
The Polly Hill Arboretum



2008 Year in Review



The Living Collections

Living Collection Statistics

The living collection currently (as of 10/28/08) contains 1,554 taxa represented by plants from 340 genera and 115 families. The significant decrease of 75 taxa from last year's taxa count is an indication of ongoing efforts to deaccession and remove plants that are overcrowded, unhealthy, deemed to be of little relevance to the Arboretum's mission, collection policy or educational programs, or are poorly adapted to growing conditions at PHA. Plant recorder Nancy Weaver has done extensive work to deaccession plants that have not existed in the living collection for many years but previously had not been recorded as having died or having been removed in the plant records database. Including these "clerical deaccessions" 257 plants were deaccessioned. There were 152 new accessions in 2008 of which 73 are of wild origin. 480 individual plants were planted on the grounds of the Arboretum representing 53 taxa 45 of which previously did not exist in the collection.

Littlefield Maintenance Building

On October 23, after several months of collaborative planning involving PHA staff, architect Margaret Curtin and builder Tucker Hubbell, work began on the Littlefield Maintenance Building. The result will be a modest, energy-efficient building that harmonizes with the Arboretum and Vineyard aesthetic. Completion is expected in Summer 2009. The new building will provide improved



facilities for our horticulture staff (including interns and volunteers) and will allow us to safely store the equipment and materials necessary to maintain our plant collection to the highest professional standards. In keeping with the Arboretum's commitment to sustainability the building known as the long shed previously located on the construction site was dismantled and donated to a local farm where it will be reassembled and find a new and useful existence.

Natural Areas

The approximately 40 acres of oak-beech woodland to the west and north of the Arboretum, and the North and West Fields within the Arboretum constitute the PHA natural areas. Both the fields and woodlands were influenced by two separate and dramatic events in 2008.



North and West Fields

On March 25 the Arboretum, a member organization of the Martha's Vineyard Prescribed Fire Partnership, conducted a prescribed burn of the North and West Fields. Trained and certified Arboretum staff member, Steve Masterson, along with a team of fire management professionals from partner organizations successfully and effectively carried out this historic event at the Arboretum. This partnership is composed of PHA, The Nature Conservancy, Sheriff's Meadow

Foundation, The Trustees of Reservations and The Massachusetts Audubon Society. Prescribed fire is one tool that PHA will use in managing the fields in an effort to control aggressive woody species, encourage existing native grassland species, maintain the agrarian feel of the land and demonstrate effective land management techniques. Other techniques include mowing, physical removal of undesirable vegetation, selective cutting, and planting Arboretum grown plants raised from Island collected seed as a means of further diversifying the fields. After an early July mowing PHA took advantage of permission granted by the Massachusetts Natural Heritage and Endangered Species Program (MNHESP) to plant in the fields and study New England blazing star (*Liatris scariosa* var. *novae-angliae*) a native wildflower of "special concern" as designated by MNHESP. PHA staff and interns planted in five plots over 200 plants propagated and grown in the greenhouse. In the coming years the plants will be monitored and evaluated for their vigor, rate of spread and susceptibility to deer predation. The plants will also serve as a seed source for further propagation and research activities.



Liatris scariosa
var. *novae-angliae*

Woodlands

Despite the diminished population of fall cankerworm (*Alsophila pometaria*), a large swath of the PHA woodlands suffered from high tree mortality rates, in some areas in excess of 40%. A similar level of devastation extended to the adjacent 500 acre Woods Preserve managed by The Nature Conservancy. The primary factors contributing to this demise were consecutive years of severe insect infestation and defoliation, and recurring and prolonged periods of drought. In September Steve Masterson, Tim Boland and local arborist Mark DiBiase took an aerial tour of the island to assess the extent of the damage and to gain a better understanding of the pattern and distribution of the damage. It was noted that the



Arboretum's living collection is at the edge of the largest area of devastation and that previous years efforts to spray the perimeter of the collection were not only justified but,

in retrospect, were critical to the long-term well-being of the collection. Sadly, the negative effects of both insect damage and drought will be further realized in the coming years. In mid November forest ecologist Dr. David Foster, director of the Harvard Forest in Petersham, MA visited PHA to assist staff in formulating a long-term management strategy in response to this natural disturbance.

Greenhouse

The new greenhouse and production facility continues to be a critical component of the collections development and maintenance. Senior horticulturist/plant propagator Suzy Zell has proficiently propagated and grown thousands of plants, most noteworthy among them is the great diversity of plants resulting from seed from last year's collecting trips to the southeastern U.S. and Japan.

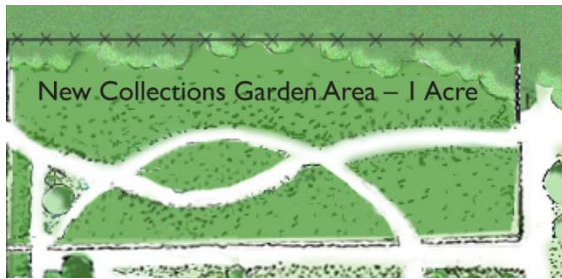


Nursery

The development of a significant production and evaluation nursery adjacent to and west of the greenhouse progressed in 2008. A cover crop of buckwheat grew on the site through the summer in order to improve soil conditions and to smother persistent weeds. A winter cover crop has been sown for the same purposes. Estimates for a deer exclusion fence were obtained, an irrigation plan was developed and plans made to have the site ready for planting in Spring 2009.

Collections Expansion Garden

Site work, including thinning and clearing of undesirable vegetation, on this exciting development at PHA will begin during the winter of 2008-2009. This work will permit better physical and visual access to the site, provide a clearer understanding of the growing conditions and spatial dynamics of the area, and allow initial planning for paths and garden beds.

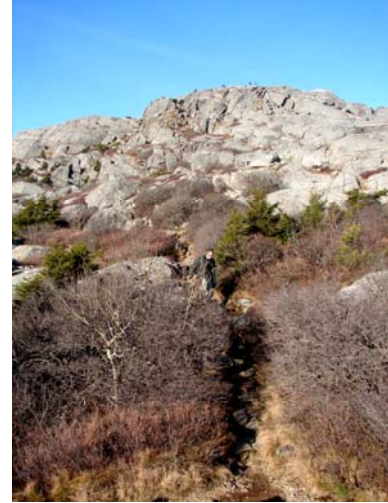


Southeastern U.S. Seed Collecting Trip

The Arboretum continues to place emphasis on accessing, growing and planting well-documented wild-source material primarily from geographic areas that fall within the scope of the mission and collections policy. From September 28 – October 3 director Tim Boland traveled to the botanically rich southern Appalachians to collect seed in western North Carolina and northern Georgia. This trip yielded 33 collections of wild-collected germplasm representing 20 taxa. Particularly good collections of native deciduous azaleas and *Stewartia* will further enhance already strong holdings of these plants in the living collection as they are propagated, grown on, evaluated and planted in the Arboretum.

Collaborative Seed Collecting Trip with Howick Hall and RBG Benmore

Since its inception PHA has sought to develop collaborative relationships with colleagues, botanic gardens and arboreta around the world. Howick Hall in England and the Royal Botanic Gardens, Edinburgh, Scotland are two such institutions having collaborated with PHA for both the 2005 and 2007 collecting trips to Japan. In Fall 2008 Howick Hall and RBG Benmore teamed up to undertake a collecting trip to the northeastern U.S. and again sought to collaborate with PHA. From October 30 – November 3 collections and grounds manager Tom Clark hosted and led representatives from these two organizations to a wide diversity of collecting sites in western Massachusetts and southern New Hampshire. This northerly extension of their travels yielded several collection opportunities not presented farther south. Such trips are the building blocks of not only lasting individual personal and professional relationships, but also of solid, cooperative working relationships between our institutions.



Fall Cankerworm

As hoped, and to a lesser degree anticipated, in 2007 the population of the voracious fall cankerworm (*Alsophila pometaria*) in the environs of the Arboretum was markedly diminished. As a precautionary measure the Arboretum contracted to have particularly susceptible and valuable trees in the living collection sprayed with the bio-rational insecticide Conserve SC. The treatment was successful and little damage was noted.



Ilex opaca 'Satyr Hill'

***Ilex* Collection Reviewed**

On November 5-6, the Arboretum welcomed horticultural taxonomist and holly expert, Susyn Andrews. Ms. Andrews toured the grounds and took a critical look at the *Ilex* collection at PHA, a Holly Society of America official arboretum. Apart from a few minor nomenclatural errors and one misidentified taxon, Ms. Andrews was impressed with our collection. In October 2009 Martha's Vineyard will be the site of the Holly Society of America's annual meeting in which PHA will play a key role.

Thomas Clark, Collections and Grounds Manager

Education, Membership, and Community Outreach

The Polly Hill Arboretum is a cherished destination for Island residents and a valued resource for visitors interested in horticulture, biology, nature study, conservation, and preservation. We estimate 12,000 visitors per year and currently have 680 members. The Arboretum strives to introduce our mission of education, research, and plant conservation to new audiences through educational programs, tours, and community outreach.

This was a significant year for PHA: we celebrated 10 years as a public garden and 50 years of planting on our grounds. We opened our summer season with our fifth annual Summer Solstice Celebration on June 21. We had record attendance this year with over 500 visitors of all ages from our community, and are especially gratified to see Island families returning every year. The solstice celebration is a fun and effective way to increase our visibility and goodwill within the Vineyard community.

We held another community event in July when we opened the newly renovated Cowbarn to the public. This building, originally a barn, was the summer residence of the Hill family until 2005. Last winter the building underwent a multi-use renovation; it now contains a member's library and plant information center, offices, and an apartment for



Renovated Cowbarn Library

visiting speakers and researchers. The opening, which also was the kick-off for our capital campaign, “Seeds for the Future: A Growing Legacy,” generated community interest in the Arboretum as well as our library and plans for plant clinics.

Our youth education program continues to expand. This past year we hosted school groups from all five Island elementary schools.

This fall these inquiry-based science programs served over 450 students. The teacher response to our program has been overwhelmingly positive. They find the material helps teach required curriculum. One teacher noted, “Our classroom continually uses your curriculum programs for the children. They enhance our science studies immensely. With the classroom visit and your field study visit we receive a tremendous amount of hands-on opportunities.”

(Right) Vineyard schoolchildren investigate a beech tree led by Youth Education Coordinator Betsy Dripps.



Our adult education programs were also very well attended this year. From evening lectures and visiting experts to special tours and hands-on workshops, we had a full calendar. Especially popular were our series of tours led by Arboretum staff. These tours, free to members, focus on a particular plant or aspect of our landscape. Last summer we featured Dan Benarcik from Chanticleer, Ellie Altman of the Adkins Arboretum, and Bill Cullina from the Coastal Maine Botanic Garden. Landscape architect Kenneth Helphand spoke about the significance of gardens in wartime, Paul Tukey from SafeLawns.org promoted organic lawn care, and Jules Bruck from the University of Delaware led a workshop on sustainable garden design.

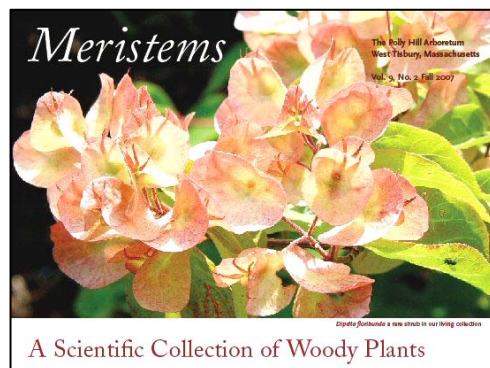
We also offered workshops on growing wildflowers from seed, propagating trees and shrubs from cuttings, and building garden furniture.



(Left) Instructor Jack Alexander and PHA gardener Suzy Zell gather cuttings for a propagation class.

Though we sell plants throughout the season at our Visitor Center, we held two special event plant sales this year. Both sales were very successful; not only did we sell more plants, but we increased visitation and interest in PHA. Proceeds from these sales have gone to fund our first year round collections management intern.

We communicate with members through our bi-annual newsletter, *Meristems*, our annual education brochure, and email updates. In addition, our website provides a wide range of information on the Arboretum and plants, and informs the public on our education and outreach activities.



Karin Stanley
Education and Outreach Administrator

Plant Conservation and Scientific Inquiry

Arboretum Publications

The June 2008 issue of *The Plantsman* (a publication of the Royal Horticultural Society) featured a genus profile titled “*Stewartia* in Cultivation.” The extensive article, co-written by PHA Executive Director Tim Boland, PHA research associate Eric Hsu, and the director of the Arboretum Wesplelaar in Belgium, Koen Camelbeke, features many plants and pictures from the PHA’s living collection.



Magnolia Society International

Executive Director Timothy Boland was appointed to an additional three year board term and retains his duties as the ICRA for the genus magnolia. New cultivar registrations from years 2006-2007 were published in the most recent Spring/Summer 2008 issue of the MSI journal (Volume 43 Issue No.83).

New Research Appointments

Two new research associates were appointed at the summer meeting of the PHA Board of Directors. Melissa Dow Cullina is an outstanding field botanist with expertise on rare plant species in Massachusetts. Melissa is former botanist for the Natural Heritage and Endangered Species Program (NHESP), part of the Massachusetts Division of Fisheries and Wildlife. She will assist the Arboretum with our Conservator database as we work to document and study the flora of Martha’s Vineyard. Melissa has a master’s degree in plant ecology from the University of Maine, Orono, and a bachelor’s degree in forest biology from the University of Vermont.

Eric Hsu is a skilled plant taxonomist currently enrolled in a PhD program at the University of Tasmania in Hobart, Australia. Eric is the author of numerous botanical and horticultural papers, he most recently co-authored a review of the genus *Stewartia* in *The Plantsman*. He holds a master’s degree in plant taxonomy from University of Reading in England and a bachelor’s degree in plant science from Cornell University, Ithaca, New York. Eric will assist PHA on research projects with an emphasis on *stewartia*, *rhododendron*, and *enkianthus*.

Martha’s Vineyard Island Plan

Executive Director, Tim Boland, was appointed by the MV Commission as a member of the natural environment work group (25-50) year plan for the island. The group’s goal is to map and define the principle natural areas on the island that should be conserved in the future. The Arboretum brings expertise on the distribution of plant life on the island through botanical surveys as part of the on-going *Flora of Martha’s Vineyard*.

Timothy M. Boland, Executive Director

POLLY HILL ARBORETUM, INC.
STATEMENT OF FINANCIAL POSITION
DECEMBER 31, 2007

ASSETS

Current assets:	
Cash and cash equivalents	1,222,654
Investments	207,966
Pledges receivables	146,050
Inventory	4,000
Prepaid expense	<u>22,000</u>
	1,602,670
Property and equipment:	
Land	2,176,502
Buildings and improvements	2,852,359
Furniture & Fixtures	117,980
Machinery and equipment	<u>121,948</u>
	5,268,789
Accumulated depreciation	<u>732,059</u>
Endowment funds	2,705,398
Endowment pledges receivable	450,000
Endowment mortgage note receivable	<u>436,424</u>
TOTAL ASSETS	<u>\$9,731,222</u>

LIABILITIES AND NET ASSETS

Current liabilities:	
Accounts payable and accrued expenses	\$ <u>28,762</u>
Net assets:	
Unrestricted	5,639,854
Temporarily restricted	1,418,280
Permanently restricted	<u>2,644,326</u>
	<u>9,702,460</u>
TOTAL LIABILITIES AND NET ASSETS	\$9,731,222

POLLY HILL ARBORETUM, INC.
STATEMENT OF ACTIVITIES
FOR THE YEAR ENDED DECEMBER 31, 2007

Revenue and support:	
Contributions	1,638,856
Membership dues	81,090
Other revenue, net	28,752
Net assets released from satisfaction Of program restrictions	<u>538,145</u>
	1,891,832
Expenses:	
Program services	783,601
Administration	158,283
Fundraising	<u>86,896</u>
	1,028,780
Changes in net assets	863,052
Net assets beginning of year	8,839,408
Net assets end of year	9,702,460

STATEMENT OF FUNCTIONAL EXPENSES

Personnel:	
Salaries and wages	467,884
Payroll taxes & benefits	<u>128,478</u>
	<u>596,362</u>
Operational:	
Depreciation and amortization	90,349
Education and conferences	5,771
Insurance	35,368
Maintenance and repair	96,262
Miscellaneous	14,487
Postage and shipping	4,577
Printing and publication	24,976
Professional fees	60,041
Publicity and promotions	23,348
Supplies	19,618
Telephone	7,539
Travel	16,506
Utilities	16,509
Special events cost	<u>17,067</u>
	432,418
Total expenses	<u>1,028,780</u>

Barbara Conroy, Administrative & Financial Officer, November 17th, 2008

THE CORPORATION AND BOARD OF DIRECTORS – The Polly Hill Arboretum

Timothy M. Boland

Ex Officio

Megan B. Chernin

Robert W. Doran

President & Chairman

Lydia R. Hill

Treasurer

Tatnall Hillman

Lisina M. Hoch

Herbert L. Lucas

Peter Norris

Corinna B. Hill Parker

Vice President

Frank R. Smith

Joan Margot Smith

Secretary

Philippe de Spoelberch

Thomas C. Wallace

Cynthia H. Walsh

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.

HONORARY BOARD MEMBER

Stephen A. Spongberg

RESEARCH ASSOCIATES

Melissa Dow Cullina

Eric Hsu

Shigeto Tsukie

STAFF OF THE POLLY HILL ARBORETUM

Timothy M. Boland

Executive Director

Tom Clark

Collections & Grounds Manager

Barbara Conroy

Administrative & Financial Officer

Betsy Dripps

Youth Education Coordinator

Stephen Masterson

Senior Horticulturist/Arborist

Karin Stanley

Education & Outreach Administrator

Nancy Weaver

Volunteer Coordinator & Plant Recorder

Suzy Zell

Senior Horticulturist/Plant Propagator