



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

Solidago

Newsletter of the Finger Lakes Native Plant Society

Volume 20, No. 2



June 2019



Wild Oats or Sessile-leaved
Bellwort (*Uvularia sessilifolia*)

Bells in the Forest

Text & photos
by Julia Miller

I wanted to share brief descriptions and images of the three **BELL-WORTS** (*Uvularia* spp.) of Tompkins County, N. Y. All three are found at Buttermilk Falls State Park in Ithaca, and it is really fun to look for them each spring! The best time to see these plants is late April to mid-May.

The **Large-flowered Bellwort** (*Uvularia grandiflora*) has large flowers with smooth, wavy petals. The specific epithet *grandiflora* describes the large size of the flowers. The leaves are *perfoliate*, which means it looks like the stem has pierced through the leaves.

The **Perfoliate Bellwort** (*Uvularia perfoliata*) has petals that are straight, compact, and have bumps on the inner surfaces. The specific epithet *perfoliata* describes how the stem punctures the leaves. Both the Large-flowered Bellwort and the Perfoliate Bellwort have perfoliate leaves, but their flowers are distinctive.

Wild Oats or **Sessile-leaved Bellwort** (*Uvularia sessilifolia*) has small, compact flowers that are pale yellow. The leaves are sessile (as described by the specific epithet), which mean there is no petiole connecting the leaf to the main stem. The leaves are an easy way to tell Wild Oats from the two other bellwort species.



Large-flowered
Bellwort (*Uvularia
grandiflora*)



Perfoliate Bellwort
(*Uvularia perfoliata*)
The inset shows bumps on
the inner surface of a petal.

The Steering Committee as listed was elected by those
FLNPS members present at a meeting on 15 May 2019.

THE FINGER LAKES NATIVE PLANT SOCIETY STEERING COMMITTEE

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Rosemarie Parker: Webmaster & Assistant
Newsletter Editor info@flnps.org

David Werier: Newsletter Editor Emeritus

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, sonnets, 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.



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Newsletter of the
Finger Lakes Native Plant Society

Volume 20, No.2

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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.

Contents



Eastern Leatherwood (*Dirca palustris*) flowering at the Mulholland Wildflower Preserve in Ithaca, N.Y., near the end of May. The bark is flexible like leather, and twigs can be tied into knots without breaking them! *Photo by Julia Miller*

LOCAL FLORA

Bells in the Forest (Julia Miller) • 1

COLUMNS, NOTES, & MISCELLANY

Front Matter & Contents • 2

Name That Plant Contest (David Werier) • 3

"Mayapple Flower" (Norm Trigoboff) • 3

Buttermilk Falls State Park Links (Arieh Tal) • 3

New FLNPS Members Since March 2019 • 3

Letters (Rosemarie Parker, Stan Scharf, Colleen Wolpert) • 4

A Lesser Known Alternative to DEET for

Repelling Insects (Charles R. Smith) • 8

Thank You! (Robert Dirig) • 8

REVIEW

The Ithaca Native Plant Symposium Continues to Inform
(Rosemarie Parker) • 5-6

PHOTO ESSAY

Background Plants (Norm Trigoboff) • 7

FLNPS CALENDAR, SUMMER 2019 • 8

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

**Deadline for the September 2019
issue is August 15th !**

NAME THAT PLANT CONTEST

The photo from last issue's *NAME THAT PLANT CONTEST* [Solidago 20(1), page 4] was of **Walking Fern** (*Asplenium rhizophyllum*). Always a joy to observe, this fern roots from its leaf tips, and therefore appears to "walk." It is locally scarce, but can be found in many of the gorges of the area, often on rock outcrops and gorge walls. Thanks to all who entered the contest, and congratulations to contest winners: *Bob Dirig, Susanne Lorbeer, Rosemarie Parker, Tom Rawinski,* and *Robert Wesley*.



This issue's mystery plant is shown above. It is an early blooming spring wildflower that is most abundant on the higher hills of region. Hints and suggestions are often provided to contest participants who try. Common and/or scientific names are acceptable, and more than one guess is allowed. Please submit your answers to **David Werier** at

Nakita@lightlink.com.

The photographs were taken by David Werier in Tompkins Co., N.Y. on 30 April 2019 (background image) and 6 May 2007 (closeup of flowers).



We welcome these new members of FLNPS, who joined since March 2019!

Dayna Jorgenson, Alison A. Shea, Robert Plath, Leslie Kinsland, Susan Strickler, James (Jim) Long, Fay-Wei Li, & Raylene Ludgate.

MISCELLANY



"Mayapple Flower"

[Virginia Bluebells (*Mertensia virginica*), peeking through Mayapple (*Podophyllum peltatum*) leaves.]

Buttermilk Falls State Park, Ithaca, N.Y., 8 May 2019.

Photo by Norm Trigoboff.



Buttermilk Falls State Park

Arieh Tal presented a delightful FLNPS talk on "Botanical Treasures of the Gorge at Buttermilk Falls State Park" on 17 April 2019. At that time, he provided addresses for two Buttermilk-related websites. The first [http://botphoto.com/projects/buttermilk_portfolio/bfsp_start.htm] features a slide show "Of Stones, Cascading Water, and Wildflowers, A Scenic Tour of the Gorge at Buttermilk Falls State Park." This set of spectacular images follows the *Gorge Trail* (south side, going uphill) from the Lower Falls to East King Road, and back downhill along the *Rim Trail* on the north side. It gives a wonderful overview of this gorge, on the south edge of Ithaca, N.Y. Another website [http://botphoto.com/projects/bfsp_key/bfsp_start.htm] is about "Plants of the Gorge at Buttermilk Falls State Park (NY) — Plant Finder," which has user-friendly visual keys to Trees and Shrubs, with more to come. Both are well worth a look.



LETTERS

Hi Bob,

I found another rarity in my yard, *Monarda hyacinthoides* f. *vitis* [*photo at the left*].

Rosemarie Parker

email of 30 April 2019

[*Editor's Note: Readers won't find this name in the NYFA list, in David Werier's recent Catalogue of the Vascular Plants of New York State, or online. Would anyone like to share an interpretation?*]



Hi Bob,

I found this flowering shrub with the enticing name **RHODORA**, a native *Rhododendron* (▼*below*), in a **2018 book, *Woody Plants of the Northern Forest***, by **Jerry Jenkins**, published by the Cornell University Press.

There is no way I could do a better job of acknowledging this showy flowering shrub than this description on the USFS website:

https://www.fs.fed.us/wildflowers/plant-of-the-week/rhododendron_canadense.shtml.

Best wishes,

Stan Scharf

email of 9 March 2019

Rhodora (*Rhododendron canadense*), Bog south of Mt. Katahdin, Maine, 9-10 June 2003. Photos copyright © 2019 by Robert Dirig.



Bob,

I just had to comment on how lovely the background colors are in the March 2019 newsletter. They really enrich the presentation of the material. Nicely done, once again.

Colleen Wolpert

email of 9 March 2019

The Ithaca Native Plant Symposium Continues to Inform

by Rosemarie Parker

INLS held the 10th annual symposium on native plants in the landscape at Cinemapolis in Ithaca, N.Y., in early March, 2019. Several FLNPS members are regular attendees, as are many garden and landscape professionals in the wider region. Every year I go, excited about one or two talks, and every year I am happily surprised with nuggets of new knowledge from just about every speaker. This year was no different. Rather than trying to recap the entire symposium, I am just listing my “nuggets,” in the hope that some may prove interesting to you, too.

Heather McCargo, Wild Seed Project, past propagator at Garden in the Woods. Heather gave two talks, one about a project in Maine to collect and distribute locally native seeds rather than ordering from national distributors. You can learn more at <https://wildseedproject.net/>. Her second talk was on propagation.

- Even sun-loving perennials germinate better in shade.
- She uses coarse sand to cover all her seed, not just those needing light for germination.
- One reason many acid-loving natives (vs. neutral or calciphiles) are difficult to propagate is that they commonly have mycorrhizal associations in the wild.
- She sows very thickly, and simply moves the entire clump into a larger pot if more space is needed prior to planting out. That way she does not disturb the roots until planting. (She is *not* sowing for commercial distribution, though, which would require faster growth.)
- Garden in the Woods would put 3-12(!) seedlings per sale pot, so that some genetic diversity is represented in each sale.

Kay McConnell, Garden Therapy LLC, spoke about a long-term project to transform a traditional school campus into a native plant garden and teaching environment. To see some of the results, look at <https://baltimorestyle.com/native-instinct/> or, if you are a member of Facebook or LinkedIn, you can find more by “googling” her.

- They purchase their plants, always buying from nurseries within 100 miles as a show of support for native growers.
- They have used coastal plain plants to adapt better in areas with intense snow removal and chemicals. (I assume salt.)
- Although it is old and the nomenclature is dated, she finds one of the best references to be *American Plants for American Gardens*, by Edith A. Roberts & Elsa Rehmann, 1929, available through JSTOR if you have access.

Susan Treyger, Audubon NY, spoke on efforts to improve habitat for forest birds. Priority habitat areas have been identified, and one of those is Connecticut Hill!

- Improving the layering structure of forests is *key*, even for birds nesting in deep forests. Having a *range of ages*

within the forested landscape is very important for food, and *not* what is commonly found in our second growth forests.

- On a small scale, removal of one or more trees can open up a uniform forest canopy and allow early successional species to move in for lots of insects, berries, and brushy cover for young. In extremely large contiguous forests, near-clear cutting of a patch (obviously not old growth) can accomplish the same goal.
- They are working on guidelines for bird-friendly sugar bush (maple harvesting) lots.
- Avoid disturbance of habitat between April and August; do your pruning and logging in winter.

Ken Parker, PUSH Buffalo & Instructor for the National Green Infrastructure Certification Program, works in a variety of ways to introduce native plants and ecosystem integrity to urban infrastructure. He works with urban youth to train them for jobs in green infrastructure.

- They use 50% sand and 50% compost for public plantings, aiming for weight and drainage.
- Erie County now has a Native Plant Landscape Policy in place – yay!

Robert L. Johnson is an aquatic ecologist, *ex*-Cornell, who has studied the health of Cayuga Lake for decades. He reviewed the ongoing efforts to remove *Hydrilla* in the context of other invasive flora.

- Not that long ago the lake was choked with **Eurasian Water Milfoil** (*Myriophyllum spicatum*), which can vegetatively reproduce from any little broken-off bit. Shortly after the plant started a decline, an herbivorous insect from Europe (think it was the Water Milfoil Moth) was found. Milfoil continues to be a problem in other lakes, but the amount in Cayuga Lake has declined by “orders of magnitude,” quite possibly due to this insect.

- **Water Chestnuts** (*Trapa natans*) have now invaded north Cayuga Lake.

- The current species of most concern is **Starry Stonewort** (*Nitellopsis obtusa*).

Marissa Angell, of Michael Van Valkenburgh Associates, described a highly structured park built right on the concrete piers in Brooklyn. The scale and budget were enor-

mous, and the process was interesting. (See <https://www.brooklynbridgepark.org/> for the results.)

- Locust beetles love goldenrods (*Solidago* spp.), and will eat up any nearby black locust fence.

Carol Gracie, ex-New York Botanical Garden and author (most recently, *Spring Wildflowers of the Northeast: A Natural History*, 2012) gave a lovely tour of spring wildflowers. She is an excellent photographer, and turned what might have been just one pretty photo after another into a very interesting hour of observations.

- Near the coast, she often finds *Hepatica* in oyster shell middens (pH preference for *H. americana*).

- **Dutchman's Breeches** (*Dicentra cucullaria*) in the Midwest often have a definite pinkish tone.

- There are at least two multiple forms of **Bloodroot** (*Sanguinaria canadensis*), the familiar, sterile "Multiplex" with loads of petals (found in 1916), and a 10- to 12-petalled form "Plena" that has a bit of pollen and can make a few seeds.

- **Spring Beauty** (*Claytonia*) can be quite dark pink farther south. The pink form seems not to get a common rust, and will set more seed than white forms in good years. In wet years the pink one is preferentially decimated by slugs. There is a light yellow form (*C. virginica* f. *lutea*) endemic to Maryland and Pennsylvania, and a dark yellow (*C. virginica*, var. *hammondiae*) endemic to New Jersey. Wow!

- Plants with splash-cup seed distribution, e.g., **Tiarella** or **Mitella**, always orient the split in the seed pod so the "cup" faces up, no matter the orientation of the flower stem.

- The point of stem attachment to the **Mayapple** (*Podophyllum peltatum*) leaf is centered for single-leaf plants, but moves to the side when the plant is able to grow two leaves and flower. Pink forms are found in Ohio.

- **Caulophyllum** petals have adapted to be nectaries, while the visible "petals" are really sepals. (Was that really necessary?)

- Look at the base of **Jack-in-the-Pulpit** (*Arisaema*) spathes, and you may see a tiny hole at the bottom, big enough to let out a gnat. If so, the flower is male, and the gnat will escape to carry pollen to a female flower, and get stuck trying to get back out the top. Lots of pollination, but no escape hole on females! Apparently *Arisaema* is distributed, in part, by Box Turtles.

Annie White, Nectar Landscape Design Studio owner, and Lecturer at the University of Vermont, gave a wonderfully informative talk on her Master's research. She studied the preference of pollinators for straight species vs. a range of native plant cultivars ("nativars"). Her work can be read at <https://pollinatorgardens.org/>, and it is a really clear and compelling comparison.

- Very few seed strain cultivars are now sold; most cultivars are actual clones. Many are hybrids, although that is not always clear from catalogs and gardening literature.

- The further away from the species, the fewer pollinators are attracted — as a rule, but not always. Doubled flowers are especially less interesting, since they usually have less food (pollen or nectar) than the species, having sacrificed function for more showy "petals."

- The **Cardinal Flower** (*Lobelia cardinalis*) cultivar "Fan Scarlet" looks nearly identical to the species, but has only 20% of the nectar, on average. (She did not have much of this sort of data explaining *why* cultivars are less attractive, and does not have funds for doing research. She implied that Doug Tallamy may be doing some work on this issue.)

- The white form of **Echinacea** is a seed strain of a wild form, but it too attracted significantly fewer pollinators, though way more than some of the exotic cultivars now available.

- One reason that many dark-leaved cultivars are less favored may be that red tinges are often on new foliage, especially in spring, and have a bad taste to deter herbivory when leaves are most needed.

- Unfortunately, many "wild species" sold at nurseries are not genetically the straight species. Some cultivars and related species have mixed into seed sources, and are not readily detectable. She mentioned a study that found that of ten commercial sources of our native **Wild Lupine** (*Lupinus perennis*), only two were the native species. Five were genetically the commonly sold "Russel Hybrids," and the remaining three were genetically a mix of the two.

Jacob Johnston spoke of his thesis work at Habitat Network, adding relatively small, mostly-native gardens in yards to see how much of an increase in insects and birds resulted. For those who heard this talk at the FLNPS meeting last season, here are a couple of nifty highlights that I had forgotten.

- The naturalized European Wool-carder Bee uses the "wool" from naturalized Mullein for nesting material. Yeah, not native, but not a problem plant (or bee), either.

- Adding native plants to a garden increased the attractiveness to bees as a consistent trend up to ~75% native plants. After that the number of bees per plant leveled off, and Jacob attributes this to generalist bees having enough food to allow the more specialist bees to forage with little competition, i.e., everyone had enough, and there is only so much food per plant, so density can't increase indefinitely. Just a supposition, but it makes sense.

After ten years I am still learning neat native flora facts for gardeners. Maybe you will come to the eleventh symposium next March?



RF
Thalictrium dioicum

LF

Allium tricoccum

PHOTO ESSAY

BACKGROUND PLANTS

by Norm Trigoboff

As usual for early spring in the Finger Lakes Region, the wildflowers bloomed on the slopes of Shindagin Hollow. Many rubbed elbows with other small woodland plants. These photos, taken in early May 2019, exaggerate the confusion. No trilliums were hurt while taking these photos.

SMF
Acer saccharum

RF Rue Flower
LF Leek Flower
SMF Sugar Maple Flower
DF Dogwood Flower
WF Waterleaf Flower
CFF Christmas Fern Flower

Red Trillium (*Trillium erectum*)
White Trillium (*T. grandiflorum*)

Shindagin Hollow State Forest
is in southern Tompkins Co., N.Y.

Hydrophyllum virginianum



WF

DF
Cornus sp.*Polystichum acrostichoides*

CFF

A Lesser Known Alternative to DEET for Repelling Insects

by Charles R. Smith

For about 10 years, I've been using **picaridin** as an alternative to DEET for repelling mosquitos, ticks, and chiggers. According to the National Pesticide Information Center (<http://npic.orst.edu/factsheets/PicaridinGen.html>), picaridin is a synthetic chemical compound, made to resemble the chemical piperine, which is found in the family of plants from which black pepper is made.

Though I rarely have used insect repellents in the field, I began by using DEET occasionally in the 1970s. I stopped using DEET when I found that it corrodes plastics. I routinely use a lot of tools in the field that contain plastics (binoculars, hand lenses, cameras, GPS units, compasses), and began to notice that DEET damaged the plastic parts of those instruments. I don't use cell phones, but I imagine they would be affected, as well. I found out that even plastic watch "crystals" and plastic lenses of eyeglasses and sunglasses can be affected, so I stopped using DEET for that reason. I also decided that I didn't want to put a substance on my skin that corroded plastic.

A friend of mine, who is an M.D., suggested that I try repellents containing picaridin. It is not as well known as DEET. It suffers from a lack of advertising and a technical name that has twice as many syllables as most Americans can comprehend. Now, there are more insect repellents on the market that contain varying amounts of picaridin, but I've found that those containing 20% or more of picaridin are most effective for my needs. Picaridin is not oily or sticky, and has only a very faint aroma of slightly burned, whole wheat toast. More importantly for me, it does not damage plastics. It is among insect repellents tested and recommended by *Consumer Reports*, along with other repellents containing DEET and oil of lemon eucalyptus. I still use it sparingly on my skin, but spray it liberally on my clothing. It is reported to be effective for as long as 12 hours, and I've never had the need to re-apply it in the field. You might give it a try.



FLNPS Calendar Summer 2019

Saturday ~ June 22nd ~ 11:00 a.m. A walk highlighting Lime Hollow Fens and Woodlands, led by MICHAEL HOUGH, a botanist and instructor at SUNY Cortland. Meet at CCE* at 10:30 to carpool; or convene at 11:00 at the parking lot on Gracie Road, where Lehigh Valley Trail intersects the road.

Mike will lead the group through rich woodlands to some scattered rich fens populated with Canada Lily, orchids, and other interesting fen plants. Most of the walk will be on well-maintained trails with moderate slopes. Total distance about one mile, round-trip. Access to fens will **require footwear suitable for wet conditions**, typically ankle-deep in spots, though both are located close to trails. Actual time spent in the fens will be minimal to reduce disturbance.



Saturday ~ July 20th ~ 10:00 a.m. A Tree Walk at Michigan Hollow, led by AKIVA SILVER. Meet at CCE* at 9:30 a.m. to carpool, or at Diane's Crossing on Michigan Hollow Rd. at 10:00.

Join Akiva for a walk in the woods, as we hike along the **Abbot Loop West** in the **Danby State Forest**. The walk will focus on ecology, human interactions with nature, and tree and shrub identification. **See this link to the Ithaca Trails website for more information:**

<https://ithacatrails.org/map?trailList=Abbott%20Loop%20West>



A Fern Walk is planned for August, to be led by AUDREY BOWE. Date, time, and location will be announced.†



***Most walks begin at CCE (the Cornell Cooperative Extension parking lot), 615 Willow Avenue, in Ithaca, N.Y.**

†Please check our website (flnps.org) for updates, details, and additional activities.

We appreciate suggestions for speakers or topics, walks, outings, and rambles.



Thank You!

MANY THANKS to all who contributed to *Solidago*, Volume 20, No. 2. We thank **WRITERS** Julia Miller, Rosemarie Parker, Stan Scharf, Charles R. Smith, Arie Tal, Norm Trigoboff, David Werier, & Colleen Wolpert. **ILLUSTRATIONS** were loaned by Julia Miller (pp. 1-2), David Werier (p. 3), Norm Trigoboff (pp. 3, 7), Rosemarie Parker (p. 4), & Robert Dirig (p. 4). **CALENDAR ITEMS** were organized by Rosemarie Parker, Anna Stalter, & Audrey Bowe. **LAYOUT and DESIGN** by the Editor. **PROOFREADING** by Rosemarie Parker. **PRINTING** of paper copies by Gnomon Copy, Ithaca, N.Y. **ONLINE POSTING** by Audrey Bowe & Rosemarie Parker. And **MAILING** by Gin Mistry.

BEST WISHES to FLNPS members (and all others in our reading audience) for a wonderful summer, replete with joyous outdoor revels with wild flora!

— Robert Dirig