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Newsletter of the Arkansas Native Plant Society

Volume 41, No 1 Spring 2021 BookTrees, Shrubs, and Woody Vines of ArkansasReviewby Jennifer Ogle, Theo Witsell, and Johnnie Gentry

Review by Virginia McDaniel

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On a cold and dreary January day an envelope arrived on my doorstep. From the weight of the small package, I thought it might be gold. Within short order, I found it was even better. Trees, Shrubs, and Woody Vines of Arkansas is a classy, comprehensive compilation of what is currently known on the physical characteristics, distribution, and habitat for all woody species in Arkansas. It contains 500 species descriptions, over 1500 color photos, updated county-level distribution maps, a visual key to the genera, dichotomous keys for the 32 largest genera (including oak, hickory and hawthorn), a full glossary with illustrations, and detailed sections on ecoregions and habitat descriptions as they relate to woody plants of Arkansas. This impressive



TREES SHRUBS AND WOODY VINESOF ARKANSAS



JENNIFER OGLE | THEO WITSELL | JOHNNIE GENTRY FOREWORD BY P. ALLEN SMITH

list, however, cannot fully explain the information contained between the covers of this book. It is a carefully crafted, meticulously researched book whose information has been filtered through the lens of the finest botanists in Arkansas. In reading it, you can gather within minutes what took decades of field observation, research, and synthesis to bring to the page. This book will prove invaluable for students starting their first tree collections and well-seasoned botanists alike.

(Continued from previous page)

The first things that strike you about the book are the photos and illustrations. Nearly all species have a photo of the leaves, flower and/or fruit, and the bark. If a plant has a diagnostic feature to distinguish it from another closely related species, such as the rhizome of lance-leaf greenbrier or the bud and leaf scar on black walnut vs. butternut, a picture is also provided. Compiling these useful photos was no small feat. The exquisite illustrations by the late Linda Ellis of acorns, hickory nuts, and glossary terms are phenomenal. Combining the written description with the illustrations of botanical terms, like different kinds of pith (solid vs. diaphragmed vs. chambered), will instill a clear understanding in your mind's eye. The visual key to the genera is a rather ingenious way to speed up the identification process and test your knowledge of most genera in Arkansas.

The written species descriptions are detailed and clearly well researched. They provide clearly marked categories: general, bark, twig, leaf, inflorescence, flower, and fruit. The demarcations quickly get you to the information you seek, rather than having to sift through lengthy species descriptions, while also being information-dense. Knowing the types of habitats that species inhabit – or do not inhabit – across their range is a useful tool for identification. The species habitat information in this book is the most concise and complete to date for Arkansas woody species. Additionally, the introductory sections provide a comprehensive and authoritative overview of habitat types and ecoregions found in Arkansas.

Notes provide little fascinating tidbits about each species including how to tell it from closely related species, food or medicinal value, host plant status, pollination strategy, or, in the case of extirpated species, information on its potential whereabouts to encourage someone to find it! For example, while sweetgum has a bad reputation, did you know it is the larval host plant for our two largest moths: the luna moth and the regal moth? Or that its resin was historically used for chewing gum? (I'm going to have to try that!) Or that the presence of alder outside a stream channel is a good indicator of ground water? Or how about that 1888 collection of American barberry found at the Smithsonian with the vaguest of locations (Ozark Mts.)? Are you ready to look for it? And don't overlook the Family and Genera introductory sections which also contain little nuggets of wisdom. You will learn about the beautifully intricate pollination strategy of the yucca and yucca moth whose lives are so intertwined one cannot survive without the other and so much more.

Two things that set this book apart from other Arkansas field guides is its complete coverage of all woody species, including groups that are questionably woody like yucca, prickly pears, and blackberries, and the inclusion of keys for genera (at least ones with over 4 species). While I have not had the pleasure of working through all the keys, in my perusal I noticed the authors use vegetative characters where possible which is a great relief. This makes groups that normally terrify me (i.e. hawthorns, hickories and blackberries) perhaps attainable. As summer leaves emerge I look forward to bringing this compact plant guide out to the woods and improving my keying skills.

The cover of Trees, Shrubs, and Woody Vines of Arkansas speaks volumes about its contents (the old adage does not apply). The photo of the bald cypress swamp with its shades of green and ancient trees harken back to a time before the crosscut saw, when these giants covered the deltas and backwater channels, and the call of the ivory billed woodpecker echoed through the forest. The roll of photos across the top provides a splash of color; while exhibiting the different forms woody plants take, from leaves to fruit to bark; and shout out to the rare, endemic, and just plain cool plants of Arkansas. We have the maple-leaf oak - the mountain endemic, nutmeg hickory – the flatwoods rare, and blue ash – the mesic forest square. The frosted hawthorn gives you pause; did they really? Yes, bring on the HAWS! They needed the trunk of a stately tree, Chinquapin oak filled the key. Stumping for the woody vines, they brought on Carolina jasmine. The subtle, powdery sweet, smell of the flowers is always a treat. A quintessentially southern plant brings an end to the rhyming rant. For the final smash we have the well-placed brilliant red berries of strawberry-bush on the book's spine to let us know hearts-a-bustin'-with-love for trees in here.

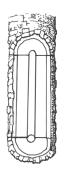
Ultimately Trees, Shrubs, and Woody Vines of Arkansas is a snapshot in time of what the experts currently know, as displayed by the bright, bold title. But behind it, in the black space, is the unknown, of which the authors are not afraid to admit. As much as this book will teach you, it is also a call-to-action for you to go out and find new records, make the county maps obsolete, and find that elusive American barberry located somewhere in the "Ozark Mts., Ark"!

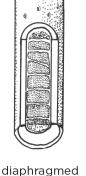
Excerpts from the book follow on pages 3-7.

44 | TREES, SHRUBS, AND WOODY VINES OF ARKANSAS

(*Callicarpa*), cherry, peach, and plum (*Prunus*), and coral-berry (*Symphoricarpos*), lenticels persist for many years on the trunks.

A **twig (Figure 26)** is the ultimate division of a branch, or the current year's growth. Many woody species can be correctly identified using only the twig; this is especially useful in winter, after the leaves have fallen and new buds have developed. The central section of tissue in a twig is called the **pith (Figure 27)**, and it may be of four differ-





solid

Fig. 27. Types of pith.

Modified Twig Structures

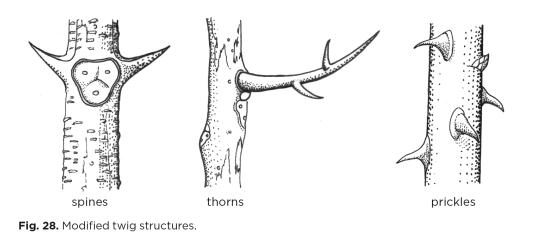
ent types: solid, diaphragmed, chambered, or hollow. **Solid pith** is the most common type on our native trees. **Diaphragmed pith** has cross-partitions with tissue in between the segments (example [ex.]—sweet-bay magnolia, *Magnolia virginiana*). **Chambered pith** has cross-partitions and lacks tissue between the segments (ex.—black walnut, *Juglans nigra*). **Hollow pith** lacks tissue in the central section of the twig.

Many woody plants are armed with different types of sharp protrusions to protect against predators **(Figure 28)**. **Spines** are stiff, sharp, modified leaves that may be single or in groups and occur where a leaf would normally be located (ex.—gooseberries, *Ribes* spp.), or may be paired where the stipules would normally be located (ex.—black locust, *Robinia pseudoacacia*). **Thorns** are stiff, sharp, modified branches that occur either above the leaf scar or at the end of a branch, and they can be very long and branched (ex.—honey locust, *Gleditsia triacanthos*). **Prickles** are outgrowths of the epidermis and can be located anywhere on a twig, stem, or leaf (ex.—devil's-walkingstick, *Aralia spinosa*).

chambered

BARK

The outermost layer of the stem or trunk of a gymnosperm or woody dicot is called



BURNING-BUSH, WINGED EUONYMUS *Euonymus alatus*

INVASIVE SPECIES



GENERAL: Multi-stemmed, flattopped shrub to 10 ft (3 m), branches erect to spreading. **BARK:** Gray to grayish brown, splitting with age, giving a striped appearance. **TWIG:** Green, 4-angled, with prominent corky wings on stem. **LEAF:** Deciduous;



opposite, simple; 2–7.5 cm long, 1–3 cm wide; shape elliptic or obovate; apex acute or acuminate, base cuneate; margin finely serrate; blade thin to somewhat leathery, upper surface dark green, lower surface paler; petiole 2 mm long; fall color

bright red to purple. **INFLORESCENCE:** Axillary, solitary or in clusters of 2–3 flowers. **FLOWER:** May–Jun; sepals 4; petals 4, greenish yellow. **FRUIT:** Aug–Oct; capsule 2- to 4-lobed, reddish brown, 6–8 mm long, aril bright red. **HABITAT:** Dry–mesic to mesic upland forests and woodlands, riparian forests, ravines, bluffs, disturbed areas.



NOTES: Burning-bush is a very popular ornamental shrub that was first collected in the wild in Arkansas in 2007 but has rapidly naturalized and become invasive in forest and woodland understories in some areas of the state (see p. 479), forming dense thickets and crowding out native vegetation.

STRAWBERRY-BUSH, HEARTS-A-BUSTIN'-WITH-LOVE *Euonymus americanus*

GENERAL: Multi-stemmed, erect to upright shrub to 6.5 ft (2 m), the branches widely spreading, the lower branches trailing and sometimes rooting at the nodes. **BARK:** Green to brownish gray, smooth, splitting with age. **TWIG:** Slender, green to brown or gray, 4-angled. **LEAF:** Deciduous; opposite, simple; 2–10 cm long, 1–4 cm wide; shape lanceolate, narrowly ovate, or elliptic (rarely slightly obovate on terminal pair of leaves on fertile branches); apex acute or



164 | BITTERSWEET FAMILY (CELASTRACEAE)





acuminate, base cuneate or rounded; margin finely and bluntly serrate; blade thin; upper surface glabrous, dark green; lower surface pubescent along veins; petiole 1 mm long; fall color dark red. INFLORESCENCE: Axillary, solitary or in clusters of 2-3 flowers. **FLOWER:** May-Jun; sepals 5; petals 5, greenish yellow to greenish purple. FRUIT: Sep-Oct; capsule 3- to 5-lobed, pink to red, the valves warty, 14-16 mm long, aril orange-red to scarlet. **HABITAT:** Bottomland, riparian, and mesic upland forests, stream banks, mesic bluffs, seeps, swamp margins. **NOTES:** The green



stems, showy fruit, and fall color have made strawberry-bush a popular choice in native landscaping, but it is highly susceptible to deer herbivory.

WAHOO, BURNING-BUSH Euonymus atropurpureus

GENERAL: Single-stemmed, erect shrub or small tree with spreading branches to 20 ft (6 m), rarely taller. BARK: Ashy gray, thin, developing minute scales with age. TWIG: Slen-



der, greenish, glabrous, somewhat 4-angled to round, occasionally with small, corky wings. LEAF: Deciduous; oppo-



site, simple; 4-14 cm long, 2-7 cm wide; shape elliptic or ovate; apex acuminate, base cuneate; margin finely serrate; blade thin; upper surface bright green, glabrous; lower surface pubescent along veins; petiole 10-20 mm long; fall color reddish purple to bright red. INFLORESCENCE: Axillary panicles of 6-24

276 | WALNUT FAMILY (JUGLANDACEAE)

dark brown; leaf scars with a line of thick, tan hairs along the upper margin. **LEAF:** Alternate, odd-pinnately compound; 40-60 cm long; rachis pubescent; petiole 3.5-12 cm long, with glandular hairs; leaflets 11-17, each 5-11 cm long, 3-6 cm wide; leaflet shape oblong-lanceolate to lanceolate; apex acute to acuminate, base rounded; margin finely serrate, with ciliate hairs; surfaces yellowish green, upper surface glabrous or nearly so, lower surface densely soft-pubes-



cent; leaflets sessile; fall color yellow. **FRUIT:** Aug-Oct; ellipsoid to ovoid, 4-8 cm long; husk semi-fleshy, greenish brown, sticky with glandular hairs; nut ellipsoid to ovoid, 3-6 cm long, deeply ridged; grouped in clusters of 2-5. **HABITAT:** Mesic hardwood forests, stream banks, bases of bluffs. **NOTES:** This species has declined in Arkansas in recent decades, the victim of butternut canker (*Sirococcus clavigignenti-juglandacearum*), an introduced fungal pathogen that produces black, sooty, elliptical wounds on the trunk, branches, and twigs, eventually killing the tree. Healthy trees are rare.



BLACK WALNUT Juglans nigra

GENERAL: Large tree to 110 ft (33.5 m), with a long, straight trunk and ascending branches, forming a rounded crown; shade intolerant. **BARK:** Dark brown to dark gray with deep, narrow furrows and thin ridges, forming a somewhat diamond-shaped pattern. **TWIG:** Stout, light to orangish brown; pith chambered, light brown; leaf scars lacking a line of hairs on the upper margin. **LEAF:** Alternate, odd-pinnately

(JUGLANDACEAE) WALNUT FAMILY | 277



compound; 30–60 cm long; rachis pubescent; petiole 6.5–14 cm long, with glandular hairs; leaflets 11–23, each 6–15 cm long, 2.5–5.5 cm wide; leaflet shape ovate-lanceolate; apex acute to acuminate, base



oblique; margin finely serrate, lacking ciliate hairs; upper surface yellowish green, glabrous or nearly so; lower surface pale green and pubescent; leaflets sessile; fall color yellow. **FRUIT:** Aug-Oct; globose, 4-8 cm wide; husk semi-fleshy, greenish brown; nut globose,

3-4 cm wide, with many irregular grooves; solitary or paired.

HABITAT: Dry to mesic upland forests, bottomland and riparian forests, stream banks, bluffs, pastures, old fields. **NOTES:** Black walnut trees are allelopathic, meaning they produce chemicals that harm many other plant species growing in proximity to them, which gives them a competitive advantage.

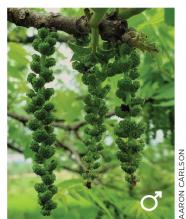
DAVID G. SMITH



ENNIFER OGLI







BRUCE A. SORRIE



CHARD & TERESA WARE

Restoration of an Illegal Dump-Site in Eastern Benton County

By Eric Fuselier

When my wife Angela and I were still dating, she was searching for an affordable piece of land in Northwest Arkansas to purchase and move to. One day I got a phone call from her. She was very excited, and told me that she had found a very affordable piece of property in eastern Benton County.

It was just under an acre, not far outside of the Town of Garfield. Not only that, but it was dirt cheap. It had been an illegal dumping ground for years, and was covered (and I mean covered!) with trash.



We did some research and found out that the previous owner of the property had passed away several years ago, and after the taxes on the property went unpaid for an unknown number of years, the land became property of the state of Arkansas. And after the state took custody of the property, some "anonymous donors" of the less-thoughtful variety began dumping their trash there.

There were bags upon bags of household trash, many of which had been torn apart by critters over the years, leaving loose trash strewn across the property.

There were aluminum cans; broken glass; an old, deteriorated mattress and bedsprings; plastic milk jugs that were so weathered and fragile that if you weren't careful when picking them up they would shatter into numerous plastic shards. tic tarps, busted television sets, PVC pipes, carpet rolls, two old rusted metal barrels, and large pieces of Styrofoam.

There was even an old mobile home that someone had gone through and stripped the wiring from walls, leaving the inside a complete mess.

Then there was the centerpiece of this dump: a partially demolished camper, half of it missing. *I've always wondered what happened to the other half of that camper.*



Aside from the trash, large sections of the property had been taken over by noxious and invasive species including tall fescue (*Schedonorus arund*inaceus), Japanese stiltgrass (*Microstegium vimineum*), hedge parsley (*Torilis arvensis*), sericea lespedeza (*Lespedeza cuneata*), and multiflora rose (*Rosa multiflora*).

Now I'll admit, at first I wondered if maybe my beloved partner had lost her mind. "Are you sure you want to buy this?" I remember asking her. But, eventually I came around to see her vision for what this piece of land could become.

Not long after she purchased the property from the State in late-2014 we started cleaning it up. Bit by bit, piece by piece, we picked up the trash. We kept what we thought we could reuse, and hauled away the unusable items to the proper disposal location.

Then, in early-2015, after we had cleared enough of the trash to make room for ourselves, we moved onto this dump site and lived in our travel trailers while we continued to clean up the remainder of the property.

After we had removed the majority of the trash we began replacing the invasive species with native plants.

There were old car tires, car batteries, car fenders, plas-

(Continued from previous page)

Now, replacing invasive species is a constant battle, although one that we have finally begun to get on top of.

Since moving onto the property we've added a variety of native wildflowers, including purple coneflower (*Echinacea purpurea*), Ohio spiderwort (*Tradescantia ohiensis*), spotted beebalm (*Monarda punctata*), wild bergamot (*Monarda fistulosa*), partridge pea (*Chamaecrista fasciculata*), firewheel (*Gaillardia pulchella*), Indian paintbrush (*Castilleja coccinea*), royal catchfly (*Silene regia*), black eyed Susan (*Rudbeckia hirta*), golden Alexander (*Zizia aurea*), celandine poppy (*Stylophorum diphyllum*), downy phlox (*Phlox pilosa*), golden currants (*Ribes aureum*), and New England aster (*Symphyotrichum novae-angliae*). And we've even planted an Ozark chinquapin tree (*Castanea ozarkensis*).



Coneflower (Echinacea purpurea)

In our wooded gulley we've planted bloodroot (Sanguinaria canadensis), dwarf crested iris (Iris cristata), and several pawpaw trees (Asimina triloba) that I hope the children get to enjoy when they're older.

Later, when the County paved our road in 2018, we worked out an agreement with the road department to let us plant the right-of-way with native species instead of the tall fescue they were planning to seed there.

Since that time we've planted Indiangrass (Sorghastrum nutans), big bluestem (Andropogon gerardi), common yarrow (Achillea millefolium), foxglove beardtongue (Penstemon digitalis), tall thistle (Cirsium altissimum), rock pinks (Phemeranthus calycinus), brown eyed Susans (Rudbeckia triloba), western ironweed (Vernonia baldwinii), butterfly milkweed (Asclepias tuberosa), narrow leaf mountain mint (Pycnanthemum tenuifolium), lanceleaf coreopsis (Coreopsis lanceolata), and plains

coreopsis (Coreopsis tinctoria).

Now I'll admit, I've had to run out of the house and across our rocky paths and driveway, with no shoes and no shirt on mind you, waving my hands frantically in the air to stop the county road mower from mowing down our right-of-way plantings. Such a wild display performed by this displaced Cajun may become a yearly affair if the mower in future years isn't the same nice gentleman who agreed to treat our roadside as a nomow zone. We shall see...



New England aster (Symphyotrichum novae-angliae)

Most of the species we've planted have come from the ANPS native plant auctions, from various native plant sales held here in Northwest Arkansas, and from locally collected seed. And since removing the trash and most



Royal catchfly (Silene regia)

(Continued from previous page)

<u>Right</u>: The stunning transformation from trash filled illegal dump site to native plant covered land with family home.

<u>Below</u>: Ohio spiderwort (Tradescantia ohiensis)





of the invasive species, we've begun to observe many other natives that were likely here before, waiting for their chance to return.

The species we've seen making their comeback include violet wood sorrel (*Oxalis violacea*), rosinweed (*Silphium integrifolium*), Virginia wild strawberries (*Fragaria virginiana*), pussytoes (*Antennaria parlinii*), wild lettuce (*Lactuca canadensis*), violet wood sorrel (*Oxalis violacea*), large bellwort (*Uvularia grandiflora*), tall goldenrod (*Solidago canadensis*), white heath aster (*Symphyotrichum pilosum*), mayapples (*Podophyllum peltatum*), rue anemone (*Anemonella thalictroides*), Indian hemp (*Apocynum cannabinum*), and false Solomon's seal (*Maianthemum racemosum*).

Now here we are, six years later, with our children growing up on this land that was once a dump. We enjoy the various species of butterflies, moths, birds, mammals, reptiles, and amphibians that make use of the habitat we've fostered.

And last Fall, our efforts were really rewarded when we noticed that our small piece of land was hosting a covey of **northern bobwhite quail**! We've spotted this covey of around a dozen or so several times as they moved about our yard and into the thick brush that we leave standing during the fall and winter, their presence on our property undoubtedly aided by the fact that we live near a national park where efforts are currently underway to restore habitat for bobwhite quail.

It's been quite an adventure, and I haven't even mentioned yet that throughout it all we had a baby and built an A-Frame house ourselves with help from close friends and family. Now our children, who many in ANPS have seen at the meetings, hikes, and retreats, get to grow up with the opportunity to learn the names of all of these wonderful native plants, along with the insects and wildlife they support. And if it weren't for my *now*-wife's vision, the land we live on may still be a dump.

I wonder how many other illegal dump-sites there are in Arkansas. Normally these properties are passed over by potential buyers. But let me tell you, with enough love and elbow grease, these places can become so much more than initially meets the eye. There's a healthy habitat waiting underneath all the trash, and with some thoughtful buyers these neglected and abused pieces of land will be able to breathe once again.

So, I want encourage you to consider taking on a similar project of your own. These properties are typically pretty affordable, and you should always do your research before taking on the potential liability that may come with purchasing them. But if you do, I believe that you will enjoy the deep satisfaction that comes from having your very own personal ecological restoration project. Plus, 10 you might see some quail.

Member Obituary—Frank Reuter

Frank Reuter loved to learn. He was a scholar of Old English, teaching others to appreciate the history of language and an editor of modern English, especially proud of helping prison inmates publish their work. Throughout his life he strove to maintain the German he'd learned from his parents, who left Germany in the 1930s as authoritarianism transformed their homeland. Later in life, he found great joy in reestablishing contact with relatives who had remained behind.

Yet human language was not the only system that fascinated him. Despite a birth in the Bronx and childhood in urban New Jersey, or perhaps because of this, he developed a deep and lifelong interest in the natural world. An early Jesuit education developed into a deep respect for science, which appealed to his Teutonic instincts for rational order, the same desire to figure things out that led his father to start a business based on an improved valve design. As one of his intellectual heroes, Richard Dawkins, wrote, "The feeling of awed wonder that science can give us is one of the highest experiences of which the human psyche is capable. It is a deep aesthetic passion to rank with the finest that music and poetry can deliver."

Music was a love that led to love, as when an invitation to dance in 1962 led to a marriage of 53 years that spanned states from Alaska to Arkansas. He and Mary finally settled on an Ozark homestead in 1977, where they worked together to put down roots in the soil and the community. Their gardens flourished, vibrant blueberry bushes being an especial source of pride, and their kitchen overflowed with the fruits of hard work. A dedicated birdwatcher, he quickly became involved in regional conservation and education efforts, earning recognition as a Conservation Communicator of the Year from the Arkansas Wildlife Federation. Teaching himself to play guitar, he appreciated the storytelling built into folk music, reflecting the narratives of his intellectual world from Anglo-Saxon poetry to scientific discovery.

He and Mary were true life partners, building a happy marriage on a foundation of shared interests and values. They raised two children in the Ozark countryside, passing along his intellectual rigor and work ethic to both. The guitar and storytelling continues on in his son, Andy, and the love of science and nature in his daughter, Joanna. The family traveled often on road trips throughout the region, while memorable trips abroad



included a visit to France with an adolescent Andy and time spent in Italy with college-age Joanna while studying abroad. Travel remains an important part of his children's lives.

Late in life, as his health began to fail, he and Mary made the difficult decision to leave their home and gardens of 43 years and moved north to central Missouri, nearer to family and care. As he quietly slipped away, peaceful at home, he was kept company by loved ones telling stories at his bedside. Near the end, as we read to him from his beloved Anglo-Saxon epic Beowulf, he may have heard lines spoken in part by the Danish Queen Wealhtheow (after whom he'd wanted to name a daughter):

> "You have fared in life so that far and near Forever and ever, you will be honored... Thus it is duly just That one praise his prince in poem and story And hold him in heart when he must head away Forth from flesh elsewhere."

Frank was preceded in death by his parents, Franz and Paula, and is survived by his sister, Rose; his wife, Mary; his son, Andy; grandson, Grant; his daughter, Joanna and her husband, Eric; and more relatives and friends than can be listed here. He was special to all of us and we are grateful for our time together.

THE 2021 SPRING MEETING WILL BE VIRTUAL!!!

The Arkansas Native Plant Society is excited to announce that our spring meeting will be virtual this year, taking place throughout the entire month of May!

Help us celebrate <u>Native Plant Month in Arkansas</u>! The Arkansas Native Plant Society is dedicating the month of May to be Native Plant Month this year in Arkansas!

Webinar Series!

Saturday, May 1, 1-2pm	<i>Benevolent Trees: Native Woody Plants in American Herbal Traditions</i> with Steven Foster
Saturday, May 8, 1-2pm	Mosses: the Original Tree Huggers with Karen Willard
Wednesday, May 12, 2-3pm	<i>Here Come the Invasivores! Foraging Invasive Species to Help Our Natives</i> with Bo Brown
Thursday, May 13, 1-2pm	Who's On Top: An Overview of the Known Associations that Plants and Fungi Form with Each Other with Jay Justice
Saturday, May 15, 2-3pm	The Love Life of Ferns with Eric Sundell
Saturday, May 22, 1-2pm	<i>Arkansas's Grasslands: Natural History and Conservation</i> with Theo Witsell

To register for one or more of these webinars, email Eric Fuselier at ANPS.President@gmail.com More information about the speakers and their topics can be found within the Claytonia.

Q&A Panel Discussion!

Ask the experts! Submit your questions in advance to ANPS.President@gmail.com, or ask them live!

Saturday, May 22, 3-4pmQ&A Panel Discussion with Theo Witsell, Jennifer Ogle,
and Eric Sundell

THE 2021 SPRING MEETING WILL BE VIRTUAL!!!

Silent Auction!

You'll have a chance to win:

Botany and native plant books, including a signed copy of the new *Trees, Shrubs, and Woody Vines of Arkansas*!
Native plants from Pine Ridge Gardens!
ANPS t-shirts and other merchandise!

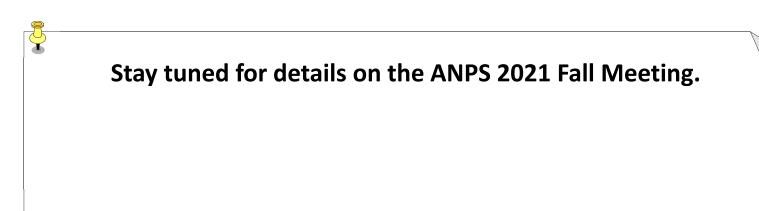
Native Plant Adventure Challenge!

Help raise money for the Arkansas Native Plant Society for each native plant you can identify during the month of May by participating in the *Native Plant Adventure Challenge*!

It's kind of like a "walk-a-thon", except for native plant enthusiasts! Email Eric Fuselier at ANPS.President@gmail.com for information about how to sign up and start gathering your sponsers!

For questions or more details on the virtual spring meeting, you can contact Eric Fuselier at ANPS.President@gmail.com

See you in May!



Additional information on speakers and topics for 2021 Virtual Spring Meeting.

Benevolent Trees: Native Woody Plants in American Herbal Traditions

with Steven Foster

Saturday, May 1st, 1-2pm

Join Steven Foster on a photographic journey beyond mere plant identification to explore the remarkable human experience in interacting with woody plants for material and medicinal use, as well other ways of looking at our ligneous flora in both American history and contemporary experience.

<u>About Steven</u>: For forty-seven years, Steven Foster, has been fascinated with woody plants as "herbs." A Charter Member of the Arkansas Native Plant Society, Steven is the author and photographer of nineteen books, including most recently the 2014 3rd ed. of the *Peterson Field Guide to Medicinal Plants and Herbs* (with James A. Duke; Houghton Mifflin Harcourt), and the National Geographic's *A Desk Reference to Nature's Medicine* (with Rebecca Johnson).



Mosses: The Original Tree Huggers with Karen Willard Saturday, May 8th, 1-2pm

Mosses were one of the first plants to adapt to life on land, evolving from an ancient group of green algae around 450 million years ago. These plants are small and lack true vascular tissue, yet they have been able to colonize every ecosystem except for the ocean, living where most other plant groups can't. In this program, Karen will explore some of the characteristics that make these plants unique, and will discuss their role in the biological community. The program will conclude with an overview of moss species common to Arkansas.

<u>About Karen:</u> Karen Willard is a contract botanist who has worked for various state agencies, non-profit organizations, and environmental consulting firms. She holds a master's degree in natural resources from the Ohio State University. Her main research interests include wetland ecology, and plant-insect interactions.



Additional information on speakers and topics for 2021 Virtual Spring Meeting.

Here Come the Invasivores! Foraging Invasive Species To Help Our Natives

with Bo Brown

Wednesday, May 12th, 2-3pm

Join Bo Brown, author of *Foraging the Ozarks*, to learn about some of the tasty nonnative and invasive plant species found in Arkansas. You'll learn about methods of preparation, recipes, ethical collection, and ways to prevent the spread of these ecologically harmful species.

<u>About Bo</u>: Bo Brown is a self-taught naturalist who has worked throughout the U.S. and Central America as an avian field biologist since 1985, including a nine-year posi-

tion as a naturalist with the Missouri Department of Conservation. He is founder and director of First Earth Wilderness School, and has led courses on foraging and nature education throughout the region for the last three decades. Bo's field guide *Foraging the Ozarks* was released by Falcon Guides in July 2020, and his current project *Foraging the Tallgrass Prairie* will be available in the summer of 2023.

Who's On Top? An Overview of the Known Associations Between Plants and Fungi

with Jay Justice

Thursday, May 13th, 1-2pm

In this presentation, Jay will examine various types of mycorrhizal relationships, as well as other types of fungal-plant associations, including lichens, endophytic fungi, and myco-heterotrophic plants.

<u>About Jay</u>: Jay Justice became enthralled with mushrooms and fungi while pursuing a graduate degree many years ago. In 1980, Jay joined the North American Mycological Association (NAMA), an organization in which he served as the Vice President for many years, and in 1982 he was instrumental in forming the Arkansas Mycological Society. Jay is currently one of the designated chief mycologists for the Missouri Mycological Society, and a scientific advisor for both the Cumberland Mycological Society as well as the Arkansas Mycological Society. Jay is a co-author of *Amanitas of North America*, which was published in June of 2020.





Additional information on speakers and topics for 2021 Virtual Spring Meeting.

The Love Life of Ferns with Eric Sundell Saturday, May 15th, 2-3pm

An ancient group of plants, ferns were a dominant presence in the fossils of the Coal Age, some 350 million years ago; and yet they still remain a prominent and competitive group among today's modern flora. But unlike almost all of the modern plants, ferns have no seeds and no flowers. Instead, their life cycle is characterized by spores as well as by two quite different kinds of plants: one that produces those spores (and looks like a fern) and the other, the prothallus, a kind of alter-ego that looks like an alga or maybe a moss, that produces sperm that swim about on the forest floor hunting for eggs. We'll take a look at the details of this bizarre and intriguing life cycle. We'll also have a quick tour of Arkansas's most common fernly beauties.



<u>About Eric</u>: An Arkansas resident since 1980, Eric taught botany for 26 years at the University of Arkansas-Monticello. Eric is the founder of UAM's Sundell Herbarium,

and was a charter member, and past president, of the Arkansas Native Plant Society. More recently, Eric edited the 8th Revised ('Color') Edition of Dwight Moore's *Trees of Arkansas*, published by the Arkansas Forestry Commission in 2014.

Arkansas's Grasslands: Natural History and Conservation

with Theo Witsell

Saturday, May 22nd, 1-2pm

While Arkansas is often thought of as a naturally forested landscape, several lines of evidence indicate that millions of acres of grasslands were present at the time of Euro-American settlement. These grasslands were scattered throughout the state and included tallgrass and blackland prairies, saline barrens, oak and pine savannas and woodlands, sand barrens, riverscour "prairies", big river sandbars, marshes, and a variety of open glade and rock outcrop communities. These grasslands were disproportionally biologically diverse when compared to more forested matrix communities, and supported many endemic, disjunct, or otherwise rare taxa. In general, these grasslands have also declined dramatically, with some types experiencing near total loss following 200+ years of Euro-American settlement. As such, protecting grassland remnants and restoring degraded or converted sites are high priorities. This presentation will provide an overview of



Arkansas' grassland types, highlight some of the characteristic and rare species that depend on them, and discuss their conservation, restoration, and management.

<u>About Theo</u>: Theo Witsell is Ecologist and Chief of Research for the Arkansas Natural Heritage Commission and the Curator of the ANHC Herbarium. He is co-author of *Trees, Shrubs, and Woody Vines of Arkansas,* co-editor of the *Atlas of the Vascular Plants of Arkansas,* and has authored or co-authored more than 30 scientific publications and book chapters. Theo is also the co-founder of, and Chief Ecologist for, the Southeastern Grasslands Initiative, and serves as a regional reviewer for the Flora of North America Project.







Clockwise from upper left:

Rue anempne (Thalictrum thalictroides), Wild hyacinth (Camassia species), Rose verbena (Glandularia Canadensis), Flax-leaved stiff-aster,(Ionactis linariifolia), Birdfoot violet (Viola pedata).

Photos by Eric Hunt.

Not everything has been bad during the pandemic!









<u>Clockwise from top left</u>: Prarie blazing star (Liatris pycnostachya), Compass plant (Silphium laciniatum), Meadow beauty (Rhexia mariana var. interior), Nodding lady's tresses (Spiranthes niklasii), Rose gentian (Sabatia angularis). Photos by Eric Hunt.





New Members (September 28 - March 14, 2021)

Baldwin, Anne (Little Rock, AR) Bancroft, Amanda (Fayetteville, AR) Barnum, Justin (Fayetteville, AR) Bell, Jackie and John (Little Rock, AR) Dobson, Carl (Rogers, AR) Eruren, Heather (Little Rock, AR) Eruren, John (Little Rock, AR) Evans, Nena (Fayetteville, AR) Gant, August (Hot Springs, AR) Garrison, Shona and Travis (Huntsville, AR) Hammer, Tim (Fayetteville, AR) Harpole, Jana (Searcy, AR) Kibby, Thomas (St. Louis, MO) Landers, Ruth (North Little Rock, AR) Lanza, Janet (Little Rock, AR) Loftis, Shannon (Cleveland, AR)

Ludwig, Nick (Lawrenceburg, IN) Makarick, Lynn (Batesville, AR) Mallory, John Jr. (Little Rock, AR) Matthews, James and Patrician Gail (Little Rock, AR) McClendon, Robin (Monticello, AR) McClure, Tom (Rogers, AR) Miller, Cay and Mark (Bella Vista, AR) Moore, John (Van Buren, AR) Singleton, Homer (Ashdown, AR) Smith, Connie Lee (Quitman, AR) Smith, Fawn C. (Fayetteville, AR) Smith, Karen (White Hall, AR) Thesing, Benjamin (Roland, AR) Thomas, Candice and Giusy Dusio (Little Rock, AR) Wilson, Christine (Conway, AR) Winfield, Lisa (BellaVista, AR)

New Lifetime Members

Browning, Art (North Little Rock, AR) Crews, Catherine (Russellville, AR) Euchner, Lisa (Decatur, TX) Luneau, David and Terri (North Little Rock, AR) O'Donnell, Debra (Eureka Springs, AR)

Remember to check out the full-color version of the Claytonia by going to the ANPS website, <u>http://anps.org/newsletters/.</u>

We need you for 2022!

Fall awaits just over the horizon, this means it's time for all of us to be thinking of new officers for ANPS, and here we're hoping that many members will be willing to take a turn and become an officer (or maybe a co-officer? - worked well for us).

Each Fall election we have a slot for the new incoming Vice President, and this year we have two additional positions for you to consider.

Our Editor, Betty Owen, has been at it for many years and thinks it's time for her to step down. She's also very willing to provide on the job training to teach her successor the ropes. Thank you, Betty, for lending your extraordinary editor skills to put out our twice a year Claytonia. And added to that is your participation in many group activities and meetings that helps to keep ANPS prospering and growing. It's most admirable that you've given us so many years, and we very gratefully thank you!

We need an Internet/Social Media Officer too, and Eric Hunt, our most apt Webmaster who would like to move aside has also stated his intent to help someone learn what he's doing, and he's also very willing to be an advisor for questions going forward. We heartily thank you, Eric, for not only taking care of our web page and the Facebook postings, but you've also been a Field Trip leader for many years and have done this with amazing enthusiasm. We're glad that you'll still be an active participant in various ways to continue to lead in varying capacities.

Whoever is the lucky new VP, you'll have Joe Ledvina to lead you along any time help is needed, so whatever Officer position you choose to hold, you've got help from all of us. Please, give it a go! And if you know of someone who'd be good in one of these three spots, you can nominate them so that they can be added to the slate of officers for the election at our Fall meeting. A nomination can be sent to either Susan Hardin or Becky Hardin, sister Co-chairs of the Nominating Committee.

For more specific information on requirements, please contact any of the officers and we'll be very pleased to get back to you to provide the answers you need.

We need you; give us just a few years and be an Officer - in the Arkansas Native Plant Society!

Sincerely,

Susan Hardin and Becky Hardin

2021 S	oring Treasur	er's Report				Proposed	
			Jan - N	Mar 8,	2021	2021	
			Start	→	\$24,753.00	Budget	
	2019	2020	2021 Actual				
	Actual	Actual	as of Mar 8				
INCOME							
Membership Dues	\$5,850.00	\$5,110.00	\$670.00			\$4,800.00	
Meeting Registration	\$1,500.00	\$0.00	\$0.00			\$600.00	
Plant/Silent Auction	\$2,550.00	\$0.00	\$0.00			\$1,800.00	
T-Shirt, Hat, Book Sales	\$1,051.50	\$0.00	\$0.00			\$600.00	
Fundraiser: Ozark Society Foundation	N/A	\$1,000.00	\$0.00			N/A	
Contributions	\$1,472.00	\$1,405.00	\$145.00			\$0.00	
TOTAL	\$12,423.50	\$7,515.00	\$815.00	→	\$815.00	\$7,800.00	
<u>EXPENDITURES</u>							
ANPS.Org (website expenses)	-\$99.00	-\$99.00	\$0.00			-\$111.80	
AR Flower & Garden	-\$75.00	\$0.00	\$0.00			\$0.00	
Claytonia (Print & Distribute 2 Issues)	-\$2,038.57	-\$1,887.00	\$0.00			-\$2,000.00	
Directory (Print and Distribute)	-\$1,058.52	-\$1,136.75	\$0.00			-\$1,150.00	
Memorial Awards (Awards/Scholarships)	-\$3,000.00	-\$4,000.00	\$0.00			-\$2,000.00	
Grants/Support to Public Gardens	-\$2,321.75	-\$652.06	-\$199.80	*		-\$1,000.00	
Meeting expenses (space, copies, speaker, etc.)	-\$922.93	\$0.00	\$0.00			-\$500.00	
Ecology Camp	-\$500.00	\$0.00	\$0.00			-\$500.00	
Fundraiser: Ozark Society Foundation	N/A	-\$1,000.00	\$0.00			N/A	
Bulk Mail	-\$225.00	-\$235.00	-\$245.00			-\$235.00	
Supplies/postage/miscellaneous (Brochures)	-\$11.34	-\$134.28	-\$5.67			-\$100.00	
T-shirts/Hats	\$0.00	\$0.00	\$0.00			-\$200.00	
TOTAL	-\$10,252.11	-\$9,144.09	-\$450.47	→	-\$450.47	-\$7,796.80	
		Total as of N	Mar 6, 2020	→	\$25,117.53		
*There are open grants to the City of Fayer				,500)			
Respectfully sul	omitted by Ka	te Lincourt, T	reasurer				



ANPS MEMBERSHIP FORM

www.anps.org

Membe	ership (Categories	Application Purpose
	\$ 10	Student	New Member
	\$ 15	Individual	Renewal
	\$ 20	Supporting	Address Change
	\$ 25	Family	
	\$ 30	Contributing	Opt out of receiving a paper
	\$150	Lifetime (age 55+)	copy of the <i>Claytonia</i> newsletter
	\$300	Lifetime (under age 55)	
Name _			
Addres	S		
City			State Zip
Phone		Email	

Please mail this completed form with a check made payable to the Arkansas Native Plant Society to:

Katherine Lincourt, Treasurer 2625 Charter Oak Drive Little Rock, Arkansas 72227

For other membership questions, please contact:

Virginia McDaniel, Membership Officer anps.membership@gmail.com (828) 545-2062

The Arkansas Native Plant Society is a non-profit organization.

Arkansa	President Eric Fuselier Eric.Fuselier@craftontull.com 501-231-7455		
Claytonia Spring 2019 Newsletter	President-Elect Nate Weston Nate@beaverwatershedalli ance.org 479-879-7489	Nominating Committee Chair Susan Harden (501) 584-8455 whizcats@sbcglobal.net Becky Hardin (501) 584-8545 rebeccabutch@aristotle.net	
Your dues status is on your mailing label. On the mailing label there will be a number, for example, "21", and this indicates that your dues are paid through 2021. (Life members will have an "LF" on their label). To renew your membership, please fill in the appli- cation for membership, changes of name, address, e-mail or telephone number and mail your dues to	Vice President Joe Ledvina joeledvina@gmail.com 702-281-4610 Secretary Margaret Lincourt margaret@usscanman.com (501) 786-3318	Memorial Awards Officer Jennifer Ogle ranunculus73@gmail.com (479) 957-6859 Publisher Mike Burns anps.membership@gmail.com (479) 229-2185	
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Little Rock, Arkansas 72227	Membership Officer Virginia McDaniel virginiamcd31@yahoo.com (828) 545-2062	Internet/Social Media Officer Eric Hunt anps.web@gmail.com	

President's Message Eric Fuselier

Make no mistake about it, 2020 was a rough year for many of us. I don't have to recall for you the events that took place, or the losses many of us suffered. In order to do our part to help slow the spread of the coronavirus, the ANPS board decided it was best to cancel all of our in-person events for 2020. So among the things we missed out on last year, our in-person meetings and guided hikes can be added to that list.

Quite frankly, I've missed all of you this past year. I missed seeing all of us together in one place, when in a normal year we would be sharing stories and laughter over plates of food at the potlucks. I missed our guided hikes, when in a normal year we would have learned so much about the native plants and their habitats found across our wonderful state. I missed having the opportunity to hear the interesting and educational presentations given by members and non-members alike. And I missed the auction, which for so many of us is such a fun way to help raise money for our organization.

But, let me assure you that 2021 will be different since this year we're planning to bring all of these events to you! This spring we will be holding our very first virtual meeting throughout the month of May. I'm so excited I feel like a jewelweed seed capsule ready to burst! This meeting will be chock full of virtual content for both your education and enjoyment. We have a great lineup of webinars given by experts from across the region, an online silent auction, and the *Native Plant Adventure Challenge* fundraiser that I hope you will participate in to help raise money for our organization. You will be able to participate in the virtual Spring meeting from the comfort and safety of your own home, with no travel necessary, no risk required.

Folks, 2021 will be a different kind of year for ANPS. Although I know that we all would much rather be together, sharing our love and passion for native plants in the same space, hopefully a virtual meeting will help get us all through this period of isolation, and closer to the light at the end of this dark, long tunnel.

Spring has sprung! I look forward to seeing you in May!

Membership, Virginia McDaniel 833 Bellaire Drive Hot Springs, AR 71901

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