



Native beetlebung trees form an arboreal hedge in the West Field.

Edey Foundation grant supports Plant Local movement

In February of this year, we were delighted to receive funding from the Edey Foundation to print Plant Local MV publications. Plant Local MV is a collective of conservation groups, botanists, and landscaping practitioners focused on building our resilience to climate change by incorporating plants native to the Island into yards and commercial landscapes.

These beautifully illustrated color brochures are for homeowners, nursery staff members, and landscapers to learn about native plant choices and the best landscape management practices to support biodiversity on the Island. Two brochures for homeowners and landscapers, available in English and Portuguese, outline the top 20 native plants

to incorporate into your landscape. Each plant entry includes notes on its cultivation and the insects that depend on it for their livelihood. The publications were created in 2024 in collaboration with the Martha's Vineyard Commission and our Island conservation partners. They are available free of charge at local nurseries, libraries, and our Visitor Center.

Tim Boland, PHA's executive director, noted that gardeners have many reasons to grow plants, including wanting ornament, shelter, and food. But today, he said, there's another compelling reason: incorporating more native plants will help support local biodiversity and heal fragmented landscapes that are facing huge environmental challenges. "We need to be proactive in creating resilient and respon-

sible gardens that honor the biological heritage of the land," he said, "and preserve it for future generations."

The PHA extends its thanks to the Edey Foundation for support for printing these publications and making them available at no charge. The Arboretum, Tim noted, is pleased to be part of the Plant Local initiative with the Vineyard Climate Action Plan, BiodiversityWorks, the MA Municipal Vulnerability Preparedness Program, the Martha's Vineyard Commission, and the Vineyard Conservation Society.

To download the publications, use the QR code here:



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The mission of the Polly Hill Arboretum is to perpetuate the experimental tradition in horticulture established by Polly Hill by sharing knowledge of plants and scientific procedure through educational programs, research, plant conservation, and exploration. The Arboretum seeks to preserve its meadows and woodlands, to promote an understanding of its collections, and to encourage their utilization for scholarship, observation, and the enjoyment of all.

Meristems

© The Newsletter of the Polly Hill Arboretum

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The Polly Hill Arboretum acknowledges the Wôpanâak (Wampanoag) people on whose ancestral homeland we gather. Through stewardship, conservation, and education, we honor their culture, creativity, and perspective.



Arboretum board member M. Murphy Westwood receives the Massachusetts Horticultural Society's 2024 Silver Honorary Medal for noteworthy service in horticulture.

Message from the director

Fall and winter might seem like a slow time for an arboretum, but that's not true here. We plan collection trips and educational programs, and we work actively in the herbarium and outdoor living collections. And sometimes we honor others. Last October I was pleased to attend a dinner in Boston honoring PHA board member Murphy Westwood. The Massachusetts Horticulture Society awarded Murphy, the vice president of science and conservation at the Morton Arboretum and a longtime PHA advocate, its Silver Medal, which honors noteworthy service in horticulture. In February I traveled to London to give the winter lecture for the International Dendrology Society, which is dedicated to the study of trees and other woody plants. I was honored to be introduced by former PHA board member and international tree expert Philippe de Spoelberch, and I think my address, "Saving North America's Rarest Trees," was well received. My invitation to London was a vivid reminder that because of our work on-Island and throughout North America, colleagues all around the world consider the Arboretum a leader in plant conservation.

In this issue of *Meristems* you will read about

a review of our library collection, which includes Polly Hill's own personal library as well as many rare books that Stephen A. Spongberg, our director emeritus, acquired over a lifetime of collecting. The review helped us catalog our collection, and because the Arboretum belongs to a network of gardens and science institutions linked by the Council of Horticulture and Botanical Libraries, we were able to share some of our books with member libraries.

This fall we welcomed Casey Hayward as education program manager. Casey, who has taught science on the Island, has been planning our educational programming. Keep an eye out for our education brochure, which will include programs on native garden design and ecological horticultural practices.

If you're eager to know more about—or just enjoy—a landscape that features world-class plant collections in a historic Vineyard setting, be sure to join us this summer for botanical spotlight tours by staff members and our "Art in the Arboretum" exhibit. We look forward to seeing you.

Edie Banovic, *curatorial intern*

Edie is a recent graduate of Connecticut College, where she studied botany and minored in art. Her interest in horticulture flourished while exploring the campus's 750-acre arboretum and working on projects mapping and recording carbon outputs and investigating beech leaf disease. Most recently Edie was a public horticulture intern at the Coastal Maine Botanical Gardens, where she worked with arborists, entomologists, and horticulturists. Her strong connection to the outdoors extends far beyond the cultivated landscape: she has served on the Appalachian Mountain Club's Trail Crew and hiked all 48 White Mountain peaks that are over 4,000 feet.

Edie's no stranger to PHA; she was a horticulture intern here two years ago. "After such an influential summer at Polly Hill," she says, "I am thrilled to be returning to be a part of such a kind and knowledgeable team of professionals." She says she's particularly looking forward to exploring the herbarium, greeting



Edie Banovic

visitors and members, and seeing the seasons change during her seven-month stay.

We look forward to welcoming Edie back to the Arboretum. She'll be here from late May through December, learning the ins and outs of plant records, curation, and the herbarium.

Casey Hayward, *education program manager*

Facilitating "inquiry-based design" is the education philosophy of Casey Hayward, who joined PHA as education program manager in November 2024. Before joining PHA, Casey, who has a master's degree in education from NYU, taught middle school science and related fields for eight years at various Island schools. She was drawn to the Arboretum job, she says, because she's passionate about teaching environmental science and believes in the importance of outdoor and experiential learning. In addition to enjoying the Arboretum as an



Casey Hayward

outdoor classroom, she loves helping connect kids to nature. Casey also enjoys spending time with Gibson, her rescue beagle mix named for the iconic guitar brand.

In memoriam: Sam Feldman, advocate for PHA and the Island



Sam Feldman

Islanders are still mourning Sam Feldman, a passionate supporter of the Polly Hill Arboretum and many Island organizations who died in January at age 95.

Sam served on PHA's founding board of directors, first as treasurer and later as an annual supporter of our summer student internships. Executive Director Tim Boland remembers that in the Arboretum's first days, Sam and his wife Gretchen welcomed Tim and his wife, Laura, for dinners at their beautiful home and garden in Chilmark. "It was the very early years of the Arboretum," Tim recalls, "when we were laying plans for the future." In addition to his PHA board service from 1998 to 2004, Sam supported many Island nonprofits, lending his wise counsel as well as financial support. At PHA, his legacy lives on through our past summer interns who were inspired by their time at the Arboretum and now are becoming leaders in the world of public gardens. We extend our condolences to Sam's family and many friends.



Abbie Lively

Abbie Lively, *greenhouse assistant*

Abbie joins the PHA team for the third year in a row, returning early this year to support the active growing season in the greenhouse and nursery. Abbie's connection to PHA started decades ago, when she was a student at the Edgartown School and visited the Arboretum on field trips that she still remembers fondly. Her dedication to the outdoors

is reflected in her Environmental Studies degree from the University of Colorado at Boulder and her love of boating, fishing, hiking, and mountain biking. Abbie's favorite aspects of working at the Arboretum? Overseeing a plant's life cycle, she says, and learning something new every day from her colleagues. Welcome back, Abbie.

PHA gets help to preserve the bluff oak

Research and conservation are the core of the Polly Hill Arboretum's mission, so we were pleased to learn that the Arboretum will receive funding from the International Oak Society to advance the study and preservation of the bluff oak (*Quercus austrina*), one of the 29 species that the Conservation Gap Analysis of Native US Oaks has identified as a conservation concern. PHA is a member of the Global Conservation Consortium for Oak and through this organization acts as a species steward and helps facilitate conservation activities.



A solitary bluff oak (*Quercus austrina*) in Mississippi targeted for scionwood collection

Bluff oaks have a wide range in the south-east United States, but they occur in fragmented populations of few individuals. The project aims to collect important data related to their native habitat and ecology and achieve supportive evidence to enable overcoming the taxonomic uncertainty regarding the species. The project also aims to capture the genetic diversity of trees that are unlikely to produce acorns by collecting scionwood and producing grafted trees for *ex situ* conservation. Partners on the grant include Holden Forests & Gardens, botanist Ron Lance, Bartlett Tree Research Laboratories and Arboretum, the City of Columbia Stephens Lake Park Arboretum, and the University of Missouri.

Art in the Arboretum returns



Artwork from the 2018 Art in the Arboretum displayed on the grounds

Every visitor's experience of the Arboretum is different, and what that person might see on another day in another season could change dramatically. "Art in the Arboretum" is an exhibit designed to showcase views and interpretations of the Polly Hill Arboretum by 11 artists who are full-time residents, seasonal residents, or regular visitors to the Island. This year's show will feature photographs, sketches, and paintings by Elizabeth Greene, Anna Korteweg, Linnea Laux, Keith Leitner, Kanta Lipsky, Kimberly McCarthy, Laura Murphy, Randy Parker, Kate Patterson, Barbara Reynolds, and Penny Weinstein. The weatherproof replicas, along with information about each artist, will be displayed on the grounds in the location where the original piece was inspired. The exhibit will be on display through October 31, 2025. A reception and tour are scheduled for June 5 from 4:30 to 6:00pm.



PHA wants you

Volunteers have been a significant part of PHA since long before its formal establishment in 1998, and today they support all aspects of the Arboretum. Benefits include learning from staff members, making friends, learning new skills, and helping the Arboretum further its mission. We welcome volunteers in the following areas, and we provide comprehensive training. Contact info@pollyhillarboretum.org for more information.



Grounds: Interested in learning about plant care, enjoying the outdoors, and joining a friendly group? Find out more at a Grounds Volunteer Open Day, 9am–12pm on the first Thursday of each month May through October.



Youth Education: In the Arboretum's outdoor classroom, volunteers help students learn about science and nature.



Visitor Center: Have fun welcoming visitors to the Arboretum, sharing information, and selling memberships and merchandise.

Neat + tidy doesn't always = healthy by Ian Jochems, grounds manager/arborist

Polly Hill wanted to push the horticultural boundaries of what could grow on Martha's Vineyard, but she also believed in tough love. Her view that only the resilient survive meant that she was not one to baby plants or give them too much attention. Plants, Polly thought, have life cycles, and nature can almost always take care of itself.

Humans tend to want to control and clean up nature, but we often forget that this disrupts natural cycles that have been around far longer than we have. By clearing leaves and debris, we halt essential breakdown processes, which ultimately reduces soil nutrition and structure and harms fungal and other beneficial decomposers. Yet we still expect our plants to thrive.

At the Arboretum today, we strive to honor Polly's philosophy by implementing best management practices that reduce weeds and invasive plants and keep our garden beds neat while still building healthy soils without using fertilizers or synthetic materials. We aim to close the loop by processing all the woody and herbaceous material on-site into a usable soil amendment. Importing as few materials as possible also helps us limit the introduction of invasive species and pathogens.



The closed-loop system means that nearly everything gets returned to the grounds.

Our closed-loop system means that nearly everything stays on site and gets returned to the grounds in one form or another. As we clean up the grounds and beds, we replace the materials with in-house produced compost and mulches, a practice that helps rebuild soil structure, increase water retention, and make more nutrients available. When we plant new specimens, we never rake away the mulch or compost; instead, we dig straight through it, incorporating it into the planting hole and adding more once the plant is in place. This method is particularly important on the Island, where soils are typically sandy with pockets of clay. Incorporating organic matter such as small sticks, small rocks, mulch, and compost into the soil helps build better soil structure and increases its holding capacity for nutrients and water.

At PHA, we produce all our own compost, mulch, and leaf mold. We don't screen our compost because we want to maintain a mix of particle sizes that will break down at different rates and build better soil structure. Over time, proper compost and mulch with all-natural input can significantly improve even the Vineyard's sandy soil.

We think Polly would approve.

Do try this at home

What can you do at home to close your loop? If you have the space, we recommend setting up a small composting area in your yard. A proper composting/mulching area requires roughly 16 feet x 4 feet or two 8 feet x 4 feet sections. To achieve the appropriate temperatures for composting, you should build a pile that is at least 4 feet x 4 feet x 4 feet. Creating two compost bays and two leaf-mold bays will allow you to clean up your yard, age the materials for a growing season, and return them to your garden. You won't have any usable material during the first season, but by the second your initial batch of compost or mulch will be ready to roll.



Homeowners can create a version of this for their own gardens.

Summer programs preview

This summer promises to be a busy one, with lectures, classes, and tours designed to inform, inspire, and educate Arboretum members and visitors. The following programs are only a selection. For details on all topics, speakers, and dates, consult our printed program guide or visit pollyhillarboretum.org/education/calendar/.

SUMMER LECTURE SERIES

These talks by horticultural leaders explore the profound relationship between humans and nature.



Edwina von Gal — June 18, 2025

June 18: *Sponsored by the Betsy and Jesse Fink Family Foundation:* Edwina von Gal, founder of the Perfect Earth Project, advocates for chemical-free landscaping that reduces maintenance, enhances biodiversity, and benefits pollinators, wildlife, pets, and people.

June 25: “Takemmy: Wampanoag Past and Futures”: Educator and Aquinnah Wampanoag citizen Brad Lopes examines Martha’s Vineyard’s history from a Wampanoag perspective, highlighting the devastating impacts of colonial settlement and ongoing challenges to the land and community.

July 16: *Lisina & Frank W. Hoch Memorial Lecture:* In “Asylum to Asylum: The Story of the Botanic Garden at Historic Barns Park,” Executive Director Matthew Ross traces the garden’s transformation from an overgrown farm at the former Northern Michigan Asylum into a thriving botanical space featuring a therapeutic garden, an Anishinabek Medicine Wheel and Foraging Meadow, and a 10,000-brick labyrinth.



Stoneleigh — August 6, 2025

August 6: *David H. Smith Memorial Lecture:* In “Lessons from Stoneleigh: Reimagining Traditional Landscapes with Native Plants,” Ethan Kauffman explores the cultivation of native plants on a historic 150-year-old estate in Villanova, PA.



Garden Marcus — August 16, 2025

August 16: *Sponsored by Wilson Associates Foundation with support from the African American Heritage Trail of Martha’s Vineyard:* Marcus Bridgewater, known as Garden Marcus, shares how gardening fosters resilience, patience, and well-being. Featured in *The New York Times* and *Vogue*, he offers insights from his journey of cultivating both plants and mindfulness.



Matthew Ross — July 16, 2025



Herbarium Workshop — May 28 & June 4, 2025

CLASSES, WORKSHOPS, AND TOURS

Tuesdays, April 15 – October 7: Balance in Nature: Kanta Lipsky leads a Chi Gung session combining focused, relaxing movements to strengthen the core, calm the mind, and ground energy.

Every other Tuesday, May 20 – September 23: Forest Bathing (*Shinrin-Yoku*): Shanta Gabriel guides a Japanese practice of mindful relaxation in nature.

May 28 & June 4: Herbarium Workshop: PHA Curator Emily Ellingson leads a hands-on, two-part workshop exploring the science and art of creating herbarium specimens.

May 31: PHA Horticulturist Jack Morgan and Patrick Roden-Reynolds, public health biologist and director of the Martha’s Vineyard Tick Program, discuss how to protect against ticks and tick-borne illnesses.

June 14: Join Arboretum staff for a walking tour focused on beech leaf disease, highlighting its impact, ongoing research, and promising treatments.

June 21: Propagation by Cuttings: PHA Plant Propagator Brittany Clark teaches techniques for propagating herbaceous and softwood plants, including hands-on practice and a greenhouse tour.

August 14: Invasive Plant Identification and Mitigation: PHA Grounds Manager and Arborist Ian Jochems leads a class combining classroom learning and fieldwork to help participants identify and manage invasive species.

Island hickories

by Emily Ellingson, curator/assistant director

When someone from off-island asks me about Martha's Vineyard trees, I often think of oaks. For good reason: oaks are abundant on the Island, vital parts of many ecological communities such as our dry oak forests and scrub oak barrens. But hickories (*Carya* spp.) are also important here. They are less abundant, but like oaks, hickories are often keystone species, meaning they make significant contributions to ecosystem structure and function. In fact, the oak-hickory forest is one of the largest forest types in the contiguous United States.

From fossil records, we know that before the Ice Age, hickories were widespread in Europe, northern Africa, Asia, and North America. Post-glaciation, however, only 18 species are known to North America, Mexico, and eastern Asia, 11 of which are in North America. Hickories are slow-growing, long-lived trees of often-impressive stature. They have distinctive compound leaves of varying morphology. All species have a nut enclosed in a four-valved husk that are an important protein-rich food for wildlife such as bears, squirrels, and turkeys.



Shagbark hickory (*Carya ovata*) bark curls in long, flat plates.

Hickories are useful to humans, too. The pecan (*Carya illinoensis*), from a type of hickory, is one of the most important nut crops in North America, and hickory wood is often used in cooking and smoking meats. The wood, which is strong, heavy, and impact-resistant, has also been used to make tool handles, skis, and even wagon axles.



Pignut hickory (*Carya glabra*) displays yellow fall color and a rounded narrow crown at Waskosim's Rock reservation.

Two hickories are native to Martha's Vineyard: the pignut hickory (*Carya glabra*) and the mockernut hickory (*Carya tomentosa*). They both grow in dry oak forests such as the Manuel F. Correllus State Forest and forests such as those in Menemsha Hills. Shagbark hickory, which is native to Nantucket, is frequently cultivated on the Vineyard. Shagbark hickory gets its common name from its shaggy, grey bark that curls in flat, plated strips. It has five leaflets per leaf and a sweet, edible nut.

The pignut hickory, which is often confused with the mockernut because both have bark smoother than that of the shagbark, has a rounded, narrow crown and boasts spectacular golden yellow color in the fall. Much like the shagbark, the pignut hickory usually has five leaflets per leaf. It's Latin name, *glabra*, refers to its glabrous, or smooth, leaves.

At the opposite end on the smooth scale, mockernut hickory's Latin name *tomentosa* means hairy and refers to the hairy axis and surface of its leaves. Mockernut hickory leaves have seven to nine leaflets and are more likely to occur on rocky and dry sites with acidic soil. Their nuts are edible but mock the consumer with their extremely thick, nearly impenetrable husks.

The island's native hickories are hardy: both have been identified by the Northern Institute of Applied Climate Science's publication *Climate Change Projections for Individual Tree Species: Southern and Coastal New England* as having good capability of coping or persisting with climate change, even in high-emission



Mockernut hickory (*Carya tomentosa*) herbarium specimen with seven to nine leaflets per leaf

climate scenarios. PHA has a hickory growing in its nursery, the black hickory (*Carya texana*), that is narrowly distributed in the South but could do well in northern climates in the future. Although predictions like these are made from models and must be taken with a grain of salt, we can use them to help us prepare for climate change.

Hickories are large trees and need a lot of space in the landscape. They can be hard to find in nurseries, possibly because they are not well-suited to large-scale production systems. Unlike many other trees, hickories have a long taproot into maturity (think of a carrot) and can be difficult to transplant at larger sizes. Because of this, PHA grows hickories in long, narrow containers and transplants them when they are young. If you have a hickory on your property, please protect it and consider letting us know so we can collect seed and grow more climate-resilient plants for our Island community.



The four-valved husks of shagbark hickory (*Carya ovata*)
Photo courtesy of Michael Dosmann

Producing native plant plugs from and for Island ecosystems

by Brittany Clark, *plant propagator*

Aiming to help protect and support the Vineyard's plant and insect habitats, the Polly Hill Arboretum has been providing native plants to Island gardeners and organizations for almost 20 years. Our MV Wildtype program, which started in 2006, has grown to include 91 species of forbs (herbaceous flowering plants that are not grass, sedge, or rush), grasses, and woody plants. Most of these species have been propagated from seed collected on-Island and sown in our greenhouse. Not all 91 species are propagated each year, but in recent years we've sown as many as 60, with 55 total species so far this year. The final size ranges from a 5-inch-deep plug to a plant that fits in a 3-gallon container. Growing plugs is particularly efficient because they take up less greenhouse space and their size makes them easy to transport and plant. With plugs, the root system is the real prize: we use flats with 50 cells that are 2 inches wide and 5 inches deep, which allows for more developed plants with robust roots.

How do we produce these native plants that are so well suited to our unique coastal woody and sandplain grassland ecosystems? You can remember the steps of our process with a rhyme: "seed, sow, transplant, and grow." (Try saying *that* three times fast.) Here's a peek behind the scenes:

Seed: It all starts with collecting viable, healthy seed in the wild. Acquiring wild seed is important for maintaining genetic diversity and crucial to propagating plants that are perfectly adapted to this climate. Locating species in the wild, getting permission to collect them, and collecting seeds at peak maturity can be tricky, but with careful planning and a good team we're able to do it. Once collected, the seeds must be cleaned and then stored until they're sown. Most of this work is done in the fall, but early spring bloomers set seed in the summer, so collections happen from May to November.



Cleaning seed of American beachgrass (*Ammophila breviligulata*) after collection



Freshly sown MV Wildtype flats in spring

Sow: Sowing comes next. Many species are either fall- or spring-sown, but the process looks the same. We prepare propagation trays with a germination soil mix and sow the seed according to the species' preference for time of year, light, depth, and soil variation. The fall-sown flats go into an overwintering house and the spring-sown are placed on heated benches in the greenhouse. Once this work is complete, all we have to do is wait for germination (which is much easier said than done).



Transplanting swamp milkweed (*Asclepias incarnata*) from seed flat to 50-cell plug tray



Red maple (*Acer rubrum*) plugs fully rooted and ready for planting

Transplant: So the seeds have germinated. What's next? Generally, seedlings that are showing one or more sets of true leaves are ready for transplant. This involves filling 50-cell trays with potting soil and then separating individual plants out to transplant one seedling per cell. This is delicate work, but it's a crucial step toward getting a full tray of healthy plants.

Grow: The final—and most mesmerizing—step is watching the plants grow into their plug cell. Each species has its own speed of growth, so timing from germination to maturity varies. Most often, the herbaceous spring-sown species will be ready by the fall, and the woody species mature the following year. Once a plug is fully rooted with ample shoot growth, it's ready to be planted in the great outdoors.

Native plant plugs for sale online only

The most economical way to enhance a landscape with native plants is by utilizing plugs, small potted plants about 2" wide with deep roots that are likely to establish in your garden quickly. PHA propagates and sells these native plant plugs grown exclusively from Martha's Vineyard plant populations. Order the MV Wildtype plugs online at polly-hill-arboretum.square.site. Plugs will be available for pickup in the Visitor Center a few days after they are ordered online. Members receive a 10% discount.

Spring: Order May 30–July 7.
The last day to pick up plugs is July 11.

Fall: Order September 5–October 6.
The last day to pick up plugs is October 13.



Native plant plugs sold as 3-packs



Online orders boxed for pick up

The tale of the Stewartias: a StoryMap

Last year, Curatorial Intern Isabella (Bella) Colucci created the first StoryMap for PHA focused on the genus *Stewartia*. This web-based platform developed by the graphic information software company Esri uses the power of maps, text, images, and other media to tell an interactive, geographic story. PHA's *Stewartia* StoryMap walks viewers through the history, significance, and cultivation of the genus at the Arboretum.

Stewartias were some of Polly's favorite trees, and she named nine cultivars that are described in her own words within the StoryMap. Because of Polly's impressive selections and meticulous records, today the Arboretum is the official cultivar registrar for the genus and serves as a conservation and research resource as a Nationally Accredited Plant Collection with the Plant Collections Network. For those who would like to learn more about this fascinating genus, the StoryMap also contains links to recorded webinars by PHA staff members and other information. To view the *Stewartia* StoryMap visit arcgis.com/arcgis/1XG9501 or scan the QR code to learn more about our collection.



Safeguarding plants for species survival by Emily Ellingson, curator/assistant director

The legacy of the woman who began what is now the Polly Hill Arboretum is far-reaching. Polly Hill tested the limits of horticulture on Martha's Vineyard, selected and introduced more than 80 cultivars to the trade, and kept plant records that were unusually extensive for a private gardener. She grew plants almost exclusively from seed sent to her by friends, family, and colleagues who worked in gardens and arboreta. Starting with one small nursery bed in 1958, she built an extraordinary arboretum that preserves the integrity of the original rural landscape while showcasing a local, regional, and global plant collection.

Polly was also doing conservation. Some of the seeds she acquired—and recorded detailed observations about—were collected from plants growing in their natural habitats, what we call “wild-collected.” In 2006, eight years after Dr. David H. Smith generously helped found PHA, the Arboretum officially ratified conservation in its mission statement.

This comes at a critical time. Our planet is experiencing a global extinction crisis, with experts estimating that 20% of global plant species are at risk. Because plants don't respect boundaries, protecting species requires efforts across and among gardens, nations, federal and state agencies, botanists, landowners, nursery growers, and many others. Fortunately, the people involved with public gardens are especially good at collaborating. We readily share information, expertise, and germplasm (i.e. plants, seeds, and cuttings), and many of us have an unusual blend of expertise in horticulture, research, and education.



The flowers of the silky camellia (*Stewartia malacodendron*) have denim blue anthers.

Public gardens commonly practice *ex situ* (Latin for off-site) conservation by growing plants and storing seeds and even pollen in locations away from their origins. Gardens also practice the opposite, *in situ* (on-site) conservation, which typically is the preservation of natural areas such as the Vineyard's state forest. PHA practices *ex situ* conservation by holding genetically diverse, wild-collected plants in our

living collection and *in situ* conservation by preserving our 40 acres of woodlands.

In recent years, the botanical garden community has started moving toward a model of metacollections as a way of safeguarding species. A metacollection is a collection of collections that are managed together as combined holdings across multiple institutions. What if PHA were the only garden that grew the silky camellia (*Stewartia malacodendron*) and a hurricane destroyed all those trees? Or if all the silky camellias in public gardens had been collected from just one mother tree that had adapted to specific site preferences? The purpose of a metacollection is to shift public gardens and arboreta to holdings that incorporate and represent the full geographic, ecological, and genetic range of a species or taxonomic group—and in the process, promote resilient, diverse plant collections spread among multiple institutions and ideally protected in the wild. As an active partner in these efforts, PHA is involved in conservation efforts on the local, regional, and global levels.

Our local work with the Flora of Dukes County project documents the spontaneous vegetation of the Island, and in doing so helps document rarity. Our more than 4,000 dried and pressed plant specimens are imaged



PHA received novel germplasm of the threatened bluff oak (*Quercus austrina*) from Bartlett Tree Research Laboratories and Arboretum in 2024.

and available for public viewing in the online Consortium of Northeast Herbarium portal, ready to be used for research (neherbaria.org/portal/). We are working on documenting and propagating the Island endemic cut-leaved hawthorn (*Crataegus schizophylla*) a tree that was listed as endangered in Massachusetts in 2024. Once propagated, the plants can be used to safeguard the small populations on Island.

On the national level, the impacts of habitat fragmentation and severe weather have been a call to action. PHA works regionally across the United States, mostly in the Atlantic coastal plain and southeastern United States. In the past five years, staff members have gone on seed and scouting expeditions for the silky camellia (*Stewartia malacodendron*) and mountain camellia (*Stewartia ovata*), two members of our nationally accredited stewartia collection, across their ranges in the Southeast. New geographical reference tools and habitat modeling are helping us identify future collection sites.

PHA also works on a global scale. The Global Conservation Consortia, coordinated by Botanical Gardens Conservation International, aims to coordinate work on threatened species across institutional, state, and international lines. As noted in this newsletter, PHA is working with the Global Conservation Consortia for Oak to contribute to the growing metacollection of the threatened bluff oak (*Quercus austrina*), and last year we received



Wild-collected seedlings of the Japanese umbrella pine (*Sciadopitys verticillata*) were distributed to multiple institutions in 2024.



This map shows the locations where PHA has collected seeds of silky camellia (*Stewartia malacodendron*) and mountain camellia (*Stewartia ovata*). Larger icons indicate concentrations of collections.

seedlings from novel locations from Holden Forests and Gardens and Bartlett Tree Research Laboratories and Arboretum for further distribution to other East Coast public gardens. We also participate in international seed-collection expeditions on which we collect common species but have special interest in plants such as the threatened Japanese umbrella pine (*Sciadopitys verticillata*).

PHA's work with wild-collecting, propagation, and distribution are important ways we help safeguard species. Last year alone we distributed a record 809 plants to 11 institutions, and we continue to work to get plants into more living collections. Botanical gardens and arboreta are places of beauty that offer respite from our busy lives, but they're also vital participants in the increasingly urgent local, national, and global efforts to conserve threatened species.

THE POLLY HILL ARBORETUM

MAILING ADDRESS

PO Box 561
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FIND US ONLINE

pollyhillarboretum.org
[instagram.com/pollyhillarboretum](https://www.instagram.com/pollyhillarboretum)
[facebook.com/pollyhillarboretum](https://www.facebook.com/pollyhillarboretum)
[youtube.com](https://www.youtube.com/search?q=polly+hill+arboretum), search: polly hill arboretum

ADMINISTRATIVE OFFICES

The Homestead
809 State Road
West Tisbury, MA 02575

VISITOR CENTER/ VISITOR ENTRANCE

795 State Road
West Tisbury, MA 02575

ACCESSIBILITY

The Visitor Center is wheelchair accessible.

VISITOR CENTER HOURS

Open 9:30 am–4 pm daily, late May
through mid-October

ARBORETUM GROUNDS HOURS

Sunrise–sunset, year-round
Please note: maintenance is often
performed on Wednesdays.
Check website before visiting for
occasional grounds closures.

ADMISSION

Free for members and children 12 and under
For non-members:
\$10/person May 1 through October 31
\$5/person November 1 through April 30

FREE PARKING

mer.i.stem: *n. botany.* The growing
point or area of rapidly dividing cells
at the tip of a stem, root, or branch.



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STEPHEN A. SPONGBERG LIBRARY



Collections Specialist Isabella Colucci in the Stephen A. Spongberg Library

Knowing what we have: a review of the Stephen A. Spongberg Library

Executive Director Tim Boland and Collections Specialist Isabella (Bella) Colucci recently finished an extensive review of more than 3,000 books in our research library. This effort implemented recommendations from a 2022 Collections Assessment for Preservation review that was made possible by a grant from the Institute of Museum and Library Services. Over

several weeks, Tim and Bella cataloged a backlog of modern titles and duplicate books and removed titles that are no longer relevant. The books in the Spongberg library run the gamut from natural history to botany, horticulture, geographic floras, and horticultural techniques and practices. Many books reflect Polly Hill's interests in bonsai and Japanese

horticulture and Steve Spongberg's passion for plants, especially trees, their original discoveries, and their cultivation in North America. Although ours is not a public library, we do offer tours each year to let members and visitors appreciate our extensive collection.