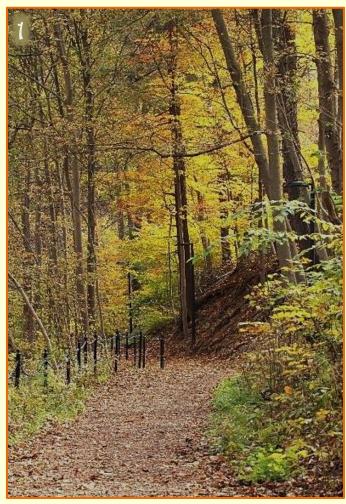


LOCAL FLORA <u>On Identifying an Undocumented Plant Species</u> by Arich Tal



Upper Cascadilla Creek on the Cornell University campus in Ithaca, N.Y.

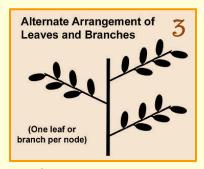
T'S BEEN SAID that Ithaca and Tompkins County, N.Y., have been wellbotanized. For over 120 years, academic botanists and amateurs have been collecting plant specimens and keeping lists of the local flora. Official lists maintained by Cornell's Bailey Hortorium (BH) and the New York Flora Association (NYFA) have documented thousands of wild-growing species in Tompkins County. Considered together, the lists are so comprehensive that it is extremely difficult to find a species in the county that has never been documented before. Chances are, if you find something that seems novel, it's already been found and noted. Nevertheless, it is not impossible to find something new. It takes sharp eyes and a great deal of perseverance to research the possibilities until you arrive at a correct identification.

For all of the these reasons, the creeks that cut through Ithaca are especially good places to find odd species. Expect to find the unexpected around our gorges. Such was the case last autumn, when I was compiling a list of plant species found along the Cascadilla Creek in

Ithaca. The wooded trail following the creek, east of College Avenue, is a nice, quiet get-away in the heart of an otherwise busy, congested human community, particularly in autumn (**Fig. 1**). Of the many species I recorded along that trail, most were familiar to me, and most of the unfamiliar ones were readily identifiable. But a couple of young trees that caught my attention were a real puzzle.



Leaves of the mystery trees in Cascadilla Creek.



Alternate arrangement.

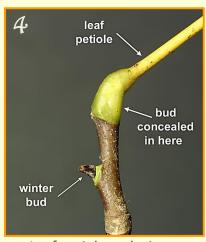
The leaves (Fig. 2) were large and compound (divided into numerous leaflets). The leaflets were broadly elliptical or ovate (egg-shaped). What especially intrigued me was that the leaflets, leaves, and branches were arranged alternately (Fig. 3). Initially, I thought the leaves of my mystery plants were very similar to those of **Spicebush** (*Lindera benzoin*). However, these plants were trees, not shrubs. Hmmm....

I took a couple of quick pictures and showed them to knowledgeable friends. They were drawing blanks as well. Unfortunately no flowers or fruits were present on these young trees, so I didn't have much to go on. I didn't even have a clue as to which plant family they belonged to. I started consulting available keys, including some of the plant identification websites, and books about tree identification, but nothing seemed to match. "What are these trees?" I even checked the Ithaca tree inventory for the streets closest to the trail. Nothing unusual was noted there.

The quest was indeed daunting, but I wasn't about to give up. I came back three weeks later with a better camera and continued searching along that stretch of trail. While trying to relocate the first set of plants, I came across additional plants in a different location about a hundred yards away. Not far from the newly-found specimens were also some young **Black Locust** (*Robinia pseudoacacia*) trees, which differed from my mystery trees in that the component leaflets were much smaller and more uniform in size, and the young-

er branches bore conspicuous sharp spines. The leaves were, however, alternately-arranged on branches, as were those of my mystery trees. Finally, something unusual caught my attention about the Black Locust's winter buds; that is, they were concealed within the base of leaf petioles (**Fig. 4**). I began to suspect that my mystery trees were in the same plant family, the legume family (Fabaceae). But I needed fruits to confirm this.

I turned around and continued back along the trail, approaching the wide footbridge crossing the gorge. And there they were, growing close to the footbridge, mature trees with identical leaves, and ripe fruits dangling from branches. The fruits were long, flat brown pods, very similar to those of Black Locust (**Fig. 5**, *next page*). I had finally found the proverbial "smoking gun" that I needed to determine that these plants were in the legume family.



Leaf petiole and winter bud of Black Locust

So, back to the various local floras and reference books that included Tompkins County. Again, in vain. Nada. No mention of anything unusual that I wasn't familiar with. I returned to *GoBotany* (a plant identification website created and maintained by the New England Wild Flower Society). I selected the legume family, the fruit type, alternate branching, and compound leaves. Bingo! I found a new, as yet undocumented tree species for Tompkins County: **Kentucky Yellowwood** (*Cladrastis kentukea*). Kentucky Yellowwood is native to North America, but is considered introduced in New York.



Autumn leaves and seed pods of **Kentucky Yellowwood** (*Cladrastis kentukea*), recognized as new to the flora of Tompkins County, N.Y.

How did these trees arrive here? That's still uncertain. There are no listings for this species in the Ithaca tree inventory, which documents mostly trees found along city streets and in city parks. It's unlikely that those plants were deliberately introduced along Cascadilla Creek, for they are growing in steep, rugged terrain, with no signs of having been planted or managed. They must have been here for quite a few years, for the largest trees are over 30 feet tall and mature enough to produce fruits. Did a modern-day "Johnny Appleseed" walk by a few years ago and toss seeds onto the banks of the gorge? Probably not, but I would start with Cornell to find the answers. Perhaps a student was carrying seeds of different

species in his/her backpack one day, and a few fell out and made their way down the slope.

I look forward to revisiting these trees next spring, to obtain good photos of the flowers, which are similar to those of Black Locust.

ഗ്രര

Thank You!

MANY THANKS to all who contributed to the Volume 19, No. 1 issue of *Solidago*. We thank WRITERS Will Kerling, Carolyn Klass, Julia Miller, Gin Mistry, Rosemarie Parker, Anna Stalter, Arieh Tal, David Werier, Steve Young, & Robert Dirig. ILLUSTRATIONS were loaned by Arieh Tal [pp. 1-3, 7], David Werier [p. 5], Adrianna Hirtler [p. 6], Gin Mistry & Susanne Lorbeer [p. 7], Julia Miller [p. 13], & Robert Dirig [pp. 4, 8-12, 13 (toothwort & hairstreaks), & 14]. Anna Stalter helped assemble the illustrations on pp. 6-7. Robert Wesley assisted with insect and plant identifications. CALENDAR ITEMS were organized by Rosemarie Parker. LAYOUT and DESIGN by the Editor. PROOFREADING by Carolyn Klass, Scott LaGreca, Rosemarie Parker, & Torben Russo. PRINTING of paper copies by Gnomon Copy, Ithaca, N. Y. And MAILING by Rosemarie Parker and Susanne Lorbeer. *Best Wishes* to FLNPS members (and all others in our reading audience) for joyous revels with wild flora as the wonders of Spring unfold! *— Robert Dirig*

THE FINGER LAKES NATIVE PLANT SOCIETY STEERING COMMITTEE

Audrey Bowe: At Large Krissy Boys: Projects (Chair)

-4-

Robert Dirig: Newsletter Editor Meena Haribal: Publicity Mark Inglis: At Large David Keifer: Treasurer

Rick Lightbody: At Large Susanne Lorbeer: Outings & Education Carri Marschner: At Large Gin Mistry: At Large Rosemarie Parker: Secretary & Assistant Newsletter Editor Anna Stalter: President, Outings & Education (Chair),

David Werier: At Large, Newsletter Editor Emeritus,

Robert Wesley: Outings & Education ନ୍ଦ୍ରେର

Please Contribute to Solidago

WE WELCOME CONTRIBUTIONS THAT FEATURE WILD PLANTS OF THE FINGER LAKES REGION OF N.Y. 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 the NAME THAT **PLANT CONTEST** (identifying a mystery plant from images), 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, 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 (standalone images, photo essays, and full-page composite plates, or originals that can be scanned & returned). We also can always use FILLERS (very short notes, small images, cartoons) for the last few inches of a column.

Colored images in the online version will be converted into black and white before printing paper copies for mailing.

Newsletter of the Finger Lakes Native Plant Society

Volume 19, No.1

March 2018

Published quarterly at Ithaca, New York, USA.

To receive a colored version when *Solidago* is published, please ask Arieh Tal, Membership Chair, to join our e-mail distribution list. Each colored version will be posted on our website (*www.flnps.org*) after the next issue is produced.

Contents

Toothwort White on Carolina Spring Beauty. See story on pages 8-13.



LOCAL FLORA On Identifying an Undocumented Plant Species (Arieh Tal) • 1-3 Virginian Rock Polypody (Julia Miller) • 13

COLUMNS & MISCELLANY Thank You! (Robert Dirig) • 3 Front Matter & Contents • 4 Name That Plant Contest (David Werier) • 5 2017 Solstice Celebration Wild Foods Contest Winners (Gin Mistry, Carolyn Klass) • 5 Letter (Will Kerling) • 5 The White-M Hairstreak: A New Finger Lakes Butterfly (Robert Dirig) • 13 2017 New York Rare Plant Status List Is Online (Steve Young) • 13

REVIEW & NEW PUBLICATION Members' Night 2018 (Anna Stalter) • 6-7 Catalogue of the Vascular Plants of New York State, by David Werier • 13

ECOLOGY – IN ANTICIPATION OF SPRING! Spring Sunbathers on the Forest Floor (Robert Dirig) • 8-13

FLNPS CALENDAR, WINTER - SPRING 2018 FLNPS Botanical Programs • 14



NAME THAT PLANT CONTEST

The photo from last issue's NAME THAT PLANT CONTEST [Solidago 18(4), page 3] was of Nodding Beggar Ticks (Bidens cernua), with a Common Eastern Bumble Bee (Bombus impatiens) hanging on. Thanks to Robert Wesley for identifying the bumble bee. Beggar Ticks (genus Bidens) are a diverse group of plants in New York State, with fifteen species known from outside of cultivation, almost all of them native. Many are quite common, like the Nodding Beggar Ticks, but some are very rare. They flower late in the season, and their fruits are notorious for taking a ride on animals. Unlike their namesake, true ticks, they do not spread infections diseases to passersby. Thanks to all those who entered the contest, and congratulations to the winners: Bob Dirig, Susanne Lorbeer, and Robert Wesley.



This issue's mystery plant is shown above. Hints and suggestions are often provided to contest participants who try. Common and/or scientific names are acceptable. More than one guess is allowed. Please submit your answers to **David Werier** at



2017 SOLSTICE CELEBRATION WILD FOODS CONTEST WINNER (SWEET CATEGORY)

Pear Crisp by Carolyn Klass

I made a **Pear "Brown Betty"** (now I think they call it "Crisp"), with Shagbark Hickory (*Carya ovata*) nuts in the topping. I did not have a recipe, but adapted one from an older *Better Homes and Gardens* cookbook (minus the dairy).

2017 SOLSTICE CELEBRATION WILD FOODS CONTEST WINNER (SAVORY CATEGORY)

Roasted Jerusalem Artichokes (Helianthus tuberosus) with Hazelnuts by Gin Mistry

After looking at recipes online, I more or less invented this one.

1. *Dig tubers in the fall.* (I dug mine in October. As I had not harvested them for several years, there were many!) I had about 4 pounds. This recipe will work for any amount.

2. Scrub and dice the tubers. This takes awhile, as they are very knobby and dirt-encrusted. You can use them right away, keep them in the refrigerator for about a week, or freeze them. (I froze mine; they may be a little mushier than fresh, but no one seemed to mind.) **To** *freeze:* Blanch in boiling water for 2 minutes, then plunge in ice water. Freeze in a single layer on a cookie sheet, then place in a plastic bag. Thaw them a few hours before cooking.

3. *Cook about 8 minutes* in a frying pan with a few tablespoons of oil. (I used Wegmans basting oil, which has some herbs in it.) Add salt and pepper to taste. Turn into a casserole dish.

4. Fry about 2 cups of chopped hazelnuts with some oil. (Use any nuts you like. I chose hazelnuts, hoping to get some from local sources, or at least from the U.S., but could only find ones imported from the Middle East.) Add 4 tablespoons of soy sauce to the crispy nuts, and cook another 2 minutes until dry.

5. Top the artichokes with the nuts and enjoy!

ନ୍ଧର୍ୟ

LETTER

Hi Bob,

The persimmon story ["American Persimmon: King of Flavor," by Akiva Silver, in *Solidago* 14(4), December 2013, pp. 8-9, accessed from *flnps.org*] touched me, since we had the native persimmons in the countryside where I grew up — Three Springs in Huntingdon County, Pennsylvania. This is the first time I've read any formal information on this tree. We ate the persimmons in the fall while rabbit hunting. They were great!

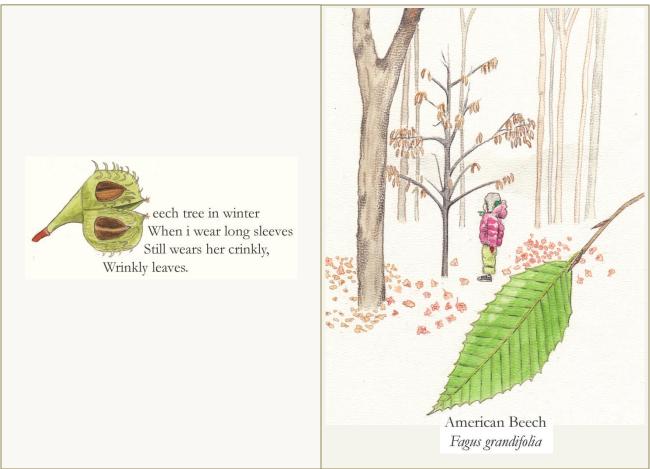
Best, Will Kerling 22 January 2018, Cape May Court House, N.J. 5003

REVIEW

Members' Night 2018 Reviewed by Anna Stalter

IN WHAT HAS BECOME A JANUARY TRADITION, the FLNPS recently hosted its fourth annual Members' Night. Presenters told of plant discoveries and propagation prowess, and shared photos of their botanical travels. Showcasing their knowledge and appreciation for native plants and special places, inspired by a child's curiosity or an elusive species, FLNPS members put on another great show! For those of you who missed the evening, here's a brief recap.

In one of the most unique Members' Night presentations ever, <u>Adrianna Hirtler</u> showed images of and read aloud from her book, <u>Eloise's Native Tree ABC</u>, written and illustrated for her young daughter. So charming *and* educational!



From a draft of Eloise's Native Tree ACB, by Adrianna Hirtler, 16 February 2018

<u>Ken Hull</u>, who travels throughout New York State and beyond to capture photos of native orchids, told of a recent trip to Ontario in search of **Round-leaved Orchid** (*Amerorchis rotundifolia*). One botanist in their group nearly missed the jackpot, but thanks to a forgiving border guard and his loyal colleagues, who doubled back 50 km to pick him up, he too was able to take in the view of a robust population of this

rare species. A great adventure and some stunning photos of a beautiful orchid!

<u>*Gin Mistry*</u> described her ongoing journey of discovery, from a mere lover of ferns to a knowledgeable and successful propagator and gardener of many native species. In addition to sharing some wonderful identification tips and tools, Gin brought along some gametophytes of **Christmas Fern** (*Polystichum acrostichoides*) to



<image>

Arieh Tal's photo of the Climatron at the Missouri Botanical Garden in St. Louis



give away!

A video captured and shared by <u>Nari Mistry</u> demonstrated how the flower structure of the **Closed Bottle Gentian** (*Gentiana andrewsii*) facilitates pollination, in this case, by a bumble bee! It was fascinating to watch, and Nari was happy to replay it a couple of times.

As you may know, Members' Night was first instituted to accommodate the wealth of talented botanist-photographers, whose slide shows used to keep us out a bit too late on Solstice Gathering evenings. In 2018, three members shared several of their slides.

<u>Arieh Tal</u> showed some gorgeous views of one of North America's great botanical institutions, the Missouri Botanical Garden in St. Louis. The LINNEAN HOUSE, the CLIMATRON, and the CHIHULY GLASS SCULPTURES that gracefully complement the garden plants were among the highlights.

David Werier's photos were taken over an extended period of field work in the New Jersey Highlands. This undisturbed landscape of rocky ridges and red sandstone holds many botanical treasures, including potentially very old individuals of the longest-lived hardwood species in eastern North America—**Black Gum (***Nyssa sylvatica*)—and other surprises, like the micropetalous *and* andropetalous* **Nantucket Shadbush (***Amelanchier nantucketensis***)** and the endangered **Cluster Sedge (***Carex cumulata***)**.

<u>Robert Wesley</u>'s slide shows are always worth waiting for. He captures so well the beauty and diversity of the New York flora. Among the species and places were **Southern Twayblade** (*Neottia*) *bifolia*, formerly *Listera australis*) in Chenango County, **Dragon's Mouth** (*Arethusa bulbosa*) in Oswego County, and **Scarlet Paintbrush** (*Castilleja coccinea*) in Jefferson County. Robert finds photogenic flora wherever he goes!

<u>Krissy Boys</u> set up a microscope on the Exhibit Table so that folks could try their skill at selecting viable seeds from wild collections made in the fall. Estimates of seed viability are used by the native plant propagator to determine how thickly to sow the seeds. <u>Susanne Lorbeer</u> also exhibited an embroidered artwork featuring wildflowers.

Thanks to <u>Audrey Bowe</u> and <u>Rick Lightbody</u> for their organizational and technical expertise; to others on the FLNPS Steering Committee, who helped pull this event to-

gether; as well as all the presenters, for an enjoyable evening!

> A detail from Susanne Lorbeer's embroidered wildflower panel from 1977.

Micropetalous = small, narrow petals. Andropetalous = spoon-shaped petals bearing marginal pollen (uncommon).



ECOLOGY - IN ANTICIPATION OF SPRING!

Article & illustrations copyright © 2018 by Robert Dirig

<u>Spring Sunbathers on the Forest Floor</u>



by Robert Dirig

HE SUN IS WARM, the sky is clear, and wildflowers tremble in the breeze. On an afternoon in late April, I explore the rocky woodland behind a Catskill house in southern Delaware County, N.Y., to inventory the progress of Spring.

Brilliant sunlight bakes the brown carpet of American Beech (*Fagus grandifolia*), Yellow Birch (*Betula alleghaniensis*), and Sugar Maple (*Acer saccharum*) leaves, here and there decorated with clumps of Sharp-lobed Hepaticas (*Hepatica acutiloba*) [1] and Round-leaved Yellow Violets (*Viola rotundifolia*) [2], burgundy Wild Ginger (*Asarum canadense*) [3] and navy-blue Cohosh (*Caulophyllum* sp.) [4]. Dudley's Scarlet Cup (*Sarcoscypha dudleyi*) [5] glows near a pool, the most striking cup fungus of our flora. Common Garter Snakes (*Thamnophis sirtalis*) are sunning, Eastern Chipmunks (*Tamias striatus*) cavort, and a Yellow-bellied Sapsucker (*Sphyrapicus varius*) drills into a

birch. Wild Leeks (*Allium tricoccum*) [6] grow rankly among tumbled sandstone slabs, while Plantain-leaved Sedges (*Carex plantaginea*) [7] raise their subtle flowers, inviting the wind's caress to disseminate their pollen.

The earliest insects are abroad as well in the fine weather. Large, dusky, yellow-rimmed Mourning Cloak butterflies (*Nymphalis antiopa*) **[8**] sail



between the trees, occasionally alighting to drink sap running down the birch trunk from holes made by the Sapsucker. They have hibernated as adults, tucked in rock piles, under logs, or inside hollow trees through the frigid months. Fuzzy orange Greater Bee Flies (*Bombylius major*) [9] hover over early wildflowers like tiny hummingbirds, seeking nectar. And a Cherry Gall Azure (*Celastrina serotina*) butterfly [10] flashes his chip of sky against the russet duff, perhaps having escaped his chrysalis only this morning.





















15

Whole sections of the forest floor are covered with delicate blooms of the **Carolina Spring Beauty** (*Claytonia caroliniana*) [11], one of our earliest wildflowers. They have opened almost overnight, all up and down the slope [12]. The color gradations of the petals surprise me from purest white on some plants to magenta on others, all prettily striped with pink.

I approach a rocky section of the woods where **Two-leaved Toothworts** (*Cardamine diphylla*) grow in large masses [13] near a grove of Hemlocks (*Tsuga canadensis*). When flowering a few days from now, this hardy mustard will reach 8-9 inches in height, having a

loose inflorescence of white, four-petaled flowers above opposite, three-parted, coarsely toothed leaves [14]. The plants some with expanding foliage still purpled — are there to greet me as I reach the rock pile [15].

The setting and weather are perfect, and the season has advanced exactly far enough, so my anticipation runs high. Standing still, I scan the slope in all directions, watching for pale movement above the brown leaves. Suddenly I see the first, then another, and a third. They are out!

I hurry to approach the closest before he flies too far to follow — a fine white butterfly, with a faint dusting of grey scales at the base of the wings, and a dark, fuzzy body. He is so intent on his nectar-gathering [16] that I can approach very

near, and watch him flap from one Spring Beauty to the next. This ritual is re-

enacted throughout the afternoon, and during the entire flight season of the insect and bloom period of the plant, year after year; for the Carolina Spring Beauty is the favorite nectar flower of the **Toothwort White*** (*Pieris virginiensis*) in this region. The butterflies may *Also known as **West Virginia White**. See note on p. 13.



transfer pollen in exchange for their nectar meal. The forest will be graced by their gentle presence during the next three weeks, as they mate, lay eggs, bask in the sun, and feed at flowers. How wonderful are the woods when these white butterflies begin to fly!

Toothwort Whites [17-20] are one of the region's natural treasures, the commonest butterflies of our spring woodlands, where they approach the northern limit of their range. They so resemble the introduced Cabbage White (*Pieris rapae*) [21-23] that I mistook the first ones I found for an unspotted spring form of this familiar garden butterfly. Experience proved otherwise: Toothwort Whites lack any grey or black spots in the center of the forewings, which the Cabbage almost always has. They have rounded vs. pointed forewing tips. They have a specific woodland habitat from which they rarely stray, in contrast to the broad spectrum of places inhabited by the other. They are native, not European in origin. And they appear but once a year in April and early May, not throughout the warm months from April to October. Books characterize them as "local," or even "rare," yet *here they are*, living a few stone's throws from the house, and throughout the neighboring forest for miles in all directions. The vernal charm of their lifestyle and habitat makes them a perennial favorite for me.

In addition to taking nectar, the butterfly I am watching occasionally lands on the leaf carpet to bask. Toothwort Whites must maintain a body temperature of at least 70°F. in order to fly, achieved by behavior known as "reflectance basking" **[18, 20]**. The white wings are held at a 45- to 80degree angle to bombard the black body with reflected and re-reflected sunbeams, thus concentrating their heat. After warming sufficiently, a pale blur again skims over the dead leaves.

These earliest butterflies are almost immaculate, indicating that they are males [17-18]. They patrol the woods about two feet above the ground on short criss-crossing flights, seeking females, which emerge a few days later, and have noticeable grey dusting along the hindwing veins beneath [19]. When a male encounters a female, specific behavior indicates if she is receptive. Mating may follow, or her raised



abdomen will signal disinterest [24]. Butterfly courtships are ritualized, fascinating, and not often observed. I finally watched a pairing on May 9, 2011 [25, *next page*], more than 50 years after I first knew this butterfly.





CabbageWhite (*Pieris rapae*)



Solidago 19(1), March 2018





A fertile female will bask and take nectar at Spring Beauties (also occasionally at early violets and Toothwort), but her main activity is laying eggs to carry on the species. She lands in a large patch of Toothwort leaves, then arches her abdomen to place an ivory egg on the underside of a leaflet [**26**]. My hand lens shows the egg to be shaped like a bullet, with several vertical ribs, and many fine cross-lines between [**27**]. The butterfly continues to lay an egg here and there on Toothwort plants throughout the woodland.

Two-leaved Toothwort is the only known larval foodplant of the species in this area. Cut-leaved Toothwort (*Cardamine concatenata*) [**39**, *page 13*], another potential larval host, is rare in the southern Catskills, preferring limier soils outside of our region.



After three or four days, a tiny caterpillar hatches from the egg and begins to feed on Toothwort leaves. In two weeks it will reach an inch in length, and be perfectly camouflaged on the bright green foliage [28]. When fully fed, it crawls off the plant to a sheltered nook on the forest floor and prepares to pupate. A white bed of silk is spun beneath the rock, log, leaf, or other surface it has chosen, and then the caterpillar attaches its anal prolegs to one end and encircles itself with a silken belt before becoming quiescent [29]. A day or so later, the knobby brown chrysalis forms, closely mimicking the warm beige color of dead Beech leaves [30]. Among the pupae resulting from a large brood I once raised were a few green ones, a color form not mentioned in the literature [31].

Toothwort White larvae pupate at the end of May or early in June. Paralleling their metamorphosis, a marked transformation has come to their woodland habitat. Red Trilliums (*Trillium erectum*) [**32**], Squirrel Corn (*Dicentria canadensis*) [**33**, see next page], Yellow





Trout Lilies (*Erythronium americanum*) [**34**], and other wildflowers that come into bloom when the earliest species are in decline, have flowered and withered in turn, as the days grew longer, warmer, and shadier.

While Toothwort White larvae matured, American Redstarts (Septophaga ruticilla) and other warblers, Baltimore Orioles (Icterus galbula), and Ruby-throated Hummingbirds (Archilochus colubris) have returned from migration. The Whites themselves are gone, their flight over for the year. With them, the Spring Beauties have shriveled [35], and the Toothwort plants are fast yellowing and dying down [36], largely to disappear in June. Sunlight no longer warms the dead leaf carpet, which has been screened by a heavy leaf canopy since mid-May [37]. With the passing of only a month, the forest has become a very dark place with a lush display of different plants covering its floor.



Two-leaved Toothworts, Carolina Spring Beauties, and Toothwort Whites [**38**] are true vernal species that appear in the brief early season



of sun, reproduce themselves, and guickly disappear with the onset of shade. This butterfly has adapted itself perfectly to the habitat and annual cycle of its larval hostplant, and heavily uses the most abundant nectar source that grows with it. All three are "perennials," the plants resting in the soil as rhizomes and

tubers, and the butterfly diapausing as a chrysalis through the seasonal pageant of colored leaves and ice, until Hepaticas, Cohosh, and other harbingers announce the onset of a new sunny season in the forest.

Then one bright April afternoon a whole year hence, when I flush the first Toothwort White from a tender Spring Beauty, and find fresh Toothworts unfolding among the rocks, I rejoice in the realization that it is truly Spring.

Please see notes on the next page. This article was adapted from a similar story that appeared in the *Catskill Center News* 22(2), Spring 1993, pp. 9-11.



The vernal triad poses for a portrait.

Solidago 19(1), March 2018

* The common name "Toothwort White" was bestowed by Vladimir Nabokov in his novel Pale Fire in 1962, eleven years after Alexander B. Klots had named it "West Virginia White" in his Field Guide to the Butterflies of 1951, referring to the place from which it was described. It has been colloquially known as the "Wood White" in the southern Catskills since the 1960s.

In the Finger Lakes Region, the Toothwort White is not as widespread as in the Catskills, but may be found with the same phenology in Six Mile Creek near Ithaca, Shindagin Hollow State Forest near Brooktondale, and other damp woodlands. Readers may find it elsewhere in the same association. The Cut-leaved Toothwort [39] and Large Toothwort (*Cardamine maxima*) also occur in the Finger Lakes Region, and may serve as alternate larval hosts. **50 C**



Copyright © 2018 by Robert Dirig

NEW PUBLICATION

The TORREY BOTANICAL SOCIETY is pleased to announce that a **CATALOGUE OF THE VASCULAR PLANTS OF NEW YORK STATE**, by **David Werier**, has been published as volume 27 of *Memoirs of the Torrey Botanical Society*. The *CATALOGUE*'s introduction includes a summary of the past and present status of the flora in New York, starting with John Torrey's publications in the 1840s.

The annotated species list (more than 3,500 species, 130 additional infraspecific taxa, and 250 hybrids growing outside of cultivation in the state) contains scientific names, common names, synonyms, nativity status, nonnative status, voucher information, state ranks for rarities, and notes on certain species. Additionally, a list of taxa excluded from the flora is presented, as well as a list of taxa that very likely occur, should occur, or soon may occur in the state.

Thirty pages of references are a testament to the extensive research involved in the preparation of this scholarly treatise.

The *CATALOGUE* is available through the Torrey Botanical Society's web site:

> (https://www.torreybotanical.org/) ඉටලද



These Virginian Rock Polypodies (*Polypodium* virginianum) were growing at Upper Buttermilk Falls State Park near Ithaca, N.Y., on an exposed rocky outcrop, in December 2016. *Photo by Julia Miller*.

2017 New York Rare Plant Status List Is Online

Steve Young, Chief Botanist of the New York Natural Heritage Program in Albany, has announced the availability of this useful reference at http://www.dec.ny.gov/docs/wildlife_pdf/2017 rareplantlists.pdf. There is also a sortable list of the active list species at http://www.dec.ny.gov/animals/66348.html.

NATURAL HISTORY

<u>The White-M Hairstreak</u> (Parrhasius m-album): A New Butterfly for the Finger Lakes Region





On 13 Aug. 2017, I was surprised to encounter a White-M Hairstreak in an old field next to a mature forest, feeding at Grass-

leaved Goldenrod (*Euthamia graminifolia*) at about 11:45 a.m. A central white spot on the upper margin of the hindwing venter is diagnostic [1]. Top surfaces of the wings are brilliant cobalt-blue, with black borders [2, *photographed in Florida*]. Adults live in the canopy, but descend to take nectar. Their larvae feed on oak leaves. This was a stray, north of its usual range. It is the 113th butterfly species known for the Finger Lakes Region. Another was seen in Rochester, N.Y., on 21 July 2017, by Carol & Dave Southby. Please watch for this butterfly in 2018 — more may show up locally. *— Robert Dirig*

Finger Lakes Native Plant Society



A Toothwort White basks on a Carolina Spring Beauty in the April sunshine. See the story on pages 8-13. Image copyright © 2018 by Robert Dirig

FLNPS Calendar, Late Winter & Spring 2018

<u>Saturday – March 10th – 1:00 p.m. Bailey Hortorium</u> Herbarium Tour, by ANNA STALTER & PETER FRAIS-SINET. L. H. Bailey Hortorium Herbarium, Mann Library Building, Cornell University campus (map/directions upon registration).

A behind-the-scenes tour of this wonderful resource for plant-lovers. If you have not had a complete tour, or if you have never been there, you will be surprised at the scope of this institution. Historic (Captain Cook!) and contemporary plant collections from around the world, horticultural illustrations, catalogs, etc. Free, but please register so we know how many people are coming — access is limited on the to register. weekends. Please contact

Wednesday - March 21st - 7:00 p.m. Pollinator Response to Native Plant Habitat Gardens, by JACOB **JOHNSTON**, Habitat Network. Unitarian Church Annex, 208 E. Buffalo St., 2nd floor (entrance on Buffalo St.), in Ithaca, N.Y.

Residential landscaping has traditionally included nonnative ornamental plants, grasses, and trees to create unique or practical designs. As urban areas expand and dominate the landscape, the resources on which wildlife have come to depend, through diverse native vegetation, are becoming scarce. Our gardens, yards, and natural areas, however, can provide a unique opportunity to replace those dwindling resources, while still meeting the qualifications of landscaping desires.

Wednesday – April 18th – 7:00 p.m. Deer, Forests & People, a talk by TOM RAWINSKI, USDA Forest Service, Unitarian Church Annex.

A program on the ecology of White-tailed Deer.

Wednesday - May 16 - 7:00 p.m. Edible Wilds/ Foraging, a talk by RUSS COHEN of Eatwild.com, Unitarian Church Annex.

The speaker is a wild foods enthusiast who authored Wild Plants I Have Known ... and Eaten.

We appreciate suggestions for speakers or topics, walks, outings, and rambles. Please check our website (flnps.org.) for updates and details.

On Our Website ~~~

Did you know that many FLNPS plant walks have short reports on the FLNPS website, often with a list of plants seen? There may be photos, too. If the location of the walk is a popular one, and is listed on the website map of good plant locations, the walk report will show up when you click on the location to find out more about it.

ഗ്രഹ

FLNPS Is Now on Facebook

Since its inception in 1997, the Finger Lakes Native Plant Society has endeavored to provide its members with information and news about the flora of our region. The means by which we do that has changed over the years. Our newsletter Solidago is now produced in full color and delivered via e-mail. Our website (flnps.org) features enhanced content and important announce-ments. In the spirit of keeping current and reaching out to members and interested parties, far and wide, the "Finger Lakes Native Plant Society" now has a Facebook page! Would you like to share a striking photo of fall foliage, or do you need help identifying a composite growing in your yard? Ask your FLNPS Facebook friends!

We hope members will enjoy using this social platform for instant sharing of content with countless others who have an interest in the Finger Lakes flora. "Like us" on Facebook!