

# NATIVE PLANT PROGRAMS

VIRTUAL PROGRAMS EDITION

Conserving and promoting  
New England's native plants  
to ensure healthy, biologically  
diverse landscapes

## ABOUT NATIVE PLANT TRUST

Native Plant Trust is the nation's first plant conservation organization and the only one solely focused on New England's native plants. We save native plants in the wild, grow them for gardens and restorations, and educate others on their value and use. We are based at Garden in the Woods, a renowned native plant botanic garden that attracts visitors from all over the world. From this flagship property in Framingham, Massachusetts, 25 staff and many of our 1,500 trained volunteers work throughout New England each year to monitor and protect rare and endangered plants, collect and preserve seeds to ensure biological diversity, detect and control invasive species, conduct research, and offer a range of educational programs. Native Plant Trust also operates a nursery at Nasami Farm in western Massachusetts and manages six sanctuaries in Maine, New Hampshire, and Vermont that are open to the public. Native Plant Trust is among the first organizations worldwide to receive Advanced Conservation Practitioner accreditation by London-based Botanic Gardens Conservation International (BGCI), which included an endorsement by an International Advisory Council representing six continents. Please visit [www.NativePlantTrust.org](http://www.NativePlantTrust.org).

## Table of contents

Events	pg. 6
Online Learning	pg. 8
Botany & Conservation	pg. 19
Field Studies	pg. 25
Certificate Program	pg. 28
Horticulture & Design	pg. 36
Landscape Studies	pg. 42
Children & Families	pg. 44
Registration & Membership	pg. 46
Donate	pg. 47

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Many of our programs qualify for continuing education units. Below is a list of CEUs we offer. Visit [NativePlantTrust.org/education](http://NativePlantTrust.org/education) for a list of qualifying programs.

**AOLCP** - Northeast Organic Farming Association Accredited Organic Land Care Professionals

**CFE** - Society of American Foresters' Continuing Forestry Education

**LACES** - American Society of Landscape Architects' Continuing Education

**MCA** - Massachusetts Certified Arborist

**MCH** - Massachusetts Certified Horticulturist

**MCLP** - Massachusetts Certified Landscape Professional

## Native Plant Trust

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Program catalog is published twice a year by Native Plant Trust. Members receive discounts on all programs. Annual membership dues start at \$40 for individuals. See page 46 for information.

Printed on recycled paper.

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### ON THE COVER

Cardinal-flower (*Lobelia cardinalis*) by Native Plant Trust



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*Courtney E. Allen*



**COURTNEY ALLEN**  
Director of Public Programs

Over the past year, Native Plant Trust has welcomed thousands of new and returning learners to our programs, safely conducted exclusively online. The pandemic has motivated more people to get outside and discover the plant world, and our learning resources support that exploration. As we plan for the season of warmer weather and nature's renewal, we hope to provide you with a range of formats for accessing the outdoors, innovation, and research—from new field studies spanning New England to our new book talk series featuring authors such as landscape architect Darrel Morrison. Learning continues to unite us and help us thrive.

The events of 2020 also highlighted the importance of social justice. We will explore democracy's relationships to native plants in our new spring symposium on Native Plants and The Future of Public Spaces, as well as new programs such as Decolonizing Botany, Roots of Black Botany, and Environmental Justice. We look forward to continuing to feature a diversity of plant-relevant perspectives. We thank you, our community, for continuing to learn with us and to build hope during challenging times.





Bunchberry  
(*Chamaepericlymenum canadense*)  
© Native Plant Trust

# Events

## Tales from the Field

Join Native Plant Trust for an evening of plant adventure storytelling. Listen to some of the region's top botanists, horticulturists, and fellow plant geeks share their most riveting and hilarious tales from the field, then cast your vote for the night's best storyteller! This one-of-a-kind event will be moderated by Michael Piantedosi, Director of Conservation, with audience participation. In the case of a public health need, the event will be adapted to be held exclusively online.

**Saturday, February 20, 2021, 6-8 p.m.**

**Fee: \$30 (Members)/\$36 (Nonmembers)**

01



## Native Plants and The Future of Public Spaces Symposium

The events of 2020 altered the way we gather and, therefore, the ways we design and use spaces. What does this mean for the future of outdoor public spaces like parks and gardens, and what are the potential roles of native plants in these new scenarios? Join Native Plant Trust for a virtual symposium in which prominent landscape and horticulture professionals explore these pressing questions through a keynote, interactive workshop, and panel discussion. Reserve your spot at [www.NativePlantTrust.org](http://www.NativePlantTrust.org) and keep checking our website for the most up-to-date details.

**Friday, April 9, 2021, 1-4 p.m.**

**Program Code: SYM1009**

**Fee: \$45 (Members)/\$54 (Nonmembers)**

**Certificate: Elective: all certificates**

02



## Trillium Week May 1-8

In 2013, the Garden in the Woods trillium collection was recognized as a Nationally Accredited Plant Collection by the American Public Gardens Association's Plant Collections Network. Please join us for our sixth annual Trillium Week to celebrate the beauty and variety of trilliums at the Garden.

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03



## Twilight Trilliums

Kick off Trillium Week with a May Day virtual celebration! Join Native Plant Trust for an evening of festive, plant-inspired poetry and music set to lush images and videos of Garden in the Woods in spring bloom. With interactive opportunities, this online gathering will reconnect us with nature and each other.

Saturday, May 1, 2021, 6-8 p.m.

Fee: \$15 (Members)/\$25 (Nonmembers)

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04



## Trillium Tours

Take a guided tour for an in-depth look at Native Plant Trust's award-winning trillium collection at Garden in the Woods. Check [www.NativePlantTrust.org](http://www.NativePlantTrust.org) in April for an in-person tour schedule. If the tours cannot take place in person for public health reasons, a video tour of the trillium collection will be made available.

Fee: Free of charge with Garden admission

## Trillium Workshop

Learn how to expertly care for your trilliums! Native Plant Trust staff will provide a prerecorded video demonstration with expert advice on how to select trillium species, prepare a site for planting, and care for a plant once it's in the ground.

Fee: Free of charge

# Online Learning

## Self-Paced Courses

### Plant Form and Function

This introduction to botany addresses the foundations of plant structure, anatomy, and physiology. You will start by learning about plant classification by vascular system, seed type, and structure features. You will then learn the structure and growth of vegetative organs, the major plant processes for survival, reproductive organs for different types of plants, and different kinds of processes used for plant reproduction. With diagrams, microscopic images, and further resources offered to reinforce the concepts, you will apply the new material through indoor and outdoor assignments and peer forums. This Basic Certificate online core course is self-paced; a facilitator will guide you in your learning, review your assignments, and answer your questions.

Course access available from May 1, 2021 to September 30, 2021

Program Code: CERO100

Instructor: George LoCascio, instructor, Framingham State University

Fee: \$150 (Members)/\$200 (Nonmembers)

Certificate: Basic Core

### Plant Ecology

This comprehensive overview of plant ecology addresses the distribution and abundance of plants and their interactions with other organisms and the physical environment. You will explore ecological

principles and their field applications; factors that affect plants as individuals, populations, and communities; and methods for investigating plant communities. Supporting topics covered include biogeochemistry, biogeography, disturbance and succession, and conservation for biodiversity. With diagrams, images, and further resources offered to reinforce the concepts, you will apply the new material through indoor and outdoor assignments and peer forums. This Basic Certificate online core course is self-paced; a facilitator will guide you in your learning, review your assignments, and answer your questions.

Course access available from May 1, 2021 to September 30, 2021

Program Code: CERO101

Instructor: Jennifer McCarthy, division chief (emerita), U.S. Army Corps of Engineers, New England District

Fee: \$150 (Members)/\$200 (Nonmembers)

Certificate: Basic Core

### Plant Families

What are the underlying evolutionary relationships and patterns in plants? In this foundational course, you will learn the botanical terms used to describe plants and flowers, the evolutionary/phylogenetic basis for classification, and the identifying characteristics for several major plant families common to New England. With diagrams, images, and further resources offered to reinforce the concepts, you will apply the new material through indoor and

outdoor assignments and peer forums. This Basic Certificate online core course is self-paced; a facilitator will guide you in your learning, review your assignments, and answer your questions.

Course access available from May 1, 2021 to September 30, 2021

Program Code: CERO102

Instructor: Neela de Zoysa, botanist

Fee: \$150 (Members)/\$200 (Nonmembers)

Certificate: Basic Core

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## Plants 101

Explore New England's plant life in this online course. Learn what plants are, how they function, and why they are essential to all life on Earth. The course introduces many of the region's native and non-native plants. You can complete the course at your own pace.

Course access available from May 1, 2021 to September 30, 2021

Program Code: BOTO101

Fee: \$80 (Members)/\$98 (Nonmembers)

Certificate: Elective: Basic

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## Plants 102

Delve deeper into the New England flora in this online course. Learn how plants change as they grow; how they interact with other species; and how geology, soils, land-use history, hydrology, and climate shape the plant communities of the region. Plants 101 is a foundation for Plants 102, but it is not a prerequisite. You can complete the course at your own pace.

Course access available from May 1, 2021 to September 30, 2021

Program Code: BOTO102

Fee: \$80 (Members)/\$98 (Nonmembers)

Certificate: Elective: Advanced, Botany

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## Designing with Native Plants

This online course teaches the basics of designing with native plants and shows how to incorporate native plants into the garden and landscape. Discover the variety of native plants found throughout New England and learn how to design a visually interesting landscape that also supports biodiversity. You can complete the course at your own pace.

Course access available from May 1, 2021 to September 30, 2021

Program Code: HORO100

Fee: \$80 (Members)/\$98 (Nonmembers)

Certificate: Elective: Basic and Advanced, Horticulture

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## Gardening for Pollinators

This online course teaches how to convert a yard into productive pollinator habitat. Learn about issues associated with pollinator decline and current conservation efforts, then explore a variety of pollinators and the native plants that support their life cycles. The course also covers basic pollinator garden design and provides step-by-step instructions for selecting plants and installing and maintaining these habitats. You can complete the course at your own pace.

Course access available from May 1, 2021 to September 30, 2021

Program Code: HORO101

Fee: \$80 (Members)/\$98 (Nonmembers)

Certificate: Elective: all certificates

# Online Learning

## Live Virtual Programs

### Reading Landscapes: Place as Creation and Reflection

Join Courtney Allen, landscape historian and Director of Public Programs at Native Plant Trust, for a journey to discover the layers of our relationships to our surroundings. Together, we delve into why and how we define and understand place through the lenses of history, design, experience, and memory. This talk is a primer on how to “read” landscapes in our daily lives, and what those landscapes can reveal about us.

Thursday, February 18, 2021, 1-2 p.m.

Program Code: LEC2001

Instructor: Courtney Allen, landscape historian and Director of Public Programs, Native Plant Trust

Fee: \$15 (Members)/\$18 (Nonmembers)

Certificate: Elective: Basic and Advanced, Horticulture



01

### Plant Evolution, Part 2

Join evolutionary biologist Dr. Lori Benoit to learn how land plants evolved into the major plant groups we know today. We will focus on the evolution of gymnosperms and angiosperms (conifers and flowering plants).

Tuesday, February 23, 2021, 1-2 p.m.

Program Code: BOTW313

Instructor: Lori Benoit, Ph.D., wetland scientist and environmental consultant

Fee: \$12 (Members)/\$15 (Nonmembers)

Certificate: Elective: Basic and Advanced, Botany

### Site Analysis

Thinking about making changes to your landscape or gardens? Before doing so, it is important to understand what is there and how to capture the relevant information. A thorough site analysis is the foundation for any successful design. We will learn to record and assess existing conditions, practice basic measuring and drawing techniques, and master the use of scales for documentation and communication.

Wednesdays, March 17, 24, 31, 2021, 6:30-8:30 p.m.

Program Code: HOR4050

Instructor: Cheryl Salatino, landscape designer, Dancing Shadows Garden Design, and MA certified horticulturist

Fee: \$90 (Members)/\$108 (Nonmembers)

Certificate: Elective: Basic and Advanced, Horticulture

## Diversify Your Lawn

Who says lawns need to be monocultures or only made of grasses? Enrich the traditional lawn with complementary plants that bloom at different times and add intrigue. Learn how to identify the plants that already grow in lawns as “weeds,” and to incorporate new plants that create a rich, wildlife-friendly tapestry.

Tuesday, March 23, 2021, 6:30-7:30 p.m.

Program Code: HORW110

Instructor: Anna Fialkoff, program manager, Wild Seed Project

Fee: \$12 (Members)/\$15 (Nonmembers)

Certificate: Elective: Basic and Advanced, Horticulture

Cosponsor: Wild Seed Project

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## Seed Dormancy

The origin of the seed was a pivotal event in plant evolution. Seeds, brilliantly described by Jonathan Silvertown as “embryos in picnic baskets,” determine where, how, and when plants move across the landscape. In addition to dispersal in space, seeds have also evolved a mechanism for dispersing through time, an adaptation known as seed dormancy. This program will introduce you to seed dormancy types and classification, the evolutionary history and biogeography of dormancy mechanisms, and current topics in seed research relevant to plant conservation and ecological restoration.

Friday, April 9, 2021, 10-11 a.m.

Program Code: BOTW517

Instructor: Jessamine Finch, Ph.D., Research Botanist, Native Plant Trust

Fee: \$12 (Members)/\$15 (Nonmembers)

Certificate: Elective: Basic and Advanced, Botany

## Gardening for the Birds

Go beyond conventional bird feeders—use native plants to turn your backyard into a diverse, year-round avian habitat! Learn what the birds of New England actually need from us and become part of the new, natural approach, using planting aesthetics that embrace the ecological value of native species, variety, and untidiness. This program addresses fruit-bearing shrubs, pollinators, and birds’ feeding and nesting preferences.

Saturday, April 10, 2021, 6-7 p.m.

Program Code: HORW213

Instructor: Chris Leahy, Council Member, Native Plant Trust and Gerard A. Bertrand Chair of Natural History and Field Ornithology (emeritus), Mass Audubon

Fee: \$12 (Members)/\$15 (Nonmembers)

Certificate: Elective: all certificates

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## Sponge Landscape

This webinar introduces sponge landscapes as an accessible method for managing water in urban and suburban areas. Using layers and combinations of native trees and groundcovers, we can put the sponge back into our developed spaces—intercepting, absorbing, and retaining rainwater before it floods or pollutes the landscape. Learn how to rewild and soften the hardscape with durable native plants, creating a sponge landscape.

Thursday, April 22, 2021, 6-7 p.m.

Program Code: HORW216

Instructor: Anna Fialkoff, program manager, Wild Seed Project

Fee: \$12 (Members)/\$15 (Nonmembers)

Certificate: Elective: Basic and Advanced, Horticulture

Cosponsor: Wild Seed Project

# Online Learning

## Live Virtual Programs

### Decolonizing Botany: From the Herbarium to the Plantarium

Join Professor Banu Subramaniam as she shares how the foundational language and theories of modern botany are rooted in the violence of its colonial pasts. The complex biologies of plants and animals shaped agricultural labor practices. The plantation was a global enterprise, where botanical knowledge and practices circulated across the globe; where humans went, their flora and fauna quickly followed. Using case studies on such topics as invasion biology, biogeography, and plant reproductive biology, we will explore how the sciences of gender, race, class, and sexuality were shaped by the global circulations of colonialism. We will also consider strategies for decolonizing our knowledge of the botanical and the human.

Wednesday, April 28, 2021, 1-3 p.m.

Program Code: BOTW350

Instructor: Banu Subramaniam, Ph.D., professor and chair, Department of Women, Gender, Sexuality Studies, University of Massachusetts Amherst

Fee: \$24 (Members)/\$30 (Nonmembers)

Certificate: Elective: all certificates



03

02



### Introduction to Grasses Identification

Many people are apprehensive about identifying grasses. With a little practice, however, you can learn to recognize common native and non-native species using an everyday vocabulary and easy-to-see characteristics. Lauren Brown, co-author with Ted Elliman of *Grasses, Sedges, Rushes: An Identification Guide*, will provide an introduction to these beautiful and abundant plants

Friday, June 4, 2021, 9 a.m.-12:30 p.m.

Program Code: BOT3523

Instructor: Lauren Brown, author of *Weeds and Wildflowers in Winter*, *Grasses: An Identification Guide*, and *Grasses, Sedges, Rushes: An Identification Guide*

Fee: \$53 (Members)/\$63 (Nonmembers)

Certificate: Elective: Basic

## Deer-Tolerant Landscapes

Sharing landscapes with deer can result in costly damage to plantings. Join us to learn about deer behavior and natural preventative measures to safeguard your garden. We will also review a selection of “deer tolerant” plants and point out those considered “deer candy.”

Saturday, June 12, 2021, 1-3 p.m.

Program Code: HOR4028

Instructor: Cheryl Salafino, landscape designer, Dancing Shadows Garden Design, and MA certified horticulturist

Fee: \$30 (Members)/\$36 (Nonmembers)

Certificate: Elective: Basic and Advanced, Horticulture

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## Strategies for Invasive Plants Management

Invasive plants continue to be one of the main threats to the ecological integrity of natural communities and to populations of rare plants. Native Plant Trust’s Ecological Programs Coordinator, Bud Sechler, examines different strategies for combatting invasive plants, drawing on invasive plant management experiences with Native Plant Trust, the Massachusetts Invasive Plant Advisory Group, and the Sudbury-Assabet-Concord Watershed Cooperative Invasive Species Management Area.

Wednesday, June 16, 2021, 1-2 p.m.

Program Code: BOTW901

Instructor: Bud Sechler, Ecological Programs Coordinator, Native Plant Trust

Fee: \$12 (Members)/\$15 (Nonmembers)

Certificate: Elective: Advanced, Botany

## Managing Yards for Plant Biodiversity

Suburban yards can support remarkably high plant biodiversity. How homeowners manage their yards largely determines the plant composition of these expanding ecosystems. In this talk, Woodwell Climate Research Center ecologist Christopher Neill and conservation biologist Desiree Narango describe findings from a one-of-a-kind, nationwide research project that examined the flora, soils, microclimates, insects, and birds in suburban yards in six metropolitan regions across the United States, including Boston. Neill will address how suburbanization does or does not homogenize residential landscapes compared with the natural areas that surround these cities. He will connect this new research to ways that homeowners can modify their yards to support native plants and wildlife, and how Native Plant Trust and Woodwell Climate Research Center’s new collaboration shares the research with a broader audience.

Thursday, June 24, 2021, 10 a.m.-12 p.m.

Program Code: HOR4242

Instructor: Christopher Neill, senior scientist, Woodwell Climate Research Center and Desiree Narango, conservation biologist

Fee: Free

Cosponsor: Woodwell Climate Research Center

04



# Online Learning

## Live Virtual Programs

### Roots of Black Botany: The Contributions and Struggles of George Washington Carver, Marie Clark Taylor, and O'Neil Ray Collins

While many conservationists are familiar with white botanists such as Carl Linnaeus and Gregor Mendel, fewer know of the many ways Black botanists have revolutionized the field, contributing to our understanding of everything from crop rotation techniques to slime mold behavior. In this webinar, we will explore the accomplishments of three notable Black botanists: George Washington Carver, Marie Clark Taylor, and O'Neil Ray Collins.

Tuesday, July 20, 2021, 1-2 p.m.

Program Code: BOTW351

Instructor: Micah Jasny, Botanical Coordinator,  
Native Plant Trust

Fee: \$12 (Members)/\$15 (Nonmembers)

Certificate: Elective: all certificates



05



### Exploring the Rushes: Identification and Taxonomy

Rushes (Juncaceae) are a large group of grass-like plants that range from sea level to the highest mountains in New England. The region is home to three genera of the family, members of which can be challenging to identify. This webinar will help students navigate the subtle details and interpretations of the genera's 45 taxa to arrive at confident identifications.

Thursday, August 12, 2021, 6-7 p.m.

Program Code: BOTW703

Instructor: Arthur Haines, Senior Research Botanist,  
Native Plant Trust and author of *Flora Nova Angliae*

Fee: \$12 (Members)/\$15 (Nonmembers)

Certificate: Elective: Basic and Advanced, Botany

06

## Shade Gardens: Embracing the Dark Side

Creating lush and vibrant gardens in the shade tends to frustrate even the best gardeners. How do we infuse more color, adventure, and intrigue into these spaces? The mood, plants, and conditions act as our guide. This workshop blends site-specific assessment, design strategies, and plant options to help enliven your imagination. Bring your project to participate in a flash design collaboration.

Saturday, August 14, 2021, 1-4 p.m.

Program Code: HOR1214

Instructor: Cheryl Salafino, landscape designer, Dancing Shadows Garden Design, and MA certified horticulturist

Fee: \$45 (Members)/\$54 (Nonmembers)

Certificate: Elective: Basic and Advanced, Horticulture



08

## Creating Native Plant Palettes for Beauty and Biodiversity

Picking out your plants should be fun and creative, not daunting or complicated! In this webinar, we will learn how to create a native plant palette with a suite of trees and groundcovers for your unique situation. Using sample plant lists for various conditions, you will receive step-by-step guidance to inspire you with ideas for this year's fall planting.

Tuesday, August, 17, 2021 6-7 p.m.

Program Code: HORW100

Instructor: Anna Fialkoff, program manager, Wild Seed Project

Fee: \$12 (Members)/\$15 (Nonmembers)

Certificate: Elective: Basic and Advanced, Horticulture

Cosponsor: Wild Seed Project

07



# Online Learning

## Live Virtual Programs

### Natural Community Mapping of the Sanctuaries

Native Plant Trust owns and conserves seven native plant sanctuaries throughout New England, each of which boasts unique natural communities. Join us for a detailed look at the natural-community mapping process, which encompasses how we research the plants in the field, record them using digital mapping tools, identify and classify the community types, and use the information to create conservation strategies.

Tuesday, August 24, 2021, 1-2 p.m.

Program Code: BOTW407

Instructor: Bud Sechler, Ecological Programs Coordinator, Native Plant Trust

Fee: \$12 (Members)/\$15 (Nonmembers)

Certificate: Elective: all certificates

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### The Meaning of Gardens

For garden makers and visitors alike, the beauty or symbolism of a garden may kindle a sense of connection to a larger world, physical or imaginary. Garden creation begins in the imagination as a quest for meaning. We will explore the process of imagining a garden that holds personal meaning and look at examples of types of gardens that fulfill meaning-making for their creators or for visitors.

Saturday, September 25, 2021, 1-2 p.m.

Program Code: HORW502

Instructor: Jane Roy Brown, Writer-Editor, Native Plant Trust

Fee: \$12 (Members)/\$15 (Nonmembers)

Certificate: Elective: Basic and Advanced, Horticulture

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### Gathering Seeds in the Clouds: Conservation on Katahdin

Join Senior Research Botanist Arthur Haines for a virtual presentation describing his two years of work gathering seeds of rare alpine species on Mount Katahdin in north-central Maine. This peak, the highest in the state, harbors many species of conservation concern, some of which had not been observed for decades. With lots of stunning visuals, including close-ups of regionally rare species, this webinar will be of interest to all those excited about the high-mountain flora of New England.

Sunday, September 26, 2021, 2-3 p.m.

Program Code: BOTW408

Instructor: Arthur Haines, Senior Research Botanist, Native Plant Trust and author of *Flora Nova Angliae*

Fee: \$12 (Members)/\$15 (Nonmembers)

Certificate: Elective: Basic and Advanced, Botany



Canada serviceberry  
(*Amelanchier canadensis*)  
Dan Jaffe © Native Plant Trust

# Author Book Talk Series

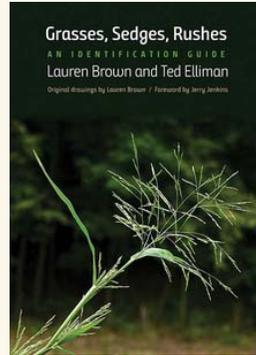
Meet the authors! Native Plant Trust highlights top new publications about plants with the Author Book Talk series. Featuring some of the region's most highly regarded botanists and horticulturists, this series offers you the opportunity to ask questions and interact with true experts. Books are available through our shop. All programs will be conducted virtually. All author talks are \$12 (Members)/\$15 (Nonmembers).

## *Grasses, Sedges, and Rushes*

with authors Lauren Brown and Ted Elliman

Friday, June 25, 2021, 6-7 p.m.

Program Code: LEC9001



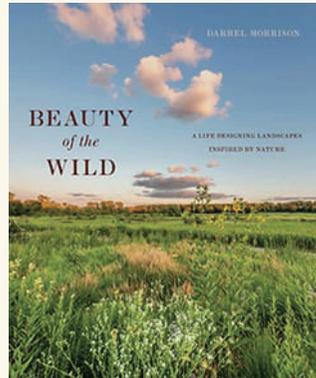
## *Beauty of the Wild*

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

# Botany & Conservation

If a botany program cannot be conducted in person for public health reasons, most programs can be conducted virtually. Staff will determine which format will be used one month ahead of time to allow instructors to prepare appropriately and to notify students.

## Bedstraws

The 22 native New England species of *Galium* can be hard to tell apart—many of them look alike, and identification requires careful observation of leaf, stem, flower, and fruit characteristics. In this class, you will learn bedstraw morphological features, habitats, distributions, and conservation status through images and herbarium specimens.

Thursday, February 25, 2021, 1-3 p.m.

Garden in the Woods, Framingham, MA

Program Code: BOT3023

Instructor: Ted Elliman, botanist and author of *Wildflowers of New England*

Fee: \$30 (Members)/\$36 (Nonmembers)

Certificate: Elective: Basic and Advanced, Botany

Cosponsor: Massachusetts Association of Conservation Commissions

## Rare Plant Families

Where have all the flowers gone? Many are in decline; some more than others. In this class, we will gain a better understanding of the most threatened New England plant families. We will assess the varied effects of conservation concern on plant families ranging from orchids (Orchidaceae) to moonworts (*Botrychium*). In addition, we will discuss what Native Plant Trust and conservationists in the region are doing to protect the taxa most in need.

Friday, February 26, 2021, 10 a.m.-1 p.m.

Garden in the Woods, Framingham, MA

Program Code: BOT2270

Instructor: Michael Piantedosi, Director of Conservation, Native Plant Trust

Fee: \$45 (Members)/\$54 (Nonmembers)

Certificate: Elective: all certificates

Cosponsor: Massachusetts Association of Conservation Commissions



01

# Botany & Conservation

## Green in the Winterscape

A walk in the woods in the quiet of winter reveals a surprising number of plants that stay green through the cold season: lichens, mosses and liverworts, ferns, ericaceous shrubs and evergreen trees, and many more. Which plants stay green, and how and why do they do so? In this class, you will learn how to recognize and identify the plants that are star attractions of the winter landscape. We will also explore the plants' evolution and strategies for year-round foliage.

Saturday, March 20, 2021, 10:30 a.m.-2:30 p.m.

Garden in the Woods, Framingham, MA

Program Code: BOT3326

Instructor: Neela De Zoysa, botanist

Fee: \$60 (Members)/\$72 (Nonmembers)

Certificate: Elective: Basic and Advanced, Botany

Cosponsor: Massachusetts Association of Conservation Commissions

02



## Vernal Mustards

The Brassicaceae family is a widespread and challenging group of plants to identify. In this class, you will learn to distinguish 20 spring-blooming mustard species through a combination of images, herbarium specimens, and field application. We will review key flower and leaf characteristics and discuss which family members are invasive.

Saturday, March 27, 2021, 1-4 p.m.

Garden in the Woods, Framingham, MA

Program Code: PDW3333

Instructor: Ted Elliman, botanist and author of *Wildflowers of New England*

Fee: \$45 (Members)/\$54 (Nonmembers)

Certificate: Elective: Basic and Advanced, Botany

Cosponsor: Massachusetts Association of Conservation Commissions

03



## Environmental Justice for Botanists

In structuring conservation policies for plant life, biodiversity is often the chief metric used to determine species viability in the wild. This approach to conservation has been critiqued for reflecting an anthropogenic bias on the value of nonhuman life. With our focus on attaining merely biological thresholds of species' viability rather than species' abundance, are we acting in an environmentally just manner? Is there another path? In this class, we will discuss how we can apply environmental justice concepts to methods of conservation for the benefit of all life on Earth.

Saturday, April 24, 2021, 10 a.m.-12 p.m.

Garden in the Woods, Framingham, MA

Program Code: BOT1513

Instructor: Michael Piantedosi, Director of Conservation, Native Plant Trust

Fee: \$30 (Members)/\$36 (Nonmembers)

Certificate: Elective: Basic and Advanced, Botany

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## Ecology and Conservation of Native Pollination Systems

Join Dr. Robert Gegear, 2018 recipient of the Society's Regional Impact Award, to learn the skills needed to properly assess, conserve, and restore native pollination systems and the biodiversity they support. This class provides foundational knowledge for the Community Science

workshop and can be taken alone or in tandem with the workshop.

Friday, May 21, 2021, 1-4 p.m.

Garden in the Woods, Framingham, MA

Program Code: BOT1509

Instructor: Robert Gegear, Ph.D., professor, University of Massachusetts Dartmouth

Fee: \$45 (Members)/\$54 (Nonmembers)

Certificate: Elective: all certificates

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## New England Roses

Dubbed "the queen of flowers," roses are perhaps the most recognizable of blooms. Several rose species are native to New England. Many more are introduced and naturalized and have become a familiar part of our landscape. Their beautiful scented blossoms are popular with pollinators, spiny thickets provide important habitat for wildlife, and hardy shrubs and ramblers are prized by gardeners. Learn to distinguish native species, common naturalized species, and the invasive multiflora rose, and become familiar with their habitats.

Thursday, June 17, 2021, 12:30-4:30 p.m.

Garden in the Woods, Framingham, MA

Program Code: BOT3024

Instructor: Neela de Zoysa, botanist

Fee: \$60 (Members)/\$72 (Nonmembers)

Certificate: Elective: Basic and Advanced, Botany

# Botany & Conservation

## Aquatic Plant Identification and Biology

Did you know that North America supports greater aquatic plant diversity than the tropics? Join us for a workshop to learn about the major aquatic plant families, from species with showy, insect-pollinated flowers to those whose minute flowers are pollinated underwater. We will cover how to identify numerous native and invasive species and the general biology of aquatic plants.

Saturday, July 17, 2021, 9:30 a.m.-12:30 p.m.

Nasami Farm, Whately, MA

Program Code: BOT1150

Instructor: Lori Benoit, Ph.D., wetland scientist and environmental consultant

Fee: \$45 (Members)/\$54 (Nonmembers)

Certificate: Elective: Basic and Advanced, Botany

Cosponsor: Massachusetts Association of Conservation Commissions

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## Milkweeds and Dogbanes

Milkweeds (*Asclepias*) are some of the most attractive and fragrant wildflowers, and they are magnets for butterflies and pollinators. Learn about their special relationship with monarch butterflies, complex flower structure, ingenious pollination strategy, and protective chemical arsenal. This class will help you identify the common and rare species and recognize their surprising range of habitats. You will also learn tips for milkweed

cultivation and discuss the dangers that threaten this native plant.

Thursday, July 22, 2021, 12:30-4:30 p.m.

Garden in the Woods, Framingham, MA

Program Code: BOT3025

Instructor: Neela de Zoysa, botanist

Fee: \$60 (Members)/\$72 (Nonmembers)

Certificate: Elective: Basic and Advanced, Botany

Cosponsor: Massachusetts Association of Conservation Commissions

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## Introduction to Ferns

New England boasts habitats with numerous native fern species—but for a beginner, they can look quite similar. This survey addresses fern identification techniques, biology, and ecology. Through a visual presentation and field application, you will learn to use macro features to identify New England's most common fern species, their associated plant communities, and shifts in communities due to site conditions.

Saturday, July 24, 2021, 10 a.m.-2 p.m.

Nasami Farm, Whately, MA and field site

Program Code: BOT3431

Instructor: Randy Stone, Pioneer Valley Fern Society

Fee: \$60 (Members)/\$72 (Nonmembers)

Certificate: Elective: Basic

Cosponsor: Massachusetts Association of Conservation Commissions

## Tick-trefoils and Bush-clovers

There are about 25 species of *Desmodium*, *Hylodesmum*, and *Lespedeza* in New England. These summer-blooming members of the legume family often look alike, presenting challenges to identification. This class will focus on the features that distinguish each species and discuss their ranges and habitat preferences.

Wednesday, July 28, 2021, 1:30-4 p.m.

Garden in the Woods, Framingham, MA

Program Code: BOT3026

Instructor: Ted Elliman, botanist and author of *Wildflowers of New England*

Fee: \$38 (Members)/\$45 (Nonmembers)

Certificate: Elective: Basic and Advanced, Botany

Cosponsor: Massachusetts Association of Conservation Commissions

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## Orchids of New England

Orchidaceae is one of the largest plant families in the world, and there are 50 orchid species native to New England, from showy lady's slipper (*Cypripedium reginae*) to rose pogonia (*Pogonia ophioglossoides*). While some species are common, many are of conservation concern. This session provides context for understanding native orchid habitats, diversity, and conservation issues. You will learn identification techniques, pollination strategies, and life-cycle stages for native orchids.

Thursday, August 5, 2021, 12:30-4:30 p.m.

Garden in the Woods, Framingham, MA

Program Code: BOT3036

04



Instructor: Neela de Zoysa, botanist

Fee: \$60 (Members)/\$72 (Nonmembers)

Certificate: Elective: Basic and Advanced, Botany

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## Climate Change and Plant Regeneration from Seed

Unlike animals, individual plants cannot migrate in response to a changing environment, with the key exception of the mobile seed. However, research suggests that early plant-life stages (e.g. germination, emergence) may be more sensitive to changes in climatic conditions than the adult stage. In this program, we will investigate the unique impacts of climate change on plant regeneration from seed— including seed dispersal, dormancy break, and germination—as well as the ramifications for population persistence, plant migration, and conservation.

Friday, August 20, 2021, 10 a.m.-12 p.m.

Garden in the Woods, Framingham, MA

Program Code: BOT8501

Instructor: Jessamine Finch, Ph.D., Research Botanist, Native Plant Trust

Fee: \$30 (Members)/\$36 (Nonmembers)

Certificate: Elective: Basic and Advanced, Botany

Cosponsor: Massachusetts Association of Conservation Commissions

# Botany & Conservation

## Plant-Insect Interactions

Ever wonder how plants and insects interact beyond pollination and herbivory? In this program, we will explore plant-insect interactions through a combination of discussion and field examination. This class is a great opportunity to improve your identification skills for insects and the plants they call home.

Thursday, September 2, 2021, 10-11:30 a.m.

East Leverett Meadow, Leverett, MA

Program Code: BOT1514

Instructor: George LoCascio, instructor,  
Framingham State University

Fee: \$23 (Members)/\$27 (Nonmembers)

Certificate: Elective: Basic and Advanced, Botany

05



06

## Asters and Goldenrods

Asters (Asteraceae) and goldenrods (*Solidago*) are autumn showstoppers, but they can be a large and complex group to identify. Through a visual presentation, herbarium specimens, and field application, you will learn several species of asters and goldenrods, their habitats, and how to use identification keys to distinguish between visually similar species based on subtle characteristics.

Saturday, September 11, 2021, and Sunday,  
September 12, 2021, 10 a.m.-2 p.m.

Garden in the Woods, Framingham, MA

Program Code: PDW4400

Instructor: Ted Elliman, botanist and author of  
*Wildflowers of New England*

Fee: \$60 (Members)/\$72 (Nonmembers)

Certificate: Elective: Basic and Advanced, Botany

Cosponsor: Massachusetts Association of  
Conservation Commissions

# Field Studies

If a field study cannot be conducted in person for public health reasons, it will be canceled.

## Gowing's Swamp

One of Thoreau's beloved landscapes, referenced often in his writings, Gowing's Swamp is a rare and beautiful bog in a kettle hole tucked away below a glacial ridge. We will walk the loop around the bog and explore the thriving community of northern bog plants such as pitcher plant (*Sarracenia purpurea*), bog rosemary (*Andromeda polifolia*), bog laurel (*Kalmia polifolia*), small cranberry (*Vaccinium oxycoccos*), large cranberry (*Vaccinium macrocarpon*), and black spruce (*Picea mariana*). We will observe the many vernal pools and the bird and mammals in this unusual habitat.

Saturday, June 5, 2021, 1-3 p.m.

Gowing's Swamp, Sudbury Valley Trustees,  
Sudbury, MA

Program Code: FDT1113

Instructor: Neela de Zoysa, botanist

Fee: \$30 (Members)/\$36 (Nonmembers)

Certificate: Field: Basic and Advanced, Botany

## Coffin Wild Flower Reservation

This sanctuary is one of seven owned by Native Plant Trust. Hilly woods, a brook, and 1,256 feet of sandy shore and tidal marsh make up the 177-acre area, which borders lovely Merrymeeting Bay, well-known for its diversity of waterfowl. Hike the mixed hardwood-conifer forest trails along the east side of the bay to a large, old stand of bigtooth aspen (*Populus grandidentata*) and fascinating freshwater estuary plants that are limited to this rare habitat type.

Sunday, June 6, 2021, 10 a.m.-12:30 p.m.

Coffin Wild Flower Reservation, Woolwich, ME

Program Code: FDT8029

Instructor: Anna Fialkoff, program manager, Wild Seed Project

Fee: \$38 (Members)/\$45 (Nonmembers)

Certificate: Field: Basic and Advanced, Botany

Cosponsor: Wild Seed Project

07



## Floodplain Botany

Join us for a breathtaking walk along the floodplain of the meandering Sudbury River at Great Meadows National Wildlife Refuge. This habitat is lush and diverse, with flood-tolerant trees, shrubs, ferns, sedge meadows, grasses, and other herbaceous species. We will take a close look at these plants—their adaptations, wildlife value, and interactions with invasive species.

Saturday, June 19, 2021, 12:30-3:30 p.m.

Great Meadows National Wildlife Refuge, Sudbury, MA

Program Code: FDT8057

Instructor: Neela de Zoysa, botanist

Fee: \$45 (Members)/\$54 (Nonmembers)

Certificate: Field: Basic and Advanced, Botany

## Wetland Plants

Spend an afternoon exploring wetland habitats, some of the most botanically diverse and biologically productive landscapes in New England. We will learn about numerous plants that have adapted to the rivershores, floodplains, beaver meadows, marshes, and forested seeps of central Vermont.

Thursday, July 8, 2021, 1-4 p.m.

North Branch Nature Center, Montpelier, VT

Program Code: BOT3360

Instructor: Aaron Marcus, assistant botanist, Vermont Fish & Wildlife Service

Fee: \$36 (Members)/\$45 (Nonmembers)

Certificate: Field: Basic and Advanced, Botany

Cosponsor: North Branch Nature Center

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## Flora of New England Coastal Sand Dunes

Parker River National Wildlife Refuge is home to an extensive sandy beach and dune habitat where many shore birds and wildlife flourish amid the varied flora of the area. Join Director of Conservation Michael Piantedosi to discuss the plants of the salt marsh and sand dune habitats that make Parker River so unique.

Sunday, June 27, 2021, 10 a.m.-12 p.m.

Parker River National Wildlife Refuge, Newbury, MA

Program Code: FDT8058

Instructor: Michael Piantedosi, Director of Conservation, Native Plant Trust

Fee: \$30 (Members)/\$36 (Nonmembers)

Certificate: Field: Basic and Advanced, Botany

08



## Harvey Butler Rhododendron Sanctuary

Come explore Native Plant Trust's five-acre stand of great laurel (*Rhododendron maximum*), the largest and northernmost stand known in the region. We will discover the multitude of native plant gems on the rest of our 30-acre property, from yellow blue-bead lily (*Clintonia borealis*) to painted trillium (*Trillium undulatum*) and from hemlock (*Tsuga canadensis*) to northern white cedar (*Thuja occidentalis*).

Sunday, July 18, 2021, 9:30 a.m.-12 p.m.

Harvey Butler Rhododendron Sanctuary,  
Springvale, ME

Program Code: FDT9002

Instructor: Heather McCargo, executive director,  
Wild Seed Project

Fee: \$38 (Members)/\$45 (Nonmembers)

Certificate: Field: Basic and Advanced, Botany

Cosponsor: Wild Seed Project

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## Sandplain Grasslands

Sandplain grasslands are exemplary plant biodiversity hotspots in the northeast and require careful management. Ecologist Christopher Neill of the Woodwell Climate Research Center will lead a walk through Cape Cod's largest sandplain grassland. Crane Wildlife Management Area is a prominent example of successful efforts to protect and expand sandplain grassland with management by fire, mowing, and mechanical clearing of woody vegetation. Neill will detail his and his colleagues' recent efforts to create a Sandplain Grassland Network of managers and researchers to share experiences, case studies, and management techniques.

Sunday, August 29, 2021, 1-3 p.m.

Crane Wildlife Management Area, Falmouth, MA

Program Code: FDT9010

Instructor: Christopher Neill, senior scientist,  
Woodwell Climate Research Center

Fee: \$30 (Members)/\$36 (Nonmembers)

Certificate: Field: Basic and Advanced, Botany

Cosponsor: Woodwell Climate Research Center

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## LaPlatte River Marsh

Join us at the LaPlatte River mouth to learn what makes its wetlands one of just eight wetland complexes in Vermont with Class I wetland status. We will explore a diversity of floodplain forests, sand beaches, marshes, and rich uplands. LaPlatte River Marsh Natural Area is filled with numerous rare and unusual wetland species, including plants in the Beggar-ticks genus (*Bidens*) and in the sedge family (*Cyperaceae*).

Friday, September 24, 2021, 10 a.m.-2 p.m.

LaPlatte River Marsh, Shelburne, VT

Program Code: FDT9011

Instructor: Aaron Marcus, assistant botanist,  
Vermont Fish & Wildlife Service

Fee: \$48 (Members)/\$60 (Nonmembers)

Certificate: Field: Basic and Advanced, Botany

09



# Certificate Program

Whether you are interested in taking classes for fun, to add breadth and depth to your existing knowledge and skills, or to advance your career, our self-paced certificate programs in Native Plant Studies offer a unique opportunity to learn about the region's flora. Students enrolled in our certificate programs learn to identify, cultivate, and conserve native New England plants while gaining a greater appreciation for their ecological importance. Students also actively participate in ongoing public and private efforts to preserve and restore native New England flora.

Enrollment in the Certificate Program is not required to register for a certificate core course. However, please be aware that courses are designed for the level of certificate students.

If a certificate course is not able to be conducted in person for public health reasons, every effort will be made to provide a virtual alternative. Staff will determine the format one month ahead of time to allow instructors to prepare appropriately and to notify students.

The Basic Certificate track familiarizes students with the plants of New England, emphasizing structures, skills, and processes. We highly recommend beginning with the Foundations courses, which introduce students to native plant vocabulary, morphology, physiology, ecological context, evolution, and relationships. This knowledge is applied to subsequent courses.

All Basic Certificate core courses are now offered every semester.

## **Foundations:**

Plant Form and Function

Plant Ecology

Plant Families

## **Plants and Their Habitats:**

Wildflowers of New England

Native New England Shrubs

Framework Trees of New England

## **Specialty:**

Understanding and Managing Soils

Two Electives (one Botany, one Horticulture)

## **Application:**

Two Studies (one Field, one Landscape)

Community Service: 15 hours

Final Portfolio

The Advanced Certificate tracks encourage students to apply their plant knowledge in a Botany & Conservation specialty or a Horticulture & Design specialty. To enter an Advanced track, students must complete the Basic Certificate or have enough experience to qualify for a Basic Certificate. We recommend beginning with the Foundations courses, which provide context for the field or landscape application. All Advanced core courses are offered every year.

**Advanced Botany & Conservation:**

**Foundations:**

Conservation Biology  
New England Plant Communities  
Plant Systematics

**Field Conservation:**

Field Identification Techniques  
Botanical Inventory Methods and Techniques  
Wetland Identification and Delineation  
Seed Conservation

**Specialty:**

Invasive Plants: Identification, Documentation, and Control  
Two Botany Electives

**Application:**

Two Field Studies  
Community Service Leadership Project:  
25 hours  
Final Portfolio

**Advanced Horticulture & Design**

**Foundations:**

Landscape for Life  
History and Principles of Landscape Design  
Horticultural Techniques

**Building Your Plant Palette:**

Residential Landscape Design  
Native Herbaceous Plant Materials:  
Early Season  
Native Herbaceous Plant Materials:  
Late Season  
Native Woody Plant Materials

**Specialty:**

Propagation  
Two Horticulture Electives

**Application:**

Two Landscape Studies  
Community Service Leadership Project:  
25 hours  
Final Portfolio

# Certificate Courses

## Basic Core

If a certificate course is not able to be conducted in person for public health reasons, every effort will be made to provide a virtual alternative. Staff will determine the format one month ahead of time to allow instructors to prepare appropriately and to notify students.

### Plant Form and Function

This introduction to botany addresses the foundations of plant structure, anatomy, and physiology. You will start by learning about plant classification by vascular system, seed type, and structure features. You will then learn the structure and growth of vegetative organs, the major plant processes for survival, reproductive organs for different types of plants, and different kinds of processes used for plant reproduction. With diagrams, microscopic images, and further resources offered to reinforce the concepts, you will apply the new material through indoor and outdoor assignments and peer forums. This Basic Certificate online core course is self-paced; a facilitator will guide you in your learning, review your assignments, and answer your questions. Offered exclusively online this semester.

Course access available from May 1, 2021 to September 30, 2021

Program Code: CERO100

Instructor: George LoCascio, instructor,  
Framingham State University

Fee: \$150 (Members)/\$200 (Nonmembers)

Certificate: Basic Core

### Plant Ecology

This comprehensive overview of plant ecology addresses the distribution and abundance of plants and their interactions with other organisms and the physical environment. You will explore ecological principles and their field applications; factors that affect plants as individuals, populations, and communities; and methods for investigating plant communities. Supporting topics covered include biogeochemistry, biogeography, disturbance and succession, and conservation for biodiversity. With diagrams, images, and further resources offered to reinforce the concepts, you will apply the new material through indoor and outdoor assignments and peer discussion.

Wednesdays, June 9, 16, 23, 30, 2021, 1-4 p.m.

Garden in the Woods, Framingham, MA

Program Code: BOT1003

Instructor: Jennifer McCarthy, division chief  
(emerita), U.S. Army Corps of Engineers, New  
England District

Fee: \$216 (Members)/\$264 (Nonmembers)

Certificate: Basic Core

## Plant Families

What are the underlying evolutionary relationships and patterns in plants? In this class, we use both microscopic and field investigation to decipher the clues to familial relationships and classifications of the region's plants. You will learn botanical terms to describe plants and flowers, the evolutionary/phylogenetic basis for classification, and the identifying characteristics for several major plant families common to New England.

Wednesdays, July 7, 14, 21, 2021, 10:30 a.m.-2:30 p.m.

Garden in the Woods, Framingham, MA

Program Code: BOT2260

Instructor: Neela de Zoysa, botanist

Fee: \$216 (Members)/\$264 (Nonmembers)

Certificate: Basic Core

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## Wildflowers of New England

This course provides a comprehensive introduction to spring-blooming native plants, including their identification, ecology, and conservation. We explore New England's native plants in a field setting at Garden in the Woods by studying key identification features of flowers, leaves, and stems; family characteristics; growth patterns; pollinators; seed dispersers; and habitats. You will learn basic botanical skills and tools to identify wildflowers and study pollination and coevolution of flower structure and design, habitats and ecology, and conservation concerns.

Wednesdays, May 5, 12, 19, 26, 2021, 12:30-3:30 p.m.

Garden in the Woods, Framingham, MA

Program Code: BOT3000

Instructor: Neela de Zoysa, botanist

Fee: \$216 (Members)/\$264 (Nonmembers)

Certificate: Basic Core

## Framework Trees

Forests are a dominant feature of the New England landscape. This course covers the history, changes in composition, and ecology of the region's forest from the Ice Age through European settlement. We explore the impact of past natural and human disturbances on the landscape and learn how current forestry practices shape forest communities. You will learn to identify native trees, their habitats, and their communities.

Thursdays, April 15, 29, 2021, 5-8 p.m. and Sundays, April 18, May 2, 2021, 9:30 a.m.-12:30 p.m.

Online

Program Code: BOT3200

Instructor: Yoni Glogower, director of conservation and sustainability, City of Holyoke

Fee: \$216 (Members)/\$264 (Nonmembers)

Certificate: Basic Core

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## Understanding and Managing Soils

This course explores the biotic and abiotic components that create native soils and explains how these factors inform local flora. We will take a closer look at soil structure and soil biology in miniature lab experiments. *Offered twice.*

Friday, February 19, 2021, 10 a.m.-4 p.m.

Fridays, September 10, 17, 2021, 1-4 p.m.

Nasami Farm, Whately, MA

Program Code: HOR3604

Instructor: Alexis Doshas, Propagator and Facilities Coordinator, Nasami Farm, Native Plant Trust

Fee: \$108 (Members)/\$132 (Nonmembers)

Certificate: Basic Core

# Certificate Courses

## Advanced Core, Botany & Conservation

If a certificate course cannot be conducted in person for public health reasons, every effort will be made to provide a virtual alternative. Staff will determine the format one month ahead of time to allow instructors to prepare appropriately and to notify students.

### Conservation Biology

This introduction to conservation biology and biodiversity covers the factors that make a species vulnerable to extinction and the strategies and tools that can be used to protect plants and ecosystems. The course explores the interdisciplinary nature of conservation biology through readings, group exercises, and video clips. Participants receive a bibliography of resources for further study.

Sundays, March 7, 14, 21, 2021, 10 a.m.-2 p.m.

Nasami Farm, Whately, MA

Program Code: BOT5100

Instructor: George LoCascio, instructor,  
Framingham State University

Fee: \$180 (Members)/\$216 (Nonmembers)

Certificate: Advanced Core, Botany

Cosponsor: Massachusetts Association of  
Conservation Commissions

### New England Plant Communities

For a relatively small region, New England boasts an astonishing variety of plant communities, ranging from freshwater and tidal wetlands to coastal dunes, grasslands, forests, and montane. We study the dominant canopy, structure, range, and characteristic species of each community and then apply this knowledge in the field. You will learn how soil, topography, moisture, geological conditions, glaciation, and historical use affect the vegetation of each community.

Wednesdays, August 18, 25, 2021, 5:30-8:30 p.m.

and Saturdays, August 21, 28, 2021, 9:30-12:30 p.m.

Nasami Farm, Whately, MA

Program Code: BOT4000

Instructor: Lori Benoit, Ph.D., wetland scientist and  
environmental consultant

Fee: \$216 (Members)/\$264 (Nonmembers)

Certificate: Advanced Core, Botany

Cosponsor: Massachusetts Association of  
Conservation Commissions



01

## Field Identification Techniques

Equip yourself with the skills and confidence you need to identify native plants in the field. We will learn how to use field guides and professional keys, observe floral structures, recognize reliable family characteristics, and become familiar with botanical Latin.

Fridays, June 11, 18, 25, 2021, 10 a.m.-2 p.m.

Garden in the Woods, Framingham, MA

Program Code: BOT2000

Instructor: Leslie Duthie, botanist

Fee: \$216 (Members)/\$264 (Nonmembers)

Certificate: Advanced Core, Botany

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## Botanical Inventory Methods and Techniques

This course is an intensive training on botanical survey approaches and methods for cataloging the vascular plants in a natural landscape. We will cover the essential steps of planning the survey, including use of field guides, aerial photography GIS (Geographic Information Systems) resources, sampling strategies, and field data form design. Next, we will put the methods into practice by conducting a field survey on conserved land, identifying and recording the plant species and habitats we encounter, and compiling an inventory and accompanying report.

Thursday, June 24, 6:30-8:30 p.m. and Saturday, June 26, 2021, 10:30 a.m.-2:30 p.m.

Garden in the Woods, Framingham, MA

Program Code: BOT2050

Instructor: Neela de Zoysa, botanist

Fee: \$108 (Members)/\$132 (Nonmembers)

Certificate: Advanced Core, Botany

Cosponsor: Massachusetts Association of Conservation Commissions

## Wetland Identification and Delineation

This course introduces the principal elements of wetland identification, including wetland hydrology, hydric soils, and hydrophytic plants. We will identify plants in the field, place a delineation line, and utilize web resources.

Wednesdays, April 14, 21, 2021, 1-4 p.m.

Garden in the Woods, Framingham, MA

Program Code: WET2010

Instructor: Bill Kuriger, botanist

Fee: \$108 (Members)/\$132 (Nonmembers)

Certificate: Advanced Core, Botany

Cosponsor: Massachusetts Association of Conservation Commissions

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## Invasive Plants: Identification, Documentation, and Control

This course addresses the identification and control of many of the invasive plant species that are an unwelcome and persistent presence in forests, fields, and wetlands. Through visual presentation, close examination of herbarium specimens, and field study, we will examine the impacts of several invasive species and discuss methods for managing invasive plant populations.

Thursday, September 16, 2021, 6:30-8:30 p.m. and Saturday, September 18, 2021, 10 a.m.-2 p.m.

Garden in the Woods, Framingham, MA

Program Code: BOT5130

Instructor: Bud Sechler, Ecological Programs Coordinator, Native Plant Trust

Fee: \$108 (Members)/\$132 (Nonmembers)

Certificate: Advanced Core, Botany

## Advanced Core, Horticulture & Design

If a certificate course cannot be conducted in person for public health reasons, every effort will be made to provide a virtual alternative. Staff will determine the format one month ahead of time to allow instructors to prepare appropriately and to notify students.

### Landscape for Life

This intensive introductory course will provide the knowledge, skills, and understanding to create a great-looking garden that is healthier for people and for the environment. The course is based on the principles of the Sustainable Sites Initiative, the nation's first rating system for sustainable landscapes. The comprehensive curriculum covers a range of topics, including soils, water, plants, and landscape materials.

Thursdays, March 4, 11, 18, 25, 2021, 1-4 p.m.

Garden in the Woods, Framingham, MA

Program Code: HOR3720

Instructor: Trevor Smith, lead designer, Land Escapes

Fee: \$180 (Members)/\$216 (Nonmembers)

Certificate: Advanced Core, Horticulture

### Native Herbaceous Plant Materials, Early Season

Over the course of the spring, we will examine a wide variety of native plants for gardens and discuss each plant's cultural and habitat needs as well as its importance to wildlife. The class will cover 90 species and include tips for growing them. You will learn to identify native plants in the New England gardening palette, become familiar with each plant's appropriate use, and identify each plant's role in the ecosystem in terms of attracting pollinators and other wildlife.

Mondays, April 26, May 10, 24, June 7, 2021, 12:30-3 p.m.

Garden in the Woods, Framingham, MA

Program Code: HOR1000

Instructor: Leslie Duthie, botanist

Fee: \$180 (Members)/\$220 (Nonmembers)

Certificate: Advanced Core, Horticulture



02

## Native Herbaceous Plant Materials, Late Season

Over the course of mid- to late summer, we will examine a wide variety of native plants for gardens and discuss each plant's cultural and habitat needs as well as its importance to wildlife. We will address and provide tips for growing 80 species. You will learn to identify native plants in the New England gardening palette, become familiar with each plant's appropriate use, and study each plant's role in the ecosystem in terms of attracting pollinators and other wildlife.

Mondays, July 26, August 23, 2021, 12:30-3 p.m.

Garden in the Woods, Framingham, MA

Program Code: HOR1050

Instructor: Leslie Duthie, botanist

Fee: \$90 (Members)/\$110 (Nonmembers)

Certificate: Advanced Core, Horticulture

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## Native Woody Plant Materials

Explore the huge variety of native trees, shrubs, and woody vines. You will learn which species grow well in shade, which support local wildlife, and how to stagger plantings for continual bloom, fruit production, and fall color. The course addresses growth characteristics, cultural requirements, and best horticultural uses.

Fridays, August 27, September 3, 2021, 1-4 p.m.

Garden in the Woods, Framingham, MA

Program Code: HOR1100

Instructor: Trevor Smith, lead designer, Land Escapes

Fee: \$108 (Members)/\$132 (Nonmembers)

Certificate: Advanced Core, Horticulture



Yellow birch  
(*Betula alleghaniensis*)  
Dan Jaffe © Native Plant Trust

# Horticulture & Design

If a horticulture program cannot be conducted in person for public health reasons, most programs can be conducted virtually. Staff will determine the format one month ahead of time to allow instructors to prepare appropriately and to notify students.

## Navigating Public Design, Part 1

Community spaces are exciting projects to envision and realize. In this workshop, you will learn a process for bringing stakeholders together to collaborate in creating outdoor spaces of meaning and beauty. We will explore how to use your creative ideas to build partnerships, fundraise, overcome obstacles, and draw visitors to your public landscape, with an emphasis on the creation of spaces that are both ecologically and operationally sustainable.

Thursdays, April 1, 8, 2021, 1-3 p.m.

Garden in the Woods, Framingham, MA

Program Code: HOR8026

Instructor: Staci Jasin, landscape designer

Fee: \$60 (Members)/\$72 (Nonmembers)

Certificate: Elective: Basic and Advanced, Horticulture

Cosponsor: Ecological Landscape Alliance

01



## Tips and Techniques for Healthy Seedling Starts

Healthy plants and gardens begin with healthy seedlings. Come learn some basic yet critical propagation techniques for successful seedling starts. We begin with a brief overview of propagation terminology and science and continue in the greenhouse with hands-on demonstrations and experience. Plan to get your hands dirty and leave with some healthy native seedling starts!

Saturday, April 17, 2021, 1-4 p.m.

Nasami Farm, Whately, MA

Program Code: HOR3132

Instructor: Alexis Doshas, Propagator and Facilities Coordinator, Nasami Farm, Native Plant Trust

Fee: \$45 (Members)/\$54 (Nonmembers)

Certificate: Elective: Basic and Advanced, Horticulture

02



## Meadows 1-2-3

Learn how native plant meadow-making differs from other forms of horticulture. We will discuss site selection, community and social factors, site preparation, plant selection, planting, and what to expect in years 1, 2, and 3. This one-day intensive is appropriate for all learning levels, and extensive resource material is provided.

Friday, April 23, 30, 2021, 1-3 p.m.

Nasami Farm, Whately, MA

Program Code: HOR8001

Instructor: Kathy Connolly, landscape designer,  
Speaking of Landscapes, LLC

Fee: \$90 (Members)/\$108 (Nonmembers)

Certificate: Elective: Advanced, Horticulture

03



## Eco-Restorative Garden Design

What does it take to create a conservation and restoration landscape project in your own backyard? In this workshop, we will explore the principles underlying these small-scale projects and outline specific steps to keep you engaged and confident while completing them. You will learn tips, techniques, and a well-defined process for transforming a small plot of land to a native plant landscape. Topics cover everything from removing invasives to analyzing the site, conserving resources, and enhancing aesthetics and wildlife habitat.

Tuesdays, April 27, May 4, 2021, 2-4 p.m.

Garden in the Woods, Framingham, MA

Program Code: HOR4224

Instructor: Staci Jasin, landscape designer

Fee: \$60 (Members)/\$72 (Nonmembers)

Certificate: Elective: Basic and Advanced,  
Horticulture

Cosponsor: Ecological Landscape Alliance

04



# Horticulture & Design

## Site Preparation for Landscape Transformation

Many people consider reducing lawns, converting hayfields, cleaning out weed patches, and otherwise transforming landscapes into pollinator gardens or meadows with native plants. Site preparation is critical, but it is often overlooked in the quest for a finished appearance. This primer covers planning, timelines, and online sources of site information. You will also learn some tips on how to do critical chores, including weed removal.

Friday, May 7, 2021, 1-4 p.m.

Nasami Farm, Whately, MA

Program Code: HOR8028

Instructor: Kathy Connolly, landscape designer, Speaking of Landscapes, LLC

Fee: \$45 (Members)/\$54 (Nonmembers)

Certificate: Elective: Basic and Advanced, Horticulture



05

## Writing in the Garden

Writers from Emily Dickinson to Edith Wharton and Eudora Welty have found their gardens to be wellsprings of sensory experience that stimulated their writing. In this two-hour workshop, visit the fields and designed gardens at Nasami Farm and write spontaneously in response to prompts—verbal or visual cues provided by the workshop leader—inspired by the surroundings.

Saturday, May 8, 2021, 10 a.m.-12 p.m.

Nasami Farm, Whately, MA

Program Code: ART2009

Instructor: Jane Roy Brown, Writer-Editor, Native Plant Trust

Fee: \$30 (Members)/\$36 (Nonmembers)

## Gardening for Climate Change

What changes are we already seeing in our native gardens and landscapes due to changing climate, and what can we expect to see? What steps can we take to address these changes, and what do they mean for our local ecology? Using the latest scientific modeling and information, we will explore these big questions and dig deep to identify factors affecting our flora and the ways native plants respond. Most importantly, we will discuss our role as stewards of our gardens, forests, and fields.

Thursday, July 8, 2021, 5:30-8 p.m.

Nasami Farm, Whately, MA

Program Code: HOR8037

Instructor: Alexis Doshas, Propagator and Facilities Coordinator, Nasami Farm, Native Plant Trust

Fee: \$38 (Members)/\$45 (Nonmembers)

Certificate: Elective: Basic and Advanced, Horticulture

## Native Species, Cultivars, and Selections: What's the Difference?

What is a native plant? How do I decide what is best for my garden and for the environment? This session will help you answer these frequently asked questions. You will learn about the nuances that distinguish cultivars from native plant selections and the implications for the garden and beyond.

Friday, July 16, 2021, 1-3 p.m.

Garden in the Woods, Framingham, MA

Program Code: HOR1090

Instructor: Uli Lorimer, Director of Horticulture, Native Plant Trust

Fee: \$30 (Members)/\$36 (Nonmembers)

Certificate: Elective: Basic and Advanced, Horticulture

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## Garden Challenges

Gardens can be difficult to cultivate in certain locations and circumstances. This class will address how to grow a successful garden in seasonal wetlands, sandy soils, deep shade, and rock outcrops. You will learn about site assessment and plant selection for these conditions. We will also look closely at local habitats, ecoregion characteristics, and specific species needs, and consider how we can apply these factors in a horticultural context.

Fridays, July 23, 30, 2021, 1-3 p.m.

Garden in the Woods, Framingham, MA

Program Code: HOR8050

Instructor: Leslie Duthie, botanist

Fee: \$60 (Members)/\$72 (Nonmembers)

Certificate: Elective: Basic and Advanced, Horticulture

06



## Navigating Public Design, Part 2

Community spaces can be impactful and rewarding, but they require a different mindset and approach from single client-designer projects. In this workshop, we will build on the stakeholder collaboration processes to focus on vision-driven partnerships and fundraising. We will also address design thinking and the obstacles to and solutions for creating outdoor spaces of meaning and beauty.

Thursdays, August 19, 26, 2021, 1-3 p.m.

Garden in the Woods, Framingham, MA

Program Code: HOR8031

Instructor: Staci Jasin, landscape designer

Fee: \$60 (Members)/\$72 (Nonmembers)

Certificate: Elective: Basic and Advanced, Horticulture

Cosponsor: Ecological Landscape Alliance

# Horticulture & Design

## Cultivating Your Plant Communities

Your backyard has a unique plant community based on the ecology and geology of the area. In this three-part workshop, learn to identify appropriate native plants and groupings for your site and create a personalized plant palette and design that is beautiful and enhances biodiversity. Leave the workshop inspired to integrate science and art in your garden.

Wednesdays, September 15, 22, 2021, 10 a.m.-1 p.m. and Sunday, September 19, 2021, 10 a.m.-1 p.m.

Garden in the Woods, Framingham, MA

Program Code: HOR3607

Instructor: Staci Jasin, landscape designer

Fee: \$135 (Members)/\$162 (Nonmembers)

Certificate: Elective: all certificates

Cosponsor: Ecological Landscape Alliance

## Native Plant Dyes

For centuries, people have used natural materials to bring color into everyday life through wardrobe and fashion. Today, approximately 90 percent of dyes used in clothing are synthetic; many are made through unsustainable processes. In New England, we are surrounded by plants that can be turned into vibrant and lush pigments, which in turn can be applied to natural fibers such as wool, hemp, or cotton. In this class, we'll discuss useful dye plants of the Northeast and New England ecoregions and explore how to process, extract, and bind these colors to fabric. Basic terminology of natural dyes, methods of plant identification, and ethical harvest of plant parts used will also be covered. As we conclude, a brief showcase of plant-dyed fabrics will be displayed. Join us for a fun and simple introduction to natural dyes from plants.

Thursday, September 23, 2021, 1-3:30 p.m.

Garden in the Woods, Framingham, MA

Program Code: ART2700

Instructor: Michael Piantedosi, Director of Conservation, Native Plant Trust

Fee: \$38 (Members)/\$45 (Nonmembers)

07



American hazelnut  
(*Corylus americana*)  
Dan Jaffe © Native Plant Trust



# Landscape Studies

If a landscape study cannot be conducted in person for public health reasons, it will be canceled.

## Meadow Gardens

Join landscape architects from award-winning Crowley Cottrell, LLC for a landscape study of one of their meadow projects adjacent to a large historic wetland meadow in Concord. Get insight on how the landscape architects strove to unite the design aspirations of the client with the essential nature of the site by creating a sense of place that is ecologically sustainable, instead of conforming to the typical suburban landscapes of neighboring houses. Learn about a variety of techniques that were used to convert the majority of the land into low maintenance, beautiful habitat.

Sunday, June 13, 2021, 1:30-3 p.m.

Simon Willard property, Concord, MA

Program Code: HDT5010

Instructor: Michelle Crowley, principal landscape architect, Crowley Cottrell, LLC

Fee: \$23 (Members)/\$27 (Nonmembers)

Certificate: Landscape: Basic and Advanced, Horticulture

## Harvard Designs: Arboretum and Science Complex

Join us for a landscape study of two Harvard University landscapes—Arnold Arboretum and the Science and Engineering Complex—designed by the award-winning landscape architecture firm STIMSON. This program follows the landscape architecture process from planning to implementation. We begin at Arnold Arboretum, discussing the Arboretum's role in selecting plants for all Harvard University projects. We will then visit Harvard's Science and Engineering Center (SEC) to tour the newly installed landscape and see the implementation of the arboretum's recommendations. STIMSON landscape architects will also discuss the role of the SEC landscape project in the evolution of Harvard's campus and key design factors such as stormwater management, landform orientation, and surface materials.

Friday, July 9, 2021, 10:30 a.m.-2:30 p.m.

Boston, MA

Program Code: HDT5008

Instructor: Glen Valentine and Joe Wahler, principals, and Ryosuke Takahashi, associate, STIMSON

Fee: \$60 (Members)/\$72 (Nonmembers)

Certificate: Landscape: Basic and Advanced, Horticulture

Cosponsor: Boston Society of Landscape Architects

## Planning for Pollinators: Casey Farm

Native pollinators and the local plant biodiversity they promote are critical to food production. Utilizing the community farm space at historic Casey Farm, this interactive workshop guides you in how to choose native plants that encourage native pollinators, thereby building healthier local ecosystems. The class is geared toward edibles plots but can be applied to ornamental gardens as well.

Saturday, August 7, 2021, 10 a.m.-12 p.m.

Saunderstown, RI

Program Code: HDT8052

Instructor: Gary Casabona, RI state biologist, U.S. Department of Agriculture

Fee: \$25 (Members)/\$36 (Nonmembers)

Certificate: Landscape: Basic and Advanced, Horticulture

Cosponsor: Historic New England

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## Upper Cape Landscapes

Join landscape architects from award-winning STIMSON for a landscape study of their Falmouth public design gems. We begin on the 100-acre Quissett Campus at the heart of the Woods Hole Oceanographic Institution, where we will see innovative, ecologically sound projects demonstrating the Institution's commitment to making their environmental ethic visible through the

built landscape. From there, we will explore STIMSON's Teaticket Park grassland habitat and Gateway Park wetland restoration.

Friday, August 13, 2021, 12:30-3:30 p.m.

Falmouth, MA

Program Code: HDT5009

Instructor: Edward Marshall and Joe Wahler, Principals, STIMSON

Fee: \$45 (Members)/\$54 (Nonmembers)

Certificate: Landscape: Basic and Advanced, Horticulture

Cosponsor: Boston Society of Landscape Architects

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## Tracing Conservation History: Back Bay

Who and what inspired current practices and perspectives in plant protection? Walk the journey of the conservation movement at the turn of the twentieth century. Learn about historic local efforts and their impact on the national conversation right at Native Plant Trust's birthplace.

Wednesday, September 29, 2021, 11 a.m.-12:30 p.m.

Boston, MA

Program Code: BOT5207

Instructor: Courtney Allen, landscape historian and Director of Public Programs, Native Plant Trust

Fee: \$23 (Members)/\$27 (Nonmembers)

Certificate: Landscape: all certificates

# Children & Families

## Plant Play

Engage your little one with plants through nature-inspired stories, songs, and crafts! Stories are for children ages three to eight, but all ages are welcome. If the program cannot be conducted in person for public health reasons, it will be conducted virtually.

Saturdays, May 1, 15, 29, June 12, 26, July 10, 24, August 7, 21, September 4, 2021, 10-10:30 a.m.

Garden in the Woods, Framingham, MA

Instructor: Elaine Kessler, professional storyteller and children's educator

Fee: Free of charge with Garden admission



Clasp milkweed  
(*Asclepias amplexicaulis*)  
Uli Lorimer © Native Plant Trust



Black bugbane  
(*Actaea racemosa*)  
Dan Jaffe © Native Plant Trust

# Registration

Please visit [NativePlantTrust.org/education](https://NativePlantTrust.org/education) to register for our programs. Visa and MasterCard accepted. For questions regarding registration, email [education@NativePlantTrust.org](mailto:education@NativePlantTrust.org).

**ADVANCE REGISTRATION** is required for all fee-based programs and is accepted on a first come, first-served basis upon full payment. Early registration is encouraged; programs with insufficient registration may be cancelled five business days before the scheduled start date. If your requested program is filled, please add yourself to the waiting list; if space becomes available, you will be contacted according to your position on the waiting list. No refunds or transfers can be given for withdrawals within a week of the program start date, or for class sessions you have not attended, except for COVID-19 related reasons.

**EQUAL ACCESS** If you need assistance or special accommodations, email [education@NativePlantTrust.org](mailto:education@NativePlantTrust.org), at the time you register or as soon as possible thereafter.

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## Membership

For a full description of member benefits, please visit our website or call (508) 877-7630 x3104

[NativePlantTrust.org/support](https://NativePlantTrust.org/support)

For immediate discounts on programs, join or renew when you register. Members help conserve and promote the region's native plants to ensure healthy, biologically diverse landscapes.

### MEMBERSHIP BENEFITS INCLUDE:

- \* Discounts on educational programs throughout New England
- \* Annual subscription to Native Plant Trust publications
- \* Monthly member e-newsletter
- \* Discounts at a wide range of regional and mail-order nurseries through our Nursery Connections Program and our Garden Shops
- \* Access to member-only on-demand webinars
- \* Invitations to special members' only events

### MEMBERSHIP LEVELS:

- \* Individual \$40
- \* Individual with Garden Access \$55
- \* Family/Friends \$75
- \* Contributor \$115
- \* Supporter \$250
- \* Sustainer \$500
- \* Conservation Circle \$1,000

# Donate

Nature has been a constant source of solace to people everywhere throughout the pandemic. Today you have a wonderful opportunity to show your appreciation for the native plants that are bringing you peace and joy—and for the programs that help you identify, protect, and grow them.

With the spike in demand for our online classes, we need your support to help fund the ongoing conversion of in-person programs to online formats people can access from home. Program fees alone simply do not cover the costs of the changes we must make. We need your help to keep more than 200 educational experiences available and affordable to everyone this year.

## **DONATE ONLINE**

[www.NativePlantTrust.org/fundprograms](http://www.NativePlantTrust.org/fundprograms)

## **DONATE BY MAIL\***

Use the envelope provided in this catalog

## **DONATE BY PHONE\***

508-877-7630 x3802

\*Please note that while staff are mostly working remotely, donating online is the fastest and most effective way for you to bring native plant education to everyone, everywhere. Thank you.

# BRING THE GREEN DREAM TO LIFE

More than ever before, people are turning to Native Plant Trust to learn about the natural world. Your generosity will help provide botany and horticulture programs that inspire thousands of people and benefit our planet.

[www.NativePlantTrust.org/fundprograms](http://www.NativePlantTrust.org/fundprograms)

## Native Plant Trust

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