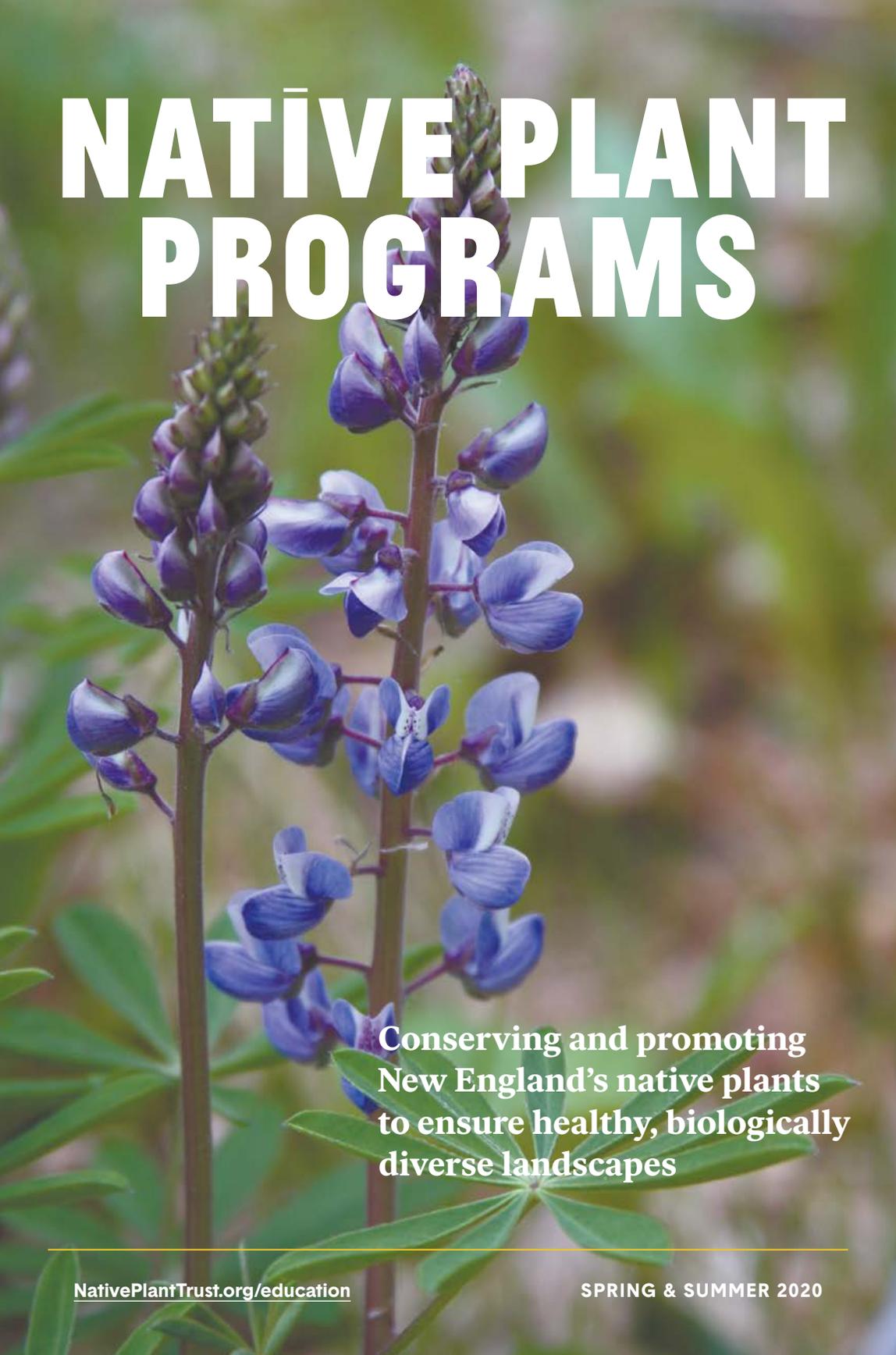


NATIVE PLANT PROGRAMS

A close-up photograph of a purple lupine flower spike. The flowers are in various stages of bloom, with some fully open and others as buds. The background is a soft, out-of-focus green, suggesting a natural outdoor setting.

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.

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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 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

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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 58 for information.

Printed on recycled paper.

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ON THE COVER

Sundial lupine (*Lupinus perennis*) by Dan Jaffe



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Courtney E. Allen



COURTNEY ALLEN
Director of Public Programs

With our new name and our new look, Native Plant Trust is also pleased to offer new programs. Half of the 120 programs this semester are brand new, such as a book talk with Doug Tallamy and a Plant Diversity Symposium debuting Native Plant Trust's latest publication with The Nature Conservancy. You will also see improvements to some of our signature learning initiatives, including an updated curriculum for our renowned Native Plant Studies Certificate. And for the first time this summer, three of our certificate courses will be offered both in person and online, joining our popular suite of online learning opportunities.

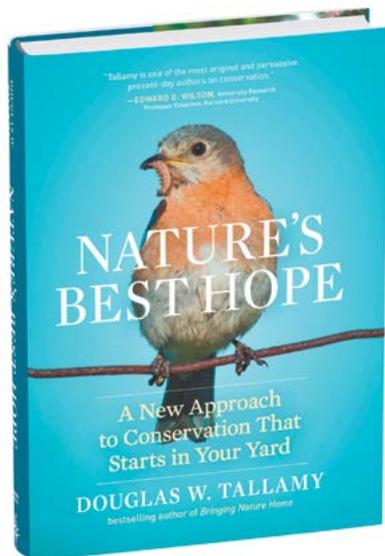
As a regional organization, we strive to serve audiences throughout New England. Over the past two years, we have revitalized our public programming in Maine, New Hampshire, Rhode Island, and western Massachusetts. In this catalog, you will also discover expanded offerings in Vermont, Connecticut, and Cape Cod. We highlight some of the most botanically rich habitats, plant collections, and conserved and cultivated landscapes around the region – both ours and those of affiliates. With an ever-developing network of partnerships and faculty, our cutting edge learning initiatives make Native Plant Trust the top source for native plant education in New England and a model for native plant education around the world.

Events

Tales from the Field: A Botany Story Slam

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.

Saturday, February 29, 2020, 6-8 p.m.
Garden in the Woods, Framingham, MA
Fee: \$30 (Members)/\$36 (Nonmembers)



01



Nature's Best Hope: A Talk and Book Signing with Doug Tallamy

Join Doug Tallamy for a talk and book signing for his newest publication, *Nature's Best Hope*. Recent headlines about global insect declines, the impending extinction of one million species worldwide, and three billion fewer birds in North America are a bleak reality check about how ineffective our current landscape designs have been at sustaining the plants and animals that sustain us. Such losses are not an option if we wish to continue our current standard of living on planet Earth. The good news is that none of this is inevitable. Tallamy, author of the acclaimed *Bringing Nature Home*, will discuss simple steps that each of us can—and must—take to reverse declining biodiversity and explain why we, ourselves, are nature's best hope. The talk will be followed by a book signing.

Tuesday, April 14, 2020, 6-8 p.m.
Garden in the Woods, Framingham, MA
Fee: \$30 (Members)/\$36 (Nonmembers)

Arbor Day

Join us for our fifth annual celebration of New England's trees and forests! Since 1872, this environmentalist holiday has encouraged Americans to become closer to our trees, whether by planting them for ecological health and beauty, learning about tree care, or simply enjoying a walk in the woods. What better way to celebrate Arbor Day than at Garden in the Woods?

Saturday, April 25, 2020, 10 a.m.-3 p.m.
Garden in the Woods, Framingham, MA

Fee: Free of charge with Garden admission

FOR ADULTS

To receive a free native tree from our tree giveaway, be sure to arrive at the start of the day. Then join our knowledgeable guides for an up-close look at the Garden and our magnificent trees. Afterward, observe our staff-led tree planting and pruning demonstrations and have your pressing tree questions answered. Finally, don't forget to check out the new plants and items at our garden shop!

FOR CHILDREN

Throughout the day, families can alternate among several guided and self-directed activities. Children can learn about the parts of a tree as well as its life cycle and life span from our teacher-naturalists at three investigation stations. For some independent exploration, pick up a tree quest to identify trees by their bark and leaves, or try the meet-a-tree activity for a close look at the characteristics of one specimen. Finally, contribute to the grow-a-tree art project, where children can make an art project together!

02



03



Events

Trillium Week May 3-9

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 fifth annual Trillium Week to celebrate the beauty and variety of trilliums at the Garden.

Guided Trillium Tours

Join our knowledgeable guides for an in-depth look at the Garden and our award-winning trillium collection. Tours meet at the visitor center.

Sunday, May 3, through Saturday, May 9, 2020, 1-2 p.m.

Fee: Free of charge with Garden admission

04



Trillium Workshops

Join Native Plant Trust staff to learn how to expertly care for your plants. You will receive expert advice on how to select trillium species, prepare a site for planting, and care for a plant once it's in the ground.

Sunday, May 3; Thursday, May 7; Friday, May 8; and Saturday, May 9, 2020, 2-3 p.m.

Fee: Free of charge with Garden admission

Twilight Trilliums

Enjoy popular beers from local craft brewer Exhibit 'A' Brewing and award-winning wines from local vintner Aaronap Cellars while listening to live music on a beautiful spring evening in the Garden. Stroll the Garden after hours during Trillium Week and enjoy the largest collection of trilliums north of Delaware during their peak flowering time. Learn about the plants that brewers and vintners use to make their beverages. Included with this event are garden access, entertainment, learning activities, and light refreshments.

Friday, May 8, 2020, 6-8 p.m.

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

05



06

Plant Diversity Symposium

Join us for the unveiling of a new analysis of plant diversity in New England, presented as a collaborative report between Native Plant Trust and The Nature Conservancy. This symposium delves into goals and strategies for conserving plant diversity in the wake of development and climate change. Through multiple interactive formats, we will address what the new data analysis tells us about the current status of plant diversity, how it guides priorities for plant conservation, and what approaches are being used to meet conservation goals. The Plant Diversity Symposium sheds new light on the intersection between plant conservation, land management, and land protection.

Friday, June 12, 2020, 10 a.m.-5 p.m.
Lesley University, Cambridge, MA

Program Code: SYM1008

Fee: \$105 (Members)/\$126 (Nonmembers)

Certificate: Elective: all certificates

Cosponsor: The Nature Conservancy



Asters After Hours

Enjoy harvest libations while listening to music on a beautiful autumn evening in the Garden. Stroll the Garden after hours to observe the season's stunning asters (Asteraceae), goldenrods (*Solidago*), and cardinal flowers (*Lobelia cardinalis*) in the evening glow. Learn about the plants used to create the event's featured beverages. Included with this event are garden access, entertainment, learning opportunities, and light refreshments.

Friday, September 25, 2020, 6-8 p.m.
Garden in the Woods, Framingham, MA

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

07



Online Learning

Courses

Plant Form and Function

This introduction to botany covers the basics of plant anatomy and physiology and addresses the fundamentals of the plant kingdom. We will take a microscopic look at roots, stems, leaves, and their component tissues. We will also examine flowers, fruits, and seeds and discuss pollination, fertilization, dispersal, and germination, with an emphasis on the relationship between plant form and function. This Basic Certificate online core course is self-paced, with opportunities for peer discussion, expert access for questions, and in-person application with a local instructor.

Course access begins in summer 2020

Program Code: CERO100

Fee: \$180 (Members)/\$126 (Nonmembers)

Certificate: Basic Core

Plant Ecology

This overview of plant ecology addresses the distribution and abundance of plants and their interactions with other organisms and the physical environment. We will explore factors that affect plants as individuals, populations, and communities, such as life history, resource use, competition, and animal-plant interactions (e.g., pollination, dispersal, herbivory). This Basic Certificate online core course

is self-paced, with opportunities for peer discussion, expert access for questions, and in-person application with a local instructor.

Course access begins in summer 2020

Program Code: CERO101

Fee: \$180 (Members)/\$126 (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. This Basic Certificate online core course is self-paced, with opportunities for peer discussion, expert access for questions, and in-person application with a local instructor.

Course access begins in summer 2020

Program Code: CERO102

Fee: \$180 (Members)/\$126 (Nonmembers)

Certificate: Basic Core

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 begins Monday, April 20, 2020

Program Code: BOTO101

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

Certificate: Elective: Basic

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 is not a prerequisite. You can complete the course at your own pace.

Course access begins Monday, April 20, 2020

Program Code: BOTO102

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

Certificate: Elective: Advanced, Botany

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 begins Monday, April 20, 2020

Program Code: HOR100

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

Certificate: Elective: Basic

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 begins Monday, April 20, 2020

Program Code: HORO101

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

Certificate: Elective: all certificates

Online Learning

Webinars

Plant Evolution, Part 1

In this webinar, you will learn current theories on early plant evolution. We'll review the evidence for plant evolution including fossils, DNA, and morphology to understand how photosynthetic organisms from ancient seas evolved and adapted to life on land.

Tuesday, February 11, 2020, 1-2 p.m.

Program Code: BOTW312

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

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

Certificate: Elective: all certificates

Flora for Fauna

This webinar addresses the human need to interact with wild plants on the regional landscape. When done in accordance with reciprocal conservation methods, both parties (humans and plants) benefit from the interaction. In many circumstances, reciprocal conservation has merit and is the historical practice humans have used to steward wild plant populations and their health.

Wednesday, February 26, 2020, 1-2 p.m.

Program Code: BOTW515

Instructor: Arthur Haines, Research Botanist, Native Plant Trust, author of *Flora Novae Angliae*

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

Certificate: Elective: all certificates

Floral Morphology

This introductory webinar familiarizes you with a working vocabulary of floral parts and with the skills to accurately describe their position, fusion, numbers, absence, and other features used in taxonomy to identify and classify plants. Take the first step to correctly interpreting the structures we see on plants and understanding how they allow for plant classification.

Tuesday, March 3, 2020, 1-2 p.m.

Program Code: BOTW201

Instructor: Arthur Haines, Research Botanist, Native Plant Trust, author of *Flora Novae Angliae*

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

Certificate: Elective: all certificates

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, March 24, 2020, 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

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.

Thursday, April 9, 2020, 1-2 p.m.

Program Code: HORW213

Instructor: Chris Leahy, Overseer, 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

Sanctuary Update: Nasami Farm

Join Bud Sechler, Ecological Programs Coordinator, to learn about the history and critical ecological resources of Native Plant Trust's most active sanctuary. This webinar includes updates on recent rare plant surveys and an invasive plant management plan to restore habitats at Nasami Farm.

Wednesday, June 17, 2020, 1-2 p.m.

Program Code: BOTW404

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

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

Certificate: Elective: Basic and Advanced, Botany



08 Brown bog sedge
(*Carex buxbaumii*)

09



09 Eastern bluebird by
Deborah Bifulco

Online Learning

Water-Saving Native Plants

Massachusetts experienced a record-breaking drought in 2016-2017, and water bans in towns across the state have become annual occurrences. What native plants can we use that withstand drought without supplemental irrigation? Come be inspired by stunning plants with low water requirements and learn about the adaptations that help them perform well under harsh conditions.

Tuesday, July 7, 2020, 6:30-7:30 p.m.

Program Code: HORW214

Instructor: Anna Fialkoff, Senior Horticulturist, Native Plant Trust

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

Certificate: Elective: Basic and Advanced, Horticulture

10



The Making and Future of the Plant Conservation Volunteer Program

Started in Massachusetts in 1993, the Native Plant Trust's PCV program is the oldest rare plant monitoring program in the country. It engages conservation-minded volunteers in rare plant monitoring and seed collection, habitat management, and invasive species monitoring. Since its creation, the program has grown to a consortium of more than 120 professional botanists and more than 500 amateur volunteer botanists currently active throughout New England. In this webinar, participants will learn about the history of the PCV program, how it is run, and what changes are in store for the program.

Tuesday, July 14, 2020, 1-2 p.m.

Program Code: BOTW903

Instructor: Micah Jasny, Botanical Coordinator, Native Plant Trust

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

Certificate: Elective: Basic and Advanced, Botany

11



12



Plants Not Lawns

Who says lawns need to be monocultures or only made of grasses? We can do better than the default landscape material that covers most of the suburban landscape. You will learn to create a rich, wildlife-friendly tapestry instead. Discover your options and get inspired to change your lawn management practices or to replace your lawn altogether with a variety of alternatives.

Tuesday, August 4, 2020, 6:30-7:30 p.m.

Program Code: HORW110

Instructor: Anna Fialkoff, Senior Horticulturist, Native Plant Trust

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

Certificate: Elective: Basic and Advanced, Horticulture

Strategies for Invasive Plant 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 to combat 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.

Thursday, August 20, 2020, 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

Gardening for Habitat

Gardens are habitats, but the degree to which they support local wildlife depends on our gardening practices. When and how we decide to clean up leaves or cut plants back can affect the life cycles of salamanders, bees, birds, moths, and butterflies. Our plant choices determine who visits, stays, or passes by as they look for food, shelter, and places to lay eggs. Learn more from Anna Fialkoff as she shares her own observations, practices, and research from working at Garden in the Woods.

Tuesday, September 1, 2020, 6:30-7:30 p.m.

Program Code: HORW215

Instructor: Anna Fialkoff, Senior Horticulturist, Native Plant Trust

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

Certificate: Elective: Basic and Advanced, Horticulture

Botany & Conservation

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 plants ranging from the orchid family (Orchidaceae) to moonworts (*Botrychium*). In addition, we will discuss actions that Native Plant Trust and conservationists in the region are conducting to protect the taxa most in need.

Friday, February 21, 2020, 1-4 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

13



Winter Branchlet Identification

Woody plants such as trees, shrubs, and vines can be identified during dormant time. Winter branchlet identification provides a more holistic understanding of woody plant identification and can give you more confidence in naming plants. You will learn to interpret the special branchlet features of woody plants that assist both in winter identification and in growing season surveys.

Sunday, February 23, 2020, 1-4 p.m.

Gilsland Farm Audubon Center, Falmouth, ME

Program Code: BOT3332

Instructor: Arthur Haines, Research Botanist, Native Plant Trust, author of *Flora Novae Angliae*

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

Certificate: Elective: Basic and Advanced, Botany

Cosponsor: Maine Audubon

14



13 Ash-leaved maple
(*Acer negundo*)

14 St. Lawrence grapefern
(*Botrychium rugulosum*)

Predatory Plants

Insectivorous and parasitic plants have evolved nutritional modes that differ from those in the rest of the plant world, where self-sufficiency is the norm. This class covers more familiar pitcher plants (*Sarracenia*), sundews (*Drosera*), and dodder vines (*Cuscuta*) as well as lesser-known groups such as the bladderworts (*Utricularia*) and broom rapes (*Orobanchae*). Learn about the habitats, unusual life cycles, and curious behavior of these New England plants.

Thursday, March 12, 2020, 10:30 a.m.-2:30 p.m.

Garden in the Woods, Framingham, MA

Program Code: BOT2317

Instructor: Neela de Zoysa, botanist

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

Certificate: Elective: all certificates

15



Rock Lichens

Rocks are excellent places to study lichen growth forms, biology, and ecology. Native rock walls, cement walls, and cemetery monuments made from different rocks boast a diversity of rock-colonizing lichens common to New England. During this class, you will learn about lichen identification, reproduction and growth, and habitat interactions through a stereoscope workshop and field application at local cemeteries.

Saturday, March 14, 2020, 10:30 a.m.-3:30 p.m.

Garden in the Woods, Framingham, MA, and field site

Program Code: BOT3604

Instructor: Elizabeth Kneiper, lichenologist

Fee: \$75 (Members)/\$90 (Nonmembers)

Certificate: Elective: Basic and Advanced, Botany

Liliaceae and Friends

Join Ted Elliman for an overview of the vibrant Liliaceae family. You will learn native and non-native species of the lily and allied families that are present in New England, the morphological features that distinguish the different families, and the habitats and distribution of each species in the region. We cover species that still are in the lily family as well as those that recently split from Liliaceae into other families. You will engage with the plants through a range of learning tools, including visual presentation and examination of herbarium specimens.

Saturday, March 28, 2020, 10:30 a.m.-12:30 p.m.

Garden in the Woods, Framingham, MA

Program Code: BOT3021

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

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

Certificate: Elective: all certificates

Cosponsor: Massachusetts Association of Conservation Commissions

15 Round-leaved sundew
(*Drosera rotundifolia*)

Botany & Conservation

Bird Monitoring and Habitat Assemblages

By identifying the song of a warbling vireo (*Vireo gilvus*) in a riparian stream habitat, or that of a Black-throated green warbler (*Setophaga virens*) in a mixed coniferous-hardwood forest, an observer can deduce characteristics about the habitat. Monitoring birds in an area over a period of time can help us understand the habitat type, quality, and management. This class will explore assemblages between Massachusetts Natural Community types and the bird species found in those community types, as well as structural components that are critical for these bird species.

Tuesday, April 28, 2020, 10 a.m.-12 p.m.
Garden in the Woods, Framingham, MA

Program Code: BOT5044

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

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

Certificate: Elective: Basic and Advanced, Botany

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 providing an anthropogenic bias on the value of non-human life. With our focus on merely attaining biological thresholds of species' viability rather than on species' abundance (an "ecology of the minimal"), are we acting in an environmentally just manner? Or 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 life across Earth.

Friday, May 1, 2020, 10:30 a.m.-1 p.m.
Garden in the Woods, Framingham, MA

Program Code: BOT1513

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

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

Certificate: Elective: all certificates

Managing Invasives Through Eating: A Conservation Diner's Guide

Invasive species are a significant threat to global biodiversity, and conservationists are constantly looking for new ways to manage their continued expansion into native ecosystems. While traditional methods to control invasive species have included mechanical and chemical strategies, in recent years there has been a growing movement to see if we can control invasive species by eating them. You will learn about the history of eating invasive species and the merits and drawbacks of the strategy.

Sunday, May 17, 2020, 11 a.m.-12 p.m.
Garden in the Woods, Framingham, MA

Program Code: BOT6102

Instructor: Micah Jasny, Botanical Coordinator, Native Plant Trust

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

Certificate: Elective: Advanced, Botany

Native Plants and Non-Native Plants: South Shore

Delve into the plants and habitats of the South Shore. Through classroom discussion and field application, we will explore how native plants coexist in natural habitats and what happens when plants are forced to abandon their native ranges. This session will address plant mechanisms for coexistence, geographic boundaries in defining "native," threats of native-invasive hybridization, incubation periods of invasive plants, and differentiation between native, non-native, and invasive plants.

Saturday, June 13, 2020, 11 a.m.-1 p.m.
South Shore Natural Science Center and Jacobs Pond Conservation Area, Norwell, MA

Program Code: BOT2222

Instructor: Irina Kadis, botanist

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

Certificate: Elective: Basic and Advanced, Botany

Cosponsor: South Shore Natural Science Center

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.

Wednesday, July 8, 2020, 10:30 a.m.- 2:30 p.m.
Garden in the Woods, Framingham, MA

Program Code: BOT3036

Instructor: Neela de Zoysa, botanist

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

Certificate: Elective: 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 9, 2020, 1-4 p.m.
North Branch Nature Center, Montpelier, VT

Program Code: BOT3360

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

Fee: \$40 (Members)/\$45 (Nonmembers)

Cosponsor: North Branch Nature Center



16

Botany & Conservation

New England Vines

Vines and climbers are an ecologically important and varied group of plants in New England. This session covers the diversity of native vines through 50 climbers that vary widely in their size, form, and adaptations. You will become familiar with adaptations to climbing, groups of climbing plants, and vine identification tools and features.

Thursday, July 23, 2020, 10:30 a.m.-2:30 p.m.
Garden in the Woods, Framingham, MA

Program Code: BOT3020

Instructor: Neela de Zoysa, botanist

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

Certificate: Elective: Basic and Advanced, Botany

Midsummer Plant Poetry

New England's plants have inspired many poets. Join us for a summer afternoon savoring these poems about Rhodora (*Rhododendron canadense*), wild columbine (*Aquilegia canadensis*), and many more. You will develop the skills to observe parts of a flower and the habitat, to remember plants by writing about them, and to use nineteenth- and twentieth-century poems to discuss land use change and climate change. Bring a poem to share and gather inspiration to compose your own poem with a walk in the Garden.

Saturday, August 1, 2020, 2-4 p.m.
Garden in the Woods, Framingham, MA

Program Code: ART2010

Instructor: Neela de Zoysa, botanist

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

17



Yellow Composites

The yellow-flowered members of the Asteraceae family are ubiquitous: dandelions (*Taraxacum*), coneflower (*Echinacea purpurea*), hawkweeds (*Hieracium*), lettuces (*Lactuca*), sow-thistles (*Sonchus*), sunflowers (*Helianthus*), and more. But they can be confusing to differentiate! Through a visual presentation, herbarium specimens, and a field excursion, you will learn many of the yellow-flowered members of the composite family in New England, the key field features that distinguish them, and the different habitats in which they occur.

Sunday, August 9, 2020, 10 a.m.-4 p.m.
Nasami Farm, Whately, MA

Program Code: BOT3022

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

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

Certificate: Elective: Basic and Advanced, Botany

Introduction to Ferns

New England boasts habitats with numerous, distinct 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, August 15, 2020, 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 and Advanced, Botany

Carnivorous and Parasitic Plants

Explore the weird world of native plants that employ nontraditional nourishment strategies, from catching and devouring their own prey to stealing from neighbors. With classroom discussion and field application, this program examines the evolution and motivations of carnivory as an adaptation, distinguishing characteristics across and within carnivorous and parasitic families, and explaining the role of parasitic plants in their environments.

Saturday, August 29, 2020, 1-3:30 p.m.
South Shore Natural Science Center and Jacobs Pond Conservation Area, Norwell, MA

Program Code: BOT3701

Instructor: Irina Kadis, botanist

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

Certificate: Elective: Basic and Advanced, Botany

Cosponsor: South Shore Natural Science Center

Introduction to Go Botany

Native Plant Trust's Go Botany online platform is a critical tool for New England native plant identification. This program serves as a review on field guide identification and forms a bridge between identification by book and identification by online resource. We will use common wildflower identification guidebooks to review how to use a key to identify plants, including terminology and plant characteristics. From there, we learn how to apply similar skills to use Go Botany to identify plants.

Wednesdays, September 9, 16, 2020,
10:30 a.m.-2:30 p.m.
Garden in the Woods, Framingham, MA

Program Code: BOT3805

Instructor: Leslie Duthie, botanist

Fee: \$120 (Members)/\$144 (Nonmembers)

Certificate: Elective: Basic

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Botany & Conservation

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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 by subtle characteristics.

Saturday, September 19, 2020, 10 a.m.-3 p.m. and
Sunday, September 20, 2020, 10 a.m.-2 p.m.
Garden in the Woods, Framingham, MA, and field
site

Program Code: PDW4400

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

Fee: \$136 (Members)/\$162 (Nonmembers)

Certificate: Elective: Basic and Advanced, Botany

Introduction to Grasses Identification

Join Lauren Brown, author of *Grasses: An Identification Guide*, as she shares information about the beautiful and abundant grasses in Connecticut. Through classroom and field study, you will learn vocabulary used for grasses and practice identifying several common native New England grasses using clear key characteristics.

Saturday, September 26, 2020,
9:30 a.m.-1:30 p.m.
Peabody Museum of Natural History, Yale
University, New Haven, CT

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

Certificate: Elective: Basic

Cosponsor: Peabody Museum of Natural History,
Yale University

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Robin's plantain fleabane
(*Erigeron pulchellus*)



Field Studies

Native Plant Trust sanctuary sites

Plainfield Sanctuary

Join us for an off-trail adventure into a mixed northern hardwood-hemlock forest full of spring ephemerals on Native Plant Trust's 86-acre sanctuary adjacent to the Connecticut River in New Hampshire. Spot favorites such as bloodroot (*Sanguinaria canadensis*) and red columbine (*Aquilegia canadensis*) and discover rare plants such as large-flowered bellwort (*Uvularia grandiflora*), and green-dragon (*Arisaema dracontium*). The field study also addresses common invasives that threaten native plants and approaches for combatting them. Please note, this moderate hike is intended for experienced hikers.

Saturday, May 2, 2020, 11:30 a.m.-2 p.m.
Plainfield, NH

Program Code: FDT3017

Instructor: TBD

Fee: \$40 (Members)/\$45 (Nonmembers)

Certificate: Field: Basic and Advanced, Botany

Cosponsor: New Hampshire Audubon

Annie Sturgis Sanctuary

Join Bud Sechler, Ecological Programs Coordinator, for a hike through Native Plant Trust's 40-acre tract along the Kennebec River in Maine. Descend the gully into a woodland to visit a variety of lime-loving plants, including wild ginger (*Asarum canadense*, extremely rare in Maine), bloodroot (*Sanguinaria canadensis*),

trout lily (*Erythronium americanum*), and purple trillium (*Trillium erectum*). Please note, this moderate hike is intended for experienced hikers.

Saturday, May 9, 2020, 11 a.m.-2 p.m.
Vassalboro, ME

Program Code: FDT9001

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

Fee: \$40 (Members)/\$45 (Nonmembers)

Certificate: Field: Basic and Advanced, Botany

Eshqua Bog

Join Bud Sechler, staff Ecological Programs Coordinator, for a boardwalk stroll through Native Plant Trust's 40-acre fen to view our renowned showcase of showy lady's-slipper (*Cypripedium reginae*) and yellow lady's-slipper (*Cypripedium parviflorum*). Experience the orchids at their peak and learn about efforts to protect their wetland habitat from encroaching invasive plants from the forest. We will also enjoy the surrounding red maple-tamarack swamp and the northern hardwood forest.

Friday, June 5, 2020, 11 a.m.-2 p.m.
Hartland, VT

Program Code: FDT5007

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

Fee: \$40 (Members)/\$45 (Nonmembers)

Certificate: Field: Basic and Advanced, Botany

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 19, 2020, 9:30 a.m.- 12 p.m.
Springvale, ME

Program Code: FDT9002

Instructor: Heather McCargo, executive director, Wild Seed Project

Fee: \$33 (Members)/\$38 (Nonmembers)

Certificate: Field: Basic and Advanced, Botany

Cosponsor: Wild Seed Project

Hobbs Fern Sanctuary

Come explore Native Plant Trust's 240-acre property that boasts more than 40 varieties of ferns, including several rare species and unusual wood fern hybrids. An enriched slope and ledge area host an abundance of maidenhair fern (*Adiantum*), bulblet fern (*Cystopteris bulbifera*), silvery glade fern (*Deparia acrostichoides*), as well as hepatica (*Hepatica*), bloodroot (*Sanguinaria canadensis*), and spring beauty (*Claytonia*). Other features include wood fern swamp (*Dryopteris cristata*), with multiple species of *Pyrola* and showy lady's-slipper

(*Cypripedium reginae*) and acres of boreal spruce/fir forest dotted with beaver ponds and unique wetlands.

Saturday, July 25, 2020, 11 a.m.-2 p.m.
Lyman, NH

Program Code: FDT4021

Instructor: TBD

Fee: \$40 (Members)/\$45 (Nonmembers)

Certificate: Field: Basic and Advanced, Botany

Cosponsor: New Hampshire Audubon

Robert P. Tristram Coffin Wild Flower Sanctuary

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 Merymeeting 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, September 20, 2020, 11 a.m.-2 p.m.
Woolwich, ME

Program Code: FDT8029

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

Fee: \$40 (Members)/\$45 (Nonmembers)

Certificate: Field: Basic and Advanced, Botany

Field Studies

Wildflowers of Macomber Woods

Macomber Woods is an oasis with an upland forest, a babbling brook, and wooded wetlands. The exceptional stonework and century-old wisteria vines and rhododendrons have flourished from decades without human interference. Saunter through the woodland and discover spring wildflowers in bloom, including Indian cucumber root (*Medeola virginiana*), pink lady's-slipper (*Cypripedium acaule*) and jack-in-the-pulpit (*Arisaema triphyllum*).

Saturday, May 9, 2020, 10 a.m.- 2 p.m.
Framingham, MA

Program Code: FDT1006

Instructor: Roland Boutwell, naturalist

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

Certificate: Field: Basic and Advanced, Botany

Cosponsor: Massachusetts Association of Conservation Commissions



21 Indian cucumber root
(*Medeola virginiana*)

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Wild Edibles

Join wild plants expert Russ Cohen for a walk through Acton Arboretum, where he highlights more than 80 species of edibles. You will discover new favorite native edibles, tools to identify them, and appropriate ways to utilize them in your own landscapes.

Wednesday, May 13, 2020, 1-4 p.m.
Acton, MA

Program Code: HDT4010

Instructor: Russ Cohen, author of *Wild Plants I Have Known...and Eaten*

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

Certificate: Field: all certificates

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22 Ramps
(*Allium tricoccum*)

Ecology of Mount Tom

Mount Tom is an iconic traprock ridge nestled between Easthampton and Holyoke. Learn about this upland forest's distinctive geology, glacial history, and rare plant communities on a hike to the summit. Please note, this challenging hike is intended for experienced hikers.

Saturday, May 16, 2020, 10 a.m.-2 p.m.
Easthampton, MA

Program Code: FDT2072

Instructor: Yoni Glogower, urban forester, MA Department of Conservation and Recreation

Fee: \$53 (Members)/\$60 (Nonmembers)

Certificate: Field: Basic and Advanced, Botany

Rhodora of Ponemah Bog

Ponemah Bog, a three-acre kettle-hole pond encircled by a floating mass of sphagnum moss, is the centerpiece of a 75-acre sanctuary. It is easily accessible by a boardwalk that includes three spur trails to three viewing platforms. On this field study, you will learn to identify wetland species, including a bog orchid (*Plantathera*) and insectivorous plant species.

Saturday, May 16, 2020, 10 a.m.-2 p.m.
Amherst, NH

Program Code: FDT1092

Instructor: Roland Boutwell, naturalist

Fee: \$53 (Members)/\$60 (Nonmembers)

Certificate: Field: Basic and Advanced, Botany

Cosponsor: New Hampshire Audubon

Plants of Black Gum Swamp

Come explore a series of ancient wetlands with rare old-growth black gum (*Nyssa sylvatica*) trees and chestnut (*Castanea*) stumps and learn how to identify historical disturbances in the landscape. Though the group stays on trails, muddy feet are a distinct possibility!

Saturday, June 20, 2020, 1-4 p.m.
Vernon, VT

Program Code: FDT5020

Instructor: Yoni Glogower, urban forester, MA Department of Conservation and Recreation

Fee: \$40 (Members)/\$45 (Nonmembers)

Certificate: Field: Basic and Advanced, Botany

Wetland Ecology

Explore different wetlands and their plant compositions as we wander through the muddy and mossy trails of East Leverett Meadow. We will learn to identify wetland plants and different types of wetlands, and discuss the importance of wetland ecology. We may also see aquatic invertebrates.

Sunday, June 28, 2020, 10 a.m.-1 p.m.
Leverett, MA

Program Code: FDT8055

Instructor: George LoCascio, naturalist

Fee: \$40 (Members)/\$45 (Nonmembers)

Certificate: Field: Basic and Advanced, Botany

CoSponsor: Massachusetts Association of Conservation Commissions

Field Studies

Sandplain Grasslands

Sandplain grasslands are exemplary plant biodiversity hotspots in the northeast, and Massachusetts has many of the best remaining examples of these delightful ecosystems. These grasslands require careful management, whether they are privately owned or owned and protected by conservation organizations. Ecologist Christopher Neill will lead a walk through Cape Cod's largest sandplain grassland, located at the Crane Wildlife Management Area, a botanically rich and visually stunning site. Crane WMA 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 recent efforts to create a Sandplain Grassland Network of grassland managers and researchers to share

experiences, case studies, and management techniques.

Sunday, July 12, 2020, 1-3 p.m.
Crane Wildlife Management Area, Falmouth, MA
Program Code: FDT9010
Instructor: Christopher Neill, senior scientist, Woods Hole Research Center
Fee: \$30 (Members)/\$36 (Nonmembers)
Certificate: Field: Advanced, Botany
Cosponsor: Woods Hole Research Center

Botany of the New Hampshire Coastline

Great Bay National Wildlife Refuge is located along the eastern shore of New Hampshire's Great Bay in the town of Newington. The refuge protects more than 1,000 acres along the seacoast for migratory birds and other wildlife. One of the longest stretches of undeveloped shoreline along the bay, it consists of mud flats, salt- and freshwater marshes, swamps, ponds, streams, woodlands, and fields. Join Director of Conservation Michael Piantedosi as we explore this diverse refuge and learn about its dynamic flora.

Saturday, July 18, 2020, 10 a.m.-1 p.m.
Great Bay National Wildlife Refuge, Newington, NH
Program Code: FDT8045
Instructor: Michael Piantedosi, Director of Conservation, Native Plant Trust
Fee: \$40 (Members)/\$45 (Nonmembers)
Certificate: Field: Basic and Advanced, Botany

Wetland Shrubs

With its varied wetland habitats, Philbrick-Cricenti Quaking Bog is an excellent field site for examining shrubs that grow in and around wetlands. We will explore 15 to 20 native New England wetland shrubs, plus a few that grow in higher and drier habitats.

Sunday, July 26, 2020, 10 a.m.-2 p.m.
Philbrick-Cricenti Quaking Bog, New London, NH
Program Code: FDT4045
Instructor: Roland Boutwell, naturalist
Fee: \$53 (Members)/\$60 (Nonmembers)
Certificate: Field: Basic and Advanced, Botany
Cosponsor: New Hampshire Audubon

Coonamessett Bog

Restoring a river to its natural flow and fish passage is a complex process after decades of human modification. Along the Coonamessett River, we will appreciate the 2.2 miles of free-flowing streams, witness the improved access for herring to spawning habitat at Coonamessett Pond, and discuss the restoration of 56 acres of former cranberry bogs to natural wetlands using seeds collected by Native Plant Trust. Join us as we revel in the flora of Coonamessett Lower Bog and study the process of using native plant seeds to restore wildlife habitat.

Saturday, August 8, 2020, 10 a.m.-1 p.m.
Falmouth, MA
Program Code: FDT8056
Instructor: Michael Piantedosi, Director of Conservation, Native Plant Trust
Fee: \$45 (Members)/\$54 (Nonmembers)
Certificate: Field: Basic and Advanced, Botany

Flora of Eastern Maine

We will study some of the iconic plant species of Acadia National Park, building our identification skills in the field. This field study will be flexible according to student interests and is appropriate for all learning levels. Please note, this moderate hike is intended for experienced hikers.

Saturday, August 8, 2020, 10 a.m.-3 p.m.
Schoodic Point, Acadia National Park, Winter Harbor, ME
Program Code: FDT8047
Instructor: Jill Weber, botanist
Fee: \$66 (Members)/\$75 (Nonmembers)
Cosponsor: Maine Audubon

Botany in the Salt Marsh

Barnstable Great Marsh is an integral part of the ecologically significant 3,800-acre Sandy Neck salt marsh and barrier beach system. Join Director of Conservation Michael Piantedosi to explore this critical coastal ecosystem and learn about its resident flora.

Saturday, September 12, 2020, 10 a.m.-1 p.m.
Barnstable Great Marsh Wildlife Sanctuary, Barnstable, MA
Program Code: FDT8041
Instructor: Michael Piantedosi, Director of Conservation, Native Plant Trust
Fee: \$45 (Members)/\$54 (Nonmembers)
Certificate: Field: Basic and Advanced, Botany



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Field Studies

Habitats of the Schoodic Peninsula

We will explore an exciting variety of habitats on the breathtaking Schoodic Peninsula, such as maritime spruce-fir, coastal headland, salt marsh, and Jack pine-broom crowberry woodland. Botanical highlights on this field study include coastal communities and rare arctic plant species that reach their southern range limit in this area. Please note, this moderate hike is intended for experienced hikers.

Saturday, September 12, 2020, 10 a.m.-3 p.m.
Schoodic Point, Acadia National Park, Winter Harbor, ME

Program Code: FDT9012

Instructor: Jill Weber, botanist

Fee: \$66 (Members)/\$75 (Nonmembers)

Certificate: Field: Basic and Advanced, Botany

Cosponsor: Maine Audubon



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Botany of the Connecticut Coast

Explore the special coastal habitats of the 900-acre Hammonasset Beach State Park and Natural Area Preserve to learn the flora and ecology of tidal marsh, dune, and near-shore upland habitats. Participants also visit a tidal marsh restoration site within the park.

Sunday, September 13, 2020, 12:30-3:30 p.m.
Hammonasset Beach State Park, Madison, CT

Program Code: FDT8050

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

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

Certificate: Field: Basic and Advanced, Botany

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 25, 2020, 10 a.m.-2 p.m.
LaPlatte River Marsh, Shelburne, VT

Program Code: FDT9011

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

Fee: \$53 (Members)/\$60 (Nonmembers)

Certificate: Field: Basic and Advanced, Botany

Cosponsor: North Branch Nature Center



Gray's sedge
(*Carex grayi*)

Certificate Program

Since 1987, Native Plant Trust has cultivated one of the most comprehensive Native Plant Studies programs in the country. Our new, updated curriculum, launching in February 2020, sets a clear path for students to build on the fundamentals of the field in interactive ways, while maintaining program flexibility and increasing frequency of offerings. The new curriculum also guides students to create products over the course of the certificate, so they may have final portfolios to demonstrate the topics they are qualified to address in whatever context they choose. In addition, for the first time, we are also offering the Basic Certificate Foundations core courses in an online format. (See our Online Learning section).

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.

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 following courses. All Basic Certificate core courses are now offered every semester.

Basic:

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

Plant Form and Function

This introduction to botany covers the basics of plant anatomy and physiology and addresses the fundamentals of the plant kingdom. We will take a microscopic look at roots, stems, leaves, and their component tissues. We will also examine flowers, fruits, and seeds and discuss pollination, fertilization, dispersal, and germination, with an emphasis on the relationship between plant form and function.

Offered exclusively online this semester

Certificate: Basic Core

Plant Ecology

This overview of plant ecology addresses the distribution and abundance of plants and their interactions with other organisms and the physical environment. We will explore factors that affect plants as individuals, populations, and communities, such as life history, resource use, competition, and animal-plant interactions (e.g., pollination, dispersal, herbivory).

Wednesdays, July 15, 22, 2020,

10:20 a.m.-4:30 p.m.

Garden in the Woods, Framingham, MA, and field sites

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

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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.

Thursdays, June 11, 18, 25, 2020, 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

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, pollination and coevolution of flower structure and design, habitats and ecology, and conservation concerns.

Wednesdays, May 6, 13, 20, 27, 2020, 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 of New England

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.

Friday, July 10 and Saturday, July 11, 2020,

10 a.m.-5 p.m.

Nasami Farm, Whately, MA, and field sites

Program Code: BOT3200

Instructor: Yoni Glogower, urban forester, MA Department of Conservation and Recreation

Fee: \$252 (Members)/\$308 (Nonmembers)

Certificate: Basic Core

Native New England Shrubs

Shrubs vary widely in size, shape, color, bark, flower, and fruit. This course introduces you to 50 native New England shrub species, emphasizing plant identification, family characteristics, and historical plant uses.

Tuesdays, June 2, 9, 16, 2020, 6:30-8:45 p.m. and

Sundays, June 7, 14, 2020, 9 a.m.- 1:30 p.m.

Garden in the Woods, Framingham, MA, and field sites

Program Code: BOT3300

Instructor: Roland Boutwell, naturalist

Fee: \$270 (Members)/\$330 (Nonmembers)

Certificate: Basic Core

Understanding and Managing Soils

This one-day intensive 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.

Friday, September 4, 2020, 10 a.m.-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

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.

Saturdays, June 13, 20, 2020, 10 a.m.-4 p.m.
Nasami Farm, Whately, MA, and field sites

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

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.

Mondays, May 18, June 1, 8, 2020,
10:30 a.m.-2:30 p.m.

Garden in the Woods, Framingham, MA

Program Code: BOT2000

Instructor: Leslie Duthie, botanist

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

Certificate: Advanced Core, Botany

Botanical Inventory Methods and Techniques

This one-day intensive begins by covering the fundamentals of field preparation, including the use of field guides, aerial photography, GIS (geographic information system) resources, sampling strategies, and preparation of field data forms. Next, we will conduct an extensive field inventory of the flora on nearby conservation land, identifying and recording the species we encounter and putting into practice the methods discussed. You will learn botanical survey approaches and methods for cataloguing the vascular plants on conservation land.

Saturday, June 27, 2020, 9:30 a.m.-4:30 p.m.
Garden in the Woods, Framingham, MA

Program Code: BOT2050

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

Fee: \$126 (Members)/\$154 (Nonmembers)

Certificate: Advanced Core, Botany

Cosponsor: Massachusetts Association of Conservation Commissions

Advanced Core, Horticulture & Design

Horticultural Techniques

Good horticultural practices form the backbone of any successful garden, and understanding how to apply these practices is the first step toward becoming a horticulturist. We will discuss how to select the right plant for the right place and how to plant and care for native plants. You will learn proper techniques for transplanting, preparing soil, mulching, watering, and pruning as well as maintaining, winterizing, and preparing the garden for the next growing season.

Tuesdays, September 15, 22, 2020, 1-3 p.m.
Garden in the Woods, Framingham, MA

Program Code: HOR3600

Instructor: Horticultural staff, Native Plant Trust

Fee: \$72 (Members)/\$88 (Nonmembers)

Certificate: Advanced Core, Horticulture

Residential Landscape Design

This multi-session course teaches and applies the landscape design process in personal spaces. Our workshop sessions focus on design methods using site analysis techniques and schematic design tools. We will first address overarching design concepts and then discuss criteria for plant choice and placements within that context. You will learn to create and implement base maps, site analysis, concepts and elements, spatial relationships, plant palettes, client preferences, and communication of your own design final product.

Thursdays, April 16, 23, 30, May 7, 2020, 10 a.m.-4 p.m.
Coastal Maine Botanical Gardens, Boothbay, ME

Program Code: HOR3999

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

Fee: \$260 (Members)/\$320 (Nonmembers)

Certificate: Advanced Core, Horticulture

Cosponsor: Coastal Maine Botanical Gardens

Native Herbaceous Plant

Materials: Early Season

Over the course of the spring, we 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 90 species, along with tips for growing these species. 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 to attract pollinators and other wildlife.

Thursdays, April 23, May 7, 21, June 4, 2020,
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

Native Herbaceous Plant

Materials: Late Season

Over the course of the 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.

Thursdays, July 30 and August 27, 2020,
12:30 p.m.-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

Horticulture & Design

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 20, 2020, 1:30-3 p.m.
Garden in the Woods, Framingham, MA

Program Code: LEC2001

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

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

Certificate: Elective: Basic and Advanced, Horticulture

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Seeing is Believing: A Visual Garden Design Workshop

Many of us get stuck when we want to create something new in the landscape. Because we live in a three-dimensional world, we can't visualize images drawn on paper. This collaborative, hands-on workshop offers a different approach to exploring space, views, light, and plant selection. Fun, fast, and free-form strategies are used to stimulate the imagination. Come to get unstuck.

Saturday, February 22, 2020, 10:30 a.m.-3 p.m.
Garden in the Woods, Framingham, MA

Program Code: HOR4047

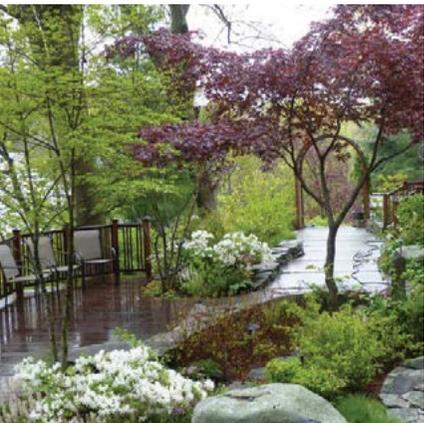
Instructor: Cheryl Salatino, landscape designer, Dancing Shadows Garden Design, and MA certified horticulturist

Fee: \$68 (Members)/\$81 (Nonmembers)

Certificate: Elective: Basic and Advanced, Horticulture

Cosponsor: Ecological Landscape Alliance

27



Grafting Woody Plants: Fruit Trees

Grafting is the technique of joining parts of separate plants in such a manner that they unite and continue their growth as one. Learn basic principles of grafting with an overview of different types of dormant-season grafts. Arnold Arboretum propagator Sean Halloran will provide step-by-step instructions so that you can practice both cleft and side veneer grafts using apple root stock. Simple aftercare will be required until the graft can be planted out in the spring. Registrants will need to sign an Assumption of Risk and Release in order to participate in this class.

Wednesday, February 26, 2020, 5-7:30 p.m.
Arnold Arboretum of Harvard University, Boston, MA

Program Code: HOR3077

Instructor: Sean Halloran, plant propagator, Arnold Arboretum

Fee: \$48 (Members)/\$58 (Nonmembers)

Certificate: Elective: Basic and Advanced, Horticulture

Cosponsor: Arnold Arboretum of Harvard University

28



Winter Pruning

Proper pruning of trees and shrubs improves their health and structure while enhancing their appearance in the landscape. Gain hands-on experience and learn basic pruning principles, including how to make proper cuts, when to prune different species, and how to select and maintain tools.

Thursday, February 27, 2020, 1-3 p.m.
Garden in the Woods, Framingham, MA

Program Code: HOR1213

Instructor: Anna Fialkoff, Senior Horticulturist, Native Plant Trust

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

Certificate: Elective: Basic

29



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.

Fridays, February 28, March 6, 13, 2020, 1-4 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

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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 a comparison of weed removal methods.

Friday, March 20, 2020, 1:30-4 p.m.
Nasami Farm, Whately, MA

Program Code: HOR8028

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

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

Certificate: Elective: Basic and Advanced,
Horticulture

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A Holistic Guide for the Modern Land Steward

Based on decades of landscape project experience, this land care guide will address regenerative design, green infrastructure, resilient landscapes, adaptive strategies, and building your own toolbox and rule book. You will reconnect with your land practices and their impact. Appropriate for both professional and personal development.

Saturday, March 21, 2020, 10:30 a.m.-2:30 p.m.
Garden in the Woods, Framingham, MA

Program Code: HOR8029

Instructor: Trevor Smith, lead designer, Land Escapes

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

Certificate: Elective: Basic and Advanced,
Horticulture

Cosponsor: Ecological Landscape Alliance



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Navigating Public Design, Part 2

Community spaces can be impactful and rewarding, but they require a different mindset and approach from singular client-designer projects. In this half-day 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.

Thursday, April 2, 2020, 10:30 a.m.-2:30 p.m.
Garden in the Woods, Framingham, MA

Program Code: HOR8031

Instructor: Staci Jasin, landscape designer

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

Certificate: Elective: Advanced, Horticulture

Cosponsor: Ecological Landscape Alliance

Horticulture & Design

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 3, 2020, 10 a.m.-4 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



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The Role of Native Plant Cultivars in Landscape Design and Habitat Restoration

Native plant species are often recommended to provide optimal foraging and nesting habitats for pollinators, birds, and other wildlife. The growing demand for native plants, coupled with the horticulture industry's desire for plants with unique characteristics, has led to the increased breeding and availability of native cultivars or "nativars." But do native cultivars provide the same valuable habitat as the straight native species? Dr. Annie White will share her field research on this topic and discuss the complex benefits and challenges of using both native species and native cultivars in landscape design.

Friday, April 10, 2020, 1-2 p.m.
University of Vermont, Burlington, VT

Program Code: HOR1091

Instructor: Annie White, lecturer, University of Vermont

Fee: \$13 (Members)/\$15 (Nonmembers)

Certificate: Elective: Basic and Advanced, Horticulture



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Nature-Based Design for Professionals

Renowned landscape designer Edwina Von Gal will present a review of nature-based design and its role in client engagement toward important environmental action. Edwina will address fundamentals using examples from her projects and her own garden. She will also introduce her new initiative: "Two Thirds for the Birds" calls on the landscape profession to plant native plants and to use more ecologically sound management methods. This presentation will be followed by a walk through the surrounding landscape for a group discussion about nature-based design challenges and solutions.

Thursday, April 16, 2020, 1-4 p.m.
New Canaan Nature Center, New Canaan, CT

Program Code: HOR8033

Instructor: Edwina Von Gal, landscape designer and founder, Perfect Earth Project

Fee: \$54 (Members)/\$66 (Nonmembers)

Certificate: Elective: Advanced, Horticulture

Cosponsor: New Canaan Nature Center

36



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 18, 2020, 10 a.m.- 1 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

Cosponsor: Ecological Landscape Alliance

Horticulture & Design

Building the Green Industry

Based on his article, “Sus-tain-a-bil-i-ty: Discovering the True Definition, Defining the New Paradigm,” Trevor Smith shares his award-winning approach to collaborations, community outreach, and professional training as a map to secure the green infrastructure we need and to build a green industry workforce. You will learn opportunities, challenges, and strategies to guide your own projects in the green industry.

Thursday, April 30, 2020, 10:30 a.m.-1:30 p.m.
Garden in the Woods, Framingham, MA

Program Code: HOR8030

Instructor: Trevor Smith, lead designer, Land Escapes

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

Certificate: Elective: Advanced, Horticulture

Cosponsor: Ecological Landscape Alliance

Eco-restorative Garden Design

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

Friday, May 15, 2020, 10:30 a.m.-2:30 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

Nature-Based Design for Landowners

Renowned landscape designer Edwina Von Gal will present an introduction to the basic principles of nature-based design, including examples from her projects and her own garden. This presentation will be followed by a walk through the surrounding landscape for on-site application of these principles. Edwina will also introduce her new initiative: “Two Thirds For the Birds” challenges all gardeners to plant more natives, to use more ecologically sound management methods, and to prevent further loss of wildlife.

Saturday, May 16, 2020, 1-4 p.m.
New Canaan Nature Center, New Canaan, CT

Program Code: HOR8034

Instructor: Edwina Von Gal, landscape designer and founder, Perfect Earth Project

Fee: \$54 (Members)/\$66 (Nonmembers)

Certificate: Elective: Basic and Advanced, Horticulture

Cosponsor: New Canaan Nature Center

Native Plant Design for Human Health

Native plants have great applications to human health. Using a multi-perspective lens, this session focuses on therapeutic landscape research, design principles, and specific plant properties. Come learn the theories behind healing landscapes and elements of healing gardens that you can integrate into your own projects. We will also address native plants’ edible and medicinal benefits, as well as how native plant design enhances habitat and a wider human health system.

Tuesday, May 19, 2020, 10:30 a.m. - 2:30 p.m.
Garden in the Woods, Framingham, MA

Program Code: HOR5021

Instructor: Staci Jasin, landscape designer

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

Certificate: Elective: Basic and Advanced, Horticulture

Native Plants for Native Birds

Explore diverse habitats in southern Connecticut and learn to identify plants and the birds that depend on them. Through classroom discussion and field application, we will address ways to create landscapes with both aesthetic and ecological value to attract wildlife. The spring session focuses on flowers, shrubs, and trees as nectar and insect sources for birds; the fall session concentrates on berry-producing shrubs and trees and on seed-producing perennials and annuals.

Friday, May 22, 2020, 9 a.m.-12:30 p.m.
New Canaan Nature Center, New Canaan, CT

Program Code: HOR4243

Instructor: Frank Gallo, environmental educator and bird expert

Fee: \$63 (Members)/\$77 (Nonmembers)

Certificate: Elective: all certificates

Cosponsor: New Canaan Nature Center

Thursday, October 8, 2020, 9 a.m.-12:30 p.m.
New Canaan Nature Center, New Canaan, CT

Program Code: HOR4244

Instructor: Frank Gallo, environmental educator and bird expert

Fee: \$63 (Members)/\$77 (Nonmembers)

Certificate: Elective: all certificates

Cosponsor: New Canaan Nature Center



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Horticulture & Design

Our Future with Water: Stormwater Management Strategies

Based on decades of experience, this stormwater management guide will address rain harvesting, permeable pavements, green roofs, bioswales and rain gardens, and tree planting. You will learn simple methods to capture and reuse stormwater and to slow stormwater runoff for the healthiest plants and landscapes.

Friday, May 29, 2020, 10:30 a.m.-1:30 p.m.
Garden in the Woods, Framingham, MA

Program Code: HOR2001

Instructor: Trevor Smith, lead designer, Land Escapes

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

Certificate: Elective: Advanced, Horticulture

Cosponsor: Ecological Landscape Alliance



40

40 Red columbine
(*Aquilegia canadensis*)

39



Landscape Design for Changing Site Conditions

How do we embrace and work in alignment with landscape changes? Moreover, in what instances should we alter site conditions, and how can we do so in a sustainable way? In this workshop, we will learn how to create specific garden design outcomes using shapes, sizes, and plant varieties. This advanced design session includes a set of hands-on exercises to challenge our perspectives and to instill flexibility in our approach.

Saturday, May 30, 2020, 1-4 p.m.
Garden in the Woods, Framingham, MA

Program Code: HOR8032

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

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

Certificate: Elective: Basic and Advanced, Horticulture

39 White turtlehead
(*Chelone glabra*)

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. No previous writing experience required. Please bring a notebook, pen or pencil, and water. Dress for the weather.

Sunday, May 31, 2020, 1-3 p.m.
Nasami Farm, Whately, MA

Program Code: ART2009

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

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

Container Gardening

Kick those petunias to the curb and create a container that lasts the entire growing season as a show-stopping statement. Join Anna Fialkoff to learn about all things containers, watch a short container-making demonstration, then tour through the plant sales area with Anna's guidance to pick the most beautiful native plants and perfect combinations for your own container gardens. Compost and potting soil are provided; plants available for purchase. Please bring your own container with a drainage hole in the bottom.

Friday, June 19, 2020, 10:30 a.m.-12:30 p.m.
Garden in the Woods, Framingham, MA

Program Code: HOR2952

Instructor: Anna Fialkoff, Senior Horticulturist, Native Plant Trust

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

Certificate: Elective: Basic

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Right Plant, Right Place

Join a workshop discussion of native plant selection, site assessment, and methods for choosing the right plant for the right place. Native plants offer a higher rate of success, as these plants are well-suited for the Northeastern climate, soil conditions, and environment. They require less maintenance and fertilizer, and permit more time to enjoy the garden. Native plants also support a healthy ecosystem, including pollinators and birds.

Friday, June 19, 2020, 1-3 p.m.
Nasami Farm, Whately, MA

Program Code: PDW4001

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

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

Certificate: Elective: Basic and Advanced, Horticulture

41 Swamp milkweed
(*Asclepias incarnata*)

Horticulture & Design

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, Woods Hole Research Center ecologist Christopher Neill describes 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 Woods Hole Research Center's new collaboration shares the research with a broader audience.

Saturday, June 20, 2020, 1-3 p.m.
Woods Hole Research Center, Falmouth, MA
Program Code: HOR4242

Instructor: Christopher Neill, senior scientist, Woods Hole Research Center

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

Certificate: Elective: Basic and Advanced, Horticulture

Cosponsor: Woods Hole Research Center

42



Soil: The Solution Beneath Our Feet

This session discusses soil history, soil composition, soil health, soil's impact on plants' health, soil's role in sustainability and combatting climate change, and more. We will provide you with the information needed to use soil regeneration to capture carbon, reduce flooding and drought conditions, and grow healthy plants resistant to disease and stress.

Thursday, July 16, 2020, 10:30 a.m.-1:30 p.m.
Garden in the Woods, Framingham, MA

Program Code: HOR3803

Instructor: Trevor Smith, lead designer, Land Escapes

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

Certificate: Elective: all certificates

Cosponsor: Ecological Landscape Alliance

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 17, 2020, 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

Structural Plant Combinations

Memorable gardens and sustainable landscapes create a strong impact using structural shrubs and trees. These essential beauties provide both ambiance and organizing principles in the landscape. This workshop explores which native plants work well together, and how and why. Wet feet, dry shade, part sun – we will address the options for a spectrum of site conditions. We will also take a walk to observe plant combinations and their growing conditions in a botanical garden setting.

Saturday, July 18, 2020, 1-4 p.m.
Garden in the Woods, Framingham, MA
Program Code: HOR1532

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

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

Certificate: Elective: Basic and Advanced, Horticulture

Cosponsor: Ecological Landscape Alliance

Growing Ferns from Spore

Join us and learn easy methods for growing ferns from spores for your home. This class covers the morphology, life cycle, and vegetative propagation of ferns. You will also learn spore collection and storage techniques, and tips on how to identify when spores are ripe. Before you know it, you'll have your own sporophytes!

Saturday, July 25, 2020, 10 a.m.-12:30 p.m.
Nasami Farm, Whately, MA

Program Code: HOR3130

Instructor: Leslie Duthie, botanist

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

Certificate: Elective: Basic and Advanced, Horticulture

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Horticulture & Design

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 those 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 22, 2020, 1-4 p.m.
Garden in the Woods, Framingham, MA

Program Code: HOR1214

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

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

Certificate: Elective: Basic and Advanced,
Horticulture

Cosponsor: Ecological Landscape Alliance

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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 to meeting their needs 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.

Friday, August 28, 2020, 10:30 a.m.-12:30 p.m.
Garden in the Woods, Framingham, MA

Program Code: HOR4228

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

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

Certificate: Elective: all certificates

45



Black bugbane
(*Actaea racemosa*)

Landscape Studies

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.

Tuesday, April 21, 2020, 1:30-3 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

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, May 23, 2020, 1-3 p.m.
Saunterstown, RI

Program Code: HDT8052

Instructor: Gary Casabona, RI State Biologist, USDA

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

Certificate: Elective: all certificates

Cosponsor: Historic New England

Acton Arboretum Plant Walk

Gain insight into the plants and gardens of Acton Arboretum with Acton resident and Senior Horticulturist for Native Plant Trust Anna Fialkoff. This local, volunteer-maintained Arboretum is a great place to observe native and non-native plants in both cultivated and naturalized settings. The Arboretum hosts a variety of habitats and gardens including a rain garden, a wildflower woodland garden, mixed perennial borders, specimen trees, and a bog, complete with boardwalks and trails for easy access.

Saturday, June 6, 2020, 10-11:30 a.m.
Acton, MA

Program Code: HDT4011

Instructor: Anna Fialkoff, Senior Horticulturist, Native Plant Trust

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

Certificate: Landscape: Basic and Advanced, Horticulture

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44 Acton Arboretum by Liz West

New Takes on Historic Landscapes: Blithewold

Often, gardeners think they must choose between archetypes of the wild, native plant garden and the formal, classic garden, but there are ecologically friendly ways to create an elegant effect. Explore the extensive grounds at historic Blithewold, which includes an arboretum, cutting garden, nursery, and meadow. On this tour, we will discuss the delicate balance of values involved in managing a historic landscape and teach you different ways to replicate the visual sophistication of these gardens using native plants.

Sunday, June 14, 2020, 1-3 p.m.
Bristol, RI

Program Code: HDT5005

Instructor: Gail Read, horticulturist, Blithewold

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

Certificate: Landscape: Basic and Advanced, Horticulture

Cosponsor: Blithewold Mansion, Gardens and Arboretum

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, June 26, 2020, 10:30 a.m.-2:30 p.m.
Boston, MA

Program Code: HDT5008

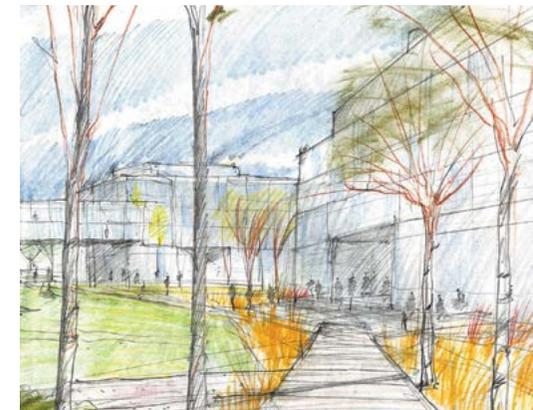
Instructor: Glen Valentine and Joe Wahler, Principals, and Ryosuke Takahashi, Associate, STIMSON

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

Certificate: Landscape: Basic and Advanced, Horticulture

Cosponsor: Arnold Arboretum of Harvard University and Boston Society of Landscape Architects

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45 Harvard Science and Engineering Complex by STIMSON

Landscape Studies

Gardening with Sandy Soils

When your garden site is full sun with sandy soil, you need plants that can thrive in tough conditions. Dan Jaffe, author and photographer of *Native Plants for New England Gardens*, leads a walk through some of the driest sites at Norcross Wildlife Sanctuary and offers a sand-specific native plant palette.

Friday, July 24, 2020, 1-3 p.m.
Norcross Wildlife Sanctuary, Monson, MA
Program Code: HDT1502

Instructor: Dan Jaffe, horticulturist, Norcross Wildlife Foundation and author of *Native Plants for New England Gardens*

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

Certificate: Landscape: Basic and Advanced, Horticulture

Cosponsor: Norcross Wildlife Foundation

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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 14, 2020, 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 Landscape History: Cambridge

What can the presence (or absence) of greenery teach about the layered history of a place? Together, we walk and analyze the changing landscape, guided by evidence from significant trees in the neighborhood. The discussion addresses local inhabitants' relationship to native plants over generations.

Wednesday, September 30, 2020, 1:30-3:30 p.m.
Cambridge, MA

Program Code: HDT8050

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

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

Certificate: Landscape: Basic and Advanced, Horticulture

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Creating Fall Color

New England native flora boasts amazing fall foliage plants. The diversity of species provides great choices for any site and any size. Join Dan Jaffe, author and photographer of *Native Plants for New England Gardens*, for a walk through some of the most beautiful fall foliage at Norcross Wildlife Sanctuary and learn how to choose native plants for fall foliage in your own landscapes.

Friday, October 23, 2020, 1-3 p.m.
Norcross Wildlife Sanctuary, Monson, MA

Program Code: HDT1503

Instructor: Dan Jaffe, horticulturist, Norcross Wildlife Foundation and author of *Native Plants for New England Gardens*

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

Certificate: Landscape: Basic and Advanced, Horticulture

Cosponsor: Norcross Wildlife Foundation

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Children & Families

Plant Play

Bring the little ones for nature-inspired stories, songs, and crafts! Stories are geared for children ages three to eight. Afterward, children are invited to explore the local flora and fauna in the Garden, play in the Family Activity Area, or pick up a Scavenger Hunt card and take a walk through the woods.

Saturdays, April 25, May 9, 23, 30, June 13, 20, July 11, 25, August 8, 22, 2020, 10:30 a.m.-11:30 a.m.
Garden in the Woods, Framingham, MA

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

Fee: Free of charge with Garden admission

School Programs

Bring your child's class to experience the magic of Garden in the Woods! Native Plant Trust offers four distinct, plant-centered programs that meet the state science curriculum standards for pre-K through Grade 4. Teacher-naturalists lead the students on an hour of inquiry-based learning through a variety of habitats to build critical thinking skills. Visit NativePlantTrust.org for more information.

Seeing Green—Pre-K and Kindergarten

Exploring Plants and their Homes—Grades 1 and 2

Plant Survival and Adaptation—Grade 3

The Life of a Plant—Grades 3 and 4



Registration

Please visit NativePlantTrust.org/education to register for our programs. Visa and MasterCard accepted. For questions regarding registration, call (508) 877-7630, ext. 3303.

ADVANCE REGISTRATION is required for all fee-based programs and is accepted on a firstcome, 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, for programs already in progress, or for class sessions you have not attended.

EQUAL ACCESS If you need assistance or special accommodations, call (508) 877-7630, ext. 3303, at the time you register or as soon as possible thereafter.

Membership

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 Partner 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

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

NativePlantTrust.org/support

Make an Impact

The Native Plant Trust is a leader in conservation and horticulture programming, pioneering models such as the first independent field botany certification program. Public education is key to conserving the region's native plants and to ensuring the health and diversity of our landscapes. Native Plant Trust offers hundreds of unique public programs each year, including:

- * Adult learning opportunities at Garden in the Woods, Nasami Farm, six native plant sanctuaries, and additional locations throughout New England
- * Online learning through courses, webinars, and digital tools
- * Regional initiatives such as Pollinate New England
- * Continuing education for professionals in relevant fields
- * School programs at Garden in the Woods

THANKS FOR SUPPORTING

Your gift today will help grow awareness and knowledge about the importance of native plants in their habitats and in cultivated landscapes.

DONATE ONLINE

NativePlantTrust.org/fundprograms

DONATE BY PHONE

(508) 877-7630 x3802

Volunteer Opportunities

Become part of the movement to conserve and promote New England's native plants by volunteering with Native Plant Trust! The Public Programs team is currently seeking Community Outreach Volunteers throughout New England. Community Outreach Volunteers support Native Plant Trust by sharing about the organization's work and resources at events (such as meetings and fairs) in their local areas. If you are active in your local community, attend or are on the planning committee for large events related to Native Plant Trust's mission, and enjoy sharing resources with the public, consider becoming a Community Outreach Volunteer. For more information and to apply, visit NativePlantTrust.org/about/volunteering



A Native Plant Trust Trip
to
**Discover
Botanical Hawaii**
April 1-11, 2020

Explore the finest
botanical gardens and
lush native flora in situ
on Hawaii, Oahu,
and Kauai!

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[http://www.native
planttrust.org/education/
botanical-travel/](http://www.nativeplanttrust.org/education/botanical-travel/)



Native Plant Trust

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ADDRESS SERVICE REQUESTED