

Climate change? What climate change?



By Barbara A. Schmitz

If September and October's weather wasn't enough to convince people that climate change exists and is quickly changing communities across the nation and world, I don't know what will do it.

Of course, I'm talking about Hurricanes Helene and Milton. The first struck the last week of September as it carved a path of destruction from Florida to the southern Appalachians, killing at least 231 people across six states. It was one of the

deadliest hurricanes to strike the U.S. mainland in the last 50 years and left hundreds of thousands of people without power.

But in a one-two punch, before residents could even pick up the debris caused by Helene, Milton came barreling east toward Florida and made landfall Oct. 9 on the state's Gulf Coast. As many as 15 million people were under flood watches as people took flight due to mandatory evacuations as Milton spawned tornadoes and caused widespread flooding, killing at least 35 and causing more than \$85 billion in damage.

However, the nation wasn't just dealing with hurricanes this fall, but also wild fires burning in Wyoming, Montana, Utah, Idaho and elsewhere. Many of those fires were caused by drought conditions that occurred almost everywhere where the hurricanes weren't. In fact, the National Oceanic and Atmospheric Administration reported that more than 70% of the nation was at least abnormally dry.

I live in Wisconsin and don't have to deal with hurricanes. But we do have to deal with wild fires, with 1,106 wild fires burning 2,490 acres in 2024 across the state as of Nov. 10. (That's 250 more wildfires than normal.) And according to the Wisconsin Initiative on Climate Change Impacts (WICCI), there are more coming. The WICCI predicts that Wisconsin is likely to become a much warmer state over the next few decades, with average temperatures more like those currently experienced in states hundreds of miles to our south.

But it isn't all doom and gloom. Agencies and nonprofits like Wild Ones are combining efforts to educate people to do what they can to mitigate the issues and problems climate change causes. One example of this is "Demonstration gardens show how to cut down on water usage," which tells the story of the Northern Water Conservation Gardens and their efforts to encourage residents, municipalities and others to use water-wise plants. Read more on <u>Page 34</u>. (Coincidentally, *Kiplinger Personal Finance* magazine included an article in its July issue how adding native plants can help you save you money since they need less water; it's the same argument Northern Water makes.)

Wild Ones Lawyer Roseanne Plante has garnered national attention in her efforts to educate and promote natural landscaping and provide guidance to homeowners and others battling HOAs and zoning laws that prohibit planting native plants. Read her story on <u>Page 18</u> about how she's helping others win their native plant battles.

Inside you'll also find the "usual" stories about how planting natives not only benefits our landscape, but also the animals and pollinators within it. For instance, learn about Oklahoma City Zoo's effort to increase the number of milkweed plants and boost monarch populations on <u>Page 10</u>.

But there's much more inside: How to prune your trees for wildlife (<u>Page 22</u>), make tea from native plants (<u>Page 15</u>), get ideas for holiday decorations using items found in nature (<u>Page 32</u>) and much more.

So when you get a chance this holiday season to slow down, sit down and read this issue. I think you'll agree there is a lot of good happening today with natural landscaping. Make it your New Year's resolution to become part of the solution.



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Established in 1977, Wild Ones is a national nonprofit 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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Wild Ones Journal

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WILD ONES JOURNAL WINTER 2024 • VOL. 37, NO. 4



A VOICE FOR THE NATURAL LANDSCAPING MOVEMENT

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Rare spring ice storm highlights beauty of shrubby St. John's wort

A rare ice storm in Nashville, Tennessee, was all it took for Abigail Rexer, now 17, to head outside with her Canon EOS 2000 camera to capture the photo that graces the front cover of our winter issue.

What attracted her to the new leaves and seed pods of shrubby St. John's wort (Hypericum prolificum) was that





Abigail Rexer, 17, with her Canon EOS 200 camera. She took the cover photo on the Wild Ones Journal winter issue, and has submitted other photos in the past. Below: Coral Honeysuckle (Lonicera sempervirens): Wee Wild Ones with ebony spleenwort (Asplenium platyneuron), woodland stonecrop (Sedum ternatum), native sedges and moss.

it hinted of spring, yet spring was covered in ice. The beauty lasted only a brief time, as the ice melted before noon.

"I like to take photos of things up close, things that catch my eye," she said. "I don't do as many landscapes."

Abigail's mother, Debbie Rexer, is a Wild Ones Middle Tennessee member, and their ¾-acre yard is filled with native plants, she said. So, it is no surprise that her mother is the one who got Abigail interested in native plants and pollinators and that Abigail plans to be a native gardener for life.

"I've been home schooled, so I have had a lot of opportunities to play outside or run in the yard," she said. It's also allowed Abigail to appreciate the native plants and the birds, insects and other animals that visit their yard because of those plants. Her favorite native plant is fringed bleeding heart (Dicentra eximia), she said.

When she was at a North Carolina summer music program doing intensive piano study earlier this year, she noticed a neglected bed that looked like it had been a garden at some point. Abigail took it upon herself to weed and plant native seeds in it.

"It didn't pass the seedling stage before I left," said Abigail, "but it was looking hopeful when I left."

Abigail plans to major in piano performance at college.







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You may have heard the buzz back in early 2023. Mt. Cuba Center released their trials report, *Carex for the Mid-Atlantic Region*. Located in northern Delaware, Mt. Cuba Center is a public garden committed to the conservation of native plants and their habitats. Their research program

includes evaluations of native plants for their horticultural and ecological value.

Across more than 70 species of sedges, Carex woodii (pretty sedge) got top marks in their trials. It's a low-growing, shade-tolerant spreader with narrow, green foliage. Compared to the better-known Carex pensylvanica



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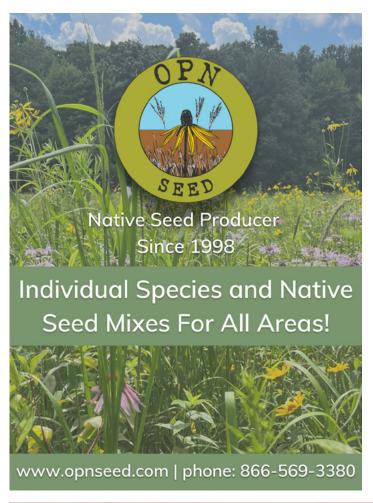
Photos courtesy of Mt. Cuba Center.

(Pennsylvania sedge), *Carex woodii* (pretty sedge was more attractive, formed a denser mat, and was better at suppressing weeds.

Carex woodii grows well in many regions and plays multiple roles in the landscape. It creates a beautiful groundcover. It can serve as the base for layered plantings, intermingling with spring wildflowers and woodland species. It thrives in shade and can be mowed occasionally, making it a low-resource alternative to turfgrass underneath trees.

Ready to try this versatile plant? After a period of limited availability, nursery growers have caught up, and *Carex woodii* is now available for Spring 2025.

For more details, <u>check out our species</u> <u>profile.</u>







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Momentum in Motown

By Matthew Ross

Being back in Michigan has been an incredible adventure after spending nearly nine years out East. One of the great joys is having the chance to get reacquainted with many of the community gardening and urban greening projects that have helped elevate Detroit's green scene. In September, I had the privilege and honor to attend the Perennial Plant Association's Conference hosted at Oudolf Garden Detroit (OGD) for a celebration and lectures about the advancement of ecological design throughout Michigan.

We were treated to lectures by Shannan Gibb Randall of Insite Design Studio, OGD gardeners Richard Thomas and Meredith Simpson, and the legendary Bill Schneider of Wildtype Native Plants. The talks were inspiring and carried with them a powerful message about the abundance of native plants being used in new and novel ways in the landscape. Public gardening professionals, nursery owners, OGD volunteers and members, as well as garden club members and curious home gardeners packed the Dossin Great Lakes Museum for the talks and a healthy discussion about the increasing relevance of native plants before we departed to tour landscapes across Detroit.

We started by exploring Oudolf Garden Detroit, which is situated on a 3-acre parcel adjacent to the formal gardens of the Belle Isle Conservancy and the Nancy Brown Peace Carillon. If you have never had the pleasure of visiting this garden, I would highly recommend adding it to your botanical bucket list. Piet Oudolf's vision for the space highlights the various planting techniques that he has mastered, and it is a testament to his outstanding plant combinations. What started as a love letter from residents of Detroit in 2016 during the reimag-



Above: Richard Thomas shows conference attendees some of the interconnected combinations of plants at Oudolf Garden Detroit. Below: The rain garden and bird border exemplify a mix of aesthetics and ecological function at OGD.



ining of Belle Isle has now matriculated into one of the most texturally rich plantings in public horticulture. OGD provides open access to their plant database, phenology and original designs. The knowledge gleaned from perusing these resources on their website <u>oudolfgardendetroit.org</u> highlights the four major styles of design block, matrix, grouping and triangle

and the total number of plants in each of the beds. As a demonstration tool this provides a chance for visitors to decide how they might best utilize these techniques to maximize diversity, add textural contrast and see what combinations most appeal to them.

In addition to the Main Garden that primarily focuses on an elevated





Left: An elevated boardwalk flanked by a mix of native grasses, flowering plants and understory trees on Detroit's lower east side. Right: Garden visitors at Detroit Abloom hand feed crappie (*Pomoxis* spp.) in an elevated water feature that utilizes native plants to filter the water and cycle nutrients.

flat plane with a crisscrossing array of aisles separating each of the planting techniques, there are several perimeter gardens that appeal to those looking for ways to design stormwater management systems. The Rain Garden, Bird Border and Meadows provide sound hydrologic function, create corridors for wildlife and are wildly attractive. The newly opened Jean Wright Hudson Peace Meadow is the latest development of the garden and one that is quickly taking shape. From June through September their team of dedicated volunteers and head gardener Richard have been interplanting a series of native forbs and shrubs into an existing landscape full of invasive species, utility turf and a diminished native seedbank. Piet has designed the wet meadow to feature a succession of blooms that will be exciting to watch as the nearly 15,000 plugs take root. Given their commitment to sharing phenological data with the public, they have been taking weekly drone footage of the garden since it was first planted in 2019. It will be a living laboratory for gardeners interested in combatting neglected landscapes without wholesale spraying or tilling.

Following our exploration of the OGD we made our way out to experience a series of exciting projects that heavily featured native plants. We started the off-site excursions with the team from Detroit Bird Alliance and traversed a series of pocket meadows, remnant forest edges and deciduous canopies with unique seating areas and viewing coves. The largest part of the plantings was at

the 2-acre portion of Callahan Park. It is a partnership between DBA and the Municipal Parks Department to manage and re-establish native plant habitat at several of the underutilized parks and recreation properties. In total, the Detroit Bird Alliance is currently managing 19.5 acres of property within the city. I see the conversion of the former parkland into viable options for habitat resto-



Conference attendees immerse themselves in the ecological plantings of the Detroit Bird Alliance.



The pollinator pathway at Detroit Abloom. The native vegetation includes a mix of textures and a succession of blooms to attract pollinators throughout the year.

ration as being a program that other cities may look to for maximizing the impact of creating green corridors in previously blighted or under-resourced locations.

As our walking tour continued, we were brought to the Detroit Arboretum, specifically The Circle Forest. I have to admit I had never been there and was not familiar with the work they have been doing to reforest nearly an acre and a half of vacant land in Detroit's Poletown Neighborhood. Integrating sustainable techniques for healing the soil, utilization of downed tree limbs and stumps into functional elements in the landscape, and their connection to the community through programming and wellness are only a few of the hallmarks of the work that they are doing. I was most surprised by the 20,000 square-foot prairie planting that was seeded along the walkway into the park. One of their volunteers mentioned that their vision is to "heal the traumatized landscape." I look forward to watching this space continue to develop over the years and may need to return for a pawpaw

harvest in subsequent summers.

Our final stop on the tour was Detroit Abloom. A nonprofit community garden that began as a demonstration cut-flower farm in 2016 has morphed into a transformational space on Detroit's lower east side. What started as a place to produce flowers has continued to evolve into a wellness garden and outdoor classroom, a community vegetable and herb garden, an evolving children's garden and performance stage and a living oasis that encompasses a series of butterfly and pollinator gardens. Focusing on their pollinator plantings, Detroit Abloom provides vignettes of ideas for native plant gardeners to glean from - from utilizing wetland plants to naturally filter the water of a crappie pond, to creating natural arbors from large, coppiced shrubs rather than harvested lumber, to overlapping the viewshed and more. I loved the wildness of the design and the commitment of Tom Morello and the other gardeners who greeted us when we arrived. I think everyone loved the fact that there was a professional masseuse on hand

to provide body work for the gardeners after they tended to their respective areas, a new paradigm in design that I think will need to be incorporated into all my future plans. Their commitment to peace, tranquility and reverence for life is heartwarming and I think every tour attendee took home a newfound appreciation for the healing power of plants.

The experience opened my eyes to many of the ways in which native plants have been making their way back into the landscape through a series of gardens that are reclaiming forgotten landscapes and bringing a new aesthetic to Motown. I also was incredibly encouraged to see such an energetic group of professionals from a wide array of ornamental horticulture companies continue progressing the dialogue about the role of native plants at the Perennial Plant Association meeting.

Matthew Ross is executive director of The Botanic Garden at Historic Barns Park in Traverse City, Michigan and a member of Wild Ones Grand Traverse (Michigan) Chapter.



By Emily Geest Monarch butterflies (Danaus plexippus) are reliant on two things: nectaring flowers as adults and host plants as caterpillars. For monarchs, they are host-plant specialists, which means the only plants they can feed on as caterpillars are milkweeds (Asclepias spp.). Unfortunately, as habitat and milkweed have declined, so have monarchs. This decline has led monarchs to being petitioned to be listed as an endangered species under the Endangered Species Act and given the designation of warranted but precluded in 2020, which means that monarchs are deserving of being listed but other species take

priority. The listing decision on monarchs is again being taken up by the U.S. Fish and Wildlife Service; however, as of press deadline, no decision had been made.

In the meantime, conservation organizations like the Oklahoma City Zoo and Botanical Garden (OKC Zoo) are shifting attention to increasing habitat and more specifically increasing milkweed to help boost monarch populations. In North America, there are around 100 species of native milkweed with at least 25 species known to occur in Oklahoma. At the borders of Oklahoma, many milkweeds are rare due to being at the edges of multiple species' ranges.



Black Mesa State Park and Nature Preserve, Kenton, Oklahoma, is the highest point in Oklahoma and home to multiple rare and critically imperiled milkweed species.

Oklahoma itself is a unique state with at least 12 distinct ecoregions. The northwestern corner, the highest point in the state, consists of the Tablelands ecoregion. This area is notable for mesas, few trees and dry sagebrush habitat. Milkweeds of interest here include wheel milkweed (Asclepias uncialis) and longhood milkweed (Asclepias macrotis), both of which are considered rare, while dwarf milkweed (Asclepias involucrata) is considered extirpated.

In comparison, the southeastern corner of the state is the lowest point in Oklahoma and is considered the Southcentral Plains ecoregion. This area consists of high rainfall, forests and swamps with alligators. Purple milkweed (Asclepias purpurascens) occurs here, and is considered critically imperiled in Oklahoma through NatureServe, a biodiversity data source, with only a few records in the state.

To help bolster populations of these rare species, OKC Zoo has created a headstart program focused on milkweed. (A headstart program is when a species of conservation concern is brought into human care at an immature and vulnerable stage and then reintroduced back to the wild at a later stage of development.) Due to unique challenges regarding rare plant conservation, this program was created utilizing best practices developed by the Center for Plant Conservation in California. The OKC Zoo is also working with multiple partners including Oklahoma State University, The Nature Conservancy, Oklahoma State Parks, Oklahoma Department of Wildlife Conservation, U.S. Army





Left: Purple milkweed (Asclepias purpurascens) is an Oklahoma critically imperiled species with less than 30 individual plants known to exist in the wild. Right: Redring milkweed (Asclepias variegata) is a southeastern milkweed species that gets its name from the red around the base of the flower.

Corps of Engineers and USDA Forestry Service. Those partners helped determine which milkweed species to focus on in Oklahoma, to gain access and permissions to lands, receive permits for collection, and plan sites for future seedling reintroduction. After species were chosen and permits received, the project officially launched in spring 2023.

The first stop was to the herbaria in the state. Herbaria not only house collections of plants, but also serve as repositories for documenting plant biodiversity. Oklahoma has two main herbaria: one housed at Oklahoma State University in Stillwater in the Department of Plant Biology, Evolution and Ecology and the second at the University of Oklahoma in Norman in the Oklahoma Biological Survey Department called The Robert Bebb Herbarium. Records from the milkweed species of interest were

compiled to identify last known locations and gather coordinates. Additionally, community scientist platforms such as iNaturalist and GBIF were invaluable in locating additional records. The data uploaded to these sites is accessible to scientists worldwide, providing crucial information, such as plant phenology.

After plant records and blooming times were identified, trips to the corners of the state began using the gathered records to search for plants. While the search in the northwestern corner was unsuccessful in locating plants, other records of interest were found, including a rare grasshopper, plains yucca (Yucca glauca) and northern cholla (Cylindropuntia sp.). However, for the southeastern corner of the state, all targeted plants were located, including purple milkweed! Located plants had GPS coordinates taken and a fine mesh bag placed

over seedpods to collect a small portion of seeds.

In August 2023, the team returned to the locations and successfully recovered all mesh bags and collected seeds from all four species. Seeds had comas (fluffy tufts) removed by hand, were hand counted and cataloged. Upon return to the OKC Zoo, a portion of the seeds underwent cold stratification by being placed in a wet paper towel and then placed in a seed-designated refrigerator to mimic the natural conditions of winter. Another set of seeds underwent seed clipping, where the ends of the seeds are removed and placed into water cups to jump-start the germination process. By using two different germination techniques, the most effective germination process can be determined for each species. Seeds from all four species successfully germinated in







Left: To collect seeds, mesh organza bags are placed over developing seedpods. Later in the year, the team returns to collect a small portion of seeds to bring back to the Oklahoma City Zoo and Botanical Garden. Above left: Deer exclosures are erected around seedlings to protect the young plants from herbivores. Above right: Broken Bow, Oklahoma is the lowest point in Oklahoma and home to the state's critically imperiled purple milkweed (Asclepias purpurascens).

the OKC Zoo's greenhouses.

In April 2024, seedlings were brought outside to undergo weather hardening, a practice that helps toughen up seedlings and reduces transplant shock when planted outdoors. A monarch butterfly migrating through Oklahoma at the time took advantage of the opportunity and laid an egg on one of the seedlings! After eclosing, the first instar monarch caterpillar was gently moved to a larger milkweed plant. By late May, seed-

lings were ready to be brought back to the southeastern corner of the state. The OKC Zoo team carefully packed up the seedlings and planted them in secure locations in accordance with the project. Seedlings were planted in different conditions including full sun, dappled sun and shade, as well as varying distances from water in order to determine the most effective strategy for transplanting these species.

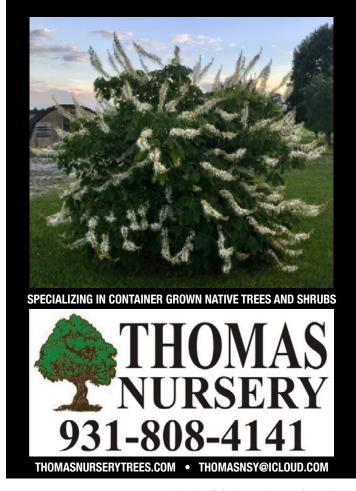
Beyond planting milkweeds, additional plants were found on the return trip, including new plant locations which increases opportunities for future seed collections. Milkweed pollinia (specialized milkweed pollen bundles) were hand collected from flowers for future pollination efforts as well. Planted seedlings will be monitored for survivability over the coming years. The ultimate goal of this headstart program is to help bol-

ster the population of vulnerable and critically imperiled milkweed species in Oklahoma, as well as inform conservationists on the biology of rare milkweeds and feasibility of milkweed headstart programs.

While these particular species of milkweed can be difficult to access, there are many other common species that are commercially available that can be planted in yards including butterfly milkweed (Asclepias tuberosa), showy milkweed (Asclepias speciosa), swamp milkweed (Asclepias incarnata) and common milkweed (Asclepias syriaca) that can help benefit monarch butterflies. Conserving monarchs and their habitat starts with the smallest action – plant a seed, watch it grow and help create a pathway for all pollinators!

Emily Geest, Ph.D., is a conservation scientist with the Oklahoma City Zoo & Botanical Gardens.









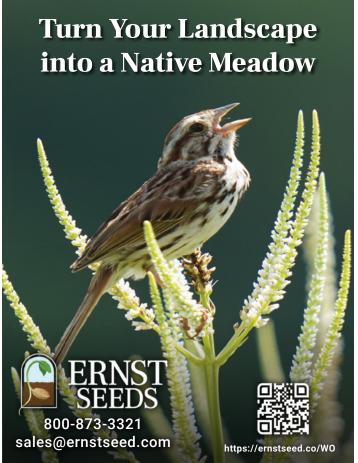


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Harvesting baskets are a must for easily collecting plant materials for tea. Photo: Connie Kollmeyer.

Deepening our connections with native plants through herbal and medicinal teas



By Kyla Muhammad

As the winter season unfolds, many native plants head toward dormancy. It's a great time to find alternative ways to deepen our relationship with native plants beyond gardening and nature walks.

One way to do this is to explore making and drinking herbal teas made from native edible and medicinal plants. We've experienced the beauty of their flowers, the interesting scents that some emit and the varied texture of their leaves, but how do these plants taste? Taste is a whole other realm to explore, engage and learn about the native plants we love. Furthermore, it's not just about discovering the flavors, but it's also about uncovering the medicine that many of these native plants can provide.

Herbal medicines have been used to prevent, treat and cure various ailments and to promote wellness. One of the simplest, most accessible, low-cost, yet effective methods of

administration has been to make and regularly drink herbal teas. Making herbal teas as medicine is an ancient practice across world cultures and is a practice that our various ancestors shared in common: foraging for plants, harvesting the right parts at the right time of year, preparing the herbs and using warm or hot water to extract out the organic compounds and oils from the plant material. Some of us still have relatives who have retained this plant knowledge and connection, and for many of us, we're only a couple of generations removed from it.

When it comes to expertise in understanding native plants in the United States and their various medicinal and herbal tea uses, Indigenous tribes and communities are unequivocally the protectors of this knowledge. For example, different Indigenous tribes would frequently use different parts and different preparations of the same native plant to treat similar or unrelated conditions,

reflecting an intricate understanding of each plants' capacity to provide medicines.

Without their profound love, stewardship, respect of and relationship with these plants over thousands of years, we would know very little about these native plants' healing and medicinal properties. To better understand which Indigenous tribes to acknowledge in gratitude for the stewardship and shared knowledge of the native plants in your area, visit Native Land Digital and enter your address to learn which Indigenous tribes' ancestral homelands are where you reside.

Despite Indigenous communities' efforts to retain knowledge of native plant uses for herbal and medicinal teas, the current U.S. food system, which is designed for large-scale agriculture, convenience and purchasing commercially packaged food through retail grocery stores, has resulted in a growing risk of this knowledge becoming lost. There-

fore, taking an interest in native plant herbal and medicinal teas not only benefits you and your wellness, but also adds assurance that these practices are shared and carried forward for future generations.

While harvesting native plants for tea making in the garden or out in wild areas can be an exciting prospect given these plants' seeming abundance and potential to benefit our health, we still need to apply some best practices when it comes to deciding whether to harvest and how much to harvest.

Harvesting best practices

- Harvest from uncontaminated places: Don't harvest plants that may have been chemically treated with pesticides or herbicides. Look for areas with prematurely yellow/brown or abnormally curled leaves or signs of leaf burn. Look for any other evidence of chemical treatment (treatment signs, sprayer onsite, etc.). Don't harvest from within 6 feet of a high-traffic roadway or other areas you believe may have contaminated soils.
- Know the rules: Get permission before harvesting from someone else's private property and find out the guidelines for harvesting from public property in your area. Harvest when abundant For native plants, only harvest when the plant is in abundance in the area or when you can harvest a little from multiple, separate areas. Never harvest from the first plant or the last plant you encounter.
- Don't overharvest: A good rule of thumb for native plant harvesting is to not take more than a third of the plant and to not harvest from more than a third of the plants at a location. This leaves a third for you, a third for wildlife and pollinators, and a third for the plant to use for reproduction. Also, make sure to just harvest what you'd reasonably use to not be wasteful.
- Be sure of your plant identification: Make sure you've correctly identified the plant you're harvesting and use reputable plant identification guides to confirm the key character-





Left: Wild bergamot (*Monarda fistulosa*) in full bloom. Right: A rich, deep color is a sign the tea is ready for drinking. *Photos: Kyla Muhammad*.

istics before harvesting. A great way to ensure the correct ID is to plant and label it in your own managed space. If buying or obtaining native plants, double-check the scientific name of the plant since common names can be used across different plant species.

Herbal tea preparation and basics

Herb preparation: All the herbs listed can be used fresh or dried, but using the dried herbs generally tends to increase the potency of the flavor. It's best to crush or chop the herbs into small pieces to help release flavor and to use a tea bag or strainer.

Ratios and consumption: If making an herbal tea for flavor, using 1-2 teaspoons of herbs to 1 cup of water is a good guideline. If making tea for medicinal purposes, start with using 1 ounce of dried herbs to 2 cups of water and drink the tea 2-3 times per day until the desired benefit is achieved.

Tea-making methods: The two main ways of making herbal teas are through infusion and decoction. While "sun teas" can also be made without heat, those work best with highly aromatic herbs, and overall results can be less consistent.

Infusions: Also known as steeping, infusion heats herbs, but does not boil them, which can damage some

of the herb's organic compounds or vitamins. Use this method for flowers, thin or delicate leaves, and leaves with strong aromas.

Directions:

- Bring water to a boil, then turn off the heat.
- Put herbs into a cup and pour the hot water over the herbs.
- Cover the cup with a saucer to help retain volatile oils in the tea.
 - Let tea sit for 15 minutes.
 - Strain out herbs and enjoy!

Decoctions: Cooks the herbs by boiling them in water and is typically best used for dense or fibrous plant material such as thick leaves, twigs or stems, roots, bark and seeds.

Directions:

- Put herbs into the pot and add water.
- Cover the pot and bring water to a boil.
 - Simmer for 20-30 minutes.
 - Strain out herbs and enjoy!

Favorite native herbal tea plants in the Midwest

The following is a list of favorite native herbal tea plants commonly found in the Midwestern U.S. In addition to mentioning flavor profiles of each plant, the historical and common medicinal uses of these plants are also included. However,

this information is listed for general informational purposes only and is not meant to treat any specific medical condition or to serve as or be a replacement for medical advice from a medical professional.

Anise hyssop (Agastache foenic-ulum): Known for its minty licorice taste, anise hyssop makes for both a great standalone tea or part of an herbal tea blend. The leaves are used for tea. Anise hyssop tea is anti-in-flammatory and can relieve bronchial issues, congestion, coughs and digestion problems. Don't confuse with Hyssop (Hyssopus officinalis).

Wild bergamot/bee balm (Mo-narda fistulosa): Not to be confused with the bergamot used in Earl Grey tea, which is in the citrus family, wild bergamot has an oregano-thyme flavor and has strong anti-inflammatory and antiseptic properties. The leaves and flowers are used in teas particularly when fighting off a cold or flu and to provide respiratory relief.

American elderberry (Sambucus nigra canadensis): While elderberries have gotten all the fame for their rich antioxidants and immune-boosting abilities, elder flower produces a deliciously floral and sweet tea that's also medicinally powerful. Elder flowers have an intoxicating aroma that draws attention in early summer. Elder flower tea is anti-allergenic, a laxative, a perspiration stimulant, and it can relieve respiratory issues.

New Jersey tea/red root (*Ceanothus americanus*): Determined by the masses as the best substitute for black tea during the American Revolutionary War, the dried leaves of this plant have long been recognized for its black tea-like flavor without the caffeine. The leaves should be collected before flowering. Medicinally, the red roots have been collected and dried for tea for various uses, including as a decongestant and lymph stimulant.

American basswood/linden (Tilia americana): Linden trees offer abundance each spring as they provide numerous flowers ripe for tea making. The flowers, fruit and the leaf bracts they're attached to are the pri-

RECIPES

Spring Tonic Tea

1 teaspoon New Jersey Tea leaves, dried and crushed ½ teaspoon Linden leaves and flowers, dried and crushed ½ teaspoon dried or 1 teaspoon fresh elder flower blossoms 8 ounces of water, boiled

Directions: Infuse herbs in hot water for 15 minutes and strain.

Feel Better Tea

1 tablespoon purple coneflower root, chopped and dried

2 teaspoons wild bergamot leaves, dried and crushed

2 teaspoons mountain mint leaves, dried and crushed

1 teaspoon Eastern white pine needles, chopped

1 tablespoon honey (local, raw and organic if possible)

16 ounces water, boiled

Directions: Infuse herbs in hot water for 20 minutes and strain.

Stir in honey until dissolved.

Anise Hyssop Tea

1 teaspoon anise hyssop leaves, dried and crushed 8 ounces water, boiled

Directions: Infuse herbs in hot water for 10 minutes and strain.

mary parts used for making a sweet, floral tea. Linden can have sedative and calming properties, provide digestive relief, soothe body aches and pains and stimulate perspiration.

Spicebush (*Lindera benzoin*): The berries of this bush, which appear in the fall, just burst with the essences of two of my favorite fall flavors, allspice and clove. Dried berries were used historically as a substitute for allspice. Young twigs, leaves and berries are all aromatic and can be used in tea. Medicinally, spicebush is known as a stimulant and for promoting circulation. It's the perfect warming tea for fall and winter.

Purple coneflower (Echinacea purpurea): Well known for stopping colds in their tracks, echinacea tea has become a commercially popular tea for immune-boosting and minimizing the symptoms and duration of colds. While the dried flowers and leaves can be used for tea, the most medicinal part is the roots. This tea is naturally bitter, so blending it with other strong, pleasant flavors is the way to go.

Mountain mint (Pycnanthemum spp.): If looking for that classic mint

flavor tea, but from a native plant without the aggressive spread, then native mountain mints are your answer. Not only do the leaves have a great mint flavor, but they share many of the same medicinal qualities as garden mints, including boosting immunity, aiding digestion and promoting relaxation.

Eastern white pine (*Pinus stro-bus*): Foraging for tea options in the winter can be challenging, but white pine and its soothing, warm piney taste can come to the rescue. Pine needles can be harvested any time of the year and are high in Vitamin C, so it is great for boosting immunity. The needles need to be bruised or chopped prior to steeping to release the flavor.

Kyla Muhammad is a member of the Wild Ones Greater DuPage (Illinois) Chapter, a Master Naturalist for the University of Illinois Extension, Will County program director at The Conservation Foundation, and a wild foods enthusiast that received a certificate in Edible Wild Plants from The Resiliency Institute.





By Barbara A. Schmitz

When Rosanne Plante was a city attorney, some of her days were spent enforcing local weed ordinances that often regulated native plants. But today as a volunteer Wild Lawyer for Wild Ones, as well as a Master Gardener since 2004, Plante helps people battle those weed ordinances and keep their yards filled with native plants.

And in between, she also gains notoriety in the press, all while helping to promote Wild Ones and its goal of promoting native landscapes through education, advocacy and collaborative action. The latest example ran in July in The Washington Post, where she was quoted, as well as Jim Poznak, a retired attorney who helped organize the Wild Lawyers in 2021. Read the article here.

Plante, a member of the Wild Ones Loess Hills (Iowa) Chapter, says many of weed ordinance cases are really a big misunderstanding and few people truly have messy yards. "Usually it's people who have native plants, and that goes back to education."

Europeans, for example, aren't obsessed with this "symmetrical

Barbie and Ken world," Plante says. In many cases, complaints in the U.S. are lodged by neighbors, often because they want to get you in trouble, she says.

So, she urges people to stay calm, and educate, educate, educate. "Call the city council people and ask them to come to your yard," Plante says. Educate them about your native plants, and do their research for them.

"You need to bring the horse to the water," she says. "These are native plants and you need to explain why they are important..."

There's no doubt they are important. "If someone doesn't step up to protect bees, they will starve," she says, asking how crops will then be pollinated.

Plante got involved with Wild Ones because she wanted to have a national impact. "People who don't garden don't understand the years of work it takes to grow a garden," she says. "And with weedwhackers, they can destroy your years of work in just a few hours."

Plante says she occupies a unique niche because she understands both

What is a Wild Lawyer?

Wild Lawyers provide legal assistance to Wild Ones, assist chapters with legal questions and offer advice to chapters and members regarding landscaping ordinances.

However, Wild Lawyers cannot represent members charged with ordinance violations.

sides of the debate. "I have this weird skill of writing ordinances as I did it for a living," she says. "So I created a sample weed ordinance and I want to arm people with a defense because they deserve it."

You can find her sample native planting ordinance at https://wildones.org/resources/.

Plante says her sample ordinance is for both native plant enthusiasts, as well as city planning departments. "A law is only as good as it is written. If you have a law that doesn't clearly state what the law is or how people are breaking it, it's stupid."

As a former city attorney, Plante says she saw city officials ramrodding weed ordinances through





Left: Attorney Rosanne Plante shows off her corn crop from the 2022 harvest outside of Hinton, Iowa. Right: Plante incorporates agriculture into her other personal passion — beauty pageants.

without "road testing" them, making sure they provided for all the things that could come up. The sample ordinance provides municipalities with a starting point to create their own ordinance.

But as a Wild Lawyer, Plante says she also gets to combine her love of native plants and her skills as an attorney.

Her advice to those who are fined or cited for violating a municipality's weed ordinance is to react calmly.

"A citation isn't a conviction, and those cited will have a chance to defend themselves," she says. "Even though a visit from a city officer can feel intimidating, it doesn't mean you have to immediately pull out the lawn mower and tear everything down. Start by asking them to specify exactly what you've done wrong, and to show you the exact wording of the

ordinance in question."

Then show the officials that your landscaping approach is intentional, Plante says. Read the code to see if you are really in violation, and never admit to any wrongdoing, especially if the municipality really hasn't defined "weed."

Plante says her maternal grandmother and godparents got her interested in gardening. "My grandpa had this old-fashioned pump and we'd use the pump to water the plants," she says. "I remember sitting out on the back porch eating tomatoes from the garden. Summer really was about gardening."

After becoming a lawyer, Plante says gardening helped her to relieve stress. She took over her grandmother's house when her grandmother moved to an assisted living facility and resurrected the garden

that had fallen into disarray. Then she planted a garden in the facility's memory care unit as a Master Gardener project, and nurtured it. "A lot of people enjoyed that garden for a lot of reasons," she says.

She also promotes how gardening can help survivors of traumatic brain injuries (TBIs) or strokes. She knows the impact firsthand as her husband suffered such an injury in 2016.

The 2023-24 Mrs. Agriculture America Elite and Iowa certified Master Conservationist, Plante says nothing is going to change unless someone starts the change in their community.

"Everybody likes to complain about stuff," she says. "But if you have a complaint, then get behind people and help fix it."



By Marsha Gebhardt In late July 2024, the Wild Ones St. Louis (Missouri) Chapter held its first Volunteer Appreciation event called Mothapalooza.

We invited about 100 of our members to celebrate the person-power that had informed and inspired our region during the year. Beyond the 40+ who were able to attend, the invitation itself provided acknowledgment and gratitude. Most had volunteered in one or more of the following capacities: working on tables, including welcome and sign-in tables; manning booths at the annual native plant sale and other events; organizing or working the annual Native Plant Garden Tour conducted in partnership with St. Louis Audubon Society's Bring Conservation Home; planting the native garden for the annual winner of the Landscape Challenge, a front yard makeover contest; and more.

The invitation to Mothapalooza stated:

7:30 p.m. – Social hour and yard touring – member Amy Zigler's expansive yard was on the St. Louis Native Plant Garden Tour in 2023 8:30 p.m. – Moth and critter viewing begins

Since July 20-28 was National Moth Week, the timing of the moth and critter viewing was spot on.

The invitation continued: "We talk about how our native plantings help moths, but we often don't take the time to look at moths at night. We will use a bright mercury vapor light to draw the insects closer, and UV lights to attract them to a white sheet where we can take a closer

Wild Ones St. Louis (Missouri) Chapter volunteers were able to see moths and other night creatures during the chapter's volunteer appreciation event called Mothapalooza.

look. We will attract some moths, but also crickets, katydids, beetles, planthoppers, lacewings and more.

"There will be food, drink, door prizes and lots of good cheer as we thank our almost 100 members who have volunteered their time and talents over the past year. Bring a chair and a beverage vessel (cup, water bottle, etc). Insect repellant for legs is recommended; we will be standing in the grass."

This event was so successful that we plan to do some type of volunteer

appreciation gathering every year. Marsha Gebhardt joined the Board of the Wild Ones St. Louis (Missouri) Chapter in 2014 and was elected president in 2016.

The Wild Ones Journal welcomes members from any chapter to pitch stories about their work. Email your story ideas to Editor Barbara A. Schmitz at journal@wildones.org.

What other chapters do to recognize their volunteers

Volunteers are critical to spreading Wild Ones' mission. In 2023, chapter volunteers dedicated more than 18,000 hours to organize more than 1,300 programs and activities to engage members and the public.

Nearly 90 Wild Ones chapters report doing something to honor their volunteers each year. Here's just a few of their activities:

- Ann Arbor, Michigan: Gives an annual award in December to an individual who has given special service to
 the chapter and its members, furthering the chapter's
 mission in words, deeds and leadership. The recipient is
 recognized and receives a high-quality trowel as a commemoration.
- Capital Region NY: End-of-year volunteer appreciation involves a celebration, a year-in-review slideshow and give-a-ways.
- Front Range, Colorado: Highlights volunteers in their newsletter, sends handwritten thank you notes, thanks volunteers at member meetings and, for one of their demo gardens, hosted a volunteer coffee meeting.

- Kettle Moraine, Wisconsin: Awards certificates of recognition or highlights effort at the annual membership meeting.
- Louisville, Kentucky: Publicly recognizes volunteers at their chapter's annual meeting with a small gift and card.
- Mountain Laurel, Connecticut: Recognizes volunteers for facilitating chapter activities with a monetary or other gift on an ad hoc basis.
- Rock River Valley, Illinois: Thanks volunteers in their newsletter and offers gift certificates to their plant sales.
- Southern Kentucky: Volunteers at their BioBlitzes of the Lost River Cave Meadow Restoration are automatically entered into a drawing for a \$20 gift certificate to a local native plant nursery. Volunteers at chapter plant sales are allowed to select any plants and seeds they wish to take for free before the start of sales.
- South Bend, Indiana: Every other month publishes an interview with a volunteer in their chapter newsletter to highlight his or her contributions.







By Ryan Bartlett In ancient times, Greek philosopher Hippocrates, famed for the Hippocratic Oath, said, "Life is short, and art is

long." While Hippocrates was speaking of the art of medicine and the challenge of fully understanding the human body within a limited time, his words resonate far beyond medicine. For those of us passionate about nature, trees and wildlife, this idea mirrors the endless quest to grasp the complex, interconnected world of living organisms around us.

As an arborist, I started my journey focused on crafting beautiful, perfectly pruned trees. I cleared every dead branch, sculpted every line and created what I saw as ideal trees. But as I spent more time with trees, my perspective began to shift. I started observing the insects and small

organisms living on and around the trees. Learning about them was fascinating, and I realized they weren't nuisances to be removed — they were essential members of the ecosystem. Over time, I discovered birds and other wildlife also relied on these trees, and my approach to tree care transformed. Now, instead of striving for perfection, I aim to nurture life, allowing the imperfections of trees to be habitats for the creatures that need them.

Why prune for wildlife?

Conventional pruning primarily focuses on aesthetics and safety, ensuring trees look manicured and don't pose risks to people or property. While these are relevant goals, they overlook the incredible potential of trees to provide vital habitat. Mindful pruning can create spaces within trees that benefit insects, birds and mammals, making our landscapes not just visually pleasing, but also ecologically beneficial.

Insects such as mason bees, for instance, find shelter in beetle galleries left within trees. Birds use bare limbs for perching, nesting and hunting, while small mammals rely on trees for cover and food sources. By intentionally creating these habitats through pruning, we can foster richer, more diverse ecosystems that support a wide array of life.

The benefits of wildlife-friendly pruning

A tree that supports wildlife doesn't just benefit animals; it contributes to a balanced, healthy environment. Birds help control insect populations naturally, while pollinators like bees, flies and beetles aid in the reproduction of plants through the production of seeds, fruits and nuts, supporting local floral diversity and food security. Healthy ecosystems with diverse species have a greater resilience to pests, disease and climate change, benefiting both the local landscape and human inhabitants.

Right: A bald eagle (Haliaeetus leucocephalus) sits on a dead branch in a cottonwood tree. Photo: Karen Strong Below: A magpie (Pica hudsonia) searches for insects on a juniper tree. Photo: Ryan Bartlett

Beyond practical benefits, there's a unique beauty in watching wildlife thrive in our surroundings. A tree full of birds, bees and other creatures adds a dynamic vibrancy, offering endless opportunities for observation and connection with nature.

Practical pruning practices to support wildlife

To make the most of pruning for wildlife benefits, consider implementing these specific practices. Each step supports different species and promotes a healthy ecosystem in ways that conventional pruning often fails to address.

1. Retain some dead wood

In traditional pruning, removing all dead wood is standard practice to maintain a "clean" look. However, dead wood is invaluable to many species. If safety permits, leave a few dead branches, especially high in the tree, to provide essential habitat. Birds of prey, such as hawks and owls, often perch on these high, bare branches to rest and hunt, helping control small mammal populations like squirrels and mice. Smaller birds, like sparrows, chickadees and warblers, also rely on dead wood within the inner canopy for shaded perches on hot days. Insects, too, benefit from dead wood. Moths, ants and other invertebrates find shelter in the crevices of dead branches, creating a food source for insectivorous birds.

2. Create intentional cavities

Natural cavities in trees are crucial for many birds and mammals that rely on them for nesting. Yet, natural cavities are increasingly rare due to habitat destruction and many other factors. By intentionally creating small cavities in certain trees, we can help fill this gap.

In locations where safety allows, drill a one-inch diameter hole in the tree trunk or branch at a height between 10-20 feet. The hole should





Right: Tree Crown Reduction. *Image by ArborCare*; Below: A belted kingfisher (*Megaceryle alycon*) sits on a dead branch in a willow tree. *Photo: Karen Strong*

be a few inches deep, but not exceeding in depth more than one-third of the diameter of the limb. Over time, woodpeckers are likely to expand this initial hole, creating a larger cavity. Once vacated, smaller birds like chickadees and wrens may move in, and small mammals, such as squirrels or bats, might eventually call it home. These intentionally created cavities can become valuable nesting sites, offering wildlife a safe place to rear their young while adding life and vibrancy to your landscape.

3. Skip pruning during bird-nesting seasons

Birds have specific breeding seasons, typically spring through early summer, when pruning can disrupt their ability to nest and raise young successfully. Before pruning, look closely for signs of nests. These signs include birds carrying twigs or grass or rearranging material. Signs of aggression or curiosity from a bird may also suggest that it is scouting or safeguarding a prospective location.

Heavy pruning just before or during nesting season can leave birds without adequate cover or suitable perches. Many species hide their nests within the branches, so consider delaying pruning until after the nesting season to protect these critical periods.

4. Encourage dense inner foliage for protective cover

Not all wildlife needs cavities; some rely on dense foliage for protection and shelter. Smaller trees with naturally dense growth, such as hawthorns (*Crataegus* spp.), are excellent refuges for birds evading predators. Leaving some inner foliage intact allows these trees to offer safe hiding spots and resting places, contributing to a thriving bird population in your area.

This practice can be especially helpful in urban areas where natural cover is scarce. Encouraging dense





BEFORE





foliage can provide a critical respite for small birds, allowing them to escape the harsh urban environment and find sanctuary within your trees.

5. Leave some leaf litter and mulch

The shaded ground beneath trees serves as habitat for small insects, fungi and microorganisms essential for a balanced ecosystem. Leaving leaf litter and natural mulch, such as wood chips or fallen leaves, under trees supports these organisms. Allow leaf litter and mulch to collect several inches from the trunk extending to the drip line, but keep the base of the trunk and the root flare open to allow

air circulation and prevent diseases associated with the tree's trunk.

6. Practice crown reduction mindfully

Crown reduction is a pruning technique used to reduce the height and spread of a tree's canopy. While it is sometimes necessary for safety or maintenance, over-pruning can remove too much foliage and disturb the tree's natural balance. Best Management Practices indicate that avoiding the complete removal of the interior of a canopy and limiting the reduction of the tree canopy to a maximum of 20% is the optimal ap-



proach for promoting tree health and supporting wildlife biodiversity.

7. Protect pollinator habitat with minimal pruning

Pollinators like bees and butter-flies are integral to ecosystem health. Plants that support pollinators offer nectar and pollen that pollinators rely on. If these plants are located near trees, refrain from pruning low-hanging branches too heavily, as they provide shelter for pollinators when they need a break from foraging. Hummingbirds, for example, often utilize small twigs within the canopy to rest during periods of high temperatures.

Incorporating pollinator-friendly shrubs and trees into your landscape

is also beneficial. Species like hawthorn, black cherry (*Prunus serotina*) and oak (*Quercus* spp.) are excellent choices, offering both food and habitat for bees, butterflies and a range of other beneficial insects.

Wildlife pruning in different environments: Urban vs. rural

The practices we adopt for wildlife pruning will vary depending on the setting. Urban areas with limited green spaces benefit greatly from even minor habitat creation efforts, as trees often serve as islands of biodiversity in cities. Leaving dead wood, promoting dense canopies, and allowing natural mulch can transform city trees into essential

Cavities in a boxelder are evident next to a playset. *Photo: Ryan Bartlett*

habitats for birds and insects.

In rural or natural areas, trees can afford to be pruned even more sparingly. Here, creating intentional cavities or leaving larger sections of dead wood can support an even wider range of wildlife without interfering with nearby buildings or public safety.

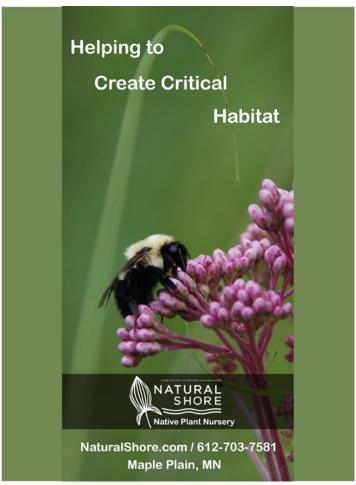
Embracing a new philosophy of tree care

Wildlife-friendly pruning may feel like an extreme shift from conventional practices, but the benefits are substantial. A tree with dead wood, cavities, dense foliage and leaf litter becomes a haven for life — a thriving ecosystem supporting everything from birds to pollinators to decomposers. Recognizing the existence of a "tree pest" and acknowledging the potential benefits it may offer can aid in shifting perspectives. For instance, aphids are now recognized as a minor tree pest as their presence leads to the production of honeydew, a natural carbohydrate that serves as a valuable resource for numerous pollinators during periods of limited floral availability.

This approach turns traditional tree care on its head, allowing us to view trees as dynamic parts of the natural world rather than static fixtures. When we prune with wildlife in mind, we enrich our landscapes, helping them evolve into vibrant spaces filled with life. Watching birds nest, bees pollinate and insects forage within a tree we care for brings a new level of appreciation and understanding. Through mindful pruning, we are not just shaping trees; we are nurturing ecosystems, building healthier, more balanced environments one branch at a time.

Ryan Bartlett is a certified arborist and naturalist. He is also the author of the field guide "Common Native Bees of the Western United States." Ryan lives in Denver, Colorado with his wife and two daughters.







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Shop local, eat local, drink local... plant local?

Above: Urban sprawl, evident in Houston, Texas, is responsible, in part, for the loss of 24 million acres of land to development from 2001-2017. Photo: Paul Sableman, Flickr

By Tyler Wayland Every 27 seconds, the United States lost the equivalent of a football field of natural lands from 2001-2017. Researchers estimate that in that 16-year period, more than 24 million acres were lost to land development and fragmentation, averaging 1.5 million acres each year.

The top contributing factors identified were urban sprawl, energy production and transportation infrastructure development - all of which are large-scale land disturbances needed to support a growing population. Unfortunately, one of the many unintended consequences of

growth and prosperity at this scale is the alarming loss of wildlife habitat and the vital ecosystem services that they provide – such as the clean air, clean water and rich, healthy soils needed to sustain our environment.

As land disturbance continues to increase, habitat loss and the associated spread of non-native and invasive species continue to exacerbate the biodiversity issues our generations face. However, there is also a growing desire and demand from the public to revegetate disturbed lands with native plant species as opportunities arise following infrastructure development or devastating natural

disasters. Whether it is roadsides, energy transfer rights-of-ways, post-wildfire restoration, the conversion of cropland and hayfields to native prairies, conservation programs, or the increasingly popular backyard pocket prairies, there is growing interest in successful native plant restoration. To achieve this, native plant establishment can be summed up in one simple phrase: Plant the right seed in the right place at the right time.

Just like site preparation and planting technique, seed source selection is one of the key factors driving successful establishment



Little bluestem (Schizachyrium scoparium) is a native grass with a range covering the vast majority of North America. But its location will determine its adaptability. Photo: Steven Severinghaus, Flickr

and long-term persistence in native plant restoration projects. When it comes to seed source selection, the term "local ecotype" is often used. A "local ecotype" refers to plant populations that have evolved to thrive in the unique environmental conditions of their specific geographic region, such as soil type, climate, sun exposure, altitude and local species interactions. As an example, little bluestem (Schizachyrium scoparium) is a native grass with a range covering the vast majority of North America. Naturally, the little bluestem that occurs in northern Illinois is going to be adapted differently than the little bluestem growing on the Coastal Plains of southern Georgia. The little bluestem growing on the sandy soils of the longleaf pine range will be adapted differently than the little bluestem growing on the rich clays of the Blackbelt Prairies. Taking it further, little bluestem is generally considered a dominant upland grass that prefers well drained sites, but the wet bottomed grasslands of Arkansas' Grand Prairies region are home to little bluestem populations that are thriving with their feet wet. These differences in adaptability between populations of a species were first highlighted in 1922 by the Swedish botanist Göte Turesson, who then coined the term "ecotype" in reference to results from a series of common garden studies.

Common garden studies are a research method used to understand how plants or animals adapt to their environments by growing different populations of a species, each from varied regions and conditions, in the same location under uniform care. This "apples-to-apples" comparison allows researchers to deter-

mine how much of a plant's traits are influenced by genetics versus environmental factors, and to select populations best suited to specific site conditions. Turesson's common gardens demonstrated that plant populations grown under uniform conditions exhibited distinct differences in traits such as growth rate, flowering time and resistance to pests. For example, northern ecotypes of side oats grama (Bouteloua curtipendula) flower earlier than their southern ecotype counterparts because of a shorter growing season that results in shorter growing plants. Plant populations adapted to the lowlands tend to be taller plants versus upland populations that are shorter growing. Coarser, thicker leaves are an adaptation for hot, sunny environments, while broad and thin leaves tend to be more



indicative of shady sites. Turesson found that these traits were not solely the result of environmental factors, but were rooted in the genetic adaptation of each population to its specific local environment.

Turesson's work underscored the importance of considering locally adapted populations, or ecotypes, in conservation and restoration efforts. When available, local ecotypic seed can enhance not only the resiliency of the planting but also the ecological function of the system – a concept reinforced by both researchers and practitioners in the ecological restoration space today. Yes, we want to select the correct species for a site, but just as important, the origin of plant material should also be taken into consideration.

In January 2023, the National Academies of Sciences, Engineering and Medicine released, "An Assessment of Native Seed Needs and the Capacity for Their Supply: Final Report." The report is the product of a 5-year, \$358 million National Seed Strategy plan that involved assessing the seed supply, researching needs and technologies, developing tools and increasing communication among stakeholders. The report concluded that the current supply of

ecotypic native seeds is inadequate to meet national demand.

While most of the assessment focused on efforts to restore publicly managed lands in the West, there was acknowledgment that outside of the West, in areas where land is predominantly privately owned, the needs and approaches to ensure a reliable supply of seeds will require regional efforts supported by native seed suppliers. The committee highlighted that achieving these goals of a robust native seed supply "will not be possible without all the key players that play a central role in the native seeds supply chain, including native seed suppliers."

Two of the biggest challenges facing large-scale production of ecotype seeds are the production potential in terms of pounds per acre of seed produced from ecotype populations and the limited range of use for hyper local seed sources. As an example, a commercial variety of little bluestem has the potential to produce an average of 200-300 pounds per acre of seed and has a broad adaptation range based on performance testing. In contrast, an ecotype population with little to no selection may only produce 50 pounds of seed from that same acre with the same production inputs and

A Minnesota Native Landscapes employee holds harvested and cleaned seed in his hand. Photo: Dennis Schroeder/National Renewable Energy Lab

have a marketable range of adaptability half the size of the cultivar option. The limited range of true local ecotypes presents a challenge when it comes to marketing the seed for sale, and the difference in production potential is directly reflected in the cost of the seed. Often, that cost difference alone is enough for end users to choose more commonly produced varieties over ecotype sources.

In response to these challenges and in support of collaborative efforts to increase availability, native seed suppliers like Roundstone Native Seed, as well as state and federal agencies, regional seed networks, nonprofit organizations and other agencies and groups are focused on the production of regional ecotypes to broaden the range of these seed sources and lower the costs to compete with the more common varieties. A regional ecotype seed source is a blend of local ecotypes of a species to create a seed source that has an increased geographic range of adaptability, as well as the genetic diversity needed for successful restoration. By developing and producing regional ecotype seed sources, these groups can offer genetic adaptability over a broader range and increase the success of native plant restoration across the landscape. These are ongoing efforts to ensure end users can plant the right seed in the right place at the right time. So, when the opportunity arises, plant local!

Tyler Wayland is the business development manager at Roundstone Native Seed, LLC. Prior to joining the Roundstone team, Tyler spent 8 years with the Texas Native Seeds Program working to increase the availability of regionally adapted, ecotypic native seed sources for the West Gulf Coastal Plain region.

Seeds for Education grants fund school, youth gardens

Kew Gardens Public School 99, located in Queens, N.Y., added to its pollinator garden, thanks to a Wild Ones Seed for Education (SFE) grant.

Project coordinator Suzanne Brazeau said fourth-grade students did the majority of the planting, although students in second through sixth grade helped out. That brought the number of students participating in the planting to 250.

Students planted a variety of flowers, including cardinal flower (Lobelia cardinalis), great blue lobelia (Lobelia siphilitica), bigleaf aster (Eurybia macrophylla), great St. John's wort (Hypericum ascyron), swamp milkweed (Asclepias incarnata) and common sneezeweed (Helenium autumnale).

The only issues they ran into were that a few plants died in the heat and weeds became prevalent over the summer when students weren't in school. But the school's Green Club worked to remove the weeds when students returned to school in September.

"Students learned about the plant cycle and were able to see it firsthand," Brazeau wrote in the SFE final report. "Most students really enjoyed getting their hands dirty and planting the seeds and plants. Many students also enjoyed digging for insects as they were digging holes to plant the seeds."

Not only do the students love the expanded pollinator garden, but the community does too, she said.

"Our community enjoys seeing the garden on their walk around the neighborhood," Brazeau said. "It has really brought so much joy to people!"

Brazeau said the school garden will get bigger every year. "Eventually we want the whole area to be garden instead of grass. It's also a





Left: The Kew Gardens Public School 99, in Queens, N.Y., expanded its pollinator garden as 250 students participated in planting native flowers. The goal is to expand each year and get rid of all the grass. Right: Children help plant natives at the new youth garden at The Farm in Fort Stanton in Washington, D.C. It was funded, in part, through a Wild Ones Seeds for Education grant.

nice tradition for our fourth graders to be the ones to plant."

The Farm at Fort Stanton

Nearly 50 youth and 100 others helped transform City Blossoms' The Farm at Fort Stanton, adding a youth garden and more, thanks, in part, to a Wild Ones Seeds for Education grant.

The Farm at Fort Stanton is a multi-use urban farm project located in Ward 8 in Washington, D.C., while City Blossoms is a 501(c)3 nonprofit that aims to "cultivate the well-being of our communities through creative programming in kid-driven gardens."

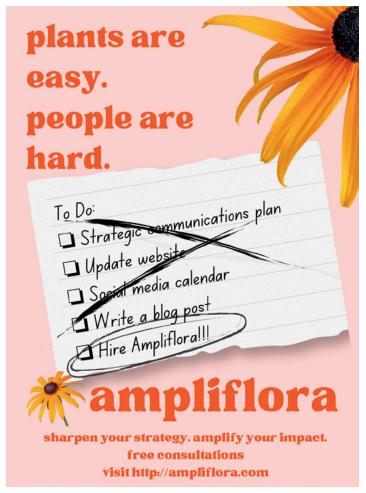
The group hosted four volunteer workdays with over 100 individuals who brought garden design plans to life, according to project coordinator Isa Zambrano, City Blossoms' community green spaces manager. "These plans were developed with feedback from multiple youth-led garden design sessions, and other community feedback on their needs and wants for the garden. We plant-

ed 100 seedlings along the perimeter of the youth garden and watched them bloom as we completed building the raised beds at the center of the space," Zambrano said.

In her year-end report, Zambrano wrote that the youth were excited to design what they wanted to see at the garden and participate in turning that into reality through planting, garden maintenance and building the infrastructure. "Youth used their voices to express their community's needs and saw the tangible outcome in the garden," she said.

Zambrano said Fort Stanton hosts weekly Open Time programming which are free, drop-in hours for anyone in the community to experience the youth garden and participate in gardening activities such as watering, planting, harvesting, art and music. In addition, the garden serves as an excursion site for local early childhood centers and schools.







Get crafty with nature's help for beautiful decorations

By Barbara A. Schmitz

As fall turns to winter, it means it is time to bring out your holiday decorations. If you want something new or different, you don't need to head to the store. You can make your own one-of-a-kind decorations cheaply if you use what nature provides plus what's around your home.

So where do you start?

First, gather supplies. That could include berries from your trees and shrubs, pine boughs, acorns, walnuts, hickory nuts, feathers, antler sheds, bird nests, sticks and thinner logs, dried native plants, pine cones, native grasses (or invasive pampas grass if you're trying to get rid of it), cattails and more. Just go look at what's outside.

Two, get your creative juices flowing. I find Pinterest is a great place to start. (Just search for "holiday craft ideas made from natural materials" or a similar phrasing.) You'll find things like Christmas tree, reindeer or angel ornaments made from pinecones; Santa or star ornaments made with milkweed pods; holiday pinecone trees or door swags; and a Christmas kissing ball. You'll also find craft ideas for a variety of holidays from Hanukkah to Kwanzaa, such as a menorah created from tree branches of various heights. You will even find ideas for outside decorations made with snow — if you live in an area that gets snow, that is - such as a bear, porcupine or other creature!

Next, look through your house to see what you already have in supplies that you may want to use. For me, that always means ribbon and wire.... two things I use each year to make swags and a porch pot. And naturally, you may want to buy a few odds and ends to give more color



or depth to your projects — candy canes and unbreakable ornaments usually fit the bill and aren't terribly expensive either.

Third, invite friends over for a little arts and crafts session and ask them to bring items from their yards or homes, too. You'll soon find you have plenty to get started, and as you work together, you'll gain ideas from each other.

Swags

Every year we cut our own Christmas tree and I use the branches we cut off the bottom of the tree to create a swag to hang on my front door. If you don't have heavy duty craft wire, go to a hobby store and buy some. Place your cut branches how you want them to lay and wire all the branches together, being sure to make a loop at the top so you can









hang it. Then simply wire on your decorations, add a bow and presto! Your swag is done and ready to hang. And because it's freshly made, it will still look great well after the holidays are over.

Porch pot or containers

I have a huge pot on my front porch filled with flowers each summer, so in winter I use that same pot to create a decorative holiday porch pot. I generally use the branches we cut off the bottom of our live tree, but you can also buy boughs at most plant stores or Christmas tree lots.

I like to add three small white birch logs to give the decoration some height. But if you don't have white birch available, you can simply paint other logs or even cattails white, or add red twig dogwood (*Cornus sericea*), which are brilliant red in winter. Then decorate with all the other things you've gathered, using wire to keep the objects in place.

If you don't want something as tall, simply take conifer boughs, pinecones and ornaments and lay them in your pot. It's not a tall decoration, but it is still a beautiful one. Clockwise from top left: Pint jars and jam jars can easily be transformed into holiday candle decorations. *Photo: Barbara A. Schmitz*; Nothing says holidays more than a pine porch pot by your front door. *Courtesy Pinterest*; This project isn't as quick to create as the other ideas, but it's one that will last from year to year. And if you want more contrast, you can paint the pallet white, red or another color of your choice. *Courtesy Facebook*; All it takes is a vase and pine boughs to start your table decoration, and then add a little "bling" like pinecones, berries, bows or more. *Courtesy Pinterest*

Candle

This one takes just minutes and makes for a cute indoor decoration. Find a jar (I like to use jam jars or pint jars from canning). Add water, some berries and a sprig from an evergreen. Place a short candle on top, which will float. And you have a simple — and beautiful — table or counter decoration.

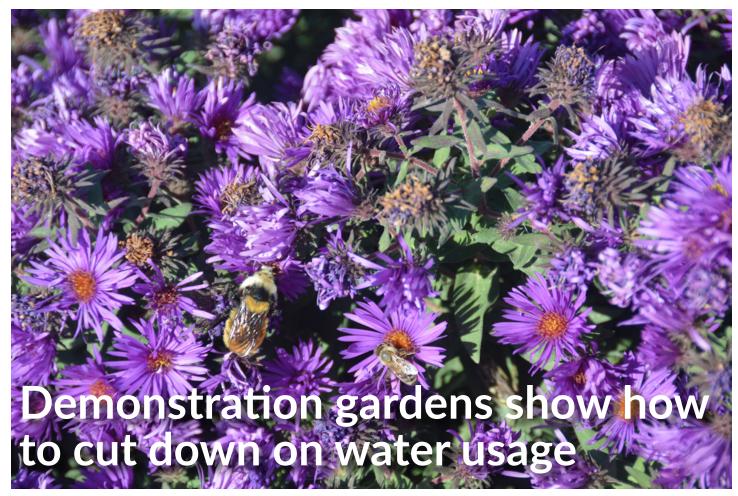
Sliced wood ornament, placemat or wall hanging

Scavenged tree branches can be sliced into half-inch disks and engraved with holiday or winter themes. You can use a wood burning tool, stamps or just freehand it. Tree trunk slices can be used as placemats on your holiday table or as the base for a decoration. Or you could create a pine tree constructed from branch slices on a small pallet or other surface and lit up with LED fairy lights. Just repurpose an old leather belt to create a hangar at the top.

Pine bough arrangement

This is another simple inside decoration that only needs a vase, some pine boughs, pinecones and maybe some berries, seed pods or candy canes to give it a little color. Even milkweed fluff can be used as spun glass angel hair. Simply place everything in the vase, and you'll have a decoration that not only looks great, but smells great, too.

So, what are you waiting for? Go outside and start looking at what is available in your yard and garden that might make for perfect craft supplies and start creating!



By Barbara A. Schmitz

I was in Colorado for my son's wedding in late September and stayed an extra week to care for his dogs while they were gone so I had a little time to explore. One of my favorite "finds," thanks to Wild One's Chapter Liaison Lisa Olsen, was the Northern Water Conservation Gardens, in Berthoud, about an hour north of Denver.

The conservation gardens span several acres of Northern Water's property and provide public education on various plants, turf and conservation techniques that achieve water savings in landscapes. And water savings in Colorado is critical as the Colorado Water Conservation Board estimates that cities, towns and industries in Colorado could be short 230,000 to 740,000 acre-feet of water annually by the year 2050 enough water, depending on different drought and climate scenarios, to supply between 500,000 and 1.5 million homes.

According to Northern Water, from April-November more than half of all the water used in and around homes goes to watering landscapes, which are predominantly Kentucky bluegrass lawns.

That statistic really hit home as I walked the dogs every morning and night and got wet thanks to automatic sprinkler systems required by the HOA where my son lives. They even water grass on land not yet developed, and when someone turned it off, all members of the community got a sternly worded email listing what the repercussions would be if they did it again.

The Northern Water gardens show people various ways they could save water in their landscaping. That includes low-water garden demonstrations and water-wise lawn options. The gardens include various demonstration areas for native and alternative grasses, irrigation technologies, soil preparation and a

Bees nectar on New England asters (Symphyotrichum novae-angliae) at the Northern Water Conservation Garden.

xeriscape plaza that highlights several Colorado-friendly landscaping themes.

Water Efficiency Specialist Lindsay Nerad_said Northern Water created the first demonstration garden in 2007, with a goal of becoming a primary place for people to get ideas for their own properties. But their campus also includes other areas, such as the Oxbow, which is designed to retain stormwater and mimic a meandering river, retention ponds and a raingarden area near the parking lots on the north end of the campus.

But Northern Water does more than just provide a place to learn. It also provides year-round supplemental water to eight Northeastern Colorado cities, towns, rural-domestic water districts and industries. During the primary growing season, the







Left, top to bottom: A sign illustrates an option for replacing the lawn to a mix of blue grama grass (Bouteloua gracilis) and buffalograss (Bouteloua dactyloides). The mix is a great option for hot, dry sites where the soil type, growing conditions and mowing frequency vary; A sign greets visitors to the Northern Water Conservation Gardens: Each of the Northern Water Conservation Gardens is identified by signage highlighting principles of xeriscaping. The seven principles include water-wise planning and design, including low-water plants, limiting grass areas, incorporating water-harvesting techniques into your landscape design, utilizing efficient irrigation system and design, applying mulch and maintaining your landscaping,

organization delivers water to more than 120 ditch, reservoir and irrigation companies serving thousands of farms and more than 615,000 acres of irrigated farmland. It also provides regional leadership through water efficiency programs, data collection and delivery, source water protection and interagency cooperation.

Northern Water also partners with various groups, including Wild Ones' Front Range (Colorado) Chapter, on native seed collections and seed exchanges, and Resource Central, which offers Garden In A Box, or preplanned gardens that people can plant themselves, and irrigation assessments so people can learn how efficiently their irrigation systems are running.

Nerad said her main message to people is to start landscaping where they can. "They can hire contractors to turn their yard into a more waterwise landscape, or they can bite off little chunks themselves each year," she said. However, it's key to have a plan and work toward that vision. (Wild Ones offers free native garden plans for 25 regions. The newest garden plans that will be added soon include San Diego, California; Lincoln-Omaha, Nebraska; Dallas-Fort Worth, Texas; and Albany, New York.) But Nerad said you can also create your own plan by measuring and sketching some options that would work with the lay of your property. She encourages people to put the



most colorful native plants in their pollinator garden close to the home. "It gives you instant gratification," she explained.

And for those folks who rent or who have small yards, Nerad said a lot of native plants will do well in containers.

Using less water is not only the environmentally right thing to do, but it will also save you money, she said.

According to the Northern Water website, "between 2017 and 2022, communities along the northern Front Range received an average of 8.3 inches of rainfall from April to October. That means sprinklers use a lot of water to fill the gap, especially for cool-season grass. Switching to a native grass with a high-quality aesthetic can shave off up to 14 inches of water needed, while a native grass with a more natural look can reduce the water need by 19 inches or more." On a 1,000-square-foot turf area, that can translate into savings between 9,000 and 12,000 gallons annually.

The Colorado River system stretches across seven states in the Southwest and Mexico, and a complicated set of decades-old laws determines who gets water from the river, and how much, according to The New York Times.

"There's not a lot of contributors to the river with Colorado, Wyoming and New Mexico providing the bulk of river water through winter runoff," Nerad said. "As temperatures have gone up, precipitation isn't going as far as water is evaporating much faster. It means all Colorado River users need to evaluate their usage and determine how they can use it more efficiently."

Nerad said the goal of Northern Water's Water Efficiency Department is to eventually transition 30% of non-essential commercial turf to low-water alternatives in their service area. "The idea is if it is an area you only walk on to mow it, you probably don't need it," she said. Those areas could be replaced with native grasses, shrubs, forbs and flowers.

While their demonstration garden may not have the "ooh" and "awe" factor of many botanic gardens nationwide, Nerad said they are beautiful and serve an important function. "We give residents ideas of what they can implement in their own landscape," she said. "We try to

Dwarf blanket flower or firewheel (*Gaillardia* pulchella) adds color to the demonstration gardens each fall.

find the balance between new and interesting, and highlight plants that people could source themselves."

While not all their demonstration gardens are 100% native, Nerad is a proponent of native plants, knowing they attract pollinators and have deep roots, which means they don't need to be watered constantly. But she also knows they play a big part in carbon sequestration and biodiversity.

Besides holding educational events for children and adults, Nerad said she also does tabling at community events to get the word out about the importance of using less water. Many times people visit their gardens already knowing that they want to make a change and transform their landscape.

"There are so many good arguments to transform your land-scape," Nerad said. "You can install native plants and shrubs that are low maintenance, use less water, attract wildlife, and once established, you'll see fewer weeds ... all while adding to your home's curb appeal."



Connecting people and native plants for a healthy planet.

Dear Members,

As we approach the end of another year, we find ourselves reflecting on the vibrant growth and resilience of nature, and of our Wild Ones community. **Together we are sowing the seeds of change and cultivating native landscapes that nurture wildlife, heal our earth, and inspire human hearts.**

A lot has happened over the last year!

WILD ONES GROWTH

We started off the year celebrating our 10,000-member milestone, and now we are excited to have over 11,500 members! This growth reflects the hard work and dedication of people like you who passionately promote Wild Ones and native landscaping.

CHAPTER REACH

As we continue to grow, so does our reach. Thanks to the dedication of over 3,000 volunteers, Wild Ones chapters connected with more than 150,000 people across 2,000+ education and outreach events!

GARDEN PROJECTS

Together we are making a difference in our communities with over 200 public native habitat projects supported by chapters and the Lorrie Otto Seeds for Education program.

CHAPTER SUPPORT

Our national board and staff work hard to ensure that chapters have the tools and resources they need to be successful. This year we were excited to roll out all new Wild Ones branding that included updated brochures, tabling supplies, and other tools.

NEW NATIONAL PROGRAMMING

At the national level, Wild Ones continues to grow with the addition of the Certified Native Habitat Program, new webinars on a wide range of native plant topics, and native garden designs for new states.

But our work is far from done. To realize our vision of native plants and natural landscapes thriving in every community, we need your support more than ever. I am extending a heartfelt invitation for you to deepen your commitment to our shared vision. Will you consider making a special year-end donation today?

Your generosity directly supports our educational programs, community outreach, and the creation of natural habitats. Each dollar you give is a testament to your dedication to a healthier, more sustainable world.

Please accept my sincerest thanks for considering this special end-of-year gift. Your support is invaluable to us, and together we can create a movement of native planters growing healthier landscapes.

Sincerely,

Jen hinsrath

Jennifer Ainsworth, Executive Director | Wild Ones: Native Plants, Natural Landscapes

P.S. Many of our supporters give stock, grants from Donor Advised Funds, or make a Qualified Charitable Distribution, all of which can offer substantial tax benefits.

P.P.S. Looking for ways to support Wild Ones this holiday season? Consider giving the gift of Wild Ones membership, or shopping from the Wild Ones Merch Store and Reading List. Visit WildOnes.org to learn more!