In 1912, an unprecedented gift of blossoming cherry trees was sent from Japan to the United States as a symbol of friendship between the two nations. A century has since passed and - despite a short period of intense war - this friendship continues to develop. To mark the anniversary, in 2012 the Japanese Embassy in Washington D.C. launched a nationwide cherry blossom tree planting initiative as a part of its Centennial Cherry Blossom Tree Celebration. Both in the introduction of the trees to the US, and in the centennial planting efforts, it is clear the cherry blossom trees share the enduring spirit and inspiring beauty of Japan, abiding through challenges past and present.

THE FIRST GIFT OF BLOSSOMING CHERRIES TO THE UNITED STATES

Bringing the Japanese cherries to the United States involved many people on both sides of the Pacific. On Arbor Day in 1908, David Fairchild (1869-1954), director of the USDA’s Section of Seed and Plant Introduction, publicly promoted the idea of importing Japanese cherry blossom trees to beautify Washington. Next, Eliza Skidmore (1856-1928), a travel writer and first female board member of National Geographic, won the endorsement of First Lady Helen Taft, who had long sought to embellish the Tidal Basin area (Fig. 1.)

On the Japanese side, noted chemist Dr. Jōkichi Takamine (1854-1922) worked with Tokyo’s mayor Yukio Ozaki (1858-1954) to coordinate the first gift of trees. In January 1910, the initial shipment of 2,000 saplings was declared infested with various pests and the trees were burned. Undaunted,
the Japanese government grew 3,020 special cherry saplings comprised of 12 varieties, though 1,800 were the popular Somei Yoshino (Prunus x yedoensis, or Cerasus x yedoensis). Shipped in 1912, the four-foot tall saplings cleared USDA inspection. On March 27, 1912, First Lady Taft and Viscountess Iwa Chinda, wife of Japan’s Ambassador to the US, planted the first two trees along the north bank of the Tidal Basin. That simple ceremony inaugurated an ongoing tree exchange between the two countries. A reciprocal gift of dogwood trees was extended to Japan in 1915, and the annual Cherry Blossom Festival and Pageant were developed in Washington. Over the years, many more trees have been planted to supplement the original planting in Washington D.C., and grafts from those trees have been sent back to Tokyo. Moving beyond this focus on the two capitols, for the centennial project the Japanese Embassy expanded its geographic scope nationwide. As the following case studies make clear, this generous decision introduced diverse challenges.

CHERRY BLOSSOM TREE CENTENNIAL PLANNING AND PLANTING

The implementation started with collecting 100,000 seeds in Japan. These were to be sent to the US where they would be grown and distributed. However, during the chaos following the 2011 Tohoku earthquake and tsunami, the seeds were never sent. As a result, the nonprofit forest conservation organization, American Forests, that grows the “Tidal Basin Cherry Blossom Tree” (a Yoshino cherry derived from the original 1912 gift), was asked to provide the trees for the nationwide planting initiative.

The project next faced challenges due to the geographic and legal complexity of the United States. The Portland Japanese Garden, for example, encountered the unexpected problem of transporting trees across state boundaries. Due to agricultural concerns, Oregon, California, Colorado, Idaho, and Washington prohibit shipping stone fruit trees (including prunus). Venues in states that could not receive “Tidal Basin Cherry Blossom Trees” were offered cherry trees of their choice from local nurseries. Consequently, the Portland Japanese Garden acquired 28 Yoshino trees.

The following case studies highlight experiences of the centennial tree planting in three different climatic regions - Chicago, Illinois, Fort Worth, Texas and Hawai’i - where the conditions were, respectively, far colder, drier, or more humid than in Japan.

Contact Sadafumi Uchiyama at suchiyama@japanesegarden.com
Contact Desirae Williams at dwilliams@japanesegarden.com

5. Jennifer Rankin (Director of Community Programs, American Forests), interview, February 15, 2012.
BEAUTY IN ADVERSITY: YOSHINO CHERRIES AT THE
CHICAGO BOTANIC GARDEN

by Benjamin Carroll

In early spring of 2012, the Chicago Botanic Garden (CBG) received 20 young Yoshino Cherry trees as part of the centennial celebration. On March 25th of that year, the CBG honored this special gift by hosting a ceremonial planting. Consul General Yoshifumi Okamura and his wife Kaoriko Okamura planted the first tree during the CBG’s annual Japanese Garden Spring Weekend event.

The cherry tree planting was a highlight of the weekend where children and their families enjoyed hands-on activities that focus on Japanese culture and traditions. Children were able to rake miniature dry gardens, try chopsticks and practice calligraphy, while families could listen to a koto performance by the Chicago Koto Group, create hanging scrolls and write haiku to celebrate the spring season.

The gift of the centennial trees is a welcome addition to the CBG’s plant collection, which has few ornamental cherries. Prior to this donation, the collection had only one Yoshino cherry (Prunus x yedoensis), planted in the Japanese garden, Sansho-en, about 30 years ago. Cherries are not typically long-lived trees at the Chicago Botanic Garden and over the past few years this single tree has shown signs of a stressful life. In this region, ornamental cherries face several environmental challenges including poor soil, harsh winters, and alkaline soils while pests and diseases also contribute to a short life expectancy.

The Chicago Botanic Garden is made up of nine islands on property that was formerly a wetland. When the islands were created, the clay soil was mounded and sculpted and, in that process, compacted by the heavy machinery. The compacted sub soils were only top dressed with a relatively thin layer of topsoil, resulting in an inconsistent soil structure that is often heavy and drains poorly. Prunus x yedoensis prefers moist but free draining soils rather than the heavy clay soils found in our garden.

Chicago is located in the USDA hardiness zone 5b, widely believed to be the uppermost limit for Prunus x yedoensis. Harsh upper-Midwest winters along with typical freezing and thawing in the early spring are challenges that Prunus x yedoensis must endure in northern Illinois.

While the Yoshino cherry can tolerate a wide range of soil pH, they perform better in neutral to acidic conditions. Because the soil in the CBG has a pH of 7.5, alkaline conditions present another taxing reality.

Prunus varieties are not only stressed by environmental conditions, they also suffer from pest and disease problems. It is not uncommon to see trees in the Prunus genus affected by Peachtree Borer (Synanthedon pictipes) that attacks the inner-bark of the tree. The result is usually the death of individual branches or even the entire tree.
Many Prunus varieties in the Midwest, including the Nanking cherry (Prunus tomentosum), are susceptible to Black Knot (Apiosporina morbosa). Black Knot derives its name from the corky black knots or galls that form where the fungus has entered a stem. The knot swells, girdles, and then kills the entire branch it has infected. The trunk of the Prunus x yedoensis can also be damaged by the common meadow vole or field mouse (Microtus pennsylvanicus). Voles chew on the outer and inner bark of the tree, especially during the winter months when other food sources are depleted.

Additionally, Yoshino cherry trees offer incredible beauty. Each spring, the thirty-year old specimen that graces the dry garden in Sansho-en is entirely covered in delicate blooms. The pinkish-white petals catch the sunshine and, eventually, fall softly to the ground. Latter in the season, the tree offers a vibrant autumnal display of bright oranges and yellows. Through the winter months, the craggy bark on the main trunks evokes age and character.

With the addition of more Yoshino cherries, the inspiring physical characteristics and symbolism of these special trees will further enrich visits of the Chicago Botanic Garden for many years to come.

Contact Benjamin Carroll at bcarroll@chicagobotanic.org
When nations commemorate each other, their friendship can last for generations.

That is what folks had in mind in 1912, when Yoshino flowering cherries from Japan were planted along the Potomac River’s tidal basin. Each spring, the capitol’s architecture would be framed by blossoms. Each spring, the friendship between America and Japan could be renewed.

A century later, Washington D.C.’s cherries are still blooming. In 2011, Japan launched an initiative to propagate new plants from the originals, and to transfer them to a select group of American cities. In 2012, the community of Fort Worth, Texas, was invited to host some of the renewed trees.

Texas? Home to cowboys, vaqueros and oilmen, the state’s climate ranges from subtropical, to desert, to high plains, and is not exactly renowned for cherry culture. But Texans, always keen to bring the good things home, have plenty of experience with the ornamental varieties.

In Fort Worth, past experiments yielded mixed results. One famous failure was the Higan cherry (Prunus x subhirtella). Planted in the 1970s and 1980s, very few survived the local summers. But other types fared better, including the double-petal Kwanzan...
(Prunus serrulata ‘Kwanzan’), the small, heat-tolerant Taiwan (Prunus campanulata), and the common Yoshino (Prunus x yedoensis) varieties. In the end, the latter’s success allowed the city to have a reasonable expectation of keeping the Washington trees alive.

Even so, flowering cherries generally are not at their best in Texas, and tend to be short-lived in Fort Worth. Twenty years is the typical life expectancy for a Yoshino tree, with a few exceptional specimens living more than 30 years. Keeping the collection would require that new trees be propagated at regular intervals. Thus, the originals must become a reservoir from which future generations will arise, with each inception becoming an opportunity to renew the relationship.

In June 2012, Fort Worth received 24 of the propagated plants from American Forests, a tree-conservation organization. But the beautiful little cherries, scions of the hundred-year-old Washington celebrities, were so small that they could not be immediately planted. Horticulturists at Fort Worth’s Botanic Garden potted them instead, with a plan to set them out when large enough to be noticed in a parkland landscape.

On November 17, 2012, Consul General Jota Yamamoto, from the Japanese Consulate in Houston, Texas, formally presented the cherries to the people of Fort Worth (Fig. 4). Held at the city’s Japanese Garden, the dedication was attended by representatives of the local Japanese community, as well as members of Fort Worth’s government, parks department and gardening society. In his remarks, Consul General Yamamoto underscored that the commemorative trees, like the relationship of nations, would require diligent tending. “In Japan,” he said, “cherry trees can live for a thousand years.” His statement was an eloquent description of the collective wish for a lasting relationship.

For now, the 50 or-so flowering cherries already growing in Fort Worth’s Japanese garden will serve as a symbol of that bond. They will bloom in the springtime sun, and remind us of our Japanese friends. In time, our new Yoshino cherries will also flower, a delicate testimony to the durability of our relationship.

Contact Scott Brooks at hfoehn7@netscape.net

Fig. 4. Fort Worth Botanic Garden Executive Director Henry Painter, Consul General Jota Yamamoto, Texas, and Fort Worth City Councilman Dennis Shingleton at the Cherry Tree Presentation Ceremony, Fort Worth Botanic Garden (courtesy of Fort Worth Botanic Garden)
While there is no problem introducing Japanese flowering cherry species in many temperate parts of the United States, the subtropical oceanic climate in Hawai’i means Japanese flowering cherries planted there face two biological problems. Fundamentally, the conventional Japanese flowering cherry does not develop flowers without passing through a rather cold winter climate. More specifically, the cherries planted sporadically since Japanese emigration to the Islands in the 19th century, have not grown well under Hawai’i’s warm oceanic climate. To cope with this biological problem, the Japanese Consulate General in Honolulu, in consultation with me as a Honolulu-based botanist, developed an idea to select Japanese flowering cherry varieties growing in the warmer part of Japan and introduce such varieties into the coldest areas of Hawai’i.

Following this idea, two species of Japanese flowering cherries, Cerasus *jamasakura* Cv. *sendaiya* and Cerasus *speciosa*, were selected. The former (Fig. 2) is a special cultivar of Japan’s own “mountain cherry” growing in the southwestern part of Kōchi Prefecture, near the southwestern end of the distributional range of Japanese flowering cherries. The latter (Fig. 3) is a wild species growing in the coastal warm regions of Japan and well adapted to oceanic climate and volcanic soil.

The next barrier was the United States government’s plant protection regulations, which, as a rule, forbid the importation of cherry seeds and seedlings. However, thanks to the very kind cooperation of the Hawai’i Department of Agriculture, the federal Department of the State granted the necessary import permits for the seeds of the two species.

PREPARING, SHIPPING, AND SOWING THE SEEDS

Through the assistance of Kōchi Prefectural Makino Botanical Garden, in June and July 2011 the mature fruits of the two species were gathered in the botanical garden and from a few spots on Kōchi’s Pacific coast. Later, some supplementary seeds of Cerasus *speciosa* were also collected from Hachijō Island in Tokyo Prefecture, a volcanic island at the southernmost tip of the species’ range. The fruit was kept at room temperature for 10 days until the pulp and skin became soft enough to remove completely from the enclosed “seeds” (or endocarp). After thorough washing in water, the seeds were stored at 6°C in the Botanical Garden’s cold storage for two to three months to break their dormancy.

In October 2011 the seeds were taken from the cold storage and disinfected by being soaked for 24 hours in the one percent aquatic solution of Thiuram-Benomyl. Paralleling this treatment, Botanical Garden staff carried out germination tests to ascertain the seeds’ positive viability before shipment. The seeds were placed between wet vermiculite layers and packed in airtight tuppers and posted to
Hawai‘i’s Department of Agriculture, which attended to the US Customs and Plant Protection Procedures.

Major portions of the seeds were sown at the Hawai‘i Department of Agriculture facility in Honolulu and at the nursery of the Hawai‘i Department of Land and Natural Resources at Waimea on Hawai‘i Island. In Honolulu, artificial soil composed of vermiculite, Perlite, and peat moss at the ratio of 1:1:0.5 was used, while in Waimea seeds were sown in natural brown top soil. Germination of Cerasus *jamashaka* Cv. *sendaiya* was excellent, producing some 100 and 200 seedlings. Seeds of Cerasus *speciosa*, however, did not germinate well, producing only four seedlings in Honolulu. For this reason, additional seeds of this latter species were sent in October 2012, with more than 50 seedlings raised.

**THE PLANTING CEREMONY AND FOLLOW-UP ACTIVITY**

The seedlings from the first shipment grew well and the young trees reached heights of one to three feet in January 2012. The five best plants were selected for the Japanese Flowering Cherry Planting Ceremony, one of the principal events at the Cherry Blossom Heritage Festival in Waimea, Hawai‘i, held on February 4, 2012 (Fig. 5). This event kicked off of the year of centennial plantings across the nation. Since their planting, these young trees have been protected by windbreaks, provided by the volunteers from Lion’s Club, who water, spray insecticide and otherwise care for the trees. As expected, the trees grew slowly until October 2012, when they stopped their growth for the year. Early that November they seemed to prepare for entering winter dormancy with their leaves turning red brown then falling, as in Japan. The main stems have become stronger with good winter buds produced at both the tip of the main stem and the leaf axils. The trees planted at the Ceremony have now been established in Waimea.

There are still more than 200 healthy young Japanese flowering cherries in the nurseries of the Hawai‘i Departments of Agriculture and Land and Natural Resources, which formed the idea of a “Japanese Cherry Blossom Alley” in a cool area on the island of Hawai‘i. This plan will help continue the friendly relations between Japan and the US and also enhance tourism to “the Big Island.” A Cherry Blossom Alley Committee has been organized to implement this project that will, hopefully, eventually rival the cherries around the Tidal Basin in Washington D.C.

Contact Tetsuo Koyama, Ph.D. at koyama@makino.or.jp