

ARBORNOTES

A Newsletter of the Arboretum Associates

December 2010



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Inside this Issue

The North America-China Plant Exploration Consortium ("NACPEC")	1
Some Plants Growing on the Asian Style Pergola	5
Message from the University of Idaho President, M. Duane Nellis	7
Arboretum Associates Donor Roll	8
City of Moscow Wisescape Award	10
Historic Tree Donation	10
New Happenings in the Shattuck Arboretum	11
Report from the Arboretum Associates President	12
Report from the Horticulturist	13

The North America-China Plant Exploration Consortium ("NACPEC")

Connection with the University of Idaho Arboretum and Botanical Garden

The People's Republic of China undoubtedly holds the greatest diversity of woody temperate plants on earth—partly because of China's size and diverse range of climates and partly because many of its mountain ranges are east-west oriented. By contrast, the mountain ranges of North America are primarily north-south oriented. During Pleistocene glaciations and other cataclysmic events, relatively greater numbers of plant species were extinguished in North America than in China.

Early in the twentieth century, Ernest A. ("Chinese") Wilson made major collecting trips to China, from which he introduced dozens of woody and herbaceous perennials



Aerial view of the new pergola. Photo by Richard Naskali.

to western arboreta, gardens and nurseries. His introductions, documented with thousands of herbarium specimens, wet plate photographic negatives, and notes, gave us an incredible legacy, ranging from Paper-bark Maple (*Acer griseum*) and the Handkerchief tree (*Davidia involucrata*) to Regal Lilies (*Lilium regale*). Much of Wilson's legacy can be found worldwide, not only in scores of books but especially through the thousands of his original documents (including his notes, photographs and herbarium specimens) available on the Arnold Arboretum's website [www.arboretum.harvard.edu].

With the opening of diplomatic relations following President Richard Nixon's 1972 visit, plant exploration in China was renewed, enabling introduction of new species to western gardens and arboreta. Private individuals—notably Daniel J. Hinkley—explored, collected propagules in Asia and introduced scores of taxa new to the west.

continued

COME GROW WITH US

ARBORNOTES

A Newsletter of
the Arboretum Associates
University of Idaho
Arboretum and Botanical Garden

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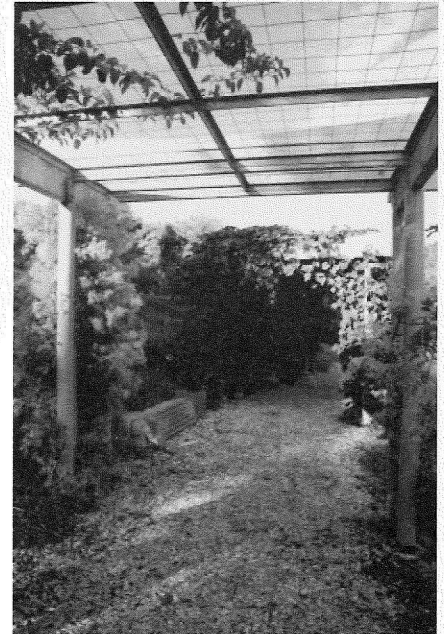
In 1991, a new consortium from the Morris Arboretum of the University of Pennsylvania, the Holden Arboretum of Kirtland, Ohio, and the U.S. National Arboretum of Washington, D.C., initiated NACPEC.

Beginning with a feasibility expedition to China in 1991, there now have been 12 NACPEC collecting expeditions to China in the last 20 years. Other prestigious institutions, including the Arnold Arboretum and the Morton Arboretum, have become part of NACPEC. A major goal of NACPEC has been to increase the genetic diversity of Asian native species in western gardens, arboreta and nurseries. Cooperative interactions and exchanges of botanists and horticulturists East and West led to invaluable research and publications relating to plant geography, ecology, and taxonomy—especially that of China and Korea.

In 1994, cooperative work between Harvard University's Arnold Arboretum, the University of Pennsylvania's Morris Arboretum, the U.S. National Arboretum, and the Holden Arboretum made it possible for the University of Idaho to obtain surplus NACPEC seeds of woody species likely to survive—even thrive—in Moscow. The UI Arboretum Associates contributed \$1,000 discretionary gift dollars to the NACPEC effort and in return obtained almost 130 packets of seeds of documented, native Chinese species collected in the mountains near Beijing and in the wilds of Heilongjiang Province (China's northeastern-most province, with extensive climatic analogues to northern Idaho). For many taxa we received limited numbers of seeds. For example, we received only two acorns of Mongolian Oak (*Quercus mongolica*)—yet we now have two Mongolian Oak trees in our Arboretum. Great care and research have been undertaken in avoiding the introduction of potentially invasive plants from China and other parts of Asia.

We contracted the care of our legacy to Jan K. Schaefer's Western Forest Systems, Inc. nursery, in Lewiston, Idaho, where we planted the seeds April 5, 1995. Schaefer cared for the resulting seedlings for two years before they were ready for planting out in the UI Arboretum and Botanical Garden. The many NACPEC trees and shrubs are distributed around the Asian section of the UI Arboretum; NACPEC vine species were planted on a terrace in the NW part of the Arboretum. Initially, we made temporary trellises of cyclone fencing to support the NACPEC vines—ultimately hoping to receive gift funds for a permanent pergola to showcase our legacy of rare vines.

We are pleased and honored that the current issue of *Arnoldia* (volume 68, number 2, page 24) cites University of Idaho's NACPEC accessions.



View from inside the new pergola.
Photo by Richard Naskali.

~Richard J. Naskali

Reprinted from Harvard University's Arnold Arboretum *Arnoldia*.



PAUL WARNICK, UNIVERSITY OF IDAHO



RICHARD NASKALI

A number of NACPEC collection plants grow on the vine arbor at the University of Idaho Arboretum and Botanical Garden, including, *Clematis mandshurica* HLJ-073 and *Vitis amurensis* BJG-039, top, and *Actinidia arguta* BJG-025 (male flowers), bottom.

Got NACPEC Plants?

WHILE writing this article, we happened upon information that added significantly to our inventory and the compilation of our statistics. Charles Tubesing, curator at the Holden Arboretum, forwarded to me a newsletter from the University of Idaho Arboretum and Botanical Garden. In that newsletter, Paul Warnick wrote about the development of an arbor to hold vines that they had grown from seeds collected by NACPEC. In further correspondence with Paul, I learned that their institution holds 246 NACPEC plants representing 55 taxa and 64 collections. These include 5 collections that previously existed at only one institution, 3 collections that previously existed as a single plant at a lone institution, and 2 collections that we previously thought were dead altogether.

While we knew that NACPEC collections had been distributed far and wide, this one instance illustrated just how pivotal distributions outside the NACPEC network can be. In light of this information, we would be very interested in hearing if any other organizations have NACPEC collections in their gardens. If so, please contact Anthony Aiello at aiello@upenn.edu. We would be happy to include your records in future NACPEC inventories. —ASA

Table 1. Current listing of the NACPEC plants in the UI Arboretum and Botanical Garden with numbers of living plants. BJC codes are for seeds collected in 1994 in the mountains north and west of Beijing (between 30° and 41° N); HLJ codes are for seeds collected in 1993 in Heilongjiang Province (between 43° and 48° N) where minimum winter temperatures range from -30° to -40° F. [Moscow, ID is at 46° 43' N]. Left column lists the UI Arboretum accession numbers; right column lists the original NACPEC collection accession numbers.

UI Accession Number	NAME	Number of Living Plants	NACPEC Accession Number
1995127	<i>Abelia biflora</i>	2	BJG-009
1995036	<i>Abies nephrolepis</i>	2	HLJ-095
1995126	<i>Acer davidii</i>	1	BJG-017
1995128	<i>Acer ginnala</i>	6	HLJ-005
1995014	<i>Acer mono</i>	5	BJG-141
1995012	<i>Acer tegmentosum</i>	3	HLJ-058
1995013	<i>Acer truncatum</i>	5	BJG-066
1995121	<i>Actinidia arguta</i>	4	BJG-025
1995139	<i>Aralia elata</i>	1	HLJ-107
1995119	<i>Betula chinensis</i>	1	BJG-042A
1995129	<i>Betula costata</i>	1	BJG-135
1995130	<i>Betula davurica</i>	1	BJG-044
1995131	<i>Betula platyphylla</i> var. <i>mandshurica</i>	4	HLJ-013
1995124	<i>Carpinus cordata</i>	2	BJG-029
1995015	<i>Carpinus turczaninowii</i>	1	BJG-020
1995016	<i>Carpinus turczaninowii</i>	2	BJG-031
1995017	<i>Celtis bungeana</i>	3	BJG-086
1995116	<i>Celtis bungeana</i>	2	BJG-030
2002121	<i>Clematis hexapetala</i>	1	BJG-101
1995122	<i>Clematis mandshurica</i>	2	HLJ-073
1995123	<i>Crataegus dahurica</i>	1	HLJ-067
1995133	<i>Eleutherococcus sessiliflorus</i>	5	BJG-082
1995120	<i>Euonymus alatus</i>	3	BJG-095
1995018	<i>Euonymus bungeanus</i>	4	BJG-075
1995134	<i>Euonymus pauciflorus</i>	2	HLJ-092
1995019	<i>Euonymus pauciflorus</i>	3	HLJ-052
1995034	<i>Euonymus przewalskii</i>	3	BJG-109
1995025	<i>Flueggea suffruticosa</i>	2	HLJ-088
1995118	<i>Fraxinus chinensis</i> var. <i>rhyrachophylla</i>	3	BJG-002
1995020	<i>Fraxinus chinensis</i> var. <i>rhyrachophylla</i>	5	BJG-065
1995135	<i>Larix olgensis</i>	7	HLJ-100
1995021	<i>Lespedeza bicolor</i>	4	HLJ-090

UI Accession Number	NAME	Number of Living Plants	NACPEC Accession Number
1995184	<i>Malus baccata</i>	4	HLJ-078
1995033	<i>Philadelphus pekinensis</i>	5	HLJ-049
1995136	<i>Picea jezoensis</i>	7	HLJ-098
1995137	<i>Picea koyamai</i>	4	HLJ-099
1995035	<i>Pinus koraiensis</i>	9	HLJ-110
1995138	<i>Pinus tabulaeformis</i>	16	BJG-041
1995022	<i>Quercus mongolica</i>	2	BJG-038
1995023	<i>Rhamnus ussuriensis</i>	4	HLJ-006
1995187	<i>Rosa acicularis</i>	1	HLJ-70
1995117	<i>Rosa bella</i>	1	BJG-118
1995024	<i>Schisandra chinensis</i>	2	BJG-022
1995026	<i>Sorbaria sorbifolia</i>	1	HLJ-010
1995186	<i>Sorbus alnifolia</i>	1	HLJ-093
1995185	<i>Sorbus alnifolia</i>	3	BJG-096
1995182	<i>Sorbus pohuashanensis</i>	6	HLJ-096
2004157	<i>Spiraea fritschiana</i> var. <i>parvifolia</i>	6	BJG-012
2004158	<i>Spiraea pubescens</i>	1	BJG-074
1995032	<i>Syringa pubescens</i> ssp. <i>patula</i>	9	BJG-124
1995027	<i>Syringa pubescens</i> ssp. <i>patula</i>	11	BJG-061
1995037	<i>Syringa pubescens</i> ssp. <i>patula</i>	11	BJG-112
1995028	<i>Syringa reticulata</i> ssp. <i>pekinensis</i>	7	BJG-006
1995001	<i>Syringa reticulata</i> ssp. <i>pekinensis</i>	5	BJG-052
1995183	<i>Syringa villosa</i>	2	BJG-113
1995140	<i>Tilia mandshurica</i>	1	BJG-106
1995141	<i>Tilia mongolica</i>	1	BJG-130
1995029	<i>Viburnum burejaeticum</i>	11	HLJ-045
1995181	<i>Viburnum mongolicum</i>	1	BJG-068
1995178	<i>Viburnum sargentii</i>	8	HLJ-054
1995179	<i>Viburnum sargentii</i>	3	BJG-099
1995180	<i>Viburnum sargentii</i> forma <i>puberulum</i>	2	HLJ-015
1995030	<i>Vitex negundo</i> var. <i>heterophylla</i>	2	BJG-087
1995031	<i>Vitis amurensis</i>	8	BJG-039

Some Plants Growing on the Asian Style Pergola



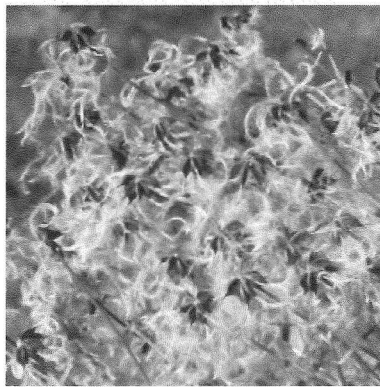
Magnolia Vine (*Schisandra chinensis*, Schisandraceae) [BJG022]: Pink pendant flowers (ca. 1/2" long) May 26, 2003. Each pollinated flower can yield a chain of brilliant red berries, each ca. 1/8" diameter, September 7, 2003. This family is very closely related to Magnolias on which one flower can give rise to a complex non-fleshy fruit which somewhat resembles a cucumber.



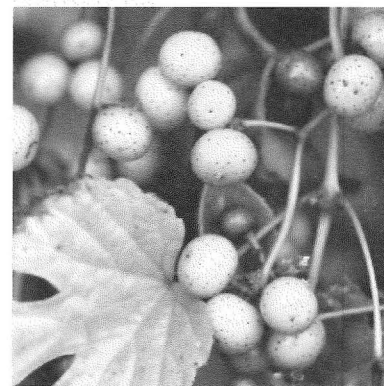
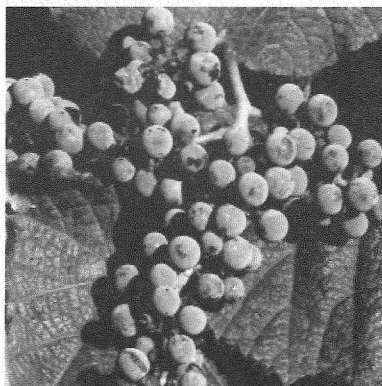
Photos by Richard Naskali



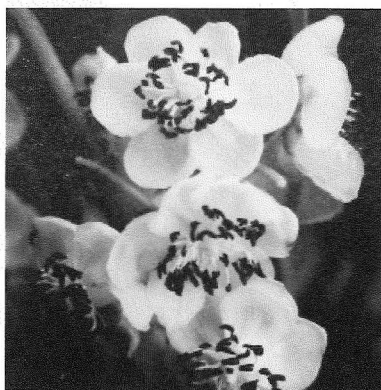
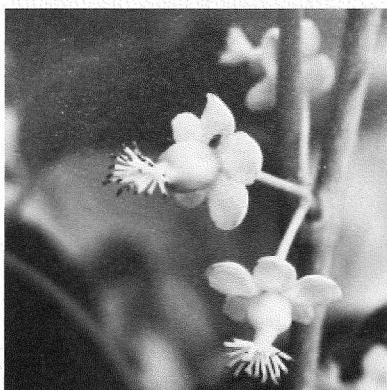
Manchurian Clematis (*Clematis mandshurica*, Ranunculaceae) [HLJ073]. Hundreds of white flowers (1.0" diameter) cover the vines, June 30, 2002 and yield feather-like fruits, October 7, 2006.



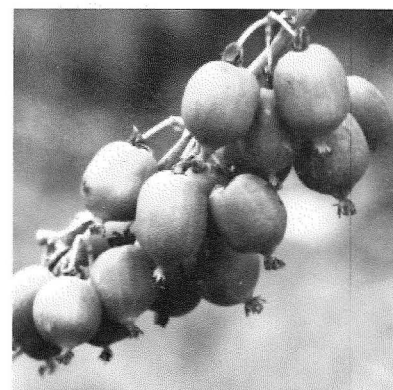
Amur Grape (*Vitis amurensis*, Vitaceae) [BJG039] flower buds, May 26, 2003 give rise to colorful clusters of very sour grapes, October 7, 2006. This Chinese native grape has brilliant scarlet and purple autumnal leaf colors when we have a prolonged fall without early hard frosts.



Porcelain-berry (*Ampelopsis brevipedunculata*, Vitaceae), not NACPEC; a native of China and Japan. The beautiful berries (ca. 1/2" diameter) range in greenish-purple, October 21, 2006.



Hardy Actinidia (*Actinidia arguta*, Actinidiaceae) [BJG025] is closely related to the Chinese "Gooseberry" (*Actinidia chinensis*) which is not hardy in Moscow, ID. The *A. chinensis* has been widely exploited and cultured in New Zealand and sold world-wide as "Kiwi Berry." Flowers on female plant (left) June 30, 2002; flowers on male plant (center) June 30, 2002; and mature, 1.0" long green fruits (right). October 21, 2002.





The University of Idaho Arboretum and Botanical Garden, aerial view looking north at the 63-acre valley, after 29 growing seasons since planting began April, 1982 in a grassy valley. The Arboretum barn, built in 1908, is in the foreground with the free parking lot at 1200 West Palouse River Road, Moscow, ID. September 24, 2010 photo. Richard J. Naskali



Southern end of the UI Arboretum and botanical garden, aerial view, October 6, 2010. Xeriscape Garden, Annual flower beds, parking lot, Arboretum barn, and remaining, unplanted Arboretum 19 acres for future development. The tilled field is farmed annually for weed control until funds are available for a potential Palouse Prairie reconstruction and other plantings.

Message from the University of Idaho President, M. Duane Nellis

Charles Houston Shattuck, as the founder of the forestry program at the University of Idaho, certainly knew that Idaho had plenty of trees. His vision went beyond the immediate needs of the state. In founding our arboretum, he was preparing the University for the future, perhaps more than he would ever realize.

With the creation of the arboretum in 1910, he recognized the need for a robust lumber industry in the fledgling state of Idaho and prepared a future laboratory. He recognized the diversity of plant life and the need for our students to build their understanding in just such a place. However, we'll never know if he foresaw the ever-expanding range of University of Idaho students and faculty. Nevertheless, the arboretum he began and that others have continued to develop has provided connections to an ever-shrinking world.

It continues with our legacy as a land-grant University charged with the promotion of agriculture, forestry, and other arts and sciences. In 1910, the study of forestry focused primarily on best practices and hardy tree species. Today, the forestry programs in our College of Natural Resources recognize the vital nature of flora and fauna in the lifecycle of a healthy grove. The arboretum provides some of the interactive grass, shrub, and tree varieties found in such environments. But thanks to many dedicated people, there is far more in our arboretums today than might have been expected when the Shattuck Arboretum was established.



President Nellis joins the hundreds of enthusiastic shoppers at the Arboretum Associates annual plant sale. This year's sale generated nearly ten thousand dollars to support the Arboretum. Photo by Bill Bowler.

Thanks to the vision and dedication of volunteers, especially the dedicated and inspired leadership of Dr. Richard Naskali, later additions to the original arboretum have brought the world to Moscow. Today, our university arboretum boasts nearly 1,000 species of plant life drawn from Asia, Europe, and North America that provide both laboratory and retreat for the University community. I see it every day and revel in its beauty and character while also seeing the even greater reach of its value.

Our university arboretum remains a gem for many reasons. It's a gift to the future from those who have come before. It's an iconic beauty spot that reflects a commitment by the University community. Perhaps most importantly, it serves as catalyst and reminder of our commitment to learning and to nature.

Today, across our University, we continue in the commitment established by Charles Shattuck and faithfully carried on by the Arboretum Associates and other volunteers.

These practices follow the spirit of Shattuck's work and the work of many who followed after him. Increasingly, the learning drawn from our outdoor laboratories are making their way to forests and fields of other continents as the vision continues to grow. In addition to the beauty and diversity encompassed within the University Arboretum, is its promise of greater knowledge and improved practices for the world.

A special thanks to all for your commitment to this university treasure.

~M. Duane Nellis, President
University of Idaho

Arboretum Associates Donor Roll

Thank you to the many generous donors who supported the University of Idaho Arboretum and Botanical Garden from July 1, 2009 to June 30, 2010. A total of \$36,770 was received from membership gifts, gifts for Arboretum endowments, and gifts to support specific Arboretum projects. Your support makes a difference.

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City of Moscow Wisescape Award

The City of Moscow awarded the Arboretum's Xeriscape Garden its 2010 Wisescape award in the Public Facilities category. The award, created in 2008, recognizes people making an effort to save water through efficient landscaping on the Palouse and setting examples for aesthetics and resource conservation. Nominees are judged on the following criteria:

Design. Is it aesthetically pleasing? Does it limit traditional turf? Does it use efficient irrigation?

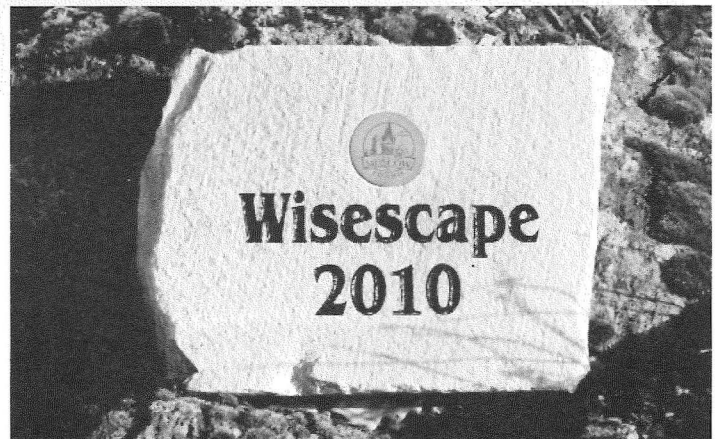
Reduction of resources. Does it save water and require less mowing? Is there a reduction of yard waste? Reduced labor, pesticides, and fertilizer use?

Soil. Are soil enhancements, such as compost and mulches used?

Plant selection. Are the plants suitably selected and placed within the landscape?

A letter accompanying the award from Moscow mayor Nancy Chaney read, "Your Wisescape enhances the attractiveness of our community and sets an example for others to follow." The award's signifying engraved rock has been installed beneath the Xeriscape Garden sign.

~Paul Warnick



Wisescape plaque awarded fall 2010 by the City of Moscow for the Xeriscape Garden.

Historic Tree Donation

Stephen Drown, Chairman of the Landscape Architecture Department on campus and a member of the faculty Arboretum Executive Committee, recently donated an historic tree to the Arboretum. The tree is a seedling grown from seed from a Tulip Poplar (*Liriodendron tulipifera*) that was planted in 1785 by George Washington. The parent tree is growing at Mount Vernon, George Washington's home on the Potomac River in Virginia. We recently transplanted the tree from the Drown garden to the Arboretum. It was planted in the Eastern North American section, adjacent to two other Tulip Poplars.



Chris Stephenson planting George Washing Tulip Poplar.
Photo by Paul Warnick.

The two existing trees are Emerald City™ Tulip Poplar (*Liriodendron tulipifera*) 'JFS-Oz', a 2009 release from J.F. Schmidt & Son Nursery's trial pack program. Emerald City™ is described in the Schmidt 2010 catalog: "A refined cultivar of our familiar native tulip tree, this uniform growing selection is straighter and more upright, with a dominant central leader and deeper green, slightly glossy foliage." It will be interesting to compare the growth of these two 'new and improved' trees with the historic seedling.

~Paul Warnick

New Happenings in the Shattuck Arboretum

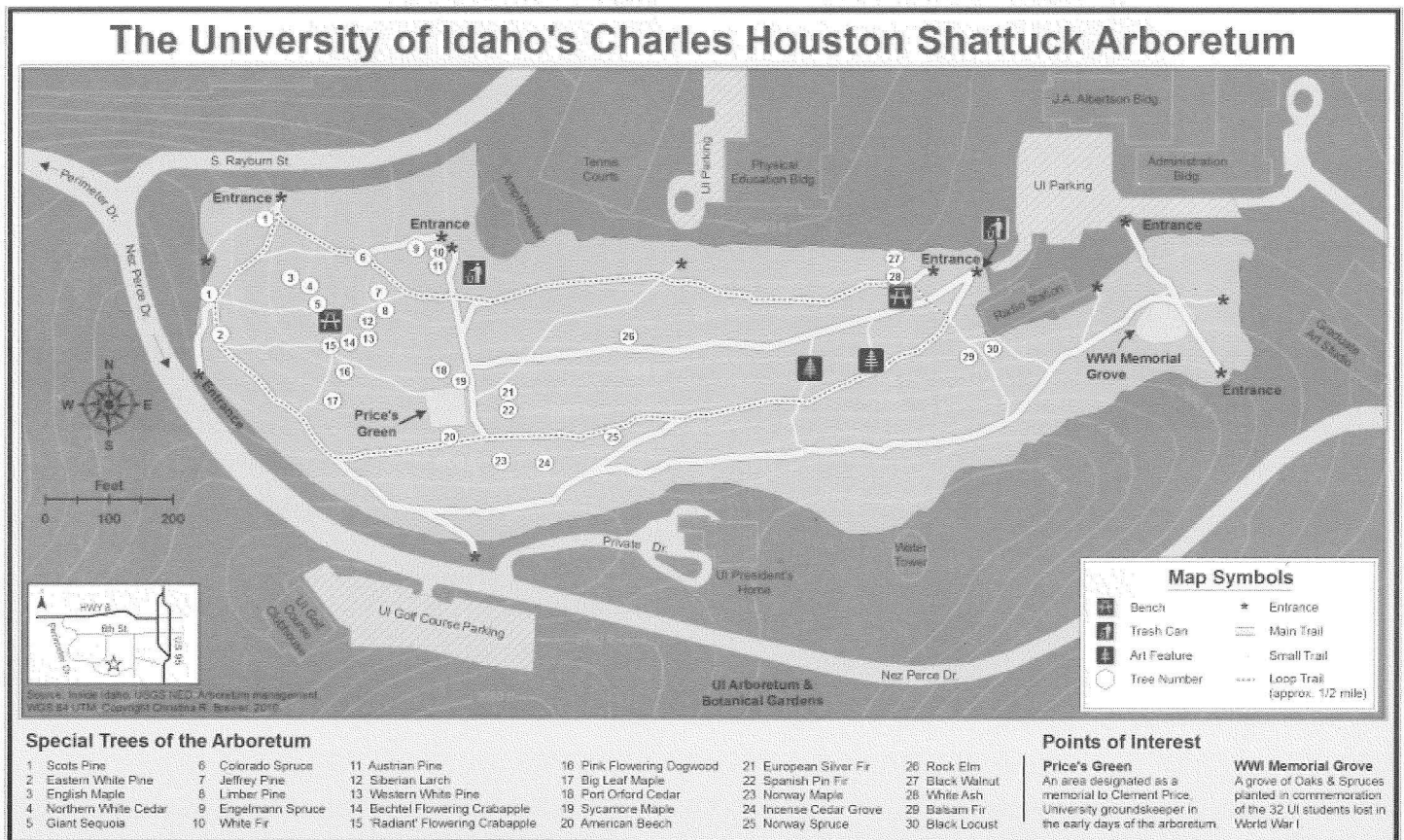
Spring 2010 found the Shattuck Arboretum springing to its customary seasonal life, as it had for the past 100 years. Money plants bloomed, blanketing the hillside with purple and white glory; Norway Maples spread their covering leaves in shades of green; the resident owl watched over the well beaten paths. There was, however, something out of the ordinary—a young geography graduate student plotting the paths with a GPS unit.

In April, Christina R. Brewer, a master's student under the direction of Dr. Hejun Kang, began an extensive trail mapping effort in the Shattuck Arboretum. Its goal: produce a new Shattuck map with geographically accurate trails and features, including locations of special trees of the arbore-

tum. This data was collected from April through July, using a high quality GPS unit and antenna. Ms. Brewer's project also used imagery to create road and building datasets. All were compiled with an elevation dataset within a Geographical Information System (GIS).

The final map, produced with attention to arboretum user needs, displays locations of major trails and minor trails, as well as a suggested half-mile runner's loops, two art features, benches, garbage receptacles, and, most importantly, special trees. It's hoped this map will increase knowledge and visitor interest in the 100 year treasure of the Shattuck. Happy 100th Birthday Shattuck!

~Christina R. Brewer



Report from the Arboretum Associates President

As we prepare to welcome in the New Year it is timely to reflect on the events significant to the Arboretum in 2010. When it appeared that difficult financial times at the University of Idaho may result in the elimination of the Arboretum's operating budget, members of Arboretum Associates and the community of Moscow presented a unified front in opposition to this budgetary decision. We are very grateful for their support and also wish to thank President M. Duane Nellis for his rapid intervention to avert a budget elimination that many believed would have been very harmful to the Arboretum and its world class collection of rare and unique plants and trees. In restoring the Arboretum's operating budget and its academic mission President Nellis stated clearly that the Arboretum is a treasure to this community and must be treated as such. We completely concur.

The construction of the pergola to support the Asian vine collection was completed this spring and was formally dedicated on September 21, 2010. In one season the vines have covered the structure making it a striking showpiece for all to enjoy. The completion of this project was made possible by the generosity of Dorothy Sholl Ross and Richard Henry Ross, Melva Hoffman, Beverly Rhoades, and Dorothy Lindsey as well as countless others through their gifts to Arboretum Associates.

Visitors to the Arboretum this summer were able to enjoy a stroll through the newly developed Beth Bowler Memorial

Hosta Walk on the northwest rim of the Arboretum. The collection houses over 200 different cultivars of Hosta as well as numerous other shade loving plants.

Many projects lie ahead for 2011 including the continued expansion of the Arboretum irrigation system and the design and development of an entrance garden with a donor wall. Preparations have begun for the 2011 Arboretum Associates Plant Sale which will be held Saturday, June 4, at the Palouse Ice Rink located in the Rotary Veterans Memorial Pavilion at the Latah County Fairgrounds. Over the years the plant sale has become a delight to the area's gardeners as well as a valuable means of ensuring the Arboretum's continued success and health.



Beth Bowler Hosta Garden. Photo by Paul Warnick.

Currently there is one Member at Large position open on the Arboretum Associates Board of Directors. Elections to fill that position and any other open positions will be held at the Arboretum Associates Annual Meeting in April. Individuals who may be interested in serving are asked to submit a letter of interest to the Arboretum Associates.

As always, we wish to thank Paul Warnick, Arboretum horticulturist, for his hard work and dedication to the Arboretum. We also remain grateful to the friends and members of Arboretum Associates whose continued generosity make it possible to maintain and grow the University of Idaho Arboretum and Botanical Garden into the showpiece it is today.

~ Jan Leander

Report from the Horticulturist

On September 21st we dedicated the biggest project ever completed in the Arboretum this fall. The Asian pergola is the biggest in physical size, cost and probably the length of time to completion. The project was envisioned in 1995 when a collection of vines which grew from seeds collected in the wild in three national parks in China. After fifteen years, we finally finished construction and dedicated the structure this fall. The final step was installing an engraved basalt column to recognize the donors that made the project possible. Two large columns were installed horizontally to provide bench seating within the pergola, along with six smaller vertical columns to set off the benches. I am guessing that most people would be surprised at the challenges of installing

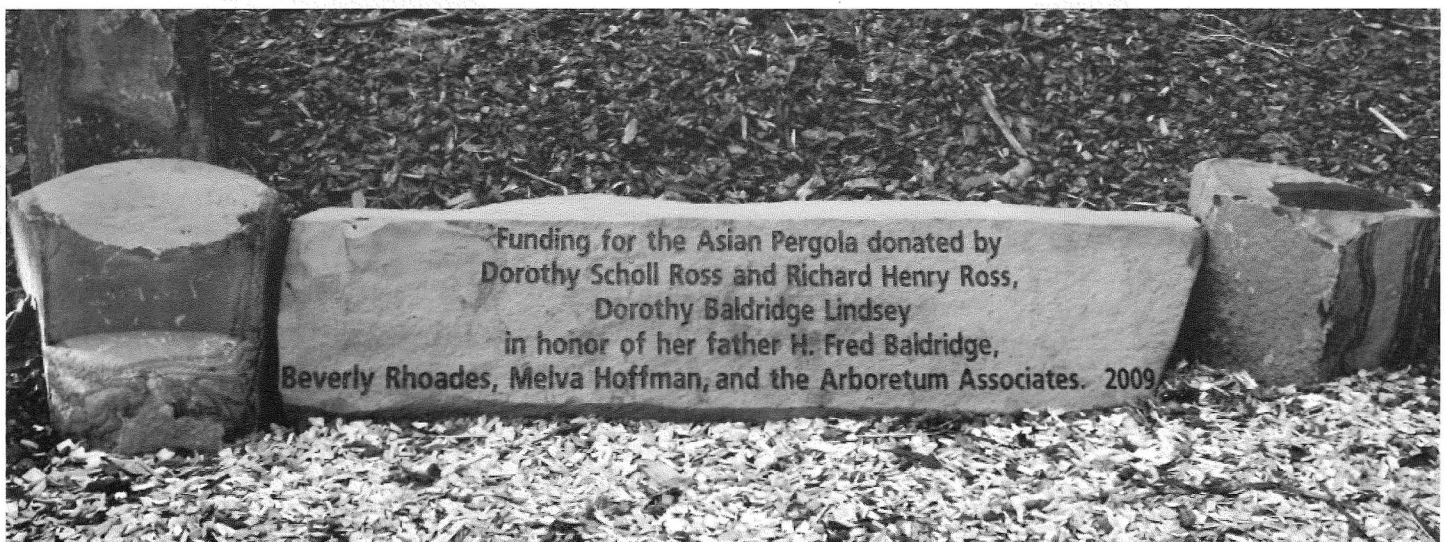


Ribbon-cutting dedication of the Arboretum Pergola, September 21, 2010. Left to right: Beverly Rhoades, Bob Ross, Melva Hoffman, Jan Leander (Arboretum Associates President), and UI President M. Duane Nellis. Photo by Richard Naskali.

the rocks. The larger columns weigh over 1500 pounds each, and because of the tight spaces and existing plants we had to have a crane lift the rocks into place. Rock by Design, a local contractor, installed the rocks with the help of the Arboretum crew. The whole process went amazingly smoothly, with everything set in place in just over two hours.

Of course, like many other projects, finishing the construction only requires more projects. One of the goals of the pergola installation was to eliminate the mowed turf grass on the steep slope above the pergola. The turf

grass will be replaced with drifts of three Asian ornamental grasses, along with scattered accent plantings of the striking Giant Fountain Grass (*Miscanthus giganteus*). We have started that process by preparing the site by spraying the existing



Pergola donor basalt column bench, September 20, 2010. Photo by Richard Naskali.



Photo by Richard Naskali.

vegetation with herbicide and adding compost. This fall we started the plantings with one of the cultivars of ornamental grass, Japanese Blood Grass (*Imperata cylindrica* 'Red Baron') which we had propagated from existing plantings, and accent plantings of Giant Fountain Grass. Other grasses will be purchased, and they will establish better if they are planted in the spring.

I feel strongly that the continued success of the Arboretum depends on adding new plants to the collection every year. Including the new grasses on the pergola slope and the more than 400 bulbs that were planted at the entrances this fall, we have planted more than 2,000 'permanent' plants this year. The new plants include 120 *Hosta* (31 are new miniature cultivars), additions to the European Clematis collection, new groundcover roses, more Southern Idaho native wildflowers in the xeriscape garden, and new shade and

flowering tree cultivars from the J.F. Schmidt & Son Nursery trial pack program.

We also plant over 1,500 annual flowers and grasses in several beds throughout the Arboretum every year.

One of the reasons we continue to add new plants to the collection is that every year we have to remove a number of plants. This past year has been the worst year since I began working in the Arboretum ten years ago for plant losses. The year is not over yet, and so far we have removed 161 plants this year. The early hard frost in 2009 is probably to blame for a number of losses, particularly in the Heather collection; but there are always lots of reasons for removals.

After reviewing records for the past year, I am a little surprised to find that the crew actually spent more hours pruning in the Arboretum than any other single activity. That is

a big change over the past few years. In past years two other chores took more time—both mowing and irrigation. Now we are beginning to see the results of slowly converting to automatic irrigation and working toward making the mowing more efficient by reducing the area we mow and eliminating as much as possible the time consuming areas of hand mowing and trimming. As the Arboretum continues to expand and the plants continue to grow and mature it will become even more important to become more efficient in the basic, routine maintenance to allow the time necessary to maintain the collection properly.

Next spring we are planning to work on two new planting projects. The biggest project is the potential new butterfly garden down at the south end of the Arboretum. This spring we planted a small trial planting of some Butterfly Bushes and several annual flowers to see if they will survive in the frost pocket. They all thrived during the summer months; so, we are going to proceed a little further with the development. We installed automatic irrigation at the site this



Butterfly garden trial site. Photo by Paul Warnick.

summer. The next step will be laying out the pathways and beds, then beginning the site preparation. The second project is a potential demonstration planting of Crested Wheat Grass (*Agropyron cristatum*), planted in memory Lee Sharp, late professor of Range Science who worked on using Crested Wheat Grass in range restoration work in Southern Idaho. The new planting will incorporate some interpretive signage

that will explore the pros and cons of the widespread usage of a non-native plant in range restoration work.

All of these additional plantings are only possible through private donations to the Arboretum. As the University's budgets continue to tighten, outside support for the Arboretum becomes even more vital. There is a list of potential planting projects available for support at: <http://www.uiweb.uidaho.edu/arboretum/pdf/MemorialDonations-PolicyNewAddendum1-25-10.pdf>

Membership in Arboretum Associates also provides funds that are disbursed by the Associates Board to support the Arboretum in various ways.

~Paul Warnick

Dr. Charles Houston Shattuck's Legacy to Idaho and the World (Part 2 of 2) will be published in a future issue of ArborNotes.

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