Natural Heritage Program's *Ecological Communities* publication [Ref. 2].

For full season interest, plantings need to be sufficiently dense to prevent intrusion of weeds and to cover multiple blooming and fruiting times. Weaner stresses "exploiting the differences" and utilizing different niches in your managed landscape. Examples:

- **Temporal/seasonal** – Mixing early emerging plants *vs.* later, and early successional *vs.* longer-lived species provides dense cover.
- **Root depth and type** – A mix of tap, shallow, dense, and medium-deep roots can coexist better than all one type.
- **Above ground height** – Short early bloomers can be happy underneath taller later emergers. Whack early weeds just above emerging natives to reduce weed vigor and provide light to desired species.
- **Moisture/rock** – Take advantage of microhabitats to increase species mix for more natural looking communities.
- **An example** of exploiting the differences is a choice of mowing meadows/paths to favor warm season (June mow, mostly native species preferred) or cool season grasses (August mow, some natives but also most lawn and European pasture grasses will prevail).

Another key difference is the idea of specialist *vs.* generalist species. The concept of "Coefficient of Conservatism" (CoC) [Ref. 3] with a range of 0-10, with 0 being very adaptable and 10 being very finicky, is a metric that can help gardeners determine which and how many plants to put where. (More on CoC below). The goal is to have long-lived, well-suited species (*generally* higher CoC values) holding the main community, while some generalists (low CoC) are always about to fill any disturbance before weeds get in. These self-sowers also provide the serendipity effect [my own instinct-RP]. But initially a planting should have more generalists to hold space while the slower specialists are getting established.

CoC was developed in conjunction with the Floristic Quality Assessment Index (FQAI), an ecological indicator of intact indigenous habitats, compared to habitats disturbed by human activity. It isn't *really* a measure of adaptability, although there is probably a good correlation for horticultural purposes. Any metric applied to a continuous variable will have glitches and advocates and detractors. But, since most home gardeners don't have extensive and detailed knowledge of species in the wild, these metrics can provide *general* guidance for species that are likely to be successful under given conditions. Both CoC and wetland indicators are determined by regional or state experts, and reflect the best opinions for that region. They do not carry over reliably to other ecoregions or states. For N.Y., the *NYFA Flora Atlas* [Ref. 4] lists ecoregions for many species, plus wetland and CoC values for natives. Personally, I would not attempt to grow anything in the very high ranges, although

* See page 14.

I would be sure to protect them if I happened to have a species growing naturally on my property. I am surprised at the high CoC value of some of my very easily grown species, but that is really a reflection of having the right habitat for the species. So, use CoC as *one* measure of cultivation difficulty, and don't try to push conditions for a 9 or 10. Some examples of Coefficient of Conservatism for N.Y.S. are shown in the table below.

CoC	Sample species
0 – generalist	*Erigeron annus, E. canadensis*, fleabanes; *Phytolacca americana* var. *americana*, pokeweed; *Symphyotrichum lateriflorum*, calico aster
4-5	*Podophyllum peltatum*, mayapple; *Aquilegia canadensis*, wild columbine; *Amelanchier laevis*, smooth shadbush
6-8	*Uvularia grandiflora*, large-flowered bellwort; *Quercus montana*, chestnut oak; *Penstemon hirsutus*, hairy penstemon
10 – specialist, often scarce	*Viola nephrophylla*, northern bog violet, endangered; *Trillium flexipes*, bent trillium, endangered; *Primula meadia*, eastern shooting star, non-persisting in N. Y. S. (except horticulturally)

New Plantings & Planning

- *Do not till soil*. This only brings up weeds in the seed bank. Smother or herbicide existing growth or "scalp mow" (see under weeds below) to kill lawn & pasture grass if possible.
- Plan for succession – starting with ruderal (fast growing, short lived or annuals) but sowing longer lived species to take over in future years.
- Inter-seed annuals among plant plugs instead of using mulch in a new planting. Many weeds like mulch.
- Only water new plantings as absolutely necessary because the weeds will respond fast.
- Both warm and cool season *pasture* grasses (mostly non-native) are resistant to immigration of natives due to thick root structures. Cool season pasture grasses especially have thick roots. European species like Queen Anne's Lace evolved taproots to punch through their native grasses, and can grow in such pastures. So, if you don't remove the pasture grasses, add tap rooted natives, *e.g. Asclepias tuberosa*.

Weed Suppression & Invasive Control

- In most cases, it's preferable to cut, not dig up, weeds. The less soil disturbance, the better.
- When trying to remove the worst invasives whose roots are nearly impossible to remove entirely (like Japanese knotweed and mugwort), and if you don't use herbicides (which Larry uses judiciously), you must keep constantly cutting back the new growth. [I recently read of success with cutting buckthorn to the ground every 6 weeks -RP]
- A clean cut of a shrubby weed will result in regrowth hormones. "Forestry mulching" machines leave messy shreds, which do not stimulate the growth hormones. Try to mimic that.
- Organic herbicides, like vinegar, should be used in combination with smothering, as only the leaves die; the roots will eventually resprout. If you use chemical herbicide, leave the dead foliage but scalp mow (as low as possible without disturbing the soil so you do not expose the seed bank). The remaining dead foliage will help protect newly seeded areas.
- For large areas, clonal shrubs are the best weed suppressors and require little maintenance. This is Weaner's list: St John's Wort (*e.g. Hypericum prolificum*), native roses, fragrant sumac (*Rhus aromatica,* especially low-growing), inkberry (*Ilex glabra,* coastal native), winterberry hollies (*Ilex verticillata*), summer sweet (*Clethra alnifolia*), Virginia sweetspire (*Itea virginica,* not a N. Y. native), northern bush honeysuckle (*Diervilla lonicera*), native spiraeas (e.g. *Spiraea alba, S. tomentosa*), and shrubby dogwoods (*e.g. Cornus sericea, C. drummondii*). "Just before leaves emerge in spring, stick pencil-diameter twigs of red osier or roughleaf dogwood into moist ground — they'll root in no time."
- For areas with heavy infestation by invasives, create "mother plots." Plant small colonies of desired plants in smallish areas cleared of invasives. Leave a cleared rim region for self-sown germination. Expand annually as the seeds drop (with or without help). The patches should have a mix of clumping and clonal species to prevent new weed germination within the mother plots, as there will be some intrusion from the surroundings.

Miscellaneous Nuggets

Phlox stolonifera cultivars are sterile. You need wild seed and maybe two sources to obtain viable seed. *Ilex glabra* is normally a stoloniferous shrub, but when propagated by cuttings, it does not spread! I wonder if this is true for other stoloniferous shrubs?

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(† indicates a deceased author.)

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Please check our website (**www.flnps.org**) regularly throughout the coming months for announcements and details of walks, talks, workshops, and other events. Many thanks to our **Steering Committee** (p. 3) and all of our members for supporting FLNPS and its activities. We wish everyone in our reading audience a delightful spring, filled with the unfolding pageant of our native plants!

— Robert Dirig