

2010

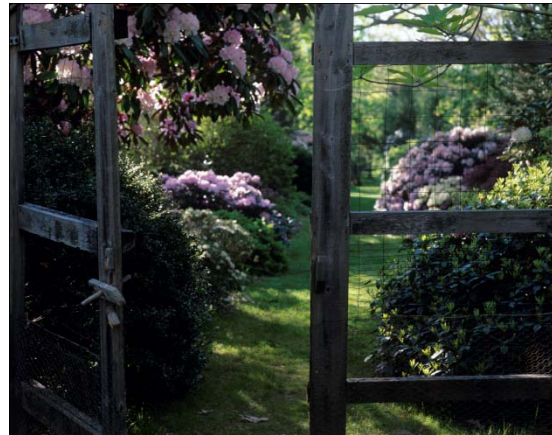
The Polly Hill Arboretum

Year in Review



## Living Collection Statistics

The living collection currently (as of 11/5/2010) contains 1,659 taxa represented by plants from 357 genera and 119 families. These numbers reflect 110 new accessions of seeds and plants during 2010, of which 55% are of documented wild origin. The Arboretum continues to increase the scientific value and genetic diversity of its living collection through the acquisition of well-documented plants and seeds of known wild origin. Noteworthy among the 2010 accessions are several relatively rare taxa including the recently described U.S. native May-white azalea (*Rhododendron eastmanii*), cathaya (*Cathaya argyrophylla*) a rare conifer known only from the fossil record until the 1950s, and Florida torreya (*Torreya taxifolia*) one of North America's most endangered conifers.



Removed from the collection were 148 plants. Nearly half of these were removed from the Play Pen (pictured above) as the result of a curatorial project that is the first step in a large scale renovation of this significant garden area. Plants in other parts of the Arboretum were removed to alleviate overcrowding and improve the health and aesthetic value of the collection.

## The Chain is Complete!

Exploring along the banks of the Locust Fork of the Black Warrior Creek in Alabama, Executive Director Tim Boland and colleagues encountered and collected seed of American snowbell (*Styrax americanus*). Upon the seeds arrival at PHA, Plant Recorder Nancy Weaver entered the extensive field notes and collection data into our plant records database. The seeds were then placed in the capable hands of Senior Horticulturist/Plant Propagator Suzy Zell who germinated the seed and grew the young plants on in the shadehouse.



A year ago four plants were planted into the newly created Littlefield Nursery where they grew vigorously. In September of this year Collections and Grounds Manager Tom Clark identified an appropriate site in the living collection followed by the effort of Senior horticulturist Steve Masterson to plant the three best plants in their permanent home. These plants represent the first of many that will follow a similar path starting with the collection of well-documented, wild-source seed and resulting in another valuable plant to our living collections.



## Littlefield Nursery

Also in September, irrigation was installed in the north half of this recently developed in-ground nursery followed by the planting of several hundred plants raised in the greenhouse and shadehouse. Many of these plants are the result of collecting trips to Japan and the southeastern U.S. and will be grown on in the nursery, evaluated for various criteria, and many will ultimately be planted in the living collection.

## Dogwood Allée



Twin rows of 26 kousa dogwoods (*Cornus kousa*) comprise this iconic Arboretum feature. Sadly, the trees are in decline and suffering from a variety of problems – biotic and abiotic. For several years staff have employed various cultural techniques to maintain and improve the health of these trees and have met with limited success.



This fall PHA contracted with Bartlett Tree Experts to employ a relatively new technology called air-spading. In this process compressed air was directed at the root zone to break up the densely compacted soil. At the same time organic matter and a custom fertilizer were added to the soil and the area was mulched. We anticipate the trees will respond with renewed vigor next spring!

## Curation and Plant Records

In May, Tom Clark assumed the position of northeast regional organizer for the North American Plant Collections Consortium (NAPCC). Tom now coordinates the activities of three regional recruiters. NAPCC is a network of botanical gardens and arboreta that coordinates a continent-wide approach to plant preservation and promotes high standards of plant collections management. It is through the NAPCC that PHA's collection of *Stewartia* is recognized as the national collection.

Throughout the summer and early fall Tom Clark and Collections Management Intern Justin Free completed a thorough inventory and assessment of each individual plant (481) in the Play Pen. The results of this work informed the decision to deaccession 70 plants that were found to

be in poor health, severely crowded, or had little relevance to the Arboretum's mission. The removal of these plants will alleviate crowding with neighboring plants and will open space for some new plantings.

In the spring PHA completed a large-scale upgrade of its technology infrastructure. Of great significance was connecting the greenhouse and maintenance building to the central computer network which enables living collection staff to more efficiently access and update plant records. At the same time we were able to upgrade our plant mapping system by installing the latest version of Autocad which is the basis of BG-Map.

### **Plant Societies to Visit in 2011**

PHA staff is preparing for the arrival of groups from two specialist plant societies. In May, PHA will welcome members of the Magnolia Society International following that organization's national conference in Boston. In the fall, the Arboretum will host Oak Open Days, an educational tour program of the International Oak Society. Both groups will tour and explore PHA's living collection and natural areas where the Vineyard's unique ecosystems can be studied.



*Magnolia macrophylla* 'Julian Hill'



*Quercus dentata* acorns

Visits by such groups are valuable means of promoting the Arboretum and its programs to a wider audience, and are also an excellent opportunity to have our plant collection reviewed by very knowledgeable specialists. The latter connects directly to PHA's on-going efforts to verify each accession in the living collection.

### **Collections Expansion Garden**

Progress continues to be made on the development of this 1.5 acre (0.6 h) future garden site. Throughout the summer and fall PHA staff have worked to remove undesirable vegetation and have assessed the health, structure and desirability of many of the trees naturally occurring on this wooded site. The removal of undesirable trees will begin later this fall and continue into the winter.

In April Tom Clark was approached by Angela Rhoderick, a student at The Landscape Institute of Boston Architectural College, regarding the use of the collections expansion garden as the basis of an independent design project. Although the plan she creates may not be implemented, the final design will yield valuable creative insight and practical site development ideas and concepts relative to paths, visitor circulation, and overall bed layouts. On October 6, 2010 Ms. Rhoderick presented a project proposal for review by staff who were encouraged by her thoughtful approach and her desire to fully understand the history, mission, and sense of place of the Arboretum.



## Far Barn Rehabilitation

It's impossible to imagine the Arboretum without the Far Barn. This iconic rural structure and the adjacent grounds have hosted numerous Arboretum events that speak to the heart of PHA including sharing knowledge through lectures and workshops and extending appreciation to volunteers and supporters.

Saving this old building for future generations also speaks to one of Polly's original goals, preserving the harmony between the agricultural history of the site and the living landscape that supports our collections.

Through a generous donation work has already begun on the renovation of the Far Barn. With this opportunity to improve the safety and utility of the structures we will make improvements to lighting, sound, and access both to the Far Barn and the adjacent Slaughterhouse.



An important part of the process is shoring up the foundation that supports the entire framework of the building. As we build from the foundation up, the sagging floor will be replaced, walls straightened – a new roof will top it all off! As a result of this intensive effort a few plants inevitably had to be removed. With their loss comes opportunity. We will plant new plants, something we thoroughly enjoy doing!

The Far Barn is the epicenter for Arboretum events. In nearly every educational use of the building our teachers and speakers reflect on the simple beauty of the Far Barn.

We expect to be ready to greet visitors, workshop participants, and new admirers by next spring!

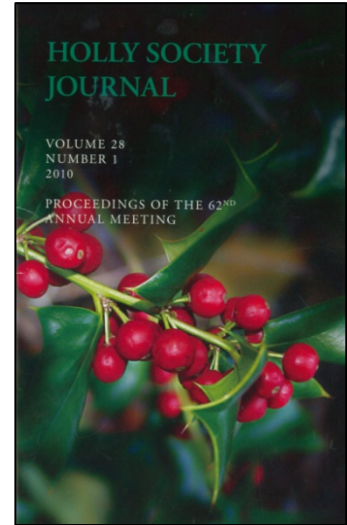
The Far Barn (right) provides the backdrop for this past summer's floral arranging workshop.



## Recent Publications and Talks by Polly Hill Arboretum Staff



“New Cultivar Registrations, 2008-2009”  
*Magnolia Society International*, the journal of the Magnolia Society International. Spring/Summer Issue, 2009.  
Timothy M. Boland, Executive Director



“A History of the Polly Hill Arboretum”  
*Holly Society Journal*, Volume 28, Number 1, 2010.  
Thomas E. Clark, Collections Manager



### Talks

Timothy M. Boland – Executive Director

*MV Wildtype: Acting Locally on the Island of Martha’s Vineyard & Native American Stewartia: Ecology, Cultivation, and Conservation*

Native Plants in the Landscape Conference  
Millersville University, Millersville, PA  
June 2-5 . 2010

*Seeing the Forest through our Trees*

Woody Plant Conference  
The Scott Arboretum of Swarthmore College  
Swarthmore, PA  
Friday, July 16, 2010

*Ilex ‘Pernella’*

Thomas Clark  
Collections Manager



## Education, Membership, and Community Outreach

This year our membership has remained stable at 650 members and visitation, while down a bit from last year, remains strong with an estimated 10,000 -11,000 visitors. Our programming continues to bring in new members and visitors, with our spring and fall plant sales generating considerable interest. In addition we have taken our mission into the community with several successful off-site programs.



We began the year with a series of well attended winter walks which introduced new people to the Arboretum, and served as a reminder to visit in the off-season. In April we began our series of hands-on plant workshops with apple grafting.

Later workshops included plant propagation, bamboo trellis making, preserving herbarium specimens, and an intensive goldenrod identification course.

Our off-site programs included an Edgartown tree tour (pictured left), native plant walks on Chappaquiddick and in the State Forest, and an exploration of the habitat at Eastville Beach.

Our evening lectures were once again sponsored by our local nurseries and funded in part with a Massachusetts Cultural Council grant.

They included Harvard Forest Director David Foster, Mt Cuba Center Director Rick Lewandowski (pictured right), Stuart Davies, Director of the Smithsonian Center for Tropical Forest Science, and Phil Forsline, retired curator of Cornell's Agricultural Research Station's Plant Genetics Research Unit.



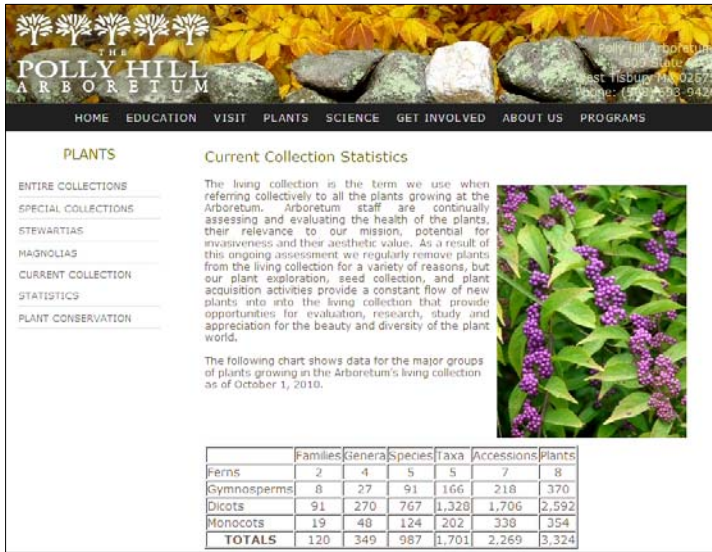
All speakers focused on the importance of global plant conservation and research.

## Youth Education

Our youth education program continues to expand. Last spring and this fall we hosted students from all five Island elementary schools. This fall these inquiry-based science programs reached over 500 students, with 32 class room visits and 34 on-site visits. The teacher response to these programs has been overwhelmingly positive.

## Arboretum Media and Awards

Our bi-annual newsletter, *Meristems*, annual education brochure, website, and email updates serve to inform our supporters of our education and outreach activities. We once again updated our website.



The new site has a cleaner look, better navigation, and is more interactive.

The new program offers better editing options so we are able to use photos more effectively, offer slide shows, provide better in-site links, and offer a calendar to highlight our programs.

We also expanded our on-line presence with a Facebook page.

Our newsletter continues to get high praise from donors and colleagues for its content and photo quality. We are also beginning to feature articles on our website and increase on-line access to this publication.

*Meristems* (pictured below) is our popular newsletter.



The Fall-Winter 2010-2011 edition of the Martha's Vineyard Home & Garden magazine includes a feature article, "Life and Death in the Plant World." The article with its focus on our work in horticultural experimentation has helped spread the word on our current and future projects.

In August we were pleased to receive recognition from the state of Massachusetts for being named one of the 1000 Great Places in Massachusetts. This award was made through the 1,000 Great Places Commission from the governor's office. The list celebrates unique places to visit in the state and was created from 12,000 nominations across the state.

Karin Stanley,  
Education and Outreach Administrator



## Plant Conservation and Scientific Inquiry

### Floristic Studies Continue



Research associate Melissa Cullina and PHA staff performed a botanical inventory of the Old Mill Pond in West Tisbury.

Herbarium specimens were collected to form a reference collection that will help monitor changing conditions over time.

Botanical surveys were also made on adjacent Naushon Island and several conservation lands on the Vineyard.

Meadow-beauty *Rhexia virginica* (pictured left)

### New Equipment Supports Collections and Research Activities

Thanks to a generous donor, an herbarium drying cabinet and two specimen storage cabinets were purchased this year.

This important equipment will support the collection, preservation, and long-term protective storage of specimens from floristic work, plant expeditions, and our cultivated collections here at the PHA.



Preserved herbarium specimen of:  
*Stewartia pseudocamellia* "Milk and Honey"  
A Polly Hill Introduction



Herbarium Dryer

## Conservation Classes Support Island Naturalists



Instructor and PHA research associate Melissa Cullina (pictured left) led a goldenrod identification class this past October. This intensive two-day class included visits to numerous Island locations to see plants in their natural environment. The class was attended by local island naturalists as well as professional conservation land managers. The beautiful white goldenrod, *Solidago bicolor* (pictured below) was just one of a dozen species reviewed during the class.



Coinciding with this field botany course was an afternoon workshop titled, "Preserving Plants for Science." Participants learned the proper techniques for collecting, preparing, and storing pressed plant specimens. PHA staff and volunteers were also included in this workshop to help further develop our expanding scientific herbarium collection.



Susan Hardy Brown (pictured left), Curatorial Assistant, the Arnold Arboretum, details the hands-on process of developing herbarium specimens.

Timothy M. Boland, Executive Director



POLLY HILL ARBORETUM, Inc.  
STATEMENT OF FINANCIAL POSITION  
DECEMBER 31, 2009

ASSETS

	<u>2009</u>
Current assets:	
Cash and cash equivalents	\$ 382,657
Pledges receivable	100,859
Inventory	4,000
Prepaid expenses	<u>24,000</u>
	<u>511,516</u>
Property and Equipment:	
Land	2,176,502
Building and improvements	3,436,947
Furniture and fixtures	121,443
Machinery and equipment	<u>170,005</u>
	5,904,897
Accumulated Depreciation	<u>(944,090)</u>
	4,960,807
Restricted cash	<u>18,034</u>
Endowment Assets:	
Endowment investments	5,599,511
Endowment pledges receivable	956,260
Endowment mortgage note receivable	<u>421,953</u>
	<u>6,977,724</u>
<b>TOTAL ASSETS</b>	<b>\$ <u>12,468,081</u></b>

LIABILITIES AND NET ASSETS

Current Liabilities:	
Accounts payable and accrued expenses	\$ <u>21,543</u>
Net Assets:	
Unrestricted	5,377,341
Temporarily restricted	1,013,465
Permanently restricted	<u>6,055,732</u>
	12,446,538
<b>TOTAL LIABILITIES AND NET ASSETS</b>	<b>\$ <u>12,468,081</u></b>

Barbara Conroy, Administrative and Financial Officer

**THE CORPORATION AND BOARD OF DIRECTORS – The Polly Hill Arboretum**

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*Youth Education Coordinator*

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*Senior Horticulturist/Arborist*

Karin Stanley

*Education & Outreach Administrator*

Nancy Weaver

*Volunteer Coordinator & Plant Recorder*

Suzy Zell

*Senior Horticulturist/Plant Propagator*

**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.**