Wild Ones

NATIVE PLANTS, NATURAL LANDSCAPES

FALL 2021 • Journal • VOL. 34, NO. 3

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

Cover Photo: Barbara A. Schmitz

NOTES FROM THE PRESIDENT

Sally Wencel

As we move into the final months of 2021, we can look back in wonder that we survived the many challenges posed this year. Most notable is the fact that many of us could not socialize in our usual ways, not to mention hold indoor meetings. When I wrote up a summary last September of all the challenges thrown at us in 2020, I really didn't think we would still be — at this point in 2021 — restricted in the way we could do business at the chapter and national level. My chapter, Tennessee Valley, is planning a Spring 2022 symposium with the hope that we will be able to meet in person, knowing that we might need to change up the way we offer education once again. I commend all Wild Ones chapters and individual members for their adaptability to the extreme limitations we've faced to carry forward our mission of promoting native plants and sustainable landscaping.

The National staff under the leadership of Executive Director Jen Ainsworth has done a remarkable job of supporting Wild Ones' chapters while bringing in new members across the country. There is even interest in a Canada chapter! The Sit & Sips and Zoom & Bloom sessions were a great way for chapter leaders to share challenges and solutions. I happened to sit in on several sessions and had a chance to "meet" my colleagues in other parts of the country and hear how they had performed their work despite COVID-restrictions. I also unknowingly got to meet one chapter leader who is now Wild Ones' chapter liaison, Lisa Olsen from the Front Range (Colorado) Chapter. Lisa brings a wealth of native plant knowledge, as well as a thorough grounding in what it takes to run and grow a successful chapter. Lisa is quickly getting up to speed on Wild Ones priorities and is well on her way to getting to know the chapters.

Also prominent in these national meetings was Rachel Checolinski. Jen originally hired Rachel to be the administrative assistant, but Rachel has proved herself to be so resourceful, excellent at communicating and problem-solving that Jen recently promoted Rachel to the membership coordinator position. I know many of you are familiar with Rachel since I have seen and heard your praise for her diligence, courtesy and prompt handling of your questions and concerns.

I recommend you go to https://wildones.org/about/staff/ to familiarize yourself with Lisa, Rachel and Katie Huebner and the wealth of talent and experience they bring to the organization.

As a final note, throughout the pandemic, I have learned how we can tackle big projects and tough issues *without meeting in person*. In some ways, the world has gotten smaller via technology like web-based conferencing. Recently, I had the chance to talk with a team comprising a homeowner, designer and garden installer who created a beautiful native plant landscape remotely and across a geographic divide. We are learning new ways of working together and I trust this adaptability will serve us well in the future.

Wild Ones
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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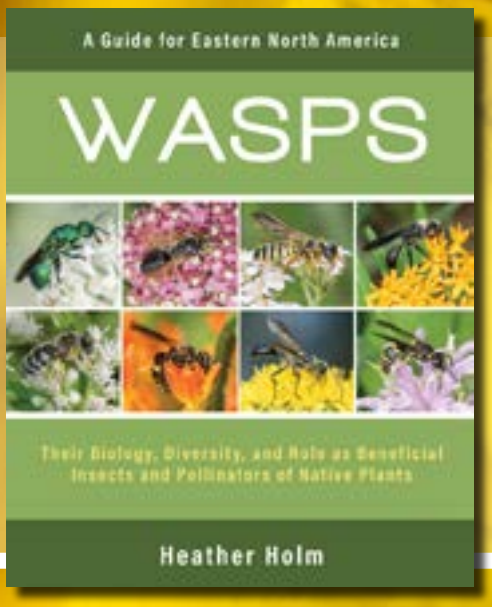


Get your copy of Heather Holm's award winning illustrated guide *WASPS*!

WASPS features approximately 150 species of flower-visiting wasps that occur in eastern North America, and the specific native plants and habitat each species depends upon. Written with an ecological lens, this richly-illustrated book details wasp diversity and has full-page profiles for each wasp species that include identification tips, geographic range maps, biology, prey, natural history and habitat.

Register online now for a Wild Ones Honorary Director's webinar on Wed. Oct. 20th at 6 p.m. CDT with Holm where she will share about WASPS! https://wildones.org/holm-wasps-registration/

Heather Holm is a Wild Ones Honorary Director, biologist, pollinator conservationist, and award-winning author.

NEWS
ACROSS THE NATION

IDAHO

Development in the Treasure Valley is contributing to pollinator decline by eliminating plants that birds and bees need to survive. But a new project is designed to bring those insects into hundreds of backyards, according to Boise State Public Radio.

The Treasure Valley Pollinator Project is the brainchild of the Ada Soil & Water Conservation District. The goal is to put 64,000 plants into the hands of people who live in the Treasure Valley. And not just any plants. The 32 varieties were picked to attract and feed moths, birds and other pollinators all summer long, while participants learn about their habitat.

Wisconsin DNR biologist Ryan O'Connor shows off a green violet that was thought to be gone from the state. It was last documented in 1958.

MASSACHUSETTS

The Kent Land Trust has spent the summer educating people against using chemicals on their property and on the importance of native plants.

They hope to encourage residents to establish pollinator pathways according to the Stamford Advocate.

Residents can become part of this initiative by taking several steps, including planting pollinator-friendly trees, providing a source of clean water, mowing higher and less often, and leaving dead wood and dirt patches for nesting bees.

As of Aug. 1, 14 residents have gotten on board, registering their property to get on the map of New England showing where landowners have made pollinator-friendly habitat. A pollinator pathway creates a continuous landscape for pollinators to migrate.

The Pollinator Pathway Project began in 2017 in Wilton. Pathways have since been created in more than 200 towns throughout the U.S.

WISCONSIN

A Wisconsin common tern has reached an uncommon milestone. The Department of Natural Resources said that bird number 962-67245 is now the oldest known common tern in the Great Lakes and the second oldest known in North America.

The bird was just one month shy of 26 years old when it was captured and released June 3 from a small island in Chequamegon Bay of Lake Superior by Fred Strand, a former DNR wildlife biologist. According to the U.S. Geological Breeding Bird Lab, the oldest known common tern is 28 years, 11 months.

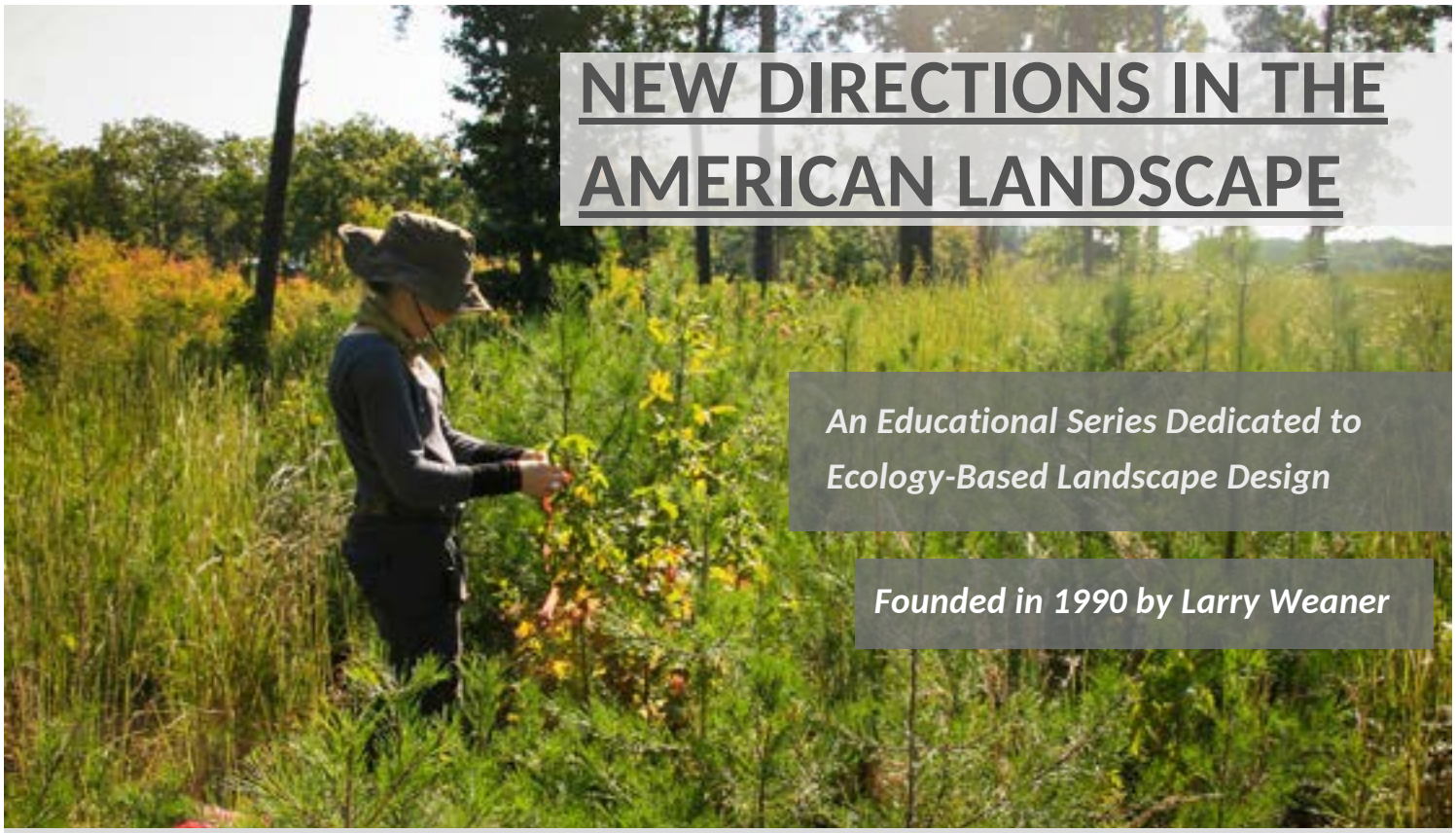
"It was both exciting and rewarding to reencounter this long-lived bird and to see that it was tending a nest with two eggs and one newly hatched young," Strand said.

Bird number 962-67245 was originally banded on June 30, 1995, as a 2-to 5-day old chick captured on a small island in Minnesota's Lake Superior waters.

A Wisconsin Department of Natural Resources conservation biologist has found the "holy grail" of a rare plant in Wisconsin: a green violet that was thought long gone from the state, but growing by the hundreds in a State Natural Area in west central Wisconsin.

The species (*Hybanthus concolor*) was last documented in Wisconsin in 1958 when it was collected from a site in Grant County. That site was severely impacted by grazing and the species was thought to no longer grow in the state.

"It was pretty exciting," said DNR Conservation Biologist Ryan O'Connor. "It really drives home several things, including that there are still important things to discover on State Natural Areas and that our SNAs are vital to the conservation of plants and animals, some of which are found nowhere else in the state."



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Member Garden

Donna Baker-Breningstall
Front Range (Colorado) Chapter

All photos courtesy
Donna Baker-Breningstall

By Barbara A. Schmitz

Lawn. Lots and lots of lawn.

But that lawn provided Donna Baker-Breningstall "a blank slate" to create the landscape she envisioned after she and her husband purchased a new home.

She and her husband, Orvin Breningstall**,** bought the property in 2011 and spent 10 months remodeling and adding to the two log cabins already there. They moved in 2012, and by 2013, Donna started putting in the gardens.

She first took out the overgrown junipers and the dead or dying aspen trees on the property, saving some of the trunks for other projects. Then she created a vision of things she wanted — perennial beds, vegetable beds, fruit trees and a wildflower meadow. She also consulted with the executive director of Denver Urban Gardens, who conveniently lived in the same neighborhood. And in the middle of it all, she earned her Master Gardener certification.

"I seeded the meadow with about 12 or so varieties of wildflowers, and it changes every year and season as certain plants tend to dominate," she said. She added vegetable gardens and perennial beds. Many of the flowers are native, but not all.

"But in the last year, I've become more interested in natives because what is happening with birds, pollinators, global warming and water issues," she said.

So this spring, she started taking out some of her nonnatives and developing new native areas. One area is approximately 24-feet by 8-feet; the other is 28-feet by 6-feet. Baker-Breningstall is also trying to dig out some of the nonnatives in her meadow and replace them with natives.

Editor's Note: We'd like to feature member's 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 *journal@wildones.org*. Please include your contact information so we can follow up.

Above: The view from the front of the Baker-Breningstall house with perennial beds and a shed in the background.

Member Garden

Donna Baker-Breningstall
Front Range (Colorado) Chapter

Donna Baker-Breningstall poses with her garden vegetables, which she then donated to a local food pantry, Produce for Pantries.

About the Yard

- The Baker-Breningstall half-acre lot is located in southeast Denver, and includes two log cabins and a variety of gardens and flowers, from a vegetable garden to an orchard, meadow and more.
- Her wildflower meadow is approximately 30 feet by 17 feet and home to some fruit trees, including apple, pear, cherry and peach.
- Some of the birds that visit their property include red-tailed hawk, rock pigeon, great horned owl, northern flicker, crow, black-caped chickadee, white breasted nuthatch, house wren, cedar waxwing, robin, starling, house sparrow, house finch, goldfinch, spotted towhee and hummingbirds.
- A tree stump next to the road has been turned into a piece of art, a series of birdhouses. "My philosophy is that if you build it, they will come," Donna said.
- The Baker-Breningstall garden was part of two garden tours this past June. "That's a lot of pressure when you know more than 100 people will be coming through your garden," she said. "It was a lot of work, but it was worth it."

"It's a process I plan to continue," said Donna, who belongs to the Wild Ones Front Range (Colorado) chapter and the Colorado Native Plant Society. "I have a lot of non-natives in my perennial beds, and over the next year or two, I plan to revamp those and replace with more natives. It's just daunting and expensive to do it all at once."

She said trying to pick a favorite area on her ½-acre property is akin to asking who is her favorite child.

"I have so many different areas on my property. One area I call my wild area; it's in the corner by the road. It's a little bit of mess and I like that," she said.

She also enjoys her raised vegetable beds she put in four or five years ago after giving up on amending the heavy clay soil on her property. She likes to walk in her meadow and enjoys the orchard with the wide variety of native bees and other pollinators, as well as her perennial beds that are chock full of color and texture.

The Baker-Breningstalls also have a custom-built garden shed with log siding in the back that is "practical, but pretty," and a milkweed area that Donna plans to expand. "Last summer is the first time in five years that I saw a monarch," she said. "I got so excited."

Her favorite native plants include blanket flower (*Gaillardia aristata),* blue flax (*Linum lewisii*), common milkweed (*Asclepias syriaca*), Colorado blue columbine (*Aquilegia caerulea*), prairie coneflower (*Ratibida columnifera*), narrow-leaved purple coneflower (*Echinacea angustifolia*), little bluestem (*Schizachyrium scoparium*), golden current (*Ribes aureum*), little leaf mahogany (*Cercocarpus intricatus*), plains cottonwood tree (*Populus deltoides ssp. monilifera*) and others.

Donna said she became interested in native landscaping because of pollinators. "If you want a wide variety of pollinators and birds in your yard, you need native plants," she said. It's also why she added a pollinator hotel to her yard.

"It's about 5-feet tall and 4-feet

Member Garden

Donna Baker-Breningstall
Front Range (Colorado) Chapter

Left: Raised beds for growing vegetables were built with 6 x 6 timbers. Top: A new pollinator hotel was built with material from their property. Bottom: The front of Baker-Breningstall home is surrounded by perennial beds.

wide, and it's an engaging structure," she said. It is located on the north side of her vegetable beds, just east of her meadow where "there is a lot of flowering going on all around."

Some of the pollinators that regularly visit their property include yellow and black swallowtails, monarchs, Aphrodite fritillaries, cabbage moths, mason bees, leaf cutter bees, honey bees, hummingbird moths, bats, dragonflies and others.

Baker-Breningstall said she started gardening in her 40s, after her daughters were born.

"Then the whole idea of taking care of things kicked in," she said. "I took a couple classes, started scratching around on my own, and had successes and failures. But I received great joy in seeing plants thrive."

In her new home, she is able to share her enthusiasm for native plants with passersby who regularly walk up her driveway just to see her gardens and curb their curiosity.

She also shares her enthusiasm with a small group of others who enjoy gardening, as they just started their own gardening club so they can talk about plants and learn from each other. The club is named University Park Seeders and Weeders.

Her husband hasn't been an avid gardener, but his interest was piqued recently after he ordered some wild zinnias, which were a success. He's also growing some Native American beans, after becoming interested when doing research for his doctorate on the Navajo reservation, Donna said.

Her advice to those new to native gardening is to go slow and do some research before you start planting.

"Know what kind of soil you have, and what kind of moisture you have coming out of the sky," she said. "Do your homework before you start. Take classes or talk to people who are knowledgeable about natives, and maybe invite them to come over and look at your property or the area where you want to plant natives." She also encourages people to join Wild Ones or other groups that promote native plants.

Left to right: Students at the Chain Exploration Center in Waupaca, Wisconsin, collected seeds from their new native plant garden so they could create a new prairie in the front; The plugs all lined up, freshly planted; Students at the Chain Exploration Center observe the pollinators in their new native plant garden, created in part with a Wild Ones Lorrie Otto SFE grant.

Seeds for education

A $500 Wild Ones Lorrie Otto Seeds for Education grant allowed the Chain Exploration Center in Waupaca, Wisconsin to create a native plant garden that flourished in the midst of the COVID-19 pandemic.

In the year-end SFE report, project coordinator Mary Kaye Ristow said that the native plants, purchased from the 2020 Central Wisconsin Wild Ones Native Plant Sale, were planted on May 22, 2020. But due to the school being closed to COVID-19, members of the local Wild Ones chapter, the school's governance council and one teacher did the actual planting.

What most excited students about the garden, Ristow said, was observing the plant lifecycle and the interaction of pollinators, although they also enjoyed identifying native flowers and collecting seeds in the fall so they could create a new prairie planting in the front.

Seventh-grade students, in conjunction with a local business and nonprofit, created the new prairie in an area that was previously lawn, she said. Seeds will also be used to grow plants for future fundraising events and for landscaping around the school.

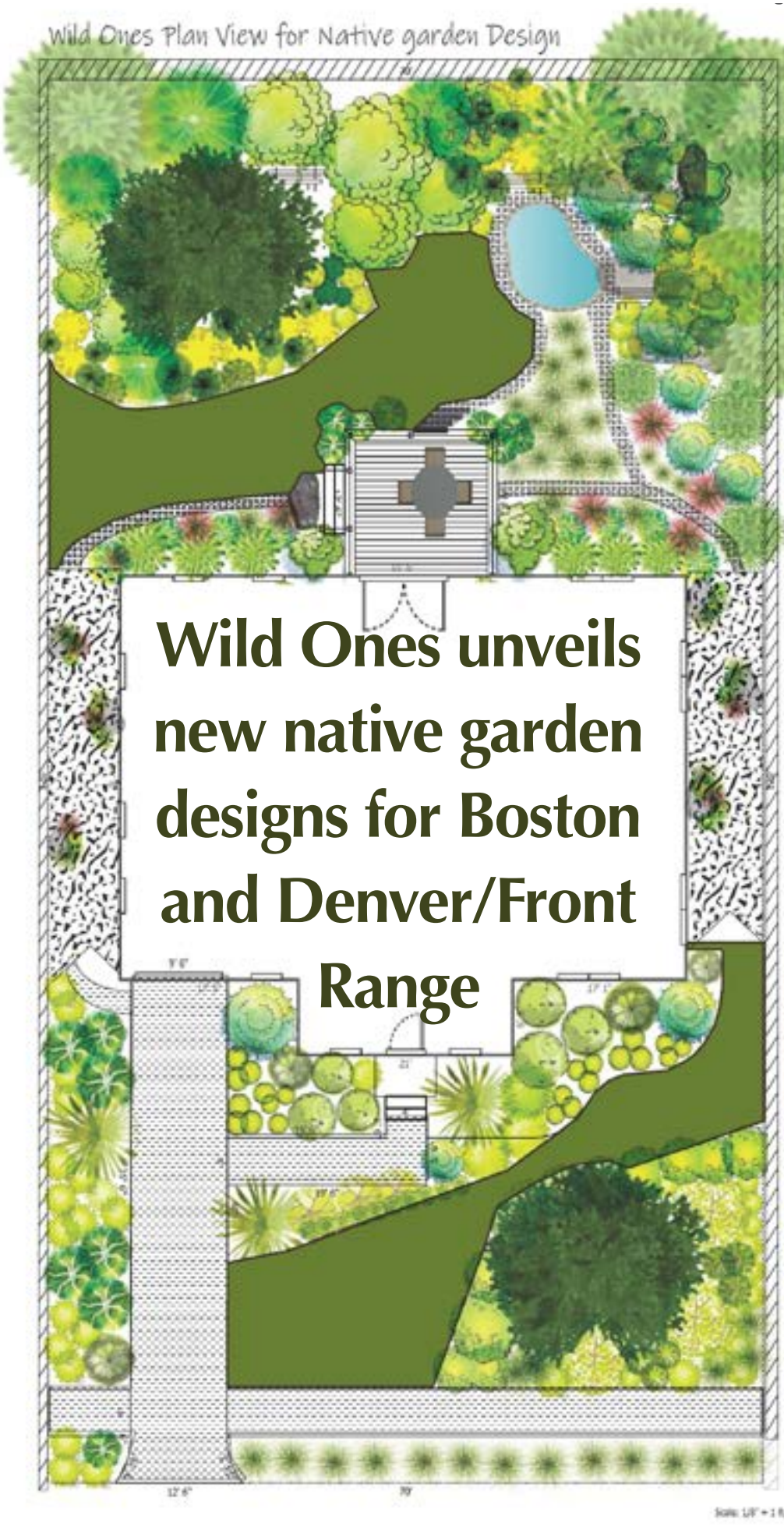
Ristow said they also introduced teachers to the garden, coming up with lesson and activity ideas from online resources in the areas of pollinators, native species, interdependence, plant adaptations and lifecycles of plants and insects.

When in-person instruction resumed, students were involved with propagation and maintenance of the garden. A summer school course and a Garden Club are future ideas for student engagement, Ristow said.

She also gave advice to other schools thinking of adding native gardens to their property.

"School gardens need the input and support of the district maintenance department," she said. "They need to be involved in planning site location, site preparation and maintenance such as watering. There needs to be a discussion of district policies regarding pest and weed control practices and mowing and how they relate to your garden."

Secondly, she recommended that schools plant their garden near the school and within view of the public. "The beauty can be enjoyed by all as they walk or drive by," she said, as well as creating more interest in the project. If it is near the school, it is also easier for the students and teachers to utilize it, she said.



Wild Ones unveils new native garden designs for Boston and Denver/Front Range

By Katie Huebner

At the beginning of the year, Wild Ones introduced seven professionally designed, native garden plans free for the public to use for the ecoregions of Chattanooga, Chicago, Milwaukee, Minneapolis, St. Louis, Tallahassee and Toledo. We are excited to follow up this initial release with two additional designs for the ecoregions of Boston and Denver/Front Range.

The new plans follow the same guidelines as the previous designs:

- Inclusion of at least 15 or more native plant species
- Encourage 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.
- Favor 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 the plan, adding new areas and native plant species as time and funds permit.

Both 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. We are thrilled to continue expanding our design portfolio and hope you will help us get the word out by sharing these designs with your family and friends!

All nine of the designs were supported by a grant from the Stanley Smith Horticultural Trust (SSHT). Wild Ones has applied for further

funding from SSHT to continue developing this highly impactful program. We will inform if we are granted additional funds.

The designs can be downloaded from Wild Ones' website at https://nativegardendesigns.wildones.org/.

Wild Ones had the pleasure of collaborating with three talented designers to produce these latest designs. Here is some information about each of the designers.

Josh Altidor (Boston Design)
Josh Altidor was born and raised in Haiti. He currently serves as the general superintendent of Parks Maintenance and Turf Management for the city of Boston. In 2013, Josh became the first Haitian immigrant to design and plant in the oldest botanical garden in America, The Boston Public Garden.

He is known for his bold approach and tells his story through his vibrant design. In 2018, Josh became the first Haitian American director of maintenance for the Boston Parks and Recreation Department. Josh focuses on creating a sustainable and an inclusive urban parks system that works for every Bostonian regardless of their ZIP code.

He has a bachelor's degree in agroforestry and environmental sciences from the American University of the Caribbean, a master's design degree in sustainable urban environments from Northeastern University, and a leadership management certificate from Harvard University School of Extension. In his spare time, he enjoys participating in speaking engagements, landscape design and cooking.

Altidor said, "Designing the site through the lens of a homeowner allowed our team to create an outdoor oasis that offers a natural flow and connectivity and a sustainable urban ecosystem."

Andy Brand (Boston Design)
Andy Brand was born and raised in Connecticut. He graduated from the University of Connecticut with bachelor and master degrees in environmental horticulture and plant science, respectively. For 27 years Brand was employed at Broken Arrow Nursery in Hamden where he was the nursery manager. In March 2018, Andy joined the staff at the Coastal Maine Botanical Garden as curator of living collections. His responsibilities include plant selection and introducing new plants to the garden's collection and maintaining plant records and labels. He is currently interim director of horticulture at the gardens.

Brand is past president of the Connecticut Nursery and Landscape Association and is an avid naturalist. He is a cofounder and past president of the Connecticut Butterfly Association. He has spoken to groups throughout the northeast on a range of topics including native plants, new and unusual ornamentals, butterfly gardening, butterflies and their life histories, and increasing biodiversity in landscapes. Andy and his wife Michelle live in Bristol, Maine. Brand also has a Facebook page, *Seeing Nature: Observations from New England*, which is dedicated to native flora and fauna.

"Biodiversity is often lacking in urban yards and it was our intention to create a design that includes plants and features such as water to attract an amazing array of creatures," Brand said.

Kenton Seth (Denver/Front Range)
Watching his beloved desert become drier and seeing the Colorado River in his hometown flow weaker is what ensnared Kenton Seth to a lifetime committed to sustainable garden design. This goal led him to specialize in the hitherto esoteric worlds of unwatered gardens and crevice gardens; both concepts are optionally featured in the design. Unwatered gardens embrace a future of population growth and water scarcity in the American West, while crevice gardens evoke the spirit of the Rockies and host plants and animals that prefer life among rocks. He has authored a book on crevice gardening that will be published in June 2022.

Seth said: "The unique climate in Denver/Front Range meant we had to take a more educational tack. We had to equip our neighbors with the 'how' even more importantly than the 'what.' We are gardening and educating at an opportune time, when there is both a desire and a feasibility. There is a popular social interest in wildlife gardening and it is actually possible to buy enough native plants to do it—this has not always been the case. This design positively supports willing homeowners to become enlightened students of nature, a consumer force for improvement, and creative stewards of local wildlife habitat. We move forward best by supporting our peers — luring our neighbors with good solutions rather than shaming old practices."

Illustrations by Kathleen Marie Garness

Aplectrum hyemale: Putty root (*Aplectrum hyemale*) is a native found throughout the wooded slopes and ravines in the eastern United States and Canada. It spreads underground through the growth of its corms, which are often linked by rhizomes and can release a sticky substance when crushed.

Our role in native orchid conservation

By Kathleen Marie Garness

The orchid family is among the largest plant families on earth. Their beauty, diversity and adaptability to a wide array of habitats captivate and charm us. Over 200 species of native orchids live in North America alone! Unfortunately, many species are disappearing before our eyes.

The good news is that people are seeking ways to promote orchid conservation by researching their habitats and needs. Orchids, like people, do best in a community. In a healthy ecosystem, plants can maintain genetic diversity through cross-pollination with a robust array of plant and pollinator partners. To the extent that members of that community are removed or lost, however, that genetic diversity is diminished. While orchids often take several years to reach maturity, many are short-lived perennials once they bloom. In those cases, it is even more imperative that they have large, healthy habitats in which to live and reproduce.

Home gardeners are becoming more interested in the cultivation of native plants, and some are volunteering with local conservation organizations (such as Citizens for Conservation, in Barrington, Illinois) to help restore natural areas. They dedicate a portion of their yards to growing a range of native species from seed collected with permission of landowners or remnant natural areas. The seedlings are grown using soil mixes suitable to each species. After the seed is harvested from the full-grown plants (plants one to several years old, depending on their life cycle), it becomes part of many gallons of seed returned to areas under restoration. Because these plants are local genotypes and collected from many different plants from a wide genetic pool, it is appropriate and helpful that they are returned to sites similar and in close proximity to those from which they came. Tended over time by volunteers, these gardens both hasten and support the recovery of ecological health in remnant natural areas, as well as in prairies and woodland restorations.

As we learn more and more about the specific cultural needs of native plants, however, it becomes clear that regular garden soils will not support all species. Many suburban homes have been built on

land that has had the top layer of soil scraped off and set aside so that there is a blank slate for utilities, foundations and conventional plantings. Such topsoil is utterly destroyed in the process: oxidized, compacted and soil horizons mixed up. Some homes are built on former farmland that has had the life tilled from it, with decades of chemicals applied to row crops. Other homes are built on aboriginal soils, which still contain some richness. If standard landscaping practices of installing turfgrass and exotic ornamental plants and using fertilizers and pesticides are employed, that living richness is soon exhausted.

As we learn to grow the more uncommon native plants for restorations, we soon discover that some species are difficult, if not impossible, to propagate in these degraded garden soils. Many native species are dependent on other plants or mycorrhizal fungi for their nourishment, in whole or in part. One thing all orchids have in common is their dependence on just a few species of fungi, which in turn are dependent on certain levels of soil moisture and quality.

Orchid seeds are the smallest in the plant kingdom. They trade endosperm (to nourish the embryo and seedling, a role fulfilled by mycorrhizal fungi in orchids) for production of thousands of dust-like seeds that are easily dispersed by the wind. This partnership benefits the orchid by providing it with resources from the fungi and is especially critical for germination and seedling development, according to a 2006 study by McCormick et. al.

Although a few species of orchids tolerate habitat disturbance, most orchids prefer areas that have seen little impact by contemporary human culture: areas where the soil ecology is still rich, soil moisture levels are stable, and where their associated native plant communities are still present and healthy. While we learned decades ago to mass-produce certain epiphytic tropical orchid plants for sale, the culture and out-planting success ratio of North American native species in garden or natural areas conditions is still very low, and transplants have, likewise, had a very limited amount of success. The only orchids that seem to be able to establish easily in our North American gardens are a few nonnative genera such as *Epipactis* and *Zeuxine*.

Collaborative research into orchid species recovery efforts is ongoing between several universities and the North American Orchid Conservation Center at the Smithsonian. This research is very important to ensuring our native orchids' survival.

In addition to my work as a scientific illustrator affiliated with the Field Museum and the Morton Arboretum, I participate in research by monitoring rare plants for the Chicago Botanic Garden's Plants of Concern program. I have been tracking several species of native orchids for almost 20 years. My work with Plants of Concern led me to the stewardship of two remnant natural areas, one a dedicated Illinois Nature Preserve; both contain small orchid populations. Over the past 18 years I have seen how the role of healthy soil, clean water, adequate light and good management all contribute to the health of our native orchids.

I lead other volunteers in removing invasive nonnative species that steal light and nutrients from the aboriginal protected species in our sites. We work to educate people about our native flora and how immeasurably precious it is. We strive to communicate and share our sacred responsibility for caring for what's left. Sometimes we have to mobilize others to have our elected officials reconsider proposals to develop on natural remnants, or permit roads to bisect them 'for convenience's sake.' Mostly, we try to show people how unique each natural area is, where no one square meter contains exactly the same assemblage of plants and animals as the one next to it.

Tipularia discolor: Cranefly orchid (*Tipularia discolor*) is a perennial woodland orchid native to the southeastern United States. From July through September, a 1-2 foot tall flower stalk emerges from the corm with a spike of irregularly shaped purplish-brown to copper orchid blooms. They grow in woodlands with decaying wood in moist, well-drained soil.

We should not become complacent in thinking that planting a few – or even a few hundred – native species (including orchids) in our gardens can be a reasonable substitute for protecting and caring for remnant landscapes. Of course, a native-plant-rich garden will offer far more diversity than the typical suburban aesthetic.

Hundreds if not thousands of pollinator species depend on specific plants and soil types that are only found in healthy remnant areas. Many of these pollinator species travel only a few meters in their lifetime

and cannot be expected to magically appear in our gardens. And our gardens will likely not support the suite of species-specific pollinators most native orchids need.

If we extract a native orchid from its habitat, at best, we are "adopting" a pet, which, if soil fungi do not match where it came from, will eventually languish and die. At worst, we are depriving forthcoming generations of their increasingly rare species of priceless genetic enrichment, narrowing the genome bottleneck each time. And we are increasing the likelihood that our great-grandchildren will see these beautiful orchids only in photos, not in life.

It is imperative, then, to restore and manage remnant species on a landscape scale to preserve genetic diversity in their populations. Ecologist Aldo Leopold is often quoted as saying "The first principle of intelligent tinkering is to keep all the parts." Thankfully, in recent years, more and more people are trying to raise awareness of these concerns, preserve and restore existing remnants, and through careful land acquisitions, stitch these into larger parcels, increasing the chances of saving entire suites of native soils, plants and animals.

But much more in this regard remains to be done. We need to resurrect a healthy cultural relationship with the land. We need to continue to study those delicate relationships between plants – not just orchids – and fungi that show us how complex and interconnected all these organisms are.

Wild gardens are good for our neighborhoods and the planet, but most orchids will not thrive and reproduce in them. Still, some pollinators and herbivores that are able to adapt to more densely populated areas will benefit from native plantings, so please continue to plant natives. Our work cultivating natives is important, but preserving existing natural areas is essential.

Orchids need the same things we do: clean air, fresh water, room to breathe and the ecological relationships in which to have children. When orchid populations decline, we must ask ourselves what sort of relationship are we having with the earth. Is it healthy? Is it respectful? Is it sustainable? As the most highly advanced members of the plant kingdom – as humans are considered in the animal kingdom – orchids hold the mirror up to us. Are we fulfilling our responsibilities in being good and caring stewards of the earth? What will you do to preserve these precious species' habitats before they are lost forever?

Kathleen Marie Garness has been a professional artist since 1982 and a nature preserve steward since 2003. Her work has been published by the Smithsonian, Native Orchid Conference, Inc. Journal, Chicago Wilderness Magazine, the Illinois Native Plant Society's scientific journal Erigenia, Conservation Research Institute, and other agencies. She is a scientific affiliate of the Field Museum and a research associate of Morton Arboretum, which allows her research access to amazing herbarium collections. In addition to her stewardship work, she is currently membership chair for the Illinois Native Plant Society, Northeast Chapter. To see more of her work, visit her website at http://www.kathleenmariegarness.com/, or these resources she illustrated: https://fieldguides.fieldmuseum.org/guides/guide/503, https://fieldguides.fieldmuseum.org/guides/guide/1189, http://conservationresearchinstitute.org/forms/CRI-FLORA-Glossary.pdf and http://conservationresearchinstitute.org/files/lychens/ferns_lycophytes.pdf.

For further reading

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- Patchett, J.M., Wilhelm, G.S.: The Ecology and Culture of Water. Elmhurst: Conservation Research Institute, 2008.

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RIDING THE FALL WAVE

The seasonality of plants creates performance waves with crests and dips. Spring bloomers fade as warm season plants emerge, and, as those perform their final hoorah, fall performers get ready to take center stage.

While fall bloomers such as asters add a conspicuous burst of late season color, many herbaceous plants will experience color shifts in their foliage that are typically only taken into consideration when planting woodies… and they can provide spectacular backdrops.

Inspirational late summer meadow: *Eutrochium maculatum* with Solidago sp.

Although a spring bloomer, Amsonia hubrichtii is second to none when it comes to fall foliage. Forming clumps up to 4'tall and that much across, the dense needle-like foliage will take on fiery, golden hues in fall and combine wonderfully with a number of asters.

Most goldenrods are also exceptional fall bloomers. Their yellow flower clusters will complement and contrast with the blue and purple aster blooms as well. And, not to be overlooked, many grasses will take on dramatic color shifts running from yellow and orange, to red, crimson, bronze and even black.

If you are not currently riding the fall wave, consider the following genera as starting points: Amsonia, Solidago, Symphyotrichum, Schizachyrium, Andropogon and Panicum. To ease the transitional dip between summer and fall, Coreopsis, Conoclinium, Helenium, Eutrochium, Vernonia are excellent options.

Frank Lloyd Wright project was site unseen

By Sally Wencel

Limestone work complimented by black-eyed Susan (*Rudbeckia fulgida var. fulgida*) and palm sedge (*Carex muskingumensis*). Shrub layer is St. John's Wort (*Hypericum frondosum*), although it is not in bloom.

Perched atop Missionary Ridge in Chattanooga — a location famous for several pivotal Civil War battles — is a surprising paean to Usonian architecture: the Seamour and Gertrude Shavin House. This Frank Lloyd Wright home is the only structure designed by Wright in Tennessee and one of the few built at the summit of a hill rather than integrated into the hillside, according to Karen Shavin, the daughter of the original owners, Seamour and Gertrude Shavin. The Shavins commissioned the design in 1949 and ultimately served as general contractors to complete the structure in 1952. Wright never visited the site.

The home is also unusual for a Usonian design because of its butterfly ceiling in the great room instead of the more typical flat roof used in Usonian houses. Karen described the roof as "giving the home a sense of wanting to take off from the hilltop and soar." When built, the home had 360-degree views. Those views have since become partially obstructed by subsequent development.

Karen said she moved into the home when she was 2½ years old and lived there until she left for college. She recalled her family opening the windows to let the breeze come through and the walls seeming to disappear. The inside and outside were meant to flow naturally and they did. Karen always wanted to create a landscape integral to the architectural design. Firm in her mind was her mother's insistence that nothing deviate from Wright's original architectural drawings. For example, the drawings showed one tree in the landscape, and that's exactly where her parents planted a single willow oak (*Quercus phellos*).

"I would like to create a healing space filled with local art (paintings, sculpture, etc.) and events (such as music, writing/planning, meditation and yoga retreats)," Karen said. "I would like to involve local educational institutions in projects to maintain and restore the property, as well as ongoing projects related to the environment (water harvesting, food growth and preparation with

my chef-in-residence son, perhaps building a labyrinth, etc.). I envision a vibrant community of like-minded people that reaches far beyond our home and the property."

Years ago, Karen enlisted help from Baltimore-area nurseryman Kurt Bluemel, a vanguard of the '80s natural landscaping movement, regarding plant selection and sourcing. Bluemel made a site visit and plan, but Karen's mother, Gerte, ultimately rejected his design because it did not comport with her devotion to Wright's design and her desire to keep the site lines clear.

Then in September 2018, Karen met Kay McConnell, owner of Garden Therapy, LLC of Baltimore, Maryland at a native plant fundraiser. Karen was immediately impressed with Kay's extensive native plant knowledge and engaged her to consult with her regarding her Baltimore row house landscape. In this initial consultation, Karen described to Kay her aim of having the same sweeping movement of the outdoors into the indoors she experienced growing up in her family home in Chattanooga. Karen described her dream of shaping the landscape to better suit the spirit of the Usonian home where she grew up. Kay was instantly intrigued. From this seed of an idea the project blossomed. In 2019, 69 years after the house was designed, the stars aligned and Karen's lifetime dream of creating a landscape to complement the home began to take shape.

Design process

Kay said her design process is always unconventional since she is not formally trained as a landscape designer. With this project, however, the process was even more unconventional because she had never seen the site but, as she noted, neither had Frank Lloyd Wright. COVID-19 restrictions made the design process even more of a challenge. She worked from photos that Karen shared with her, including photos of the original client copy of Wright's blueprints. She had been to Fallingwater in Mill Run, Pennsylvania, and Kentuck Knob in Dunbar, Pennsylvania, so she was familiar with Wright's architecture and other settings where the landscape, so important to the design, had been integrated. Kay also found books that described Wright's philosophy about landscapes and shared pertinent pages with Karen and Katie Cokberkit, co-owner of a Chattanooga design-install company, Whole Earth Gardens, via a shared Google Drive document. Kay described the process as fun.

Rather than creating a formal landscape plan document, Kay described her method for creating a series of gesture drawings to get a sense of the way the house relates to the land. She improvised a light table by taping a printed photo of the face of the house to a window in her studio and tracing over the stone to try to get a feeling for the structure's horizontals, verticals, angles and shadows. The Shavin house is built from Crab Orchard limestone sourced from the nearby Cumberland Plateau, with stonework reminiscent of Fallingwater in Southwestern Pennsylvania. (Check out Rick Darke's recent webinar on Fallingwater and the landscape that can be viewed there.)

Karen's and Kay's design goal was to make sure that the stonework was featured and not hidden by plantings. As one example, Kay's plan included planting red chokeberry (*Aronia arbutifolia*, syn. *Photinia pyrifolia*) with the yucca (*Yucca filamentosa*) already on the site, a few feet away from the walls at a corner so that the shrub layer would not obscure the stonework. These shrubs grow in a more open way (i.e., not densely foliated) and create an interesting textural contrast. Within the meadow, vertical elements (upright grasses and flower spikes) and horizontal elements (umbels and masses) are arranged to ascend the rising land in patterns that extend strong lines of the structure. In winter, buff and sepia tones of the dried foliage punctuated by dark brown seed heads blend with the colors of stone

Above: It was important to Karen Shavin that the view from the master bedroom (window in mid-right), where the sun rises in the morning, brings nature into the home. A mix of native perennials shows a mixture of texture, color and height. This photo was taken in early July and the garden constantly changes throughout the year. Below: Buddha accompanied by seersucker sedge (*Carex plantaginea*), gorge goldenrod (*Solidago faucibus*), elm-leaved goldenrod (*Solidago ulmifolia*), and woodland phlox (*Phlox divaricata*). Not seen but included is evergreen wood fern (*Dryopteris marginalis*).

Pickerel weed (*Pondeteria cordata*) is visible in the west-facing front yard on Missionary Ridge. The next area for expansion is the privet hedge in the background.

and shadows, and the red chokeberries speak to the classic Wright red of the porch floors. Karen has a special love for goldenrods, as so many different species were included in the plant palette. Gerte had given permission to plant the area alongside the driveway before her death in May 2020.

Kay also contacted members of the Wild Ones Tennessee Valley Chapter for additional native plant sourcing help. The design team now had a plant list, plant sources for landscape plugs and seeds and a planting plan. It was time to make the vision become a reality. Kay and her husband, Bill, loaded their truck with plants, planting augers and soil knives and set off for Chattanooga. Karen and her architect husband, Jeff Crabtree, filled their car with more plants. Katie and her husband, Atalay, gathered materials and equipment locally in preparation for the team to meet for the first time at the site.

Installation

The three couples installed the main perennial garden on June 8, 2020, which also happened to be Frank Lloyd Wright's birthday. Katie had prepped the site by cutting and removing sod and existing plantings. Using Facetime and videos, she confirmed with Kay the general shape of the new garden beds. But when Kay saw the site for the first time in three dimensions, she realized she needed to make adjustments because the extent of the slope was not conveyed in photographs. Those adjustments effectively doubled the original size of the garden, but the hardworking crew of six was able to complete the installation of live plants in one day. Overseeding of interstices was done a few weeks later.

The next installation tackled the grill and patio areas. In this case, Kay could not be present. She worked with Katie via Facetime to get the plant layout right.

As with many re-landscaping projects, these installations were the first phase of what is hoped to be a fuller conversion process. Future plans are still in the concept phase. They include the front yard, designed with plants that flow down the hill to the street below. In Kay's visit last summer, she noticed a native shrub layer of elderberry growing along this slope and is interested in studying and connecting to native plant communities already in place. Currently, you cannot see the front of the house from the street. In the back, the driveway entrance might be replanted to give a feeling of unity with the new meadow. The lawn area could continue to be reshaped and new elements added to play with slope lines. The potential is there.

And there is the drudgery. Typical of developed areas in Chattanooga, a variety of exotic pest plants encroach along the property's edges. Karen is currently engaged in a battle with Chinese wisteria, exotic bamboo, oriental bittersweet and other exotics that abut the property. Regardless, this team is excited by what they've accomplished so far despite distance, a limited budget and the challenges of working during a pandemic.

View a YouTube video of the Shavin House here.

Sally Wencel, president of the National Board of Directors, is a lifetime Wild Ones member who first joined the organization in 2011.

Mark Your Calendar

SEPTEMBER
Week of Sept. 12
2021 Photo Contest
People's Choice Award voting opens. Stay tuned for details!

Sept. 16, 5 p.m. CDT
Meet the Designers of the Boston Native Garden Design Webinar
Register at https://nativegardendesigns.wildones.org/boston-event-registration/

Week of Sept. 19
2021 Photo Contest
Winners announced via email and on social media.

OCTOBER
Oct. 5, 6 p.m. CDT
Wild Ones Honorary Director's Webinar
"The Nature of Oaks: The Rich Ecology of Our Most Essential Native Trees" by Dr. Doug Tallamy
Register at https://wildones.org/tallamy-oaks-registration/

Oct. 15
SFE Grant Application Deadline
Lorrie Otto Seeds for Education grant application submission deadline is Oct. 15 at 11:59 p.m.

Oct. 20, 6 p.m. CDT
Wild Ones Honorary Director's Webinar
"Wasps: Their Biology, Diversity, and Role as Beneficial Insects and Pollinators of Native Plants" by Heather Holm
Register at https://wildones.org/holm-wasps-registration/

Oct. 25, 5 p.m. CDT
Wild Ones National Board of Directors Meeting
All Wild Ones members are invited to attend virtual national board meetings.
Click https://members.wildones.org/board-meeting-link/ to attend the Zoom meeting.

NOVEMBER
Nov. 16, 6 p.m. CDT
Larry Weaner Webinar
Larry Weaner, president and founder of Larry Weaner Landscape Associates, established New Directions in the American Landscape in 1990. He is nationally recognized for combining expertise in horticulture, landscape design and ecological restoration.
Stay tuned for registration information.

NOVEMBER cont'd.
Nov. 17
National Take a Hike Day
Enjoy the fresh air and take in the last of the fall colors along the trail.

Nov. 30
Giving Tuesday
Consider making a tax-deductible gift to support a Wild Ones outreach project like Seeds for Education on this global day of generosity. Click https://wildones.org/donate/ to donate.

DECEMBER
Dec. 13, 5 p.m. CT
National Board of Directors Meeting
All Wild Ones members are invited to attend virtual national board meetings.
Click https://members.wildones.org/board-meeting-link/) to attend the Zoom meeting.

St. Louis Chapter reaches 300-member milestone

The St. Louis Chapter became the largest Wild Ones chapter in the United States when it reached the 300-member milestone in August

While this achievement is certainly worth celebrating, it is important to note that over a third of these members joined Wild Ones in the past 10 months. Membership in the St. Louis region is particularly impressive given that the active and growing St. Charles Area sister chapter, which the St. Louis chapter helped initiate, now has more than 50 members.

The release of the St. Louis Native Garden Plan is one of the reasons for the increase in membership. Released in January, the design was promoted on social media, both organically and with ads in February-March; the designer of the plan was subsequently featured on St. Louis Public Radio and there was a Meet the Designers webinar in April that also promoted Wild Ones. Wild Ones had 1,500 unique visitors to the St. Louis design web page from January-August of 2021; 1,700 people registered for the webinar and 1,200 people watched the recording on YouTube. These all would be significant contributing factors to the sharp increase in membership during this specific timeframe.

Wanting to know other reasons for the membership increase, chapter President Marsha Gebhardt asked members attending the August Garden Gathering to share their thoughts:

- Climate change awareness and concern
- Availability of native plants for purchase
- Information about native plants; how easy they are to grow and what they're good for
- Word of mouth; members telling others
- More places to see native landscapes – in public gardens and in residential front yards
- Information about the growing concern over declining monarch populations

One reason, however, is recent. During the COVID-19 pandemic, many people started working remotely, and thus spent more time in their yards and neighborhood parks. This increase in time spent outdoors has cultivated a broader interest in habitat gardening.

Other reasons for the chapter's growth are specific to the St. Louis region, Gebhardt said. For instance:

- Annual *Partners for Native Landscaping* Spring Seminar Series – 3200+ views of virtual talks provided by the partners and presented through the St. Louis County Library system.
- Wild Ones St. Louis Chapter website and Facebook page
- Restricting chapter events to members only

In honor of the large number of new members, the Wild Ones St. Louis Board is hosting a special Garden Gathering in late September to welcome new members and to better connect them with the Wild Ones' mission and ways they can become more actively involved.

THANK YOU FOR YOUR CONTRIBUTIONS

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Rock River Valley, Illinois	27 years
Columbus, Ohio	27 years
Ann Arbor, Michigan	25 years
Gibson Woods, Indiana	21 years
Door Peninsula, Wisconsin	20 years
Habitat Gardening in Central New York, New York	17 years
Mountain Laurel, Connecticut	15 years
Tennessee Valley, Tennessee	9 years
Blue Ridge, Mid-Atlantic	8 years
St. Charles Area, Missouri	2 years

LIFETIME MEMBERS

Meribeth Bolt, River City-Grand Rapids Area
Richard Griffiths, Central Wisconsin
Phil Houser, Illinois Prairie
Sara Kampf, Milwaukee-North
Marcia Rossi
Bettegail Shively, River City-Grand Rapids Area

Growing milkweeds for monarchs

By Janet Allen

One of the keys to having monarchs — for their survival now and in the future — is having lots of milkweed. Because of modern changes, such as suburbanization and Roundup-ready crops, there's a lot less milkweed than there was in the past.

This is a disaster for monarchs since monarch caterpillars can eat nothing but milkweed. We want lots of monarchs, so we plant lots of milkweed for them to lay their eggs on. We've tried to maximize our milkweeds in a number of ways — especially since it's sometimes difficult to find them for sale or at least to find them for sale at an affordable enough price to buy more than just a few.

Purchasing milkweeds All milkweeds are of the genus *Asclepias*. When you look for milkweed seeds or plants to purchase, always look for this name. Sometimes nurseries are afraid to call them milkweeds since people shy away from anything with weed in its name, and because milkweeds have an undeservedly bad reputation.

Some nurseries name them something innocuous like "pink butterfly plant," but that doesn't help people who are looking for milkweeds. Knowing the botanic name is very useful and helps you find the real milkweeds if the grower uses scientific names.

And for milkweeds and plants in general, favor the species, *not cultivars or hybrids.*

Local ecotype Now that there is an organized campaign to restore milkweed, local ecotypes of milkweed species are becoming available. If you plan to buy any new milkweeds, look for plants grown from seeds responsibly collected in your own region. We're fortunate here in Central New York that some of our local native plant nurseries are providing local ecotype milkweeds.

An aside: We wish nurseries would offer six-packs of small milkweed plants rather than large, pricey single plants. They grow quickly enough that these large plants aren't necessary, and having one plant isn't going to really help much as a single plant often isn't enough to support a hungry monarch caterpillar.

Common milkweed Pruning common milkweed helps keep it shorter and in control. It regrows nicely after being pruned, producing nice tender leaves for baby caterpillars. But be cautious — keep the sap away from your eyes!

Monarchs usually lay just one egg on a leaf, but they lay eggs on lots of leaves of more than one plant.

The milkweed species discussed in this article are for the Northeast United States. Check these resources below to find milkweeds native to other regions:

Milkweed profiles: https://monarchwatch.org/bring-back-the-monarchs/milkweed/milkweed-profiles/

Regional Milkweed Guides: https://xerces.org/milkweed/milkweed-guides

Milkweed Native to Eastern U.S., the Great Plains and Southeastern U.S.: https://www.nwf.org/Garden-For-Wildlife/About/Native-Plants/Milkweed.aspx

How could one or two plants be enough food for the caterpillars that develop from the eggs of even just one monarch, who can lay 300-500 eggs? These caterpillars are eating machines! One solution is to grow our own from seed — preferably locally collected, local ecotype seed.

Gathering milkweed seeds

To easily collect the milkweed seeds and get the seeds without the fluff, collect the pod when the pod has started to split and it has just begun to open. If you open the pod before it's ready, the seeds won't be ripe. However, don't wait for the seeds' little "parachutes" to start floating all over.

When the pod has started to split, hold the end of the pod and strip off the seeds. You will be left with the not-yet-fluffy fluff in one hand, and the seeds in the other (or

in a paper bag). If we don't get to them before they're beginning to get fluffy, we just enjoy the fluff and collect the seeds anyway. It's just a little more of a challenge to separate the seeds from the fluff. If you're not going to be sowing the seeds right away, store them in a paper envelope or bag, not plastic.

Growing milkweed from seed outside

The easiest way to grow milkweed plants from seed is to do as nature does: sprinkle some seeds around in the fall and wait for spring. The seeds experience winter and know when it's time to get growing in spring.

To maximize your crop, wait until after a killing frost. Of course nature plants seeds whenever they ripen and drop from the plant, and plants can grow this way, but any little plants that germinate too early will face a killing frost.

If you wait to sow the seeds until after a killing frost, the seeds will be ready to grow early in the spring. Seeds often germinate better in cool soil. This is probably the easiest method, but it's hard to remember to look for them in the spring and to recognize the seedlings as they emerge.

Of course, we do get a few seedlings popping up on their own around the yard, the seeds having been scattered by the wind the previous fall. Unlike some plants like jewelweed, swamp milkweed seedlings aren't a problem since there never seems to be very many. If they do pop up where we don't want them, we just dig them out and transplant them elsewhere, or pot them up to give away. The more people growing milkweeds the better!

I've been pretty casual about this since I'm mostly growing some extra plants for my own yard, but local native plant professionals, such as Amanda's Garden and The Plantsmen Nursery, grow milkweed in pots and use seed starting mix and cover with ¼" of soil.

A quick and easy method

We wanted more than just the occasional seedling sprouting up at random, though, so we planted seeds ourselves. But rather than just sprinkling the seeds at random, we've started sowing them in pots in the fall after a killing frost, inserting a plant marker, then sinking the pots into the ground to wait for spring.

Why the pot? Only because it reminds us that we planted something there, and that's where we'll find the seedlings. We've generally put a little soil on top of the seeds, but William Cullina in his *Wildflowers* book says to surface sow.

The plant label is the important part! In the past, when I started seeds this way but without a plant marker (after all, I *obviously* would know what I had planted …) come spring I had no idea what was in the pot. As we age, we try to idiot-proof things.

Many little seedlings came up the next spring, and even though they were a little crowded, they grew very well.

After procrastinating for a while, I took the next step and pulled the pots out of the ground. So far, so good. But then I just left them sitting there during one of our driest summers. After about a month, I took pity on them and guiltily knocked them out of the pot, untangled their roots, and planted them. The miracle is that even after this abuse they grew very well. I'm not recommending this "method," though. Think how much better they would grow if the little seedlings were planted in a timely fashion.

So far, this seems to be the easiest way to start milkweeds (and other plants whose seeds I find in my garden).

How to get rid of aphids

By Janet Allen

By the end of the season, it's common for milkweeds to be covered by bright orange oleander aphids, a nonnative species introduced from the Mediterranean region. They don't seem to be a problem earlier in the season, and some years seem worse than others, but they can certainly make the plant less attractive and probably weaken it.

When I'm cutting milkweed to bring inside for our caterpillars, my hands can sometimes end up orange — yuck! — but seeing my beautiful orange monarchs later emerge is a good enough trade-off. I guess I could wear gloves, but I've never liked to garden in gloves. A quick hand-washing is easier for me.

One way to get rid of the aphids is to put on gloves and rub your hands along the aphid-covered stems. Some people blast plants with water as a non-toxic way of ridding plants of aphids, but I wouldn't want to do that on milkweeds. There could be tiny monarch caterpillars blasted away with the aphids! The monarch eggs and first instars are really tiny.

Because of modern changes… there's a lot less milkweed than there was in the past.

Growing milkweeds indoors

Why go to the trouble of growing them inside when it's so easy to start them outside? One reason is timing. As Amanda's Garden noted, seeds she started on Nov. 11 germinated in late May. If you want to have larger plants for the beginning of the growing season, you'll need to start some plants inside. It also is somewhat more predictable and it gives you a feeling of being in control of how many plants you produce.

When we grow them inside, cold stratification is really important to get good germination and growth. The purpose is to trick the seeds into thinking they've been through winter, which plants native to the Northeast evolved with. And as everyone in Central New York knows, winter means **cold** and **wet**. It's easy to fool the seeds. Just put them in a moist paper towel, then into a plastic bag and leave them in the refrigerator for three to six weeks or, as The Plantsmen Nursery recommends, just take them out after 30 days. Check on them occasionally; they may start germinating sooner, and you'll want to plant them then. And that's all there is to the simple process with the big name of "cold stratification."

We experimented to see if cold stratification is necessary.

Here's the results of our swamp milkweed (*Asclepias incarnata*) experiment. We planted one flat with un-cold-stratified seeds, and one flat with cold-stratified seeds. Guess which is the flat whose seeds were cold stratified!

In the left flat: We soaked half the seeds, and we simply planted them with no special treatment other than having been stored on the cold porch all winter.

In the right flat: We cold-stratified the seeds as described above. Virtually every seed came up, and much sooner than the seeds that were simply planted.

For a faster start, we start them indoors six weeks before the last frost date, growing them under fluorescent lights. This means that we put the seeds in the refrigerator as early as mid-February, so we can plant the seeds in late March. They start germinating about two weeks after planting.

Sometimes we even start some later in the season. These are perennials, so getting off to a slower start the first year isn't a problem since we're just getting a head start for the following year. And milkweeds grow pretty quickly anyway.

Multiply by dividing

Although it doesn't seem to be an officially recommended way to get more milkweed plants, we've been successful in dividing swamp milkweed.

But this method would definitely not apply to butterfly weed (*A. tuberosa*) since it has a long taproot and taproots don't want to be divided. On the positive side, this long taproot is what makes this species of milkweed more drought-tolerant so it's good for dry areas or poor soil.

I haven't tried dividing common milkweed (*A. syriaca*), but I'm not sure it would be the best way to propagate them.

Here's the swamp milkweed plant to be divided. Each stem will become a new plant. Unlike common milkweed (*A. syriaca*) that spreads underground, the swamp milkweed's roots are pretty self-con-

For more information

- Monarch Joint Venture: This organization (of which Wild Ones has a partnership with) has a number of excellent factsheets available on their fact sheet web page including milkweed information sheet, gardening for monarchs, potential risks of growing exotic milkweeds for monarchs, pollinator plants of the Central U.S. and more.
- Monarch Watch: Growing milkweeds
- Monarch Watch: To purchase milkweed plugs suitable for your own ecoregion, visit Monarch Watch's Milkweed Market
- The Xerces Society: Milkweed Seed Finder
- The Xerces Society: Project Milkweed includes more information on finding milkweeds – specific to each state
- The Xerces Society: Milkweeds: A Conservation Practitioner's Guide – Includes sections on milkweed pests and diseases
- ADKAction: Monarch Butterfly Conservation – As part of their Pollinator Project, works to preserve Monarch habitat in the Adirondacks

tained and not inclined to spread. This is one of the reasons (besides having beautiful flowers) that swamp milkweed (*A. incarnata*) is a very garden-worthy plant.

Tease apart the stalks of swamp milkweed roots, letting their roots untangle as you gently pull. Voila! You have several plants where there had been one!

Common milkweed

These common milkweed seedlings are some of the ones found at our HGCNY Wild Ones plant sale. We've distributed thousands of milkweeds as part of the Wild Ones "Wild for Monarchs" project. I haven't tried transplanting or propagating common milkweed (*A. syriaca*), but others have.

Here's what has been posted on the Monarch DPLEX listserv: "The propagation rhizome of *A. syriaca* grows about one inch deep. With young common milkweed, I cut a big circle around the plant, then go in deep, and take out the whole mass. I pulled up about 3 feet of the rhizome and coiled it up in a flower pot with potting soil resulting in a vigorous lush milkweed bush. I think given the recent discussions I would try to cut it up and see if I could get many pots of milkweed."

In the fall and spring

In the fall, I leave the dead stalks (perhaps cutting them back a bit if they're too tall) for three reasons.

First, milkweeds emerge later than many other plants. The first year I planted them, the following spring I thought they hadn't survived the winter since most other plants were already growing. But it turns out that they just take their time in the spring. The dead stalks I leave in the fall are a perfect plant marker so I know exactly where to expect them to emerge in the spring.

Second, some birds find their fibers useful as nest building materials. People clean up way too many bits of nature that birds and other creatures need for raising their young.

Third, these hollow stems are a good place for birds to find a tasty insect overwintering or to cache some seeds or insects of their own.

Janet Allen is the co-founder and president of the Habitat Gardening in Central New York Wild Ones chapter (www.hgcny.org). In addition to the "Our Habitat Garden" website www.ourhabitatgarden.org, she also created a six-session discussion course titled "Caring for Our Piece of the Earth" available as a free resource at https://www.hgcny.org/course/. Her yard is certified as Monarch Waystation #581 by Monarch Watch and as a Certified Wildlife Habitat #27815 by the National Wildlife Federation.

MEET THE DESIGNERS

Thurs., Sept. 16, 2021 | 5-6 p.m. CDT
Register for this FREE online event at:

nativegardendesigns.wildones.org

Josh Altidor, Boston Native Garden Plan

Andy Brand, Boston Native Garden Plan

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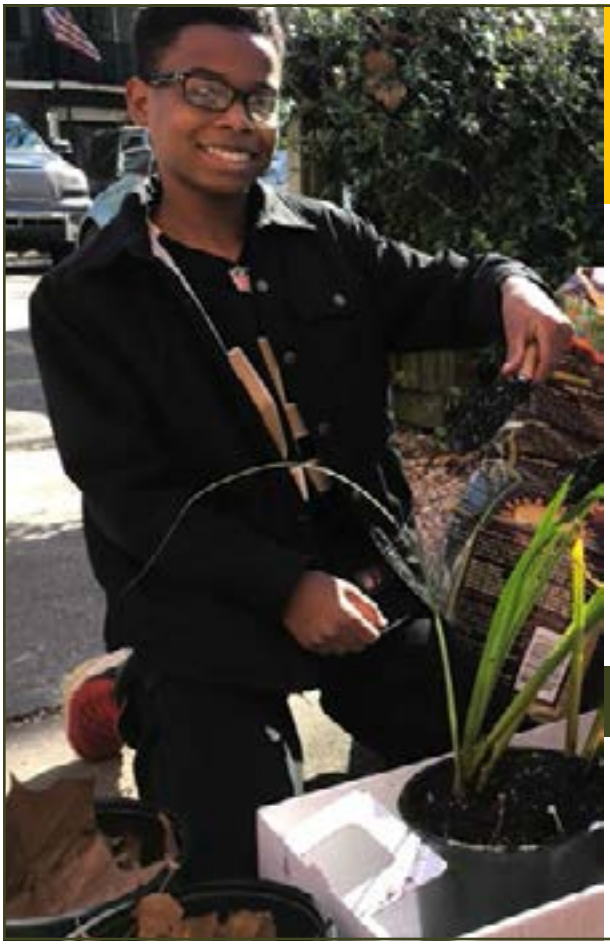

Lorrie Otto Seeds for Education Online Grant App Open Now!

Applications must be submitted by Oct. 15th, 2021 at 11:59 p.m. CDT for projects to be funded in 2022.

Grants are awarded (up to $500!) for acquiring native plants and seeds that engage youth in planning, planting and caring for native plant gardens.

Schools, nature centers, after school care programs, community centers or youth groups located in the US are welcome to apply!

Apply now at: https://wildones.org/sfe-application/

Wild Ones
NATIVE PLANTS. NATURAL LANDSCAPES

Wild Ones updates statement on the use of nativars

In the fall 2012 the national board established a committee to develop a position for the Wild Ones organization on the use of nativars. The resultant statement was adopted in 2013. This position statement was revised and updated by the Wild Ones executive committee in 2021, with input from the honorary directors, and approval by the board.

Nativars: Where do they fit in?
Wild Ones encourages the use of native plants to promote biodiversity and ecosystem health in gardens and landscapes. Do nativars, which are cultivars of native plants, have the same ecological value as straight-species plants? What is the difference between a nativar and a straight-species native?

A **native plant** is one belonging to a species that was present in a region, habitat or ecosystem prior to European settlement. These plants have held an ecological niche in our landscape for centuries and reproduce, primarily, through open pollination. These plants are sometimes referred to as straight-species or wild-type natives.

A **cultivar** is any plant that is developed or selected for its desirable characteristics and maintained by propagation. Cultivars are reproduced through cloning methods such as grafting, cutting, root divisions, layering, tissue culture, etc.

A **nativar** is a cultivar that came from a straight-species NATIVE plant. Nativars are propagated for many reasons: flower colors or forms, compact size, insect or disease resistance, tolerance of certain environmental conditions and more. Nativars can be a native plant that is a genetic variant found

Wild Ones' revised Nativar statement encourages members and others to plant native plants, like these swamp milkweed (*Asclepias incarnate*), which is a favorite of monarchs and bees, instead of nativars or cultivars.

When we try to pick out anything by itself, we find it hitched to everything else in the Universe."

—John Muir

in nature that is then selected and propagated to retain a particular or unique aspect. They can also be obtained through the process of artificial selection in which plant breeders grow plants with desirable characteristics and eliminate those with less desirable characteristics.

How do you know if you have a nativar or a straight species plant?

Nativars can be identified by checking for a variety name, in addition to the species name, which is given on a tag or catalog. For example, Brandywine red maple, *Acer rubrum 'Brandywine'*, is a cultivar, whereas the native, from which it is derived, would simply be labeled as Red Maple, *Acer rubrum*.

The desire for a novel or improved plant product, particularly one that is easy to replicate, grow and market is understandable, yet these plants may not provide the same ecological return that comes from a straight-species native. One way in which these plants are more limited is in their lack of genetic diversity; another limitation may be in their delivery of ecosystem services.

Genetic biodiversity

Native plants grown from seed carry the wealth of their native gene pool. They perpetuate this diversity as they grow and participate in successful pollination. This genetic diversity helps whole species to survive and adapt when confronted by environmental stress. Each successive generation of plants reproducing in this manner continues to maintain a rich heritage.

Most cultivars, including nativars, are propagated by cloning, so that each plant has the same genetic makeup as the parent plant, and so on. A cloned cultivar has a set genetic package. Sometimes these clones go on to participate in the natural reproductive cycle by cross-pollinating with other true natives, sometimes they do not.

If only a small percentage of the plants being planted in gardens and landscapes are nativars there would be no concern. However, the mass-production, and increased use of nativars over straight species native plants, is a concern for ecologists, environmentally friendly gardeners, horticulturists and native plant professionals. Straight species open-pollinated plants, and the genetic diversity they contain, are

the foundation of both nature and horticulture. They are the building blocks of future horticultural selections, as well as the key to ecological preservation.

Ecosystem service

Do nativars serve the same ecological function in the landscape with the same degree of effectiveness as straight-species plants? Research on this topic is ongoing, and there is much yet to be discovered about the differences between specific nativars and straight species in regards to their particular usefulness to pollinators, as well as their ability to provide other ecological services, such as food sources for insects.

Annie White, at the University of Vermont, in her dissertation, *From Nursery to Nature: Evaluating Native Herbaceous Flowering Plants Versus Native Cultivars for Pollinator Habitat Restoration*, 2016, found that when particular nativars varied significantly in color, size or shape from their wild-type, they provided less ecological service to pollinators. Her research recognized that 'native wild vs. native cultivar' studies need to be conducted to better understand how different cultivar species may or may not be an equal replacement for their native type.

In addition to the research cited above, native plants are an essential component of complex functioning food webs. For example, in the study by D.L Narango, D.W. Tallamy and P.P. Marra, *Nonnative Plants Reduce Population Growth of an Insectivorous Bird*, 2018, found that chickadees foraged 86% of the time on native plants. Chickadees achieved successful replication rates ***only*** in yards with less than 30% introduced woody plants. This study, and others, underlines the importance of landscapes with at least 70% native plants for optimal ecological stability.

Request natives when you buy

As advised by Dr. Douglas Tallamy, Wild Ones lifetime honorary director, University of Delaware entomologist and author of *Bringing Nature Home: How You Can Sustain Wildlife with Native Plants*: "It is a bad idea to load the landscape with cultivars that have no genetic variability... I think the safest policy right now is to encourage the use of straight species. Ask for them at your local nursery; encourage nurserymen to start stocking more straight species. The nursery industry has not embraced the message that native plants are more about ecosystem function than about looks. We have to convince them that there is a market for plants with high function."

Difficulties may occur when native plants are not readily available or when they are labeled as natives and they are not. Seek out native plant nurseries in your eco-region and ask for straight-species natives from your landscape sources. Planting wild-type natives, not nativars, is particularly important when preparing a natural restoration or habitat.

While a nativar will most likely be a better ecological fit for North American gardens than an exotic species from Asia or Europe, it remains to be seen to what extent it can fill the ecological niche and provide the genetic richness of a native plant. It is the mission of the Wild Ones organization to promote environmentally sound landscaping practices to preserve biodiversity, through the preservation, restoration and establishment of native plant communities.

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SoKY chapter wins first for its educational exhibit

By Janeen Grohsmeyer

The Southern Kentucky Chapter of Wild Ones won first place for its educational exhibit at a June 2021 flower show in Bowling Green.

The chapter chose the topic "Healing the Earth, One Yard at a Time" and provided tips and techniques for landscaping with native plants in your own yard, thus making your land a haven for wildlife and contributing to the effort to create a Homegrown National Park.

The chapter used books, handouts, posters, and, of course, some native plants to create a tiered display. All of the brochures about native garden design were taken, and nine people signed up to be added to the chapter mailing list.

SoKY Chapter plans to use the yard-sign and table covers at future events, and the informational posters will be displayed again at other gatherings.

The show, organized by the Cardinal Council of Garden Clubs, an affiliate of the Garden Club of Kentucky, Inc, and National Garden Clubs, Inc., was grounded in the theme, "Preserving our Southern KY Environment."

The chapter hopes to work with local garden clubs and co-host a Native Plants Flower Show next year.

Janeen Grohsmeyer is president of the SoKY Wild Ones chapter.

The Southern Kentucky chapter of Wild Ones took first place for its educational exhibit at the Cardinal Council of Garden Clubs flower show.

St. Louis grows a native plant movement

Photo: Missouri Botanical Garden, Martha Adams

Skillful design showcases beauty and landscape performance potential of native plants in the Whitmire Wildflower Garden.

By Jean Ponzi

Ecology embodies relationships in place. Plants, critters, people, soil, water and weather interact through cycles of seasons, place based. Collaborative diversity cultivates health and wealth for all. In St. Louis, Missouri, a vibrant culture of humans relating to native plants is growing community capacity to understand, value and even restore ecological abundance.

We're thrilled that Doug Tallamy, entomologist, native plant advocate and Wild Ones lifetime honorary director, cites our efforts. "You know I've talked all over the country," he said in a presentation here last year. "There are groups doing good things in California, Florida, Indiana, Michigan, Connecticut – but St. Louis is leading the way! You have so many groups and programs – some doing this work longer than me – using native plants to restore ecosystem function to human-dominated landscapes. That's what it's all about, and you guys are leaders!"

Encouraged by Tallamy to share what the St. Louis Wild Ones Chapter does and how it's working, I like to frame the story in plant terms. What are your site characteristics? Design in the limits of your region's palette of current strengths and plot out expansions. Throughout our tale, Wild Ones show up as a keystone species. How can your Wild Ones chapter leverage partnerships, project visibility, and access to plants to pollinate local successes?

A taproot of success here is our regional native plant marketing and education program, Grow Native! (GN!). Seeded in 2000 and grown through state tax support by Missouri departments of conservation and agriculture, the mature program was transplanted in 2012 to the nonprofit Missouri Prairie Foundation. GN! now works in neighboring parts of Illinois, Kansas, Arkansas, Oklahoma and Nebraska, a range that makes sense for plants native to our several biomes.

Early on, a visionary approach rooted equal focus on marketing, consumer education and professional development. Full-color materials (first print, soon online) featured basic planting plans, linking the idea of gardening with natives with the joyful, universal appeal of butterflies. The agriculture partnership encouraged growers, positioning native plants as value-adding agri-products. Green industry networking fostered continuing education credits through conferences, seminars and, as projects proliferated, site tours. Missouri was so fortunate to have GN! fostered by state agencies, with that three-lobed focus that any region could adapt.

Rainscaping strategies using native plants demonstrate the economic and infrastructure value of landscaping with natives.

The compound GN! strategy continues in its third decade, including one major annual effort with high return on investment: updates to the *Grow Native! Resource Guide*. This full-color piece (online and still in print) provides efficient, vetted access to more than 150 professional members and sponsors – including Wild Ones Ozark and St. Louis Chapters – who supply native plant products and services, presented in plant-list format. The guide is a powerful enterprise tool for the 50 locally owned garden centers and wholesale and retail growers listed, who, in turn, supply verified native plants to meet burgeoning public demand, educate their customers, and contribute fiscal support and intellectual capital back to GN!

Educational offerings teem with knowledge and perspective drawn from the GN! affiliate network. Pandemic-prompted webinars and video tours mushroomed to reach new audiences and offer in-depth trainings, with minuscule costs. GN! is a central, respected source connecting plants, pros and the public to native aesthetics and benefits. Dig into *your* nearest native plant society or program!

Who can help the public start gardening with natives? Here, it's the birders. Bring Conservation Home or BCH, a program of St. Louis Audubon Society, sends trained volunteers to assess characteristics of your place and recommend options to biodiversify your property with natives. Launched in 2012 after a pilot year, BCH has engaged over 1,400 landowner participants to cultivate more than 600 acres of suburban and urban neighborhood habitat, with a waiting list this summer of 200 applications.

Coordinated by 1.5 Audubon staff, the mighty person-power for BCH comes from a cadre of master naturalists and master gardeners, many who are Wild Ones members. These habitat advisers are trained to engage and educate homeowners during team visits and through written reports that detail existing native and invasive plants and suggest planting options customized for each site. Homeowners can opt to earn habitat certification at three levels by fulfilling defined ecological actions, validated by a return visit.

Our BCH structure was adapted from an Audubon chapter in Portland, Oregon. Heartlands Conservancy of southwestern Illinois began a sister program in 2019, Conservation at Home, to efficiently serve our region's Metro East communities. Modest participation fees support program staffing while growing Audubon membership and educational influence.

This elegantly simple, superbly interactive, transplantable program grounds a "friendly persuasion" toward native plant values in focused person-to-person exchange, geared to benefit each location. Relationships in place, indeed.

Vital to transforming aesthetics is getting to see native plants in well designed, well maintained public spaces. Around St. Louis today you

Native plant sales that support public demand for the plants are a venue to learn from fellow native plant gardening fans, while growing business for local plant providers.

Educational signs at many native plant sites interpret plant choices and functions, helping to evolve St. Louis landscaping choices.

can visit or casually cruise by urban, suburban and rural native landscapes, but our dowager *Filipendula rubra*, our ultimate destination, is the Whitmire Wildflower Garden**.** This nationally renowned feature of Shaw Nature Reserve, the ecological research-focused rural property of the Missouri Botanical Garden, displays over 750 species of Missouri native plants in the garden's five acres, surrounded by 30 acres of reconstructed prairie and woodlands. The garden inspires with the beauty of native plants in settings both conventional and naturalistic.

Visitors can relate to native forbs, grasses, bushes and trees in small spaces, and across expansive vistas, seeing native plants in a water garden, as groundcovers, amid rocks, on a patio and a rooftop – and more. From this site's expert fusion of design and care, we can recognize native plants as high performers, then choose to tap their potential for personal, municipal and commercial landscapes, to benefit climate, human health and biodiversity.

Eight organizational Partners for Native Landscaping are our native plant culture feeder roots, reaching St. Louisans in multiple ways to appreciate natives. Every spring since 2012, PNL has produced a day or more of resource-packed public programs, featuring our movement's stars - Doug Tallamy, Heather Holm, Larry Weiner, Neil Diboll and others – and a host of local and regional ecological landscaping experts.

Our COVID-year virtual pivot joined with a powerful new promo-partner, the St. Louis County Library, to present a series of eight Zoom talks by PNL representatives. Viewed live and on-demand, we reached 3,232 people with a near-zero carbon footprint! We enriched library offerings and grew a year-round audience for each group. Here's a brief overview of these partners' work.

BiodiverseCity St. Louis is a community-wide initiative based at the Missouri Botanical Garden and collaboratively led by a seven-organization team. BDV-STL curates and promotes use of biodiversity data and spotlights the native plant projects of businesses, homeowners and municipalities. How do you get biodiversity factored into community decisions? Document it! Make it visible, factual, popular and real from many sources.

From Grow Native!, in addition to the taproot work described, professional and public engagement addresses diverse stakeholder needs. For example, the Missouri Invasive Plant Council is vetting agricultural, public agency, landowner and ecological inputs toward a "Cease the Sale" campaign targeting problem species still on the market.

Our regional wastewater utility, Metropolitan Sewer District, has tapped in to low-cost rainscaping strategies powered by native plants. We are one of many cities with combined and aging storm and sanitary sewer systems, overtaxed by the kind of gully-washer rains that climate change has made common. Adding primarily plant-based green infrastructure into storm water management showcases native species' capacity to protect public health and property. How could some rainscaping demos prime this water cycle of benefits for your community?

Resources from the Missouri Department of Conservation provide native planting options and concerns for municipalities, private landowners and the planted rights-of-way used by power companies and transportation agencies. MDC cultivated Grow Native! and continually advocates for native plants. Taxpayer support is strong because MDC serves the common interests of environmental advocates and outdoor recreation enthusiasts, bridging ideological divides by helping all Missourians enjoy and responsibly steward nature. What state or county agency resources can boost your region's native plant movement?

Beyond its glorious wildflower borders, Shaw Nature Reserve is an educational resource. Native Plant School public classes are held year-round in the Whitmire Wildflower Garden, taught by staff and partners. Shaw Professional Series seminars and tours, coordinated by colleagues at the Garden's EarthWays Center, offer continuing education in landscape design, engineering, installation and maintenance emphasizing native plants. On-site work includes seed collecting, seed banking, research-based ecological restoration, native plant propagation, bi-annual plant sales – and year-round access to high-quality nature. Where can people in your community go to learn and see native plants?

Garden gatherings grow relationships and knowledge among native plant enthusiasts.

While St. Louis Audubon is effectively promoting natives, their primary focus on birds helps all ages learn, observe and feel welcome in nature. With Wild Ones, Audubon hosts an annual Native Plant Garden Tour; this spring 50 extra tickets released when COVID restrictions eased sold out in 30 minutes!

Who can we hire to do this work? St. Louis Community College is growing a specialized workforce to design, install and maintain native landscapes. Enrollment of 160+ makes STLCC Missouri's largest horticulture program, boosted by an eco-emphasis significantly augmenting more conventional content. The campus is a learning lab, where students aged 18-80 tend native landscaped grounds, run a greenhouse and plant sales, and conduct plant performance trials. Class schedules support working students, with 80% getting green industry jobs prior to graduation, while community-level tuition prevents a burden of debt.

With blooming generosity, Wild Ones St. Louis Chapter members bring skill, time and enthusiasm to every effort in this report. We are the largest among 60+ chapters with 300 members including more than 100 who have joined since September 2020. Wild Ones activity grounds people in relationships to native plants, through hearty healing work that is fun.

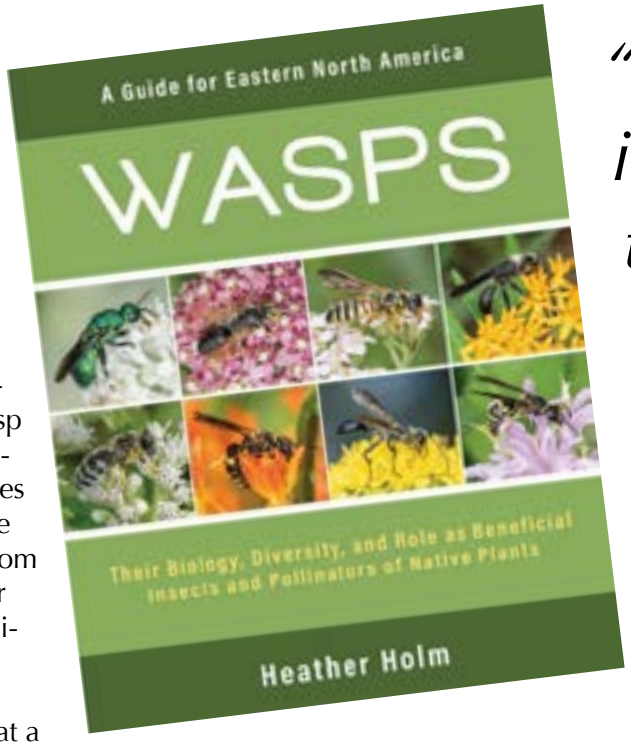
Three main forces are growing our St. Louis movement to native plants: partnerships, visibility and access to plants. Our community benefits from established, collaborative relationships and programs. Some are uniquely local and many you could adapt to advance our shared cause in your environment.

What are the strengths in your community? Tend them, share them, move them around as needed – in all the ways we love to learn from native plants.

Jean Ponzi serves as green resources manager for the EarthWays Center of Missouri Botanical Garden. Her city of St. Louis yard is forested with natives. A Wild Ones member with broad sustainability knowledge, she's available to speak through greenresources@mobot.org. Marsha Gebhardt and Dawn Weber, both of the Wild Ones St. Louis chapter, contributed to this article.

Holm's wasp book creates buzz

Barbara A. Schmitz



"…filled with information that will help you better appreciate and understand wasps.

If you liked Heather Holm's book on bees, there is no doubt you'll like her newest book, "A Guide for Eastern North America Wasps."

The 415-page hardcover book, published in February 2021 by Pollination Press, features about 150 species of wasps in eastern North America, including full-page profiles for each wasp species, as well as the specific native plants and habitat each species depends upon. In 18 chapters, the book covers wasps completely, from their biology and diversity to their role as beneficial insects and pollinators of native plants.

Holm writes: "I joked with friends while writing this book that a book about wasps was the last thing most people are interested in reading. Many people have an aversion to wasps because they hold an unpleasant memory of being stung by one…"

But the book delves into how beneficial wasps are to humans, mainly through insect pest population control and pollination.

"This complex web of many wasp-prey and wasp-plant interactions helps ensure ecosystems remain resilient, diverse and balanced," Holm writes. "If all wasps were to disappear, it would have a catastrophic effect on several trophic levels of the food web."

The book is a great reference, filled with information that will help you better appreciate and understand wasps. For instance:

• Wasps, like butterflies or bees, undergo complete metamorphosis with four distinct life stages: egg, larva, pupa and adult. Usually one only sees wasp adults because the other three life stages are spent in the nest either below ground or above ground in a cavity.

• Multicellular nests are the most common architecture for solitary wasps, and those nests usually have a single entrance burrow and oval cells that radiate horizontally or diagonally from the main burrow. To stop unwanted visitors, female wasps use a number of techniques to close or disguise the nest entrance while they are away foraging, often using a pebble or a piece of plant debris to cover or plug the nest opening.

• Once fully developed, an adult wasp spends up to five days resting in its nest cell before exiting to allow its wings and exoskeleton to harden.

• The majority of solitary wasps spend the winter in a prepupal state in their nest cell.

• Each wasp species have specific prey choices, usually limited to one insect or spider family.

But it's the photography that makes this book truly amazing. There are more than 1,000 stunning, close-up photographs of wasps at work. They allow you to see their beauty up close, something that is difficult to do in person.

The first five chapters cover wasp taxonomy, life cycles, anatomy, diet and ecosystem services provided by wasps. The remaining chapters include profiles of each wasp species; those are organized by family, showcasing 12 families and 68 wasp genera. Each profile includes information on the specific wasp's appearance, nesting biology, prey, range, native nectar plants and more. Also included are eastern North American regional native plant guides, tips on wasp observation, glossary of terms and an index that makes it easy to find just the information you're looking for.

Want to learn more about wasps? Holm will be presenting a Wild Ones webinar and talking about her book at 6 p.m. CDT Oct. 20. Register online at https://wildones.org/holm-wasps-registration/.

Book teaches children to embrace nature, plant natives

Barbara A. Schmitz

"Grandma Lisa's Humming, Buzzing, Chirping Garden" makes me wish my kids were young again, or that I had grandchildren to share it with. Then they'd understand why my gardens, filled with birds, bees and butterflies, make me so happy.

The 40-page children's picture book is written by Lisa Doseff, a National Wildlife Federation Habitat Steward, and illustrated colorfully and engagingly by Duncan Robertson. It tells the story of Grandma Lisa who purchases a new home and consequently tears out the old plants in her yard and replaces them with native ones. She explains to her grandchildren that native plants are the "best food" for pollinators, giving birds, bees and insects a place to find nectar and monarchs a place to lay their eggs on the only plant their young can eat — milkweed.

The story educates, without children even realizing it. Children learn about the important jobs insects do and how plants and bugs decompose to make rich soil. They learn how to make their yard friendly for salamanders, frogs and toads, birds, and other critters. And most importantly, they learn about the food web and that "it's just the way that nature works."

Appropriate for children ages 5-10, the book is timely with climate change challenging the world; it helps to explain the difference anyone can make in a home or community garden, complete with the joy that it can bring. But more importantly, it encourages both children and adults to embrace nature and plant natives. And naturally, have fun while doing it.

"Grandma Lisa" was published in July 2021 by Pollination Press LLC. The hardcover book sells for $14.95.