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BULLETIN OF THE RHODE ISLAND WILD PLANT SOCIETY • VOL. 35 NO.1



# WildfloraRI

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## President's Letter

I am writing this note as the future past president of RIWPS. It has been my privilege to serve in this capacity for the past few years. By the time you read this issue of *WildFlora*, you will have a new President, Peter Lacouture. Peter has a long-standing relationship with RIWPS. In fact, he was not only one of the founders, but as a lawyer he wrote and filed our incorporation documents. Marnie, Peter's wife, was also a founding member, so they both have been deeply involved for the past 34 years. Marnie has managed the shrub section of our spring plant sale and received the "Lifetime Service" Award in 2019. She is joining Peggy Buttenbaum and Paul Dolan as new board members this year. The board will otherwise remain the same with the exception of John Wilson, who wished to rotate off the board. We thank John for his many years of service.



## The importance of native plant communities, while perhaps always evident to our members, is now becoming appreciated by a wider segment of society.

The plight of the Monarch has sent a clear message about the dependence of other species on the local native plant populations. The majority of the requests for information that come to the RIWPS office now involve pollinator plantings and gardens. The "pollinator" designation has almost become a cliché, and, while it is extremely important, there is much more that our native plants provide to the diversity of life around us—things like forage, nesting sites, protection, clean water, oxygen, and shade.

RIWPS' mission is to address these issues broadly with our education programs, "at risk" plant propagation project, and directly with seed starter activities and plant sales. There is much work to do, and new ideas are welcome as the expanded board continues to lead the organization. We are an organization of volunteers, and your assistance in any way is appreciated.

Dick Fisher  
Past President RIWPS

## Correction



Rick Enser's striking photo of a Hummingbird Clearwing moth on wild bee-balm reminds us of not only the importance but the beauty of our native gardens. Apologies to Rick for not crediting his beautiful images of pollinators in our last issue.

Cover photo by Northeast Forest and Fire Management, LLC

**The Rhode Island Wild Plant Society, Inc.**, is a nonprofit conservation organization dedicated to the preservation and protection of Rhode Island's native plants and their habitats.

### Our Goals:

- To aid in land preservation so that native plants are protected in their natural habitats;
- To encourage and offer guidance in the cultivation and propagation of wild plants;
- To educate the public on the scientific and aesthetic values of wild plants;
- To provide opportunities for Rhode Islanders to study and enjoy native plants in their natural habitats; and
- To offer our knowledge and skills to governmental, civic, and corporate organizations.

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# The RIWPS Report



## Plant Sales

BY LINDA McDANIEL

Unfortunately, the coronavirus has put the kibosh on our Early Spring Sale this year. In the effort to keep our volunteers and customers safe, we are keeping those lovely spring ephemerals and early-blooming shrubs in the nursery and in members' gardens—until the time is right for a sale. **Just to be clear, the Early Bloomer's Sale, scheduled for May 9 at Casey Farm in Saunterstown has been canceled.**

The **Best Native Plant Sale** in Rhode Island is still scheduled for Saturday, June 6, at URI's East Farm. But please check our website, [www.riwps.org](http://www.riwps.org), before heading to the farm, in case the June sale is cancelled. Hours are from 9 am to 1 pm, though RIWPS members will be admitted early at 8 am. Membership can be obtained on the day of the sale.

This is the largest sale of native plants in RI, offering more than 100 species of wildflowers, as well as ferns, ground covers, grasses, and shrubs. Although several thousands of plants are available, the most popular

species will sell out early. Favorites include butterfly milkweed, cardinal flower, Canada lily, and New England aster. But consider helping out our pollinators with some goldenrods, asters, and boneset for late summer blooms, as well as whorled milkweed and New England blazing star.

Species especially important to native bumblebees, as recommended by Dr. Robert Gegear, who recently lectured at RIWPS about his Beecology project, will also be for sale. Expert volunteers will be available to answer questions.

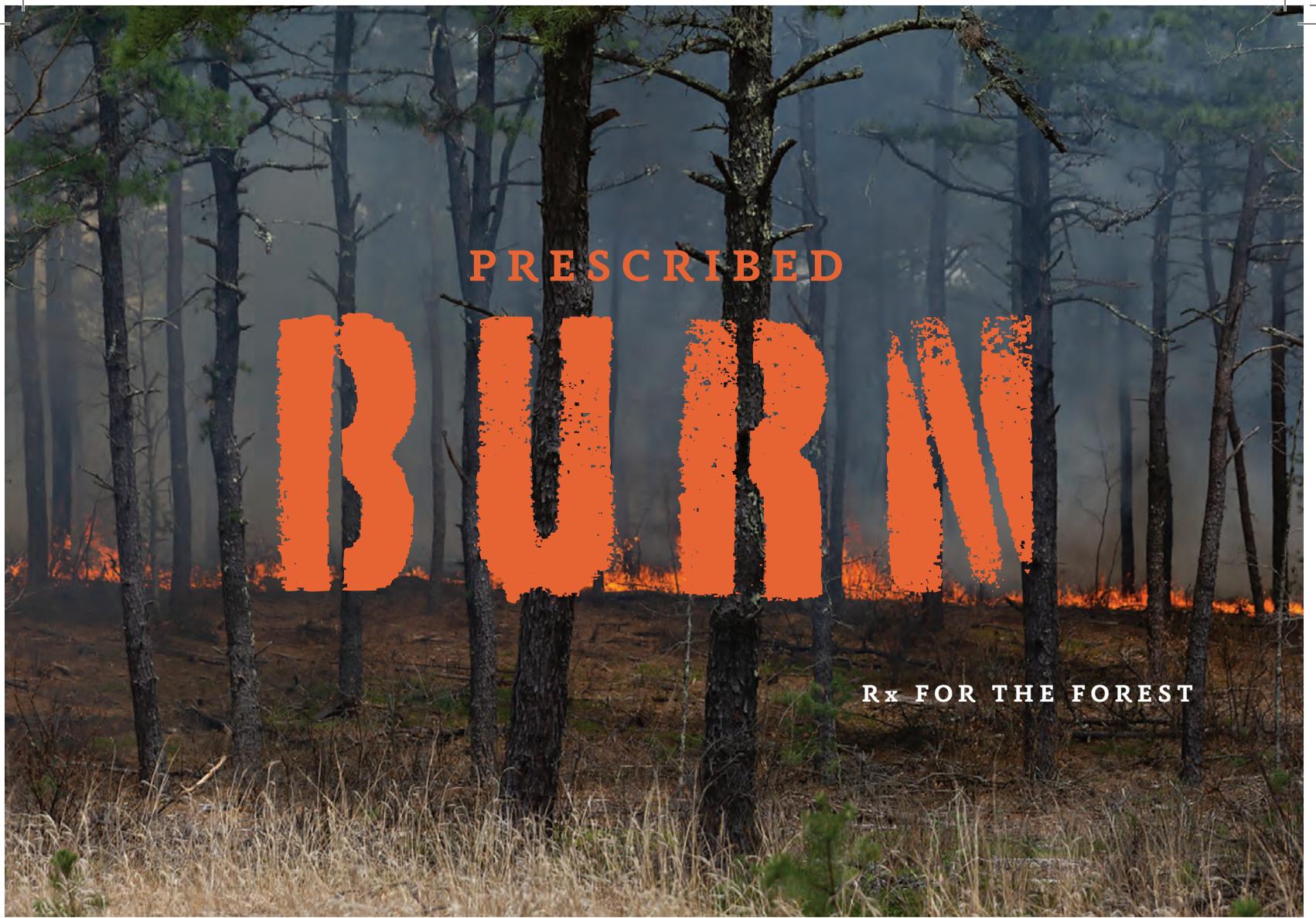
The **Fall Sale** will be held on Saturday, August 22, at the Pawtuxet Valley Farmer's Market, in Cranston. This is the time late summer bloomers will be peaking, so add some Joe-Pye weed, boneset, goldenrod, and asters to your garden.

A list of species offered will be posted on <https://riwps.org> two weeks before each sale date.

Volunteers are always needed at any of these sales. Email [plantsales@riwps.org](mailto:plantsales@riwps.org) to help transport plants, set up tents, or help with parking cars.



*Please check our website, [www.riwps.org](http://www.riwps.org), for any changes made to RIWPS plant sales or other events due to precautions taken for the coronavirus.*



PRESCRIBED

# BURN

Rx FOR THE FOREST

BY MARNIE LACOUTURE

The pitch pine forest has been an important but declining Rhode Island ecosystem since the days when fire maintained it. Pitch pine (*Pinus rigida*) is a fire-tolerant tree that thrives on nutrient-poor, dry soil often referred to as a pine barren. Its needles are in bundles of three, and its bark is thick and protective, able to sprout new growth after a fire. It can hold its cones for a long time, even years. Although some of the cones have a resinous coating that fire must melt to release the seeds, not all require fire. The dry, non-resinous cones release seeds that germinate in the warmth of the sun if not consumed by wildlife. Many birds and small mammals, including eastern towhees and red squirrels, eat them.

The pitch pine community, which includes scrub oak (*Quercus ilicifolia*), black huckleberry (*Gaylussacia*

*baccata*), common lowbush blueberry (*Vaccinium angustifolium*), hillside blueberry (*Vaccinium pallidum*) and other members of the heath (*Ericaceae*) family, is important for biodiversity. It provides habitat for wildlife, including tiger beetles, whip-poor-will, woodcock, New England cottontail, and box turtle. Many small birds including warblers glean insects from under the bark and inside the cones. Sundial lupine (*Lupinus perennis*), rare in Rhode Island, and yellow wild indigo (*Baptisia tinctoria*), both of which grow in these dry sandy conditions, are the only hosts for the larvae of the frosted elfin butterfly, which is listed as state-threatened.

Pine barrens in Rhode Island are found along the southern coast at Ninigret Wildlife Refuge in Charlestown; inland in Coventry, Exeter, and West Greenwich; and on Prudence Island at the Narragansett

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**“I spend a lot of time wondering what these forests want to be.”**

Bay National Estuarine Research Reserve. Over the years shade-tolerant species such as white pine, oak, and maple have crowded out pitch pines; their needles and leaves create closed canopies in the forests and thick damp litter on the ground. Tanner Steeves, a Department of Environmental Management (DEM) wildlife biologist, used the term “overstocked forest” to describe this.

Most Rhode Island forests are 75 to 100 years old, he said—not young and not old. Restoring pitch pine barrens will add diversity.



*Photo by Northeast Forest and Fire Management, LLC*

In 2005 Rhode Island wrote its first Wildlife Action Plan, which allows the state to apply for federal grants. Steeves said that DEM has worked with the Natural History Survey and other environmental organizations to write the original plan and revise it in 2015.

Native Americans used fire to keep woodlands open for hunting and berry production. Early colonists burned large areas of forest to clear land for agriculture. More recently a friend recalled his grandmother burning the family cemetery plot each year. Now it has become risky to use fire as a land-maintenance tool, since development has encroached on much of our forestland. Together fire suppression and population growth have caused loss of pitch pine habitat. There were around 30,000 acres of pine barrens in Rhode Island before European settlement, but today only around

6,000 acres remain. Forest fires are relatively rare in the East, where rainfall is plentiful, while drier conditions in the West have caused a build-up of debris resulting in raging fires that have destroyed houses and caused loss of life. Wildfires could also occur in the East during an extended drought, since over the years without fires, duff has built up on the forest floors. Recent winters that lacked snow cover, climate change with its warmer temperatures and sometimes violent storms, and insect damage that has killed large areas of trees may also be contributing factors.

In the spring of 2018 after years without fire, Nicholas Farm, a DEM property in Coventry, was the site of a prescribed burn on 25 acres over two non-consecutive days. The goal was to restore the overgrown pitch pine barren and also the adjacent meadow to encourage native warm-season grasses and pollinator-friendly wildflowers. A prescribed burn is sometimes called a controlled burn, but fire experts agree that this is misleading. A prescribed burn, the preferred term, is carried out according to an intricate plan written well ahead of the burn.

Northeast Forest and Fire Management, LLC (NE-FFM), headquartered in Sandwich, Massachusetts, works with state, federal and private landowners, and environmental organizations to restore habitat. It worked with DEM to write the plan for the Nicholas Farm burn, taking into consideration goals for restoration of the environment; specific weather conditions such as temperature, humidity, and wind direction and speed; the existence of rare species; and the safety of the community. The boundaries that form the burn unit were configured with plans for fire breaks, and the local fire chief signed off on the plan. About two years earlier, a contractor had removed the tall white pines, oaks, and maples using an excavator with a mulching head, or masticator. The wood was left on the ground to dry until spring of 2018 when conditions were right for the burn.

A prescribed burn is a team effort. The one at Nicholas Farm included expert firefighters and others from DEM and

U.S. Fish and Wildlife, local Coventry firefighters, and employees from NE-FFM. Prescribed burns are kept low to the ground since a fire in the treetops could be disastrous. On the first day of the Nicholas Farm burn, the operation shut down early after humidity dropped and temperature rose, creating unsafe conditions. The second day went according to plan, and the burn was successful.

It is a sunny cold afternoon in mid-February of this year. Olney Knight, Forest Fire Program Coordinator with DEM stationed at the agency's Arcadia Forestry Headquarters, leads my husband and me through the burned area at Nicholas Farm. Knight grew up in eastern Connecticut, volunteering as a junior member with local fire companies. He knows about fires, in particular the local wildfires that happened long before he was born. He tells fire stories like an old timer, belying his 33 years. At home in the woods, he strides easily through the thick understory of scrub oak and lowbush blueberry that benefited from an initial release of nutrients back to the soil. We follow along, struck by the sight of new growth from the trunks of the pitch pine that are black a foot or two up from the understory. The open canopy, which allows light to filter in, is stunning. The Southern pine beetle,

*CONTINUED ON P. 9*



Blackened pitch pine trunks.  
*Photo by Peter Lacouture*



# Native or *Nativar*?

## Does It Make a Difference?

BY PAT CAHALAN

Wildlife-friendly gardens and pollinator gardens are becoming more and more popular, driving a demand for native plants. And the horticultural industry is responding with a huge selection of “redesigned” native plants, cultivars of the native species. They’ve been dubbed *nativars*—a term coined from *native* and *cultivar* to refer to the often showy, decorative garden plants bred from native species. Often *nativars* make up the bulk of the garden center’s “native plant” section at the expense of straight species. But are they the right choice for the wildlife-friendly garden?

In nature, plants are constantly changing as the environment changes. If some

individuals have genetic information that produces a favorable or adaptive trait, they are more likely to survive and reproduce, passing the trait on to their offspring. The more genetic diversity, or variation, within a species, the better able it will be to adapt to changing environmental pressure.

It’s this same diversity that enables horticulturalists to select or breed *cultivars*.

The new cultivar may be a *selection*: a plant selected from a population of the species because it shows some desired characteristic—perhaps a different flower color, bloom time, plant size, or abundance of fruit. The selected plant is then propagated vegetatively, or *cloned*, through cuttings, tissue culture, or other means. With an appealing name, (found in single quotes after the species name), it’s ready for marketing.

Alternatively, the new cultivar may be a *hybrid*: a cross between two individuals within a species, different species, or sub-species. Hybridization is actually relatively common among plants in nature. Those developed

Pollinators can easily get at the nectar and pollen provided by the straight species of *Trillium grandiflorum*, left. This double trillium, right, makes it difficult. *Rosa palustris*, our native swamp-rose, above, attracts an array of pollinators with its easy-to-reach central disk.

with human help are meant to capture desirable traits of both parents in the resulting offspring. Again, the new plant is cloned to produce the quantities needed for sale.

All cultivars in the trade are *cloned*, that is, propagated vegetatively by cuttings, tissue culture, or other methods. Cloning results in genetically identical copies of the parent plant—useful if you’re selling plants that customers expect to be identical to the named variety—but harmful to a plant’s ability to adapt to changes in its environment.

### **Do *nativars* work in the wildlife garden?**

Wildlife gardens need plants that will support insects, birds and other native species through all their stages of growth. Do *nativars* provide equivalent food and shelter to native species? It depends.

Researchers at Mt. Cuba Center and the University of Delaware led by Douglas Tallamy found that leaf-eating insects

seemed to find native plant cultivars as palatable as their wild counterparts with one exception: the insects avoided plants selected or bred to produce red or purple leaves. This foliage has more anthocyanins, a pigment that's responsible for the colorful foliage but that also makes it distasteful, which discourages feeding.

The foliage on plants bred for enhanced fruiting, fall color, leaf variegation, disease resistance, and altered growth habit seemed to be as attractive as the native species to leaf-eating insects, and in some cases the insects actually preferred the cultivars to wild ones. Dr. Tallamy said, "A lot of cultivars change the habit of a plant—you take a tall, leggy plant and make it shorter for use in a small landscape—and that doesn't seem to have any effect at all on herbivory." Research is continuing.

What about the pollinators? Do cultivars support their needs as well as natives do? Annie S. White, doing doctoral research at the University of Vermont, has been studying this question since 2011. She points out that some native cultivars attract as many insect pollinators as the native species. One cultivar, she says, "actually attracted more total pollinators than the native species and had a longer bloom time." When she studied nectar production, she found that some cultivars produced less nectar than the native they were bred from. One example: Some lobelia hybrids developed after multiple crosses provided only 20 percent of the nectar energy found in the native cardinal flower.

In general, Dr. White continues "... the more manipulated the cultivars became, the less attractive they became to pollinators." She found that pollinators, and bees in particular, strongly prefer native species. She suggests that if you do decide to include some cultivars of native species in your wildlife-friendly garden, try to limit them to open-pollinated, seed-grown "selections" or "sports" of native species. Cultivars that differ significantly from the native species, in color or flower shape and structure, should be used cautiously, and hybrids are best avoided.

Because cultivars are cloned, another important consideration is their lack of genetic diversity. Susan Gordon, who manages Kinney Azalea Gardens and is Chair of Certification Programs at the RI Nursery and Landscape Association, points out that the lack of genetic diversity can prevent them from adapting to different conditions. In effect, "a planting that's made up of many plants of a single cultivar effectively creates a monoculture. That cultivar may not fulfill the same ecological niche as the species it's standing in for, and it may be more vulnerable to stresses such as pathogens and climate change. If instead of planting a single cultivar of a species, you plant several cultivars of the same species, you introduce diversity, so the group as a whole is more apt to succeed. We simply don't know enough about species interaction to know what would make a cultivar less useful to other species."

### Sorting the Good from the Bad

How do you determine if the cultivars in your garden are working as well as the natives they are standing in for? "The best way to tell is to watch," Dr. Gordon says. "This goes for herbivores and pollinators. Then compare what you see to what's happening with the straight species." Among other things, "I look for holes in the leaves. I love holes in leaves."

Also, look at the cultivar itself. How closely does it resemble the straight species? If it varies too widely in form, color or taste, it may no longer serve its function. Some examples: Double-flowered blossoms can prevent pollinators from reaching pollen and nectar. Hybrids with a southern parent may lose some of their winter-hardiness. Some hybrids don't produce seed, some have berries too large for birds to swallow, depriving them of nutritious food.

A final thought from Dr. Tallamy: "It is a bad idea to load the landscape with plants that have no genetic variability. I'm not a hardliner on this issue, but gardeners ought to have access to straight species. We have to convince the nursery industry that native plants are about more than just looks."

Dr. Gordon points out that it's not the industry but the purchasers that need convincing. "Our local nurseries have been trying for many years to sell natives, but until about 20 years ago, there was virtually no demand. Today *Rhododendron maximum*, our native rosebay, sells as do showy, regional (Piedmont) natives and cultivars, but many native species—sumac, goldenrod, sheep laurel, and others—don't. No grower, and particularly a grower of woody plants, can afford to invest in a product line with only occasional demand."

The way to convince the nursery industry to carry more species is to convince gardeners that native plants are about so much more than just looks.

*RIWPS' two spring plant sales and its fall sale offer a broad selection of native plants as well as knowledgeable volunteers who can help you choose those that will work well in your garden. Many local nurseries also carry native plants and cultivars. The RI Nursery and Landscape Association offers its member nurseries education, training, and certification programs for their staff, enabling them to provide accurate and helpful information.*



Birds find the fruit of 'Sparkleberry,' an interspecies hybrid bred for its large showy berries, too large to swallow, not to mention distasteful.

## Haile Farm Preserve

Haile Farm's historical narrative is a common one for coastal Rhode Island. A European family settled along rich coastal marshlands and raised livestock with hay from the salt meadows, supplemented by English hay planted on their upland meadows. The farm endured changing times into the 20th century when development slowly surrounded it. But there is a happy ending to this farm's story because the Warren Land Conservation Trust has protected 61 acres of the original farm, including critically important estuarine and forested wetland habitats.

The preserve is off Route 136 in a busy commercial area, so a first-time visitor may need multiple GPS checks while weaving through warehouses and industrial construction to find the trailhead. The hike begins on a path rife with invasive plants: Bradford pear (*Pyrus calleryana*), Asian bittersweet (*Celastrus orbiculatus*), autumn-olive (*Elaeagnus umbellata*), mugwort (*Artemisia vulgaris*), and Morrow's honeysuckle (*Lonicera morrowii*). It's a familiar suite of despicables. But, like human relationships, first impressions can hide deeper meaningful qualities, and there is much to admire at Haile Farm behind this front door.

The vegetation soon transitions to early successional woodland with a typical thicket of shrubs and pioneer trees such as quaking aspen (*Populus tremuloides*) and gray birch (*Betula populifolia*). But the careful observer might notice an unusual species—a scattered stand of trees that are rogue to Rhode Island—boxelder (*Acer negundo*).

Boxelder is common almost everywhere in the Eastern U.S., except New England. Sometimes considered a weedy pest, it evolved as a flood plain



Hairy pine-sap. Photo by Doug McGrady

tree, stabilizing soil on stream banks alongside other fast-growing species—silver maple (*Acer saccharinum*) and green ash (*Fraxinus pennsylvanica*). Once used for box-making, its leaf resembles that of our common elderberry, hence its name. Another common name is more appropriate—ash-leaf maple. It is indeed a maple tree, with typical helicopter-wing samara seeds, but with ash-like compound leaves.

Beyond the boxelder stand is a large pond on the right, residue from aborted development, but perhaps someday it will be a lovely aquatic system. A left turn at this point puts one on a green loop trail leading to the Palmer River estuary. This is where the upland woods change to a maritime shrubland transitional cover, then salt marsh. Like all ecotones, this one is rich in plant diversity, ideal for field botanists keying out species. Enter Doug McGrady, the Society's plant wizard. Doug has compiled a comprehensive inventory of Haile Farm Preserve plants, and many interesting ones are in this area—ragged thoroughwort (*Eupatorium pilosum*), bushy bluestem (*Andropogon glomeratus*), yellow thistle (*Cirsium horridulum*), and white-fringed bog-orchid (*Platanthera blephariglottis*), the last two being state-threatened species.

The trail then winds through the shrubland to an opening where one's

vision is bathed in a wide-screen spectacle of birds winging across open skies over the salt marsh's tawny blanket. And, as if fashioned by an artist, a lovely backdrop is formed by a "peninsula" of trees reaching out to the shoreline. A spur trail on this spit of upland leads across the marsh where one can be in a dry, oak-hickory barren, but with salt marsh nearby on two sides. The spur ends at the water's edge where tidal zone plants can be explored, including maritime marsh-elder (*Iva frutescens*), American sea-rocket (*Cakile edentula*), sweet-scented camphorweed (*Pluchea odorata*), Carolina sea-lavender (*Limonium carolinianum*), and species glassworts (*Salicornia spp.*).

Backtracking to the green loop, it quickly intercepts a yellow mini-loop trail. This short sidetrack weaves under a power-line easement with another distinct plant community. Recent studies attribute significant environmental value to clear-cutting small areas within a mature forest. Resurgent growth in these "patch cuts" provides important habitat for many species under threat, notably woodland nesting neotropical songbirds. The studies consistently show that patch cutting in mature forests increases the number of woodland bird species, as well as the survival of their fledglings. Since

National Grid periodically cuts trees in this easement, it serves as a perpetual patch habitat.

This patch features plants adapted to open, dry forest clearings such as sheep-laurel (*Kalmia angustifolia*), sweet-fern (*Comptonia peregrina*), little bluestem (*Schizachyrium scoparium*), switch panicgrass (*Panicum virgatum*), black huckleberry (*Gaylussacia baccata*), and early successional trees such as eastern red cedar (*Juniperus virginiana*), scrub oak (*Quercus ilicifolia*), gray birch (*B. populifolia*), and pitch pine (*P. rigida*).

Returning to the green loop, it enters a mature conifer-hardwood forest that is a jewel of the preserve. It's also a splendid place to let one's mind wander back in time, imagining what could have been two hundred years ago. The terrain is flat, lush, and relatively free of surface stones, which probably were long ago put into stone walls now crisscrossing the woods. During the early days of Haile Farm this area may have been a fresh meadow, a moist plain along a stream that was ideal for the European cool season grasses planted by settlers. One can imagine a harvest crew rhythmically swinging scythes, slowly mowing their way across this meadow, laying up English hay for winter forage.

Judging from the tree sizes, haying or pasturing probably stopped about 100 years ago, after which natural succession slowly brought back a southern New England temperate forest. Henry David Thoreau was



White-fringed bog orchid.  
Photo by Doug McGrady

the first to observe and document this process, recording in his journal a pattern of changing vegetation on abandoned fields around Concord.

Successional dynamics have been exquisitely successful on this part of Haile Farm, producing a handsome canopy of oaks, tupelos, sassafras, hickories, and swamp maples that cover a diverse, multi-layered understory—chest-high cinnamon fern (*Osmundastrum cinnamomeum*), thickets of aromatic coastal sweet pepperbush (*Clethra alnifolia*), eastern shadbush (*Amelanchier canadensis*), and hazelnut, both American (*Corylus americana*) and beaked (*C. cornuta*). Wildflowers on the forest floor add color, including brilliant red cardinal-flower (*Lobelia cardinalis*) on a streamlet crossing the trail, soft hues of pink lady's-slipper (*Cypripedium acaule*), and a delicate yellow of sessile-leaved bellwort (*Uvularia sessilifolia*). Meandering in the shade of this beautiful woodland is the perfect ending to a walk at Haile Farm.

As a newly preserved property, it is still rough around the edges. But progress is everywhere—removing invasive plants, installing bog bridges, and flagging new sections of trail. This should not deter you from sampling its varied habitats. Print the trail map from the website, as paper copies are not yet available at the trailhead kiosk. The trail described here is an easy 1.3-mile walk on flat terrain.

Like a well-written novel, Haile Farm's drama builds slowly, but there is much to excite a broad range of interests, history, botany, ecology, or archeology. It's also a great place to just “slip into something comfortable,” that is to say, be alone in the quiet of nature, gather thoughts, and recharge.



Photo by Anne Raver

## BURN CONTINUED FROM P. 5

a destructive pest found in Rhode Island, will not move from tree to tree as easily now, Knight explains, and its pheromones may not be as powerful in the airy canopy. Warm season grasses, mostly little bluestem (*Schizachyrium scoparium*) and switch panicgrass (*Panicum virgatum*), have grown in the fire-blackened meadow and glow in the winter light. Common milkweed [*Asclepias syriaca*] came in last summer, Knight says with satisfaction.

For the restored pitch pine barren at Nicholas Farm to remain viable, future burns will be needed. After several longtime DEM foresters with fire knowledge and experience retired, Knight has relied on help from the U.S. Fish and Wildlife Service and the U.S. Forestry Service. He hopes to fill an open position at DEM, but hiring is stalled for now. If spring conditions cooperate this year, there may be a couple more prescribed burns on state land, but first plans must be written and funding sourced. Meanwhile Knight's attitude is philosophical as he muses aloud, “I spend a lot of time wondering what these forests want to be.”

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## ***Nature's Best Hope: A New Approach to Conservation That Starts in Your Yard***

By Douglas W. Tallamy

Doug Tallamy begins *Nature's Best Hope*, published this year by Timber Press, by tipping his cap to the great conservationists of the 20th century, including Teddy Roosevelt, who helped launch the National Parks movement. Though, he points out, when Roosevelt stood at the Grand Canyon and said, "Leave it as it is," 95 percent of the country hadn't been "logged, tilled, drained, grazed, paved, or otherwise developed."

Now, as national parks are being logged, threatened with oil extraction, invaded by non-native plants and insects, or otherwise degraded, Tallamy proposes the seemingly impossible: not just planting one's own yard with native species to save the earth, but convincing one's neighbors to do the same—to create a "Home Grown National Park."

His first book, *Bringing Nature Home*, published in 2007, was revelatory. In simple terms, Tallamy explained how insects and other species co-evolved with plants to form very specific inter-dependencies. About 90 percent of insect herbivores depend upon one or very few plant species for reproduction, i.e., they lay their eggs on certain species' leaves, and the caterpillars eat the leaves. These caterpillars are higher in protein than beef, so hungry birds feed thousands to their nestlings in one reproductive cycle. If the native plants aren't there, the birds fail to thrive.

*Nature's Best Hope* continues to pile on grim statistics: most land in the lower 48 states is privately owned, turfgrass covers 40 million acres, an area the size of New England. Much of the rest of the earth's surface is covered with shopping malls, roads, and airports.

Small wonder that in North America, Tallamy writes, "8500 species of plants and animals (more than a third of our best-known species), including 432 species of birds" are at risk of extinction.

Habitat fragmentation spells doom to countless species, and Tallamy underlines the need for biological corridors.

The size of a territory is also key to survival for certain bird species, and their needs can be complicated. Hooded warblers, Tallamy writes, need enough territory for pair bonding and additional space for members of other pair bonds—because hooded warblers dally with others, before the eggs are laid.

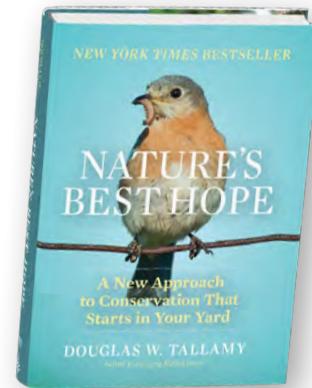
Scientists are also learning more about the keystone genera—oak, cherry, willow, for example—that host many species of caterpillars. Oaks in the Mid-Atlantic region, where Tallamy does much of his research, support 557 caterpillar species. Tulip poplars support only 21.

But planting an oak on a lawn is not enough. "Most caterpillars crawl off their host plant before molting to their pupal stage," Tallamy writes. They either burrow into the soil or spin a cocoon in the leaf litter. So a groundcover of "native pachysandra, woodland phlox, foamflower, ginger, or native shrubs," he suggests, is key to the life cycle.

*Nature's Best Hope* certainly deepens one's understanding of successful strategies in one's own yard. But the larger challenge is building those corridors to neighboring yards and convincing the owners to replace even part of their lawns, and some of their gumdrop yews and burning bushes with keystone species that caterpillars—egads, insects!—can eat.

Tallamy offers a few success stories: the woman who convinces her lawn-loving father to plant milkweed for the struggling monarchs; the garden clubs that make native plantings more presentable with mowed strips of grass.

But he also acknowledges the monumental challenge of shifting values.



Having replaced most of our lawn and many nonnative plants with native species on our corner lot in a small town, my husband and I have run the gamut of responses—enthusiasm, scorn, even orders from the town to remove plants too close to a stop sign.

Tallamy acknowledges the difficulty of breaking through this glass wall of tidiness and fear of nature and tries to explain it—the need to belong, the tribal suspicion of anyone different, our love affair with exotic plants. Thomas Jefferson, he notes, could have landscaped Monticello with gorgeous native species but chose to mimic Europe's grand landscapes with a greensward and plants from the other side of the world.

And then, of course, our ancient roots go back to the African savanna, where it was easier to see predators stalking us across the lawn. Once the colonists made it to North America, they were terrified of the wilderness—killing most of the beasts and Native Americans, plundering the resources, and "taming" the rest.

So here we are. Tallamy exhorts us to work with garden clubs and plant societies, schools and municipal governments to plant public spaces with native species, to give talks and write articles.

He reminds the reader of practical resources, such as the National Wildlife Federation's "Native Plant Finder (<https://www.nwf.org/NativePlantFinder>): just enter your zip code, to find the most valuable native plants for your area. The NWF will even give you a sign, for your certified wildlife habitat.

I think I need one of those. As Tallamy says, giving up is not an option.

## 2020 Lifetime Service Awards

### Fran

**Underwood** has been part of RIWPS for most of the Society's lifetime.

He joined the board in 1991 and stayed on through the Society's financial troubles. As a very active member of the Stewardship Committee, he was often called on to inventory the plants in members' landscapes. He organized and led many walks for the Society at a time when its members called themselves "Wild Folk."

Fran has discovered many a rare RI species in his walks around the state. His favorite find was a large colony of fall coral-root (*Corallorhiza odontorhiza*). Over the years he donated many special plants for the silent auction table at RIWPS plant sales and generously helped out at the sales. He has also authored articles about native flora, including a plant guide to the Big River Management Area.

In 2009 he and Kathy Barton launched the website [among-ri-wildflowers.org](http://among-ri-wildflowers.org). "Among RI Wildflowers" (ARIW) provides a vast array of information and articles about RI wild plants, including its popular mystery plant of the month, an amateur botanist series, resources for plant ID, and great photographs of RI Natives. Check it out! Fran, who has a degree in botany from URI, makes sure that ARIW is botanically correct. Kathy handles the graphics, website, and publications. ARIW attracts thousands of readers from around the world.



Fall coral-root. Photo by David Cameron

### Kathy Barton

says that when she went to the first business meeting of RIWPS in March of 1987 it was "like coming home." She was delighted to find some 60-odd other people who cared as much about wild plants as she did. Kathy went on to serve as RIWPS president from 1991 to 1993 and for years planned and led walks as part of the Education Committee. She created walks, assembled teaching materials, and for years kept a blooming calendar—all resources she generously shared with RIWPS.

Kathy offered this history of her involvement with wildflowers: "If it weren't for Red Rose Tea and the fact I come from a family of tea drinkers, I might never have gotten hooked on wild flowers. Back in the '60s, Red Rose Tea used picture cards as a promotional in their boxes of tea. One set of cards was Wild Flowers of North America. I avidly collected, studied, and mounted them in an album that was available from the company. Later, when I had space for a garden, I started a wildflower garden, growing a number of the plants I remembered from my card collecting days. Dutchman's Breeches was a particular favorite. From gardening with wildflowers, I went on to lead walks and do programs in local schools. I am still learning about and enjoying native plants. And it all started because I liked the pretty pictures and my family drank tea."



Dutchman's Breeches. Photo by William Cullina

## 2020 Volunteer of the Year



Anne and her dog, Henry. Photo by Rock Singewald

When **Anne Raver** moved to RI from Maryland in the fall of 2015, she joined RIWPS to learn about the area through our walks and lectures, but it wasn't long before she was drawn into volunteering. Having written about the garden and environment for the *New York Times* and several other publications for many years, she was soon putting her talents to work for RIWPS.

She joined Seed Starters East and soon after was asked to help publicize the plant sale. She raised the bar for promoting the event, writing press releases and feature articles for local papers, magazines, and online publications and arranging for interviews and photo shoots in member gardens.

She has also written pieces for *WildfloraRI*, including a "Cultivation Note" about Carolyn Curtis and "On the Trail with Doug McGrady" while also heading up *WildfloraRI*'s editorial team, which she describes as quite a collaborative adventure. She also served on the team that transformed the signs for our plants sales.

As a member of Walks and Workshops committee, Anne originated our "In the Landscape of" series. She also helps with programs, most recently setting up a lecture with Dr. Doug Tallamy and organizing a Beecology workshop with Dr. Robert Gegear.

Anne is also the author of *Deep in the Green: An Exploration of Country Pleasures*.

Anne has been trying to say no, ever since Susan Marcus first called her up and asked her if she wanted to volunteer.

## New Members

Jennifer Antonelli, East Providence, RI  
 Nicole Asal & Daniel Migliozi, Providence, RI  
 Sara Bradford, Providence, RI  
 Cary & Jared Bradley, Charlestown, RI  
 Ronald P. Byleckie, East Greenwich, RI  
 Jennifer & Alex Carr, Richmond, RI  
 Barbara Chaves, Wakefield, RI  
 Michelle Clark, Providence, RI  
 Elizabeth (Betty) Daniels, Providence, RI  
 Betsy de Leiris, North Kingstown, RI  
 Danielle Dispagne-Weiner, Cranston, RI  
 Martha Fraenkel & Michael McGlynn, Providence, RI

David Goudreault, Portsmouth, RI  
 Nicole Hagan, West Warwick, RI  
 Elisabeth Hoy, Wakefield, RI  
 Debra D. Huntington, Middletown, RI  
 Kathy & Pierre Irving, Newport, RI  
 Jackie Lemmon, Wakefield, RI  
 Elizabeth Lennon, Charlestown, RI  
 Barbara McKenna, North Kingstown, RI  
 Cynthia Ohanian, Barrington, RI  
 Nan Quinlan, Exeter, RI  
 Helen Wright, North Kingstown, RI

New RIWPS Members since December 2019 to March 8, 2020



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North Kingstown, RI 02852

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9 a.m. to 1 p.m. • rain or shine  
8 a.m. to 9 a.m. members only

@ URI East Farm  
Route 108 South Kingstown

appreciate • protect • study  
our native plants & habitats  
**RIWPS.org**

Mertensia virginica (Virginia bluebells) ©2020 Frances Topping

**The Best Native Plant Sale**  
in Rhode Island  
wildflowers, ferns, shrubs & more

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Lilium canadense (Canada lily) ©2020 Frances Topping