

# Meristems

The Polly Hill Arboretum  
West Tisbury, Massachusetts

Vol. 18, No. 2, Fall 2016



*Asclepias tuberosa*, a native butterfly-weed

## Arboretum Receives Anonymous Bequest

This past May we received word that PHA had received an unrestricted gift in the amount of \$575,000. This generous bequest was established several years prior by an Arboretum admirer who requested to remain anonymous. “This amazing gift will have lasting benefits in the years ahead,” says Executive Director Tim Boland. “The Arboretum is grateful and proud this caring individual chose to support our growth and sustainability.”

Gifts of this magnitude reflect faith in PHA as a resource for the Island community and recognize the stewardship of both the landscape and its historic buildings over an 18-year history. PHA board chairman Hunter Moorman adds, “We are deeply

grateful for this splendid and unsolicited gift in support of PHA’s broad program of historic preservation, plant conservation, education, scientific research, and service and as a sanctuary for all who visit. It confirms our conviction that we touch the lives of our community in ways we can’t always know and inspires us to continue our work.”

Since our founding in 1998, we have maintained a philosophy of enduring quality growth. We are proud of what we have accomplished. We remain committed to the preservation and maintenance of this special Vineyard landscape. At our heart are the connections we make with people through our programs and our plant collections. Today PHA is a vital public garden, a scientific

institution, a community resource, a historic landscape, a conservation corridor, and a beloved Island landmark. It is also an institution reliant upon the generosity of its donors and membership to sustain, maintain, and stay vital for our visitors for years to come.

Our vision for the future is full of optimism. We invite you to join us in this vision by making a bequest to PHA, or considering us in your living will. For more information, contact Executive Director Tim Boland at [tim@pollyhillarboretum.org](mailto:tim@pollyhillarboretum.org) or 508-693-9426 to discuss options on how you can take part in our future. Information can also be found at <http://www.pollyhillarboretum.org/wp-content/uploads/2010/03/Planned-Giving-Brochure-2013.pdf>.

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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.

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Executive Director Tim Boland is joined by former PHA board chair Joan Smith and builder Tucker Hubbell for the ribbon cutting.

## Message from the Director

Grateful, ecstatic, overjoyed! I felt a surge of affirmative emotions upon the opening of our Education Center and Botany Lab. On August 19, we opened the new building and changed the trajectory of the Arboretum. To mark this milestone, members, donors, contractors, and friends joined us for a grand celebration. The day was a vivid reminder of all the people who have made the Arboretum possible. As I write, work continues on the finishing touches and the transfer of archives and herbarium specimens into our beautifully designed new space.

At the opening we recognized Polly Hill for the remarkable public garden she created. It was gratifying that several founding board members attended including Lisina Hoch, and that Joan Smith, past board chairman and wife of PHA co-founder Dr. David H. Smith, helped cut the ceremonial ribbon. I was also pleased that Director Emeritus Stephen Spongberg and his wife, Happy, could attend. It was a day to recognize our beginnings, but also to celebrate our promising future.

What lies ahead for the new building? We are excited about its sheer potential! Look for an expansion of adult classes and lectures. You'll see our herbarium properly stored and utilized. We envision outreach into the secondary grades and high schools, focused on creating a greater awareness of botany, horticulture, plant ecology, and the unique place in which we live.

This past fall was enormously productive with two seed-collecting trips, a garden tour to western Massachusetts, and a vibrant youth education program. Fall, however, brings changes. And this past season, after an impactful 10 years, former Curator Tom Clark, left PHA to return to western Massachusetts. Reflections on his time here can be found within.

Best wishes for the coming year. We need plants more than ever! This winter look for our winter walks to get you out and into our plant collections. Whether in the new building or out on the grounds, I hope to see you at the Arboretum soon.

*Timothy M. Boland*

## Summer Interns

Each season we offer our Feldman summer internship to college students pursuing careers in horticulture or related fields. PHA summer interns participate in all aspects of maintaining the Arboretum. While students arrive with a sense of the work expected, most are surprised by the variety of activities that go into operating a public garden. This year's interns, Kate Montgomery and Sarah Houtsma, were no exception.

Both Kate and Sarah felt they gained a new perspective on the role public gardens play in community education. Sarah enjoyed sharing plant information with visitors. She packed a lot of learning into one summer and felt she'll have a flying start in her woody plant identification class this semester! Kate also gained an appreciation for connecting people with plants. She was inspired by her work at PHA and her visits to other public gardens during this summer's intern trip. She cites these gardens as examples of how her studies in landscape architecture can be used to combine horticulture and design for the public good.



Summer interns Kate Montgomery (left) and Sarah Houtsma

Sarah has returned to her studies in horticulture at the University of Georgia in Athens. Kate embarked on an overseas semester in Berlin, Germany, before returning to SUNY College of Environmental Science & Forestry in Syracuse, New York, to complete her degree in landscape architecture. We wish them both continued success. As always, we enthusiastically thank the Feldman family for their continuing support of the PHA summer internship program.

## Family Book Series

Outside the Far Barn this summer, families gathered to hear volunteers read classic stories such as *The Very Hungry Caterpillar* or classics-to-be such as *On Meadowview Street* to a diverse group of visitors. Kids lounged on parents and grandparents looked on as the children were captivated by the stories. After story time, family groups went on walks, met characters from the book, or did a craft project related to the story. This family program continues to grow in popularity! Please join us next summer.



Kristen Fauteux, director of stewardship for the Sheriff's Meadow Foundation, demonstrates habitat protection for endangered animals with a box turtle.

## Kady Wilson: Always Curious, Always Learning

We love watching plants grow, of course, but one of the pleasures of our internship program is watching people grow. Our 2016 curatorial intern Kady Wilson experienced a rewarding year of discovery at PHA. Her natural curiosity combined with the internship's varied responsibilities led Kady to a wide range of learning experiences on Martha's Vineyard, both at the Arboretum and elsewhere.

"Kady has passion for plants," says Executive Director Tim Boland. "She



Kady Wilson

brought an inquiring mind that allowed her to dig deep into the PHA's collections. She loves the challenges and rewards intrinsic to curatorial work. Also, she has a delightful, quirky sense of humor that fit right in at PHA." We immerse our curatorial interns into the important work we do. Kady says she had such a wide variety of projects, she felt more like a staff member than an intern.

A major part of Kady's curatorial internship was spent on plant verification. Her work with the fir collection was one of the highlights of her internship. It included plant records detective work, climbing trees to collect cones, gathering seed for Plant Propagator Brain McGowan to sow, and confirming species through the use of identification keys and a microscope. In addition, with the departure of Curator Tom Clark in September, Kady took on the important work of accessioning plants, including the seed from our fall collecting expeditions. She did an outstanding job!

With her natural inquisitiveness and

self-confidence, Kady found time to experience more than the PHA collections: she also explored the Island's culture, agriculture, and natural areas. "The Island is full of trails and old roads." Kady remarked. "I hiked around a fair amount, often botanizing on the way. The local food movement here is great! I hung out with farmers and ate their cheese. I went dancing and attended kickball potlucks." Kady also enjoyed filling in as a school group guide at PHA. And while out exploring natural areas, she made an informal survey of native milkweeds that led to the engaging article within these pages.

What lies ahead for this talented, energetic young woman? Her next move is a year abroad at the Jerusalem Botanical Gardens as a visiting scholar. After that she is considering graduate school with the ultimate goal of working in plant conservation (esp. ex situ conservation), which will require continued dedication to scientific research and plant records. Good luck Kady Wilson! We wish you the very best.



## Board News

The PHA Board welcomes its newest member, Dennis Bushe. Dennis's appointment strengthens the board in its capacity for sound financial and investment management. Dennis has a distinguished career in investment management with a focus on fixed-income investments and extensive experience in non-profit and corporate board leadership. Seasonal residents of West Tisbury based in New York City, Dennis and his wife, Ann, are longstanding, enthusiastic supporters of PHA. Ann already serves as a volunteer at the Visitor Center. We all extend a hearty welcome to our new colleague, Dennis Bushe!



Dennis Bushe with his wife, Ann.

*I am delighted to be joining the Board of Polly Hill Arboretum. It is a joy to walk the grounds on a clear blue Vineyard day, observing the varied plantings and always finding one I hadn't noticed before. I have participated in several workshops and one of my favorites is plant propagation. I can't say I've always succeeded, but I know I can always return to see the donor! The staff is so knowledgeable, and always helpful and supportive of my efforts. This is a special place for me. —Dennis Bushe*

At the same time, we recognize and extend gratitude to Lydia Hill Slaby who rotated off the PHA Board at the conclusion of her third term in June. Her personal connection to the Arboretum—she is Polly Hill's granddaughter—and her extensive experience in finance and budgeting were a tremendous asset. During her nine accomplishment-filled years (much of it in the role of treasurer) Lydia brought passion and expertise that she applied to the development of systematic budget policies, sound wealth management capacity, and the rigorous monitoring of expenditures. We have greatly valued her sure guidance and wish her a fond farewell!

## Farewell to Curator Tom Clark: Plantsman, Educator, Mentor

Tom Clark has left PHA to take the new position of botanic garden director at Mount Holyoke College in South Hadley, Massachusetts. Tom ends a ten-year term at the Arboretum where he led tremendous advancements in the collections and grounds. "Tom is the consummate plantsman and a great co-worker in every sense of the word. He will be truly missed," says Executive Director Tim Boland.

Tom and his wife, Sandy, were an integral part of our Arboretum community, and we take pride in the fact that they forged close friendships with so many people, from staff to board members to students to a close-knit community of volunteers. His new position allows Tom and Sandy to return full-time to Hadley, Massachusetts, where they have family and continued to maintain a home.

Tom joined PHA in 2006 and participated in many key institutional advancements such as the establishment of the Littlefield Maintenance Building, the renovation and improvement of Polly's Play Pen, and many others. Tom was also the key on-site liaison helping to stage and complete the new Education and Botany Lab. Along the way Tom mentored many interns, several now holding important positions in botanical gardens and arboreta throughout

North America. His weekly walk and talks with the interns exposed them to the plant collections, but also to the professional curatorial practices a scientific collection of plants requires. Due to his quick wit and mastery of puns, Tom's students laughed and learned alongside a kind and generous plantsman. His additions to our newsletter, *Meristems*, provided plant information along with his characteristic folksy sense of humor.

Tom has been an ambassador for PHA and is widely respected in the public garden community for his collections advocacy and his dedication to best management practices. His passion for plants led him on seed-collecting forays both in the U.S. and Asia. Today the nursery has hundreds of plants from his expeditions, many are new to PHA!

We checked in with Tom recently, and he shared the following, "With each passing day since my departure from PHA, I realize how remarkable a place it truly is, and in so many ways. For ten years the Arboretum was an enormous part of my life, and I feel incredibly fortunate to have been part of PHA. Professionally, it afforded me a rich array of opportunities to grow, learn, and contribute for which I'll always be thankful. I eagerly look forward to the Arboretum's continued growth and success—thanks for everything PHA!!"



Tom Clark at our annual volunteer party

As you walk around the Arboretum, you'll notice Tom's contributions everywhere, from the improved maintenance to the many plants he shepherded onto the grounds. We look forward to a continued connection and expect to see him back at PHA to teach classes and catch up with friends.

# Seed Expeditions Meet with Resounding Success!

Executive Director Tim Boland and former PHA Curator Tom Clark both participated in seed-collecting expeditions this past September in collaboration with the Arnold Arboretum of Harvard University. Tim's trip to southeastern Kentucky concentrated on the northernmost populations of the mountain camellia (*Stewartia ovata*), while Tom's trip focused on a range of species from sites in Tennessee, North Carolina, and Georgia.

The Kentucky trip was hosted by Phillip Douglas, director of horticulture at Gainesway (a horse farm and arboretum in Lexington, Kentucky). Tim was joined by former PHA intern Catherine Meholic, now plant recorder for the Mt. Cuba Center in Hockessin, Delaware, and Jenna Zukswert, living collections fellow at the Arnold. Tim was pleased that stewartia expert Jack Johnston could accompany them for a portion of the trip. Jack has a sixth sense for tracking the mountain camellia in the wild! Despite moderate to severe drought conditions in Kentucky, the group was successful in finding seed from most of their target plants. They made 18 stewartia collections from sites in the Cumberland Plateau region of the Daniel Boone National Forest.

Jenna departed from the Kentucky trip and immediately joined Tom Clark and Robert Dowell (also an Arnold Arboretum living collections fellow) for a weeklong seed-collecting trip through four national forests in Tennessee, North Carolina, and

## Staff News

In July, Horticulturist Ben Madeiras attended a conference hosted by the Sentinel Plant Network held at the Phipps Conservatory in Pittsburgh, Pennsylvania. The conference included the identification of significant pests and diseases that threaten our gardens on a national and international scale.

Also in July, Plant Propagator/Horticulturist Brian McGowan traded the beaches of Martha's Vineyard for the Hudson Valley of New York, an area rich in public gardens and historic landscapes.



At Natural Arches Park in Kentucky, Jenna Zukswert, Cat Meholic, and Julian Campbell make a collection of the sorrel tree (*Oxydendrum arboreum*).

Georgia. Relying heavily on location data Robert assembled from herbarium specimens, the team collected seed from nearly all the plants on their target list, including the rare pirate-bush (*Buckleya distichophylla*) and big-leaf magnolia (*Magnolia macrophylla*). Once again Jack Johnston joined Tom for a full day.

Seed expeditions require an extensive amount of planning and permitting, travel to remote locations, and hiking through rugged terrain. This challenging work furthers our mission-related objectives of plant conservation, collection development, and horticultural experimentation. In addition, we establish cooperative relationships with regional botanists who have an awareness of the distribution and health of wild plant

populations. Seed from these trips has been cleaned and put into cold storage. Next spring we expect new seedlings to sprout, beginning the transition from mountaintop to PHA collections!



Despite summer drought, the mountain camellia, (*Stewartia ovata*) had abundant seed production.

Brian and his wife, Alice, escorted our summer interns, Kate Montgomery and Sarah Houtsma, and curatorial intern, Kady Wilson, on a whirlwind tour of Hudson Valley sites, including visits to Olana Historic Site, Montgomery Place, Stonecrop Gardens, and more.

Executive Director Tim Boland took part in the West Tisbury Library's garden dedication on July 24. The festivities, organized by the West Tisbury Library Foundation, recognized PHA's professional

contributions. Library foundation member Linda Hearn expressed her gratitude for everything PHA brought to the project. Tim gave a short talk about the value of the gardens and acknowledged everyone who assisted, including PHA staff: Tom Clark, Erin Hepfner, Ian Jochems, and Brian McGowan; Tim's wife and head of circulation at the library, Laura Coit; and our dedicated group of greenhouse volunteers!



## Kindergarteners Work to Save Monarchs

Kindergarten children from three Vineyard elementary schools (Chilmark, Oak Bluffs and West Tisbury) are working as monarch butterfly ambassadors in an effort to increase butterfly habitat and protect the species. This environmental stewardship program was brought to kindergarten classrooms through a collaboration with Biodiversity Works, Vineyard Conservation Society, and PHA.



Monarch butterfly ambassadors!

As part of the program, students from each school are collecting milkweed seed-pods island-wide for two projects. The first is a milkweed seed giveaway coordinated with local nurseries. Students will collect and prepare the seeds, as well as provide educational material for community members. An interactive map on Biodiversity Works' website will allow students to track where milkweeds are planted as a result of their seed distribution.

Some of the milkweed seed will be brought to PHA to be grown on into mature plants. These plants will be used for the second project: the creation of schoolyard monarch waystations. Waystations are places that provide the resources necessary for monarchs to reproduce and sustain migration. In the spring, kindergarteners will plant milkweed plants along with other native nectar plants (also grown at PHA) to create monarch waystations at their local schools.

Monarch butterflies serve as a model to teach children about lifecycles and migration, serving as a springboard to explain more complex topics such as the effects of habitat fragmentation on wildlife populations and the use of habitat stepping stones to connect wildlife corridors. Perhaps the most important concept is how to get organized and do something to make a difference!

Students at the Chilmark School are going one step further and holding a "Save the Monarchs" festival. This event will raise awareness of the plight of monarch butterflies, while also raising funds for one of the major butterfly overwintering sites: El Rosario, a monarch sanctuary in Michoacan, Mexico. Chilmark kids will be selling seeds, bookmarks, and butterfly cookies to raise money to help the monarchs. Please assist the students (and the butterflies!) and create a monarch waystation in your home garden.

## PHA Herbarium Provides Artistic Inspiration

In the midst of a leafless cold winter, artist Taylor Stone visited PHA in need of plant information. She was in the inspiration stage of a creative project, a book about wildflowers dreamt up on Vineyard walks with her dog, Oliver. "I came to Polly Hill because everyone told me you were helpful and knowledgeable!" she recalls. And the Arboretum did have just what she needed: supportive staff and artistic inspiration found in a herbarium full of pressed plants.

Upon hearing more about her idea, PHA Resource Specialist Erin Hepfner helped Taylor select quintessential Vineyard wildflowers and grasses. From PHA's herbarium, she retrieved specimens that Taylor used as a basis for her illustrations. Thus began the creation of her beautiful, handmade floral booklet, *Vineyard Magic: A Collection of Wildflowers [and Other Sightings] on Martha's Vineyard*, that is at once a book and a work of art.

To explore her idea, Taylor, a skilled paper artist and illustrator, merged images of herbarium specimens displaying the typical shape of each plant with images of

live plants in their natural habitat. This integration lends her two-dimensional images a three-dimensional feel. She was careful to maintain botanical accuracy throughout the process of creating the laser-cut silhouettes used to produce each illustration.

Remembering her mother's whimsical childhood stories, Taylor enlisted her mom, Lori Stone, to compose lighthearted verse to complement each plant. The natural setting of the native plant informed the micro-story that accompanies each image: a poem about the plant and its "Vineyard magic." The book contains the images and stories of 10 native plants, transporting the reader to the time and place where each plant grows—a magical journey combining both art and science.

The book is handcrafted and sourced locally: printed at Tisbury Printer, bound by handmade paper produced by Sandy Bernat of Sea Stone Papers, and assembled by Taylor in her studio. Limited editions of *Vineyard Magic* may be purchased through Taylor's website: [taylorstoneillustration.com](http://taylorstoneillustration.com). Look for an inspiring presentation by Taylor Stone at the Arboretum in 2017!



Pages from *Vineyard Magic* depict hyssop-leaved boneset, shown here with an herbarium sheet and wild field plants.

## Botany Classes Lead to Discovery

PHA is proud to offer botany classes unavailable elsewhere on the Cape and Islands. Over the past six years, we have brought in local ecologists and botanical experts from off-Island to share their knowledge of plant identification and field botany.

Many of our classes cover plant groups difficult to identify because of their complex floral structures—sedges, rushes, and grasses, as well as asters, goldenrods, and other members of the sunflower family. Vineyard plant communities studied include bogs, shorelines, forests, sandplains, and heathlands. In the classroom, students attend lectures and use microscopes to learn identification skills. In the field, work focuses on the recognition of plants in the wild.

While classes are open to the general public, the majority of participants are professionals from Vineyard conservation groups who participate to improve their botanical and field identification skills. It is gratifying to provide educational opportunities to our Island conservation partners. As a result, local land stewards are better trained to perform their own assessments and plant inventories.

This June during Dr. Anton (Tony) Reznicek's class on sedges and rushes, a discovery was made in the field—a new sedge! This previously undocumented plant is not only a new find to Martha's Vineyard, but also new to the United States. The two-ranked sedge (*Carex disticha*) is of Eurasian origin and was previously documented in just a few Canadian locations associated with ports on the Great Lakes-St. Lawrence system. It was presumed to have arrived in Canada in shipments of straw used as animal bedding or packaging materials. Despite its alien origin, the population on Martha's Vineyard is not considered an invasive threat.

A paper revealing this recent discovery will be published in *Rhodora*, the journal of the New England Botanical Club. Congratulations to the authors: Research Associate Gregory Palermo, volunteer Margaret Curtin, and Dr. Reznicek for making this discovery! Our new Botany Lab and Education Center improves our ability to host these classes. We look forward to holding more in the future.



Bud Perkins and Judy Hatch

## Bud Perkins and Judy Hatch

Judy Hatch's initial desire as a Polly Hill Arboretum volunteer was to work with plants. In contrast, she says her husband, Bud Perkins, was here for the people. "But he learned a lot," she adds fondly, "and in time he started sounding like a plant person, even using Latin names!" This fall after 10 years on Martha's Vineyard, Bud and Judy will be returning to the West Coast. They consider their PHA volunteer time among their happiest Island memories.

As professionals both Bud and Judy were teachers who enjoyed sharing with others as much as learning from others. They bring both their profession and their passion to their volunteer work. Judy's interest in plants began while studying at Mills College in California. She discovered the greenhouse and became intrigued with the plants. And later, as a volunteer at UC Berkeley Botanic Gardens, she was given the job of houseplant propagator. Bud, an avid outdoorsman, has always enjoyed nature's daily and seasonal changes, something he continued to appreciate as a PHA volunteer.

When Judy retired in 2006, she and Bud moved to Martha's Vineyard where Judy had visited as a child. Their new neighbors introduced the couple to PHA. Instantly Judy knew she wanted to volunteer on the grounds, and soon after she joined the Arboretum's volunteer grounds crew. She volunteered solo her first few years while Bud taught at the Chilmark School. After his retirement, Bud joined

Judy at PHA. At first it was just to assist with tree work. Bud enjoyed the outdoor labor, but soon discovered he appreciated the comradery even more. Crediting the varied background of each volunteer, Bud found the conversations were always different, and always enjoyable. He got more involved.

Their volunteering recollections include both the people and the evolving Arboretum landscape, each memory told with a smile or a laugh. They say they enjoyed their relationships with the wonderful staff and the other volunteers. Judy reminisced about her fellow volunteers; some of the original crew that still come in weekly to weed, prune, and care for the grounds. Bud spoke highly of the grounds maintenance. He especially remembers the rejuvenation of the Dogwood Allée and the preservation of the "fireplace oak." Judy recalled how the grounds have changed: new plantings, fewer weeds, and overall tidier.

When asked for advice for new volunteers, Bud replied warmly, "It's good to know when fall comes, there will be plenty of leaves to rake!" to which Judy laughed in agreement. They both said that working and laughing together has benefitted them as much as it has PHA. When asked what they'll miss the most, they answer in unison, "the people!"

Bud and Judy, we thank you for your volunteerism and for your positive and friendly spirits! We'll miss you too! For more information about volunteering at PHA, contact Erin Hepfner at 508-693-9426.



# Japanese Collecting Trips: A Decade of Growth

by Tom Clark



The wild type plant of *Cornus controversa* in Honshu, Japan. At 10 years of age our tree is over 30 feet tall!

In the time since Executive Director Tim Boland and I first set foot on Japanese soil about 10 years ago, the Arboretum has been populated with a living legacy of plants derived from seed-collecting trips made in 2005 and 2007. The most significant impact is the more than 60 different plants grown from wild-collected seed that have been added to PHA's living collection.

Among the first plants from the 2005 trip to find a place on the grounds was a giant dogwood (*Cornus controversa*). This beautiful tree, with distinctive whorled branching, has flourished, quickly deserving its common name. It complements the nearby Persian ironwood and dawn redwood,

creating an attractive grouping where the hornbeam tunnel once stood.

Japan is home to several desirable magnolias and three species grown from our wild-collected seed are now thriving at PHA. The familiar star magnolia (*Magnolia stellata*) occurs in two places; the best specimen is adjacent to the Littlefield Maintenance Building. We were pleasantly surprised when this small tree produced pink flowers, normally they are white. The second, a close relative, is *M. kobus*, and the third is the willow-leaf magnolia (*M. salicifolia*).

Over the past 10 years we have established a fine collection of snowbells

(genus *Styrax*). In Japan we collected seed from two of the finest. My favorite, the fragrant snowbell (*S. obassia*), has scented white flowers held in pendulous racemes. A specimen from the trip now occupies a prominent place in the North Field. Our Japanese snowbell (*S. japonicus*) now greets visitors along the Arboretum's entry path. As it grows it will branch out overhead allowing a glimpse of the dangling flowers. A close relative, the fragrant epaulette tree (*Pterostyrax hispidus*) produces a froth of white flowers with a delicate scent. The specimen planted in the North Field, grown from seed collected in 2007, has sentimental value; it was the first tree plant-



ed by Horticulturist/Arborist Ian Jochems.

Several conifers were collected on our trips. Most promising is the dwarf Japanese plum-yew (*Cephalotaxus harringtonii* var. *nana*). We collected seed in a rich, rocky woodland where it mingled with camellia, creating a groundcover. Beyond its attractiveness, the plum-yew will appeal to Vineyard gardeners as it is rarely bothered by deer. A superb planting has filled in nicely near the Visitor Center.

The heath family (which includes rhododendrons and azaleas) is well represented in the progeny from the trips. Most noteworthy is *Rhododendron makinoi*. Only an estimated 7,000 plants exist in its native Honshu, Japan, leading conservationists to deem this plant as vulnerable. Our plant, located near *Magnolia* 'David', is a valuable genetic resource, and its trusses of white-and-pink flowers make it a fine ornamental. In addition, seed collected in 2005 from the deciduous azalea *R. molle* subsp. *japonicum* yielded a bumper crop of plants. They now create an arresting display of impossibly bright orange-pink flowers.



*Rhododendron makinoi* has remarkable spring foliage.



**Above:** The exquisite flowers of the Japanese styrax.

Also in the heath family, the largely Asian genus *Enkianthus* is another group in which we have a growing interest. In 2007 this plant led us on quite an adventure. With darkness falling and a long day not quite over, we pulled up to a modest home. Our guides roused the inhabitants and after some discussion led us by flashlight to a population of *Enkianthus cernuus* var. *rubens*. Seven years later, a plant grown from that seed produced its first flowers—raspberry-red globes, fringed at their opening—and soon after found a home in Polly's Play Pen.

The list of plants derived from the Japanese expeditions is lengthy. I wish there were space to include more. However, you can enjoy all the plants here at PHA. I encourage everyone to explore our diverse living collection. Enjoy it. Learn from it as I have over the past 10 years. I look forward to the continued growth of the Arboretum, a place that began when a woman with a vision planted a seed.

**Below:** The star magnolia near the Littlefield Maintenance Building emerges with a pink-flushed bloom and finishes white.





# The Virtues of Vineyard Milkweeds

by Kady Wilson

Before our Vineyard fields are silvered with frost and snow, they are filled with another white fluff—the windblown silk of milkweed seed. These plants, members of the genus *Asclepias*, are found all over the U.S. and are often considered to be ordinary, perhaps even weedy. However, as Ralph Waldo Emerson said, a weed is “a plant whose virtues have not yet been discovered.” During my season on Martha’s Vineyard, I have discovered the extraordinary attributes of this intriguing native wildflower. Of about 215 species of milkweed in the Americas, 73 are native to the United States, and five of these are native to the Vineyard.

The genus *Asclepias* was named after the Greek god of medicine, a hint to the medical uses of certain species. Many milkweeds produce a white fluid latex containing toxic compounds. Broken stems and leaves exude this bitter milky juice that protects the plant from hungry herbivores and lends milkweed its common name. Members of the milkweed genus can also be recognized by their showy and complex flowers. Born in clusters, each flower’s pollen-producing parts and pollen-catching parts are fused together to form a unique structure called the gynostegium. Around this structure are the intricate hoods and horns of the crownlike corona,

made from male parts of the flower. These elaborate forms attract pollinating insects.

The common milkweed (*Asclepias syriaca*) is the best known. While this common name is accurate—this milkweed is the most common in the United States—the scientific name *syriaca* is confusing. It means Syrian, and can be traced to an error made by a 17th-century French botanist. This species ranges across the eastern U.S. and Canada, its globular inflorescences adding dusty rose to the palette of roadsides, farm fields, and other disturbed, sunny sites. Sometimes thought of as an agricultural weed, common milkweed has become a welcome addition to pollinator-friendly gardens, attracting beneficial insects with its sweet nectar. However, this is not a plant for the small garden! It spreads easily by wind-dispersed seed or by underground rhizomes, one individual often forming large colonies.

Butterfly-weed (*A. tuberosa*) is another milkweed often seen on the Vineyard, although many do not realize it is in the genus *Asclepias* because of its bright orange flowers and clear sap. Aided by a long taproot for which the scientific name was given, butterfly-weed is a lover of sun and sandy soils, making it a blessing to gardeners of impoverished glacial till. An older common name,

pleurisy root, refers to the use of its tuberous root for treating pulmonary ailments. When in bloom, butterfly-weed dots old meadows and fields creating a memorable Vineyard view.

Swamp milkweed (*A. incarnata*) is a denizen of swamps and wetlands. Its flowers vary from white to purple to pink, their petals often contrasting with a lighter corona. Horticulturists have taken advantage of this variation to produce cultivars such as the rose pink ‘Cinderella’ and the pure white ‘Ice Ballet’. The milkweed’s spicy vanilla fragrance is an added bonus. On Martha’s Vineyard, a subspecies of the swamp milkweed (*A. incarnata* ssp. *pulchra*) has fuzzier leaves, a trait that can prevent water loss and herbivory.

The clasping or wavy-leaf milkweed (*A. amplexicaulis*) is rare on the Vineyard. I first encountered it in June when its pink umbel caught my eye from the car window. Up close, the identification was easy—glossy simple leaves with a wavy margin clasp the stem. The dry, sandy field in which it grew is a typical habitat for the species. It has also been observed in coastal heathlands and sandplain grasslands, two rare habitats found on the Island. I revisited the small population throughout the summer, watch-



Swamp milkweed grows in wetland edges or bordering ponds but is adaptable to drier soils. Photo T. Clark



Poke Milkweed is found in the dappled light of the forest edge.



Wavy-leaf Milkweed has showy flowers and a distinct wavy leaf margin. Photo T. Clark





Poke-milkweed close-up showing the distinctive hood, horns, and gynostegium. Microscope image by Kady Wilson.

ing as pollinators fed, flowers shriveled, and seedpods (botanically called follicles) developed, finally releasing their parachutes to the August wind.

The tall and ghostly *A. exaltata* is an elegant plant. Growing in rich woodlands, forest edges, and clearings in the eastern U.S. and Canada, it is only found up-island on the Vineyard. The scientific name *exaltata* means very tall, an apt epithet for a perennial sometimes reaching six feet. Commonly known as poke milkweed, its lush green leaves superficially resemble our native pokeweed (*Phytolacca americana*). Its loose inflorescences of nodding flowers in shades of white, light green, and pale pink stand out in the dappled shade the plant prefers.

Milkweeds may be a common sight, but they cannot be called commonplace. It behooves us to acknowledge these native flowers: their diversity, their complexity, and their value. Be it for aesthetics or ecology, if milkweed is a weed, it is a welcome one.



The Wasserman's field in West Tisbury features hundreds of common milkweed and orange butterfly-weed.

## Insects and Milkweeds by Matt Pelikan

"It takes a fairly specialized insect to actually eat milkweed leaves, which most species find unpalatable or mildly toxic. But in addition to monarchs, several species of milkweed bugs, milkweed longhorn beetles, milkweed tussock moth caterpillars, and various species of aphids feed on the foliage or seedpods of milkweeds. And the flowers of milkweed rank among the most important sources of nectar and pollen for insects. Butterfly-weed (*Asclepias tuberosa*), despite its name, actually seems to be most attractive to bees and wasps; in particular, adults of many "solitary wasp" species feed heavily on milkweed pollen (and these wasps in turn play critical roles in controlling populations of other insects). Native bees, as well as the exotic honeybee, also flock to this species. Common milkweed (*A. syriaca*) is especially favored by butterflies, particularly grass

skippers and hairstreaks, and swamp milkweed (*A. incarnata*), while used by virtually all pollinators, seems to have special appeal to flies, including hoverflies. In my studies of insects, working milkweed flowers is a top strategy for finding insects of all kinds. It's not uncommon to find a half-dozen species using one milkweed flower head at the same time, and across a large field of milkweed, it's generally easy to pick out dozens or scores of species visiting the flowers. If milkweeds disappeared, our landscape would instantly lose a major portion of its ability to support pollinators, and a lot of our biodiversity and ecological resilience would disappear as well."

*Matt Pelikan is a restoration ecologist for The Nature Conservancy on Martha's Vineyard*



Milkweed seeds have a special adaptation for wind dispersal: a silky parachute that aids in its flight and establishment away from the parent plant.



## THE POLLY HILL ARBORETUM

### MAILING ADDRESS

PO Box 561  
West Tisbury, MA 02575

508-693-9426 Tel  
508-693-5772 Fax  
[www.pollyhillarboretum.org](http://www.pollyhillarboretum.org)

### ADMINISTRATIVE OFFICES

The Homestead  
809 State Road  
West Tisbury, MA 02575

### VISITOR CENTER

795 State Road  
West Tisbury, MA 02575

### ACCESSIBILITY

The Visitor Center is wheelchair accessible.

### VISITOR CENTER HOURS

Memorial Day weekend to  
Columbus Day: 9:30 am–4 pm

### ARBORETUM GROUNDS HOURS

Sunrise–sunset, year-round

### TOURS

Daily July and August at 10 am,  
or by advanced reservation

### ADMISSION

\$5  
*Free to members and children under 12*

### FREE PARKING

### DRIVING DIRECTIONS

See [www.pollyhillarboretum.org](http://www.pollyhillarboretum.org)

**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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## THEN & NOW



2015

## Then and Now

Reduce, Reuse, Recycle: At PHA we take the three Rs of environmental stewardship seriously. Four of our buildings—Cowbarn, Far Barn, Homestead, and Littlefield House—have been renovated and returned to use for Arboretum activities. When renovation

is impossible, as when the dilapidated outbuilding called the Gym (with its adjacent shed) was razed to make way for the Education and Botany Lab, we recycle what we can. Last spring we were pleased to see the old shed moved to Caitlin Jones and Alan Healy's



2016

Mermaid Farm and Dairy on Middle Road in Chilmark. Renovated and repurposed, it serves as their new farmstand. Caitlin is quite familiar with the structure: she worked as a gardener for Polly Hill back when it still served as a tool shed. She remembers the south-

ern magnolia (*Magnolia grandiflora*) that grew nearby and planted one near the new farmstand as a remembrance. We are delighted the old shed will serve a new purpose in our community. Mermaid Farm's self-service farmstand is open year-round, dawn to dusk.