NATĪVE PLANT NEWS

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Species or Cultivar—Will It Make a Difference?

FOR MEMBERS AND SUPPORTERS OF NATIVE PLANT TRUST

SPRING/SUMMER 2021

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Saving Ecosystems

On World Environment Day, June 5, the United Nations will launch a "Decade on Ecosystem Restoration" with the aim of "preventing, halting and reversing the degradation of ecosystems worldwide." The U.N. ties its initiative to 2030 for a reason: it is "the timeline scientists have identified as the last chance to prevent catastrophic climate change" (see www.decadeonrestoration.org).

DEBBI EDELSTEIN
Executive Director

The new administration in Washington recognizes that climate change imperils the biological systems that sustain life. In January, President Biden committed to protecting 30 percent of the nation's land and coastal seas by 2030, goals originally articulated in "A Global Deal for Nature" (Dinerstein, et al., *Science Advances*, 19 April 2019) and now incorporated into the updated U.N. Convention on Biological Diversity. Currently, the nation protects about 26 percent of coastal waters, but only 12 percent of the land, according to the U.S. Geological Survey.

Our latest report, a collaboration with The Nature Conservancy, provides a roadmap—from the regional scale to the parcel level—for achieving that 30 percent goal for New England while saving plant diversity. It layers the conservation status of habitats and its newly identified Important Plant Areas with complex modeling of climate resilience to set priorities for land protection that preserves biodiversity. At a time when unified, sustained action is urgently need, the report gives policy makers, federal and state agencies, and land trusts the detailed information required to most effectively spend limited conservation dollars.

Native Plant Trust

VOLUME 8 | NO. 1

NATIVE PLANT NEWS

DESIGN
Moth Design
Rachel Wolff Lander

EDITORIAL
Jane Roy Brown;
jrbrown@NativePlantTrust.org

COVER
Monarch caterpillar on swamp milkweed (*Asclepias incarnata*), © William Cullina

Native Plant News is published by Native Plant Trust, an independent, nonprofit, member-supported organization. Subscriptions are included in membership dues. For information, contact: membership@NativePlantTrust.org.

IN BRIEF

Conservation in the Time of COVID

—Michael Piantedosi, Director of Conservation

As 2020 unfolded, the Conservation department adapted its plans for the field season to meet the challenges presented by travel restrictions, safety protocols, and working remotely. We decided not to bring our three interns to Framingham, and thus had to devise a rewarding and educational experience for people based in New Hampshire, Pennsylvania, and Florida. The virus postponed our fifth and final year of work to restore the summit of Cadillac Mountain in Maine and made traveling across state lines for field work nearly impossible—and even in-state travel lost the camaraderie of the road trip, as we could not safely ride in shared vehicles.

With more indoor time than usual, we developed the initial phases of our new Species Rare Occurrence Utility (SPROUT) database, which will efficiently create and track survey assignments for the Plant Conservation Volunteers (PCVs) and capture field data that our present outdated system requires them to enter by hand. A major milestone—though one that chiefly the staff and PCVs find exciting—was the creation of a plant reporting form, which six New England states have approved. The new form integrates the reporting requirements of each New England state into a single template, enabling consistent data collection (and later, analysis) across the region. Native Plant Trust continues to work to understand, at the regional scale, the distribution of threatened and endangered plant species, trends in their populations, and the habitats in which they are found.

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The Conservation staff has been discussing each of these changes for years. The unfolding reality of the COVID-19 pandemic gave us both the time and the urgency to act on many of these measures to make our programs more accessible and effective.

To help fund the SPROUT database, please see donation information on p. 5.

02 & 03

Farewelll to Cayte McDonough, Nasami Farm Nursery Production Manager

—Uli Lorimer, Director of Horticulture

After two decades with Native Plant Trust, Nasami Farm Nursery Production Manager Cayte McDonough retired at the end of March. She leaves a thriving propagation center that reflects her passion for plants, her talent for systematic thinking, and her ability to build a mousetrap out of—well, anything. She started out working as a nursery assistant at Garden in the Woods in 2000, working under then-propagator William Cullina. When the organization acquired Nasami Farm to expand its nursery operation, in 2003, Cayte oversaw propagation at both sites until moving to western Massachusetts, where Nasami is located.

In 2012, Native Plant Trust turned its focus to growing New England native plants from known-ecotype seed, and Cayte headed this new, mission-focused program, developing seed-collecting protocols, propagation techniques, and production systems. She also built a contract-growing program for restoring native plants to the landscapes of college campuses, land trusts, and national parks, not to mention introducing the popular pollinator kits for retail sale.

Cayte says, “I feel proud to have helped over a million native plants get started here. It has been rewarding work, contributing to the health of our planet. It has felt like my calling to work for an organization whose aim is to support our native flora and by extension our native ecosystems.”

For more about Cayte’s contributions, read an interview with her at www.NativePlantTrust.org (For Your Garden/Our Nursery).

Gifts in honor of Cayte McDonough support the seed-collection program at Nasami. Please use the envelope in this magazine, email gifts@NativePlantTrust.org for a link to our online giving page and stock-transfer information, or call Philanthropy Departmant at 508-877-7630 x3802.

01 Plant Conservation Volunteer in the field
Jessamine Finch © Native Plant Trust

02 & 03 Cayte McDonough, Alexis Doshas © Native Plant Trust; © Deb Donaldson

New Season, New Programs—Online and Otherwise

—Courtney Allen, Director of Public Programs

Learn how to turn your yard into a food oasis for birds, transform your lawn into a meadow, and prep your seedlings for success. Gardeners, look for favorite workshops on shade gardens, gardening for pollinators, and plant adaptations, plus new ones on plant palettes and native roses. These are among the 100 courses, lectures, and field studies in our spring/summer 2021 public programs, dozens of which are brand new. And most of them are either offered online now or can be adapted to run online. We are offering new field and landscape studies in person throughout New England, featuring designed landscapes by STIMSON design collective.

This summer, we're also rolling out a new, behind-the-scenes online series of book talks, featuring authors Darrel Morrison, Jonathan Drori, and others (see inside back cover). Other new virtual programs, such as Decolonizing Botany and Roots of Black Botany, explore diverse perspectives on the green world. To browse and register for programs, visit our Learn pages at www.NativePlantTrust.org.

Visitors to Garden in the Woods this season will be able to delve deeper into the Garden's history, collections, and ecosystems with a new, cell-phone-based audio guide and interpretive app. Use them to guide your live visit to the Garden or to take a virtual tour anytime. For more information, see the Visit/Garden in the Woods page at www.NativePlantTrust.org.

Loading the Seek Ark

—Jane Roy Brown, Writer-Editor

Five years ago, Native Plant Trust launched an initiative called the Seed Ark, designed to accelerate the banking of the seeds of New England's 389 species of rare and endangered plants to meet 2020 targets in the Global Strategy for Plant Conservation. A generous five-year challenge grant from the Hope Goddard Iselin Foundation encouraged matching support from the Bromley Charitable Trust and many individuals, which powered the efforts by Conservation staff, volunteers, and partners to collect, clean, and store seeds. Despite last year's travel restrictions and several years of drought, during which plants either did not set seed or did not produce enough to enable sustainable collection, Native Plant Trust has collected seeds from 92 percent of the bankable rare species and from 47 percent of the 3,300 identified populations.

"We're very proud of these achievements, but our goal is to collect from at least 65 percent of the populations," says Director of Conservation Michael Piantedosi. "We're closing in on our original goal, but we have additional targets based on what we have learned in the field, from our collaboration with state partners, and from some experiments we have conducted. We also want to begin collecting and preserving tissue from imperiled species, such as orchids, with seeds that cannot be banked within our current facilities, and to conduct testing to ensure we're capturing the range of genetic diversity. So, we still have work to do."

To support the Seed Ark or its endowment challenge, please contact Tracey Willmott, Director of Philanthropy, 508-877-7630 x3502; twillmott@NativePlantTrust.org.

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Take the SPROUT Challenge

Your support for a powerful new conservation tool will have twice the impact during our new $200,000 dollar-for-dollar challenge match. Conservation action relies on sound data, and this is a crucial time to analyze the effects of a warming climate on rare plants across our entire region—all 72,000 square miles of it. We have laid the groundwork for developing an innovative database and web application to integrate three decades' worth of botanical data collected from all over New England, to seamlessly upload field data in a standardized format accepted by all six state Natural Heritage programs, and to serve as the interactive hub for the hundreds of volunteers monitoring rare plant populations. When finished, the SPecies Rare Occurence UTility (SPROUT) will enable us to identify the trendlines of both threats and management strategies and set priorities for action.

Building this powerhouse requires the expertise of software engineers, and we need to raise $200,000 to fund their work. Thanks to several generous friends, we're already past the halfway mark. Your gift, doubled during the SPROUT challenge match, will help bring this exciting new technology on board to protect the native plants of New England.

To donate, go to www.NativePlantTrust.org/fundSPROUT, use the envelope in this magazine, email gifts@NativePlantTrust.org,or call our Philanthropy Department at 508-877-7630 x3802.

04 Highbush-cranberry (*Viburnum opulus*)
Dan Jaffe © Native Plant Trust

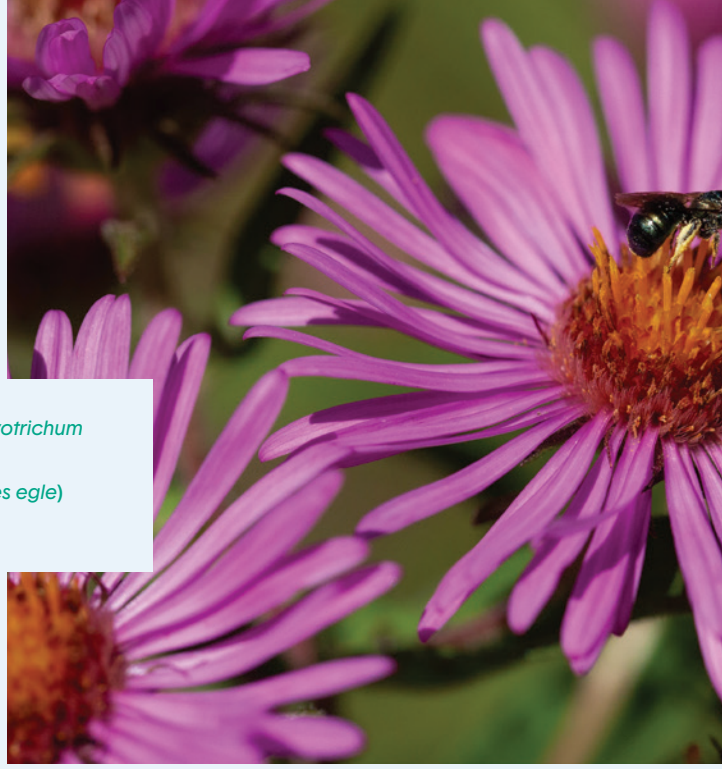
Cecropia moth caterpillar (*Hyalophora cecropia*), © Uli Lorimer

Planting a Species or a Cultivar—Will It Make a Difference?

—Uli Lorimer, Director of Horticulture

Gardeners in the Northeast are fortunate to have a wealth of plant choices available in nurseries, garden shops, catalogs, and big-box stores. As you begin planning your garden for the season, consider probing beyond your initial round of plant choices and ask why do I want to plant this? Is it simply for its beauty, or for some other purpose, like more shade or structure?

Perhaps we also should ask for whom do we garden—just for ourselves or for ourselves and the natural world? More and more gardeners are recognizing that their small patch of earth is connected to a local, regional, and global ecosystem, so the decisions you make in your garden can have real impacts on the natural world. Examining planting choices through this lens presents another set of questions: What can I plant that is best for local ecosystems? Which members of the animal kingdom can I support with my choices? And once I decide on those plants, where can I buy them? Finding the answers to these questions can be challenging for even experienced gardeners.



(Top) New England American aster (*Symphyotrichum novae-angliae*) with *Ceratina* sp. pollinator

(Bottom) Milkweed tussock moth (*Euchaetes egle*) caterpillars, Uli Lorimer © Native Plant Trust

Let me begin with a declarative statement: No one gardens better than Mother Nature. Her designs are exquisite, and the connections between plants, insects, and animals that she has forged result from countless generations of evolution. The consequence of this process is biodiversity, as measured not only in species richness, but also in genetic richness. Inviting that biodiversity into our gardens begins with choosing a majority of native plants for the garden, specifically the straight species of natives, if available.

The straight species of the plant evolved through natural selection and thus differs from a variety that humans have cultivated, often selecting for an aesthetic quality, like shorter habit, longer bloom time, or double flowers. These are cultivars, or cultivated varieties of the species, and they make up the majority of natives sold in nurseries. You can recognize a cultivar by the way the name is written, ending in a non-Latin name appearing in single quotes after the genus and species, such as *Clethra alnifolia* 'Hummingbird.'

Cultivars are billed as improvements over the species in terms of their aesthetic performance in the landscape. But from an ecological perspective, is a shorter perennial really better because it does not flop over? Perhaps if we planted the unadulterated species closer together, instead of spacing the plants so that they do not touch each other, adrift in a sea of mulch, the plants would hold each other up. Observations of plants in nature tell us that they are social organisms, growing in intimate contact with each other and relying on their neighbors for support. Furthermore, what changes are happening to the invisible traits of plants, such as nectar and pollen quality, when we select for traits such as shorter habit, altered flowering times, or darker foliage? The answer will require more research, but the question is still worth bearing in mind when browsing the season's touted new cultivars in your favorite garden shop.

Locally collected, seed-grown plants are the gold standard in genetic variety. When cloned cultivars succumb to a new blight or an intense drought, this seed-grown plant could end up being the individual capable of surviving climate change.

The way in which we propagate plants also plays a role in their ecological value. For example, cultivars that are patented must conform to patent law, which stipulates that the characteristics that make the plant unique must be stable and reproducible. That can be achieved only by cloning—creating a genetically identical copy—through cuttings, layering, or tissue culture. Patented plants, therefore, have less genetic diversity as a result of clonal propagation, rendering them less adaptable to changes in the environment. Cultivars that are not patented may also be propagated clonally, and it is nearly impossible for consumers to discover whether or not the plant they want to buy is a clone. In addition, the industrial scale of commercial horticulture demands that the large wholesale nurseries that supply the bigger garden centers and big-box stores use cloning techniques so that the crops remain reliable, consistently uniform, and economically profitable.

A 2017 study by the Mt. Cuba Center in Delaware revealed that 25 percent of the plants in wholesale nurseries in the mid-Atlantic region are natives; of that portion, only 25 percent are the straight species of natives (George Coombs, Denise Gilchrist). In other words, 75 percent of what wholesale nurseries offer are non-native plants, and of the remaining portion, 75 percent are cultivars. When we consider that many landscape designers, landscape architects, and landscape construction companies turn to wholesalers to get less-expensive prices on high-volume orders, the impact on the managed landscape is significant. Even if these professionals want to use only straight species, the available stock is insufficient. Homeowners face the same challenge.

If cultivars of natives bring less biodiversity to your garden, then locally collected, seed-grown plants are the gold standard in genetic variety. Each seed-grown plant is genetically unique and therefore adds genetic diversity to the population of its species. When cloned cultivars of the species succumb to a new blight or an intense drought, this seed-grown plant could end up being the drought- or disease-tolerant individual capable of surviving the age of climate change. We simply do not know, which is an argument for preserving as much genetic diversity as possible. But growing plants by seed on a commercial scale is extremely difficult. First, it is crucial to not over-harvest seed from natural populations. Second, seed germination takes longer than growing from cuttings, and the resulting seedlings are not uniform nor consistent. This is fine, even advantageous in nature, but not in the

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marketplace, where designers and gardeners demand particular qualities from every individual plant.

Your seed-grown plant also arrives in your garden with all its evolutionary relationships in place. When you consider that plants are the basis for the planet's food web, this is significant. Plant relationships with insects are especially crucial, because insects are food for so many different animal species, including songbirds. Although this is another crucial area where more research is needed, existing studies have shown that to successfully reproduce, 96 percent of all songbirds require insects to feed their young. And plants host those insects, so clear connections exist between native species that support the greatest diversity of insects and the future generations of our songbirds. One study has shown that plants in which the foliage color has been drastically altered—from green to red or purple, for instance—do not support the insect life that their original species do. Insects that rely on the foliage of those plants simply do not recognize the purple or red leaves as food (Emily Baisden, Doug Tallamy, Desiree Narango, Eileen Boyle, 2018). Tallamy and others have shown that yards with a minimum of 70 percent native plants are capable of sustaining greater insect and bird diversity than yards with a smaller percentage of natives (Narango, Tallamy, and Peter P. Marra, 2018).

What happens to pollinating insects, in particular, when we make changes to the flowers of native plant species is a question that Annie White, a lecturer in the University of Vermont's Department of Plant and Soil Science, is investigating. White has compared species and cultivars of those species in their ability to attract pollinators (University of Vermont doctoral thesis, 2016). Although she found that some cultivars are actually more attractive to pollinators, the results broadly show that pollinators prefer species over cultivars; and the more altered the cultivars are from their wild relatives, the less the pollinators prefer them. Double-flowered cultivars are gorgeous for us to look at, but they provide nothing for insects. In selecting for more petals, we have sacrificed pollen and nectar, and the end result is a plant that really serves only one audience. Perhaps plant breeders should begin focusing on making selections that increase pollinator activity rather than on looking to aesthetic qualities like habit, bloom time, and flower characteristics.

> The more altered the cultivars are from their wild relatives, the less the pollinators prefer them.

There is more to the question of whether cultivars are the ecological equivalent to species, and more research needs to take place before we can answer this question definitively. Weighing these concerns is difficult, and I do not intend that readers come away thinking that planting a cultivar of a native is wrong. The cultivar of a native species is far better than a non-native plant or a known invasive one. So far, we believe that the use of straight species, when available, supports the greatest amount of biodiversity and is something to strive for. When armed with more information, gardeners can decide what makes most sense for them and what choices can benefit ourselves and the planet.

01 **White trillium** (*Trillium grandiflorum* 'Multiplex') inflorescences, Uli Lorimer © Native Plant Trust

02 **Anemone meadow-rue** (*Thalictrum thalictroides* 'Cameo') Uli Lorimer © Native Plant Trust

IS IT EVER OK TO PLANT CULTIVARS?

Answer: Occasionally, and in moderation. This echoes the guiding principles of Native Plant Trust's shops, which do sell some cultivars, but only for a short list of reasons, according to Retail Manager Noni Macon. For example, perhaps the plant cannot be grown as a species at Native Plant Trust's nursery, Nasami Farm, or in another reliable, pesticide-free nursery, because the species is difficult to propagate or known to succumb to disease. In other cases, the specimen plant displayed at Garden in the Woods is a cultivar, such as the wild blue phlox (*Phlox divaricata* 'Blue Moon') in the Curtis Woodland Garden.

But these are exceptions. Alexis Doshas, manager of Nasami Farm nursery, explains, "We primarily focus on growing common native plants from seed collected in the wild by a team of trained staff and volunteers who research and document local sources of healthy, wild populations. This widespread sampling in the wild ensures that the native plants grown in our greenhouses represent the region's robust genetic diversity."

—Jane Roy Brown, Writer-Editor

03 **Woodland phlox** (*Phlox divaricata* 'Blue Moon') **and Wherry's foamflower** (*Tiarella wherryi*)
William Cullina © Native Plant Trust

01 **Monarch** (*Danaus plexippus*) **on milkweed** (*Asclepias tuberosa*)
Jessamine Finch © Native Plant Trust

Courting Monarchs
A Floral Romance

—Jessamine Finch, Research Botanist

The sighting of my first monarch butterfly (*Danaus plexippus*) of the year is a special moment —the flit of orange, perhaps a double-take, and the rise of elation as I track its flight path, which somehow is both bumbling and balletic. To invite these seasonal guests into your garden, you need only offer a diverse and lasting floral palette, including their darlings—the milkweeds.

Arrival (late spring to early summer)

Monarchs are impressive travelers, journeying from their wintering grounds in the oyamel fir-topped mountains of central Mexico to the farthest extent of their summer breeding range in southern Canada and back again, in the course of a single year. In southern New England, these alluring lepidoptera typically arrive in mid- to late May and continue northward—laying unobtrusive eggs along the way—reaching Maine by June. These assiduous nomads are eager to discover plants whose flowering phenology, or bloom time, comes at the start of the growing season, as nectar sources can be sparse at this point in their pilgrimage. To ensure a bountiful vernal welcome, consider adding or encouraging native, spring-blooming forbs (herbaceous flowering plants), to sustain monarchs and other pollinators until the more plentiful summer months.

Reproduction (throughout the growing season)

Female monarch butterflies must find milkweeds (*Asclepias* spp.) on which to lay their eggs, as milkweeds are the obligate host plants of the monarch caterpillar—in other words, the caterpillar feeds exclusively on these plants. Typically, a female monarch will lay only a single precious egg per plant, hidden from view on the underside of a leaf. Three to five days later, a tiny, pale larva hatches, first consuming its egg casing before gorging on the leaves of the milkweed plant. The caterpillars rapidly grow, maturing through five growth stages

(instars) demarcated by molts. As they mature and feed, the caterpillars accumulate the plant's toxic alkaloids as a chemical defense against predators. Monarch larvae and adults boast their unappetizing taste and toxic virulence through their conspicuous, aposematic or warning coloration. Many other herbivores that have specialized to feed on milkweeds also exhibit the red or orange-red and black coloration seen in adult monarchs.

In New England, we have 10 species of native milkweed, which vary in abundance, habitat, phenology (the timing of life-cycle events, such as flowering), and flower color, among other traits. While studies of relative egg abundance suggest female monarchs demonstrate preferences about which species they lay eggs on, they will use all 10 species, and preferences vary based on a number of factors, including the time of year, species availability, and plant maturity. Adding an assortment of milkweeds with different flowering times to your property maximizes the likelihood that a suitable host plant will be available at multiple points throughout the breeding season. It also increases the capacity for some milkweed to endure and recover from challenges like extreme weather and pests.

The introduction and spread of closely related non-native species has complicated monarch breeding. Like milkweeds, pale and black swallowwort (*Cynanchum rossicum* and *C.*

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SPRING NECTAR PLANTS

Canadian anemone (*Anemone canadensis*)
Field pussytoes (*Antennaria neglecta*)
Red columbine (*Aquilegia canadensis*)
Goat's beard (*Aruncus dioicus*)
Yellow wild indigo (*Baptisia tinctoria*)
Trailing arbutus (*Epigaea repens*)
Common strawberry (*Fragaria virginiana*)
Spotted crane's-bill (*Geranium maculatum*)
Little bluet (*Houstonia caerulea*)
Foxglove beardtongue (*Penstemon digitalis*)
Moss phlox (*Phlox subulata*)
Rue anemone (*Thalictrum thalictroides*)
Smooth spiderwort (*Tradescantia ohiensis*)
Common golden Alexanders (*Zizia aurea*)

MILKWEEDS OF NEW ENGLAND

Clasping milkweed (*Asclepias amplexicaulis*)
Poke milkweed (*Asclepias exaltata*)
Swamp milkweed (*Asclepias incarnata*)
Purple milkweed (*Asclepias purpurascens*)
Four-leaved milkweed (*Asclepias quadrifolia*)
Common milkweed (*Asclepias syriaca*)
Butterfly milkweed (*Asclepias tuberosa*)
Red-winged milkweed (*Asclepias variegata*)
Whorled milkweed (*Asclepias verticillata*)
Green milkweed (*Asclepias viridiflora*)

FALL NECTAR PLANTS

Forbs

Common yarrow (*Achillea millefolium*)
Boneset thoroughwort (*Eupatorium perfoliatum*)
Flat-top goldentop (*Euthamia graminifolia*)
Purple Joe-Pye weed (*Eutrochium purpureum*)
Wild bergamot (*Monarda fistulosa*)
Obedient false dragonhead (*Physostegia virginiana*)
Tall goldenrod (*Solidago altissima*)
Showy goldenrod (*Solidago speciosa*)
Seaside goldenrod (*Solidago sempervirens*)
New England American-aster (*Symphyotrichum novae-angliae*)
New York American-aster (*Symphyotrichum novi-belgii*)
New York ironweed (*Vernonia noveboracensis*)

Shrubs

Coastal sweet-pepperbush (*Clethra alnifolia*)
White meadowsweet (*Spiraea alba*)

02 Monarch egg on underside of common milkweed leaf (*Asclepias syriaca*), ©Jessamine Finch

03 Monarch caterpillar on underside of common milkweed leaf (*Asclepias syriaca*), ©Jessamine Finch

louiseae) hail from the dogbane family (*Apocynaceae*), but are native to Europe. Their chemistry, however, is so close to that of milkweeds that monarchs mistakenly perceive them as suitable host plants. Female monarchs will lay eggs on these plants, but the caterpillars die because they are not able to feed on them, wasting a precious opportunity to reproduce. If you come upon these herbaceous twining vines, remove them and be sure to dispose of seed pods and root fragments to prevent further spread.

Late in its fifth instar, a monarch caterpillar typically ventures off its milkweed host for the first time, in search of a site to undergo the final molt. Once it finds a site protected from predators and the elements, the caterpillar constructs a silk pad, which will serve as a crucial tether during its molt. Hanging upside down, its body position reminiscent of a turgid letter **J**, the caterpillar sheds its skin to reveal a jade-colored pupa, or chrysalis, featuring brilliant golden edging along its upper margin. About two weeks later, the butterfly emerges. Metamorphosed and equipped with new feeding abilities, it craves a sweet drink.

While their journey north occurs over multiple generations, akin to an intergenerational relay race, monarchs can return to a homeland they have never seen in a single generation.

Departure (late summer to mid-fall)

As the days begin to shorten and the milkweeds start to wither, monarchs succumb to the seasonal pull beckoning them south. While their journey north occurs over multiple generations, akin to an intergenerational relay race, monarchs can return to a homeland they have never seen in a single generation. A bounty of fall-blooming nectar plants along their migratory corridor nourishes these wanderers and ensures a robust overwintering population, and their sprightly return come spring.

POLLEN PACKED IN A GOLDEN NUGGET

The unique form of milkweed flowers enables insects to pick up a tiny parcel of pollen neatly packaged for transport. Unlike most other flowering plants except orchids, milkweeds do not produce loose pollen grains that cling to a pollinating insect's legs and body. Instead, milkweeds pack their pollen into waxy, golden nuggets, called pollinia. Pollinators, primarily bees and wasps, are drawn to the flower's abundant nectar in tapered, petal-like structures called hoods, which are formed by fused filaments. In the center of the flower, vertical slits open into a chamber where fertilization will occur. Just above the opening is a small, dark knob that binds together two pollinia hidden in sac-like anthers. As insects sip nectar from the hoods, their legs may slip into the slits and catch on the two, conjoined pollinia (called a pollinarium), pulling the pollinia free when it flits away. (Some smaller insects, alas, get trapped permanently in the slit.) Landing on another milkweed flower, the pollinator slips its legs into the vertical slits, depositing its golden cargo in the new flower's chamber. —J. F.

(Top) Pollinia stuck to hind foot of Dark-veined Long-horned bee (*Melisodes trinodis*), © USGS Bee Inventory and Monitoring Lab, Beltsville, MD

(Bottom) Monarch (*Danaus plexippus*) on butterfly weed (*Asclepius tuberosa*), © Jessamine Finch

Rare Plant Spotlight

Red-stemmed Gentian (*Gentiana rubricaulis*)

—Arthur Haines, Senior Research Botanist

New England is home to four species of gentians (genus *Gentiana*) that bear flowers of striking deep-blue hues, with some white-flowered forms. These perennial species bloom in late summer and are pollinated by bumblebees, which must force their way into the interior of the corolla, because the flowers are closed. But the genus also includes an outlier, red-stemmed gentian (*Gentiana rubricaulis*), which fascinates botanists because of its range disjunction, regional rarity, and morphology, or form.

Red-stemmed gentian, while superficially resembling the bottle gentians (e.g., *G. andrewsii*, *G. clausa*), has flowers that open, if only a little, making them easier to pollinate. And rather than being pure blue, the flowers of these plants in New England are often tinged with red. Also, the leaves of *G. rubricaulis* are pale green or pale yellow-green, in contrast to the green to dark-green leaves of other gentians.

The mystery of *G. rubricaulis* is an unexplained range disjunction, or gap, of 481 miles (775 km) between the center of its range around the Great Lakes, primarily west of Lake Huron, and some rare occurrences in west-central Maine and New Brunswick. The plants in the Northeast and those in the Great Lakes region appear to be morphologically similar. In Maine, the enigmatic species has also hunkered through a 75-year span between sightings. After 1932, no one reported seeing the species until 2007, when a botanist spotted several plants in the open right-of-way of a gas pipeline, usually in or adjacent to wet soils.

Please consider supporting our research, which is vital to conserving New England's rare species, at www.NativePlantTrust.org/support.

Red-stemmed gentian (*Gentiana rubricaulis*)

Native Plant Trust

2020 ANNUAL REPORT

The combination of a first-rate staff, terrific volunteers, and generous members and supporters enables this small organization to have a big impact. With your continued support, we'll move forward on our ambitious agenda to save, grow, and teach people about native plants.

Michael Piantedosi © Native Plant Trust

BY THE NUMBERS

87
NEW RARE PLANT POPULATIONS DISCOVERED

28,695
VOLUNTEER HOURS IN CONSERVATION

1,266
VOLUNTEER HOURS IN HORTICULTURE

193,287
SEEDS OF RARE PLANTS PROCESSED FOR SEED ARK

644
rare plant surveys

620
questions answered on Go Botany

128
collections of 96 rare taxa for Seed Ark

38 FEDERAL & STATE PARTNERS IN CONSERVATION PROJECTS

23
education partners

119
public programs online

240
hometowns in 35 states for people taking online programs

264
new plant accessions at Garden in the Woods

42,000
COMMON PLANTS GROWN FROM SUSTAINABLY COLLECTED SEED

5,000 PLANTS GROWN OF 50 NATIVE SPECIES NOT AVAILABLE IN NURSERY TRADE

Message from the Treasurer

In 2020, despite the pandemic, Native Plant Trust continued its record of success in core programs and maintained a strong financial position.

The organization continued to attract support for key initiatives and ended the year with an increase in net assets of $1,213,446, for a total of $16,853,835. Net assets include $8.9 million in permanently restricted endowment funds, $2.8 million in accumulated earnings on endowment funds, and $756,970 in gifts restricted by donors to specific initiatives. Gifts to the endowment this year included the second $100,000 installment on a five-year pledge for the Seed Ark and $450,000 toward the establishment of two new endowment funds.

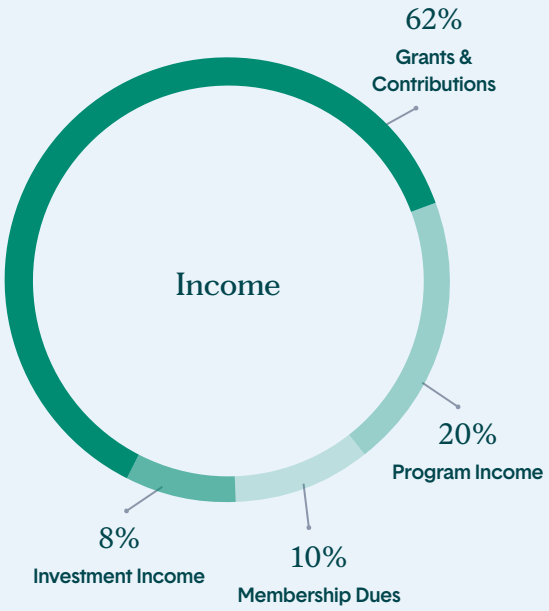
The year concluded with a change in net assets in operations of $120,008. The operating balance does not include recognition of a $332,900 loan from the federal Paycheck Protection Program. It is carried as a liability in 2020 and will be recognized as income in 2021, once the pending application for loan forgiveness is approved by the Small Business Administration.

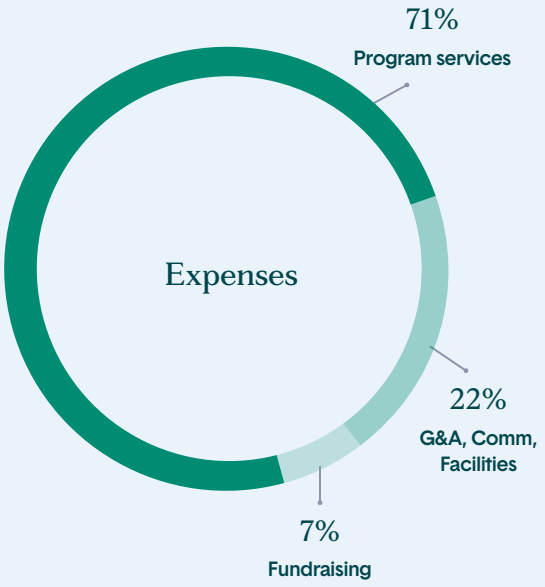
Thanks to the hard work of our Board, staff, volunteers, and the generous gifts of our many members and supporters, Native Plant Trust had an impressive year in 2020.

TONY WAIN
Treasurer

Fiscal Year 2020 Operating Results

INCOME	
Grants and Contributions	$2,098,402
Program Income	$691,603
Membership Dues	$340,023
Investment Income	$257,364
TOTAL INCOME	**$3,387,392**
EXPENSES / PROGRAM SERVICES	
Conservation & Sanctuaries	$767,162
Horticulture	$718,547
Education	$284,648
Member Services	$236,772
Retail Shops	$308,479
Total Program Services	**$2,315,608**
EXPENSES / SUPPORT SERVICES	
G&A, Comm, Facilities	$729,490
Fundraising	$222,286
Total Support Services	**$951,776**
TOTAL EXPENSES	**$3,267,384**
OPERATING SURPLUS (DEFICIT)	**$120,008**





A complete copy of the audited financial statements is available on our website or upon request by emailing twillmott@NativePlantTrust.org.

For Polly Pierce: Three Cheers, and Then Three More

—By Tracey Willmott, Director of Philanthropy

There are people in the world who cannot be celebrated enough. One of them is Polly Pierce, whose election as an Honorary Trustee of Native Plant Trust is the latest of many accolades for a lifetime of dedication to native plant conservation. Polly has served as the chair of the Board of Trustees and on almost every committee since first becoming a member in 1974. Even in her ostensible retirement from the board, Polly maintains a keen interest in conservation actions taking place across New England and strongly advocates for expanding the reach of Native Plant Trust's message and mission. "This organization is uniquely placed to have a regional and national, even international, impact. Its hundred-plus years of scientific research and history of gathering field data will help answer conservation conundrums not yet imagined."

When asked for a few highlights from her long list of achievements, Polly modestly points to organizational successes. She describes the joy of working with three great institutions—Native Plant Trust (under its former name), Missouri Botanic Garden, and Arnold Arboretum—to establish the national Center for Plant Conservation, with the aim of ending the extinction of native plants in the USA. Another proud accomplishment is working with Director of Conservation Emeritus Bill Brumback to bring the rare Robbins's cinquefoil (*Potentilla robbinsiana*) on the summit of Mount Washington back from the brink of extinction, making it the first plant whose recovery took it off the federal Endangered Species List. Polly credits the staff for these successes and says her role has always been to "make connections to gather the best experts together, give them encouragement and support, and watch the magic happen."

Polly's energy and enthusiasm inspire all who meet her to care about native plants in the wild and in their gardens. As she reminds us: "Plants need people, to protect and speak up for them, and people need plants, simply to live a healthy existence. We need to understand that we all need one another."

Polly's message for the next generation of conservation leaders, and for everyone reading this article, is "Work together and get things done!" You can be sure that she will be leading the cheers for your efforts to conserve and promote native plants. For all this, and so much more, we thank Polly and offer her the standing ovation she so richly deserves.

Polly Pierce, © Native Plant Trust

Robbins's cinquefoil (*Potentilla robbinsiana*)
© Doug Weihrauch, AMC

CELEBRATĪNG YOU—AND WHAT YOUR AMAZĪNG COMMĪTMENT TO NATURE MEANS

Thank you to everyone who understands that plants are the cornerstones of life on our planet and whose financial support has helped conserve and promote New England's native plants. We especially want to recognize those of you who have made Native Plant Trust one of your philanthropic priorities.

CONSERVATION CIRCLE AND LEADERSHIP GIFTS

The total giving noted here is for fiscal year 2020, ending December 31, and reflects restricted and unrestricted gifts, membership dues, and pledges. Our Conservation Circle honors individuals whose generous support reached $1,000 or more. Leadership gifts and grants from companies and foundations also had an extraordinary impact.

† Denotes deceased donors

$100,000+

Anonymous (4)
Bromley Charitable Trust
Abby and Peter B. Coffin
Hope Goddard Iselin Foundation
Schwab Charitable Gift Funds
Jackie and Thomas Stone
Estate of Dorothy D. Thorndike†
Martha Wallace and Ed Kane

$25,000 - $99,999

Anonymous (2)
John C. Barber
Fidelity Charitable Gift Funds
Litowitz Foundation, Inc.
Michele H. Mittelman
Estate of Elizabeth S. Paynter†
Barbara and Edward Scolnick

$10,000–$24,999

Anonymous (4)
Lalor and Patricia N. Burdick
Center for Plant Conservation
Frances H. Clark and Bernard J. McHugh
Edward N. and Arabella S. Dane
Ruah Donnelly and Steven E. Dinkelaker
Helen Clay Frick Foundation
Marjorie D. and Nicholas P. Greville
Estate of Ethel Halsey+
Johnson-Stillman Family Foundation
Jessie B. and Jon Panek
Geri and Douglas D. Payne
May H. Pierce
J. F. Swope Fund
U. S. Charitable Gift Trusts
Vanguard Charitable Funds

$5,000 - $9,999

Anonymous
Molly and John E. Beard
BNY Mellon Charitable Trusts

Even with travel restrictions due to the pandemic, we were able to collect seed from 116 populations of rare plants across the six New England states in 2020. In addition, 170 generous donors responded to last year's Seed Ark Endowment Challenge Match. There is a new Challenge Match for 2021, so please consider helping preserve genetic material of our region's most endangered native plants forever.

Native Plant Trust partnered with The Nature Conservancy to write a new report, funded by a generous individual, about the conservation of plant diversity in New England. To be published in 2021, it contains key information and data for anyone interested in the intersection among plant conservation, land management, and land protection.

Community Foundation of Western Massachusetts
Christopher R. and Carole M. Ely
Deborah Hellmold
Elizabeth B. and Edward C. Johnson
Dr. Kristina N. Jones
Massachusetts Cultural Council
New Hampshire Charitable Foundation
Osceola Foundation, Inc.
Bob and Amy Rands
Kathleen E. and Robert C. Shamberger
Caroline Blanton Thayer 1990 Charitable Trust
Carolyn and Sturtevant Waterman

$1,000 - $4,999

Louise F. Ahearn
Annemarie Altman
Anonymous (5)
R. Ellen Avellino
James R. Baker
Bank of America
Marilyn and Peter Barlow
Beacon Hill Garden Club
Benevity, Inc.
Susan B. Bergman
Janet S. and Dr. Robert A. Bissell
Benson P. Blake and Margaret E. Slichter
Boston Foundation Gift Funds
David A. Bristol, Jr.
Aviva and Douglas Brooks
Ralph Brown and Sue Murray
Kimberly and Dennis Burns
Ronald R. Campbell
Dr. Rebecca Cannon and Dr. Scott Miller
Diana Chaplin
Lucinda Chrislip
Anna F. and David W. Clark Fund
Susan B. and David D. Clark
Combined Jewish Philanthropies of Greater Boston, Inc.
Community Foundation of Western Massachusetts
Dr. David L. and Dr. Rebecca E. Conant
Kathleen and Paul Connolly
William G. Constable
Judith H. Cook
Dr. William W. and Martha P. Cooper
Stuart L. Cummings
Elizabeth J. and John Darley
Gail Davidson and Thomas R. Gidwitz
Martha R. Davis
Melissa A. Davis
Chandler A. Dumaine
Margaret Dumaine
Pamela B. and David W. Durrant
Suzanne W. and Alan J. Dworsky
Ralph C. Eagle, Jr.
Echo Charitable Foundation
Debbi Edelstein
Courtney Ek and Steven Tsai
Ann R. Elliman
Ellis Charitable Foundation
Lucia R. and Jon Evans
Charles and Carol Fayerweather
Lisa and George B. Foote
Foundation for MetroWest
Janet W. and John P. Ganson
Newton Garland
Sarah O. Garland-Hoch and Roland E. Hoch
Keith E. and Jennifer H. Garrant
John Goetz
Google Inc.
Mary Griffin and Andy O'Neill

Importance of learning as a way to unite us and the hope offered by nature's resilience inspired 434 people to take part in the Public Programs Challenge Match, making it possible for more than 200 in-person classes to be converted into online formats during the global health crisis.

Harold Grinspoon Charitable Foundation
Suzanne Groet
Kimberly E. Gurlitz and Eliott Morra
Robert and Michele Hanss
Douglas B. and Susan B.† Harding
Hartford Foundation for Public Giving
Timothy Helbig and Adam Beerman
Daniel Hildreth
Ingrid J. and John M. Hotchkiss
Andrea and Brad Hubbard-Nelson
William I. and Laura Huyett
Yutaka and Sally T. Ishizaka
Martha Jorz
Althea and David Kaemmer
Barbara Katzenberg and Peter Piela

Dr. Barbara M. and Robert A. Keller
George Kocur and Katherine Woodworth
Marilyn K. Kucharski
Peggy Lahs
Marta Jo Lawrence
Lucinda H. and David S. Lee
Madeline Leone and John Mastrobattista
Emily L. and George Lewis
Faye H. and David P. Lieb
Deborah and Bob Lievens
David L. Lindsay
Ellen West Lovejoy
Brian K. and Anne S. Mazar
Stephen McCarthy
Virginia McIntyre and John Stevens
Deirdre Menoyo
Elizabeth A. and Bernard Meyer
Professor Helen Michaels
Wyatt J. and Gwyn A. Mills
Anthony Mirenda and Tracey Cornogg
Michele H. Mittelman
John W. Murphy
Dr. Christopher Neill and Dr. Linda A. Deegan
Lita and Donald Nelsen
Network for Good
Ken Nimblett
John O'Keefe and Mark Smith
Lise M. Olney and Timothy W. Fulham
Carolyn M. and Robert T. Osteen
Overhills Foundation
Robert Treat Paine Association
Richard B. and Beverly S. Peiser

Four new bridges over streams and ravines at the 40-acre Annie Sturgis Sanctuary in Vassalboro, ME, were completed late last spring. The work came at an ideal time for people seeking the solace of nature to enjoy safely distanced walks at this state-listed Critical Natural Area.

Edward P. Petcavage
Karen D. and Matthew V. Pierce
Plimpton-Shattuck Fund
Dr. Sandra Poole and Dr. David Meeker
Barbara F. and Frederick M. Pryor
Christine A. Psathas and Robert E. Shabot
Elisabeth A. Raleigh
Pamela P. and Griffith L. Resor
Peter M. Richards
Estate of Sandra S. Rodgers†
Lucas Rogers and Mathieu Gagne
Bonnie Rosenthall
Elizabeth Ross
Johanna Ross
Sacajawea Charitable Foundation
Betty and Neal H. Sanders
Susan Schadler and Leslie Lipschitz

Before the winter set in, the Visitor Center at Garden in the Woods, our renowned native plant botanic garden in Framingham, MA, received a much-needed new roof, thanks to a generous donor. The leaks are gone and the people and merchandise inside the building are now warm and dry.

Sarah T. Schwaegler
Patricia Seitz
Ruth and Bill Shelley
Diana D. Simoni
Nicholas A. Skinner
Dr. Alan E. Smith and Leigh A. Dunworth
Edwin E. and Katherine T. Smith
Michelle Smith and Daniel Morse
John Springfield
Susan P. Thel
Dr. Thomas S. and Karen Thornhill
TIAA Charitable Gift Funds
Cornelia Trubey
Upper Valley Native Plant Conservation Fund

Emily Wade
Kirsten Waerstad and Dharmesh Shah
Tony and Lorraine A. Wain
Dr. Denham Ward
Janet Weathers and Ronald Cobb
Hartley D. and Benson Webster
Charles H. and Louise E. Weed
Paul M. Wexelblat
Jim and Betty Wickis
Wilma K. Wilensky
Robin E. Wilkerson and Steve Atlas
Tracey Willmott
Christina D. Wood
Richard S. Wood
Sara L. Wragge
Kathy H. Wrean and Hugh W. Chandler, Jr.
Candace J. Young

$500 - $999

American Meadows, Inc.
William S. Andreas

Two ebb-flow benches were installed at Nasami Farm last year, thanks to a grant from the Harold Grinspoon Charitable Foundation. The benches provide 240 square feet of irrigation for seedlings and allow for significant reductions in water use at the nursery.

Alexandra S. Andrews
Anonymous (3)
Karin and Edward Baker
Nancy A. Benchoff
Lisa M. Bendixen
Ellen A. Bisshopp and Ray A. Capobianco
Dr. Sarah L. Booth and Dr. Edward Saltzman
MaryAnn Borge
Peter M. and Elaine Brem
Lee Carter
City of Lawrence, MA
John A. Clark and Elizabeth P. Barringer
Francine and William E. Crawford
Crawford Foundation
Elizabeth J. and John Darley
James Doris and Lucille Cameron
Samuel H. and Nancy J. Duncan
Essex County Community Foundation
Robin B. and Samuel Fan
J. Skyla Fay
Stephen D. and Frances M. Fink
James Frantzreb and Isabel Simons
Caroline B. and Ralph A. Gakenheimer
Julianne and Harris Galkin
Catherine Gandek
Garden Club of Mount Desert
Virginia Gauss
Deborah A. and David M. Geltner
Joyce M. Greenleaf and Mike Fallon
Beverly J. Greer
Michael Halle and Joanna Kulik
Jane C. Hallowell
Catherine Hanss
Rebecca M. Harvey
Steve Hatfield and Patrick Riordan
Dr. Kendy M. Hess
Lucile P. and William C. Hicks
Timothy T. Hilton and Sara Miller
James and Elizabeth Holman
Karen Howat
Richard K. Johnson
Laura and Eric Jordahl
Louise Keogh-Weed and John Keogh
Dr. Alvin Kho and Myles Green
Warren King
Susan M. and Christopher A. Klem
Lynne Klemmer and Erik Husby
Curtis W. Marble
Donald B. Miller and Anne Gibbs
Enid R. Mingolelli
Morgan Stanley Global Impact Funding Trusts
Noanett Garden Club
Michela Nonis and Robert Moss
Thomas Norton
Peggy and Rick Novak
Deborah Nowers and Henry E. Peach
Melinda S. and Robert E. Oleksiak
Dr. Leroy M. and Dr. Winifred B. Parker
Jenny and Jeff Peet
Chris and Vicki Perley
Wallace Pinfold
Bonnie B. Potter
Ute and Patrick Prevost
Judith Robichaud
John C. Rounds
Barbara V. and George R. Rowland
Wickie Rowland
Susan N. Scheible
Eva Schocken and Kerry Dietz
Loring L. and Andrew M. Schwarz
Linda Skeff and Tracey Parrin
Nancy Serrell and Christine Shields
Sarah and Dan Shure
Dr. Dick Snellgrove
Elizabeth F. and Gary A. Spiess
Carol Spindel and Thomas J. Bassett
Fredericka and Howard Stevenson
Dee and Bob Stewart
Anne Symchych
David V. N. Taylor
L. Jeanne VanPatten
Vermont Community Foundation
Estate of Mary E. Wheeler†
Elizabeth and Hugh M. Wilkinson III

Local Cultural Council grants made it possible for eight towns to host our virtual "Plant Communities of Massachusetts" talks, free of charge. These lectures offered residents the opportunity to learn about their area's habitats and ways to conserve local natural resources—an entry point for neighbors to start thinking about working together to protect their green spaces.

LIFE MEMBERS

These dedicated individuals have chosen to play a long-term role in the preservation of our region's native flora by becoming life members.

Anonymous
Judy A. Artley and Charles T. Moses
Nancy H. August
John C. Barber
Julia A. Barber
William Brumback
Patricia Callan and Chuck Crafts
John S. and Jane Chatfield
Terry A. Chvisuk
Edward H. and Sandy Coburn
Frederick and Jeanine Coburn
Martha F. Coburn and Robert W. Carlson
Robert S. Coburn
Virginia and Jay Coburn
Judith H. Cook
Jane Davis
David L. DeKing
Patricia A. Diggins
Ann Dinsmore and Richard Nemrow
Elizabeth Dudley
Elizabeth S. and Frederic A. Eustis
Janet Fillion and Richard Laine
Mary F. and Joseph Fiore
Joanne C. and Lionel L. Fray
Anne and Walter J. Gamble
Newton Garland
Nancy Goodman and Mike Kotarba
Christine M. Gradijan
Marjorie D. and Nicholas P. Greville
Charles A. and Barbara A. Grunden
Jane C. Hallowell
Ervina Hamilton
Dena and G. F. Hardymon
Allyson Hayward
Deborah Hellmold
Thelma K. and John H. Hewitt
Dr. Kristina N. Jones and Dr. Peter Hecht
Larry L. Jones
Kathleen A. Klein

Marjorie Roy, a long-time and invaluable volunteer, received a Life Membership as the winner of the 2020 Service Award. Congratulations, Marge, and thank you for many years of hard work and diligence. COVID-19 prevented us throwing a party, but we've been celebrating you from afar!

Catherine Z. Land
David R. Longland
Ellen West Lovejoy
Eugene I. Majerowicz
Ellen B. and Duncan McFarland
Michele H. Mittelman
Monadnock Garden Club
Sally McGuire Muspratt
Beverly Myers
Bruce Patterson
Judith Pierce
May H. Pierce
Peggy and Hollis Plimpton
E. M. Poss
Patricia Pratt
Christine A. Psathas and Robert E. Shabot
Harriet D. Purcell
Dr. Paul John Rich
Johanna Ross
Barbara V. and George R. Rowland
Marjorie H. Roy
Maureen L. and Michael C. Ruettgers
David B. Rundle and Catherine M. Huntley
Aire-Maija Schwann
Catherine Schwenk
Robin R. Shield and John Tariot
William and Hatsy Shields
Mary M. Smithline
Peggy Spaeth
Gwen L. Stauffer
Anne Stone
Edward S. Valentine
Emily Wade
Nancy L. Weiss
Louise Westcott
Weston Garden Club
Cheryl K. Wilfong
Robin E. Wilkerson and Steve Atlas
Patty Wylde
Margaret F. and T. C. Price Zimmermann

TRILLIUM SOCIETY

To help ensure our future ability to conserve native plants and their habitats, the following generous friends have included us in their estate plans.

Elizabeth L. Aghajanian
Annemarie Altman
Anonymous (2)
Joyce H. Bisson
Lalor Burdick
William J. Claff
Frances H. Clark
Abby Coffin
Stuart L. Cummings
Ruah Donnelly
Peter V. Doyle and Ellen Clancy
Christopher R. Ely
Nancy Goodman
George C. and Diantha C. Harrington
Patti Laier
Mardi J. Mauney
Stephen J. McCarthy
Deirdre Menoyo
Carole M. Merrifield
Bettina L. Messana
Carolyn M. Osteen
Jessie B. Panek
Geri and Douglas D. Payne
Karen D. and Matthew V. Pierce
Barbara F. Pryor
Dori Smith
Anita E. Springer
Jackie and Thomas E. Stone
Mary Ann Streeter
Leslie Turek
Dr. Edward S. Valentine
Martha J. Wallace
Dr. Nancy L. Weiss
Cheryl K. Wilfong
Patty Wylde

TRIBUTES

In 2020 we received honoraria or memorial donations in tribute to the following friends, colleagues, mentors, and loved ones.

In Honor of

Patricia A. Barker
Ralph Brown
Arabella Dane
Melinda C. Dietrich
Dr. Jessamine Finch
Marjorie D. Greville
Barbara Keller
Lazarus Family
Mary McCarthy
Darrell Nichols
Mary Norton and Leila Duncan
Pumpkin Brook Organic Gardening
Amy Robinow
Sarah Shure
Nancy Sodano
Marty Wallace
Jen Werner
Paul Wexelblat
Priscilla Williams

In Memory of

Vincent Aliberti
Robert M. August
David A. Bristol, Sr.
Hugh J. and Elizabeth L. Caperton
Richard Collins
Dr. Shirley G. Cross
Susan Dumaine
Elizabeth Jean Erskine
Dr. Elizabeth Farnsworth
Susan S. Harding
Joan S. McBrien
James Meuse
Nancy A. Mondock
Elizabeth Nichols
Ruth Oelbaum
Elizabeth S. Paynter
Lydia Pastuszek
Gloria Prevey
Bruce Schwaegler
Janet K. Springfield
Sally J. Walker
Gray H. Wexelblat

A fellow lifelong learner has established the Farnsworth Horticulture Internship in tribute to the many accomplishments of our late colleague Dr. Elizabeth Farnsworth. Her legacy in education and botany will continue as future generations benefit from the knowledge they receive through this newly endowed position.

GIFTS-IN-KIND

Gifts-in-kind allowed us to expand our programmatic impact even amid the global pandemic in 2020. It is our pleasure to thank the following donors.

Carole A. Merrifield
David A. Mittelstadt
Biology Department of Smith College
Wayside Sewing

MATCHING GIFT COMPANIES

We extend special thanks to these businesses and their employees for their generous support in 2020.

AbbVie Inc.
Aetna Foundation, Inc.
Apple Inc.
Autodesk
Bright Funds
Colony Capital, Inc.
Dell Technologies
Google, Inc.
Great-West Financial
Hartford Fire Insurance Company
IBM Corporation
JP Morgan Chase
Mass Mutual
MFS Investment Management
PIMCO Foundation
Saint-Gobain Corporation
TripAdvisor LLC
UnitedHealth Group
Vertex Pharmaceuticals
VMware Foundation

HAPPENĪNGS

MEET THE AUTHORS
A NEW BOOK TALK SERIES

Premiering this season, the Author Book Talk series highlights top new books on botany and horticulture. In live, online talks, the authors will discuss their books and field questions and comments from the audience. All author book talks are $12 members/$15 nonmembers (www.NativePlantTrust.org/education). The books are available at our Garden Shop (508-877-7630 x3601).

Grasses, Sedges, Rushes: An Identification Guide

with authors Lauren Brown and Ted Elliman
Friday, June 25, 2021, 6-7 p.m.
Program Code: LEC9001

Beauty of the Wild

with author Darrel Morrison
Friday, August 6, 2021, 6-7 p.m.
Program Code: LEC9004
In collaboration with Library of American Landscape History

Around the World in 80 Plants

with author Jonathan Drori
Friday, September 10, 2021, 6-7 p.m.
Program Code: LEC9002

Native Green Garden

with author Ellen Sousa
Friday, October 1, 2021, 6-7 p.m.
Program Code: LEC9003

SIGN-UP

Sign up for our free eNews to get updates about our public programs, events, and other activities.

Visit www.NativePlantTrust.org and click on eNews in the footer on any page.

Native Plant Trust

Conserving and promoting New England's native plants

HEADQUARTERS & GARDEN IN THE WOODS

180 Hemenway Road
Framingham, Massachusetts 01701–2699

CLIMATE CHANGE CAN-DO:
PUMP UP YOUR TIRES

Even a road-weary beater can get from 0.6 to 3 percent more mileage if you inflate its tires to the right pressure—the pounds per square inch (psi) shown on the sticker on the driver's side door jamb or the glove compartment—according to the federal Office of Energy Efficiency and Renewable Energy. By the way, don't use the pressure printed on the tire's sidewall, which is the maximum, not recommended for daily use. See more tips at www.fueleconomy.gov.