



You're a hero. Did you realize that?

The other day, I was at a meeting and the speaker told us about the 1918 sinking of USS Tuscania early in World War I. It was a history story, but also a story that told of heroes in an event that very few of us ever heard about. Here's the tale...

Tuscania was a luxury liner pressed into duty as a troopship. Carrying almost 3,000 troops and crew to Europe from New Jersey, she was one of 14 vessels in a transatlantic convoy to rendezvous with an additional convoy of British destroyers off the coast of Ireland.

But on Feb. 5, Tuscania became the first ship carrying American troops to be sunk by enemy fire. A torpedo from a German submarine hit her in waters close to Ireland. Firsthand accounts tell that after the torpedo impact, "a steady stream of men — and profanity — issued from the decks." As the men rushed to their posts and accessed damage, they found that the torpedo's damage included almost all the port side lifeboats. So, not only was the *Tuscania* sinking in icy waters, but she now lacked sufficient lifeboats, too.

One after the other, convoy escorts HMS Grasshopper, Mosquito and Pigeon pulled up to the crippled Tuscania to pick up survivors, ignoring the clear danger of continued torpedo attacks. Each destroyer became crowded to the limit by those rescued, but stayed "until every known person on board had been transferred."

Next to join the rescue were island trawlers from the island of Islay who searched the night blackness to find other survivors. Islanders waded into the sea to pull out injured men and were quick to offer food, clothing and shelter. In the end, over 200 men either drowned or were dashed to death on the rocks of Islay. Seventy-eight of the dead were buried on the island, laid to rest under a large American flag sewn by four Islay women.

So many heroes. What I heard from the story was not just the historic record of the ship's sinking. I also heard about the heroes. First, the Tuscania's officers, crew and men who tried to rescue themselves. Then, the British escort ships that refused to leave until they were overflowing with survivors, in spite of the torpedo danger. Finally, those in the trawlers and the islanders who saved all they could. There are a few family and survivor

histories, but we do not have historic records of all the Tuscania heroes, those who risked themselves as they helped others.

Everyday quiet heroes. On my drive home from the luncheon, I thought about the great majority of the Tuscania heroes who are undocumented - people who just did the right thing, then quietly went on with their lives. Then, I took that concept forward to today, and it struck me that none of us are really aware of the everyday heroes doing the small things that keep our world a better place. Like you.

I think Wild Ones members are heroes.

Yes, I am serious with that statement. Consider what you do - you plant and share native plants, which are needed for host and nectar for pollinators. Those natives have deep roots that absorb excess rainfall, helping to provide clean water. Native plants also reduce everyone's carbon footprint as they replace turf lawns.

You are not likely to hear a "thank you" from the foraging bees that survive on your native plants. Or the birds, many which migrate thousands of miles to summer in your community, feeding, sheltering and raising young in the native plants, shrubs and trees you provide.

Bet you didn't think of yourself as a quiet hero for these impacts, but I do.

Greater impacts to come. The board and I will be updating Wild Ones' strategic plan at our August meetings. One aspect of the new plan must be how our organization and our members can be even greater heroes - what must we do to move forward with leading the natural landscaping movement? What do you want your organization to focus on? Staking a leadership position in coordinating solid research on proven best propagation methods to help spread native species in their appropriate geographic regions? Supporting youth education and appreciation of native plants? Better support for native plant growers and landscapers? Think about it. Talk about it. Gather your ideas! You'll hear more about this mid-summer.

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

NATIONAL OFFICE WILD CENTER

2285 Butte des Morts Beach Road Neenah, WI 54956 Phone: (920) 730-3986 Email: info@wildones.org

NATIONAL STAFF **CONTACT INFORMATION**

Director of National Office

Elaine Krizenesky • 920-730-3986 elaine@wildones.org

Administrative Specialist

Stephanie Marcelle • 920-730-3986 stephanie@wildones.org

Membership Manager

Janet Rothe • 920-730-3986 janet@wildones.org

BOARD OF DIRECTORS President

Janice Hand • 406-219-7766 president@wildones.org

Vice President

Sally Wencel • 423-847-8845 technology@wildones.org

Secretary

Karen Syverson • secretary@wildones.org

Treasurer

Rick Sanders • 406-219-4275 treasurer@wildones.org

Seeds for Education Coordinator

info@wildones.org

Website Coordinator

technology@wildones.org

Board Members

Janice Hand, Montana, 2020 Sally Wencel, Tennessee, 2018 Karen Syverson, Wisconsin, 2020 Rick Sanders, Montana, 2020 Nan Calvert, Wisconsin, 2020 Denise Gehring, Ohio, 2020 Pam Todd, Illinois, 2018 Janis Soloman, Connecticut, 2018 Laura Zigmanth, Michigan, 2018 Matthew Ross, Pennsylvania, 2020

Honorary Directors

Neil Diboll, Wisconsin, Lifetime Doug Tallamy, Delaware, Lifetime Glenn D. Dreyer, Connecticut, 2019 Karen Oberhauser, Minnesota, 2019 Stephen Packard, Illinois, 2019 Orley "Chip" Taylor, Kansas, 2019 Donna VanBuecken, Wisconsin, 2020 Catherine Zimmerman, Maryland, 2019

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

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

- **Notes from the President**
- Member Garden
- **News Across the Nation**
- The Dreamers
- 13 **Eco-Driveways**
- 15 **Gardening for Wildlife**
- 18 **Board of Directors Candidates**
- 21 **Starry Stonewort**
- 24 Healthy Habitat for Bombus affinis
- 25 **Synergistic Stressors**
- 27 **Protection From Ticks**
- 30 Thank You & Mark Your Calendar
- 31 **Chapter News & Anniversaries**
- 32 **WILD Center Update**

Wild Ones Journal Editor –

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

- Contributing Writers -

Rhiannon Crain • John Gishnock III Elaine Krizenesky • Fayette Aurelia Nichols Doug Tallamy • Mardy Wiesman

Design/Layout –

Kevin Rau

- Proofreader -Denise Gehring

Sponsors: Contact National Office for rates and schedule.

Wild Ones Journal is published regularly by Wild Ones: Native Plants, Natural Landscapes. Views

expressed are the opinions of the authors. Journal content may be reproduced for nonprofit

educational purposes as long as the *Journal* is credited as the source. Individual articles that

carry a copyright are the property of the author and cannot be reproduced without the author's

written permission. No artwork may be reproduced, except to accompany its original companion text, without written permission of the illustrator or photographer. Contact editor if in doubt about

use rights. Manuscripts and illustrations are welcome; Wild Ones does not pay for articles, photos

or illustrations. For guidelines for submitting material, contact editor or see Wild Ones website.

Copyright © 2018 by Wild Ones.

Wild Ones Journal

Online version: ISSN 2472-5900 Print version: ISSN 1551-9155



By Barbara A. Schmitz

Drew Lathin calls it a no-brainer.

"I have always been interested in gardening and just started reading about native plants," he says. So converting his lot to native plants in 2014 was a simple choice. "I could have beauty and habitat in the same place."

Lathin says he slowly transformed his yard, section by section, as time and money allowed. "I started in the front with the addition of a rain garden, then a Bradford pear tree was blown down by a windstorm – who says prayers aren't answered – and that created an opportunity to add a red maple and a large perennial bed around it. And then ... more beds, a prairie and pond in the back, and so on, piece by piece."

Owner of Creating Sustainable Landscapes, LLC, Lathin says the designs of his native plantings just come to him. He explains what he means by talking about the various native gardens in his yard. "My rain garden came to me because there is a swale between my house and my neighbor's house that directed rain into a storm sewer in the street," he says. The rain garden helps to capture some of the water, instead of directing it all into the street.

Most of his landscaping decisions are based on a goal of ridding his property of grass. In the front, for instance, he has several pathways of lawn that range from 3-5 feet, just wide enough so two people can walk side by side. But that lawn serves an important purpose, he says. "It looks intentional," and that's important to keeping neighbors happy.

In the front, he took out lawn and added another rain garden to capture water coming off his garage roof, he says. For his prairie dropseed (*Sporobolus heterolepis*) bed, he wanted to try something different and show that grasses can be especially beautiful throughout different times of the year.

Lathin says his neighbors think his landscaping is beautiful, but that doesn't mean they've converted to natural landscaping themselves. "I had one neighbor who told me what I do is gorgeous, and then he hired a landscaper to do his front yard with a typical plant-mulch design. But it's his yard."

While Lathin says he enjoys almost all native plants, some of his favorites are cardinal flower (*Lobelia cardinalis*) because of its vibrant color and attraction to humming-birds; rattlesnake master (*Eryngium yuccifolium*) because of its oddness; and prairie

Editor's Note

We'd like to feature native gardens, large or small, in upcoming issues. If you're interested in sharing your garden, send four to six high-resolution photos, as well as a brief description, to

barbara.a.benish@gmail.com.

Please include your contact information so we can get in touch with you.

dock (Silphium terebinthinaceum) because it is "dorky." Other favorites include bottle gentian (Gentiana andrewsii) because he enjoys watching bumblebees open the closed flower; prairie dropseed (Sporobolus heterolepis) because of its fragrance; little bluestem (Schizachyrium scoparium) for its four-season interest; butterflyweed (Asclepias tuberosa) because of its bright orange color; swamp milkweed (Asclepias incarnata) because he often finds monarch caterpillars on it, and white wild indgo (Baptisia alba) because it is just beautiful.

Lathin has approximately 57 native species on his property (graminoids, forbs, shrubs, vines and trees), and all but three are native to Michigan. "Aside from some grass pathways in the front, a little lawn in the back, a few remnant daylilies, hostas, boxwoods, yews and two crabapples, it's all native," he says.

With three rain gardens, 2,000-square feet of prairie, a pond, a buffalograss (*Bouteloua dactyloides*) lawn extension and several native perennial beds, Lathin says the only thing left to do in his yard is "edit" what's

A green frog finds a place to rest in the 100-square-foot pond on the Lathin property. Bottom left: Perennial beds and rain gardens in the front of the Lathin home are planted densely in drifts and masses to maximize color and minimize maintenance. Bottom right: A female monarch nectars and enjoys the warm sunshine.

About the Yard

- The ¼-acre plus yard is located in Novi, a suburb in southeastern Michigan, and Lathin says he works hard to make it formal and acceptable in the neighborhood.
- The front yard includes two rain gardens, a large perennial bed, a prairie dropseed bed and foundation plantings, which are part native and part remnant nonnative. Grass is limited to pathways.
- His backyard includes a 2,000-square-foot prairie, a 100-square foot pond and mostly herbaceous foundation plantings.
- Lathin's side yards include mostly herbaceous foundation plantings.







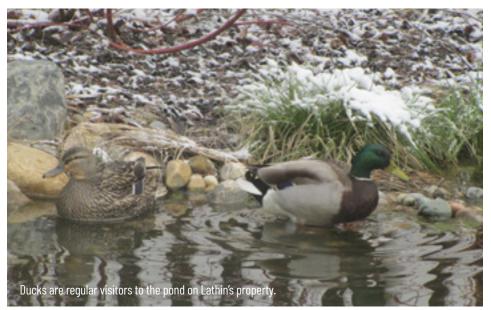
• 5 • Wild Ones Journal • Summer 2018 • Vol. 31, No. 3 • wildones.org



there. But he says he spends very little time maintaining his native gardens because they are so densely planted. In addition, every other year, he does a prescribed burn in the front, which also stops many weeds from taking over.

"If I spend an hour a month weeding, that's a lot," he says. "I'm a lazy gardener. Even in the beds, they don't intermix that much because of dense planting."

Lathin says he added the pond, knowing it would attract wildlife. "American toads, green frogs, tree frogs, birds, dragonflies mating ... I've even had a female belted kingfisher grab a goldfish out of that pond," he recalls. "Blue herons have showed up, and for the past three years I think I had the same mating pair of ducks show up. It's only 100-square feet, but it attracts so much wildlife."



Behind the pond is a marshy area that has standing water in it 365 days a year because the nearby storm sewer has been bermed and the sump pump directs water there. In that area, he's added native plants that are happy in moist conditions.

Lathin says he always enjoyed gardening, but that he used to garden the way most people still do. "You'd see a pretty plant, and then buy it and plant it without understanding its function," he says. "But as I learned more, I started just using native plants. It really was a gradual thing to me that not only made sense, but was also beautiful."

However, there is no doubt that his native plants are effective in getting pollinators to stop by. Lathin says he gets "gazillions" of pollinators and birds in his yard. "Lots of bees, hummingbirds, suburban birds, and a family of cooper's hawks in 2016 and 2017. I've also watched them successfully hunt."

Lathin says his advice to others new to natural landscaping is to start small. "Take out a little bit of lawn and put in a perennial bed. Match plants that evolved to the conditions you have. If you have wet, clay soil and lots of shade, use plants that evolved in those conditions so you don't have to amend soil. And then plant densely in drifts and masses."

NEWS

ACROSS THE NATION

IDAHO

Rathdrum became the first city in the state to receive the Monarch City USA designation from the nonprofit group by the same name, the *Herald* reported. To get the designation, the city planted milkweed and nectar plants to attract monarchs, and encouraged its residents to do the same.

Data from the U.S. Fish and Wildlife Service show that nearly a billion monarch butterflies have vanished since 1990, in part because the milkweed and nectar plants they rely on are decreasing across the country.

Monarch City USA was created in 2015 to encourage America's 19,000+ municipalities to directly help the monarch butterfly population recover through planting milkweed and nectar plants within their borders.

MICHIGAN

A U.S. Department of Agriculture-funded statewide research project is meant to assess and assist pollinator health in Michigan. The researchers want to determine how much high-quality habitat exists across the state for pollinator insects, the *Record Eagle* reported.

Learn more about their research at www.pollinators.msu.edu.

THE MIDWEST

Monarch Joint Venture invites Wild Ones members to join a <u>nationwide initiative to monitor monarch populations</u> and habitat throughout the species' breeding range. This initiative draws from successful citizen science programs and prioritizes a random sampling of potential monarch habitats. Wild Ones members have a unique ability to greatly contribute to this effort by participating in habitat surveys and identifying nectar resources on survey sites.

At training workshops, you will learn about monarch biology; monarch and milkweed identification; how to survey for nectar resources, milkweed, monarch eggs, larvae and adults; and how to raise monarchs. You can then conduct any of these activities on your monitoring site.

Registration is open for workshops throughout the Midwest. The \$50 registration covers meals both days and your own monitoring kit. Space is limited to 30 participants. <u>Click here</u> for details and to register.

NATIONWIDE

The widespread use of wildlife-harming neonicotinoid pesticides is failing to deliver promised benefits to agricultural production, according to a <u>study</u> published in *Environmental Science and Pollution Research*.

The global assessment of 200 scientific studies by the International Task Force on Systemic Pesticides found that use of neonicotinoids over the past two decades has inflicted serious damage to birds, pollinators and other insects without generally increasing yields.

The study showed neonicotinoids could be phased out to protect pollinators and aquatic invertebrates without harming agricultural productivity; research also showed that farmers benefit from integrated pest management practices such as crop rotation and biological controls.

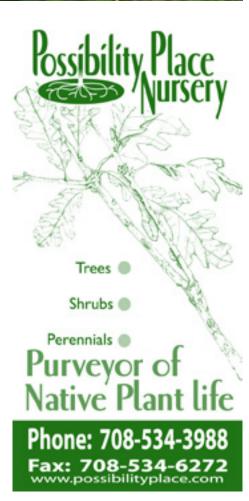


Leaders of the city of Rathdrum, the first and only member of Monarch City USA in the state of Idaho, posed with their new sign. From left are council members Fred Meckel, Paula Laws, Mayor Vic Holmes, Darrell Rickard and Debbie Holmes

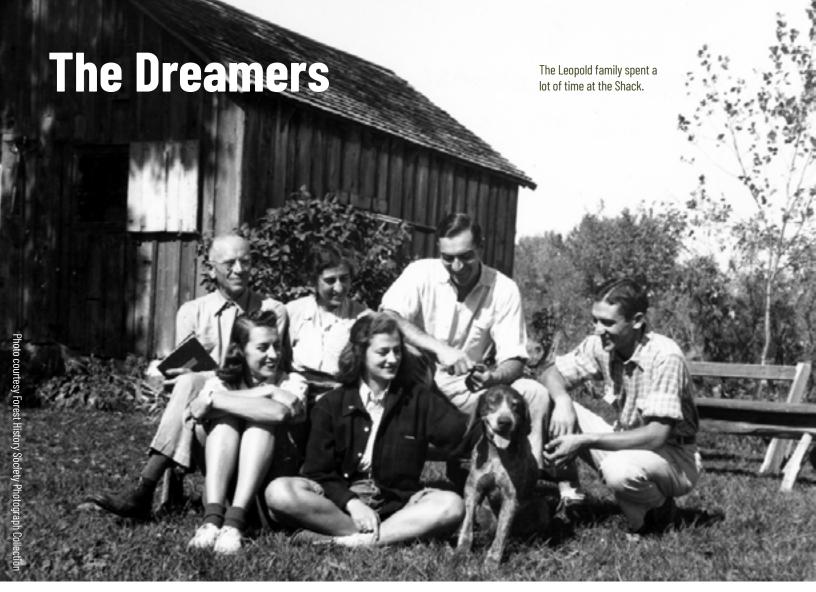








Creating Habitats for over 20 years



By Doug Tallamy

Aldo Leopold

When Aldo Leopold moved from his job as forester in New Mexico to the faculty at the University of Wisconsin-Madison, he flourished. Shortly after his arrival in 1924, Aldo initiated a program in game management, wrote the first and arguably most famous textbook on wildlife management, and founded the Wilderness Society. Yet despite his successes, Leopold was deeply disturbed by what he saw around him; in almost every way, people were destroying the natural world he loved so dearly. Society's relationship with what he famously called "the land" was not a relationship at all, but a unidirectional exploitation of resources without giving anything in return. Farming techniques encouraged catastrophic erosion; rangelands were overgrazed; rivers were sewage receptacles; wetlands were drained; and grasslands were plowed. Clear-cutting transformed majestic forests into wastelands, and wildlife was slaughtered in such numbers that many species were extirpated from Wisconsin.



But Aldo had a dream. He dreamt of a time when people humbly accepted their role as citizens of the natural world rather than its conquerors; a time when the land was not viewed as a commodity to be exploited, but rather as the source of our continued existence. He longed for a time when people appreciated and even respected wilderness, not just as a hunting or recreational playground, but also as a truly awe-some and unimaginably complex machine that required all of its parts to function well.

These dreams didn't come to Leopold overnight; they came from a lifetime of thoughtful observation, reflection and informal experimentation. Aldo synthesized his experiences into "A Sand County Almanac," a classic work that has sold more than 2 million copies, yet his wisdom has barely penetrated our culture. Though persuasive and moving, Aldo's plea for a land ethic has thus far been unable to change the near universal belief that people are here and nature is somewhere else.

And this is where philosophical musings about conservation have run head on into the brick wall of the earth's finite size and resources. The ecosphere, that frighteningly thin zone at the earth's surface to which life is constrained, is not getting any bigger. There is no more land today than there was 600,000 years ago when Homo erectus first harnessed fire. In fact, the resources that support life on earth are all under pressure from growing human populations and consumption. Where is our expression of an ethical relationship with the land and the life it supports when we fragment forests to add another housing development, pave more roads, seed a new sterile lawn, build another shopping mall or expand another airport? It is not part of the discussion. After all, we need these things; our economy must continue to grow forever, even though such growth is antithetical to the laws of physics. Conservation is fine as long as we do it in ways that do not constrain the human activities we call progress — as long as we do it someplace else.

Edward O. Wilson

While Leopold was expanding the wildlife program at the University of Wisconsin, Edward Osborne Wilson was a young boy irresistibly drawn to the natural world. Like Aldo, he turned his passion into an exceptional career; he has made seminal contributions to a variety of disciplines, penned 29 books and is the only scientist to have won the Pulitzer Prize *twice*. And like Aldo, E.O. Wilson has played a primary role in promoting the conservation of biodiversity.



Forest Assistant Aldo Leopold and his dog "Flip" at cutover land near the abandoned Irwin Claim in 1911, by the South Fork of the Little Colorado River, Apache National Forest, Arizona. Below: Aldo Leopold among the pines.





[Aldo] dreamt of a time when people humbly accepted their role as citizens of the natural world rather than its conquerors; a time when the land was not viewed as a commodity to be exploited, but rather as the source of our continued existence.

In 1992, Wilson wrote "The Diversity of Life," the first book to describe the seemingly infinite diversity of earth's life forms, as well as the many threats to their continued existence. He followed this success with seven more books on this theme including his latest, "Half Earth." In "Half Earth," Wilson does not mince words. Time is running short, he says. So is clean water, fresh air, the bounty of the sea, rainforests and plants, reptiles, amphibians, fish, mammals and birds that are essential to sustaining life on earth. An emergency measure is required to

stabilize the biosphere before the sixth great extinction renders recovery impossible. We must set aside half of planet earth for the preservation of life.

Could E.O. be serious? Indeed, he could. Using well-documented science, Wilson describes how saving half of the earth could stabilize 80 percent of its species. And it cannot be a randomly selected half; we have generously set aside mountain ridges, deserts and tundra that are incapable of supporting humans ... or most other species. No, to save most species, we must save areas that best

support those species. Echoing Leopold's mantra, Wilson reminds us that, "The earth does not belong to us; we belong to it." If we "develop" it to death, we will doom ourselves.

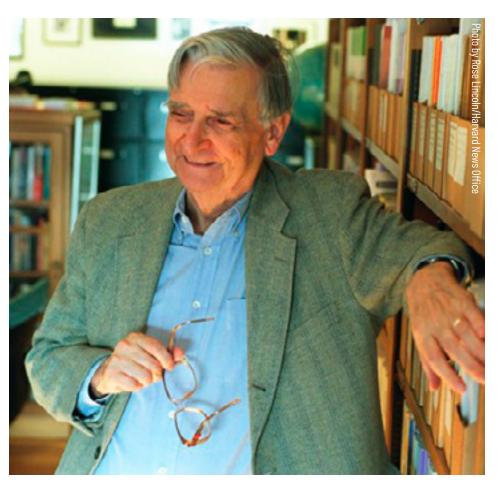
To many, Wilson's half earth dream seems as preposterous as it is noble. How can we possibly put aside half of the earth when 7.3 billion humans already occupy most of it? There are still substantial chunks of unprotected tropical forest that can and must be preserved. But what about the rest of the land? We already intensively farm or graze nearly half of the earth's land surfaces. The

remaining 50 percent is divided between our cities, suburbs, our vast complexes of infrastructure, the patchwork of fragmented second growth habitat scattered here and there, those uninhabitable areas mentioned above, and the areas already preserved, which total only 17 percent of the land surface. Protecting what is not needed for agriculture in the sense that most people interpret Wilson's mandate — that is, creating preserves in the traditional model of our national parks or wilderness areas — seems impossible, because it *is* impossible with current human population size. Fortunately, there is an alternative.

Dreams to reality

Giving up is not an option; our current model of destroying the biosphere to expand the human footprint is not now and never has been sustainable. And so, we need a new conservation plan, one that sustains the living systems we depend on everywhere: where humans dwell as well as where they do not. We must abandon our age-old notion that humans and nature cannot mix. Starting now we must learn how to coexist. Aldo Leopold recognized that the conservation model he had followed in the west, setting aside large tracts of government land, would not work in Wisconsin because most land was privately owned. His solution was to teach farmers and ranchers techniques to restore and conserve the natural resources on their own lands. With incredible foresight Aldo suggested we "reward the private landowner who conserves the public interest."

Today, with more than 82 percent of the U.S privately owned, it is clear that Aldo's approach is an important part of the solution; if conservation is to happen, it must happen on largely private property. But not just on farms and ranches; on all types of private property, from the smallest city lot to the largest corporate landscape. The U.S. could become a model for the rest of the world in this regard. If we can save biodiversity here, where aggressive economic development has been the goal for centuries, where McMansions have replaced modest homes in affluent communities across America, where we have paved over an area larger than Ohio, where we have airports twice the size of Manhattan, where mega-farming in the absence of hedgerows was invented, and where biological wastelands we call lawns are a core symbol of wealth and status, we can save biodiversity everywhere.



Edward O. Wilson in 2003.

Our relationship with the earth is broken. Leopold and Wilson have dreamt of ways to fix it, but the conservation approaches developed in the 20th century are not inclusive enough to realize their dreams. We need a new conservation toolbox, packed with new and more effective tools. New knowledge will be our most important tool, followed by a cultural recognition that conservation is everyone's responsibility, not just those few who make it their profession. Every day we are learning more about how to redesign both public and private landscapes in ways that meet the aesthetic, cultural and practical needs of humans without devastating the resources needed by other species. We are learning how to convert at least half of the area now in lawn to attractive landscapes packed from the ground to the canopy with plants that will sustain complex food webs, sequester carbon, manage our watersheds, rebuild our soils and support a diversity of pollinators and natural enemies. That is, we are learning how to create landscapes that contribute to rather than destroy local ecosystem function.

These are exciting times. The necessary task of restoring ecological function to the

land lies mostly before us. But it is an exhilarating, entertaining and hugely rewarding task. Leopold once lamented, "The oldest task in human history is to live on a piece of land without spoiling it." In the past, we have not known how to do this, but we know now. There are few of us who cannot improve our relationship with the land we 'own.' Most of us bought it already spoiled, so now we must fix it. Aldo and E.O. are not the only people who have dreamt of preserving the wonders of the natural world. It is a dream that has been shared by millions of us mere mortals. May we tap the energy of the dreamers among us and make many if not all of these dreams come true.

Doug Tallamy is a Lifetime Honorary Director of the Wild Ones, and is a professor in the Department of Entomology and Wildlife Ecology at the University of Delaware in Newark, where his current research centers on the behavioral ecology of insects, conservation of biodiversity, impacts of alien plants on native ecosystems and plant-insect interactions. He is author of "Bringing Nature Home" and co-author of "The Living Landscape: Designing for Beauty and Biodiversity in the Home Garden."

Good for YOU and the environment

By John Gishnock III

Have you ever thought about what happens to all that water when it rains? We all know that water runs downhill, but there are some other interesting consequences that aren't so obvious. Because we have built homes, roads, sidewalks, parking lots and many other "impervious" surfaces that don't allow stormwater to soak into the ground, there is often much more water than the limited areas can soak up or infiltrate. We are simply pushing more and more water downstream.

Think about what happens in a heavy rain. Excessive or poorly managed stormwater has many negative effects on our environment. Here's how the damage shows up:

- When stormwater flows across compacted lawn surfaces, it picks up excess fertilizer, loose soil and pesticides and carries them into the street or ditch where more debris, auto chemicals and other pollutants are waiting for a free ride downstream.
- The contaminated water races straight into engineered drainage systems, such as storm sewers, where more and more water combines from surrounding areas.
- This rapidly flowing (and filthy) water is dumped into creeks and streams, where it causes erosion and picks up more soil and debris
- The water eventually causes flooding and degradation of lakes and other water bodies. Oftentimes after large storms, huge

This environmentally friendly driveway in Madison, Wisconsin includes tracks of concrete spaced appropriately for a vehicle's tires, and is interspersed with grass to allow water to infiltrate.



plumes of brown, contaminated water are readily visible in aerial photos of lakes. In fact, a large "dead zone" of nearly 6,000-8,000 square miles appears annually in the Gulf of Mexico due to large amounts of soil and debris carried into the Gulf by the Mississippi River.

No one can argue that hard surfaces like rooftops, roads and driveways aren't important to humans, but we need to understand that because we aren't allowing water to soak into the ground, we are causing more frequent flooding, and are increasing pollution and preventing the formation of future drinking water supplies. We simply need to do a much better job of allowing water into the ground at the spot where it falls.

There are some options to help accomplish this goal. Eco-friendly sustainable approaches to stormwater management are becoming more popular, as more people begin to understand the importance of treating water as a resource rather than disposing of it as a waste product.

Eco-driveways are one of several solutions for environmentally conscious homeowners. Because driveways are often the largest impervious surface on a residential site, it is important to consider what happens to the water that falls on them. A well-planned eco-driveway is designed to meet all of the functional needs of the homeowner while at the same time capturing, treating and infiltrating stormwater.

A special type of material known as pervious paving allows water to flow through its surface and into the ground. Options include pervious concrete, pervious asphalt, pavers with voids, and crushed gravel with no fines. These are great options to maximize the amount of water that's absorbed, but extra care must be used to design and install the gravel base below the paved surface to allow for infiltration.

When standard concrete or asphalt is the best choice for your driveway needs, there are still ways to make the project more eco-friendly. Minimizing surface area and thoughtfully managing water once it leaves the paved surface are important considerations.

Here are a few options for minimizing impervious surface:

• Design a driveway for multiple purposes, thereby reducing the need to pave space elsewhere for a patio or work area. Consider using stamped or dyed concrete as a decorative element that differentiates the patio space from the rest of the driveway.

• Paving only the actual driving area is another great idea to minimize impervious surface. Two strips of paving slightly wider than the tires of a car create a perfectly functional tread driveway that allows for turf or other pervious materials between. In addition to allowing more water to infiltrate, this option often saves money and creates a more visually interesting driveway area.

Eco-driveways can fit both your philosophy and your budget. When considering driveway options, factor the cost of an eco-driveway in combination with other water conservation tools. Look holistically at the site to help determine how your eco-driveway could be constructed for the greatest

beneficial impact. To create a successful eco-driveway, consider involving a team of experts who are creative, innovative and experienced. Open up the toolbox of ideas, and stay flexible when considering the options. You will be delighted with the results. And so will Mother Nature.

John Gishnock III is owner of Formecology, LLC, a Wisconsin-based landscape design/ build/care firm where he balances his time between roles of ecological designer/landscape architect and tireless advocate for more sustainable approaches to landscaping.

Combining a driveway and gathering space helps to limit the need to pave elsewhere.



Why aren't more people gardening for wildlife?

And, what can you do about it?

By Rhiannon Crain

Many of us garden for wildlife because we enjoy seeing a diversity of insects, birds, reptiles, amphibians and mammals in our yards. We take the time to organize our gardens a little differently than the traditional North American yard and we are often delighted when that new native plant thrives or when we see a butterfly we've never seen before. We can measure our success by these tangible impacts in our gardens.

And yet, we are often somewhat alone in our efforts — on our street, in our neighborhood — adrift in a community of people who are not gardening for wildlife. Does it matter that our garden is a tiny island of respite in a sea of lawns and pesticides?

In some ways, it does. It is preaching to the choir to tell readers of this publication that we have a "yard problem" in North America — increasing landscape devoted to urban land cover, much which becomes lawn and impervious pavement. The 2011 National Land Cover Database for the Conterminous United States report helps us pinpoint areas where land change is occurring, and it shows a distinct trend of change overlapping with areas where population is growing. This increased urbanization, while occurring at the seemingly small scale of yard-by-yard, adds up to an area about the size of the state of Connecticut being transformed every 10 years. We have to figure out how to get a lot of people doing things a little bit differently in their yards, or be faced with increasing loss of plant and animal diversity in these places.

An eastern tiger swallowtail gathers nectar in the front yard of a residential neighborhood. People who live in "green communities" are more invested in ensuring their yard signals their environmental commitment because they have more to gain, socially, than does someone from a community less invested in a green ethos.







Left: Front yard native gardens tell neighbors that you value nature. Right: Native plants in this boulevard garden indicate the owner's appreciation for our planet and its pollinators.

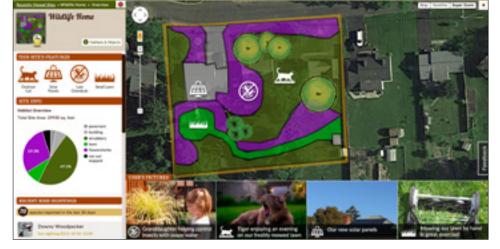
But how? You've already been convinced. You are likely doing a lot in your yard to push back against these conventions — what else can you do given you only have control over a small piece of the landscape? In the Spring issue of the Wild Ones *Journal*, Prairie Nursery President Neil Diboll called out the importance of taking on a leadership role in wildlife gardening, emphasizing the impact we could collectively have on biodiversity. He is not wrong, but I want to add some nuance to his calls for action, and put into perspective the many smart ways you can amplify the impact of your wildlife garden.

Let's start with a basic assumption about people that we all hold to be true. Most of us believe that if we give people information justifying a particular course of action that the information will be acted on. The right pamphlet, radio spot or news article explaining the facts is sure to convince. One anecdote about just how costly this assumption can be comes from the *San Jose Mercury*

News in 1982. They reported on a campaign the local utility company ran in targeted neighborhoods to encourage people to install insulation in order to decrease their power use. The campaign focused on explaining the benefits of insulation and offering ways to cover the associated costs. They spent money on print and TV advertising, and on delivery of fliers to target households, but had few takers in the program. In fact, they spent so much money trying to get people information that the sum was similar to what it would have cost to just pay to install insulation themselves in the target neighborhood. Belief that delivering the right information to people encourages changes in their behaviors can be a costly error.

This isn't a cut and dry rule; some people do respond well to information. But, these individuals tend to already *identify* with the community providing the information. So, for instance, let us consider Toyota Prius drivers. A study by <u>Sexton and Sexton</u> notes that when

the Prius first came out in North America in 2001, there was nothing like it, especially in its styling. Because of its unique design, buying one made an unmistakable statement about your environmental values. On the other hand, driving a hybrid Honda Civic, released just a year later, made your environmentally conscious purchase inconspicuous — it looked just like every other Honda Civic on the road and therefore failed to signal to others your status as an environmentally conscious consumer. Until 2010, with the release of the Nissan Leaf and Tesla's roadster, the Prius remained the only hybrid or electric vehicle with its own unique design, despite that there were 24 other hybrid cars on the market. Guess which car sold more? Almost half (48 percent) of hybrid cars purchased by 2010 were Priuses. It was important to people that others knew they were environmentally savvy, and that could only be accomplished by purchasing a car that clearly sent that signal through its unique design.





Habitat Network showed people two identical images, except one included a profile map of a person who lets his or her cat outside (top), while the other's cat stayed inside. Their findings showed that participants judged the person who left the cat outside as less likely to engage in sustainable practices in the future.

It is also the reason Sexton and Sexton reported anecdotal evidence from solar installers claiming some of their clients insist on going against their advice about which side of the roof to install solar panels on — demanding the panels be installed on the side of the roof facing the road, rather than the sunnier south-facing side. It might also be why many of us are so interested in our "front yard" gardens.

But it gets weirder; people who lived in a community with a strong "green ethos" were even more likely to purchase a Prius (or install visible solar panels, or invest in that front yard garden). The social status conferred by owning a hybrid vehicle is greater if you are surrounded by others who share that value system. So, when faced with a opportunity to purchase a hybrid car, people who live in "green communities" are more invested in ensuring their purchase signals their environmental commitment because they have more to gain socially, than does someone from a community less invested in a green ethos. All this starts to hint at the seemingly invisible network of social influences at work in people's decision-making.

Take, for example, this publication. There is a lot of valuable explanatory information in it —it is likely not falling on deaf ears and I'll bet most readers can identify something they've learned from reading an article here that they've acted on. We all belong to the same community of people devoted to wild-life gardening and we closely attend to ways in which we can refine our practices and become even more central to that community.

That is wonderful, but it does limit our reach and make us question what taking on a leadership role looks like if the people we have to convince aren't necessarily looking to us as leaders. This was the case for me when my grandparents bought a sprawling property in semi-rural Arkansas last year. They were so proud to show their new home and yard to me, but when I saw the images my eyes widened at the acres and acres of mown lawn on the property. I immediately offered to help them transform some of it back into a native meadow — after all it is the focal point of my career and the mission of Habitat Network, the project I run. I expected an eager yes, but got a disinterested "meh." What they want to signal with that yard is not the same thing

you and I want to signal. They belong to a community that values a different set of land-scaping practices. Waltzing in to pressure them to violate the norms of that community was a bit like hitting a brick wall.

That is, in part, because when you belong to a community — any community — there are consequences for not adhering to its norms. Last year, using some volunteers from Habitat Network, we ran a little experiment to try and understand more about how it works when a community member is seen as violating a norm. We showed people one of two images that were identical, except one showed the profile map of a person who lets his or her cat outside and the other showed the profile map of a person who kept the cat indoors. Other than that, all the other signals the map gave off about that person's belonging to the community were identical — both fictional wildlife gardeners had solar panels, didn't use pesticides, and had tiny lawns. Our findings suggest that when an ostensible member of the Habitat Network community was portrayed as violating the norm that cats should be kept inside, participants judged the target as less likely to engage in the future in a variety of sustainable practices that were not displayed on the map. Violating just one norm, even while overachieving in other areas, tanked their credibility within the community.

So, what does that mean for those of us interested in seeing more people adopt wild-life-friendly gardening practices? We have to be aware that most people, like my grand-parents, choose their gardening practices not because of a lack of information, but because they are striving to signal belonging in a certain community of people. They, like those Prius-drivers, are keenly aware of the social status to be gained and lost in each decision.

In the Fall issue of the *Journal*, we'll look at some evidence about how people arrive at the decision to change their practices; and, although I'm not sure I'll have convinced my grandparents to stop mowing by then, I want to reassure you that people and practices can, and do, change with the right kind of effort.

Rhiannon Crain, Ph.D., is project leader of the Habitat Network Citizen Science Project. She earned a bachelor's degree in ecology and evolutionary biology from the University of Arizona and her doctorate degree in science education from UC Santa Cruz's Center for Informal Learning and Schools. She has worked at the Cornell Lab of Ornithology to help document the Habitat Gardening movement since January 2010.

Vote for your Board of Director candidates



Dear Wild Ones member:

Wild Ones Natural Landscapers, Ltd. is a Wisconsin corporation governed by a Board of Directors. As a corporation, we hold an annual membership meeting and you, our members, elect the directors to the Wild Ones national board. According to our bylaws, our board is made up of 10-15 members, with elections held every two years. Directors serve a four-year term. The new board members will begin their term at the board meeting prior to the 2018 Annual Meeting on Aug. 18 at the Wild Ones National headquarters in Neenah, Wisconsin.

Currently, the board has 10 directors, and three are retiring. We want to thank the members stepping down — Jan Hunter, Janis Solomon and Laura Zigmanth. All of Wild Ones appreciate your dedication to our organization and your service on the board.

Sally Wencel is seeking a second term and six members — Marti Agler, Cathy Downs, Ellen T. Folts, Susan Hall, Pam Todd and Rita Ulrich — are seeking a position on the board. You may vote for up to seven candidates. All candidates who receive at least 51 percent of votes will be seated on the board. Thus, the board will potentially have 14 directors as of this election.

Voting is through the *Members-Only* pages of the Wild Ones website from June 20-Aug. 4, 2018. To get to the electronic ballot, go to the <u>Member Login</u> of the Wild Ones website and scroll down to "Board of Directors Ballot" to cast your vote.

If you haven't already registered for access to the members-only pages, you will be required to do so first. Here is how:

- Click the "Member Login" <u>button</u> located on the right-hand corner of the Wild Ones website.
 - Click "Register password for member here."
- Enter your member email. Choose and enter a password, confirm it in the "Retype password" box and click Go.
- Read the Wild Ones User Agreement and then go back and fill in the blank with the word "confidentiality" (Do not include the quotes).
- You will be asked to read the Wild Ones FAQ. After you click the link and read the agreement, go back and fill in the blank with "URL" (Use all caps, but do not include the quotes.)

Karen Syverson Board Secretary



Marti Agler, Sevierville, Tennessee Smoky Mountain Chapter

Professional Affiliation:

Certified automotive financial manager, BS in biology, psychology and accounting; MBA.

Background:

Marti Agler grew up on the eastern slopes of

the Great Smoky Mountains and is now retired there after a career in accounting and retail automotive management. She gardens with native plants and enjoys watching birds, butterflies, snakes, toads and other critters in her yard.

During her life as a military spouse and accounting professional, Agler lived in many parts of the country from Montana to Connecticut to Georgia, loving all the national and state parks, wilderness areas and other preserved lands.

Two years ago, she joined her local Wild Ones chapter, and now serves on the board as treasurer and assists in planning chapter-sponsored activities. This past year, Agler also served as a non-board member of the Finance Committee for Wild Ones national and participated in the difficult decisions required to improve the financial health of Wild Ones and establish a stronger structure for moving forward.

She has also served on her local library boards, and currently serves on the board of the Midway Family Community Education Club and the Floral Committee of the Sevier County Fair.

Vision for Wild Ones:

Agler hopes that the arduous decisions to move the national Wild Ones organization to a more stable business platform are finished. She looks forward to being a part of the move toward a more cordial, productive relationship between the national office and the membership. For Wild Ones to become a true national organization, she believes there is a need to partner with other national organizations with like-minded missions; to seek permanent levels of funding through grants, joint ventures and other financial support sources; and to offer superlative service to chapters and members. She hopes her pragmatic approach to business can offer worthwhile contributions in furthering those goals.



Cathy Downs, Comfort, Texas Partner-at-Large

Professional Affiliation:

Monarch Watch Conservation Specialist

Background:

Cathy Downs grew up in New England and retired to Comfort, Texas, in 2004 after a 30-year career owning and operating retail businesses from coast to coast.

She retired her chair in 2018 for the Bring Back the Monarchs to Texas program, which is developing monarch habitat in cooperation with the Native Plant Society of Texas and Monarch Watch. Downs is a certified Monarch Larval Monitoring Project educator and teaches monarch biology, habitat and migration at various locations throughout Texas. In fact, since being certified as a master naturalist in 2005, she has been teaching others about native Texas butterflies and their host plants. Downs raises monarch caterpillars for education, propagates native milkweed species, and hosts live butterfly pavilions at nature centers and state parks throughout the Hill Country area.

For 10 years, Downs served as the volunteer coordinator for Butterfly Theater at Kerrville Schreiner Park, a certified Monarch Waystation and Monarch Larval Monitoring Project site. She is the compiler for the North American Butterfly Association July Fourth Count - Boerne Circle, and she participated in Cibolo Nature Center's Nature Box program for 6 years, bringing natural science topics to elementary schools in the area.

In addition, Downs participated in the Texas Wildlife Association Distance Learning Program for 6 years, where her "Magic of Monarchs" presentation was simulcast to hundreds of schools in 22 states and 2 countries reaching over 30,000 children and teachers.

Vision for Wild Ones:

Downs is a new member of Wild Ones and wants to pursue the importance of educating people about ecotypes in seed collection, especially for restoration projects. She said: "As a board member, I would use my network to strengthen and utilize Monarch Conservation partnerships and ... increase membership and chapters in Texas and elsewhere in the South where we need a larger presence. I will certainly assist in projects where the Wild Ones' needs are the greatest."



Ellen T. Folts, Springwater, New York Habitat Gardening in Central New York Chapter

Professional Affiliations:

Owner of Amanda's Garden, a native perennial nursery; AAS in agricultural & natural resources

Background:

Ellen T. Folts has been passionate about natural landscaping since she was young,

spending hours in the woods and fields studying native plants. After graduating with a degree in agricultural and natural resources and gaining nursery experience, she opened Amanda's Garden Native Perennial Nursery in 1991, where she propagates and grows over 170 species of wildflowers, grasses and ferns.

Recommended by former national board member Janet Allen, Folts is a popular speaker for the HGCNY chapter, Master Gardeners and other organizations.

Folts said she hopes to make a difference as a national board

director by helping Wild Ones provide more educational opportunities for members and others. Her experience as a native plant grower, business owner and educator will help Wild Ones stay in tune with new trends, challenges and consumer needs for native plants.

Vision for Wild Ones:

Folts' vision for Wild Ones is to grow the number of chapters and educate the general public about the need to protect the environment. She said: "We realize many are just seeking beauty, but when we tell them how these plants benefit their local ecosystem, not only by providing beauty but also by being the foundation of the food chain, that piques their interest. After we share that these are host plants for butterflies such as monarchs, they become very excited. Birds and insects benefit from having local flora available to them and the beauty of the garden is magnified by this web of life. This experience develops an understanding that their contribution to the environment can make a profound difference. Wild Ones is a great educational organization reaching out to people and assisting them to help ensure that what is planted is not invasive, but will contribute to the overall health of the environment."



Susan Hall, Martinsburg, West Virginia Partner-at-Large

Professional Affiliation:

General manager, horticulturalist and landscape designer; Regents BA with a focus on environmental science

Background:

Susan Hall was introduced to horticulture in her mid-30s when she became a Master Gardener and volunteered at the Toledo Botanical Garden. She worked for Toledo GROWs, the community outreach arm of the Toledo Botanical Garden, and joined the Oak Openings Region (Ohio) Chapter.

As a landscape designer for $4\frac{1}{2}$ years, Hall said she loves encouraging homeowners to use native plants in their yards. Recently, she accepted a job bringing life back to a local nursery in West Virginia where she will be featuring native plants; she also plans to start a Wild Ones chapter there.

In her new job, Hall has featured native plants in the Fairfax

Boulevard Green Corridor and a residential native hillside. The green corridor provided her the opportunity to work with government officials and homeowners, and to help them appreciate the wild landscapes in front of their homes and encourage them to use native plants in their yards. The other challenge has been educating maintenance crews on what is and isn't a weed and how native plants help mitigate pollution and increase the biodiversity of the area, she said.

Vision for Wild Ones

Hall said Wild Ones needs greater visibility and presence as a national educational organization. She said she would encourage creation of sample garden ideas for homeowners to install since people fall in love with native plants once they can envision their use in their home landscapes, which may be an entire landscape or as small as a few pots on urban decks and patios. She also said the National Board can continue to improve its support to local chapters by educating local leaders and individual members and helping them reach out and begin strong partnerships with their communities.



Pam Todd, Oak Park, Illinois West Cook Chapter

Professional Affiliation:

Senior commercial insights strategist; BS in psychology

Background:

About four years ago, Pam Todd helped found the West Cook (Illinois) Chapter, and she and the group discovered a tremendous enthusiasm for restoring native habitat to increase biodiversity, conserve water, impact climate change, save energy, reduce toxic inputs, and bring beauty to the landscape.

To demonstrate progress, they asked people to add their yards to their wildlife corridor map. The wildlife corridor now has 611 yards, and the chapter has more than 100 members and an email database of around 1,000. The chapter's board accomplished this in four years by partnering with other community organizations and aligning around common goals in a way that brought them volunteer power, grant money and opportunities they would not have alone.

Todd, who has long had an interest in restoration ecology, said she believes Wild Ones is poised for tremendous growth because it is the only national organization that understands that native plants are essential to the health of the ecosystem, and it also helps people put that idea into action at the local level.

In her work, Todd develops commercial strategies for orphan drug companies that make drugs to treat rare diseases. She sees that reaching niche markets is in many ways similar to the challenges that Wild Ones faces in bringing scattered groups together around a common goal.

Vision for Wild Ones:

Todd said that many people have worked all their lives to bring the organization this far, but that it's going to take hard work and creativity to bring Wild Ones' message to larger audiences, something she feels is essential to do. In the last year, the organization has demonstrated it has the right people with the skill and determination who can lead Wild Ones into the future, she said, and Todd hopes that she can contribute to this work in some way.



Rita Ulrich, of Apple Valley, Minnesota Twin Cities Chapter

Professional Affiliations: BA in psychology; master's degree in planning

Background: Rita Ulrich joined Wild Ones three years ago to keep in touch with the Wild Ones volunteers she had met through

her work on the Minneapolis Monarch Festival and the Naturescape project at Lake Nokomis in south Minneapolis. Ten years earlier, she had started her own native plant garden because of what she had learned from those friends.

Currently, Ulrich is the treasurer of the Twin Cities (Minnesota) chapter and helps plan other chapter activities. She also served as the exhibitor chair for the 2016 and 2017 Design with Nature Conference, organized by five Minnesota chapters.

Ulrich has spent most of her career in the nonprofit sector — as a researcher, editor, project manager, grant writer, and 18 years as an executive director where, for example, she worked with business leaders in South Minneapolis to help them establish a board and

plan fundraising events. She is well versed in nonprofit governance, management, budgeting, evaluation, fundraising, diversity and inclusion, community engagement and board-executive director relationships.

Early in her career, she lived in Nairobi, Kenya, doing research for a nonprofit environmental think tank and the United Nations Environment Programme.

She has volunteered on the advisory committee for the South Minneapolis Housing Fair for the last 17 years.

Vision for Wild Ones:

Ulrich's believes Wild Ones should do more outreach and provide educational activities to reach a broader audience. Although Wild Ones is fundamentally very local, it should help more people do native plantings and be a resource to members and nonmembers, providing accessible information for everyone in all walks of life.

Ulrich grew up in a natural setting and said being close to nature is part of who she is. She takes every chance she has to observe wildlife and enjoy nature, and would like other people to have that same experience.



Sally Wencel, Hixson, Tennessee Tennessee Valley Chapter

Professional affiliations:

Retired lawyer/CEO; retired adjunct faculty, University of Tennessee Chattanooga College of Business

Background:

Sally Wencel is seeking her second term on the Wild Ones national board. She was first elected to the board in 2014, and since 2016, has served as the national vice president and as a member of the Technology Committee.

Wencel co-founded the Tennessee Valley Chapter in 2012 and has served as chapter president and vice president. In addition, she

is currently co-chair for the chapter's Certificate in Native Plants (CNP) program and the current CNP manager. Wencel has also been the co-chair of the 2018 Plant Natives Symposium and the 2018 Bringing Nature Home, a Home Garden tour. Since 2009, she has served as a Master Gardener of Hamilton County.

Vision for Wild Ones:

Wencel said she believes that Wild Ones will be the leading voice for sustainable landscaping practices and restoration of native plant communities by focusing on practical, hands-on advice and assistance, particularly in local communities. Wild Ones will accomplish this vision by supporting members in their communities with tools and resources and enabling chapters to take a leading role in this effort.



By Mardy Wiesman

Starry stonewort (*Nitellopsis obtusa*), a European species of grass-like macro algae, has appeared in lakes of Upper Midwestern states and is causing alarm among scientists who fear it will overcome native aquatic plant species.

Although Upper Midwestern lakes have native species of stonewort, starry stonewort rapidly spreads from lake to lake via the plant's small, white star-shaped asexual reproductive structures called bulbils, which are about 4mm in size. Starry stonewort's growing season begins in early April and it is fully developed by June; it dies down in late summer to fall.

In order to remove starry stonewort from lakes, divers must differentiate between invasive and native species. In addition to its starshaped bulbils, starry stonewort can be identified by four or six whorls of branches from the plant's stiff, main stem. Unlike native species of

stonewort, the invasive plant grows from 3-feet to 20-feet in some inland lakes. It is often found near lake marinas and boat launches.

Since starry stonewort spreads easily and the mats rapidly take over waterways, it poses a threat to lakes and wildlife.

How it invades

Native to western Europe and Asia, starry stonewort first arrived around 1978 in New York State by the St. Lawrence Seaway through ship ballasts. It is now found in states such as Vermont, New York, Michigan and Missouri. In 2014, the invasive species appeared in seven Wisconsin lakes, and in 2015, in Minnesota's Lake Koronis.

Brad Steckart, invasive species coordinator with the Waukesha and Washington County Parks departments in Wisconsin, said that in addition to starry stonewort fragments on watercraft propellers, anchors or in ballasts, duck hunters may also spread the species via the bulbils in boot treads, according

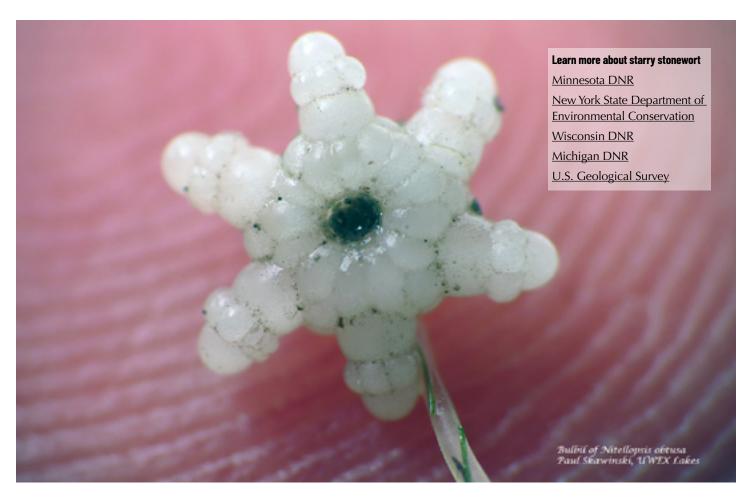
to a September 2017 story in the *Milwaukee Journal Sentinel*.

"We want to make sure they know to clean off ... their duck decoys and duck blinds," Steckart said. "Bulbils are so small, and they can be in the mud, so we want to make sure people know to clean that stuff off."

As the number of lakes and waterways where starry stonewort is found increases, scientists and local Department of Natural Resources officials strive to learn more about the species.

Why scientists are concerned

Scientists are concerned starry stonewort will eventually take over aquatic habitats and interfere with fish movement and mating grounds. Starry stonewort is dioecious, with separate male and female plants, but it quickly replicates vegetatively through its .5 cm bulbils. Within a short period of time, underwater forests of dense algae mats choke out the native plants.



Above: The white, star-shaped bulbils are used for reproduction. Right: *Nitellopsis obtusa* is filamentous green macro-algae that is taking over lakes. Scientists fear it will overcome native species.

Starry stonewort's grass-like mats also affect watercraft recreation. Craig Cady shows its repercussion on this <u>YouTube video</u>. "If you took a sailboat through this, it would stop you cold," Cady said. "If it wrapped around your prop, you wouldn't get propulsion."

Cady also said starry stonewort's mats may also pose a threat to swimmers. "Kids, (if) you want to jump in the lake and swim, (and) you run into this, you're never going to want to swim in the lake again," he said in reference to the easily entangled mats.

What can be done

As scientists learn more about this invasive species, DNR officials and residents are finding ways to take back local waterways. In addition to clearing watercraft propellers and anchors, various methods of slowing the plant's advance have been tried, including water lowering, chemical treatment and physical management.

The Michigan Department of Environmental Quality outlines some of the measures the state has taken, including copper-based

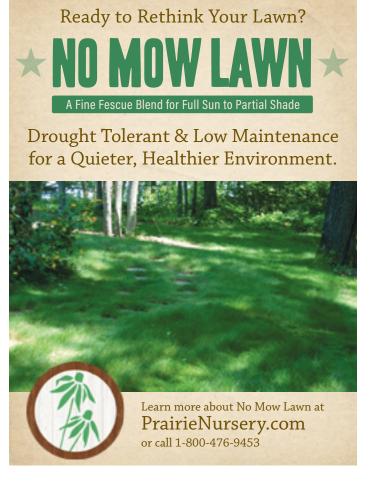


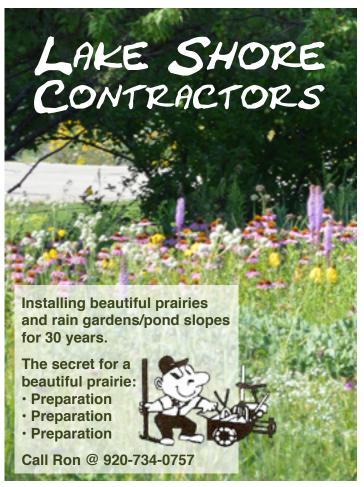
herbicides and mechanical means including suction, in the revised 2017 <u>Status and Strategy for Starry Stonewort</u>.

Physical control management of starry stonewort is very labor intensive. This involves divers manually pulling out the species after several repeated dives. Wisconsin's Little Lake Muskego and Silver Lake recently employed this method. Newer or smaller starry stonewort plots are best eliminated this way. Mechanical harvesting is another way to remove larger patches. Although starry stonewort trekked through Eurasian waterways and into American lakes, state and local plant authorities are working together to make sure its journey ends soon. By educating outdoor enthusiasts such as hunters, anglers and boaters, by videos, articles and invasive species programs, starry stonewort will soon be contained.

A University of Wisconsin-Oshkosh journalism graduate, Mardy Wiesman is a freelance journalist based in Oshkosh, Wisconsin.







Creating healthy habitat for endangered bumblebees

By Fayette Aurelia Nichols

On March 21, 2017, the U.S. Fish & Wildlife Service listed the first North American bumblebee, *Bombus affinis*, as federally endangered. But it's not likely to be the last.

This action reverberates across our food supply, public health and public lands. It necessitates an understanding of how to nourish *B. affinis* and other pollinators back to health so that they can rebuild their populations, recover territory and withstand the forecasted changes in climate. It asks for a boots-on-the-ground approach, town by town, property by property.

We can create recovery habitat for *B. affinis*, known as the rusty patched bumblebee, by utilizing plants that emphasize healthy bumblebee nutrition.

The big picture

Bumblebees are generalist pollinators essential to plant reproduction and genetic diversity. There are about 4,300 native bee species in North America; only 50 of them are bumblebees, yet they are the linchpins that sustain healthy ecosystems.

They are stronger, faster and more efficient, foraging at lower temperatures and lower light levels. This translates into longer workdays and work seasons. Bumblebees perform buzz pollination, required by over 8 percent of the world's plant species for survival.

Bee species vary in tongue length, so while there may be considerable overlap in the plant species they pollinate, each bumblebee fills a niche. *B. affinis* has a shorter tongue than most bumblebees, affording it broader access to more plants. Its life cycle is longer, too, as queens emerge earlier in spring and hibernate later in autumn than other bumblebees. It's aboveground longer, allowing it to pollinate more plants.

Blueberries, cranberries, tomatoes, eggplants and peppers are some of the major food crops that require buzz pollination by *B. affinis*. It pollinates about 65 crops: alfalfa, a major livestock feed crop, onions, raspberries, plums, apples, melons and more.



A Bombus affinis male in downtown Libertyville in 2014.

But B. affinis also services our wetlands, cross-pollinating such unusual plants as the carnivorous northern pitcher plant (Sarracenia purpurea). These are long-standing ecological relationships. Bumblebees evolved more than 30 million years ago in the Himalayan Mountains and colonized North America roughly 4 million years ago.

Within the last 2 decades, however, scientific surveys confirmed that certain, once-common bumblebees, like *B. affinis*, were disappearing from known territories. At present, its distribution has collapsed over 87 percent from its historic range. Even more alarming, where *B. affinis* is still found, its abundance has declined more than 95 percent. And, it's not alone. Roughly one-third of our bumblebees are facing extinction pressure, according to the Xerces Society.

B. affinis still inhabits isolated pockets of Maine, Massachusetts, the Virginias, Ontario, Ohio, Indiana, and Iowa. But its main refuge is the upper Midwest, from northern Illinois,

up through Wisconsin, into Minnesota where its northernmost retreat is the great forest preserves and tribal lands of the Ojibwa Nation, near Lake Superior and the Canadian border.

What most of these places have in common is that they are, or once were, wetlands or in coastal regions of the Great Lakes or the Atlantic Ocean. *B. affinis* favors wetlands of all kinds: marshes, swamps, fens, seeps, sedge meadows, and most of all, bogs. It forages in oak savannas, prairies, grasslands, farmlands and dunelands. It has adapted to humans, though, and is also found in urban and residential landscapes, particularly near waterways and wetlands.

A balanced diet

It is not enough to just plant native plants for *B. affinis*. When we consider how landscape design dovetails with conservation, we must think about how gardens can emulate what wildlife recognizes as habitat. We must understand how an animal's life cycle determines its habitat needs, and then

The cumulative cascading effect of synergistic stressors

By Fayette Aurelia Nichols

Why are our native pollinator populations precipitously failing? It's an unfortunate synergy of many causes.

First, real estate expansion creates habitat loss, fragmentation and degradation. There is less food for bumblebees to eat, fewer places to nest and hibernate and increased competition for dwindling resources.

Second, what food is available is less nutritious and bio-diverse. Elevated levels of atmospheric carbon dioxide cause plants to grow larger, starchier tissue at accelerated rates, decreasing pollen protein production along with fortifying nutrients such as zinc, iron and other micronutrients. In 2016, U.S. Department of Agriculture researchers found pollen protein content in goldenrod had declined 30 percent since the U.S. Industrial Revolution began in 1842. The steepest decline occurred between 1960 and 2014 when CO₂ emissions shot up like a rocket.

High-quality pollen contains protein, fatty acids, minerals and vitamins that sustain healthy bumblebee immune systems, supporting larval development and queen bee production. Carbohydrates and minerals in nectar provide energy for body warmth, nest incubation and forage flight.

Goldenrod and asters are crucial sources of autumnal nutrition for migrators, such as monarch butterflies and all kinds of bees and other pollinators. The quality of protein and other nutrients these plants provide directly impacts male and queen bee development. It affects their size, physical strength, reproductive health, and how much fat reserves a queen bee can acquire to survive hibernation. In spring, inferior-quality pollen limits the size and lifespan of worker bees that directly impacts the colony's vitality, even survival, and its ability to produce a sufficient number of sexually healthy queens in late summer.

Poor nutrition renders bumblebees and other pollinators far more susceptible to pollutants, parasites (mites), parasitoids and bacterial and viral infections.

Monoculture farming and the use of Roundup Ready® crops decrease plant species diversity in pollinator diets, which also lowers their immunological defenses.

Cultivars, nativars and exotic plants used for ornamental landscaping have reduced the availability of native plants for pollinators to an alarming degree nationwide. In the Chicago area, Andy Stahr, of Pizzo & Associates, estimates only 55 percent of total flora consists of native species, and this includes surrounding natural areas.

Cultivars often are sterile, devoid of high-quality nectar or pollen. Typically, they are genetic clones that do not contribute to

nutrient diversity. However, their floral markings attract pollinators, wasting precious energy for limited or no reward, which adversely affects their health. These animals run on nectar, storing only so much as they forage, like gas in a car. The more efficiently they forage, the healthier they and their colony are.

Nativars are mostly hybrids of native and alien species so they, too, are of little to no value to native pollinators.

Third, substantial increases in pesticide and herbicide use, and exposure to other environmental toxins in recent years have intensified bumblebee immunological stress. It should be no surprise that efforts to control the emerald ash borer coincided with pollinator declines.

Neonicotinoids, which persist in the environment, have lethal and sublethal effects. They impair functioning of bee nervous and reproductive systems, causing navigational disorientation, learning deficits, weight loss, colony behavior disorders, and decreased larval production and development. Fungicides can act synergistically with neonicotinoids, increasing their toxicity 1,000-fold, notes Dave Goulson et al in the 2015 article in Science, "Bee declines driven by combined stress from parasites, pesticides, and lack of flowers."

Used to control mildew and other crop and turf diseases, fungicides are also singly toxic to bumblebees. Chlorothalonil exposure weakens bumblebee health, increasing susceptibility to *Nosema bombi*, a parasite that feeds on beneficial gut microbes and lowers colony survival profoundly.

Fourth, warmer ambient temperatures related to climate change trigger earlier floral bloom times and nectar flow, now no longer synchronized with insect life cycles, which remain linked to changes in solar day-length. With their long life cycle, *B. affinis* queens are more vulnerable to these shifts since they emerge earlier and hibernate later when available floral resources are less plentiful. Climate change effects also impact foraging opportunities by unexpected droughts, floods and high temperatures.

Fifth, commercially bred honeybees and bumblebees, imported from Europe, escape managed-cultivation, invading natural areas to compete for dwindling food resources. As exotic pathogen carriers, they expose susceptible native pollinators to foreign disease vectors.

Finally, decreases in bumblebee colony populations can rapidly devolve into a loss of genetic diversity from which subsequent generations cannot recover. Offspring of queens who mate with males from the same colony will be sterile. Genetically diverse populations require tens to hundreds of colonies spread over 2.5-3 square miles. Healthy colonies range from 200-1,000 individuals. Current *B. affinis* colonies have been found with 30 or fewer members.

synchronize our landscaping to support that life cycle.

Maintaining a continuous succession of native plant blooms from mid-March to mid-October is crucial. It is singularly the most important way to support pollinators. Spring ephemerals typically are absent from ornamental landscapes. Yet, these plants provide early nectar vital to a queen bee's ability to locate food sources and select a nesting site as she flies in the cold, wet spring.

Carbohydrates and minerals in nectar give queens energy and help them fatten up after a long winter. Pollen contains the protein necessary for new queens to build strength, develop healthy ovaries, produce eggs, and feed their larvae when they hatch.

Offering a diverse array of food sources at any given time safeguards our pollinators against the nutritional deficits caused by air pollution. Pollution effects aside, not all pollen and nectar are created equal. Plants vary in the percentage of protein and nutrients contained in pollen, and some do not produce nectar. Different plants offer different nutrients, underscoring the value of a diverse assortment of native plants.

Studies have shown that bees, generally, are sensitive to variations in nectar and forage selectively for the highest quality. Unfortunately, individual foragers cannot discern the caliber of protein in pollen, and do not compensate for low-quality protein by collecting more pollen.



This is assessed by the colony that sends forth more foragers to increase pollen collection.

Plants are sourced to acquire complementary amino acids, lipid fats, minerals, vitamins and other nutrients that combine to form a balanced diet of complete proteins. The greater the diversity of available food sources throughout their life cycle, the better able bumblebees are to stay well-nourished, survive the effects of toxic environmental stressors and continue to reproduce.

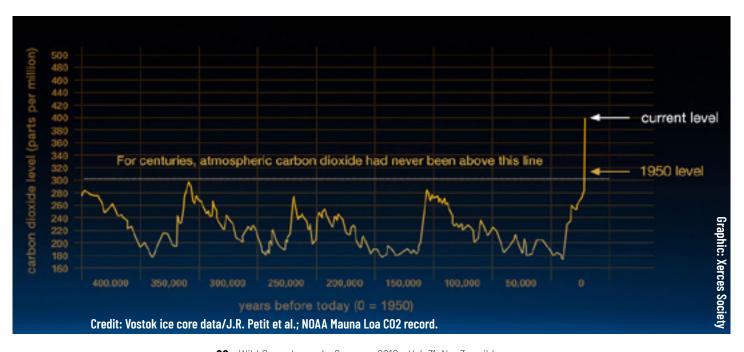
What can we do?

- Offer 10 or more flowering species at any given time during the growing season.
- Design habitat to create chemical-free landscapes with specific safe zones for nesting and hibernation that will not be mowed, raked, tilled or otherwise disturbed.
- Use horticultural soaps and oils instead of pesticides for spot "pest" infestations.

Coming in our Fall issue of the Journal: Learn how specific native plants support the life cycle of B. affinis and its habitat needs.

Fayette Aurelia Nichols holds a bachelor's from the University of Chicago and a master's degree from Northwestern University. Currently, she's working on a degree in horticulture.

Left: The rusty patched bumblebee became the first North American bumblebee to be listed as federally endangered by the U.S. Fish & Wildlife Service. This one is a worker bee or male. Below: This graph, based on the comparison of atmospheric samples contained in ice cores and more recent direct measurements, provides evidence that atmospheric CO2 has increased since the Industrial Revolution.



Protect yourself from ticks

By Melinda Wenner Moyer

The ticks have arrived. So many, so tiny, so hungry. Friends from New York to Wisconsin are freaking out, pulling ticks off themselves, asking me how to keep these blood-sucking, disease-spreading menaces away. They turn to me because I'm a tick fiend: I've interviewed dozens of tick researchers and been to tick-borne disease conferences: I've covered the tick beat for Nature and Scien-<u>tific American</u>. I even started a tick <u>Facebook</u> group (called Tick Talk, of course). A scientist once told me to "think like a tick," and that's exactly what I do because I live in one of the densest, Lyme disease-plagued regions of the United States, and I want to keep my family safe.

I'm going to share what I've learned. So what should you do to avoid getting sick from a tick?

1. Do daily tick checks. I cannot stress this enough: The best way to avoid a tick-borne disease is to check every inch of every family member's body every day from April through November. Make it part of your evening routine so that you don't forget. Lyme usually takes at least 24 hours to transmit after a tick embeds — the range I've seen for most other tick-borne diseases is 12 to 36 hours, although there are scary exceptions. So if you remove it on the same day, you'll probably be fine. Keep in mind, too, that tiny tick nymphs that feed during the spring and early summer and are about the size of poppy seeds. Look for brown or black dots with legs. And look everywhere: ears, the backs of knees and elbows, armpits, hairlines, groins. If you do find one, don't do crazy things to it. Follow the Centers for Disease Control and Prevention's simple removal protocol. I recommend saving the tick in a sealed plastic bag so that you can later identify and potentially test it.

2. Treat your clothes. Permethrin is a synthetic pesticide derived from chrysanthemums that you can apply to shoes and clothes. When permethrin is dry, it's <u>perfectly safe</u>; the concentration applied is <u>very low</u> (typically 0.5 percent permethrin; by comparison, Deep Woods Off is 25 per-

cent DEET). Thomas Mather, the University of Rhode Island scientist who runs the <u>most useful tick website around</u>, explained to me that a child would have to wear 1,100 pairs of socks and shorts and T-shirts and hats, all at once, to get a dose of permethrin that reaches the Environmental Protection Agency's level of concern. Adults would have to wear a lot more.

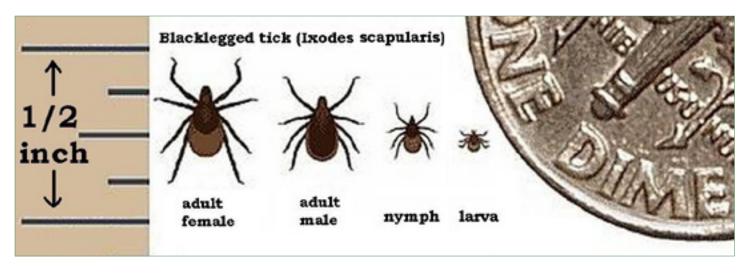
And permethrin works — way better than regular insect repellants. That's because permethrin a) not only repels, but also kills ticks on contact and b) lasts a long time. When you get your clothes treated professionally, as I do, they are tick-proof for 70 washes. If you treat them yourself, they're protected for five or six washes. Some research suggests that DEET, on the other hand, starts losing its tick-repelling power within two hours of application. (Don't get me wrong, DEET is absolutely, positively better than nothing.)

Obviously, no reasonable person can douse every shirt and sock in the house with permethrin, so some triage is called for. I try to figure out who in my family is



Above: Adult deer tick, Ixodes scapularis. Below: Reported cases of Lyme Disease graphic.

Reported Cases of Lyme Disease–United States, 2016 Each dot represents one case of Lyme disease and is placed randomly in the patient's county of residence. The presence of a dot in a state does not necessarily mean that Lyme disease was acquired in that state. People travel between states, and the place of residence is sometimes different from the place where the patient became infected. By US Centers for Disease Control & Prevention Williams and the place of the patient became infected.



most at risk for tick bites —who spends the most time in the woods and on the edges of our lawn. I get a lot of my 6-year-old son's new clothes professionally treated each year (though a home permethrin soak is also effective and cheaper), because he goes to a day camp nestled in the woods. Then I treat a few of my and my toddler daughter's hiking items, including our fleeces. My husband treats mountain-biking and trail-running gear, and we all spray our spring and summer shoes once a month. In general, shoes, socks and pants are the best items to treat, as ticks generally crawl up from the ground or low brush. They don't jump or fall from trees.

- 3. Spray your skin before going into the woods. But with what? So many options. DEET works great (recommended concentration: 15-30 percent), but can be short-lasting. Picaridin (20-30 percent) is also effective. IR3535 is another decent option, but only if the product contains at least 20 percent of the chemical — some Avon Skin So Soft products containing IR3535, for instance, have only a concentration of 7.5 percent. Unfortunately, Consumer Reports recently found that most of the all-natural, botanical repellants — oils of cedar, cinnamon, citronella, clove, geranium, lemongrass, rosemary and peppermint don't work that well on ticks. One exception is lemon eucalyptus oil (30 percent), which works, but not as well as DEET or picaridin.
- **4. Treat your pets.** Pets can bring ticks into the home and then onto your family members. We started using Bayer's Seresto flea and tick collar a few years ago based on Mather's recommendation, and we haven't found a tick on our dog since. It lasts for 8 months, too, which is great because I would never, ever remember to do monthly treatments.
- **5. Give ticks no refuge.** There's no shortage of things you can <u>supposedly do</u> to

keep ticks off your property, but some work better than others. Take Damminix tick tubes, which I'm frequently asked about: Studies suggest they aren't very effective on small tracts of land such as single residential properties. (In the one study in which they worked, the tick tubes were used on an expanse of 18 acres; it's unclear why they don't work well over smaller areas.)

The jury is also still out regarding lawn and perimeter pesticide treatments, but we do use them. Synthetic pesticides such as bifenthrin have been shown to effectively works, and some experts are skeptical since a mouse or chipmunk is the quickest way for the ticks to come in to your yard, and they don't care if there's a wood chip barrier. Do, however, get rid of any leaf piles, as these are well-known tick hangouts. Several autumns ago, my son jumped in a few leaf piles. Afterward, he had three ticks.

Another good move: Rid your property of Japanese barberry, an invasive plant that provides ticks with a "buffered microclimate" that keeps them from desiccating and dying. A 2010 study found that in areas of Con-

If you're worried about ticks this year — and if you live in the Northeast, Mid-Atlantic or Midwest, you probably should be — these five strategies are crucial. My family has been doing them for three years now, and we have stayed healthy and (mostly) tick-free.

eliminate ticks, but they <u>don't reduce</u> the chance that residents will get tick bites or a tick-borne disease. (No one can explain this eerie paradox.) Botanical treatments such as IC2, which is made from rosemary oil, also reduce tick numbers (though not as well as bifenthrin), but no one has studied how they affect the risk of tick bites. These should generally be applied to the lawn's edges, near the wooded parts, as this is where ticks linger.

The CDC also recommends putting a 3-foot-wide wood chip boundary between your yard and the woods, but I don't know. There's been no research yet to show that it

necticut with intact barberry, there were nine times more infected blacklegged ticks (the ones that transmit Lyme) than there were in areas where barberry had been removed.

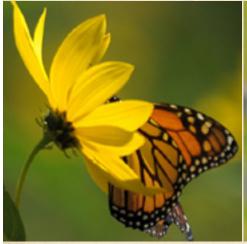
If you're worried about ticks this year — and if you live in the Northeast, Mid-Atlantic or Midwest, you probably should be — these five strategies are crucial. My family has been doing them for three years now, and we have stayed healthy and (mostly) tick-free. This year, let's all wage war.

First published in <u>Slate magazine</u>.

Melinda Wenner Moyer is a science writer based in Cold Spring, New York.











Bringing your landscape to life, since 1972.

prairienursery.com · 800-476-9453

Native Plants and Seed Mixes • Wildflowers, Ferns, Grasses & Shrubs • Native Range Maps







NATIVE PRAIRIE GRASS AND WILDFLOWER SEEDS

Native seed mixes for CRP, CREP, DOT, BWSR, reclamation, residential, commercial, and public projects

www.shootingstarnativeseed.com

20740 County Road 33 Spring Grove, MN 55974 phone: 507.498.3944 • info@ssns.com







Wild Ones online



www.facebook.com/wildonesnative



https://twitter.com/WildOnesNatives



pinterest.com/wonational/



www.linkedin.com/company/wild-ones-nativeplants-natural-landscapes



Thank you for your contributions

GENERAL OPERATING FUND - MEMBER SUPPORT

Anonymous

Hope Taft, Dayton Area Chuck Blumreich, Fox Valley Area Barbara and Daniel Benish, Fox Valley Area

Sharon Surdy, Gibson Woods Patricia May, Greater DuPage Alan Nass, Green Bay Valerie Funk, Illinois Prairie Pat Ryan, St. Croix Oak Savanna Elizabeth Parks, St. Louis Chandan Mahanta, St. Louis Nora Bernhardt, Tennessee Valley

GENERAL OPERATING FUND - MEMORIALS

Wayne Peterson, Menomonee River Area (On behalf of Menomonee River Area Chapter and individual members)

GENERAL OPREATING FUND -CHAPTER SUPPORT

Wolf River Chapter Wild Ones

SFE - MEMBER SUPPORT

Hildy Feen, Madison **Denise Gehring**, Oak Openings Region

IN-KIND DONATIONS

Ronna Swift, Appleton — Extensive collection of books for the Wild Ones library Donna VanBuecken, Fox Valley Area Chapter — Framed roots poster

RENEWING BUSINESS MEMBERS

Amanda's Garden

8030 Story Road Dansville, NY 14437 www.amandasnativeplants.com amandasgarden@frontiernet.net Habitat Gardening in Central New York Ellen Folts

Creating Sustainable Landscapes, LLC

24291 Homestead Court Novi, MI 48374 www.creatingsustainablelandscapes.com drew@creatingsustainablelandscapes.com Ann Arbor Drew Lathin

Ernst Conservation Seeds

8884 Mercer Pike Meadville, PA 16335 www.ernstseed.com ayshea@ernstseed.com Partner-at-Large Ayshea Heckman

RENEWING AFFILIATE MEMBERS

Klehm Arboretum & Botanic Garden

2715 S. Main St. Rockford, IL 61102 driggs@klehm.org Rock River Valley Daniel Riggs

Living Sculpture Trees

5900 Zehnder Road Sunfish Lake, MN 555077 jim@lstrees.com St. Croix Oak Savanna Jim Nayes

Woman's National Farm & Garden Association

735 Sandstone Drive Rochester Hills, MI 48309 www.wnfga.org/ karinemail@aol.com North Oakland

NEW AFFILIATE MEMBER

Lake Katherine Nature Center

7402 W. Lake Katherine Drive Palos Heights, IL 60463 www.lakekatherine.org sara.barnas@lakekatherine.org West Cook Bridget Provost

Mark Your Calendar

IUNE

National Great Outdoors Month

Celebrate your native species June 2 for National Prairie Day and grab your camera to document your masterpiece on June 15 for Natural Photography Day. While you're out snapping pictures, don't forget that Photo Contest entries are due June 22. Visit https://www.wildones.org/photo-contest/ for rules, categories and the entry form.

JULY

July 7

National Father-Daughter Take a Walk Day

Grab your daughter (or your father) and get out there to enjoy local beauty at a nearby park, prairie or conservation club.

July 11

National Cheer Up the Lonely Day

To mark this day, how about taking a bouquet of native flowers from your garden to someone who is missing a loved one?

July 22

National Hammock Day

The best way to really enjoy your native plants and pollinators is from the comfort of your own backyard.

AUGUST

Aug. 17

National Nonprofit Day

How can you celebrate? Tell a friend about Wild Ones, give a neighbor a native plant and a rain garden or monarch brochure, talk to a local garden club about native plants and Wild Ones, give a gift membership to a newlywed or someone purchasing a new house, or send in a special donation to celebrate Wild Ones and its mission.

Wild Ones Board Meeting

Current and incoming Board of Directors meet at the Wild Center.

Aug. 18

Annual Meeting.

Webinar format. Stay tuned for details.

Chapter News

The Fox Valley Area (Wisconsin) Chapter participated in Seedy Saturday on April 28. This annual public event promotes and supports the local seed library. Never heard of a seed library? It's a place where people can pick up seeds, plant them, harvest the seeds after the season, and return seeds to the library – like checking out a book in the spring that isn't due until the fall! In addition to vendors such as Wild Ones, there are classes on how to save heirloom seeds and how to start seeds. Seeds (such as cream gentian (Gentiana flavida), purple prairie clover (Petalostemum purpureum), little bluestem (Andropogon scoparius), bergamot (Monarda fistulosa) and common milkweed (Asclepias syriaca), to name a few) were donated to the library from the chapter's seed collection workshop that was held on the WILD Center prairie last fall. Seed libraries are "sprouting up" across the country - keep an eye out for one near you! Benefits are spreading the word about natives, getting native seeds added to the library, and getting more native seeds in the ground in new locations.

On May 19, the **Greater DuPage** (Illinois) Chapter took part in a unique garden walk full of Fairies, Fun and Fanciful Fabrications! Located in Naperville, Illinois, this amazing no-mow property registered with a variety of organizations from Audubon to Wild Ones is filled

How about a gift for: Neighbors and Friends who are redoing their landscaping **Inspectors and Aldermen** who consider and interpret landscaping ordinances Better yet, how about: Neighborhood **School Classrooms** and Parks Help get them in tune with the environment and inspire them to learn the importance of gardening for life. **Gift Memberships** Three membership levels All memberships include a variety of benefits including the Wild Ones Journal. We'll also send them a special acknowledgement letter. https://www.wildstore.wildones.org **Send your** gift(s) today! **Helping save the Earth** has never been so easy. with recycled treasures nestled among ephemerals, ground covers, herbs, perennials, flowering trees, and shrubs. Grunyun the Gnome made a special appearance and delighted the young and the young-at-heart!

Mountain Laurel (Connecticut) Chapter worked with the Denison Pequotsepos Nature Center to host an April workshop on propagating native plants from seed. Participants planted and took home a starter flat of local native species.

In May, **Rock River Valley** (Illinois) Chapter hosted a program to update people on the threat of invasive jumping worms, previously profiled in the Vol. 30 No. 4 Journal.

Chapter Anniversaries

3 years Smoky Mountains, Tennessee

3 years . . . Tupelo, Illinois

5 years Blue Ridge, Virginia

5 years West Cook, Illinois

6 years Tennessee Valley, Tennessee

11 years . . . River City-Grand Rapids Area, Michigan

14 years . . . Habitat Gardening in Central New York, New York

17 years . . . Central Upper Peninsula, Michigan

17 years . . . Door Peninsula, Wisconsin

18 years . . . Arrowhead, Minnesota

18 years . . . Gibson Woods, Indiana

20 years . . . St. Cloud, Minnesota

22 years . . . Ann Arbor, Michigan

23 years . . . Madison, Wisconsin

24 years . . . Columbus, Ohio

24 years . . . Rock River Valley, Illinois

39 years . . . Milwaukee-North, Wisconsin

New Lifetime member

Kathleen Kojis, Kettle Moraine

In Memoriam

Robert Roll, Capron Rock River Valley (Illinois) Chapter

Wayne Peterson, Hubertus

Menomonee River Area (Wisconsin) Chapter

Please email Elaine Krizenesky at elaine@wildones.org to report the death of a member.

WILD Center Update



Fox Valley Area Chapter member Tim McKeag helps plant oak tree saplings at the WILD Center.

Did you know most of the trees on the WILD Center property are ash trees? Sadly, a little pest named the emerald ash borer will someday be responsible for the destruction of these magnificent trees, resulting in the loss of habitat for our cranes, ducks, eagles, and smaller birds.

Planning ahead, the Center received 350 free oak tree saplings through the Living Lands & Waters' Million Trees project. Of course, saplings don't plant themselves, and our enthusiastic deer population makes certain "accessories" a must. Luckily, several organizations and individuals stepped up to "plant ahead" for tomorrow's habitat. We are grateful to Jeff at Fox Valley Wood Products in Kaukauna, Wisconsin, for donating pallet wood for stakes for the trees; Mike Larson of Darboy, Wisconsin, for providing the time, truck and transport of all the wood; Dave Edwards of Menasha, Wisconsin, for cutting the wood into stakes; Richard and Kathy Wagner from Wagner Family Tree Farm in Weyauwega, Wisconsin, for donating tubes to protect the trees from hungry deer; Chris Wenzel from Fremont Bait and Tackle in Fremont, Wisconsin, for picking up the tubes and giving them a ride to the WILD Center; and all the volunteers from the Fox Valley Area Chapter for braving snow, wind and rain to do the planting. This project was truly a group effort, and will result in a wonderful habitat for our wildlife long into the future.

Please welcome Janet Rothe (row-thee), our new national membership manager. Janet has a strong marketing background gained from working at JanSport, J.J.Keller, CitizensFirst Credit Union and Mills Fleet Farm. She will serve as member and chapter point of contact and support. Janet will also be responsible for the SOCR, Annual Appeal, Native Butterfly Garden Recognition Program, Seeds for Education and social media. You can reach Janet at janet@wildones.org.



