Spring

# POTOWMACK NEWS

*Potowmack Chapter of the Virginia Native Plant Society*

Volume 43, No. 2, Mar-May, 2025

## American Elm

### *Ulmus americana*

**By Margaret Chatham**

American Elm. Ulmus americana. All photos for this article by Margaret Chatham

To misquote Mark Twain, "The reports of American elm's extinction are greatly exaggerated." It is true that Dutch elm disease has wiped out the towering leafy arches that graced many an Elm Street, but some big old trees persist where they have room for their roots, and especially along forested streams or rivers, and younger, smaller trees grow in many woods and roadsides.Their tiny apetalous flowers open and quickly start growing seeds before their leaves open.These early flowers make elms stand out against the bare branches of other trees in February or March.

At its best, American Elm (*Ulmus americana*) is a vase-shaped tree that *Flora of Virginia* says can grow to 40 meters tall. It can serve as a larval host for over 200 species of Lepidoptera, including the Eastern Comma, Question Mark, Mourning Cloak, and Painted Lady butterflies.

Other elms in our area are the somewhat smaller native Slippery Elm (*Ulmus rubra*) that grows to 30 m tall in a similar vase shape. "Slippery" refers to the mucilaginous inner bark, but it's easier to feel the sand-papery upper surface of its leaves. Two smaller, non-native elms are around: Lacebark Elm (**U. parvifolia*) that is easily distinguished by its small leaves, patchy bark and late summer bloom time and Siberian elm (**U. pumila*) that does not share the vase form of the other elms. Japanese Zelkova (**Zelkova serrata*) is also planted as a Dutch elm disease-resistant elm

Continued on page 3

## Upcoming

**Melissa McCormick: Weird and Wonderful Native Orchids**
Thursday, *Mar 13, 7 pm*
*By Zoom: watch for registration info*
Melissa McCormick is Director of the Smithsonian's North American Orchid Conservation Center

**VNPS Annual Workshop**
*Weds, Mar 19 & 26, 6:30-9 pm*
*By Zoom; register at https://vnps.org/events/vnps-annual-winter-workshop-2025-via-zoom/*

**Turkey Run Ephemerals** with Margaret Chatham
*Friday, Mar 21, 10 am-noon or 1-3 pm*
A snapshot of spring ephemerals on a short but mostly vertical walk. Choose AM or PM, watch for registration info.

**Fraser Preserve Ephemerals** with Margaret Chatham
*Monday, April 7, 10 am-1 pm*
Different place, (some) different flowers.A longer walk also with ups & downs, but no restrooms. Watch for registration info.

**Daniel Schwartz: Resilient Soil and Water Practices**
*Thursday, April 10, 7 pm*
*By Zoom: watch for registration info*
Soil scientist Dan Schwartz has studied what helps our plants grow.

**Trillium Trek at Thompson WMA with Alonso Abugattas**
*Sunday, May 4, 9 am-1:30 pm*
*Space limited, watch for registration info.*

**Chapter Quarterly Social at Walker Nature Center**
*Saturday, April 26, 1-4 pm*
Friends old and new and a walk in the woods. No registration required.

**Margaret Chatham: Butterfly Gardening, Supply Side**
*Thursday, May 8, 7-9 pm*
*By Zoom: watch for registration info*
Larval host plants for an array of local butterflies

*All events are free and open to the public. Walks require preregistration. To receive email notices with walk registration links and other chapter news, send an email to vnps-pot-subscribe@yahoogroups.com.*

## Manage your VNPS Membership Online

1. Go to *https://vnps.app.neoncrm.com/login*
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*Subscribe to our Potowmack Chapter email discussion group to receive and send email about native plants in our area including questions, answers, and discussions. You don't have to be a VNPS member and there are no ads. Over 350 members strong! Just send a blank email to potowmack+subscribe@vnps.groups.io. Visit https://vnps.groups.io/g/potowmack to look around.*

Check out the Potowmack Chapter Facebook page at https://www.facebook.com/vnpspot.

## Spring Native Plant Sales (an incomplete list)

Earth Sangha will be starting sales early in March on Sundays, Mondays, and Wednesdays, 9 am-1 pm. See earthsangha.org for details.

Sat, Mar 29, 8 am-1 pm National Arboretum Native Plant Sale (in conjunction with Lahr Symposium, but one can do either separately) enter at 2400 R St NE, Washington, DC fona.org

Wednesdays, Apr 2, May 7, June 4, etc. 10 am-1 pm VNPS-Pot First Wednesday Plant Sales in the propagation beds behind the Horticulture Center at Green Spring Gardens Park. vnps.org

Fri, Apr 4, 9 am-2 pm Loudoun Wildlife Conservancy Spring Native Plant Sale in the main Morven Park visitor parking lot, 17195 Southern Planter Lane, Leesburg, VA loudounwildlife.org

Sat, Apr 26, 9 am-2 pm Northern Alexandria Native Plant Sale, 1701 N Quaker Lane, Alexandria, VA http://www.northernalexandrianativeplantsale.org.

Sat, May 20, 9 am-3 pm Green Spring Garden Day brings in native plant vendors among others. Be sure to visit the VNPS propagation beds for our offerings behind the Horticulture Center. 4603 Green Spring Rd, Alexandria, VA https://www.fairfaxcounty.gov/parks/green-spring/events

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American Elm from page 1

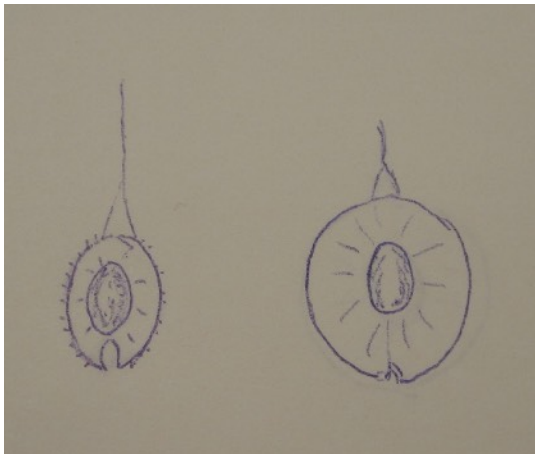
substitute which the Digital Atlas of the Virginia Flora notes is fully naturalized in the stream valley of South Branch Lucky Run, City of Alexandria. Doug Tallamy specifically mentioned Zelkova as supporting no native Lepidoptera in his Prince William Native Plant Symposium talk on Feb 8. Zelkova can be distinguished from our elms by its smaller leaves (1.25-2" long on mature branches, possibly up to 5" long on vigorous young shoots) and its bark which is smooth, gray, and cherry-like with prominent lenticels when young. As the tree ages, its bark breaks up to more closely resemble Lacebark Elm, but as shown on the left, you can still see the lenticels for a while. American Elm (and Slippery Elm, shown on the right) bark in contrast never develops red patches and especially when the tree is young and the weather is humid, the bark is slightly spongy and compressible. If you break off a little piece of native Elm bark, you'll see alternating layers of light and dark.

American Elm leaves are 2.5-7" long, smooth on the upper surface, with a pointed tip, doubly serrate edges, and usually but not always unequal bases. Slippery Elm leaves are 4-8" long, and similar in appearance but scabrous on the upper surface. Both Lacebark and Siberian Elm leaves are singly serrate and usually under 2" long.

American Elm flowers around the same time as Red Maple (*Acer rubrum*), before the trees leaf out. I expect to see these fairly early in February, but their timing depends on the weather, and this year has been too cold for such an early bloom. Once they do flower, the seeds follow within a few weeks. Elm fruits count as samaras, but their wings encircle the seeds instead of sticking off to one side. Lacking seeds to photograph, I have drawn an American Elm seed on the left, trying to show its notch at the bottom and its hairy edges, and the slightly larger, rounder Slippery Elm seed on the right with almost no notch and no hairs.

Elm wood has unusual interlocked grain, which makes it impossible to split. As Oliver Wendell Holmes put it in his *Deacon's Masterpiece*, "Never an axe had seen their chips,/ And the wedges flew from between their lips,/ Their blunts ends frizzled like celery tips." This makes elm wood ideal for wagon wheel hubs and chair seats, where inserting wheel spokes or chair legs would split other woods. Elm wood decays rapidly at ground level, so is not good for fencing, but when buried in the earth it has remarkable staying power. It was the traditional wood for coffins, and was used to make London's early underground water pipes — pipes still being dug up after 250 years (as stated in *What Wood Is That?* by Herbert Edlin, Viking Press, 1969).

Rope has been made from elm's inner bark fibers. The Iroquois used elm bark to make canoes. Looking at the rough outer bark surface, I found that hard to imagine until I came across a sheet of sloughed off tuliptree bark in the woods once. It was similarly rough on the outside but exposed an expanse of smooth, workable inner bark.



## Grass Bunch in Winter — and Spring
### Margaret Chatham

In the past, the Grass Bunch has only been active when there were grasses or sedges to be observed growing. This year the group decided to try to keep things going through the winter with herbarium work, mostly at Huntley Meadows. In January, we focused on Dichantheliums, the species once called Panic Grasses that include Deertongue (*Dichanthelium clandestinum*) but many more confusing species. After struggling on our own at Huntley, we took a field trip to the Smithsonian's herbarium, where we resolved some questions & discovered new ones, thanks to guidance from Smithsonian experts Robert Soreng and Paul Peterson, and the use of wonder-revealing microscopes. Shown below (left to right) are Margaret Chatham, David Gorsline, Jenny Meyer, Alan Ford, Karla Jamir, and Cheryl Roesel in a photo taken by Rod Simmons.

For February, we returned to Huntley's herbarium, to turn our attention to confusing early-blooming sedges and to play with new microscopes that display images on computer screens. The plan is to go back to the Smithsonian for a sedge-focused visit at some point, but more generally to get back into the field as the plants start to grow. Each species' time with an identifiable inflorescence can be so fleeting! If you have Thursday mornings open and would like to join Grass Bunch explorations, contact Jenny Meyer at meyerjen@gmail.com to get on the Grass Bunch mailing list.

## Spring Reads
### Margaret Chatham

Warming weather and emerging wildflowers: it's time to put down the books and get outside. But I for one still have a pile of unread books I've long intended to dig into, and there are still cold or rainy days, and dark evenings…

I highly recommend *Spring Wildflowers of the Northeast: a natural history* by Carol Gracie (Princeton University Press, 2012.) Carol Gracie explores thirty spring wildflowers in detail, from the origin of their names (including explanations of some flip-flopping genus assignments) to multiple clear photos to show, for example, how to tell Dutchman's Breeches (*Dicentra cucullaria*) leaves from those of Squirrel Corn (*D. canadensis*) when there are no flowers present, or the different phases of Spring Beauty (*Claytonia virginica*) flower development. Her home is well north of us, so a few of her subjects don't grow in northern Virginia (Blue-eyed Mary, *Collinsia verna*; Doll's Eyes, *Actaea pachypoda*; Fire Pink, *Silene virginica*; and Fringed Polygala, *Polygala paucifolia*), though these can be found elsewhere in our state. She also covers a couple of plants we wish we didn't have: Greater (**Chelidonium majus*) and Lesser Celandine (**Ranunculus ficaria* in her book, now **Ficaria verna*) but there's also value in knowing your enemies.

I haven't made it all the way through this book yet, but it's good to have it sitting close by for whenever I want to take a deep dive into everything Skunk Cabbage (*Symplocarpus foetidus*), explore a variety of violets, or learn the secrets of Virginia Bluebells (*Mertensia virginica*) shown below.

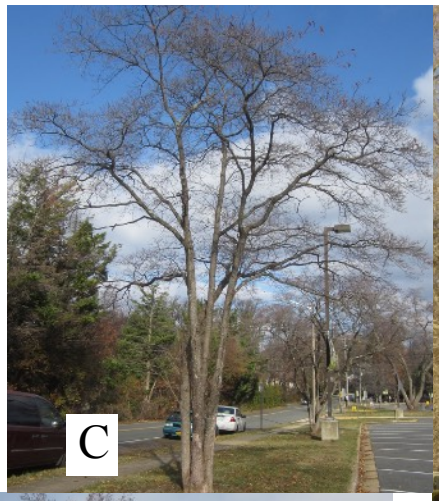
Another book I dip into from time to time is *The Rose's Kiss: A natural history of flowers* by Peter Bernhardt (Island Press, 1999.) Back when I was in junior high school, my class dissected frogs, and I learned that formaldehyde gave me headaches. In consequence, I avoided formaldehyde exposure, so never took the basic biology class that was the prerequisite for formal botany classes. This book fills a lot of the holes in my understanding of how flowers work with lovely diagrams and definitions. In addition to the flowers themselves, it covers pollination from the tricks orchids play on their pollinators to the chemistry of floral scents and the variety of insects and others that respond.

On the other hand, if you should happen to need a new nightmare to counter everything you already knew you should worry about, you could read *The Devil's Element: Phosphorus and a world out of balance* by Dan Egan (Norton, 2023.) This traces the history of how farmers have handled the need to maintain phosphorus availability for their crops from indigenous sustainable recycling to the modern practice of mining a limited resource, applying too much and letting it wash away to create increasingly toxic blooms in lakes and oceans.

# Tree Structures

This quiz seemed better in prospect than in execution: the structures are too big to show to advantage in a small space, and identifying details like the spur twigs of gingko disappear. Then there's the difficulty of finding trees that can be picked out from their surroundings. Photos by Margaret Chatham. Answers on page 6.

1 *Betula nigra*, River Birch
2 *Carya ovalis*, Red Hickory
3 *Cornus florida,* Flowering Dogwood
4 *Juglans nigra*, Black Walnut
5 *Liriodendron tulipifera,* Tuliptree
6 **Magnolia x soulangeana,* Saucer Magnolia
7 *Quercus phellos,* Willow Oak
8 *Salix nigra,* Black Willow



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## Word of the Month: Apetalous

Of flowers: having no petals. Shown here are female Red Maple (*Acer rubrum*) flowers, which some sources claim do have petals, but all I can see are the long, twisting pairs of styles and the stamens that are "present in form only" as Walter E. Rogers puts it in *Tree Flowers of Forest, Park and Street* (c 1935, Dover Reprint). Male flowers may be borne on separate branches of the same tree or on separate trees. Red Maple's bloom time is very temperature dependent. I took this photo on Feb.9, 2020. As I write this on Feb. 17, 2025, it looks likely the same tree will not bloom for another week this year. — Margaret Chatham

Answers to puzzle on page 5: 1-A (young trees); 2-H specimen tree really gets to spread its branches; 3-C it <u>can</u> survive as a street tree, no matter what people say; 4-G can you tell that the twigs are stout to hold compound leaves?; 5-F note interrupted arches where branch ends have fallen off; 6-D often planted, but doesn't reproduce, so not invasive; 7-E note finer twig texture than on larger-leaved oaks; 8-B drops so many twigs when the wind blows that it amazes me that it has any left.