



Wild Ones

NATIVE PLANTS, NATURAL LANDSCAPES

SPRING 2021 • *Journal* • VOL. 34, NO. 1



*A voice for the natural landscaping movement.
Working toward the next four decades of growing native plants
and restoring natural landscapes.*

President's Letter

By Sally Wencel

With spring, we have renewal. New shoots push up through the warming ground; trees bear the first blooms of the season, inviting pollinators to emerge from their winter hibernation. As Wild Ones, we enjoy these reminders that dormancy can be followed by a flush of new life.

I want to share with you that the Wild Ones Board, led by Executive Director Jen Ainsworth, have used these past months to plan and focus on ways to grow the organization, starting with Wildly Important Goals. One of the first goals is membership expansion, but also retention. (By the publication of this edition, we will have put more action items and measures of successful execution into place. Stay tuned!)

Instead of trying to describe what execution of these goals might look like, I'd like to go on a tangent to talk about how we can be better at creating an inviting milieu for people who want to help the environment, but do not know much about native plant gardening. This comes from my own experience at the chapter and local level – feedback I've gotten regarding our community outreach, including my own. Basically, the only word I can come up with to describe this admonishment is that we should be more tolerant. We should have tolerance of gardeners who always thought daylilies and daffodils are native plants, tolerance of gardeners who think holes in plant leaves mean you need to reach for insecticides.

Tolerance – from the Latin *tolerare*: to endure – refers to the *conditional acceptance* of or non-interference with beliefs, actions or practices that one considers to be wrong, but still “tolerable” such that they should not be prohibited or constrained. Usually, we think of tolerance as it applies to different religious practices. But recently, we realized the cost to society when some citizens do not tolerate the views of others (or facts), that can result in insurrection, war and strife. Tolerance is a starting point and the only alternative we have to perpetual conflict and strife. Tolerance does not mean adoption of those views or practices, however.

How does this apply to growing Wild Ones' membership? I suggest we reduce the initial potential conflict we may encounter with practices of people new to native plant gardening. That does not mean we accept their gardening framework, but rather persuade them through education and advocacy. It could mean refraining from disparaging vegetable gardens, daffodils or hostas when a gardener asks about them at a public meeting or tabling event. I know – I've been there.

It might mean engaging in partnerships with organizations that don't have a complete intersection with our mission, policies or beliefs. I think we should embrace the goals we have in common and advocate for native plants in implementation of mutual policies, projects and programs.

I believe that we can hold true to our native plant mission while bringing in new people and organizations in this way.

Enjoy spring!

Sally



Sally Wencel



NATIVE PLANTS, NATURAL LANDSCAPES

Promoting environmentally sound landscaping practices to preserve biodiversity through the preservation, restoration and establishment of native plant communities

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Established in 1977, Wild Ones is a national not-for-profit organization of members who teach the benefits of growing native plants and work together to grow and restore natural landscapes.

Wild Ones' definition of a native plant:

A native plant is a species that occurs naturally in a particular region, ecosystem and/or habitat and was present prior to European settlement.

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On the cover: Kim Smith's "Snowberry Clearwing Moth Feeding on Blue Vervain," took first place in the People's Choice Wild Ones photo contest. The photo was taken at Lake LaSuAn Wildlife Area in Pioneer, Ohio. Smith said she was walking on a trail around a small lake, looking for dragonflies, when she came upon this hummingbird moth in a patch of blue vervain. "These diurnal moths are much-sought-after photo subjects, so I felt I hit the jackpot when I managed to get a few photos of this one feeding on a native plant," she said. See more winning photos starting on Page 33.

This page: "Ready for Takeoff" by Jim Rogers was one of five photos that tied for sixth place in the People's Choice Awards. In his entry, he wrote, "I thought the title 'Ready For Takeoff' was appropriate as this picture was taken along the open field of our local airport."

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Wild Ones Journal
Online version: ISSN 2472-5900
Print version: ISSN 1551-9155



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"What are good native spring bulbs?" is a question that is often asked. But, why have a commitment to a particular root structure? While certainly there is a practical aspect to walking around the fall garden and plopping bulbs in the ground, what is the ultimate goal? Finding ephemeral plants, creating early spring interest, or maybe both?

If you are looking for a bulb with all the characteristics of a tulip, buy a tulip. But, if you're willing to broaden the search there are many native alternatives.

Virginia bluebells put on a stunning spring show as do shooting stars. For more compact spring ephemerals, trout lilies and squirrel corn are perfect for a shady spot with rich, organic soil. And, how about trilliums and bloodroot?

Moving away from ephemerals, Jacob's ladder and celandine poppies are showy, bloom very early in the season and will provide textural interest through fall. Don't be fooled by the small size of woodland stonecrop. It is a power house, with small, succulent evergreen leaves, it is adaptable and doubles as "green mulch". Its spring-blooming clusters of starry, white flowers are nothing short of dazzling.

There is a wonderful world of spring wildflowers available to us, if we are willing to look beyond the bulb.



To bulb or not to bulb?

Top: *Erythronium americanum*
(dogtooth violet)

Bottom: *Sedum ternatum*
(woodland stonecrop)



NEWS

ACROSS THE NATION

CALIFORNIA

After years of steady decline, only 2,000 monarch butterflies returned to California in 2020, a population decline of 99.99% from counts taken as recently as the 1980s.

According to the Press Democrat, the western population of monarchs has historically headed to California from as far away as Idaho and Washington state to concentrate in select, sheltered spots along the coastline. Safe from freezing temperatures and winter storms, the butterflies begin their northward trek once more in early spring.

In the 2020 annual Thanksgiving monarch butterfly count, none of the 12 historically active monarch overwintering sites in Sonoma County were occupied when volunteers checked them.

"Everyone's pretty heartbroken about the count," said Noelle Johnson, a conservation planner with Gold Ridge Resource Conservation District and program manager for its Sonoma Coast Monarch Overwintering Site Protection and Enhancement Project. She is one of a dedicated corps of local scientists, conservationists and volunteers working with the newly funded project to try and head off the butterfly's extinction.

In 2014, Xerces and other organizations first proposed to the U.S. Fish and Wildlife Service that monarchs be added to the list of threatened and endangered species. But on Dec. 15, after studying monarch populations for several years, the department decided not to change the listing, saying there were higher priorities. However, the USFWS said the monarch could be added to the list in the future.

COLORADO

A 61% majority of voters across Colorado and seven other western states are more worried than hopeful about nature, pointing to climate change impacts, and 57% plan to get outdoors more often when the COVID-19 pandemic abates, a new opinion poll has found.

The Denver Post reported that uncontrollable wildfires, loss of pollinators, and low water in rivers ranked among top concerns, according to the results unveiled in February from the Colorado College State of the Rockies



A monarch nectars on Joe-pye weed. The population of western monarchs has declined more than 99% from counts in the 1980s, and despite this, the U.S. Fish and Wildlife Service decided not to include monarchs on the threatened and endangered species list.

Project poll.

The poll also found strong support for protecting nature — 85% favor restoring Clean Water Act coverage for smaller streams and wetlands and 93% support requiring oil and gas companies to pay all costs of cleanup and land restoration.

MINNESOTA

The Minnesota Department of Natural Resources recently unveiled its latest critical habitat license plate for vehicles, with the new design emblazoned with pollinators.

The pollinator plates were originally proposed in 2017. But the same state computer system malfunctions that caused Minnesota driver's license backups also delayed the new license plates, according to the Grand Forks Herald, since the \$73 million failed computer system couldn't produce the new, six-number plates.

The winning license plate design by artist Timothy Turenne depicts the state butterfly — the monarch — and the rusty patched bumblebee, recently designated as the state bee.

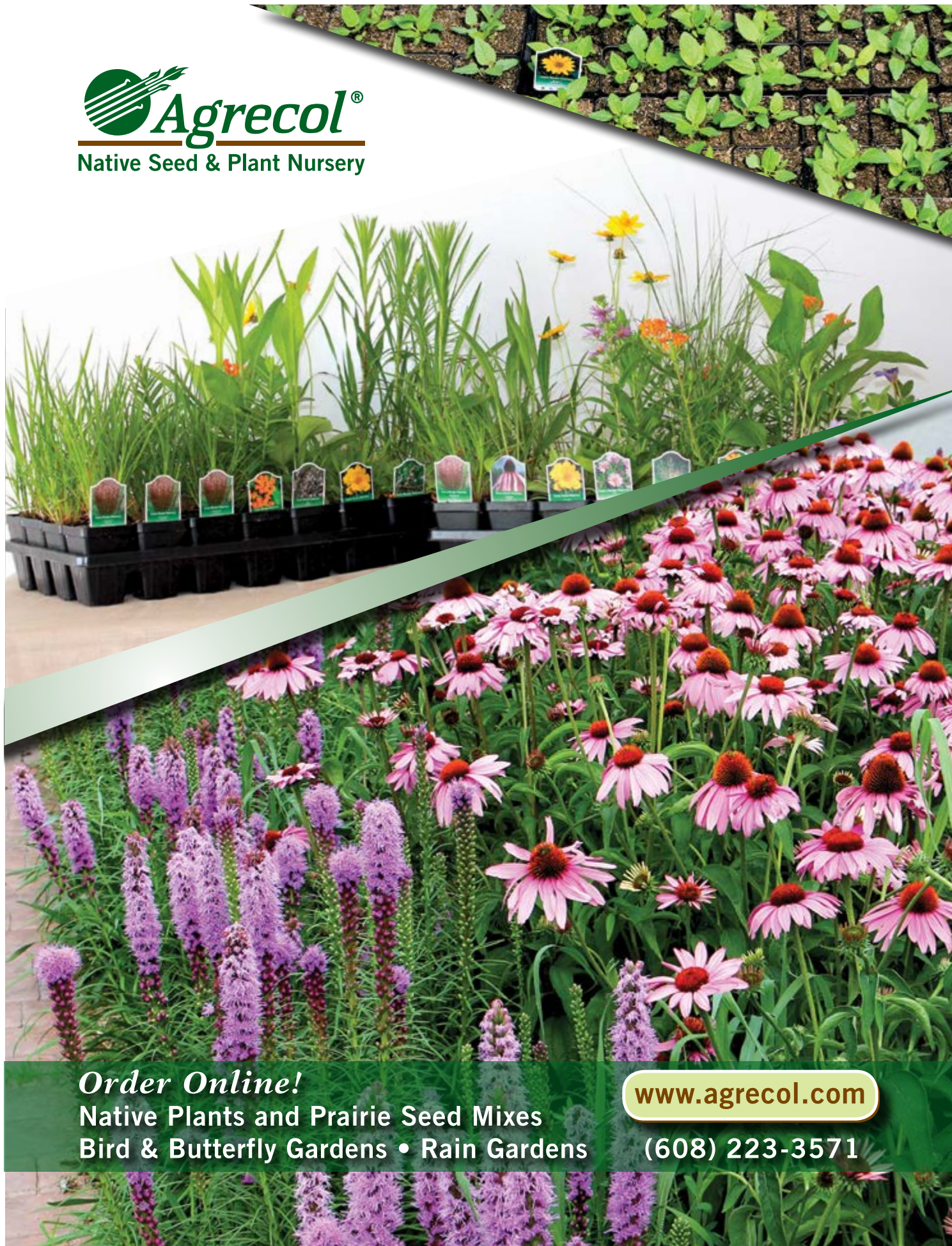
PENNSYLVANIA

The decline of wood turtle populations in Pennsylvania and a dozen other northeastern states led to a 2020-21 federal grant of nearly \$1 million for habitat work, battling against the illegal pet trade in the species and other conservation actions.

According to Penn Live, the once abundant wood turtle has declined over the past century due to habitat fragmentation, dam construction, illegal collection and climate change.

The grant is the latest push in a decade-long effort to conserve the wood turtle, which is a State Wildlife Action Plan priority species in Pennsylvania.

Surveys in Pennsylvania indicated that while the wood turtle appears to be widespread across the state many populations exist at very low numbers and could be declining. Kathy Gipe, nongame biologist with the Pennsylvania Fish and Boat Commission, said the species "needs continued attention even though it is considered somewhat common in parts of the state."

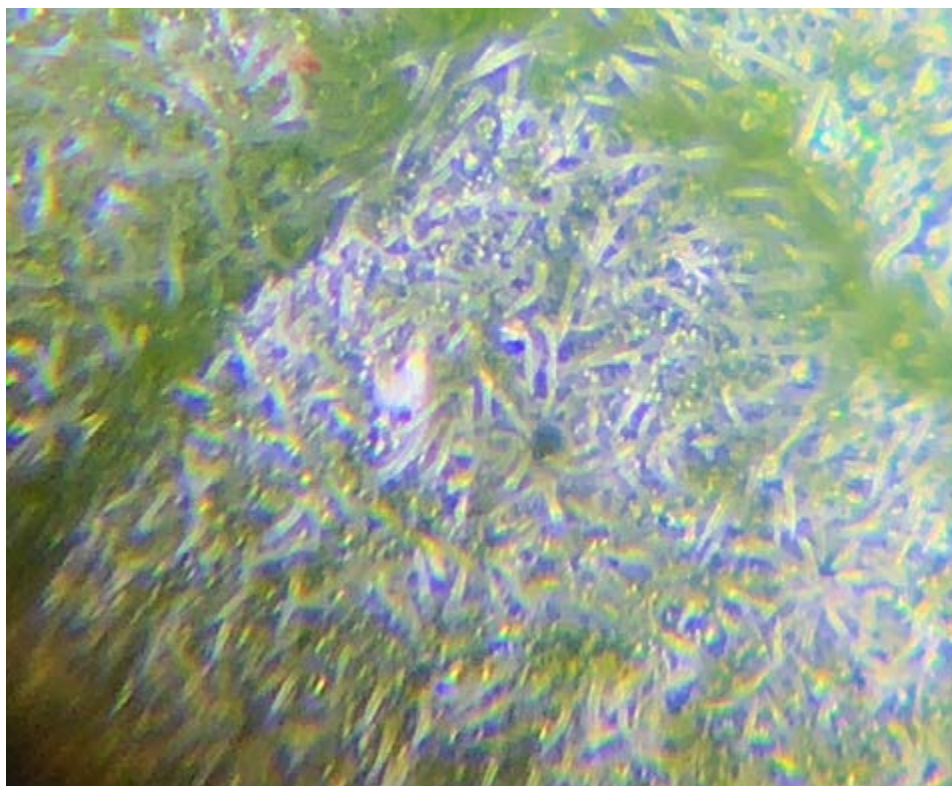


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Left: The leaf back of the native *Agastache*. Small, fine hairs are visible, giving it a whiter appearance. Below: The leaf back of nonnative *A. rugosa*, which has fewer fine hairs, more visible areoles and small indentations.

Attack Agastache!



By Jean Weedman

In late July 2020, I found out that my *Agastache foeniculum* — sometimes called lavender or blue or anise hyssop — was not the Wisconsin native plant I thought it was. It is Korean mint, *Agastache rugosa*, a look-alike that is used by herbalists.

Though both plants draw in bees and some butterflies, the Korean mint is a very aggressive re-seeder. I have seen this happen in the gardens near my house. The Korean mint bullies smaller plants and claims the territory for its offspring. Luckily, I did not plant this in my prairies.

Korean mint looks like native hyssop and pollinators love it. So, what's the problem?

"We have tons of ecologically invasive species that pollinators nonetheless like," said Dan Carter, Wild Ones member and landowner

“Clearly, I think eradicating it would be the prudent and responsible thing to do.” — Dan Carter

services coordinator for [The Prairie Enthusiasts](#). “To make things worse, Korean anise hyssop hybridizes with native anise hyssop, so Korean anise hyssop’s presence on the landscape actually threatens the continued existence of the native species, just as oriental bittersweet threatens American bittersweet and white mulberry threatens red mulberry,” he added.

Apparently, this problem has existed for some time in the landscape and nursery growers industry.

“It appears that the confusion between *Agastache foeniculum* and *Agastache rugosa* is not an isolated one and is throughout the nursery trade,” said Prairie Nursery’s [Neil Diboll](#), a Wild Ones lifetime honor-ary director.

How long were the nonnative plants sold before growers became aware of the problem?

Diboll said they became aware of this issue in 2018 due to the story, “[Three Problem Species](#),” from the Big River Big Woods (Minnesota) chapter of Wild Ones.

[Prairie Moon Nursery](#) stopped their sales around 2017, according to Bill Carter, president and part owner of Prairie Moon. “We definitely have the right seed now.”

Carter added, “All of the native plant and seed producers that I know of in the Upper Midwest are now fully aware of the past problem.”

Diboll said: “We have been trying to make sure that we are selling the correct species, because we do not produce our own seed for this species, as we do not have any plants occurring in our region to collect from. So we have wrestled with this issue and have tried to make

sure we are selling the true native species.”

[Agrecol Native Seed & Plant Nursery](#) has indicated that they now have a correct local seed source for their *Agastache foeniculum*.

Carter expressed what some plant purchasers may be feeling.

“People put their trust in the vendors of native plants and seeds, so at the very least they should be true to name, and it really calls into question how they source material, if they are distributing something that isn’t even the native species,” he said. “I ordered some anise hyssop five years ago from a nursery. I received two plants of the native species and one plant of the Korean species. I’ve been pulling the Korean species and hybrid ever since.”

Not surprisingly, some ecologists have stopped recommending the species because of this lack of confidence in the suppliers.

It seems the mistake has been corrected within the **native** plant nursery business. It is great that the problem is now known, but other growers are probably not as watchful.

“Exact species identification is not of great importance to some major generalist plant producers,” Carter said.

However, for those who ordered and planted what was sold as *A. foeniculum* prior to 2018 from native nurseries and is continuing to be sold in nonnative nurseries, we have work to do. This nonnative look-alike has to go!

Back in July, I just couldn’t believe my plants were the wrong species. I trusted the grower. I have tried to be diligent about the plants I buy. Even now, as I hunt websites, I am finding pictures of the Korean mint being incorrectly labelled as *Agastache foeniculum* and calling it the “native.” Many reputable sites are still misidentifying the species!

This [article](#) from the Big River Big Woods (Minnesota) chapter of Wild Ones convinced me after I got my microscope out so I could see the back of the leaves correctly. So become your own botanist and check your *Agastache* plants. You care enough to plant natives, so you will want to know if you have a bad look-alike hiding in with your native plants.

Carter concluded, “Clearly, I think eradicating it would be the prudent and responsible thing to do.”

Thanks, Dan! That is why my shovel is working now!

What to do

- If you have purchased lavender hyssop (*A. foeniculum*) prior to 2018, check the plants. They may not be true natives. Be aware that nonnative nurseries may still be mislabeling these plants.
- Because Korean mint (*Agastache rugosa*) is an aggressive seeder, cut and bag the flowers and dig out its roots.
- Don’t buy “natives” from big box stores. They may give a plant its native name when it is, in fact, a hybridized version.
- Don’t buy wildflower seed mixes from any source other than a native plant nursery. Many so-called wildflower mixes contain invasive and nonnative seeds.



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Member Garden

Gail Eichelberger
Middle Tennessee Chapter

All photos courtesy
Gail Eichelberger

Editor's Note: We'd like to feature native gardens, large or small, in upcoming issues. If you're interested in sharing your native garden, send four to six high-resolution photos, as well as a brief description, to barbara.a.benish@gmail.com or journal@wildones.org. Please include your contact information so we can get in touch with you.

For Gail Eichelberger, it's not about making mistakes. It's about learning from those mistakes.

In the beginning of her wildflower-pollinator journey, Eichelberger said she was like many other people. She would go to stores like Home Depot or buy plants from catalogs and think their plants were perfect for her climate and gardens. Most eventually ended up dying.

However, that changed after she visited her first native plant nursery and read the book, "Wildflowers of the Central South." Throughout the years, she has continued to learn as she reads books from authors like Wild Ones Honorary Director Doug

Tallamy, completed the Tennessee Naturalist training, and joined groups like the Tennessee Native Plant Society and Wild Ones.

Eichelberger said one of her biggest mistakes was not realizing that your soil and the amount of sunlight and rainfall make a difference in what will thrive or die in your yard.

"I didn't pay attention to the gardening conditions I was given," she said. "I planted some beautiful Tennessee 'Rocky Top' coneflowers, but they ended up looking like a downward facing dog laying down

Top: Flowering dogwood (*Cornus florida*) is just off Eichelberger's screened porch.

Member Garden

Gail Eichelberger
Middle Tennessee Chapter



because they weren't getting enough sun."

Eichelberger said people need to pay attention to what grows in their conditions and she suggests they visit nearby natural areas to get ideas.

Since her soil is shallow (some is only 2 inches deep) and clay and rock filled, she has added a lot of containers into her beds. "I've actually taken the bottom out of some of the planters and added soil," she said, giving the plants the additional soil they need to thrive.

"The shallow, nearly neutral clay soil can be as hard as concrete during our dry summers and wet and sticky during our rainy winters," she

Above: False indigo (*Baptisia*) seed pods ensure that the plant will spread each year. Right: A bee nectars on false indigo in the Eichelberger yard.

said. "I learned that Middle Tennessee had a unique microclimate, many interesting wildflowers that grew nowhere else, and that the rock in my garden is limestone bedrock overlain with thin soil. I finally understood that plants had to be rugged to survive in my garden and that planting native wildflowers made sense. After all, they had evolved and adapted to our wet winters and dry summers."

Besides knowing your yard and its conditions, Eichelberger also recommends those new to native

About the Yard

- Gail Eichelberger's home is situated on a 1-acre lot in Nashville, Tennessee, in what's called the Central Basin. With a front screened porch that she likes to sit in and enjoy nature, most of her gardens are located in the front yard, which is about one-third of the space.
- About 85% of her plants are native to Tennessee and of those, a majority are native to middle Tennessee.
- Since the early years of plopping plants wherever there were no rocks, the garden has grown to include paths and beds around and under her native canopy trees.
- She says her garden is especially beautiful in late summer/early fall when the *Symphoricarpos* bloom. "In November, the last asters bloom and it's a delight to watch the bees hard at work to provision their nests before winter arrives. I like whimsy and have two wonderful blue bottle trees that bring color to the garden when it's either very green (late spring) or very brown (winter). Her yard is frequently visited by lots of bees (bumblebees, green metallic, small and Eastern carpenter bees) and others she is working on to identify. Eichelberger also sees Swallowtail butterflies and hopes someday to have a zebra swallowtail visit the pawpaws she planted.
- Birds love her yard and she'll often see eastern bluebirds, Carolina chickadees, tufted titmouse, robins, blue jays, eastern towhee, woodpeckers (downy, hairy, red-bellied sapsuckers), goldfinches, Carolina wrens, juncos, owls, hawks and more.



gardening invest in a wildflower identification book for their state.

"I also advise them to be realistic about how much garden they can manage, especially as they are aging," she said. "When you are in your 40s and 50s and growing your garden, you also need to be thinking about ways to maintain it in your 60s and 70s," she said.

And for those who can't plant a garden, she encourages them to plant natives in pots. "You really can plant native plants in pots on your deck or balcony," she said.

Because the yard had no understory shrubbery when they moved here, she planted smooth hydrangea (*Hydrangea arborescens*), rusty blackhaw (*Viburnum rufidulum*),

golden St. John's wort (*Hypericum frondosum*), common spicebush (*Lindera benzoin*), beautyberry (*Callicarpa americana*), strawberry bush (*Euonymus americanus*), and rough-leaf dogwood (*Cornus drummondii*). Over the years, she planted even more understory shrubs — northern bush honeysuckle (*Diervilla lonicera*), common witch hazel (*Hamamelis virginica*), Ozark witch hazel (*Hamamelis vernalis*) and leatherwood (*Dirca palustris*) — and small trees that give the garden a bit more of a layered look.

Eichelberger also blogs about her gardening exploits in Clay and Limestone, named appropriately after the type of conditions she gardens in. Her most popular blog

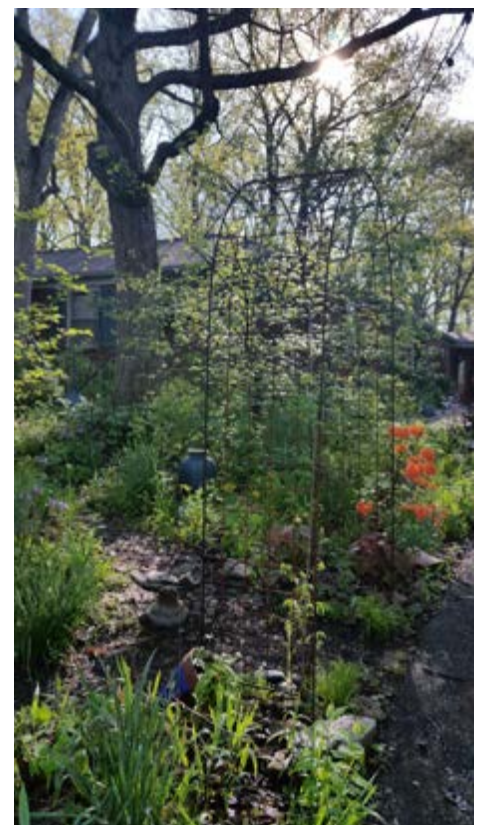
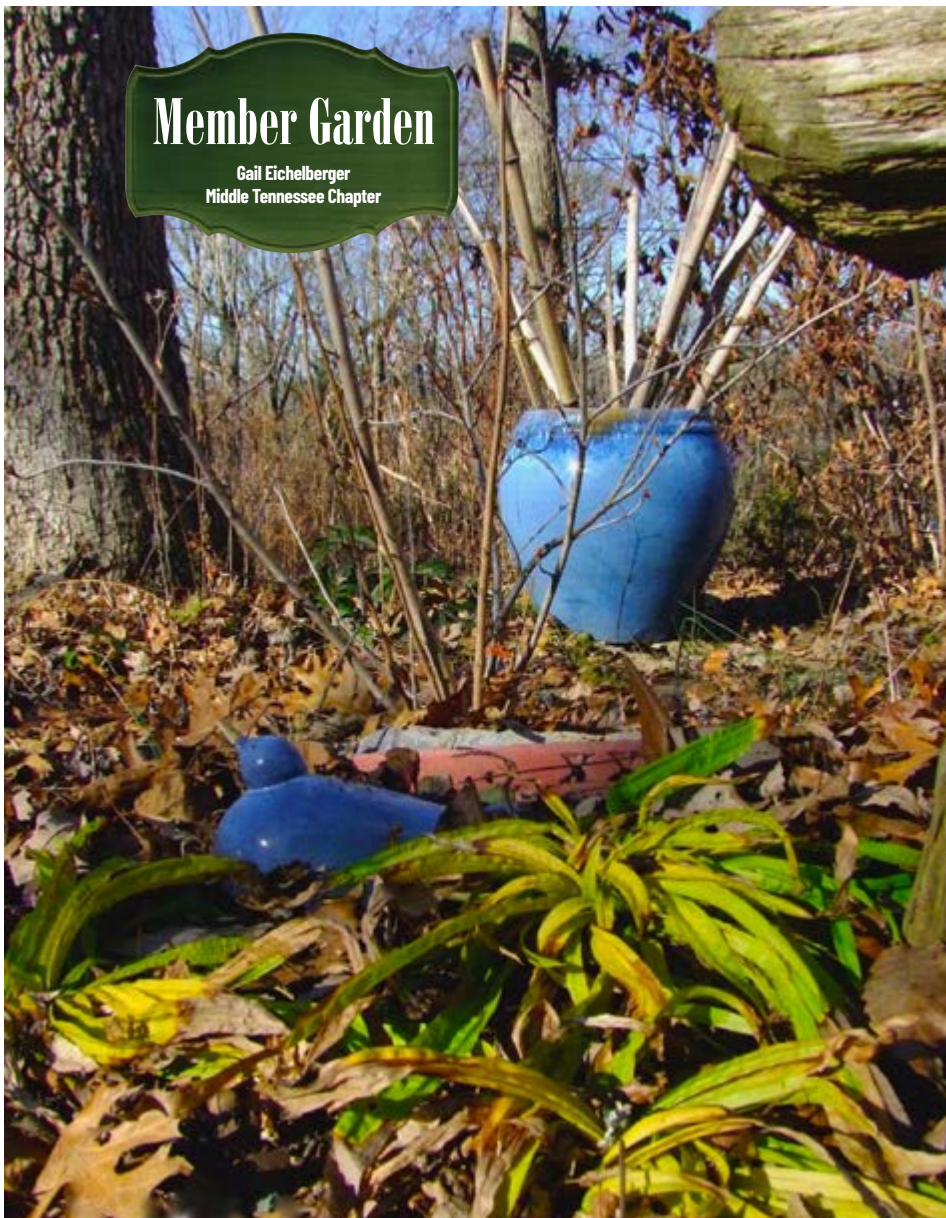
posts are "Wildflower Wednesdays," blog posts which describe the many native plants in her yard or ones she is planning to add there.

She said she doesn't have as much time to spend on her blog now that she is helping with childcare for her 4-year-old granddaughter, Ever Mae. But that doesn't mean that the two don't spend a lot of time in her gardens watching birds and hunting for insects. With Ever Mae's dad a conservation biologist and her grandmother's influence, there is little doubt that the young girl will grow into a natural plant lover, too.

Eichelberger said she planned to add more gardens last summer that she and Ever Mae could work on together. The pandemic and the inability to shop safely for native plants locally meant those projects were put on hold.

"Fortunately, we don't have a Home Owners Association setting

Left: Using containers for many native plants allows Gail Eichelberger to save a little wear and tear on her knees, but also allows her to add flowers wherever the soil is too shallow to plant. Below: A path leads visitors through the Eichelberger property.





Member Garden

Gail Eichelberger
Middle Tennessee Chapter



rules on what they think is a pretty yard," she said. "The garden makes me happy and my neighbor across the street says it makes her happy, too."

While certified wildlife habitat signs are clearly posted and visible to passersby, she hasn't converted many of her neighbors yet to native plants. But one neighbor walked over to admire some of her asters and she pointed out he had the same flowers on the side of his house. He liked them so much, he moved them all to the front. In addition, Eichelberger said she occasionally gets someone who stops by and says they love her garden.

"I'm thinking of adding a box to

the front that I can fill with brochures that vary with the season," she said. "For instance, why people should leave their garden standing in the winter."

Eichelberger said she has too many favorite plants to name them all.

"I adore the spring ephemerals, but Scorpion weed (*Phacelia bipinnatifida*) is by far one of my favorite early bloomers. It's a beautiful ground covering biennial that is a pollinator magnet in early spring."

Other favorites are phloxes and "rough and tumble" asters, which require little care. All are magnets for all kinds of insects, she said.

She said she tries to garden so

that something native is blooming all year long. "In Tennessee, a lot of people are springtime gardeners because it gets so hot in the summer," she said. "But I want something to be blooming at all times ... so birds, butterflies and bees continue to visit my yard..."

Above left: Eichelberger planted *Dirca palustris*, commonly called leatherwood, to help give a more layered look to her landscape. Top right: *Phacelia bipinnatifida*, commonly known as fernleaf phacelia, is a species of phacelia native to the southeastern U.S. Bottom right: Vernonia, known for its intense purple flowers, is a genus of about 350 species of forbs and shrubs in the family Asteraceae.

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Mt. Cuba Center: A legacy of native garden design



By Matthew Ross

A stately, colonial-revival style mansion with red brick pillars, framed by large eagle accents, is not the usual starting point you'd expect when starting a hike to botanize native flora. Beyond the initial formality of the landscape surrounding the former home of visionary couple, Mr. and Mrs. Lammot du Pont Copeland, is a series of native gardens that has impacted the native plant movement across the country for nearly 60 years.



All photos by Matthew Ross

It is hard not to fall in love with the sweeping groupings of native wildflowers in the spring, the sounds of bullfrogs echoing from a series of wetland gardens in the summer, or the striking autumnal transition of the towering canopy viewed from the meadow. Mt. Cuba has a transformative energy deeply rooted in the highly designed and immaculately maintained native gardens. While it is easy to be seduced into thinking that the landscape is entirely spontaneous or a remnant of the past, it is important to take into consideration

The ponds, which date back to the 1960s, are some of the most magical locations in the garden. The edges include a wide diversity of bog plantings including Pitcher plants (*Sarracenia*), Meadow beauty (*Rhexia*), and Swamp pinks (*Helonias*) beneath the towering canopy and floriferous shrub layer of native azaleas (*Rhododendron*) and flowering dogwoods (*Cornus florida*).

that the experience at Mt. Cuba was intentionally curated to highlight the plants of the Piedmont region. The garden has not always been a haven for native plants, as it was once home to a series of formal hedges and border plantings designed by famed landscape architects Thomas Sears and later Marian Coffin. The picturesque site lines and some of the historical plantings and garden

features remain and are a glimpse of the former landscape.

Throughout the mid-20th century the Copelands made a decisive plan to convert much of their estate to a naturalistic landscape with the hopes of inspiring future generations to see the beauty of native plants and ultimately become stewards of conservation. From the initial pools, ponds, wetlands and meadows to running a



leading native plant trial program in the garden, the Mt. Cuba Center has evolved into a mecca for native plant enthusiasts and professionals from across the East Coast. After the death of the garden's matriarche, Mrs. Lam-mot du Pont Copeland in 2001, the garden began the process of opening its doors to the broader community. Even though Mt. Cuba has only been accessible to the general public for a short time, several top designers, nursery professionals and ecologists have drawn inspiration from the gardens throughout its transition from a 126-acre estate to over 1,000 acres of gardens and natural areas today.

Native plant trials are one of the most impactful programs that Mt. Cuba operates as part of its contributions to research and development. The trial garden, which was once a cutting garden for the Copelands, is where gardeners and the public actively participate in determining the viability of merit of species and selections within a genus over a three-year period. Providing an evaluation of

The current plant trial includes cultivars and selections of *Hydrangea arborescens*. The team at Mt. Cuba is working with researchers to conduct pollinator counts in addition to gathering valuable data on flowering time and garden performance of these popular landscape plants.

a wide spectrum of selected genera from *Phlox* to *Echinacea* to *Hydrangea*, the evaluations of the selected species and cultivars show a side-by-side comparison of how the plants fare in a Mid-Atlantic garden setting. Several factors from survivability, length of bloom time, and their ability to attract pollinators are evaluated as part of the 20-year-old program.

Two of the ongoing trials — *Carex* and *Hydrangea* — have been captivating attention the past few years. Getting a chance to see the side-by-side comparison of a variety of *Carex* species aids in being able to differentiate them botanically and see how they perform in a garden setting. Additionally, getting a chance to see the selections and derivatives of *Hydrangea arborescens* not only provides insight into their performance in the landscape, but it also provides critical scientific research on the ecological

relevance of a wide range of cultivars and selections, while also providing the general public a gateway into native gardening.

From its origins as an ornamental garden through its transformation of seamlessly blending plants from throughout the Piedmont into a variety of ecosystems, there is an inspiring energy that runs through the rolling landscape at Mt. Cuba. Getting a chance to experience the historical gardens and the trails and continuous evolution of the native gardens is a treat for the native plant enthusiast. It is heartwarming to know that the Copeland's dream of having Mt. Cuba be a beacon for conservation is alive and well. I encourage you all to add visiting this garden to your botanical bucket list. The gardens are open from spring through fall. Make sure to check out their website for visitation details at <https://mtcubacenter.org/>



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Wildflowers for weary migrants:

Help make life easier for migrating butterflies and birds by cultivating fall-blooming plants that provide food and places to rest

By Janet Marinelli

After Labor Day, certainly by late September, most people in this country are ready to remove the “in the garden” sign from their front door and button up their flowerbeds for the season. Not so fast! Hummingbirds and a variety of butterflies fly south from their breeding grounds in northern latitudes until as late in the year as December. You can make life easier for these migrants by providing a place for them to rest and refuel with nectar from native wildflowers.

The epic journeys of 3-inch-long ruby-throated hummingbirds, which spend the summer as far north as eastern Canada and spend the winter as far south as Panama, begin in mid-July and can last until late November. Rufous hummingbirds, which nest as far north as Alaska — farther north than any other hummers — move south along the Pacific Coast to their Mexican wintering grounds. Black-chinned, broad-tailed, calliope, Costa’s and Allen’s hummingbirds fly from their breeding grounds in the Pacific Northwest and Rocky Mountains to warmer climates.

Meanwhile, the fall migration of the monarch butterfly also is underway. The northernmost members of the species in eastern North America leave Canada in late summer. The last stragglers don’t arrive at their overwintering sites in the Sierra Madre Mountains of Mexico until December. Monarchs in western North America travel from as far north as British Columbia to winter along the California coast. Among



the other butterflies that undertake migrations of various lengths are the painted lady, red admiral, common buckeye, long-tailed skipper, clouded skipper and cloudless sulfur. A few drifts of fall-blooming native wildflowers in your yard can help make migration a little less arduous for these lovely creatures on the move.

The best blossoms for fall migrants

Following are some of the most widely distributed and most frequently visited fall-blooming native wildflowers. Make sure that the plants you choose are native to the region where you live and that they are suitable for your property’s soil and other conditions.

Hummingbird flowers

Among the birds’ favorites in the East are cardinal flower, red beebalm and the native climbers trumpet creeper and coral honeysuckle. In the West, hummers are attracted to scarlet gilia, California fuchsia and late-flowering penstemons.

Butterfly flowers

- Asters: Different varieties of these

Trumpet creeper is a favorite of hummingbirds, and helps fuel the bird on its fall migration. Photo by Mike Matthews

late-blooming wildflowers are found in all 50 states.

- Goldenrods: Easily identified by their bright golden inflorescences with dense masses of tiny flowers, goldenrods light up the wild autumn landscape in every state. Contrary to popular belief, they don’t cause hay fever—ragweed is the culprit.

- Sunflowers: These wild relatives of the cultivated plants grow throughout much of the lower 48 states. Among the last to bloom are swamp sunflower, common sunflower, Maximilian sunflower and Jerusalem artichoke.

- Blazing stars: These wildflowers are found from the eastern seaboard through the Rockies. Prairie blazing star, dotted blazing star and pinkscale blazing star are among late-flowering varieties.

New York writer Janet Marinelli’s most recent book is *“The Climate Conscious Gardener.”* To learn more, visit <http://www.janetmarinelli.com>.

HDs predict what 2021 will hold for native landscaping

Wild One's four Honorary Directors said they don't have crystal balls and can't say for sure what 2021 will bring regarding natural landscaping. But they're hopeful the new year will be a good one for the native plant movement.

Neil Diboll, a lifetime honorary director, said he is loath to make single year prognostications, and instead views 2021 as just one year in a pantheon of decades of past, present and future ecological and economic trends.

"We saw an unprecedented single year jump in interest in gardening and landscaping in 2020 due to people staying home and pursuing home improvement projects during the COVID-19 pandemic," he said. Diboll predicts as vaccines become more available in 2021, and COVID-19 cases and deaths decline, that people will begin venturing out more. "The focus on the home environment would therefore be expected to gradually wane, compared to 2020," he said.

Still, Diboll predicts that the interest in native plants and ecological gardening will continue to grow as a percentage of the total green market.

"When I went into business in 1982, I literally could not give my plants and seeds away," he said. "Hardly anyone knew what they were, while others were not the least bit interested in growing my 'weeds.'"

Through time, people have begun to realize that the use of native plants in our landscapes makes sense — ecologically, economically, ergonomically and emotionally — in terms of connecting with our natural heritage and the wildlife that depend on them.

"This trend has been gradual,



Neil Diboll

but inexorable," Diboll said. "The benefits of native landscapes are becoming better known through the efforts of numerous organizations, researchers, authors, and average gardeners, who serve as examples for their neighbors to see."

Thus, Diboll said he believes the adoption of native plants in our landscapes will continue its gradual upward trajectory "as more people learn the joys and benefits of these wonderful garden and landscape companions. The vision that Lorrie Otto had nearly 50 years ago at the informal dawn of the Wild Ones Natural Landscapers is now coming to fruition, in large part due to her efforts and those of her fellow Wild Ones."

If any good might come from the pandemic it would be the slowing of our modern lives, and a reconnection and appreciation of the natural world, he said.

"Hopefully that will lead to a greater reverence for all the other life forms with whom we share this wonderful world," Diboll said. "As more people come to the realization that we have only one habitable planet, and that environmental



Heather Holm

quality and ecological diversity have tangible, quantifiable value, native plants and the habitat they provide will become the landscape choices of the future."

Honorary Director Heather Holm agreed that it's hard to narrow it down to a 12-month prediction, but she does see some trends occurring.

First is the growing interest and awareness in soil health — particularly from the organic farming/regenerative agriculture community — and relating this to native landscapes and soil health.

"For example, preliminary research demonstrates that the soil microbiome is more diverse in remnant prairies than restored prairies," she said. "This results in more plant species diversity over time in remnants than restored prairies."

Many native plant gardening practices inherently foster healthy soils. These practices may include:

- planting deep-rooted, regionally appropriate native species that facilitate water infiltration and carbon sequestration in the soil
- eliminating the use pesticides or synthetic fertilizers

- minimizing soil disturbance (for example, no tilling), and
- building organic matter content in soil (if appropriate for the native plants/plant community we are trying to model in our home gardens).

Secondly, there is an increasing popularity of growing our own food or foraging for food, Holm said.

“Besides messaging on sustainable and ethical foraging practices, I think there is an opportunity to communicate the connection or partnership between growing food/vegetable garden/fruit-bearing shrubs or trees with native plantings,” Holm said. “Specifically, native plantings attract pollinators and beneficial insects that will provide critical ecosystem services such as pollination and pest population control of the food crops.”

Lastly, Holm said there is an opportunity to promote the adaptability, resiliency and ecosystem functionality of native plant communities, natural areas, undeveloped open spaces and individual native plant species, particularly in light of climate change. For example, municipalities and governmental agencies should develop a science-based list of the most adaptable and resilient native trees for their given areas when selecting trees for replanting in cities and suburbs.

“Find ways to communicate the importance of restoring and preserving ecologically significant native plant communities, demonstrating how they are part of the large fabric of green infrastructure, and how these natural areas/parks/open space can buffer climate change impacts,” Holm said. Equally important is the role of an individual’s native plant garden, which can capture and facilitate the infiltration of water on the property, support biodiversity and prove a gateway to appreciate nature, she said.

Doug Tallamy, a lifetime honorary director for Wild Ones, said he really can’t predict the future, but there are two things he hopes will happen in 2021.



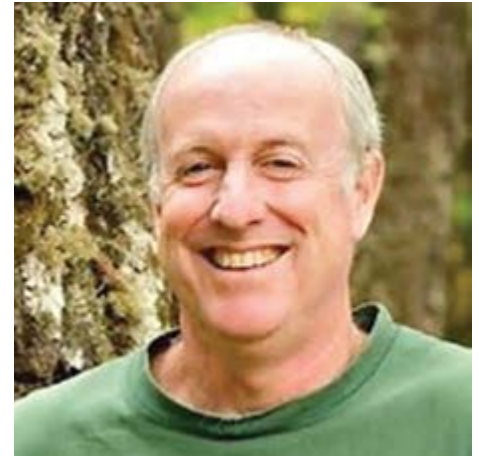
Donna VanBuecken

First, he said he hopes the Biden administration will begin the enormous task of reestablishing a check on any entity — business, governmental organization or individual — that puts temporary personal profit above minimal and essential earth stewardship. “Making rules for the greater long-term good is what central government is supposed to do and I am hopeful that the U.S. will get back to it,” Tallamy said.

Secondly, Tallamy said he hopes that momentum continues to build among all landowners of the need to improve the ecological integrity of the landscapes they own. “Conservation of the species that run the ecosystems will ... succeed only if we have largescale participation by private landowners,” he said. “I hope we ... convince more people that conservation is not just for tree huggers. It is a central responsibility for everybody!”

Honorary Director Donna VanBuecken said she isn’t good at making predictions, but she, too, has hopes for 2021.

Foremost, she hopes President Biden will overturn the ecological damage the Trump administration began. On Biden’s first day in office, his administration already announced a temporary moratorium on oil and gas leasing in Alaska’s Arctic National Wildlife Refuge after the Trump administration issued leases in a part of a refuge considered sacred by the indigenous Gwich’in. In addition, the Biden administration



Doug Tallamy

announced the U.S. would be rejoining the Paris Climate Accord and directing federal agencies to consider revising vehicle fuel economy and fuel emission standards.

Biden also said on day one that his administration will review the Trump administration’s downsizing of two national monuments, the Grand Staircase-Escalante and Bears Ears National Monuments in southern Utah. The cuts made by Trump paved the way for potential coal mining and oil and gas drilling on lands that used to be off limits.

VanBuecken said she thinks that interest in native landscaping may plateau when the pandemic finally ends. Some people will continue gardening, but for a lot of people, it’s going to be “busy, busy, busy” once life is back to normal, she said.

She is also optimistic that home offices will continue to be more common after the pandemic’s end, and said that will be good for natural landscaping as more workers have time to enjoy — or at least see — their landscapes teeming with pollinators and birds thanks to the use of native plants.

She also has trust in the younger generation to “keep the fire burning,” and believes they are more interested in ecological landscaping, including the reduction of insecticide use and an increase in ecological farming that will prevent soil erosion, sequester carbon and retain and infiltrate water thanks to strip cropping, terrace cultivation and more.

CHAPTER ANNIVERSARIES

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Fox Valley Area, Wisconsin	27 years
Lake-to-Prairie, Illinois	25 years
Kalamazoo Area, Michigan	22 years
Mid-Missouri, Missouri	21 years
St. Croix Oak Savanna, Minnesota	18 years
Northern Kane County, Illinois	12 years
Illinois Prairie, Illinois	11 years
Northern Oakland, Michigan	11 years
Prairie Edge, Minnesota	7 years
Big River Big Woods, Minnesota	6 years

IN MEMORIAM

Jerry Gunderson, Madison (Wisconsin) Chapter

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National Plant A Flower Day

Make it a native!

March 14

National Learn about Butterflies Day

You probably already know about monarchs, but with over 20,000 types of butterflies worldwide, it's likely that there are a few species you could learn about.

APRIL

National Garden Month

April 1

National Walking Day

Enjoy the outdoors whether in your own garden, or at a local park or conservancy.

April 7

Meet the Designers

Meet Wild Ones' Native Garden Designers (Susie Van de Riet, St. Louis, and Carmen Simonet, Minneapolis). 6-7 p.m. CST Virtual.

<https://www.eventbrite.com/e/144068630151>

April 22

Earth Day

It's a great time to protect lakes and streams by planning (and planting) a rain garden!

April 26

National Audubon Day

This day is definitely for the birds.

April 30

Arbor Day

MAY

Lyme Disease Awareness Month

National Photography Month

See this issue for the top 10 most voted for photos for the People's Choice Award from the 2020 Photo Contest.

American Wetlands Month

<http://www.nwrc.usgs.gov/topics/>

May 1

National Start Seeing Monarchs Day

May 2-8

National Wildflower Week

Lady Bird Johnson Wildflower Center

May 3

National Garden Meditation Day

May 16

National Love a Tree Day

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Hell strip plantings:

Creating habitat in the space between the sidewalk and the curb

By Heather McCargo

Urban environments are dominated by pavement, the bane of most living things. One area ripe for community greening is the *hell strip*, the narrow space between the sidewalk and the street curb. Sometimes planted in grass, filled with weeds, mulch or simply bare trampled earth, this public space could be planted with tough native plants. Let us reclaim this forgotten territory and create some native habitats that will cool ground temperatures, absorb and filter rainwater, support pollinators and bring a smile to the passersby!

It is important to remember that the hell strip is first and foremost public space, even if you own the property. Pedestrian foot traffic, trash, dog waste, piles of snow, road salt, automobile exhaust, compacted soil and parked bicycles are some of the daily risks that can impact plants growing in this environment. There are, however, native species that can tolerate much of this abuse. Depending on your situation, there are plants that thrive in sunny, dry and infertile

soils, wetland species that work in low spots flooded during a rainstorm, and woodland plants that thrive in shady spots that never see the sun.

So why bother with this area? For starters, we need to green this public space for our collective sanity and to share some space with our region's native species. These planted medians will bring wildlife habitats to towns and cityscapes, bringing your street one step closer to a less paved world. Furthermore, it is a terrific way that apartment dwellers and those without land can get involved in community planting. (For further reading on this topic, read our past blog posts on [creating corridors for native plants](#) and [growing native plants in pots](#)).

Read below to learn how to create a native planting at your curbside. Your actions just may open up new ways for you to connect with neighbors and inspire others to follow suit. Imagine our urban streets transformed to green corridors with extensive hell strips and pocket parks



along every route! ([Learn more about the Portland Pollinator Vision Plan](#)).

Step 1 - Check local ordinances

Many cities and towns across the country have changed their boulevard ordinances to encourage citizens to participate in the planting and care of these areas. Before you begin planting, however, you may need to contact your neighborhood association, city or town to see what restrictions there may be for planting. In general, the ground layer plants should be under two feet tall and street tree heights should take into account overhead wires. If there is any chance of underground wiring or other utilities, contact [Dig Safe](#) or your local digger's hotline

Step 2 – Assess sun and soil conditions Determine the light levels and soil conditions of your site. You will have to start digging to determine the soil characteristics – note if the soil is well drained (sandy or gravelly soil) or clay and heavily compacted. Soil compaction is the biggest problem in urban areas and

it can be remedied with a simple digging fork. Once planted, you can create a site that will overcome this urban ailment, as plant roots are key to maintaining healthy soil structure.

Step 3 – Design the space You may choose to plant species that are all herbaceous and/or include low shrubs, and perhaps even a street tree. If your hell strip is next to on-street parking, you should plan for a way for people to cut across. Stepping stones, cobblestones, or a narrow brick or gravel path will give people a way to get to the sidewalk without stepping on the plants. You could even include a bench to welcome passersby to stop and enjoy the space, but make sure it is firmly bolted to the ground. Some planting beds might benefit with edging such as bricks or untreated lumber.

A well designed hell strip planting deters foot traffic either with woody plants or low barriers. Small and dark wire wickets keep people and pets from stepping in the bed. Wickets range in price from inexpensive versions available at your local hardware store to professional quality available from landscape architecture suppliers. You can also make your own mini wattle fence out of small branches. If you are making a rain garden to capture and absorb storm water, you will want the planting area to be slightly lower than the pavement so that water from the sidewalk will drain into the planting bed. You may even want to make a sign that says “native habitat planting” or “NO MOW to support pollinators.”

Step 4 – Prepare the soil A digging fork is the most effective tool for repairing compacted soil. Soil is easiest to dig if it is moist, so water dry soil throughout the day before you plan to dig. Use your weight rather than your back to loosen the soil by stepping or jumping on the horizontal edges of the fork to pierce through the compacted earth. You are not trying to turn over the soil, just loosen and create airspaces

between the soil grains. Dig down at least a foot to loosen the soil. Once planted, the roots will help maintain a porous soil structure.

If you are planting under or around trees, you must be very careful with your digging and just pierce the soil with the fork, being careful not to destroy tree roots. Depending on the planting types, you may add in old leaves or composted hardwood bark mulch for plants that like woodland soils or organic matter in the soil.



Step 5 - Planting Below are planting combinations for various hell strip conditions. Do not be tempted to add nutrient rich compost to the soil. Most native plants do not have the high nutrient demands of our vegetables or highly bred ornamental plants. **Species with an asterisk (*) are easy to grow from seed.** These lists just represent a small sampling of the native plants that could be enlivening your hell strip. However, be sure to confirm that these plants are native in your area before you purchase them.

The sunny and dry hell strip The fastest and cheapest solution for a sunny dry site is to sprinkle black-eyed coneflower seeds (*Rudbeckia hirta*) * after you have prepared the soil. This is the rare native perennial that will bloom heavily the first year from seed.

For a **more diverse planting** that will bloom from spring to fall, the following perennials can be planted from small plugs or larger potted plants:

- Pearly everlasting (*Anaphalis margaritacea*)
- Butterfly milkweed (*Asclepias tuberosa*) *
- False indigo (*Baptisia australis*, *B. tinctoria*)
- Bellflower (*Campanula rotundifolia*) *
- Purple lovegrass (*Eragrostis spectabilis*)
- Flax-leaved bristly aster (*Ionactis linarifolia*) *
- Smooth blue aster, aromatic aster (*Symphoytrichum leave**, *S. oblongifolium*)
- Blazing star (*Liatris aspera*, *L. novae-angliae*, *L. spicata*)
- Sundial lupine (*Lupinus perennis*) *
- Spotted bee-balm (*Monarda punctata*) *
- Black-eyed coneflower (*Rudbeckia hirta*) *
- Little blue-stem grass (*Schizachyrium scoparium*) *
- Seaside goldenrod (*Solidago sempervirens*)
- Birdfoot violet (*Viola pedata*)

Prairie plants are very drought and heat-tolerant and the following are several species that grow well:

- Nodding wild onion (*Allium cernuum*) *
- Purple poppy mallow (*Callirhoe involucrata*)
- Purple prairie clover (*Dalea purpurea*)
- Coneflower (*Echinacea angustifolia*, *E. purpurea*, *E. tennesseensis*)
- Wild petunia (*Ruellia humilis*)

The following **ground cover species** are all less than 6 inches tall and

when planted together make a beautiful tapestry of foliage and blooms. Make sure you include stepping stones or clear paths as their low growth will invite people to step on them, which you do not want.

- Pasque flower (*Anemone patens*)
- Pussytoes (*Antennaria sp.*)
- Bearberry (*Arctostaphylos uva-ursi*)
- Wild strawberry (*Fragaria virginiana*) *
- Rock phlox (*Phlox subulata*)
- Three-toothed cinquefoil (*Sibbaldiopsis tridentata*)

A planting of **low growing shrubs** makes excellent year-round habitats for pollinators and birds. All of these shrubs can be cut back to the ground every year or two to keep them under two feet tall or if damaged by heavy snows and plowing:

- Dwarf shadbush (*Amelanchier spicata*)
- New Jersey tea (*Ceanothus americanus*) *
- Sweetfern (*Comptonia peregrine*)
- Bush honeysuckle (*Diervilla lonicera*)
- Bayberry (*Morella caroliniensis*) *
- Fragrant sumac (*Rhus aromatic*)
- Yellowroot (*Xanthorhiza simplicissima*)

The shady hell strip With shady sites, the key is to mimic woodland soils to create a healthy planting environment. Decayed leaves (called leaf mold) or well-aged hardwood bark mulch are ideal soil amendments and mulches after planting:

- Maidenhair fern (*Adiantum pedatum*) *
- Columbine (*Aquilegia canadensis*) *
- Wild ginger (*Asarum canadense*)
- Lady fern (*Athyrium angustum*) *
- Green and Gold (*Chrysogonum virginicum*)
- White wood aster (*Eurybia divaricata*) *
- Cranesbill geranium (*Geranium maculatum*) *

- Yellow avens (*Geum fragarioides*)
- Heuchera (*Heuchera americana*, *H. villosa*)
- Blue lobelia (*Lobelia siphilitica*) *
- Golden groundsel (*Packera aurea*) *
- Wood phlox (*Phlox divaricata*)
- Jacob's ladder (*Polemonium reptans*) *
- Woodland sedum (*Sedum ternatum*)
- Blue stem goldenrod (*Solidago caesia*) *
- Blue wood aster (*Symphotrichum cordifolius*) *
- New York fern (*Thelypteris noveboracensis*)
- Foam flower (*Tiarella cordifolia*)

The following species are aggressive growers and **make excellent ground cover**:

- Canada anemone (*Anemone canadensis*)
- Hayscented fern (*Dennstaedia punctiloba*)
- Large-leaved wood aster (*Eurybia macrophylla*) *
- Wild strawberry (*Fragaria virginiana*) *

Shrubs for shady hell strips:

- Bush honeysuckle (*Diervilla lonicera*)
- Shrub yellowroot (*Xanthorhiza simplicissima*)

Rain gardens A planting bed that is slightly below the grade of surrounding soil is very effective at capturing rainwater and filtering nutrients.

Loosen the soil and plant mulch with leaf mold or hardwood bark and watch these plants thrive in the fluctuating levels of moisture in the soil, from wet and saturated to dry during droughts. Note that taller growing species can be cut back in June for a shorter stature:

- Swamp milkweed (*Asclepias incarnata*) *
- Beggarticks (*Bidens cernua*)
- Tickseed (*Coreopsis verticillata*)
- Boneset (*Eupatorium perfoliatum*)

turm) *

- Joe-pye weed (*Eutrochium spp.*)
- Blue iris (*Iris virginiana*) *
- Blue lobelia (*Lobelia siphilitica*) *
- Panic switchgrass (*Panicum virgatum*) *
- New York and New England Aster (*Symphotrichum spp.*) *
- Vervain (*Verbena hastata*) *
- Golden alexander (*Zizia aurea*)

The following **rain garden shrubs** can be pruned back to the ground every few years to stay low:

- Aronia (*Aronia melanocarpa*)
- Winterberry (*Ilex verticillata*)
- Sweetgale (*Myrica gale*)
- Meadowsweet (*Spiraea alba*, *S. tomentosa*) *

Trees for hell strips The following trees are tolerant of the stress of roadside conditions:

Small trees for under utility wires:

- Shadbush (*Amerlanchier canadensis*, *A. laevis*)
- Redbud (*Cercis canadensis*)
- Hawthorne (*Crataegus spp.*)
- Beach plum (*Prunus maritima*)

Larger trees with big environmental benefits:

- Maple - red, silver (*Acer rubrum**, *A. saccharinum*) *
- Gray Birch (*Betula populifolia*)
- Ash (*Fraxinus americana*)
- Black tupelo (*Nyssa sylvatica*) *
- Pine (*Pinus rigida*)
- American sycamore (*Platanus occidentalis*)
- Black cherry (*Prunus serotina*)
- Elm (*Ulmus americana*)
- Oak (*Quercus coccinea*, *Q. macrocarpa*)

Heather McCargo is the founder and executive director of Wild Seed Project. This article was previously published in the Ecological Landscape Alliance e-newsletter and on the [Wild Seed Project](http://WildSeedProject.org) website. McCargo encourages people to send photos of hell strip plants in front of their home to info@wildseedproject.net or to post them on their [Facebook](https://www.facebook.com/wildseedproject) page.

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Demonstration garden beautifies area, teaches others about native plants

By Lisa Olsen

Residents of the North Capitol Hill neighborhood in Denver have noticed a lot of activity at the [Denver Turnverein](#). Founded in 1865, the Denver Turnverein is a member-supported nonprofit focused on the educational, social and physical benefits of dancing. Under normal circumstances, the building would be filled nightly with music and dancers. In the age of COVID-19, however, the Turnverein building is

quiet. But the Greenverein Garden on the north side of the property is teeming with life.

The Greenverein Garden was proposed by volunteers from [Up-town on the Hill](#), a community organization that connects residents and businesses and works toward improving the livability of the neighborhood. They saw an opportunity to beautify the neighborhood by transforming the asphalt-covered

strip at the corner of 16th and Clarkson streets to a low-maintenance landscape that would be enjoyed by residents and visitors. Late in 2018, in collaboration with the Denver Turnverein Board president, fundraising began in earnest. In Spring 2019, contractors removed the asphalt and three street trees were planted.

In June 2019, volunteers planted an assortment of low water shrubs, perennials and grasses, all tried

and true plants for Colorado gardens. Since the native soil is heavily compacted clay, volunteers used pickaxes to break up the ground. Christine Gust, a member of both the Turnverein and Wild Ones who is schooled in permaculture, volunteered on planting day, and thought that the garden could also be a welcome home to native plants that would be better suited to the garden's challenging conditions.

The Greenverein Garden is the epitome of a hell strip: sandwiched between an asphalt parking lot and a street, in full sun, with lifeless, compacted soil. The summer of 2019 was relentlessly hot; volunteers worked to keep the garden alive, hand watering the plants almost daily. Then, in August, a torrential downpour brought disaster: Clarkson and 16th swelled with stormwater, submerging the garden and washing away much of the soil.

In early September, Gust arranged a meeting between volunteers from the Denver Turnverein, Uptown on the Hill and the Wild Ones Front Range Chapter to discuss goals for the garden and potential steps forward. Wild Ones elected to invest time and resources into this project because of its public location, its grassroots support and its potential as a demonstration garden.

When outlining the goals of the garden, aesthetic appeal topped the list. The initial intent of the garden was to beautify the neighborhood: the garden needed to be pretty and offer year-round interest. In practical terms, the garden also had to be low cost, low maintenance and functional. Counseled by Wild Ones, adding native plants to the garden fulfilled all of the above criteria and boosted its ecological value. Selecting native plants that thrive under the chal-



Top: Volunteers pose after a Fall 2019 work day on the new neighborhood garden. Photo by Christine Gust. Middle: Despite COVID-19, volunteers came out with masks and social distanced while planting the Greenverein Garden.



A variegated fritillary on butterfly weed (*Asclepias tuberosa*) at the new Denver demonstration garden.

lenging conditions not only makes the garden more resilient, but it also makes it more inviting for native bees, butterflies, birds and other wildlife.

The biggest blessing and curse of the garden is water since the garden relies entirely on manual watering. Under these circumstances, rain would be welcome, but given the vast area of the Turnverein's roof and the adjacent impermeable parking lot, the potential volume of water sheeting across the garden and eroding the soil was great.

Altering the topography of the garden enhanced its potential to both capture rainwater and mitigate soil erosion. Check dams installed adjacent to the sidewalk and the street slowed the flow of water in and out of the garden, and a net-

work of trenches of varying depths filled with rock slowed and directed the flow of water through the garden, giving it time to infiltrate. With winter on the horizon, volunteers, organized by Gust as project manager, agreed to move forward with a redesign and planting of the western third of the garden, to test the design's feasibility, viability and appeal.

In late September, volunteers took up pickaxes and shovels and got to work digging trenches, building berms and "planting" urbanite, chunks of broken concrete that would serve as the primary hardscape element in the garden. Cement, the key ingredient of concrete, has a massive carbon footprint at 8% of the world's carbon dioxide (CO₂) emissions. But sourcing concrete locally compounded the garden's potential to sequester

carbon and help mitigate the effects of climate change.

Adding to the hardscape elements, volunteers collected free boulders, river rock, cobbles, pea gravel and weathered cottonwood stumps off Nextdoor and Craigslist. Others dug up plants that had survived the summer heat. Some were transplanted into the new berms and others were potted up and tended over the winter. With limited funds, a handful of shrubs and perennials were purchased at local nurseries and other native plants were donated by Wild Ones members, including Arthur Clifford, Jan Midgley and Betty Jo Page. Almost all of the plants planted in October 2019 survived the winter. By summer, plants like Colorado native blue flax (*Linum lewisii*), dwarf rabbitbrush (*Chrysothamnus nauseosus* var. *nauseosus*), swamp milkweed (*Asclepias incarnata*), butterfly weed (*Asclepias tuberosa*), and prairie sage (*Artemisia ludoviciana*) flourished. Regionally native Red Birds in a Tree (*Scrophularia macrantha*) and desert beard-tongue (*Penstemon pseudospectabilis*) bloomed and rebloomed, attracting hummingbirds to the garden. Only one of the three street trees planted in spring 2019 survived the summer; two replacement trees were planted in November by Denver's City Forestry "Be a Smart Ash" program. The city originally offered to plant trees native to Asia, but a letter from Wild Ones asking for trees more in line with the garden's goal of supporting wildlife yielded substitutions of North American native honey locust (*Gleditsia triacanthos* var.) and scarlet oak (*Quercus coccinea*).

The success of the pilot phase encouraged an expansion of the design. In spite of, and in some cases because of the COVID-19 pandem-

ic, volunteers made rapid progress. Materials were more readily available as many who were stuck at home undertook yard improvement projects and volunteers whose work schedules were disrupted had more time to dedicate toward installation. Following the lifting of the Stay-at-Home order, volunteers donned masks and showed up to work — at safe distances — in the garden. Grants covered the cost of some plants from local nurseries and were combined with donations of materials and labor, as well as more shrubs and plants. As expected, a few plants struggled and succumbed to the heat as it's never optimal to plant a garden in July. Many thrived though, including the great basin/big sagebrush (*Artemisia tridentata*), Mojave sage (*Salvia pachyphylla*), littleleaf mountain mahogany (*Cercocarpus intricatus*) and fringed sage (*Artemisia frigida*). The blanket flower (*Gaillardia aristata*) and the annual Rocky Mountain bee plant (*Cleome serrulata*) completely ignored the “sleep, creep, leap” adage and bloomed profusely throughout the summer and well into early September snow. While it is difficult to build an ideal habitat adjacent to a city street, certain elements, like host plants, go a long way toward inviting wildlife to visit and possibly reproduce. The cottonwood stumps were introduced into the design as both aesthetic and ecological features. Cottonwoods are native keystone species of riparian corridors on the plains, but they are a poor choice for urban settings. “Planting” cottonwood stumps in the garden honors their immense ecological value without the mess and hazard of living trees. Placed near milkweed and other host plants, the cracks and crevices in the dead wood provide shelter for caterpillars to pupate. The hope is to foster youth and adult engagement with nature in the garden through community science programs like [Native Bee Watch](#) and the [Monarch Larva Monitoring Project](#).

It's always best to select the “right plant for the right place,” to select plants for the soil and exposure that you have rather than altering the soil by tilling or amending and stressing plants unnecessarily.

In order to optimize the Greenverein Garden's ability to conserve water and build soil over time, relatively minor adjustments to the topography were deemed necessary. While composed mostly of native clay, the low berms, some of which amended with looser fill dirt and pea gravel, provide sufficient drainage for cacti and other plants like penstemons that are accustomed to growing on slopes. The berms' added height enabled the addition of small sections of crevice gardens, which showcase diminutive cacti, succulents and heat-tolerant rock garden plants. While working in the garden, the feedback expressed by passersby to volunteers has been refreshingly positive. People love how the garden looks like Colorado, how it reflects the state's exceptional rugged beauty.

It's hard not to laugh when people say “I can't wait to see how it looks when it's done.” That's not how gardens work. Gardens are alive and ever-changing. Cultural landscape historian and writer Mac Griswold describes gardening as “the slowest of the performing arts.” As such, the Greenverein Garden fulfills the Turnverein's mission to showcase and promote the practice and performance of the arts — those that maintain a sound body and mind — and is a beautiful and fitting addition to the North Capitol Hill neighborhood.

Lisa Olsen is the chapter president and programs co-chair for the Front Range (Colorado) chapter of Wild Ones. She notes that a downtown business owner has since reached out to the chapter, wishing to establish another garden in his neighborhood, showing that demonstration gardens do inspire people to take action.

Annual Stiff Greenthread (*Thelesperma filifolium*) planted in a cottonwood stump





Members and Friends Support Wild Ones' Annual Appeal

Wild Ones thrives only through the heart and dedication of its amazing members and friends. We deeply appreciate your efforts and extend our most heartfelt thanks to all who contributed so generously to the Wild Ones 2020 Annual Appeal Campaign. We proudly share your names here.

Every effort has been made to ensure that our donor lists are accurate and reflect gifts made during the Annual Campaign period from Oct. 1, 2020, through Jan. 31, 2021. Should there be an error or omission, please accept our deepest apologies; contact the national office at (920) 730-3986 or info@wildones.org so we can correct the mistake.

Again, our thanks for your generous gifts and contributions!

"Spring Robin" by Barbara DeGraves was one of five photos that tied for sixth place in the Wild Ones People's Choice Awards. The robin was perched in a black gum tree that DeGraves planted as a seedling.

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Dawn-Marie Staccia's "Monarch Migration" was one of five photos that tied for sixth place in the Wild Ones People's Choice Awards. The photo was taken on the Friends of the Monarch Trail in Wauwatosa, Wisconsin. Monarchs migrate through the restored prairie and oak savannah each year.

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Mark Eclov took fifth place in the Wild Ones People's Choice Awards with "A Portrait of Little Blues, Susans and Sedums." Taken in Lexington, Kentucky, Eclov wrote that he loves the interplay of colors and lines in this tight grouping of flowers.



Earning fourth-place honors in the People's Choice Awards is Michael Bano for "Elderberry and Waxwing." Bano said he had just finished hiking in Wisconsin's Bong State Recreation Area when he saw several cedar waxwings feasting on the berries on a black elderberry.

James P. Engel, Habitat Gardening in Central New York
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Joan Falsone, Smoky Mountains
Pat Filzen, Fox Valley Area
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Susan Kessler, South Shore Massachusetts
Deborah Kiedrowski, Door Peninsula
Glynis Kinnan, West Cook
Eileen Kinsella, St. Louis
Arlene Kjar, Northfield Prairie
Gordon Korthals, Fox Valley Area
Barbara Kuhn, Fox Valley Area
Cheryl Kuta, Milwaukee-Wehr
Rick LaMonica, St. Louis
Mitch Leachman, St. Louis
Kathy Leskoske, Habitat Gardening in Central New York
Karna Levitt, Tennessee Valley
Cathy Lichtman, North Oakland
Allen Linoski, Partner At Large
Anne E. Lubbers, Lexington
Karen Lyke, Oak Openings Region
Martha MacArthur, River City-Grand
Lynn MacDonald, Partner At Large
Louise Mann, Tennessee Valley
Jim Martinka, Twin Cities

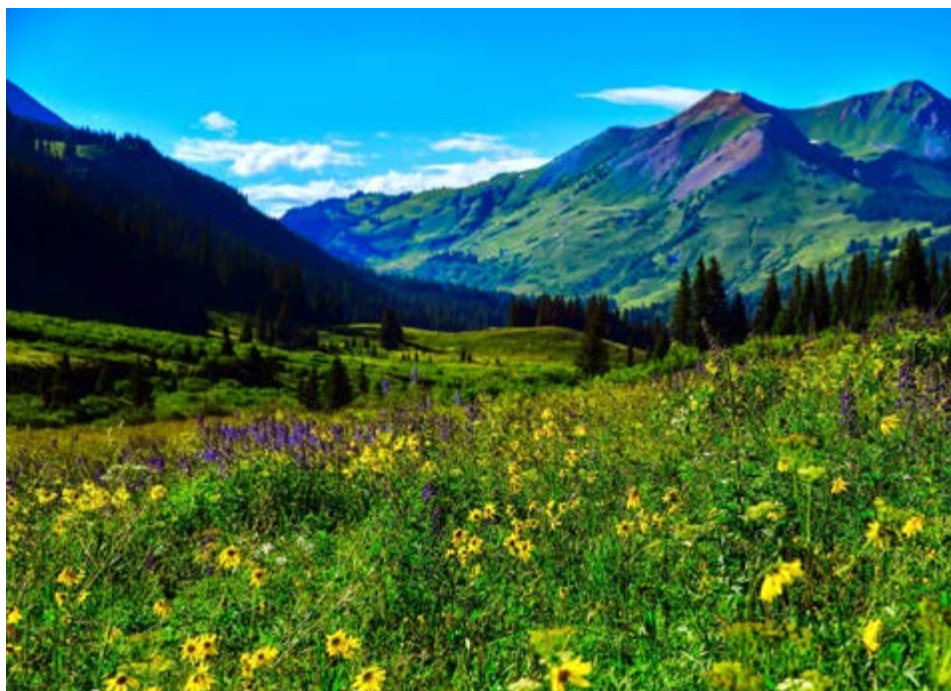
Laura Hedien's "Coming in for a Landing," took second place in the People's Choice Wild Ones photo contest. She wrote that she followed the swallowtail around the backyard hoping to catch it in flight and got lucky when it slowed down near some sunflowers.





Left: Michael Sternberger's "Pas de deux" was one of five photos that tied for sixth place in the People's Choice Awards. He wrote, "Two trilliums entwined in my wife's garden appear to be two dancers in a ballet." Right: Bret Rappaport's "Rocky Mountain High" was one of five photos that tied for sixth place in the Wild Ones People's Choice Awards. It was taken in Crested Butte, Colorado.

Philip Matsikas, Gibson Woods
Kim Medin, Twin Cities
Jan Merriman, Prairie Edge
Libbie Messina, Habitat Gardening in Central New York
Susan MiHalo, Gibson Woods
Linda Mihel, Lake-To-Prairie
Susan Millar, Red Cedar
John Miller, Tennessee Valley
Patricia Miller, Middle Tennessee
JoAnn Monge, Greater DuPage
Monica Monteleone, Partner At Large
Debra Montgomery, Red Cedar
J. Paul Moore, Middle Tennessee
Angela Nelson, North Oakland
Ellie Nowels, Columbus
Teresa O'Brien, Habitat Gardening in Central New York
Diane S. O'Connell, Gibson Woods
Lisa Oddis, Menomonee River
Ruth Oldenburg, River City - Grand
Bob Olson, Central Wisconsin
Diane M. Olson-Schmidt, Menomonee River
Jacqueline Orzell, Habitat Gardening in Central New York



Alan Ostner, Ozark
Margaret Ovitt, Partner at Large
Norm Packer, Fox Valley Area
Shirley Paris, Red Cedar
Noel Pavlovic, Gibson Woods
Mary Peranteau, West Cook
Robert Pfeil, Lake-To-Prairie
Sarah Pick, Partner At Large
Hedera Porter, Big River Big Woods
Linda Porter, Lexington
Debby Preiser, West Cook
Thomas Rathge, Oak Openings Region
Linda Rehorst, St. Croix Oak Savanna
Kristen Rewa, River City – Grand Rapids Area
Sharon Rey-Barreau, Lexington
Stephen Rice, Northern Kane County
Carol Richardson McCoy, Milwaukee North
Diana Rigden, St. Louis
Mary Roberti, Northern Kane County
Kathy Robin, West Cook
Elise Roe, River City – Grand Rapids
Julie Rose, Northwoods Gateway
Louise Russell, Tennessee Valley
Deborah Scher, Middle Tennessee
Diane Scher, Middle Tennessee
Kathryn Schueman, Greater DuPage
James Schultz, Red Cedar
Greg Shirley, St. Cloud
Donna Sibilsky, Kettle Moraine
Pat Skogsbakken, Door Peninsula
Mary L. Smith, St. Louis

Nancy Sobczak, Menomonee River
Judith Stark, Menomonee River
Randi Starmer, Habitat Gardening in Central New York
Trisha Steele, Lake-to-Prairie
Susan Sterling, Oak Openings Region
Jean Stevens, Kalamazoo Area
Roxanne Stuhr, Twin Cities
Jessica Susser, Oak Openings Region
Sara Sychra, Illinois Prairie
Gerald L. Tate, Fox Valley Area
Troy Thielen, Big River Big Woods
Janine Trede, Menomonee River
Donna Turek, Greater DuPage
Tami Ulatowski, Menomonee River
Jessica Walsh, Partner At Large
Jiin Ling Wang, Southeastern Pennsylvania
Mary Weeks, Twin Cities
Cathy Wegner, Milwaukee Southeast
Sue White, Oak Openings Region
Janice Wick, Kalamazoo Area
Diana Wiemer, Rock River Valley
Yvonne Wilder, Front Range
Gerould & Margaret Wilhelm, Greater DuPage
Arnie Wilke, Central Wisconsin
Judith Wilke, West Cook
Lisa Williams, St. Louis
Donald Wilson, Lake-To-Prairie
Steve Wissink, Fox Valley Area
Diane Woodard, Partner At Large
Mark T. Yost, Louisville
Shirley Younkin, Dayton Area

The Native Garden Designs are here!

By Katie Huebner

Wild Ones recently debuted a collection of seven professionally designed, native garden plans free for the public to use specific to the ecoregions of Chattanooga, Chicago, Milwaukee, Minneapolis, St. Louis, Tallahassee and Toledo. An eighth design for the ecoregion of Boston is forthcoming. The designs were supported by a grant from the Stanley Smith Horticultural Trust and can be downloaded from Wild Ones' newly launched nativegardendesigns.wildones.org website.

Each design also includes a digital plant list featuring color photos of each native plant that can be downloaded and easily printed for quick reference while selecting plants at a local nursery. The nativegardendesigns.wildones.org website also features a list of nationwide nurseries that are great sources for obtaining native plants.

The designs were created with the premise that using native plants in landscaping can be beautiful, promote wildlife, and be achievable for gardeners of all skillsets in terms of scope and budget.

While each designer approached their ecoregion specific design differently because all gardens are unique works of art, all of the designers followed a set of guidelines determined by Wild Ones to be important goals/considerations for any native garden.

The guidelines specified

- inclusion of at least 15 or more native plant species
- encouraging the use of multiples of plants rather than "specimen" plantings to be consistent with building attractive pollinator gardens per Xerces and other science-based pollinator advocates.
- favoring species with long and staggered bloom times to enhance the ornamental nature of the gardens and provide pollen and nectar through the season.



- inclusion of considerations concerning soil (type/texture, pH, etc.), and other conditions (moisture, sunlight) typical for the specific ecoregion)
- inclusion of an incremental approach in developing their plan, adding new areas and native plant species as time and funds permit.

Wild Ones had the pleasure of collaborating with six talented designers from around the country to produce these seven gorgeous designs. Here is a little bit of information about each of the designers.

Meet the designers



Caleb Melchior (Chattanooga/Tallahassee)

Caleb Melchior is a landscape architect and planting designer based in the southeastern U.S. He's

currently working with Coastal Vista Design on Sanibel Island in southwest Florida. Caleb has a master's degree in landscape architecture from Kansas State University, along with

extensive experience designing fine gardens and country estates. His work is frequently published in national gardening and design publications, including *Land8*, *Horticulture* and *The American Gardener*. You can follow Caleb on his blog (calebmelchior.com/journal) or on Instagram @the_curious_gardener. Melchior creates gardens rooted in a deep knowledge of regional plant communities and ecosystems. His goal is to design planting that's delightful and surprising, but thrives within the constraints of the site. He aims to provoke a deeper appreciation and enjoyment of the natural world.



**Monica Buckley
(Chicago design)**

Designer Monica Buckley's childhood home featured an organic garden, a big compost pile and

rows of her dad's irises, bred and grown for show. The garden was a source of wonder, but true entrancement took hold when a kid from her block showed her caterpillars, chrysalises and cocoons, and shared the names of butterflies, moths and the plants their larvae needed to eat. That sense of the interconnectedness of nature colored her world, and after a career in publishing, Monica decided to follow her original passion. After several years of classes from The Morton Arboretum and the Chicago Botanic Garden and with encouragement from her mentor, Art Gara, she took the leap in 2013. Her company, Red Stem Native Landscapes, designs, builds and cares for native plant gardens in and around Chicago.



Danielle Bell (Milwaukee design)

Growing up in rural Wisconsin, Danielle Bell explored the natural world starting in the oak hickory woodland of her

parent's home. While working in the green industry and on restoration projects she noticed the disconnect



humans have with our landscapes, especially in the urban environment. The restoration projects that she managed focused on largescale projects and not with homeowners and their smaller urban properties. Seeing this need, she began Native Roots, LLC to help homeowners incorporate native plants into their landscapes. She uses her experience from restoring native wetlands, prairies, and woodlands throughout Southeastern Wisconsin to inspire her residential designs. Her passion is to restore sterile turf monocultures into healthy, sustainable, diverse habitats that both people and wild-

life can enjoy. As part of helping homeowners create healthy, functional landscapes, she educates them on how to sustainably manage their property through invasive species monitoring and plant identification.



**Carmen Simonet
(Minneapolis design)**

Carmen Simonet is a landscape architect with a passion for using native plants. She has over 25 years

of experience providing landscape master planning and site design services for commercial developments, public parks and private gardens.

She is the owner of Carmen Simonet Design LLC. Recent projects include design of a natural playscape for a child development center, consulting on the landscape design for a conservation development, designing lakeshore buffer plantings and residential gardens seeking to replace lawn with native habitats! Carmen received her bachelor's and master's degrees in landscape architecture from the University of Minnesota.



Susie Van de Riet (St. Louis design)

Susie Van de Riet is the founder of St. Louis Native Plants LLC, whose services include consulting,

coaching, design and education. She obtained her bachelor's in women's studies and AAS in horticulture. She is an ISA certified arborist and an NAI certified interpretive guide. She has a passion for native plants and has been landscaping with them since 2009. Susie has served as Education Subcommittee Chair of Grow Native! and has participated with the St. Louis Audubon Society's "Bring Conservation Home" program as a habitat adviser. She is a member of Grow Native! and Wild Ones and worked as a horticulturist managing 130+ acres at Forest Park. Her last yard was Platinum Certified with the BCH program, and she has attained the same certification for her current yard. She loves sharing the benefits of native plants with others.



Susan Hall (Toledo design)

Susan Hall is passionate about using native plants in home landscapes. As a landscape designer

and certified horticulturist, she feels it's important to educate homeowners on the many benefits of native plants in their home landscape. She grew up in Toledo, Ohio and was introduced to native plants by members of the Oak Openings Wild Ones Chapter. A move 10 years ago took her to Berkeley County in West



Virginia, where she designed both residential and commercial spaces. She currently lives in Corpus Christi, Texas near her parents. In addition to her design work, her focus now is creating a landscape design program for Del Mar Community College's Continuing Education Program. The most popular class to date is Xeriscape Management, which focuses on entirely native plants. Examples of Susan's work can be found on her YouTube channel, Hidden in a Garden Design.



Denise Gehring (Toledo design)

Since her youth, Denise Gehring has encouraged others to directly experience nature and become stewards of our natural world. After an active career as a naturalist, then director of Environmental Programs for Metroparks Toledo, she discov-

ered Wild Ones. Since 2008, she has enjoyed serving on local and national Wild Ones boards, especially Wild for Monarchs, Seeds for Education, establishing chapter native landscape and youth awards, and most recently, the Stanley Smith Horticultural Trust Native Beauty project. In 1990, Denise co-founded the Oak Openings Natives project so that the public would have a dependable source of local genotype native plants and seeds for home landscapes and to boost home grown conservation of the region. Because of her botanical expertise, she serves as a native plant consultant recommending beneficial native species for residential, public and commercial projects including world headquarters. Denise is a member of the Oak Openings Native Plant Working Group, a native plant consultant, rare plant monitor and works as an Ohio Natural Areas & Preserves field botanist.



All photos by Barbara A. Schmitz

enticing pinks, lends the lilac color of common lilacs, gives roses their passionate reds, and colors blue cornflower, well, blue. A type of flavonoid, tannins, also give tea its brown color.

Betalains

Betalains color flower petals red to red-violet colors. These pigments give some opuntia (or cactus pear) its red color and beets its reddish-purple shade. They replace nature's popular pigments, anthocyanin, in Caryophyllales, which include carnations, beets, cacti, amaranths and even some carnivorous plants.

Mix and match

Just like painters mix colors to create a unique hue, the color of many flowers is a result of a combination of pigments in different proportions. This creates gradients and patterns within the flower.

These pigments are chemicals, and their color imbuing capacities can be changed by the pH from association with certain minerals such as iron or magnesium and temperature. An interesting example of this is the coloration of roses and blue cornflower. The colors of both the flowers are caused by the same anthocyanins, the red and the blue. Research has found that the blue is the result of a 'superstructure' of six pigment molecules associated with magnesium, iron, and calcium ions. This is a fascinating color manipulation!

This article was excerpted from "What Makes Flowers so Colorful" and the Wisconsin Pollinators website.

Above left: A monarch butterfly and bee nectar on Swamp milkweed. Its pink color comes from anthocyanins. Above right: A bee nectars on compass plant, which gets its color from carotenoids.

How do flowers get their colors?

Plants get their colors from pigments they produce. These pigments are molecules that selectively absorb or reflect certain wavelengths of light. The wavelength it reflects is the color we perceive.

There are a myriad of plant pigments, but we can largely categorize them into four different types. The color that you see in flowers is actually the result of reflected light from the pigments. A flower's pigments help to attract possible pollinators, such as bees, butterflies and hummingbirds.

Chlorophyll: It's easy being green

The most popular and the most common pigment in plants might be chlorophyll, which provides plants with their green color. Most chlorophylls absorb red and blue wavelength light, mostly reflecting green wavelengths, and that's what we see. Chlorophylls, though plant pigments, aren't commonly found in flowers. Their place lies in leaves and stems.

Carotenoids

One major class of flower pigments is carotenoids, which include carotene pigments that produce yellow, orange and red colors. Carotenoids

are the same pigments that impart color to carrots (hence the name), tomatoes and sunflowers. A common carotenoid, β -carotene, gives sunflowers its optimistic yellow. It primarily absorbs light in the blue region of the visible spectrum, giving us a sunny yellow.

Usually, the color a flower displays depends on the color of the pigments in the flower, but this can be affected by other factors. For example, blue cornflowers have the same pigments as red roses, but the pigments in the cornflower petals are bound to other pigments and metal ions, making cornflowers look blue.

Flavonoids

A second major class of flower pigments is flavonoids. The exciting reds, purples, blues and pinks are the result of anthocyanins. These pigments belong to a class of flavonoids and are the most important plant pigments for flower coloration. Flavonoids are a large group of compounds; scientists have discovered more than 9,000 different flavonoids that are responsible for a range of colors.

Anthocyanins are the molecules that give petunias and orchids their

So what color flowers do bees, birds and butterflies prefer? Take this short quiz — **What are pollinator color preferences?** — to see how much you know.