

PLANT **PROFILE** 

# Hunting the Clusive Bloom

by Rosemarie Parker & Susanne Lorbeer



HAT WONDER could bring two plant lovers to traipse up an (albeit short) trail, day after day, in hopes of seeing just one bloom? And not even a particularly spectacular one, just hard to catch. A few years ago, Arieh Tal and Susanne found one plant

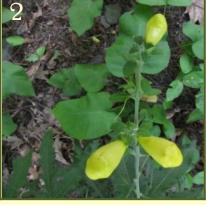
of the Downy Yellow False Foxglove (Aureolaria virginica), but it was past bloom. Ever since, she had been trying to see it in bloom, returning to the same spot hoping for a flash of yellow. At least the failures (and a check of specimens at the L. H. Bailey Hortorium Herbarium) served to pinpoint the likely bloom time. This past summer, Susanne was determined to make another try.

Aureolaria virginica is hemiparasitic. It has chlorophyll, thus green leaves, but is partly parasitic on the roots of oaks, especially Quercus alba, which was present at this location. Although there are clearly locations where it forms large clumps (look at Google images), and is not listed as scarce in New York, Susanne had not seen it anywhere else around here. And the specimen in question was just one plant, easily overlooked.

It took us five visits over seven days to catch the flower. We watched the rounded buds expand, elongating and developing more character each time we came. We found we had missed two flowers by skipping two days! By this time we had read that each flower apparently lasts only one day, but we did not know what time of day was most promising, so we decided to aim for morning. And then evening of the same day — very close — protuberances on the bud were definitely getting bigger. So the next day, we arrived at mid-day to split the difference. Voila! Flowers! And so ephemeral; one of the corollas drifted to the ground as we stood there basking in success.

Passing hikers stopped to ask what was so fascinating, and at least one said that she was honored to have seen such an unusual event. The others kept their thoughts to themselves. (Hmmmm.) 2003





**≺(1)** New buds are very smooth and rounded. (Lobed leaves are Aureolaria.) July 26, 2019.

[Sunny

spots in deep

shade

make it

difficult to pho-

tograph

pale

flowers using

natural

light.]

**<(2)** Late buds, nearly ready to bloom. Notice the developing bumps. July 29, 2019.



**▲ ∀**(3-5) Open flowers: Aureolaria virginica, blooming at last. July 30 2019.



# THE FINGER LAKES NATIVE PLANT SOCIETY STEERING COMMITTEE

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# 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.



Newsletter of the Finger Lakes Native Plant Society

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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.



Pendant early fruits of American Wahoo (*Euonymus atropurpureus*), 11 October 2019. See pp. 3 & 8-9 for more images and information.

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

Deadline for the March 2020 issue is February 15th!

# NAME THAT PLANT CONTEST

The photo from last issue's NAME THAT **PLANT CONTEST** [Solidago 20(3), p. 14] was of White Water Lily (Nymphaea odorata). As a plant that grows in standing water, such as ponds and lakes, many people never get to see its exquisite flowers. Bob Dirig wrote that it has "one of the loveliest blooms of our flora." There are two subspecies that occur in New York State: Tuberous White Water Lily (N. odorata ssp. tuberosa) and Fragrant White Water Lily (N. odorata ssp. odorata). There is not yet consensus among botanists as to whether they should be treated as subspecies or elevated to species level. Some botanists consider them to be distinct species, but I treat them as subspecies, since their morphology overlaps substantially. The photo from last issue's contest was of the locally more common Fragrant White Water Lily, although the photo was not diagnostic enough to make a definitive determination. Thanks to all who entered the contest, and congratulations to the winners: Bob Dirig, Hal Gardner, Susanne Lorbeer, and Robert Wesley.



This issue's mystery plant is shown at the left. In keeping with the season, it is presented in its winter mode. 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 22 February 2016.



Fragile Fern (Cystopteris) article in Solidago [20(3): 1-12

Thank you, Bob, for the great article on those two species! I often get them confused. — **Steve Young**, New York Natural Heritage Program, Albany, N.Y., 16 Sept. 2019

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I liked your fern story. I have some Fragile Fern but they are from a catalogue. They seem to disappear in mid summer; they are in a dry area. I'll pay a little more attention to them now —Gin Mistry, Ithaca, N.Y., 30 Sept. 2019

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Thanks for the latest newsletter. Your article is fantastic!

— David Werier, Willseyville, N.Y., 15 Sept. 2019



Dec. 18th: The annual FLNPS Solstice Celebration will be held in the monthly meeting space. See details on our website† and on the last page of this issue of *Solidago*.

Jan. 15th: The sixth annual "Members' Night" (renamed Flaunt Your Flora! A Botanical Show-and-Tell) will feature a medley of presenters on various botanical topics.

Please save these dates for winter & spring 2020: Feb. 19<sup>th</sup> (*Jason Gorman*, Finger Lakes Land Trust); Mar. 18<sup>th</sup> (*Mike Hough*, Creating A Native Bog); April 15<sup>th</sup> & May 20<sup>th</sup> (presenters & topics to be confirmed). Please see our website† for details of all of these events, and others that may be scheduled.

FLNPS evening Talks, the Solstice Celebration, and the Flaunt Your Flora program begin on Wednesday at 7:00 p.m. at the Unitarian Church Annex (second floor; enter on East Buffalo St.) in Ithaca, N.Y. An elevator is available. †Please check our website (flnps.org.) for updates and details.

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

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## 9110SS

Plants of emotion: Riotous emerald joy in the warm, light rain.

by Robert Dirig (1984)





## Thank You!

MANY THANKS to all who have contributed to Volume 20 of Solidago, which encompasses our 78th to 81st issues! For Volume 20, No. 4, we thank WRITERS Kenneth Hull, Susanne Lorbeer, Gin Mistry, Rosemarie Parker, Charles R. Smith, David Werier, Steve Young, & Robert Dirig. ILLUSTRATIONS were loaned by Kenneth Hull [pp. 5-6], Rosemarie Parker [p. 1], David Werier [p.3], & Robert Dirig [pp. 2-4 & 8-9]. The banner [p. 10] was tinted and adapted from a drawing in The Transformations (or Metamorphoses) of Insects, 3<sup>rd</sup> edition, by P. Martin Duncan, 1882. CALENDAR ITEMS were organized by Audrey Bowe, Anna Stalter, & Rosemarie Parker. LAYOUT and DESIGN by the Editor. PROOFREADING & REVIEWS PRINTING of paper copies by Gnomon Copy, Ithaca, N.Y. ONLINE POSTING by Audrey Bowe & Rosemarie Parker. And MAILING by Gin Mistry. Special thanks to the Cornell Plant Pathology Herbarium & Bailey Hortorium Herbarium for sharing facilities.

BESTWISHES to FLNPS members (and all others in our reading audience) for joyous Holidays and a botanically exciting New Year!

— Robert Dirig

Show pictures or artwork, read a poem, ask a burning question, or explain your latest plant-related theory or discovery. This event provides an opportunity to share your "phyto" stuff (tangible and otherwise) with fellow members....

# Flaunt Your Flora! A Botanical Show-and-Tell

This annual FLNPS program, originally called "Members' Night," began in 2015, and has proved to be popular. Attendees have enjoyed the variety of presentations and a chance to learn about their fellow members' interests and talents. (See the link on our website for reviews of prior Members' Nights.) So we'll do it again on January 15th, 2020. And of course we'll need your help!

If you like to take photos, paint, draw, write poetry (or read the poems of others), do needlepoint, sing and play music, tell stories, or do anything else with a plant-related theme that you think others might enjoy, please come and share your talents and enthusiasm with us. You can make a presentation or bring interesting objects for the exhibit table.

The more participation we have, the more fun this evening will be. If you would like to do a presentation (or a mini poster presentation at the exhibit table), please contact Audrey Bowe by January 8th, 2020, with the following information:

\* Presentation topic and format

\* Any technical support needed

(e.g., video projector, microphone, etc.)

\* Estimated presentation length

(can be anywhere from 2 – 20 minutes)

\* Any preference for your position

in the evening's sequence (earlier vs. later)

\* Your email address and phone number

\* Any questions, or information you think is important.

**EXHIBIT TABLE:** Please consider bringing interesting plantrelated items to be included on the exhibit table. Items may be arts and crafts, peculiar seed pods, cartoons, etc. For selfexplanatory displays, there's no need to let us know in advance, unless your item is bigger than a breadbox, or can't sit on a tabletop. (If so, contact Gin Mistry at ginmistry@ gmail.com.) But please come ten or fifteen minutes before 7:00 p.m., to make sure your item gets set up the way you want it. You may wish to include a small card with your name and perhaps an identification or brief explanation of the item. If you'd like to do something more like a scientific poster presentation (where you actively explain details to the exhibit viewers), we welcome that at the exhibit table too. In that case, please let both Audrey and Gin know of your plans as early as possible, and no later than the January 8th deadline mentioned above.

We look forward to seeing you at the sixth iteration of this program. Help us make it as fun and fascinating as the first five!

### RARE FLORA



▲ Calypso Orchid (Calypso bulbosa, var. americana [SH]



▲ Striped Coralroot (Corallorhiza striata, var. striata) [S1]

# 20 Northern Neighbors (2)

Portraits of Plants That Are Rare in New York by Kenneth Hull

This is a short report on the **Symposium of the Native Orchid Conference**, held at Tobermory,
Ontario, on the Bruce Peninsula in Lake Huron, on
June 13-17, 2018. We had two days of field trips to
find orchids and other special plants. I was
especially interested in species that are endangered
or have disappeared entirely in New York State.
Here are photos of some that I encountered. (**S1** is
endangered, **SH** is historic in New York.)



≺ Hooker's Orchid (Platanthera hookeri) [S1]



► Northern Holly Fern (Polystichum lonchitis) [SH]





## 80 Northern Neighbors CR

Portraits of Plants That Are Rare in New York by Kenneth Hull

(continued)



▲ Indian Paintbrush (Castilleja coccinea) [S1] ▲



**A>** Green Spleenwort (Asplenium viride) [S1]



All images by Kenneth Hull

**ESSAY** 

## What's in a Name?

#### by Charles R. Smith

I've been fascinated by how plants and animals are named since one of my older mentors introduced me to Ernst Mayr's *Methods and Principles of Systematic Zoology*, which I read in high school. Also in high school, I began studying botany and learned that there are no standard English names for plants like I was accustomed to for birds, so I began learning scientific names of plants.

Effective and unambiguous communication requires a shared and mutually understood vocabulary. Scientists who name and often discover, describe, and name new species are called "taxonomists." The process of arranging species in sequences that are presumed to represent their evolutionary relationships is called "systematics."

Plants and animals often have two names, an English or "common" name and their internationally recognized scientific name. The scientific name often is referred to incorrectly as the "Latin name," but scientific names can be derived from either Latin or Greek, and even other languages. The English name often is called the "common name," also incorrectly, because the common name in a language other than American English would be quite different. For example, the English common name for Rose-breasted Grosbeak appears in Spanish as "Ahorcado" in A Field Guide to the Birds of Mexico, by Ernest P. Edwards. Scientists who specialize in the study of plants and animals all over the world would recognize the scientific name, which is the universally accepted name for a species, thereby facilitating communication among taxonomists and systematists. Some English names for plants can be confusing. White Ash, American Mountain Ash, and Prickly Ash, share similar English names, perhaps because all three have pinnately compound leaves. Their scientific names, respectively, Fraxinus americana, Sorbus americana, and Zanthoxylum americanum, however, show some similarity; but the three species are not even in the same genus or family. Scientific names follow internationally recognized standards and are reviewed by committees of experts. Procedures for naming plants are governed by the International Code of Nomenclature for Algae, Fungi, and Plants (formerly called the International Code of Botanical Nomenclature) and for animals by the International Code of Zoological Nomenclature. English names may not receive the same rigorous review as scientific names, but that practice is changing.

For birds, there have been recognized standards for both English and scientific names in Great Britain and the United States for more than 100 years. Both scientific and English names, however, do sometimes change over time, as scientists develop a better understanding of how the different species are related to one another. The use of standard English names for birds has made possible generations of field guides with English names that are consistent and can be understood easily by bird watchers. The same has not been true for other groups of animals until relatively recently. Now, for North America, committees of experts have created standard English and scientific names for fish, amphibians, and reptiles, in addition to birds. Standard English and scientific names even have been suggested for some groups of insects.

Relatively recently (1995) the North American Butterfly Association (NABA) published its *Checklist and English Names of North American Butterflies*, now in a second edition. NABA's checklist has made it possible for standardized English names for butterflies to be used in the growing number of popular field guides to butterflies. There also is a 2018 *Checklist of North American Odonata*, with recommended English and scientific names for damselflies and dragonflies (https://www.odonatacentral.org/docs/NA\_Odonata\_Checklist.pdf), and much more. Those names for odonates now are used in a growing number of field guides to damselflies and dragonflies.

In spite of their growing popularity among naturalists, there currently is no generally accepted checklist of English names for moths, perhaps because there are so many different kinds of North American moths, compared to fish, amphibians, reptiles, birds, butterflies, and odonates. Likewise, the even larger number of plants in North America has made a generally accepted checklist of English names for plants too large a task for any single organization to undertake. For New York, we are fortunate to have the benefit of David Werier's 2017 Catalogue of the Vascular Plants of New York State, which provides us with current English and scientific names for the vascular plants of New York. The U.S. Department of Agriculture also has a website that includes recommended English and scientific names for North American vascular plants (www.plants.usda.gov). The names presented on the USDA web site, however, frequently are debated by botanists and considered by some to be out-of-date. Taxonomists still are evolving.



## American Wahoo

(Euonymus atropurpureus), A Strikingly Beautiful Shrub Text and photos by Robert Dirig

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HILDHOOD EXPERIENCES WITH PLANTS CAN BE CHARISMATIC. In 1965, I became acquainted with an unfamiliar shrub in my

grandparents' garden. It had smooth leaves, beautiful green twigs, and odd, dangling pink fruits enclosing bright scarlet seeds. I was making a pressed collection of local trees and shrubs at the time, and included a sheet for this plant. I asked my grandparents where they got the shrub. Grandfather Ellis said he had transplanted it from a swamp on the far side of the hill. Years after they had passed, I went back to their garden to get a root for mine, but the shrub was gone. In the meantime, I've never encountered the plant, until 54 years later, in the spring of 2019. It was exciting to find a large clump around an old Finger Lakes homestead that provided an opportu-



nity to watch it thoughout the season

The Finger Lakes site was on the edge of a stream, with gravelly soil. The shrub grew in clumps, obviously spreading from the roots, with small shoots here and there, thus forming *thickets*. The branches and leaves were opposite. The presence of Periwinkle (*Vinca minor*) and











large Apple (*Malus pumila*) trees, and a road near a small opening, implied past human habitation, likely by European settlers in this area.

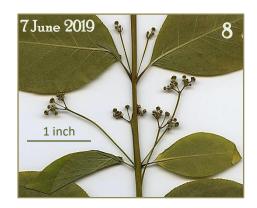
I had identified the shrub in my grandparents' garden as **Burning Bush** (Euonymus atropurpureus), using F. Schuyler Mathew's wonderful Field Book of American Trees and Shrubs (Putnam's, 1915, pp. 296 & 299), a name that still applies in 2019. The leaves recall Spicebush (Lindera benzoin), but have finely serrate margins [Fig. 9]. The shrubs grew in dappled shade, and had small clusters of flowers from the leaf axils on 7 June [Fig. 8]. Pale green, 4-elbowed capsules had developed by 24 August, and some were pinking by 17 September, with young terminal foliage turned burgundy-plum [Fig. 2]. On 1 October, the foliage was purpling [Fig. 1], and the capsules were still green, turning pink, but not yet open. On 11 October, some leaves had fallen, and the capsules were a bit deeper pink [Figs. 3 & 6; photo, p. 2]. On 21 October, in glorious sunshine under a clear blue sky, I finally found some capsules that were deep rose pink, and open, showing the gorgeous, glossy scarlet arils [Figs. 5 & 7; photo, p. 3]. The leaves had mostly fallen, and the ripest fruits had dropped on the ground, attached to short twigs. One had lodged itself in a crotch [Fig. 7]. Looking up into the canopy, I could see hundreds of capsules against the sky, on several shrubs that were 20 or more feet tall [Fig. 4]. I wonder if fruiting twigs drop when the seeds are ripe? The plants might be dispersed by animals that eat the seeds, or by capsules that move downstream if they fall in waterways. The largest tree-like individuals grew in sprawling thickets that required some strategy to penetrate, with 3inch-diameter trunks at the base, and many sprouts from the roots.

This shrub probably is not native near Ithaca, as implied by its occurrence at a former dwelling site. This is also true of my grandfather's source in the southern Catskills, where homesteads dated from the 1840s-1850s. An alternate common name is *Spindle Tree*, perhaps alluding to actual use of its wood as spindles in the Victorian Era. Arthur Haines called it *Eastern Spindletree* in his *Flora Novae Angliae* (2011, p. 524). *American Wahoo* is the current common name offered by David Werier in his *Catalogue of the Vascular Plants of New York State* (2017, p. 170) — historically spelled *Waahoo* in Mathews' guide and other older literature. The shrub's beauty might also have recommended it as an ornamental candidate for the yard.

The online *New York Flora Atlas* includes records of *Euonymus atropurpureus* from **western New York** (Niagara, Erie, Genesee, Wyoming, & Allegany Counties); the **greater Catskill region** (Otsego County—plus my grandparents' site on the Delaware-Sullivan County line, not in the *Atlas*); the **Hudson River corridor** (Rensselaer, Ulster, Dutchess, Putnam, Westchester, and Kings Counties); and the **Finger Lakes Region** (Livingston, Ontario, Yates, Tompkins, & Tioga Counties). It is not interpreted as native here, except in western New York. Wiegand & Eames (1926, p. 292) regarded it as "rare [in] damp thickets, in alluvial soil bordering limy ledges" in the Cayuga Lake Basin, characterizing it as "A plant of the Mississippi Basin." It is likely a calciphile. My photos were taken near the Tompkins-Tioga County interface.

The charm of this shrub's bright pink capsules and scarlet arils at a season when these colors are unusual make it especially attractive. The *color combination* of bright pink and scarlet in one fruit is even rarer in our flora.

American Wahoo belongs to the **Celastraceae**, which also includes the native and locally scarce **American Bittersweet** (*Celastrus scandens*) [**Fig. 11**]; and the highly invasive **Oriental Bittersweet** (*C. orbiculatus*) [**Fig. 12**], which can become a nuisance in preserves and other wild spaces. Five more species of *Euonymus* have been found in N.Y., including two rare natives, *E. obovatus* & *E. americanus* [see photo, p. 4].





# Finger Lakes Native Plant Society



# Please Join Us for the FLNPS 2019 Solstice Gathering!

by Rosemarie Parker, on behalf of the FLNPS Steering Committee

Wednesday, December 18, 2019 — 7:00 to 9:30 p.m. Unitarian Church Annex, 208 E. Buffalo St., Ithaca, N.Y. [2nd floor, entrance on E. Buffalo St. An elevator is available.]

Our annual Solstice Gathering is fun and friendly.

Please come and enjoy the plants and plant-loving people!

Our annual <u>Seed Exchange</u> is part of the festivities. A list of seeds we already have will be included with the December mailing. Please get in touch with Rosemarie Parker at info@flnps.org if you have seeds of native plants to offer, and want a photo included on our board. Remember, you can take seeds to plant, whether or not you bring any. Even if you have no more room in your garden, the Gathering is the perfect time to decide what you want to grow for FLNPS to sell at the Spring Plant Sale — many species require a cold, moist, stratification period before they will germinate.

The plants we use to decorate the room for the Gathering give us materials for an <u>Identify-the-Decorations "Q uiz</u>." This is always fun, as well as educational, and we expect people to collaborate. You don't need to get any of the answers right to qualify for the Door Prize Drawing. It's always fun to have some new and different species for the quiz, but they need to be on site by 5:45 to be considered; or you can drop them off ahead of time with Krissy Boys, at the Cornell Botanic Gardens.

Every year, <u>Door Prizes</u> are donated by members. If you would like to contribute in this way, again, please tell me early, so we know how many to expect. We may save some for the January "Flaunt Your Flora!" program.

To keep up our energy during all these activities, we ask everybody to bring some <u>Food</u> <u>With a Native Element</u>, and a prize is awarded to the creators of foods voted as favorites by the most participants. We have two prizes, one for <u>sweet</u> and one for <u>savory</u> dishes. You can think "outside the box" here. Besides the all-time popular blueberry, cranberry, and apple dishes, there are many possible ingredients, from native plants like Black Walnuts, Butternuts, maple syrup, Elderberries, Wild Rice, mushrooms, quinoa, squash, peppers, corn, and potatoes (a Meso-American origin is okay). Creativity and truly local ingredients are appreciated. Please provide a list of ingredients for each entry.

Finally, we always need help with <u>Set Up and Clean Up</u>, and Rosemarie is the person to contact if you want to volunteer for either.

It's time again to relax, as we share experiences and expertise. Please plan on attending and participating. We will be at our usual meeting location.