



U.S. Department of Agriculture  
Agricultural Research Service

# U.S. National Arboretum News and Notes

Spring 2005

News and Notes is issued three times a year, in January, May, and September, to stakeholder organizations to keep them informed about recent National Arboretum accomplishments and activities. Stakeholders are encouraged to use material from this document in reports to their members. Please send comments to:

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## Classical Chinese Garden to be Constructed at the National Arboretum

A joint meeting of American and Chinese design teams met at the National Arboretum April 18-20<sup>th</sup> to continue the planning process for a new classical Chinese garden. The conceptual plan for the garden is nearing completion. The teams determined the number of buildings, rockeries, and other structures and refined the size and nature of the 1.7-acre pond and smaller pools, which are part of this complex garden. The two teams face a myriad of details in the preparation of the construction plans: The new facilities will need to meet all building codes and accessibility requirements, while trying to retain the design and appearance of a traditional Chinese garden. Planning work will continue throughout this year. The conceptual plans will be presented to the appropriate commissions for their initial reviews and approvals.

The planning efforts underway for a Chinese garden were authorized by an October 2004 memorandum of understanding (MOU) between Department of Agriculture Secretary Ann M. Veneman and Under Secretary Joseph Jen and Yang Jiechi, Ambassador of the People's Republic of China to the United States, and Madam Jiang Zehui, President of the Chinese Academy of Forestry and Leading member of the State Forestry Administration of China. The MOU called for the construction of a classical Chinese garden at the National Arboretum.

"This Chinese garden will be a wonderful addition to the world-class display gardens already at the Arboretum," Veneman said. "The new garden will deepen the American people's understanding of Chinese garden culture, and provide research opportunities to study Chinese plants and flowers. Upon completion this will be the finest Chinese garden outside of China."

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American - Chinese design team poses in the National Herb Garden during April planning meeting.

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The MOU is between the U.S. Department of Agriculture (USDA) and the State Forestry Administration of the People's Republic of China, which will cooperatively construct the garden as a gift from the Chinese people to the American people. The Chinese partner will donate all main structures, rockeries, furniture, and art objects. The garden will stand as a symbol of friendship between the two countries.

The 12-acre Jiangnan-style garden will be based on an original design developed by a joint team of designers from China and the United States. While the details are still being developed, the plan includes one area with a small pond, traditional Chinese buildings with Ming- and Ching-style hardwood furniture and calligraphy and painting scrolls, and a traditional boat house adjacent to a 1.3-acre lake. A second area will include a two-story teahouse and an exhibit hall for paintings, calligraphy, and other Chinese artwork. A third area will comprise a Peony Pavilion overlooking the garden; a Fragrance Pavilion, which will also house authentic Chinese goldfish; and a Whispering Pavilion, which will include a Chinese white pagoda.

For more information on the Chinese garden, visit the arboretum's web site at <http://www.usna.usda.gov/Gardens/collections/ClassicalChineseGarden.html>.



Yang Jiechi and former Agriculture Secretary Ann M. Veneman

## Classical Chinese Garden to be Finest of its Kind in the U.S.

The classical Chinese garden at the National Arboretum will be the finest example of a classical Chinese garden in the United States due to several factors. It will be located in an idyllic setting just two miles from the Capitol of the United States, and it takes the best features of several well known gardens in the famous cities of Zhangzhou, Shuzhou, and Hangzhou and incorporates them in an original design.

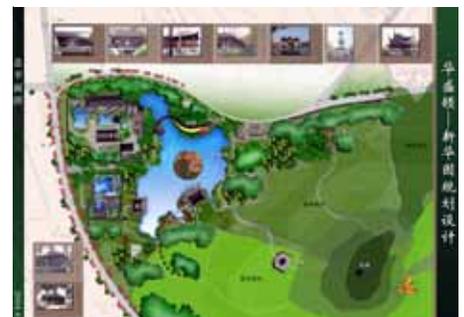
China's rich flora and long history of garden development has had a profound influence on horticulture and garden design throughout the world. Chinese classical gardens represent a harmonious blending of man and nature. The careful balance and blending of man-made structures, stones and rockeries, plants, water, and art results in a beautiful place for people to enjoy, learn, and rest.

The garden planned for the arboretum will provide an opportunity for visitors to see and experience a true classical Chinese garden and learn about the culture of China, including its traditional

arts and crafts. It will be a key location for important meetings and special events for high-ranking officials, the business community, and organizations. At the same time, it will be used to support the arboretum's research programs in the development of new and improved ornamental and floral plants.

The 8-acre site for the garden is located in the heart of the arboretum's 446-acres. This setting will never be compromised by surrounding high-rise buildings or other man-made structures. A mature pine forest provides an ideal backdrop high on a sloping hillside for the upper segments of the Chinese garden. The lower portion features a small lake and the main complex of buildings. The garden will be adjacent to a mature dawn redwood grove and the arboretum's extensive collection of Asian plants.

The garden is a joint project between the governments of the United States and China. Professor Peng Zhenhua, well-known and respected garden designer at the Chinese Academy of Sciences, heads the Chinese design team. The Chinese team is working closely with their American counterparts headed by arboretum Director Dr. Thomas S. Elias.



Site plan draft.

## National Herb Garden Celebrates 25<sup>th</sup> Anniversary

May 21, 2005 will kick off a six month celebration of the 25<sup>th</sup> anniversary of the National Herb Garden. On that date Tom Wirth, the landscape architect who designed the garden, will give a presentation for the public and invited guests. The talk is called *Making of a Garden* and will focus on the creation of the National Herb Garden, the largest designed herb garden in North America. At the time the Herb Garden was being designed, Mr. Wirth was with Sasaki Associates of Watertown, Massachusetts, and has since appeared as a regular consultant on the televised series *This Old House*. Following the lecture, the Herb Society of America (HSA) Executive Director, Gretchen Faro, along with National Arboretum Director Thomas Elias, will facilitate a discussion with the audience about the next twenty-five years of the garden and how to make it most useful for the public. After the discussion, there will be a reception in the garden along with tours given by staff and interns who have worked in the garden throughout its history.

The celebration will continue into the summer and fall with three public programs aimed to bring more people to the National Herb Garden. The first, an herbal craft day, will be presented June 18 by the Potomac and Philadelphia Units, HSA. The second, *Saving Summer Flavors*, is a September 17 program by the North Carolina Unit, HSA.

On October 15 the Virginia Commonwealth Unit, HAS, will hold an herbal harvest festival. All of the events are 1 to 4 p.m., are free with no reservations, and take place in the National Herb Garden.

For more information about the National Herb Garden, visit <http://www.usna.usda.gov/Gardens/collections/herb.html>.



## National Arboretum to be Sponsor and Host of 2005 World Bonsai Convention

Bonsai masters, practitioners, and enthusiasts from all over the world will travel to Washington, D.C., for the Fifth World Bonsai Convention on May 28 – 31. While the convention takes place in a downtown hotel, participants will have the opportunity to visit the National Arboretum and the National Bonsai & Penjing Museum during a Sunday evening dinner program. In addition, the museum will have an exhibit in the hotel featuring the famous bonsai by John Naka, Goshin. This is only the second time in the event's history that the World Bonsai Convention will be held in the United States. It is the first time the convention will be held in Washington, D.C.

The convention offers the rare opportunity to see many of the foremost bonsai and penjing masters in the world

demonstrate their expert techniques. Workshops conducted by outstanding practitioners will allow participants the opportunity to create their own outstanding bonsai, penjing, or kusamono (accent planting). Lectures by prominent scholars on bonsai, viewing stones, and pots are planned for each day of the four-day event. Exhibits of outstanding bonsai and penjing specimens, viewing stones, and pots will be on display throughout the convention. Numerous vendors will display and sell bonsai-related items.

The World Bonsai Convention is held under the auspices of the World Bonsai Friendship Federation (WBFF). Founded in 1989 by former Nippon Bonsai Association Chairman Saburo Kato, the late Japanese-American master John Y. Naka, and other visionary bonsai artists, WBFF was created to help promote world peace and friendship through bonsai and its allied arts. The event will be hosted by WBFF's North American Bonsai Federation and sponsored by the American Bonsai Society, Bonsai Clubs International, National Bonsai Foundation, Potomac Bonsai Association, and the National Arboretum.

For more information about the convention, visit <http://www.usna.usda.gov/Education/5thBonsaiConvention.html>.



## National Bonsai & Penjing Museum to Host World Bonsai Friendship Federation Bonsai Photograph Exhibit

Photographs of 100 bonsai from around the world will be on display in the National Bonsai & Penjing Museum's International Pavilion from the end of May through December 2005. The opening of the photography show is one of the highlights of the 5<sup>th</sup> World Bonsai Convention taking place in Washington, D.C., May 28-31. The official announcement of a grand prize winner and two runners-up will be made at an awards ceremony and dinner at the National Arboretum on May 29<sup>th</sup>. The winners were chosen by members of a screening committee chaired by Hiroshi Takeyama of the Nippon Bonsai Association and Hatsuji Kato of the Japan Bonsai Growers Cooperative.

Japan Airlines inaugurated the World bonsai Contest in 1999 and, together with the Nippon Bonsai Association and the Japan Bonsai Growers Cooperative, has sponsored the contest for each of the past 5 years. Bonsai artists from around the world, except Japan, submit photos of their trees to judges who select the 3 top winners and 50 honorable mentions. The judging criteria are the quality of technical skill and the overall health and beauty of the tree. In addition to the award winners, the judges choose 47 trees as "International Winners."

These trees are representative entries from each of the participating countries in the World Bonsai Friendship Federation regions.

## Bonsai Museum Lower Courtyard Nears Completion

The construction project in the lower courtyard of the National Bonsai & Penjing Museum will be completed in time for a spring re-opening. The work is the second phase of a long-term plan to improve handicap accessibility in the museum by replacing stone chip paths and plazas with flagstone paving. Other improvements, including new planting beds and an arbor for educational demonstrations, are part of the project. The lower courtyard is being paved with irregular flagstones set in concrete to contrast with the rectangular flagstones of the upper courtyard, which was completed last year. The newly configured planting bed adjacent to the Chinese Pavilion has been planted with tree peonies, iris, and lilies, while other beds in the lower courtyard will feature bamboo, peony species, and Asian mayapples.



New paving in the lower courtyard of the National Bonsai & Penjing Museum.

Future phases of the project will add similar improvements in the Japanese Stroll Garden, Japanese Pavilion, and the North American Pavilion.

To take a virtual tour of the National Bonsai & Penjing Museum, visit <http://www.usna.usda.gov/Gardens/collections/VirtualTours/BonsaiVirtualTour.html>.

## New Brochure for National Bonsai & Penjing Museum

The arboretum has unveiled a new brochure for the bonsai museum. The design and layout reflect the style that will be used for all collection and garden brochures and incorporates an exciting new look for the map. Knowing that some people have trouble using flat plans to orient themselves, the design team chose a bird's eye view scheme that uses hand-drawn illustration rather than computer-generated graphics to represent the museum complex. A Baltimore illustrator transformed the scale line drawing used previously into a beautiful rendering of the buildings and plants.

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New map for the National Bonsai & Penjing.

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With the map inside, the brochure is intended to provide visitors with basic information, like hours, and wayfinding. The Azalea Collections brochure is in design as is a revision of the existing Visitor Guide. Both will have the new style maps. USDA Design and ARS Information graphic designers, in collaboration with contract designers, created the brochure with assistance from arboretum staff.

## Introduction Garden Revitalization Begins

A major planting and redesign project has begun in the Introduction Garden. In the first phases of the work, landscape designer Merriwether Rumrill volunteered her time and creative talent to create a dry streambed in the circular bed between the R Street parking lot and the administration building. Planting will take place later this spring to refine the original design created by Rumrill several years ago.

Miscanthus will be replaced by two native grasses—splitbeard bluestem and panicum. The bank between the tram kiosk and the entrance to the administration building has been replanted with ferns and perennials, including Meehan's mint, pasqueflower, dwarf amsonia, and hellebore. A new display of purple coneflower species and cultivars has also been planted at the west entrance of the administration building. Grasses, spring bulbs, and dwarf conifers will complement the purple coneflowers in this garden, which is expected to be in place for three to five years.

Planning is underway for a summer display of new sunflower cultivars in the Court of Honor section of the Introduction Garden. The Introduction Garden features many of the arboretum's plant introductions, the majority of which are trees and shrubs. New herbaceous perennials and annuals that have been developed by others in recent years will round out the garden.

For more information about the Introduction Garden, visit <http://www.usna.usda.gov/Gardens/collections/admin.html>.



Dry stream bed in the circle garden in front of the administration building.

## “PowerTrees” Planted on District Streets

In late March and early April, the National Arboretum-Mid Atlantic Center for Urban and Community Forestry Partnership led a project to plant trees along various neighborhood streets in the District of Columbia. The trees are part of an on-going research/demonstration project designed to evaluate the effects of production systems on street tree performance (see News and Notes Winter 2004, ). In the first part of the project, staff grew several arboretum tree introductions for one year in either conventional field production conditions or in a pot-in-pot system (a large pot is

fitted into a socket pot that helps to insulate the root system from extremes of temperature). Staff used both types—field-grown and pot-in-pot—for the recent planting. Their performance will be evaluated over the coming years, with results helping to inform nursery growers about best methods for street tree production. Many of the project's trees, such as ‘Adirondack’ crabapple and ‘Dream Catcher’ flowering cherry, mature as small trees. The Partnership deliberately chose street locations with overhead utility lines to test the compatibility of these trees with power lines.

Project staff coined the term PowerTrees to demonstrate the arboretum's commitment to developing trees with the mature size and branch architecture to grow in harmony with power lines. The reduction or elimination of the need for line clearance pruning both saves labor and preserves the natural form of the tree. The trees in the PowerTrees research program are also well adapted to urban growing conditions such as confined root space and periods of drought. The project is a collaborative effort between the USNA Research and Gardens Units, the U.S. Forest Service Mid Atlantic Center for Urban and Community Forestry, Maryland Department of Natural Resources, the Washington D.C. Urban Forestry Administration, the University of Maryland, MERTT Council, and Utility Arborist Association.





Dr. and Mrs. Thomas Elias with former Japanese foreign minister Kakigawa

## Arboretum Director Presents Talks in Japan on Flowering Cherries

Dr. Thomas Elias, Director of the U.S. National Arboretum, gave three lectures in late March and early April in Japan. He presented the keynote address at the 40<sup>th</sup> anniversary of the Japan Cherry Blossom Association in Tokyo, gave a lecture at Nihon Joshi University in Tokyo, and spoke at the Cherry Blossom Symposium in Kyoto. Elias was invited to come to Japan by Yohei Kono, Speaker of the House of Representatives of the Japanese Diet and President of the Japan Cherry Blossom Association. The Association is responsible for organizing the National Cherry Blossom Festival throughout Japan. In 2004, the National Arboretum presented two gifts of its latest flowering cherry introduction, 'First Lady', to the Association for planting in Japan.

This attractive cultivar is an upright tree with deep pink flowers. The arboretum has an extensive long-term breeding and selection program dedicated to developing new and improved ornamental flowering cherry trees.

## New Employees in the Floral and Nursery Plants Research Unit

Two new employees have joined the Research Unit. Kim Krahl is the new support scientist for the Shrub Breeding program with Dr. Margaret Pooler, filling the position left vacant with the retirement of Ruth Dix. Kim has prior experience as a faculty member at Temple University, and more recently at the University of Arkansas.



Michael Chamberland is the new botanist in support of the National Arboretum Herbarium with Dr. Alan Whittemore. This position was previously held by Kevin Conrad before he took over curation of the Woody Landscape Plant Germplasm Repository.

Michael has worked in herbaria at the University of Arizona, Michigan State University, and Arizona State University. Most recently, he was plant recorder at Cheekwood Botanical Garden in Nashville.



To learn more about the research unit scientists and their work, visit <http://www.usna.usda.gov/Research/sy-info.html>.

## Research Entomologist Dr. Jo-Ann Bentz Accepts Position with APHIS

Dr. Jo-Ann Bentz, Research Entomologist, left the Research Unit in March to join USDA-APHIS (Animal and Plant Health Inspection Service) as National Program Manager for the cattle tick program. Dr. Bentz had started with the Research Unit while still a graduate student at the University of Maryland. She was subsequently a Post-doctoral Research Associate before being hired as a Research Entomologist in 1995. She had worked on a variety of insect

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problems of ornamentals, including the azalea lacewing and whiteflies. More recently Dr. Bentz worked on the potato leafhopper as a pest of maple, and various leafhoppers and planthoppers as vectors of *Xylella fastidiosa*, the causal organism of bacterial leaf scorch of shade trees. She had collaborated with Dr. Denny Townsend on leafhoppers affecting maples and elms, and with Dr. Qi Huang on leafhopper transmission of *Xylella*. Dr. Bentz had also frequently assisted others with her statistical expertise, writing her own programs to analyze data for which available methods were not adequate.

## Tree Breeding Position Advertised

The Floral and Nursery Plant Research Unit has advertised to fill the tree breeding position held by Dr. Denny Townsend until his recent retirement. The new scientist will continue parts of the research program developed by Dr. Townsend, including breeding for resistance in hemlock against the hemlock wooly adelgid (an insect pest that has killed many hemlocks in the eastern states), and on-going selection for disease-resistant elms. A new aspect of the tree breeding program will be for selection of smaller trees suitable for street and utility line plantings. Development of smaller trees that are well-adapted to the environmental stresses commonly found in street plantings will minimize the need for tree trimming and provide a wider choice of attractive trees for urban plantings.

## Delegation of Japanese Botanical Artists Attend Opening of Exhibit

Twelve members of the Japanese Association of Botanical Illustration traveled to Washington in March to attend opening events for the arboretum's exhibit "Conservation Portraits: Botanical Illustrations of Japan's Endangered Plants." Their paintings were among the 72 lent to the arboretum by the Association for the show (see the Winter 2005 edition of News and Notes). The delegation was led by Association President, Mr. Hidenari Kobayashi, well known for his detailed renderings of lilies. The Friends of the National Arboretum hosted an invitation-only evening reception for the artists. For that night only, the thirty-six paintings not on display in the lobby (half of the pictures will hang until April 30, the other half from May through June), were on view in the Special Exhibits Wing of the International Pavilion in the National Bonsai & Penjing Museum. Glowing luminaries lit the path across the east terrace for guests walking between the museum and the administration building.



Members of the Japanese Association of Botanical Illustration pose with Association President Hidenari Kobayashi, center, who stands between Agricultural Research Service Beltsville Area Director Dr. Phyllis Johnson and Arboretum Director Dr. Thomas Elias.

Ginette Hemley, World Wildlife Federation Managing Vice President for Conservation Programs and Vice President for Species Conservation, presented an informative talk on the state of endangered species in the world.

The arboretum hosted a public opening on Saturday, March 3<sup>rd</sup>. The formal program in the auditorium featured four players from the Washington Toho Koto Society. Afterwards, the artists answered questions about their work and autographed copies of **Endangered Plants of Japan: A Florilegium**, the published collection of the 182 paintings Association members completed for their project to bring greater public attention to Japan's threatened flora. The National Capital Area Federation of Garden Clubs, which operates Arbor House Gift Shop, sold copies of the book as well as reproductions of 16 of the paintings.

The exhibit continues until June 30, with the second half of the pictures on view beginning May 1<sup>st</sup>. For more information, see <http://www.usna.usda.gov/Education/exhibits.html>.

## Visiting Japanese Botanical Artists Hold Workshop for Local High School Art Students

Five students from The New School for Enterprise and Development Public Charter School in Washington, DC, attended a two-

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Artist Yoko Uchijo teaches botanical art techniques to New School student Taylor Saddler.

hour botanical art workshop on March 5<sup>th</sup> led by Yoko Uchijo, a member of the Japanese Association of Botanical Illustration and professional illustrator and teacher. Arboretum Education and Visitor Services Unit Leader Nancy Luria worked with New School Art Instructor Steven Ihde to plan the workshop. The students learned how to use a Japanese paintbrush, which has a bamboo handle and sharply pointed tip. Using pencil and watercolor applied with the special brush, they drew and painted the likeness of a single euonymus leaf. Four other visiting artists assisted with the class, providing one-on-one instruction for the students through an interpreter. The artists generously gifted the brushes to the students along with prints of their own botanical art.



Japanese Association of Botanical Illustration president Hidenari Kobayashi assists New School student Timothy Johnson with his painting of a leaf.

## Arbor Café Relocated

Arboretum visitors will find new teak tables and chairs on the east terrace of the arboretum's administration building this spring. The furniture marks the new location for the seasonal food service previously located between the National Herb Garden and the Friendship Garden. The former site is part of the new Flowering Tree Walk, currently under construction.

