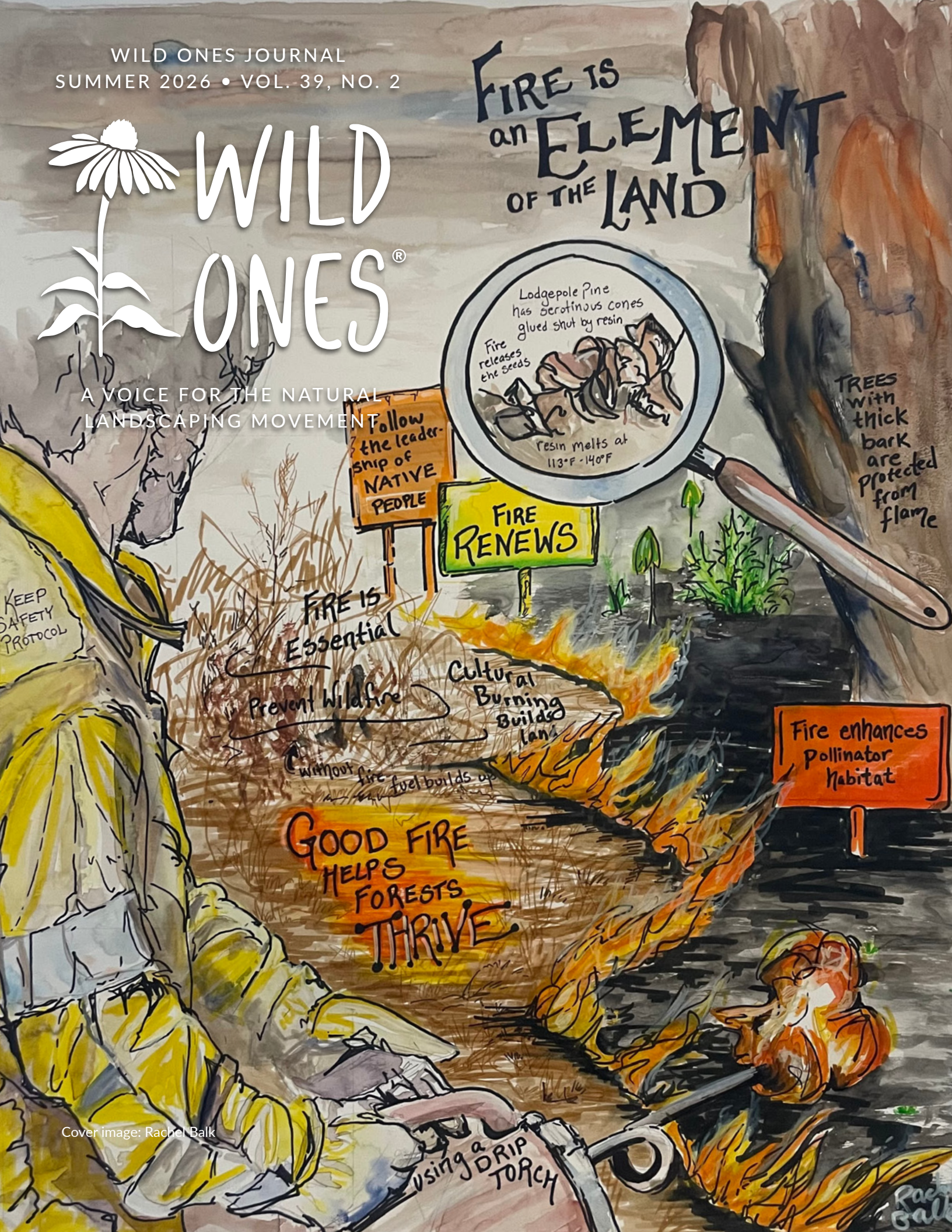
WILD ONES JOURNAL
SUMMER 2026 • VOL. 39, NO. 2

WILD ONES®

A VOICE FOR THE NATURAL LANDSCAPING MOVEMENT



Cover image: Rachel Balk

Members inform and inspire

Back in April, I had the opportunity to meet in person the people I've worked with on the *Wild Ones Journal* for years, but whom I only knew remotely. That's Josh Nelson, development director; me; Lisa Olsen, chapter liaison; and Sara Ressing, education and program coordinator, pictured to the left. They came to the Wild Ones headquarters in Neenah for an employee retreat, and I was lucky enough to share lunch with them on their last day.

I'm the one who gets the kudos (and occasional complaints) when each issue comes out, so today I want to share the limelight. Those three are incredibly talented and dedicated, and they not only help me come up with story ideas and possible sources, but they also help to proofread the publication, write articles, and are always there to provide support. A big thanks to Josh, Lisa, and Sara!

I also want to wish farewell to the *Journal*'s graphic artist, Kevin Rau, who has made our publication look incredible the last few years. He is retiring, and I know I'll miss working with him. Thanks, Kevin, for your hard work and dedication.

So, it shouldn't be a surprise when I tell you that I think this issue is one you'll enjoy and learn from. We continue with our year-long climate change coverage; in this issue, we focus on fire. On Page 4, learn about the Indigenous role of fire and how it supports ecosystem resilience from Ron Goode, chairman of the North Fork Mono Tribe since 1983. Then on Page 9, Connecticut landscape designer Kathy Connolly explains how to firescape your landscaping around your home, and on Page 12, Greg Rubin expands on that topic by sharing how his California landscape designs helped 25 homes survive significant fire events. These stories couldn't be timelier as Colorado officials are predicting the state will have 9,000 wildfires this year, due largely to low snowpack, and 97% of the state is experiencing moderate or severe drought conditions as of press deadline. The situation isn't much better elsewhere in the nation. Forecasts indicate that the fire potential will be above normal across various regions, particularly in the Southwest, West Texas and across California.

This issue is also filled with informative stories of things you can do on your property. On Page 24, Wild Ones South Shore MA Chapter member Russ Cohen tells us all about black raspberries and how to find them in the wild and create a patch in your own yard. On Page 31, St. Louis MO Chapter member Besa Schweitzer reminds readers about the importance of adding snags and stumps to your property, including advice on how to do it if you don't have dying or dead trees already there.

There are also some inspirational stories about how you or your Wild Ones chapter can make a difference in your local community. For instance, Janette Rosenbaum shows there is a way to help homeowners and HOAs transition from turfgrass to natives on Page 20, while Gisela Ferrer, president of the New Jersey Gateway Chapter, tells how she and chapter volunteers helped New Jersey elementary schools create pollinator gardens on their properties. Her takeaway: "You do not always know which child will become the future environmental leader, scientist, artist or steward. But exposure is the beginning, and everything in between." Learn more on Page 27.

There's more, of course, so sit down and enjoy this issue. Wild Ones members do so much to help care for our Earth and its critters. I hope this issue gives you the inspiration to continue doing so now and in the future.

Wild Ones promotes native landscapes through education, advocacy and collaborative action. Native plants help protect and restore biodiversity, improve air and water quality, and provide wildlife with food and shelter. Our vision is native plants and natural landscapes thriving in every community.

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.

Contents

Wild Ones Journal

— Editor —
Barbara A. Schmitz
journal@wildones.org
(Please indicate topic in subject line.)

— Contributing Writers —
Janet Allen • Russ Cohen • Kathy Connolly • Gisela Ferrer
Wendy Gochenaur • Ron Goode • Sara Ressing
Janette Rosenbaum • Greg Rubin • Besa Schweitzer

— Design/Layout —
Kevin Rau

— Proofreader —
Mariette Nowak

Cover Image: Rachel Balk
Rachel Balk is a gardener, artist and native plant enthusiast in Elgin, Illinois. She chronicles her adventures on Instagram @gardenrach.

WILD ONES JOURNAL
SUMMER 2026 • VOL. 39, NO. 2

WILD ONES®

A VOICE FOR THE NATURAL LANDSCAPING MOVEMENT

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

WINNER 2020 APEX® AWARDS FOR PUBLICATION EXCELLENCE

Photos: USDA Forest Service photos by Jamie Hinrichs

Fire is an element

By Dr. Ron Goode

In our prayers we thank Creator for the gifts he gives to us, To-bohp (land), Piya (water), Hu-kwap (wind) and Kos (fire). It is our responsibility to take care of the gifts Creator gives us. Each of these gifts are an element. Elements are building blocks of all matter. These four gifts are the essence of all life on this planet.

They are all interconnected:
Fire needs Land
Land needs Resources
Resources need Water
Water needs Fire
Fire calls Wind
Wind brings Water
Water restores Land
Land provides Resources

Indigenous people talk about and demonstrate their interconnectedness of their spirit and the spirit of the four gifts. Aborigines of Australia don't introduce themselves from a personal relationship nor a Tribal connection; instead they say, "We are at one with Mother Earth!"

My mother could call wind, talk to the wind, talk to owls, talk to rattlesnakes, talk to the plants. Other elders talk to bears, dogs, horses, fire, water, wind, plants, trees, etc. These connections are still prevalent today, while spoken about, not always shared since the broader society does not relate to animals and other species in this manner.

The Land provides for us; we provide for her. It is reciprocity: giving and giving back. It is not that humans provide for her; she gives to us water, resources, air, food. We give back in our small part — via restoration, offerings, prayers, blessings, songs — for all we receive from her.

Multiple active Cultural Burn piles at Benedict Meadow on the Sierra National Forest. The North Fork Mono Tribe first requested a Cultural Burn on Sierra National Forest lands in 2018; it finally occurred in June 2025.

The Nium (North Fork Mono Tribe) do not have a word for thank you. When you do something for someone, it is expected that they will do something for someone else, a pay-it-forward concept. It's grilled into us as youth to respect our elders, elders who have likely been giving their knowledge and wisdom most of their lives.

Indigenous people have been living on the land and from the land for thousands of years, generation after generation. The land provides for them; they use fire to restore, regenerate and revitalize their re-

Firefighter Alvin Rosa-Figueroa monitors Cultural Burn operations at Benedict Meadow on the Sierra National Forest. June 6, 2025. (USDA Forest Service photo)

sources of food, fiber and medicines to keep their cultural traditions and practices sustainable. Fire as a tool allows them accessibility and regenerates cultural resources for better quality and quantity.

Plants, shrubs and trees provide a good harvest, but climate change will dictate what kind of harvest you will have. That means some years are abundant and some years are lean. Therefore, living on the land or harvesting from the land means you have to be prepared for the ever-changing weather.

Fire became an important tool keeping resources refreshed. What past generations called burning is now known as Cultural Burning. Burning to keep your village safe, revitalize your resources, keep your trails and travel ways open.

Which leads to another discussion point, Beneficial Fire. Yes, Cultural Burning is a "Beneficial Use of Fire." Even wildfire is beneficial. Wildfires and prescribed burning can have low intensity, moderate intensity and high intensity fires. For wildfires, we tend to focus on high-intensity fires. But there are areas of low and moderate intensity. Following low and moderate intensity fires, new growth will take place immediately; new growth can be seen while the wildfire is still smoldering. Waterways, drainages and creeks will have an immediate aquatic eco-zone expansion, going from 2 feet on each edge to 6-8 feet of expansion. Some of the first plants exhibiting regrowth are black oaks (*Quercus kelloggii*), willows (*Salix* spp.) and wormwood (*Artemisia absinthium*) along banks and waterways.

Two other beneficial points to wildfire: Native folks, gatherers and practitioners watch where the smoke lies. They go there months later to check their resources, acorn and pine trees, looking for mushrooms. Another way wildfire is "Beneficial Use" is for agencies. After the fire has raged for a period of time, the fire crews begin to get a handle on the fire, with a high degree of containment (60/80%). Then the agency switches over to "managed wildfire." Letting it burn (moderate to low intensity) to achieve an acreage that they are unable to achieve

with prescribed fire.

While Cultural Burning is recent terminology, the practice goes back many generations. Using fire to take care of the landscape kept resources refreshed, which in turn enhanced the sustainability of cultural practices, as is the case for practitioners today. When the landscape is refreshed — its plants, shrubs and trees revitalized — it can hold precipitation longer and release water more slowly, allowing the water table to rise.

Tribes are conducting burns on Tribal and public lands to create more accessible, safe landscapes for their cultural practices, where they do not have to navigate restrictions or opposition from agencies or private landowners on non-Tribal lands. Many Tribal lands that the government bestowed to them do not have the soil needed for healthy regeneration, nor the space required for traditional practices. As a result, they must seek plants, shrubs and trees like oaks, pines, cedar and willows in other places to support their cultural traditions.

There's a broad spectrum of agency verbiage on being in charge of our landscape. Words like stewardship, management, co-management and collaborative management are all used interchangeably. Some words say or attempt to say that we are working together, or we are in this together and are equal in voice. Collaborative management speaks more to Tribal sovereignty. All point at developing stronger relationships with Tribes. Yet when it comes to fire, wildfire, prescribed fire and Cultural Burning, there are challenges and major gaps in agency and Tribal connectiveness.

Agencies are slow to respond to requests to conduct Cultural Burning on government lands. Cultural Burning is very different from prescribed fire. Prescribed fire is not designed to restore. The intent is to clear the land of understory and create more openness for the conifers agencies wish to harvest. Prescribed fire is about economics. It may take seven or eight years for a federal agency to allow a Tribe to conduct Cultural Burning on public and National Park lands. The North Fork Mono Tribe first requested a burn on Sierra National Forest lands in 2018; in 2025 our first Cultural Burn was finally conducted. A request for a Cultural Burn in Sequoia National Park was proposed in 2018, and in 2026 our first Cultural Burn took place.

The Tribe has been working on changing policy with the Department of Interior, creating a handbook on how to work with Indigenous Tribes on Traditional Ecological Knowledge and creating a video on Cultural Burning to train all their employees. The Tribe has a standing and working relationship with the Department of Defense on Cultural Burning and Watershed Restoration.

With the U.S. Department of Agriculture and the U.S. Forest Service, the Tribe has developed protocols, environmental assessments, participating agreements and master cost-share agreements to conduct meadow and watershed restoration and Cultural Burns on the forest(s). We have conducted burns on the Sequoia National Forest and on the Sierra National Forest and are finalizing plans to burn and restore meadows on the Inyo National Forest.

At the state level, we're still struggling with the California Department of Forestry and Fire Protection (CAL FIRE) on Cultural Burn permits. They have added one or two questions to the application to identify Cultural Burns, but none of the listed fire categories align with Cultural Burning. CAL FIRE has a $2 million liability coverage permit that California Native American Tribes are and have been utilizing. After 3-4 years of use, there has not been one claim filed.

The North Fork Mono Tribe is now working with the State Air Board and California Air Pollution Control Officers Association to establish an air pollution permit pathway for Cultural Burning. Because permitting authority is distributed across 35 local air districts, this work requires coordination at both the state and regional levels. The Mariposa Air Board's permit application now includes a check box for "Tribal Cultural Burn." To support broader adoption, presentations have been conducted in Southern and Northern California, and a third was scheduled for Central California in May.

As Cultural Burners and practitioners — as gatherers and resource regenerative technicians — we still encounter challenges from agencies, environmentalists, loggers, grazers and prescribed fire chiefs, all of whom are skeptical of what Cultural Burning is about. The words Cultural Burning is not about the fire or the flame; it is about the culture. Cultural Burning is a ceremonial practice, protected under the 1974 American Indian Religious Rights Act. Fire is a tool, used to sustain our culture and cultural traditions on the land.

Ron W. Goode is the Tribal chairman of the North Fork Mono Tribe since 1983. He is a U.S. Army veteran, a retired community college ethnic studies professor and a published ethnobiology author about native plants and resources. In 2017-18, Goode served as coordinating lead author for the Tribal Indigenous Communities Climate Change Assessment, part of the California Fourth Climate Change Assessment. In 2022, he was honored by the Society for California Archaeology for the Lifetime Achievement Award for his work in cultural preservation.

A REFRESHING LOOK AT MOUNTAINMINT

Pycnanthemum species (mountainmints) are attractive, easy to grow, and irresistible to pollinators. In bloom, these plants buzz with a vast array of insects. The Xerces Society notes that mountainmints are among the most beneficial plants for supporting pollinator abundance and diversity. Their dense flower clusters open in sequence over several months, providing a plentiful, consistent nectar source.

The Lady Bird Johnson Wildflower Center identifies several species as having special value to native bees, bumblebees, and honeybees. Moreover, by attracting wasps and other predatory and parasitoid insects, the genus supports conservation biological control. These plants deliver.

While pollinators love the blooms, mountainmint foliage contains high levels of essential oils that make them unappealing to deer and other four-legged foragers.

Top: *P. incanum* (hoary mountain mint),

Above: *P. muticum* (clustered mountainmint)

Mountainmints are in the mint family (*Lamiaceae*), but they are decidedly less aggressive than their "true" mint cousins in Mentha. The true mints are a mojito essential, but they're the botanical equivalent of a houseguest who stays for the weekend and then rearranges your furniture. Mountainmints will spread, but they aren't that cheeky.

Some *Pycnanthemum* are vigorous growers, but avoiding mountainmints because some are pushy means missing out on their immense benefits. When you're guided by "right plant, right place, right purpose," you can put each species in context. Heavy spreaders can be a huge help in some landscape situations, while more contained species work better in others.

Learn more on our blog post: **A Refreshing Look at Mountainmint**

A five-foot gravel border surrounds a home in Stonington, Connecticut. *Photo: Kathy Connolly*

The Year of CLIMATE ACTION

Native plants, fire and the landscape around your home

By Kathy Connolly

A clear message has taken hold in fire safety: keep plants 5 feet away from your home.

Fire protection experts and insurance companies, far and wide, recommend a 5-foot open border around all buildings and attached structures — often called Zone 0 — where no combustible materials, including plants, should be. Additional safety zones extend outward from there, often named Zones 1, 2 and 3.

But for many homeowners, the idea is a hard sell. Some western states, Canadian provinces and municipalities have codified Zone 0 through regulations, and others are strongly considering it. But there is public pushback. Many homes have mature vegetation planted close to or against the exterior, fences and decks. Removing the vegetation is, at minimum, inconvenient and expensive. It also feels like an invasion of privacy to many. Others say the idea offers little or no protection.

For those of us dedicated to increasing the presence of native plants, what are the implications? Headlines pop up here and there that seem to declare that native plants might have an advantage in a fire-protection strategy. But are native plants universally endowed with greater ability to resist fire?

"The claim that native plants fight wildfire is too broad to mean anything," says Dan J. Wilder, director of applied ecology at Norcross Wildlife Sanctuary in Wales, Massachusetts. "Legitimate wildfire defense comes in the form of fuel reduction, something that occurs naturally when fire moves through a system." Wilder uses prescribed burns to manage portions of Norcross's 8,000-acre landscape.

"There are some examples of native plants that resist fire. For instance, a prescribed fire expert once told me that a line of alders (*Alnus* spp.) is a very good fire break. However, on the other end of the spectrum, you have species like pitch pine (*Pinus rigida*) that actually help to spread fire."

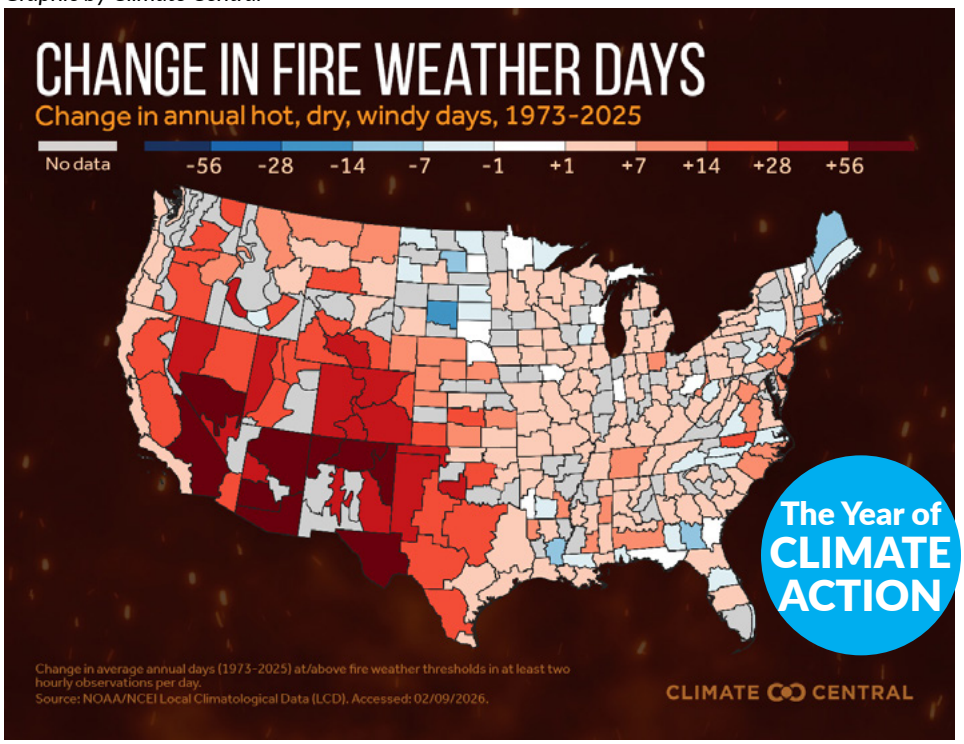
Wilder's comments hint at a subtlety in fire terminology that may be counterintuitive. Fire ecology vocabulary makes a critical distinction between the terms, "low flammability" and "fire resistance."

According to a 2010 article by Robert H. White and Wayne C. Zipperer in the "International Journal of Wildland Fire," flammability consists of four components: ignitability, combustibility, sustainability (duration of burning) and consumability.

Fire resistance, on the other hand, refers to a plant's capacity to burn without dying.

Western larch (*Larix occidentalis*), for instance, is considered to have both low-flammability and fire-re-

Graphic by Climate Central



sistance, according to the U.S. Forest Service.

Pitch pine, on the other hand, has flammable resin-rich wood and is not particularly fire-resistant, yet its reproductive strategies take advantage of fire. While the tree is vulnerable to incineration, it can produce "serotinous" cones that seal and protect the seeds with resin. The seeds can be insulated for years until fire or another environmental event triggers their release, again according to the U.S. Forest Service.

Fire ecologist Sam Gilvarg, a Ph.D. candidate at SUNY College of Environmental Science and Forestry, says we can't make a binary distinction in which native equals fire resistance, and exotic or non-native equals fire-prone.

"It's all species specific," he says.

Even then, the decision to use any particular plant is nuanced. "A pitch pine in someone's yard isn't a red flag — it can be pruned or otherwise managed to decrease risk. But if I have a house that has a pitch pine growing right over it, that tree is unfortunately coming down. The same would go for any other tree growing over the house."

Gilvarg adds: "The same can be said for exotics. Eucalyptus (*Eucalyptus* spp.) is a great example of a fire-prone exotic species. It is incredibly flammable."

On the other hand, "An exotic plant with tons of water in it may be less flammable than a fire-tolerant native," he says. "The key is how plants are placed and structured around the built environment."

Gilvarg points to the fire survival strategies employed across the plant kingdom as a key to understanding which might be inherent fire risks near a home or other building. Broadly speaking, fire-adapted plants resist destruction in a couple of ways.

"Some species, such as white oak (*Quercus alba*), have thick bark and can resist fire," he says.

But other species, such as blueberries, may be incinerated during a fire yet exhibit different competitive advantages in post-fire environments. "Blueberries (*Vaccinium* spp.) can resprout," says Gilvarg. "And the seeds of broom crowberry (*Corema conradii*) are actually stimulated by fire."

However, the flammability of species should not preclude their inclusion in fire-resistant landscaping. "But it may make sense to limit their presence really close to structures," Gilvarg says.

He points to the National Fire Protection Association (NFPA)'s Firewise program or Canada's Firesmart program. Both offer detailed guidance on plant placement.

"These programs place an emphasis on structuring the plants, which are fuel for fire, in a way that safeguards human habitation. That means we need to prune trees, keep a buffer of non-combustible materials around homes, and use inflammable building materials."

He suggests an alternative idea for plant placement. "Create a mosaic. If I had a garden in a fire-prone area, I would intersperse the relatively flammable plants with less flammable species, such as succulents. I'd break up species that may be more prone to combustion, such as broom crowberry (*Corema conradii*), with other species that may be less easy to ignite.

"The key is how these are structured around the built environment," he emphasizes. Gilvarg's advice aligns with guidance from programs like the NFPA Firewise initiative, which emphasizes spacing, pruning and maintenance over plant selection alone.

Finally, Gilvarg adds: "Given sufficient fire weather, even the most fire-resistant species can burn. Look at fires in rainforests!"

Should we rely on plant lists?

Given these facts, how should we choose plants for home environments, especially for foundation gardens?

For example, during the research for this article, I noticed in my area of southern New England that we have many native plants in foundation gardens. Among them are dwarf versions of junipers (*Juniperus* spp.), pines (*Pinus* spp.) and eastern arborvitae (*Thuja occidentalis*). Native broadleaf evergreens are popular as well, including doghobble (*Leucothoe* spp.), rhododendron (*Rhododendron*

spp.), mountain laurel (*Kalmia latifolia*), inkberry (*Ilex glabra*), spruce (*Picea* spp.), tamarack or Eastern larch (*Larix laricina*), and other broadleaf and needled evergreens. As a landscape designer, some of these are "go-to" plants in my usual recommendations.

I wanted a quick look-up reference to their flammability, but it was easier said than done.

Indeed, I found a few lists, and the results were discouraging. Most of these plants are on the "more flammable" end of the spectrum. In general, these popular plants have many features that make a plant fire-susceptible: volatile resins, aromatic oils, gummy sap or papery bark.

On the other hand, less flammable plants generally have high moisture content, low oil and resin content, fleshy tissue, open branching structure and large smooth leaves. In general, deciduous plants are less flammable than evergreens.

The University of California Cooperative Extension (UCCE) offers extensive advice on fire preparedness on its website and the University of California Agriculture and Natural Resources (UC ANR) Publication 8695. They state: "Be cautious about 'fire safe' plant lists and labels. In general, there is little evidence to support fire-safe claims."

As a result, the UCCE website doesn't offer links to plant lists. Neither does the National Fire Protection Association.

One problem is that fire ratings are generally based on laboratory tests. For example, in the early 2000s, the University of Florida and the Southern Center for Wildland-Urban Interface Research and Information undertook a three-year plant study for eastern landscapes.

They first developed a standard key for evaluating the flammability of common landscape plants. The scale ranges from 1 (lowest flammability) to 5 (highest). Then, they studied the fire behavior of 500 plants commonly used in Eastern U.S. landscapes in a laboratory and rated them.

But did other labs use the same rating method? In 2016, a UCCE San Diego team reviewed 20 years of fire-testing data on plants and found there is "no consistent, standardized plant flammability testing or criteria for rating . . ." (Bethke et al. 2016)

Ratings can't capture some of the most important variables, either: plant health and hydration, placement and time of year.

It's important to note, too, that a fire rating is different from a description of a plant's behavior during a burn. To learn how a plant *behaves* during and after fire, visit the U.S. Department of Agriculture Forest Service Fire Effects Information System. The Species Reviews section provides extensive facts and research references on more than 1,000 species.

Zone 0 has other benefits

Here's one final thought: the 5-foot opening has more benefits than fire safety. Thick vegetation growing near or against a home's exterior can provide hiding places for intruders. That alone may be enough to justify the 5-foot opening near doors and windows.

In addition, a wide opening creates easy access for maintenance equipment such as a wheelbarrow. It keeps plants from discoloring exterior paint or growing under shingles. It helps protect the house from insects and rodents.

If we follow the spatial plans and plant care recommendations provided by so many learned authorities, we can still find a place for native plants to thrive and brighten our landscapes. In fact, fire-resistant landscape design doesn't disqualify any plant from our prospective plant lists. Instead, it suggests wise placement and good plant care.

Kathy Connolly, a member of the Wild Ones Mountain Laurel (Connecticut) Chapter, is a landscape designer, writer and speaker from Old Saybrook, Connecticut. She is currently working on a book about foundation gardens. Learn more at SpeakingofLandscapes.com.

Fire ecologist Sam Gilvarg is an expert in prescribed burns, which reduce the fuel load in an environment, and are one of the most effective ways to prevent wildfires. *Photo: Dr. Andrew Vander Yacht.*

The Year of CLIMATE ACTION

The Year of CLIMATE ACTION

Fire-resilient California native landscapes

By Greg Rubin

One of the greatest misnomers concerning fire-resilient landscapes is that there is a magical list of fire-resistant plants. For the most part, flammability has nothing to do with plant selection. It's all about hydration; thankfully, it requires little water to hydrate drought-tolerant California native plants.

The real role of fire in native ecology

California is one of the most fire-prone states in the nation due to its confluence of risk factors: little summer precipitation, difficult terrain, powerful off-shore windstorms of exceedingly dry air (especially in fall), and high-density development that pushes ever deeper into fire-prone wildlands. Our plants have adapted to low rainfall levels by utilizing oils to prevent collapse. Being prone to catastrophic fire is part of this evolutionary adaptation. However, fire frequency has increased tenfold with human habitation. This has led to the degradation and eradication of our wildlands. Flashy-fuel dry annual exotic weeds have replaced millions of acres of wilderness, leading to loss of habitat, increased erosion and desertification. This upheaval, known as "type conversion," leads to even more frequent fires.

Absent humans, the main ignition sources for catastrophic, wind-driven firestorms would have been lightning. Thunderstorms and offshore dry winds are usually not simultaneous events. Indeed, it would have been a rare convergence of these factors to ignite a wind-driven fire, often spreading right to the sea. Since our chaparral evolved millions of years ago, human management was not a factor in the development of fire adaptation. Given enough time between fires, native plant communities were able to regenerate themselves. Regardless, chaparral is not made to burn. Our frequent destructive fire events are not the fault of conservationists nor agency policy. Fire suppression is a myth regarding our coastal plant communities, although it is debatable as a factor in pine forests.

Well-maintained native vegetation outside of a Zone 0 decomposed granite apron. This home has survived three wildfire events.

So given that our drought-adapted wildlands utilize flammable oils to cope with the lack of water, one could understandably conclude that the idea of a California native fire-resistant landscape is an oxymoron. However, both science and experience in real fire events are proving otherwise. Live fuel moisture content (LFMC) has long been the indicator of the start, end and severity of the upcoming fire season. Simply put, the moisture content held in the plant materials determines its flammability. If light supplemental irrigation is provided to the landscape during the

The Year of CLIMATE ACTION

Left: Example of a home that survived the Witch Creek fire of 2007 with hydrated native vegetation planted in Zone 0. This may no longer be permitted under new legislation. Note there are no scorch marks on the white stucco. Below: Example of a home damaged by insufficiently irrigated junipers at its base.

warm, dry summer months, the flammable oils are replaced by moisture.

Native landscape design

The levels of additional watering are not excessive. It is usually less than one inch of equivalent precipitation per month. This level of irrigation is well tolerated by even the most drought-tolerant plants, acting like summer thunderstorms two to three times per month. We normally use highly efficient overhead watering, such as MP Rotators, to provide irrigation in a way that waters the entire planted area as if it were rainfall. This is important for the ecology of our native plants as they are supported by pervasive soil fungi that store and deliver moisture to the native plant community, which in turn gives up 20% of its carbohydrates to the fungi. Overhead watering also ensures that organic mulch like shredded redwood bark is matted down and hydrated, which significantly retards its flammability while promoting sufficient plant hydration and health.

Properly designed native landscapes contain a strong backbone of evergreen native plants — such as California lilacs (*Ceanothus* spp.), manzanitas (*Arctostaphylos* spp.), coyote brush (*Baccharis pilularis*), toyon (*Heteromeles arbutifolia*), coffeeberry (*Frangula californica*) and lemonadeberry (*Rhus integrifolia*). Even a plant like California buckwheat (*Eriogonum fasciculatum*), often viewed as a fire-bomb, benefits dramatically with light irrigation. Added to this roughly 75% of the plant palette would be sages and smaller flowering perennials. Seaside daisy (*Erigeron glaucus*), penstemon (*Penstemon* spp., such as 'Margarita BOP'), California hummingbird fuchsia (*Epilobium canum*) and bush monkey flower (*Mimulus aurantiacus*) are all examples. They should be located along the edges of paths and hardscape for easier viewing and maintenance.

Soils should not be "improved" with amendments or fertilizer, which end up discouraging the development of essential soil organisms and fungi. Controlling non-native weeds is essential to prevent overwhelming the developing native ecology. Plant the root ball a little higher than the surrounding soil to ensure drainage. Organic mulches like shredded redwood bark are perfect for shrubland and woodland plant communities, while sand/rocks/gravel are appropriate for desert, grassland and coastal bluff plants. Do not use landscape fabric between the mulch and soil; this will only inhibit soil ecology while being a poor weed barrier.

Water your new landscape more frequently when first installed, especially during the summer months, then gradually wean the watering to

two or three times per month when it's warm. Location will play a big factor in all of this — e.g., coastal vs. inland areas.

Considerations for a compliant fire-resilient landscape

Everyone is scrambling to anticipate what the landscape requirements will be as we try to get ahead of the upcoming legislation (which has yet to be finalized as of late-May 2026). Having been involved in a legislative advisory capacity, here is what is being predicted:

Zone 0

At this point Zone 0 is the most pressing subject since much of the controversy has been swirling around its definition and requirements. This is the first 5 feet out from the house, and the language intimates that "this zone cannot contain any flammable items." The definition of flammable is still being decided, but for now the emphasis is on materials that will burn (wood debris, wicker furniture, wooden sheds, etc.), as well as wood fencing that connects the perimeter fence directly to the house. An example would be the gated fencing crossing the side yards. There is wide agreement on this part. What is problematic are the plants.

Plants and Zone 0

About 25 of our native landscapes have been involved in serious fire events, without the loss of a home. What became quickly apparent to our company was that healthy, hydrated plants often serve to deflect, block, slow, catch and cool embers. Beyond our direct observation and documentation, we conducted a 4-year research study for the U.S. Navy into the significant effects native hydrated plants had in slowing the spread of fire. Unfortunately, many officials cannot seem to get past the paradigm of plants as "fuel" rather than acting as potential barriers to ember attack.

New construction vs. existing

There is a very real chance that new legislation will require Zone 0 to be devoid of vegetation. This is simple on new landscape installations. Put a 5-foot inorganic apron directly around the base of the house that has exposed soil. We often use gravel, decomposed granite, concrete, etc. to create these aprons. In practice, aprons can be laid out in a way that complements the new landscape rather than detracting (gravel is often the most attractive). We generally use landscape fabric covered in 3-4 inches of gravel. To better resist fire, edging can either be metal, or 4 x 6- or 8-inch pressure treated timbers.

The Year of CLIMATE ACTION

The question is what to do with existing vegetation planted around the house. It is possible that all vegetation within Zone 0 will have to be removed. Local fire departments have started requiring this as they attempt to get ahead of the new laws. At minimum, all dead branches must be removed from trees that cross within 5 feet of the walls and roof, which is just common-sense maintenance, but it is still unclear whether this pruning will extend to live branches. There also may be exceptions for protected trees like native oaks, but the final language is still being debated.

Those still not in love with the state's proposal have found solace in a section that allows local governments to create their own version of Zone 0, as long as it's at least as protective against fire as state rules.

Real fire experience

The U.S. Navy study showed that healthy hydrated vegetation could significantly impact the advance of fire and could act as barriers to ember attack. In the LA fires, there is mounting evidence of trees and shrubs protecting homes.

Often it was the burning homes that ended up singeing the nearby foliage, not the other way around. Fire protection functions from the house outward, not the landscape inward. Home hardening is crucial, such as boxed-in eaves, screened vents, screening under cantilevered decks, double-paned windows and fire-resistant roofing and siding. Landscape vegetation rarely burned homes, except for poorly irrigated desert fan palms (*Washingtonia filifera*), California junipers (*Juniperus californica*) and western cypresses (*Hesperocyparis* spp.).

We prune hedges up 12-18 inches to allow dead matter to fall out and we remove dead branches. It's really all about good maintenance that keeps the vegetation green and hydrated. And it is crucial that accumulated debris be removed from roofs, as in reality that was the most critical factor determining flammability.

Beyond Zone 0

There has been relatively little discussion about the areas beyond the first 5-feet surrounding homes. This is likely to change as soon as Zone 0 has been settled. One of the issues that will be receiving a lot of attention will be fuel modification in areas of existing natural vegetation. Thinning allows more light and space for exotic weeds to proliferate. Research shows that when brush thinning exceeds 50%, it can be counterproductive: reduced vegetation provides less ember interception, while fast-burning ("flashy") exotic weeds are encouraged to grow, creating ladder fuels that carry fire into the canopy.

Greg Rubin was named the 2018 Horticulturist of the Year by the San Diego Horticultural Society. He is the founder of California's Own Native Landscape Design, Inc., and is a licensed design/build landscape contractor who has been working with California native plants for more than 30 years. Of his 800+ installations to date, 25 have experienced significant fire events without the loss of a single home. Rubin is also co-author with Lucy Warren of "The California Native Landscape: The Homeowner's Design Guide to Restoring its Beauty and Balance" and "The Drought Defying California Garden," published by Timber Press. Learn more at calown.com.

Managing tick-related health risks while preserving a healthy planet

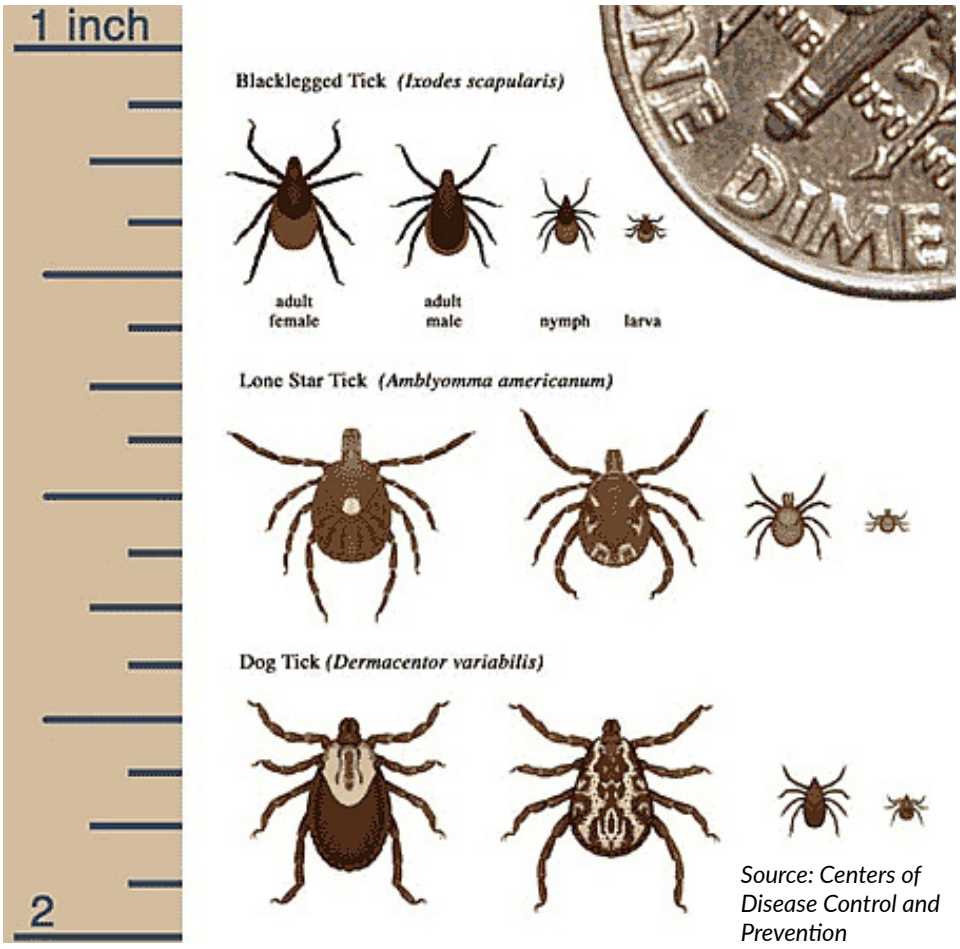
By Janet Allen

I had never felt so exhausted. While camping in a state park many years ago, I had been bitten by ticks and contracted Lyme disease. A course of antibiotics cured me, but not everyone is so lucky. From my experience, I know that preventing tick-borne diseases is important, but are we going about this the right way?

Homeowners often receive a lot of conflicting advice, some based on science and some influenced by conventional landscaping beliefs. Should you leave your leaves or dispose of them? Should you have a 3-foot barrier between your lawn and any wooded areas? Maybe even 9 feet? In fact, should you have any plants other than a closely mown lawn? Is a "natural" yard full of native plants dangerously full of ticks — or will it have fewer ticks? Will wildlife in your yard increase or decrease the tick population?

A homeowner's choices depend on their values and their perceptions of risk, but modern culture too often regards any nature-based risk — from tick bites to bee stings — as just not worth it. Growing up with a grandfather who had a life-threatening reaction to bee stings, I know that for a few people this is indeed a danger and would warrant having fewer bee-attracting plants. At the same time, though, we blithely accept the much greater and vastly more common risks associated with modern life.

A risk many of us tolerate is an unhealthy lifestyle: eating unhealthy foods and physical inactivity — two of the leading causes of death in the U.S. Another risky activity is traveling in a vehicle. In 2023, for example, motor vehicle accidents in the U.S. caused more than 40,000 deaths and injured more than 3 million people. And yet, do we reduce our driving?



Source: Centers of Disease Control and Prevention

Much tick-bite prevention advice aims to eliminate risk. Of course, we could effectively eliminate our risk of tick-borne diseases if we never ventured into natural areas or naturally landscaped yards. But then we'd risk the loss of the science-documented benefits nature provides for our minds, bodies and souls.

We also could dramatically decrease ticks in our neighborhoods if they were nothing but lawn and concrete, far removed from any plantings that support biodiversity. But then we'd be reducing our own risk of tick-borne diseases at the expense of future generations to whom we're leaving an ever-less-livable planet.

The critical issue: How can we manage our tick-related health risks while preserving a healthy planet for the future?

Our home landscapes

Maintaining a lawn-dominated landscape with wide barriers between lawn and any wooded areas isn't the only way to limit tick exposure. Carving paths of lawn or wood chips

Resources

YouTube 1-minute video about the dilution effect from Homegrown National Park

Deer and native plants factsheets from Wild Ones

Homegrown diversity and infectious diseases from Homegrown National Park

Japanese barberry provides an ideal environment for mice and therefore ticks.

throughout a naturally landscaped yard allows people to travel through their habitat without brushing up against shrubs where ticks are "questing" or waiting to attach when someone brushes up against it. My husband and I enjoy walking along our mulch-covered paths throughout our habitat garden without coming in contact with our shrubs or other plants.

Deer are a host for ticks and are increasingly found in home landscapes. One way to discourage them is by having lots of less-appealing plants, such as those in the mint (Lamiaceae) family (hyssops, mountain mints, monardas and others), shrubs with leaves unappealing to deer, such as spicebushes, and so on. Fencing deer out at least part of the yard can help protect plants, though it doesn't keep mice carrying deer ticks out.

Plant selection is indeed important, but since ticks don't eat plants, native plants are no more likely to increase tick population than non-native plants. Certain plants, though, are particularly likely to harbor ticks. Japanese barberry (*Berberis thunbergii*), for example, provides an ideal environment for mice and therefore ticks. In fact, the National Park Service found that forests full of the invasive Japanese barberries hosted 12 times the quantity of ticks than did nearby uninvaded forests. I've seen many home landscapes that follow the lawn-dominated, no leaf litter prescription for eliminating ticks and then sport a long row of Japanese barberries! Replacing Japanese barberries with native plants not only improves the landscape's habitat but also prevents the barberries' spread into nearby natural areas.

People concerned about wildlife harboring ticks immediately remove animals such as shrews and voles, as well as fire ants, lizards, chickens, and frogs and toads that will eat ticks. But allowing them to stay could help to decrease the tick population on your property. However, while the combined impact of multiple species might add up, none will make a noticeable difference individually.

Many companies provide pesticide services that they claim will eliminate ticks. Why do we not fear these and other pesticides as much as we fear ticks? Consumer Reports experts say that spraying the whole yard with pesticides is not only ineffective, but also potentially dangerous. Instead, they recommend "tick tubes," cardboard tubes stuffed with cotton treated with permethrin, a tick-killing chemical. Mice collect the cotton to take back to their nests, and the chemical kills any ticks without harming the mice. These can be purchased or can be home-made.

As Wild Ones, we understand the need to preserve biodiversity to protect life on earth, now and in the future. It's true that ticks prefer moist, shady areas with lots of plants. But as Doug Tallamy says in a YouTube video, "*... a 'wilder' yard with diverse native plants is more ecologically sound and can help reduce the overall tick population by fostering a more balanced ecosystem, rather than a sterile one that often fuels the tick-rodent-disease cycle.*"

Personal health practices

One way to resolve the conflicts between protecting our own health and that of the planet is to focus on practices that protect us rather than adjusting the landscapes around us. Below are some commonly found recommendations.

When you're going into natural areas or into your naturally landscaped yard:

- Learn when ticks are most active and most infective in your own area.
- Wear long pants, long-sleeved shirts and closed-toed shoes.
- Tuck your pants' legs into your socks or wear gaiters.
- Wear a wide-brimmed bucket hat.
- Apply tick/insect repellents to exposed skin.
- Treat your clothes and shoes with tick-repellant or buy pre-treated clothing.

When you come inside:

- Use a lint roller on your clothes.
- Throw your clothes into the clothes dryer at high heat for 10 minutes.
- Check your body for ticks.
- Check your pets when they have been outside, both for their health and for yours.

If you're bitten by a tick:

- Learn the proper way to remove a

Carving paths of lawn or wood chips throughout a naturally landscaped yard allows people to travel through their habitat without brushing up against shrubs where ticks can be hiding.

tick using fine-tipped tweezers.
• Wash the bite area with soap and water.
• Save the tick in a sealed container for identification if needed.
• Monitor the site and your health for several weeks for symptoms such as rash, fever, fatigue and joint pain.
• Consult your doctor or go to urgent care if symptoms develop or if you have concerns about Lyme disease or other tick-borne illnesses.

The number of these recommendations a person follows depends on their tolerance of risk and inconvenience. We have occasionally found a tick after spending time in a forest or other natural areas, but since we haven't found ticks in our home landscape, we follow only the essential recommendations of knowing how to remove a tick, wearing long pants, a long-sleeved shirt and a wide-brimmed bucket hat (my go-to outdoor clothing ensemble anyway), and doing a body check at night.

The bottom line is that we would lose more by staying indoors than by risking possible exposure to ticks by connecting with nature. With reasonable precautions, we can support biodiversity in our yards while protecting our health.

What can we do nationally and globally?

There's even more we can do at a national or global level to prevent tick-borne diseases and support a healthier planet.

One important action is to reduce the deer population in areas where the numbers are high. Due to many decades of exterminating their predators, we have created an unsustainable population of deer beyond the carrying capacity certainly of our neighborhoods, but also in natural areas. Not only do they contribute to the spread of ticks, but they cause many car accidents and place intense browsing pressure on native plants in both home landscapes and beyond.

Another solution would be to support the creation of vaccines against Lyme and other tick-borne diseases. Surprisingly, an effective vaccine had been created but was withdrawn in 2002 due to lack of demand, poor marketing and other issues. There currently is a vaccine available for dogs; consult your vet to see if it's recommended for your pet.

Thirdly, if we can fund consistent, science-based public education on personal protection, we can help people understand the risk without promoting fear or misinformation.

Finally, climate change, with its milder winters, longer warm periods and increased humidity, is bringing more ticks, mosquitoes and other disease vectors that weren't here before. We need to invest in climate research to anticipate future tick expansion and disease risk. Yet one more reason to tackle climate change before it's too late!

The big picture

There is no single fix for tick-borne disease. The strongest prevention strategies combine public health surveillance, education, ecological land management, wildlife science and accessible healthcare. Protecting biodiversity and human health are not competing goals; they are linked.

But the choice we make about creating a tick-free yard versus preserving biodiversity isn't just a personal health issue. It's a moral and ethical issue. The decisions we make about this, and other ecological issues, will determine the kind of planet we're leaving future generations.

Janet Allen is the co-founder and president of the Wild Ones Habitat Gardening in Central New York Chapter. Her yard is certified as Monarch Waystation #581 by Monarch Watch and as a Certified Wildlife Habitat #27815 by the National Wildlife Federation. Her website is ourhabitatgarden.org/.

All photos/graphics courtesy of Janine Kharey

Janine Kharey uses this swallowtail graphic in a PowerPoint as part of her native plant talks. Every butterfly featured was observed and photographed on her own property.

Kharey: Educating others through images that shift perception

By Barbara A. Schmitz

Janine Kharey's interest in plants was an offshoot of her mother's passion for growing things, but it wasn't until she was asked as an adult to pinpoint what brought her joy as a child that she realized it was deeper than that.

"As a child, I was most comfortable when I was out in nature, exploring what was going on and seeing the patterns connecting everything," she says. "Now I know that native plants provide so much more than what we can see; they are the foundation of the web that connects everything."

Kharey, co-founder and president of the Wild Ones Greater Baton Rouge (Louisiana) Chapter, says she started gardening as soon as she moved out on her own. "When I first started to actively garden, it was to provide host plants for butterflies," she recalls. Her first "garden" was a few plants in pots that helped attract black swallowtails (*Papilio polyxenes*) to her balcony.

As she moved and grew older, married and started a family, her garden expanded. But for a while, an autoimmune disease meant she had to put her gardening to the side.

The aftermath of a flood in 2016 made her reevaluate. "I had been managing, fighting an autoimmune disease and teaching school not too far from where we lived," she says. "When the flood destroyed my home, my classroom and the many years of resources for the curriculum I developed, I couldn't see myself essentially starting over. The flood also had emptied our nest, as our youngest took the opportunity to finish his year at a boarding high school."

So, in 2017, she retired as an art

The chapter at a glance

• The Wild Ones Greater Baton Rouge (Louisiana) Chapter was co-founded by Janine and Alok Kharey.

• It launched as a seedling on March 30, 2022 and chartered on Aug. 16, 2022.

• Today, Janine serves as president and Alok volunteers on the chapter's Board of Directors.

• Other chapter founders include Ken Bosso, Janie Braud and Amanda Marshall.

Janine Kharey shows off a black swallowtail (*Papilio polyxenes*) caterpillar to youth attending the Feliciana Wildflower Festival in Clinton, Louisiana. The caterpillar was found on its local native host, mock bishopsweed (*Ptilimnium capillaceum*).

teacher when the stress of rebuilding their home and teaching without resources caused her disease to go out of control. She knew she couldn't get a different job; she could hardly do anything physical.

Instead, Janine decided to begin gardening again. At first, her "garden" was just plants in containers, and gradually those pots multiplied and moved further into her yard. By the end of the year, she started digging in the ground again.

"I discovered the more I got out and did, the healthier I became," she recalls. "The joy of gardening motivated me to find a way to get back out there and made me feel capable."

And that led her to believe she could complete a master naturalist program. It was in that program that Kharey met others interested in native plants. If she wanted to start a Wild Ones chapter, there was interest.

She attributes Wild Ones Chapter Liaison Lisa Olsen for encouraging and helping her take on the task of starting a new chapter.

"Lisa made me believe that as an artist and educator, I had a lot of experience shifting people's perceptions," she says. "She made me realize I could do something with an organization that had education as part of its mission."

Starting the chapter was easy since she already had like-minded friends from the master naturalist course. Previously, many in the group had been involved in a statewide native plant society or in a local native plant society that had gone defunct.

"The remaining officers weren't in the position to restart this other nonprofit," she recalls, noting the national office of Wild Ones provides necessary support and took care of the details needed to become a nonprofit.

Many of their chapter activities revolve around education. Janine says they man educational tables at various events and have started a seed library and seed swap, both which focus on local ecotypes.

Their chapter has already received lots of free press for their work. Janine says it's nothing she's done. Rather, the media come to them due to their visibility.

Janine herself gave six presentations in 2025. "People who are interested in butterflies, pollinators and native plants just seem to find me. I'm not seeking it," she says.

The chapter also has an active Facebook page. "We created the page in the beginning because we are so spread out and it was the best way to inform people about what we were doing and what we are about," she says.

In addition, the former art teacher and current artist has a Facebook page mainly dedicated to her backyard nursery, as well as native plant and pollinator-inspired art pieces.

"When I was deciding on a major in college, my first thought was botany," Janine says. "Realizing I had the talent for art, I followed that. But perhaps the seed was planted then to create art that celebrates nature."

Her focus was painting and drawing, but a crushed nerve in her neck caused her to lose some fine motor skills. So, she picked up other media including graphic design, digital art and garden jewelry design.

Janine encourages other people to start Wild Ones chapters. "It is something you can try without a risk," she explains. "If you start a chapter and it doesn't work out for whatever reason, there is no shame in that. You are not a failure, and you've made an impact that can continue on without you…"

Janine says her personal mission is to use the skills she learned or achieved through teaching and as an artist, to show people a different perspective.

"Aesthetics and cultural preferences often seem arbitrary to me," she says. Take lawn, for example. If you aren't using it for a purpose, it's just an empty space.

"I wanted to do my thing with my art and with my words in my presentations, and watch people discover the beauty in the interconnectedness that is revealed," she says. "I know when I give these presentations, I change people's perceptions. I make them question why they love something like lawn when they can instead love something that has so much more meaning, purpose and connection."

Helping homeowners and HOAs transition from turfgrass to natives

The Shady Grove Village garden is alive with color just a few months after being planted. *Photo: Christine Newell.*

By Janette Rosenbaum

Wild Ones members are not alone in loving native plants. Many homeowners are excited about the idea of gardens that support wildlife, protect clean water and provide year-round beauty. But what some of these homeowners lack is the skills and knowledge to design a native plant garden, including finding native plants to purchase, and knowing how to install and maintain their new garden. They need exactly the kind of technical assistance that Wild Ones chapters and members are positioned to offer.

Over the past several years, the Muddy Branch Alliance, a "friends of stream" group in central Maryland, developed a program to help homeowners' associations (HOAs) replace turfgrass in common areas with native landscaping. The program was so successful that the Alliance ran out of local HOAs to work with.

The next step is for other groups to replicate the program all over the country — and Wild Ones chapters are the perfect partners to run with this project.

Leading the way on native plants

The Kentlands HOA in Gaithersburg has long been a leader of environmental initiatives. But looking at the amount of stormwater runoff in their community, they knew they weren't done yet.

Alex Stavitsky-Zeineddin brought together the original Green Team that spearheaded the Kentlands' conservation efforts. A few years later, she formed a sub-team to investigate opportunities to install sustainable landscaping that would absorb water and beautify the neighborhood. Their first task was to find the right location.

The entire Kentlands HOA used to be the estate of a single landowner. That landowner had left behind some farm buildings, one of which is now a community center known as the Arts Barn. After diligently evaluating several possibilities, the sustainable landscaping team decided that the space next to the Arts Barn was the right place for their new garden. That was decided, in part, because the location was so visible.

"We as the Kentlands wanted to show how you can have something look attractive and still be very environmentally sustainable," said Stavitsky-Zeineddin.

The key word in the above sentence is show. Right from the beginning, the team wanted to use the garden to educate people about the benefits of native plants, especially the benefits for stormwater management. As the plan comes together, the team is prioritizing a walking tour from the garden to the nearby stream — the Muddy Branch — so residents can see where the water goes.

A productive partnership

To set the plan in motion, the Kentlands partnered with the Muddy Branch Alliance, which, like many Wild Ones chapters, has the expertise to design a native plant garden. We walked the site with the Kentlands Green Team and drew a design, complete with calculations estimating stormwater capture and infiltration.

We then helped the Green

The Kentlands native garden will be planted around the Arts Barn sitting area. *Photo: Alex Stavitsky-Zeineddin.*

Team secure approval from their HOA board, as well as a grant from a regional funding organization, the Chesapeake Bay Trust. With those critical resources in hand, we assisted the Green Team through the process of hiring a vendor to install the garden.

In January, we were excited to learn that the Kentlands had received the grant for the installation of the garden. That installation was anticipated for April or May, as this article was in production.

"I am really looking forward to seeing it come into fruition," Stavitsky-Zeineddin said. She added that she was especially eager to host educational events in the garden and to see people enjoy the new landscaping. The ultimate goal is to "bring a diverse group of people to use the space and learn about this kind of gardening."

While the Kentlands anticipates successful implementation of their project, the nearby community of Shady Grove Village has already installed their garden … and they love it so much they're planning for another one.

When I met Christine Newell, a member of the Shady Grove Village Green Team, on a bright day in early November last year, the black-eyed Susans (*Rudbeckia* sp.) were still blooming in the garden. It was a heartening conclusion to a difficult journey.

For their new native landscaping, Shady Grove Village's Green Team had chosen a central location — and a strategic one. The steep slope between two rows of townhouses carried stormwater from one row's downspouts into the other row's backyards. A patch of native plants would put that excess water to better use.

The Muddy Branch Alliance drew a design for that patch — then drew it again when a large pine tree fell over, dramatically changing the site conditions. The challenges did not dampen the Green Team's enthusiasm, however. When they bought the plants for the garden, they bought more than the design called for. They gave away the extras so the HOA's residents could have native plants in their own yards.

The Green Team knew there was a demand for native plants. They had created it themselves by actively working to build community buy-in for their project. They're continuing the commitment by planning a workshop where residents can learn how to maintain their new native gardens.

That above-and-beyond attitude characterizes Shady Grove Village's

My adventures in killing and replacing my lawns

By Susan Harris

After years of mowing my hillside lawn in the Washington D.C. suburbs, I got the then-unusual idea of killing it. It was 2005.

I can't claim that I was doing it to provide habitat or any other virtuous purpose; I just wanted to stop mowing. It was the only thing I did for the lawn, which was a mix of weeds and turf grasses I called my "freedom lawn." Still, I was sick of mowing.

I had one other motivation though — to research alternatives to lawns and then blog about them, helping other aspiring lawn killers with news of my attempts. I had no answers myself, but I knew that at least here in the East where rain is plentiful, ground that isn't covered with lawn or *something* will soon be covered with weeds.

Actually, killing the lawn wasn't my first idea. My first idea was to stop mowing and create an instant meadow. But by June, the "No-Mow-Ever" experiment resulted in a nearly 3-foot-tall lawn that I didn't want to walk through without full tick protection. It was also ugly and I had to admit that making a meadow was out of my league.

How I removed the lawn

I had to remove about 1,000 square feet of lawn, and I found lots of advice. I rejected herbicides and baking under black plastic, the latter because I didn't want to buy all that plastic I'd never use again.

I chose the cheap and organic route of layering cardboard and mulch in what's called the lasagna method, which required months of watering and waiting for it to break down before I could plant. I soon realized that wouldn't be fast enough for fall planting. Since I'm not patient, I instead dug it up and composted the chunks of turfgrass. It took a few hours of labor, but the lasagna method is a lot of work, too, and takes forever.

What to plant

What is the magic plant that's like turfgrass but less work? I first researched white clover, which is self-fertilizing because it fixes nitrogen. I visited the Scott Arboretum, where I saw the many lawn alternatives they were trialing. I received free samples of groundcovers that were marketed as tolerating foot traffic, none of which thrived where I planted them. Budget-wise, I couldn't afford to cover 1,000 square feet with perennial plants.

So I decided to try two plants that I could afford — stringy stonecrop (*Sedum sarmentosum*), which grows in my neighborhood as a weed and is native to East Asia and Southeast Asia, and white clover (*Trifolium repens*), which is native to Europe and that I could start from seed. Indeed, this combination filled in quickly and looked gorgeous, so much so that a gardening magazine sent a photographer to capture it and hired me to write about my successful lawn replacement.

The very next year the experiment failed completely — the clover overpowered the shorter sedum. With nothing but clover, the lawn was bare and muddy in the winter until it greened up in spring and attracted deer and rabbits like no other plant I'd ever grown.

I concluded that there's far more interest in replacing lawns than there are examples of affordable and DIY-friendly alternatives to turfgrasses. I did more research.

Getting rid of tiny lawns is sure easier

Not long after my clover and sedum combination failed, I unexpectedly sold my house and it all became the buyer's problem. I downsized to a townhouse with tiny front and back lawns that were easy to remove and replace with diverse gardens of trees, shrubs, perennials and potted annuals around patios. It's not lawn-like at all now; it's all garden.

My tip for lawn-to-garden conversions is to find a few good groundcovers that thrive where you need them. The best-performing native groundcover in my small lawn-free garden has been golden ragwort (*Packera aurea*).

Susan Harris is a retired garden coach in Maryland who posts weekly at GardenRant, the team blog she co-founded in 2006.

Coming next issue: Read about the lessons Susan has learned from other gardeners who are getting rid of lawns through her blog, and view examples of their successes.

Editor's Note: Wild Ones' mission advocates for the use of native species, knowing that a healthy planet starts with native plants.

Members of the Kentlands Green Team and the Muddy Branch Alliance walk the HOA grounds, looking for the right location for a native plant garden. *Photo: Alex Stavitsky-Zeineddin.*

approach to everything. Rather than just letting the existing slope carry runoff into their central garden, they installed underground drains to ensure water would reach its intended destination. After planting that first garden in the spring of 2025, they swiftly began assembling a proposal to tear up an old unused basketball court and replace it with sustainable landscaping.

Newell said she gets friendly questions and positive comments about the new native plant gardens. The favorable feedback comes not just from human residents, but from local wildlife. Hummingbirds visit her neighbors' yards, she noted, but they come back to hers. The reason for the rave avian reviews? Native plants instead of sugar feeders.

Growing success

Through this program, the Muddy Branch Alliance didn't just design native plant gardens. It created a replicable process so other native plant promoters can do the same thing. We even taught the process to an ecological landscaping business in California, which quickly found that HOAs were willing to pay for this service. Several water-wise native plant gardens have already been installed as a result of that partnership.

Here's our tried-and-tested approach:

Find at least three key players: a qualified landscape designer, a funding partner and an organization to hold the project together. In most cases, this will be a credentialed landscape designer within your chapter, a local funder that supports conservation work, and your Wild Ones chapter coordinating the effort. Designers may be selected through a competitive process, and engaging multiple funding partners can broaden support and access to resources.

You need an HOA! Find out which communities in your area are already interested in environmental initiatives. As Stavitsky-Zeineddin and Newell stressed, their teams wanted to install native plant gardens. They just needed technical help and funding to get the project off the ground.

The Muddy Branch Alliance created a brochure to help HOAs understand what we offer and what they should expect to contribute to the process. This version is specific to the Muddy Branch Alliance and its partner groups, but you can use our brochure as a starting point to explain to HOA leaders what you can help them with.

With the HOA on board and all the partners assembled, you will want to meet with the HOA leaders to explain how sustainable landscaping works, learn about their goals for the project, and set the site search in motion.

Once the HOA has chosen the location for the garden, visit the place in person to gather the information you will need for a successful design.

At this stage of the project, the HOA team should be securing support from their board and should be starting to put together their grant application. To do that, they're going to need several dedicated people with skills in grant writing, budgeting, project management, and stakeholder engagement.

"You have to build a good team," said Stavitsky-Zeineddin from the Kentlands, while Newell from Shady Grove Village said the project was possible because of a "small but very enthusiastic core of people."

Provide the plan, get feedback, and revise the draft. Use those materials to get final approval from the HOA board, quotes from vendors, and of course, grant funding.

After that, all that's left is to install the garden, develop a plan to maintain it and enjoy the beautiful native plants.

A flourishing community

Just as a diversity of native plants makes our landscapes better, a team of committed people can take meaningful action together to improve the world. Wild Ones members and chapters can be a valuable part of that ecosystem.

Build partnerships to connect people and native plants. Spread natural landscapes. We can't wait to see what you create.

Janette Rosenbaum is past president of the Muddy Branch Alliance, which enjoys an ongoing partnership with the Wild Ones Nation's Capital Region (MD) Chapter.

Photos by Russ Cohen unless noted otherwise.

How to find black raspberries in the wild or establish them in your yard

Fully ripe black raspberry (*Rubus occidentalis*) fruits are dark purple and soft.

By Russ Cohen

If you've done any foraging at all, it is likely you've been berry picking. For many, it is among the most anticipated and enjoyable activities of summer. Wisconsin-based wild edibles expert Sam Thayer says in the Eastern U.S., the black raspberry (*Rubus occidentalis*) is the most popular wild berry for picking, although the berry is widely distributed across the Midwest as well. A similar species, whitebark raspberry (*Rubus leucodermis*) occurs on the West Coast.

"Millions of people head to parks, backyards, fencelines and rural roadsides every June or July to fill pails with this beloved fruit," Thayer says. "Black caps are mild in flavor, sweeter than a blackberry, less sour than a raspberry – and, in many people's estimation, have a perfect balance of flavor."

Black raspberries and other members of the *Rubus* genus are colloquially referred to as brambles. Black raspberries can easily be distinguished from blackberries due to their hollow center, whereas the core of a blackberry remains embedded in the fruit when you pick it. Black raspberries also tend to ripen 3-4 weeks earlier. While raspberries and blackberries are readily available in grocery stores, even year-round, black raspberries rarely are. The best way to enjoy this berry's flavor is to pick them yourself: from wild patches or from plants established in your yard.

How to find wild black raspberry patches

Rubus occidentalis likes to grow in human-disturbed or maintained habitats, such as along the sunny edges of fields or meadows. While these are great places to look for ripe berries from mid-June to mid-July, that is not the only time to keep an eye out for black raspberry plants.

One of the best times to discover wild patches of black raspberries is in the winter, when their arching stems take on a distinctively purplish color. For successful foraging, devote a notebook to write down the location of edible plants whenever you encounter them, and then return to that spot when they are in season.

Plant appearance

The individual canes of *Rubus occidentalis* live for two years: they are round, smooth and sparsely armed with sharp prickles that have wide bases and slightly downward-pointing tips. They are also coated with a white, waxy covering, easily rubbed off with your fingers. In contrast, blackberry canes are green, grooved, and thornier.

In the first year, black raspberry canes grow quickly to their full 5-to-8-foot length but do not flower, hardening and becoming semi-woody by fall. In the second year, these stems develop short side branches that bear flowers and fruit, after which they die, but remain useful habitat for overwintering insects.

In the wild, patches of black raspberry plants often form dense thickets, and their canes are distinctly arched. If the tops of the canes touch the ground, they can root at the tips, thereby forming living loops that can make bushwhacking through a patch a challenge.

Rubus occidentalis' leaves are compound and composed of three (sometimes five) toothed leaflets, with silvery-white undersides. Black raspberry flowers are among the least showy of all members of the *Rubus* genus. Each flower has five smallish white petals and five green sepals that can be twice as long as the petals. Within each flower are many pistils (styles) surrounded by stamens. Pollination occurs when pollen from the stamens is transferred to the pistil, mainly through the activity of bees and other insects, although wind can also play a role.

Harvesting best practices

Know the rules: Get permission before harvesting from someone else's private property and find out the guidelines for harvesting from public property.

Harvest from uncontaminated places: Don't harvest plants that may have been chemically treated with pesticides or herbicides. Don't harvest from within 6 feet of a high-traffic roadway or other areas you believe may have contaminated soils.

Wash fruit thoroughly before use: Rinse all harvested berries to remove dust, pollutants or possible contamination from animals, even when foraged in seemingly clean areas.

Handle plants gently: Pick berries carefully to avoid breaking canes, stripping entire clusters or trampling surrounding vegetation; sustainable harvest helps ensure future yields.

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. That will ensure wildlife continues to have a reliable food source.

Black raspberry fruits are aggregate, composed of multiple fused ovaries from one flower. Each berry is composed of numerous fleshy drupelets, with one hard edible seed enclosed in each globule. Black caps, a common nickname for black raspberry berries, comes from the fact that when the hemispherical-shaped fruit is picked, its greenish-white core stays on the plant, giving each hollow berry the appearance of a tiny cap.

When and how to pick

Black raspberry fruits typically ripen over a three-week period beginning in mid-June. As berries don't all ripen at the same time, you can return to the berry patch every two days during the ripening period to pick fruit that has ripened since your last visit. Despite that black raspberry ripening coincides with hot summer weather, pants and long-sleeved shirts are recommended for avoiding thorns during picking.

Fully ripe black raspberry fruits are very dark purple and soft, and range in size from 3/8-inch to 1/2-inch or more in diameter. The larger and darker the berries, the juicier and sweeter they tend to be. However, if berries don't easily detach from the plant, leave them as they're not yet ripe.

The best containers for picking black raspberries are ones that attach to your belt or hang from your neck, leaving both hands free. My version is a quart-sized yogurt container; I punch two holes across from each other, just below the container rim, and then tie on a thick piece of string so that it hangs comfortably from my neck. Be sure the container top fits snugly over the opening to help prevent your harvest from spilling as you extract yourself from the patch.

Fruit storage

After you pick the berries, keep them cool and place them in a cooler in your vehicle. One reason black raspberries are rarely seen in supermarkets is that they have a short shelf life, even when refrigerated. Thus, whatever you don't eat or cook within that short window should be frozen for later use.

Freeze black raspberries in a single layer on a cookie sheet lined with parchment paper. Once frozen, transfer the berries into clean plastic containers or freezer bags. Frozen black raspberries can last for a year or more.

Uses of fruit

Many people-assert that the best use of berries you pick yourself is to eat them immediately. But black raspberries can be used in a similar fashion to other members of the *Rubus* genus: filling for pies or other baked goods, drinks, purees and syrups, salad dressings, and jams. Black raspberry fruits are a bit on the seedy side, however, so I use a fine-meshed sieve to remove about two-thirds of the seed, and leave the rest in whatever I am making.

Black raspberry ice cream, with or without chocolate chips, is among the most popular flavors in New England. In Vermont, you can get a soft-serve black raspberry "creemee" plain or twisted half + half with maple.

Nutritional/medicinal value

While enjoying the berries straight from the patch or in something you've made is enough motivation to go foraging for them, *Rubus occidentalis* fruits also offer nutritional and health benefits. In addition to vitamin C and fiber, black raspberries are rich in anthocyanins, which act as antioxidants, offering potential benefits for cardiovascular system health, inflammation reduction, and for managing metabolic syndrome. They also contain significant levels of ellagic acid, a polyphenol that is showing some

potential for cancer treatment and prevention.

What else to eat on a black raspberry plant beside the fruit

As with other *Rubus* species, tea made from black raspberry leaves is pleasant and may also have some medicinal benefits. It can be drunk hot or iced, on its own or mixed with other ingredients such as a few berries. To further improve the flavor, bruise the leaves by first squeezing them under a rolling pin before thoroughly drying.

As with other *Rubus* species, young tender shoots of the first-year canes can be peeled and eaten as a vegetable. The peeled shoot should be green and bend easily; if it is white and/or a pith has formed, it is too far gone for eating. Lastly, the whitish, waxy bloom on the canes is a source of wild yeast. At any time of year, you can snip off a few inches of bloom-covered cane to create a sourdough starter, or to make wine, vinegar or soda.

Ecological value

Rubus occidentalis offers ecological benefits. The flowers are rich in nectar and pollen, attracting over 15 species of native bees that may also snip pieces of black raspberry leaves for nests. It also serves as a larval host for various butterfly and moth species, and its dried stems provide habitat for overwintering bees and other insects. More than 150 species of birds and other wildlife are known to consume black raspberries. While you may dislike this competition for the fruit, you can find solace in knowing that the seed inside the fruit eaten by wildlife will be naturally scarified in their digestive systems, increasing the likelihood that the seeds excreted by those animals will germinate and produce new plants, helping to create new wild berry patches. *Rubus occidentalis*' arching, thorny canes can also grow into dense, impenetrable thickets that provide a safe haven for small mammals and birds to escape predators. Bird species like yellow warblers may choose to build their nests there for that reason.

Growing and planting black raspberry plants

To establish a black raspberry patch in your own yard, first decide how to obtain plants: from an existing patch, from seed, or purchased from a nursery or other plant supplier.

Rubus occidentalis can easily be propagated by "tip layering." That is, place the tip of a first-year stem on the surface of bare ground. Weigh the tip down with a rock, pin it down with a U-shaped landscape pin, or bury it several inches deep. Wait for it to grow roots (which could take place in less than a month); then sever your "new" rooted plant from its parent stem. An ideal time for doing this is late summer, as the arching primocanes would have reached their full length, and their tips may already be bending down toward the ground.

With permission, you can also dig up some plants from an existing patch and transplant to a new location. Plants propagated this way would be clones, or identical copies of the mother plant.

Clonal propagation can be tempting, especially if you encounter a mother plant with characteristics you really like, such as large, abundant or particularly tasty fruit. However, propagation by seed is preferable because it supports genetic diversity and supports the species' resilience to pathogens and climate change. Ideally, collect seed from wild, straight-species plants near where you intend to grow your own plants.

Propagation by seed

Although seed propagation is the preferred method, it is relatively difficult to grow *Rubus occidentalis* from seed. As its seed coats are hard, some form of scarification is often recommended. This can be done manually: scrape the seeds on sandpaper or soak the seed in sulfuric acid, both of which mimic passing through an animal's digestive tract; or soak the seed in hot water for 24 hours.

Alternatively, you can warm-stratify the seed. First, wash all the fruit pulp off the seed as the fruit may be a germination inhibitor. Then, place the seed in a plastic bag with slightly damp sand, vermiculite or sphagnum moss and store at room temperature for one to two months. Finally, move the bag containing the seed to a refrigerator and store for another 90 days.

In spring, sow the seed at a depth of 1/8 inch, keeping the soil or other growing medium consistently moist. Expect a relatively low rate/pace of germination, though, which could take months or even years after sowing.

Where to plant black raspberries in your yard

For best berry production, plant black raspberries in a spot where the plants will get a good 6+ hours of direct sunlight. The optimum location may be one that offers morning sun combined with some afternoon shade.

While *Rubus occidentalis* can tolerate gravelly soil, loamy soil with considerable organic matter will likely result in better fruit production. Also, while *Rubus occidentalis* has some drought tolerance, you'll get better berry production if you don't let the plants dry out. Give them supplemental water during periods of low to no rainfall, especially in the weeks between flowering and the end of fruiting. Placing wood chips or other mulch around the places where the canes emerge will help with moisture retention.

Rubus occidentalis tends to spread beyond where it has been planted, so choose its planting location carefully. This spreading typically takes place underground through roots and suckers and through its primocanes touching the ground and rooting at the tip. Thus, plant black raspberries in a spot where you can control them with methods like mowing.

Russ Cohen, of Arlington, Massachusetts, has been leading walks and talking on wild edibles for over 50 years. He is a member of the Wild Ones South Shore (MA) Chapter.

The Early Childhood Developmental Center pollinator garden is located in front of the building. It is one of three gardens at the site.

Where the wild things are: A place for wildlife and children to flourish

By Gisela Ferrer

My journey with native gardens in Hackensack, New Jersey began about four years ago on a fall afternoon. I was walking from one school to another through the urban neighborhood when I happened to glance up and see a single monarch (*Danaus plexippus*) fluttering above the street. I was thrilled to spot it, but as I looked around for a flower patch that might offer the food it needed for its long journey home, there was nothing. Only small strips of lawn and a row of Callery pear trees (*Pyrus calleryana*). There were a few scattered keystone trees, but nothing in bloom to support that butterfly at such a critical time.

That moment stayed with me. It saddened me to realize that this butterfly, a symbol of migration and beauty, had nowhere to stop, rest and refuel. Little did I know that just a few weeks later, I would meet a teacher who would become my partner in changing that reality for future monarchs and other Lepidopterans.

At Jackson Avenue School, I met Letisia Rios, an administrative assistant who shared my concern for the monarchs. She introduced me to Principal Christopher Moran, who immediately understood why this mattered. Together, we decided to convert nearly a quarter-acre of school lawn into a vibrant, living ecosystem. That first garden became a symbol of hope, for the butterflies, for the community and for the possibility of restoring what had been lost.

The following year, with the support of Early Childhood Administrator Donna Petrin-Wall, we established a second native garden at the Early Childhood Development Center. Although the school had less space, we saw every patch of soil as an opportunity. Between buildings, behind the school, and even in a narrow strip of ground, we created three distinct gardens:

- a shady fern garden that offered children a quiet, calming retreat
- a lively pollinator garden at the front of the school
- a simple permaculture-style blend of native plants and vegetables growing side by side in the back

Space is not a barrier; even a container or two of native plants is a positive and inviting change.

Then came the third year and the third elementary school. At Fanny M. Hillers School —again supported by the administrator, Judith Soto, and the lead gardening teacher, Ileana Moyano — we created another blooming native garden.

Now, three out of four Hackensack elementary schools are flourishing with native plants. Each space began attracting butterflies, moths, bees and birds in numbers. We watched these gardens transform not just the landscape and soil, but also the hearts of staff, students and com-

Children at the Early Childhood Developmental Center dig in the center's permaculture-style garden.

munity members. A visitor once remarked that one of the gardens made the school look less like a school and more like a campus.

These gardens are vital spaces where native flowers bloom, providing both food sources and nurseries for caterpillars. They are also intentional learning environments where children can observe, touch, compare, watch and experience hands-on science every day. They become places where teachers can seamlessly connect literacy, math, science and even the history of the space to the garden.

This is our next step: helping teachers make those connections purposeful and meaningful. We have already begun with the preschool by creating videos and lesson plans that link the gardens.

In the beginning, we were a young Wild Ones chapter without financial means to support such ambitious projects. But our board members were determined, and we soon realized we were not alone. The Xerces Society became one of our greatest allies, providing pollinator habitat kits designed for our region year after year. With guidance from Kass Urban-Mead and Olivia Matise at the Xerces Society for Invertebrate Conservation, we learned how to navigate the application process and strengthen each project. Every January, when applications opened, we worked alongside lead teachers to apply to one school. These kits allowed our gardens to grow. Over time, we received both small kits (550 plugs) and large kits (1,100 plugs), along with two native shrubs for two of the three projects.

One of the most meaningful moments came when I contacted the Bergen County Audubon Society for ideas and additional funding — and we were awarded $1,000 for plants, which we used for trees. President Don Torino asked which school I was working with in Hackensack. When I said, "Jackson Avenue Elementary," he paused and quietly shared, "That's the school I attended as a child." He told me how, in fourth grade, his teacher had taken the class outside for birding walks, and that was when he fell in love with birds. That reminder, that a simple outdoor experience can shape an entire life, strengthened our commitment. We do not always know which child will become the future environmental leader, scientist, artist or steward. But exposure is the beginning, and everything in between.

I have always loved working with children and pairing that with gardening felt natural to me. Without fail, I see transformations: the child

Kass Urban-Mead, of the USDA Natural Resource Conservation Service, prepares to deliver native plants for Jackson Avenue Elementary School's first collaborative garden.

who once pulled back from a worm now gently reaching out to touch it; the hesitant child suddenly brave enough to hold a ladybug; the excitement when a butterfly lands nearby. Gardens slow children down in the best way. They calm them. They root them. And for children who spend their sunniest hours indoors, an outdoor classroom gives them fresh air, essential vitamin D, joy and a connection to nature that many do not receive at home.

Working with schools also means building community. Gardens can be planted quickly, but without caretakers, they will not last. Before we begin any project, we bring together everyone who will be responsible for the space: administrators, teachers, custodians, the PTA, maintenance staff and anyone who touches that landscape. We guide them through site selection, explain why we don't till or fertilize, teach the importance of biodiversity and help them become proud stewards of their grounds. When a school community is invested, the garden thrives. And yes — add signs, signs, signs. Signs inform, educate and protect the space.

Children then become the messengers. When a child arrives home, the first question parents ask is, "What did you do today?" When the child answers, "We planted a native flower," "I held a worm" or "We saw a monarch," that message travels from the school straight into the community. It is one of the most powerful forms of education we have.

This year, in our very first garden, we are taking the next step. The garden has grown so abundantly that we will be digging up divisions and creating more patches throughout the property. I prefer not to mix plants between schools; each garden has its own ecosystem. But expanding within one school's landscape is a beautiful thing.

We are also launching winter sowing with families. Parents and children will fill jugs with soil and seeds, take them home, and care for them through the winter. In the spring, families will keep half of the seedlings for their own homes and return the other half to help expand the school gardens or create new community plantings. This shared responsibility strengthens the bond between school, home and neighborhood.

Ultimately, our goal is bigger than Hackensack. We want to show Wild Ones chapters — and any community — that schools are one of the most powerful entry points for educating families about native plants and the vital role we all play in ecological restoration. These school gardens become demonstration gardens, small-scale examples that families can replicate at home, helping them grow comfortable with the beauty and resilience of native plants. School gardens grow into neighborhood gardens. Neighborhoods grow into corridors. Corridors become habitat.

By working with children, we build strong, thriving present and future communities. By creating outdoor classrooms that spark curiosity and invite exploration, we plant more than seeds in the soil. The Wild Ones New Jersey Gateway Chapter is planting a brighter future for all living things.

Gisela Ferrer is a professor-in-residence at William Paterson University, an early childhood educator and president of Wild Ones New Jersey Gateway Chapter.

Working with children and introducing them to native plants and gardening helps to build community and educate others.

Edgewood High students plant pollinator garden, install birdhouses

The Edgewood High School Outdoor Club, of Ellettsville, Indiana, planted a pollinator garden and installed birdhouses, and learned a tangible way to care for the environment, thanks to a Lorrie Otto Seeds for Education grant.

Edgewood School's project coordinator Harrison Carmichael said students learned important lessons about environmental stewardship, teamwork and responsibility through their projects.

"Many gained confidence in trying new challenges, developed problem-solving skills and expressed a deeper appreciation for nature, with several indicating they want to continue supporting local wildlife and green spaces beyond the club's activities," Carmichael wrote in their year-end grant report.

About 35 students took part in the project, planting native trees and shrubs such as eastern white pine (*Pinus strobus*), white spruce (*Picea glauca*), pawpaw (*Asimina triloba*) and elderberry (*Sambucus canadensis*), as well as perennials including black-eyed Susan (*Rudbeckia hirta*), coneflowers (*Echinacea* spp.), and various grasses and native pollinator seed mixes.

The pollinator garden also provides a living classroom for students and a visible symbol of their commitment to environmental stewardship, Carmichael said.

"It has fostered pride and ownership among participants who are now more engaged in maintaining and expanding outdoor projects," he said. "The most surprising outcome was the level of enthusiasm from students who had never gardened before — they quickly took initiative, tracked pollinator activity and shared their learning with peers and family, demonstrating leadership and a lasting connection to the natural world."

Since the initial planting, the garden has faced typical maintenance challenges such as controlling weeds and ensuring young plants receive enough water. But Carmichael said to address these issues, students and volunteers have regularly mulched beds, removed invasive weeds and monitored plant health.

"These efforts have also provided hands-on learning opportunities, teaching participants the importance of consistent care and patience in maintaining a thriving garden ecosystem," he said.

Top: Students in the Edgewood High School Outdoor Club helped install birdhouses as part of the Lorrie Otto Seed for Education grant. Above: Students water their newly planted flowers in the Edgewood High School pollinator garden.

Photos by Besa Schweitzer unless otherwise noted.

The value in leaving snags and stumps

Left: Velvet stem (*Flammulina velutipes*), a species of gilled mushrooms, grows on a snag as the tree decomposes. Top: Eastern red columbine (*Aquilegia canadensis*) surrounds a stump in Schweitzer's yard. Above: Snags provide habitat for many birds, insects, fungi and mammals, including species that depend on decaying wood.

By Besa Schweitzer

There is no need to hurry to remove every dead tree on your property. If the tree is not in danger of falling on someone or something, it can be beneficial to leave it standing.

A standing dead tree, or snag, provides habitat for many birds, insects, fungi and mammals that depend on decaying wood. A dead tree has many nutrients locked inside its tissues that can be returned to enrich the garden soil if it is allowed to remain and naturally decay. Try to find the stoic beauty in the tree as it once again returns to the earth.

Snags will attract all sorts of birds, especially woodpeckers. Bees and beetles dig cavities into the bark to build nests. Bats take shelter under loose bark. Fungi build their mycelial network through the wood to sprout mushrooms. Then, when the snag falls and becomes a rotting log or stump, even more insects move in. Ants excavate winding tunnels. Toads hide in the soil underneath while lizards bask in the sun on top.

Sifting through the decaying wood, there are so many insects and their larvae to discover. Stump dissection is a great activity for kids and curious adults. Looking at bugs and fungi up close can reveal beauty that we often overlook. For even more wonder of the teeming multitudes, take a look with a microscope.

I have an old dead silver maple (*Acer saccharinum*) in my back garden that has been slowly falling apart for the past few years. The main trunk is hollow all the way up. Over time we have taken down a few of the larger branches that were threatening to fall on the baby trees I planted in the now-open patch of sunlight to replace this big tree's

Colorful ceramic mushrooms add beauty to the hollowed-out trunk of a dead silver maple (*Acer saccharinum*) tree.

shade canopy. I keep an eye on the tilt of the main trunk and plan to take it down before it crushes my garden. But in the meantime, I leave it standing. It provides valuable habitat. I have seen barred owls (*Strix varia*) perch on the branches, flickers (*Colaptes* spp.) bang on the trunk, and a family of squirrels live in a knothole. Rows of fungus ring the tree and mushrooms pop up at its base. One summer we even had a hive of bumblebees (*Bombus* sp.) living in an abandoned bird's nest cavity. I watch as gradually the dead wood piles up around the base of the trunk, enriching my garden soil.

Trees absorb a lot of water through their roots and pump it into the atmosphere. Even after a tree dies, as its wood rots, it absorbs water during rains and releases it during drought. Similarly, all the carbon and other nutrients taken up and manufactured by the tree during its life will be released back to the soil as it decays. This whole process of decay is orchestrated by detritivores like beetles and fungi. Their small but mighty populations reduce the dead wood, making nutrients available in the garden. Carpenter bees (*Xylocopa* spp.), roly-polies (*Armadillidium vulgare*), millipedes (*Diplopoda* spp.) and beetles (Coleoptera) need dead plant material to live on and complete your garden ecosystem.

If your tree is a hazard, consider hiring an arborist to only remove the dangerous branches. Keeping a yard safe by removing hazard trees, aka "widowmakers," is always a priority.

In rare cases, trees dying from disease may need to be removed entirely to prevent the disease from infecting nearby trees. If a tree needs to be removed, winter is a good time to do it. When the ground is frozen and plants are dormant, there will be less damage to the garden. Where trees are not diseased, their wood can be retained to support habitat and natural processes.

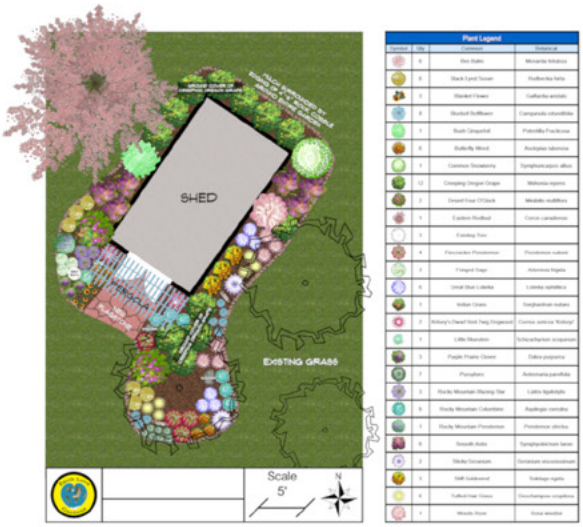
Logs and stumps should be kept in the garden. I like to line my paths with logs. They make a nice border, help hold floppy plants out of the path, and provide great habitat for decomposers. Watching a log slowly decay can be fun and exciting to see all the cool bugs and their tunnels through the wood. Mushrooms and mosses will grow over time that can be a welcome patch of color.

Stumps can also make great borders, seating and pedestals for pots. I keep several around my garden and often use them to set my coffee or gloves on, and I know the squirrels use them to shell nuts. In my climate the stumps only last a year or two before the decay tears them to pieces and they compost into the garden. When I'm driving around my neighborhood, I keep my eye out for attractive stumps left out for yard waste pick- up. I even keep a tarp in my car for spontaneous stump rescue. Larger stumps last longer, but I can only lift so much, so my stumps are on the small side. Insects, as well as frogs and lizards, love the moist rot of stumps and logs. I do what I can for my garden inhabitants.

Decay is a healthy part of complete ecosystems. Leaving snags and stumps in the garden cycles nutrients from living plants into healthy soil. Fortunately for us, there are many critters willing to help with decomposition. From mammals, amphibians, reptiles, birds, bats, beetles, bees, ants and many other insects, to fungi, mosses and lichens, there is a plethora of life. Our native gardens are so full of life, that death is just an opportunity for more new forms of life.

Besa Schweitzer has over 25 years of experience in native plant gardening. She is the author of "The Wildflower Garden Planner," a workbook for native plant garden maintenance. Besa has been active in the Wild Ones St Louis (MO) Chapter off and on since 2004.

We create a custom native plant landscape design for you ...anywhere you live!



• **We remotely design your landscape** utilizing an abundant variety of beautiful regionally-native plants that provide as low-water habitat for pollinators and birds. We focus on plants that are available at nurseries, to make the implementation of the design as simple as possible.

• We thoughtfully place plants and other elements in the design, paying focus to each plant's mature sizes, light requirements, water requirements, soil requirements, bloom colors and times, textures, wildlife value, and more.

• Elements such as nest boxes, birdbaths, wood logs and more can be included to provide as resources for beneficial wildlife and to add to the aesthetic and feel of your garden.

• Our designs include the optional planning of perennial edibles, including fruit trees, fruit-bearing shrubs, and perennial veggies, optionally through permaculture practices, raised garden beds, and more.

POLLINATOR PARTNERSHIP
Protect their lives. Preserve ours.

As partners with Pollinator Partnership's Bee-Friendly Gardening (BFG) program, we can design you a BFG-certified garden!

Visit us at www.EarthLoveGardens.com

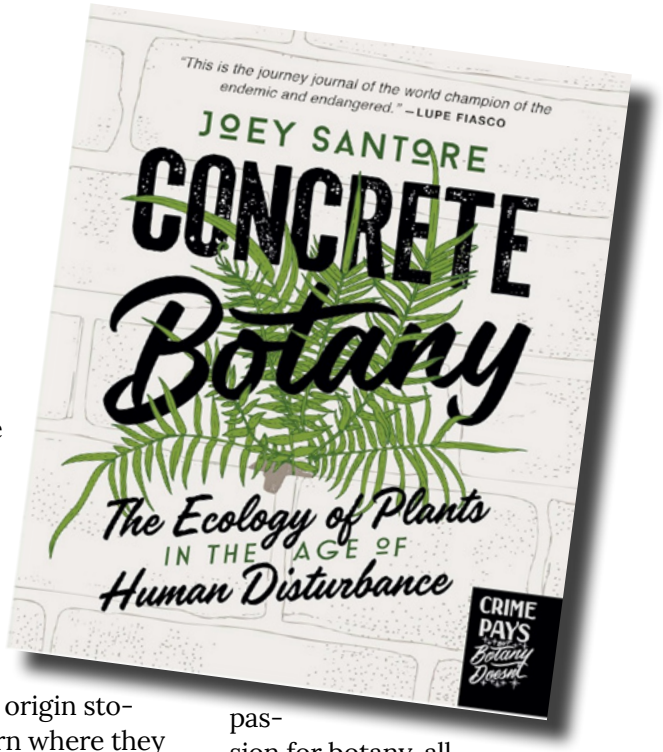
Book Review

Title: "Concrete Botany: The Ecology of Plants in the Age of Human Disturbance"

Author: Joey Santore

Published: April 2026

Rating: ★★★★★



By Wendy Gochenaur

What do you get when you cross a railroad worker with a sailor's mouth and a passionate self-taught botanist? You get Joey Santore and his book, "Concrete Botany: The Ecology of Plants in the Age of Human Disturbance."

"Concrete Botany" is a book with a lot to unpack. Even after reading it twice, I found things I had missed the first time.

Guerilla gardening, ripping up lawns, ecology, compassion and irreverence come together in this 224-page (including index, glossary and recommended reads) book. This book made me laugh, tear up and feel inspired. Lines like, "Plants – which I heretofore had thought of as inanimate objects, no different than a fire hydrant or a microwave – were now the prioritized foundations of the world of interest I lived in" are indicative of his amusing style of writing.

His love/hate relationship with the Anthropocene is highly relatable. Cities are his playground, but "the living world" is his "church." (He notes that he does cringe at the use of that word, but it does express how he feels.) He proves there is room to love the human world and still embrace the living world, which is his term for what we typically refer to as "nature."

Santore grew up in Chicago, moving out west later in life and working in the rail yards. It's there that he became interested in botany. The random plants growing in the hostile environment of the abandoned warehouse districts were fascinating to him. He began to read all he could about plants. But he wanted to know more than just the plant names. He read about the ecology of the plants he found, their origin stories, and began to learn where they came from. He traveled the world to meet different plants. This helped him learn not only about native plants in different regions around the world, but also about plant species listed as invasive. In one region, plants are well adapted and kept in check by the natural forces around them such as disease, insects and other organisms and systems. But remove those plants and put them somewhere else, and they can grow out of control.

Humanity has been a force to reckon with when it comes to introducing species from one region to another. Santore notes that yes, this has happened in nature at times, but not to the extent that it's happening in the world today.

Although he acknowledges the problem, he also advocates for the solution: native plants. They just make sense. His book has advice on starting a native garden whether you are a renter or homeowner. The important part is to start!

If you liked Santore's Wild Ones webinar, "Rethinking Horticulture with Real Ecology," you'll love his book. His sense of humor, his cynicism, his enthusiasm, his motivating passion for botany, all come together in this book.

But if you dislike the F-bomb, you may not enjoy this book as Santore has the mouth of a sailor. Personally, I found him down to earth and extremely relatable. I am very pleased with this book and highly recommend it to anyone interested in ecology, native plants, illegal adventures and the natural world.

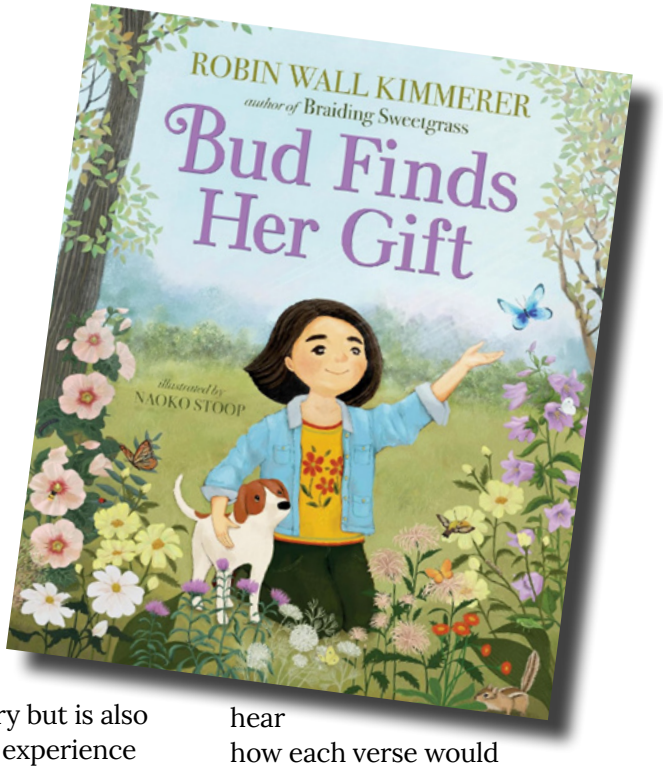
I would also recommend his YouTube series "Crime Pays but Botany Doesn't."

I absolutely give this book 5 out of 5 stars. Why? I found it to be a very inspiring and colorful book. Most books on ecology are clean and somewhat dry. But this book was really truly human, proving that you don't have to have a doctorate to be a really good botanist.

Wendy Gochenaur is a Wild Ones Illinois Prairie Chapter member, artist and mother to three lovely cats — and she, like many of us, can't get enough of native gardening.

Book Review

Title: "Bud Finds Her Gift"
Author: Robin Wall Kimmerer
Published: 2025
Rating: ★★★★★



By Sara Ressing

From "Braiding Sweetgrass" to "Braiding Sweetgrass for Young Adults" and now "Bud Finds Her Gift," Robin Wall Kimmerer continues translating ecological wisdom for new generations. This picture book illustrated by Naoko Stoop brings Kimmerer's message of reciprocity and purpose to readers ages 4-8.

As the book opens, we meet Bud, a child who is very good at noticing. Though you might take a moment to notice her yourself in the opening illustration: a busy and seemingly loud city street and one little girl at a window.

A quiet girl, perhaps.

No. I should be honest here. In my early notes for this review, I kept writing the word "quiet" beside Bud. It is an easy adjective, and the wrong one.

The quiet label often implies passivity, compliance and the value of sound-level over personhood. I then realized how often adults hand out "quiet" to children as an identity. Were you that kind of child? The one adults praised as quiet, while inside you were anything but?

Bud is not quiet, but rather deeply present. Books like "Bud Finds Her Gift" honor that way of being. Through both the illustrations and the storytelling, Bud's stillness becomes a strength. Under the encouragement of her grandmother, she begins to notice with the same attention many of us seek to rediscover in our gardens — sitting among growing things, letting the world slow down enough to be seen.

In the story, Bud wonders what gift she has to share, then learns that attention itself can be a form of generosity. This is a book for children, but also for adults who may need to relearn how to see.

Bud's attentiveness is not only the subject of the story but is also built into the reading experience itself. Kimmerer structures the book through a recurring song/prose that invites children to listen closely, anticipate patterns and notice what changes: "Everyone, from the day of their birth, was given a gift to share with the earth."

The repeated opening lines create familiarity and comfort, while the final lines shift with each new speaker. Some are tender, others funny; all are rooted in ecology, even if a few reach a bit more for the message beyond musical grace. One line that sent my children (and Bud) into laughter celebrates bird droppings for the seeds they deliver after a berry-filled meal. It is a small but perfect example of how the book makes natural systems both memorable and joyful.

More importantly, Kimmerer's lines invite participation; kids recognize that opening lines are coming, which feels safe and satisfying, then they wait to discover: Who is speaking now? What is their gift? And how do they help the Earth? By the second third of the book, my youngest child began joining in on the repeated lines as we read, then leaning in to hear how each verse would end. It became a kind of call-and-response experience.

As I drafted this review, my 8-year-old sitting next to me picked up the book to read to himself. Alone with Bud, he sits whispering to himself about all the details he notices as he turns each page. Bare feet, kitty cats and ants. Suddenly he shouts: "Mom, look! There are little ducks, and a fox hunting them."

A bashful look follows, as if he remembers children are supposed to be quiet. I smile back. He's offering to share this gift with me: a whole ecosystem illustrated by Naoko Stoop, prime for eager eyes to notice. Noticing him noticing the book and seeing all that noticing can become. That is a gift I've been given, and I notice happiness growing inside me.

Sara Ressing is the education and program coordinator at Wild Ones, where she blends her love of native plants, learning and storytelling to support community-based conservation. She holds master's degrees in zoology and education and is a parent of two, a cat enthusiast and a fan of muddy hikes and good books.

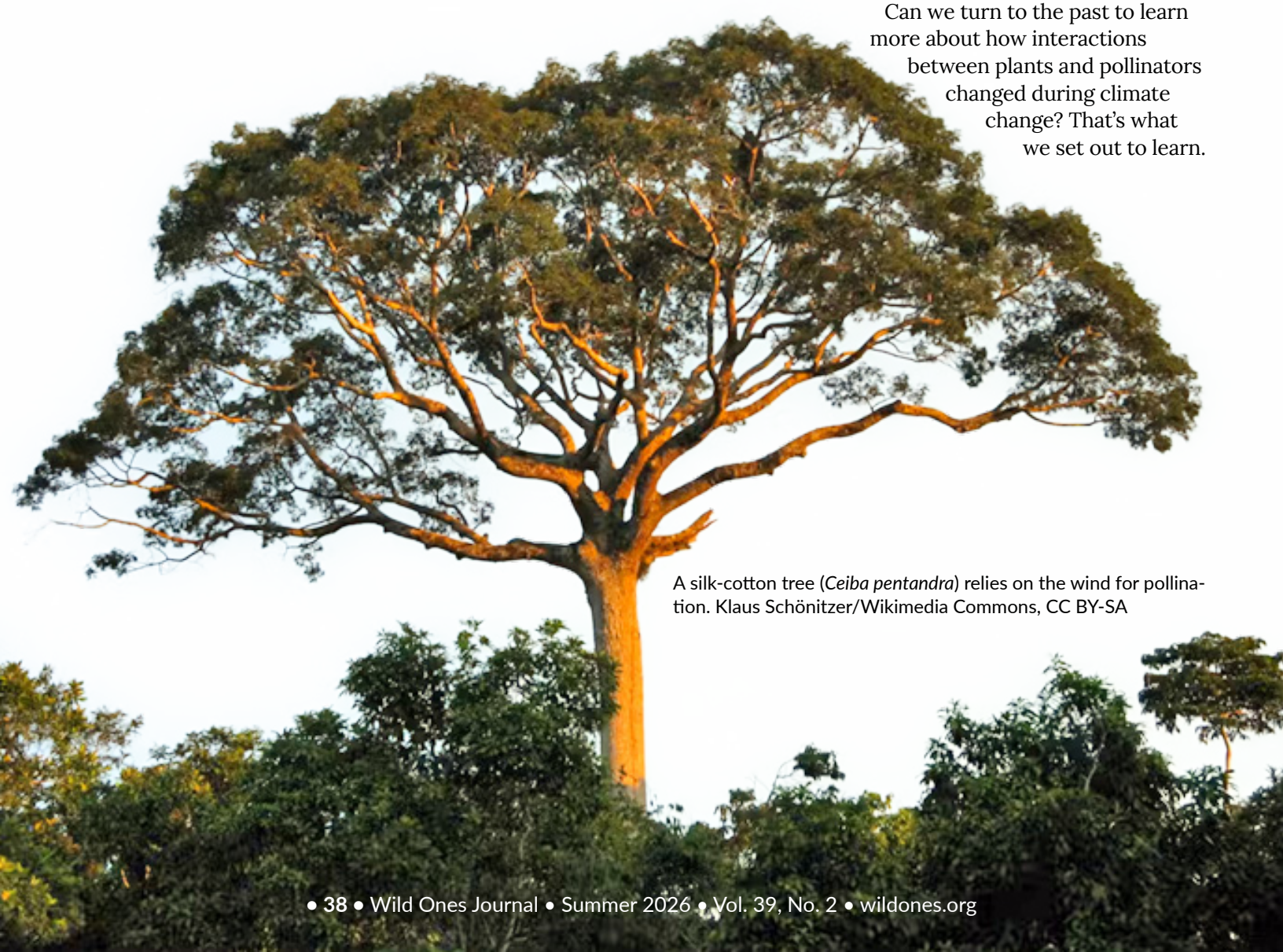
56 million years ago, Earth underwent rapid global warming. Here's what it did to pollinators

By Vera Korasidis and Scott L. Wing

Pollinators play a vital role in fertilizing flowers, which grow into seeds and fruits and underpin our agriculture. But climate change can cause a mismatch between plants and their pollinators, affecting where they live and what time of year they're active. This has happened before.

When Earth went through rapid global warming 56 million years ago, plants from dry tropical areas expanded to new areas — and so did their animal pollinators. A new study, published in Paleobiology, shows this major change happened in a remarkably short time span of just thousands of years.

Can we turn to the past to learn more about how interactions between plants and pollinators changed during climate change? That's what we set out to learn.



A silk-cotton tree (*Ceiba pentandra*) relies on the wind for pollination. Klaus Schönitzer/Wikimedia Commons, CC BY-SA

A major warming event 56 million years ago

In the last 150 years, humans have raised atmospheric carbon dioxide concentrations by more than 40%. This increase in carbon dioxide has already warmed the planet by more than 1.3°C.

Current greenhouse gas concentrations and global temperature are not only unprecedented in human history, but exceed anything known in the last 2.5 million years.

To understand how giant carbon emission events like ours could affect climate and life on Earth, we've had to go deeper into our planet's history.

Fifty-six million years ago there was a major, sudden warming event caused by the release of a gigantic amount of carbon into the atmosphere and ocean. This event is known as the Paleocene-Eocene Thermal Maximum.

For about 5,000 years, huge amounts of carbon entered the atmosphere, likely from a combination of volcanic activity and methane release from ocean sediments. This caused Earth's global temperature to rise by about 6°C and it stayed elevated for more than 100,000 years.

Although the initial carbon release and climate change were perhaps 10 times slower than what's happening today, they had enormous effects on Earth.

Earlier studies have shown plants and animals changed a lot during this time, especially through major shifts in where they lived. We wanted to know if pollination might also have changed during this rapid climate change.

Hunting for pollen fossils in the badlands

We looked at fossil pollen from the Bighorn Basin, Wyoming, a deep and wide valley in the northern Rocky Mountains in the United States, full of sedimentary rocks deposited 50 to 60 million years ago. The widespread badlands of the modern Bighorn Basin expose remarkably fossil-rich sediments. These were laid down by ancient rivers eroding the surrounding mountains.

We studied fossil pollen because we wanted to understand changes in pollination. Pollen is invaluable for this because it is abundant, widely dispersed in air and water, and resistant to decay — easily preserved in ancient rocks.

We used three lines of evidence to investigate pollination in the fossil record:

- fossil pollen preserved in clumps
- how living plants related to the fossils are pollinated today, and
- the total variety of pollen shapes

Our findings show pollination by animals became more common during this interval of elevated temperature and carbon dioxide. Meanwhile, pollination by wind decreased. The wind-pollinated plants included many related to deciduous broadleaved trees still common in moist northern hemisphere temperate regions today. By contrast, the plants pollinated by animals were related to subtropical palms, silk-cotton trees and other plants that typically grow in dry tropical climates.

The decline in wind pollination was likely due to the local extinction of populations of wind-pollinated plants that grew in the Bighorn Basin.

The increase in animal-pollinated plants means that plants from regions with warmer, drier climates had spread poleward and moved into the Bighorn Basin.

Earlier studies have shown these changes in the plants of the Bighorn Basin were related to the climate being hotter and more seasonally dry than before – or after – this interval of rapid climate change.

Pollinating insects and other animals likely moved 56 million years ago along with the plants they pollinated. Their presence in the landscape helped new plant communities establish in the hot, dry climate. It may have provided invaluable resources to animals such as the earliest primates, small marsupials and other small mammals.

A lesson for our future

What lessons does this ancient climate change event have to offer when we think about our own future?

The large carbon release at the beginning of the Paleocene-Eocene Thermal Maximum clearly resulted in major global warming. It dramatically altered ecosystems on land and in the sea.

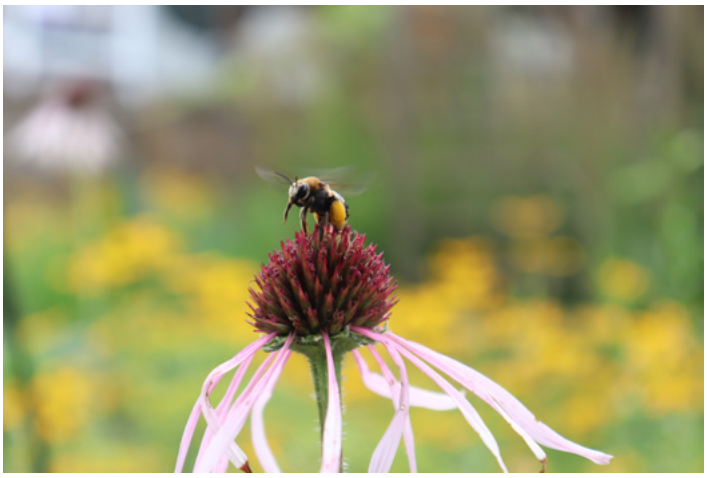
In spite of these dramatic changes, most land species and ecological interactions seem to have survived. This is likely because the event occurred at about one-tenth the rate of current anthropogenic climate change.

The forests that returned to the region after more than 100,000 years of hot, dry climate were very similar to those that existed before. This suggests that in the absence of major extinction, forest ecosystems and their pollinators could reestablish into very similar communities even after a very long period of altered climate.

The key for the future may be keeping rates of environmental change slow enough to avoid extinctions.

Vera Korasidis is a lecturer in environmental geoscience at The University of Melbourne. Scott L. Wing is a curator of fossil plants in the Department of Paleobiology at the Smithsonian Institution.

This article was originally published on The Conversation on Aug. 10, 2025.



Pollinators
By Christel Maass

Pollinators twinkled
around the white star flowers of wild onion
and the pinking sedum fronting
the withering coneflowers
in my roadside garden.

A new mail lady appeared—
Bees! she exclaimed, afraid
they'll attack her in her truck
while she's sorting bundles.

I couldn't convince her they're harmless.
Cut the flowers—or
she'll hold my mail at the post office.

I'll wait for the flowers to wilt,
for the insects to disappear—
then will request delivery
of all the bad news.

Christel Maass is a member of Wild Ones Milwaukee-North (WI) Chapter. She enjoys creating habitat to welcome wildlife to her yard — and finds it quite rewarding to have neighbors stop to say they like what she's doing — spreading inspiration.

Previously published by *Food Gardening Network.*