

50th Anniversary for National Tropical Botanical Garden

by Margaret A. Haapoja

ON THE Hawaiian Island of Kauai, the National Tropical Botanical Garden (NTBG)—then known as the Pacific Tropical Botanical Garden—was established five decades ago. It traces its roots to 1964, when President Lyndon Johnson signed a bill creating the entity that now comprises five gardens—four in Hawaii and one in Florida—each with distinct collections and programs.

Chipper Wichman, NTBG's chief executive officer, says the Garden has changed dramatically over the past half century. "When we broke ground here in 1970, you could count the number of employees on the fingers of your two hands," Wichman says. "We now have over 100 employees, and we're a key player in implementing the global strategy for plant conservation."

NTBG has been celebrating its anniversary all year with special events at its gardens in Hawaii and Florida (see sidebar on page 44 for upcoming events). In honor of the anniversary, here's a brief chronicle of the history and programs of the five NTBG gardens.

ALLERTON GARDEN

Located in the Lawai Valley of Kauai, the Allerton Garden dates back to Hawaiian Queen Emma, who planted slips of bougainvillea there in 1871. Curtains of the brilliant magenta-flowered woody vine now cascade down the cliffs at the garden's entrance. Much of the credit for this garden's artistic design, impressive classic statuary, and interesting plants goes to Robert Allerton and his son, John. The Illinois natives purchased the property in 1937 and began developing the gardens, a project that consumed the rest of their lives. It became part of NTBG in the early 1990s.

At the entrance to Allerton Garden, a panoramic vista unfolds above the tops of swaying palms, towering banyans, and monkeypod trees. Verdant tropical vegetation carpets the valley, and the Lawai



Allerton Garden features imposing specimens of Moreton Bay figs, which are native to Australia.

stream empties into the azure water of the Pacific alongside the Allerton mansion. Sights and sounds of civilization disappear as birdsongs and the melody of flowing water take their place. The Allertons intentionally incorporated the music of running water to lead visitors from one garden room into another.

A statue of Diana, the Roman goddess associated with the woods and mountains, presides over her pool and gazes a lattice-work gazebo. Two bronze mermaids frame a 126-foot-long runnel like bookends. Massive buttress roots of Moreton Bay fig trees provided a perfect setting for filming portions of the movie "Jurassic Park." Throughout, the emphasis is on the textures and shapes of foliage plants. Giant glistening leaves of monstera contrast with fine foliage of maidenhair ferns. Wide expanses of neatly manicured lawns are framed with tall tropical trees.

MCBRYDE GARDEN

In 1964, Robert Allerton's check for \$1 million made possible the purchase of the NTBG's original 171 acres adjoining the Allerton Garden. That property is now the McBryde Garden, which has from the beginning been the primary research and educational component of the NTBG.

Here scientists study native Hawaiian plants, some 50 percent of which are rare and endangered. Scattered along the floor of the valley are major botanical collections, including 24 species of *Pritchardia*, the only palm endemic to the Hawaiian islands, and 20 cultivars of breadfruit tree (*Artocarpus altilis*), which produces a staple food item of the South Pacific.

The McBryde Garden also includes an administrative office complex, an 8,000 volume research library, a herbarium housing 70,000 specimens of preserved plants, and a conservation



Lawai Stream, shown here at Stillwater Dam, flows through part of NTBG's McBryde Garden.

and horticulture center that includes a micropropagation lab.

A complete renovation now in progress will make the McBryde Garden even more visitor-friendly. Scheduled to open on August 19 this year as part of NTBG's 50th anniversary celebration is a biodiversity trail chronicling the evolution of life on Earth. Visitors will travel through time in a series of tunnels, starting with exhibits showing the earliest forms of plant life and ending their journey in an orchid garden and tea house.

LIMAHULI GARDEN AND PRESERVE

North of Princeville on the humid, windward shore of Kauai, the road narrows and crosses a series of one-lane wooden bridges. A small sign signals the entrance to Limahuli Garden, a 1,000-acre site donated to NTBG in 1976 by Juliet Rice Wichman and her grandson, Chipper, who's now NTBG's CEO. Limahuli is surrounded by steep cliffs and valleys as velvety as green corduroy. In 1997, the American Horticultural Society gave Limahuli a special award as the best natural



Terracing is an effective technique for gardening on steep terrain at Limahuli Garden.

Additional Information

National Tropical Botanical Garden

3530 Papalina Road
Kalaheo, HI 96741. (808) 332-7324.
www.ntbg.org

- The Southshore Visitor's Center and Garden (providing access to the McBryde and Allerton gardens) is open 8:30 a.m. to 5 p.m. daily, free of charge.
- Days and hours of operation for individual gardens vary—check website for details.
- Guided tours of the individual gardens can be reserved in advance for a fee.

Another nearby site to explore:

Na 'Aina Kai Botanical Gardens, Sculpture Park & Hardwood Plantation, Kilauea, HI.
www.naainakai.org

botanical garden in the United States.

Kawaka Winter, Limahuli's director, hopes that the garden will help visitors appreciate the importance of their connection with nature. "People need to understand that the health of their ecosystem directly correlates to the health of their bodies and their lives," Winter says. He has recruited community members to participate in resurrecting traditional varieties of taro, once a staple in the diet of native Hawaiians. Seventy-two varieties, a fraction of the approximately 400 that grew in Hawaii 150 years ago, are now cultivated at Limahuli. "Only four of them are commercially grown," says Winter, "so the vast majority are maintained only in collections such as ours."

Guests touring Limahuli also learn about the garden's work to conserve threatened native species and control invasive plants. "When people leave Limahuli," says Wichman, "they look at the environment in a much different way. They realize there's a struggle taking place between native and introduced plants."

KAHANU GARDEN

Near the village of Hana on the island of Maui is Kahanu Garden, a remote site that features the largest *heiau*, or ancient temple of worship, in Polynesia. The *heiau* has been a National Historic Landmark since 1964. Beneath the *heiau*, Hawaii's largest stand of hala (*Pandanus* sp.), a palmlike tree, lines Maui's rugged coastline. Kaha-

nu is known for its displays of native Hawaiian plants such as taro, sweet potato, sugar cane, and bananas. The garden is designed to demonstrate and celebrate the cultural relationships between the Polynesians and these “canoe” plants, which were so named because they were transported around the Pacific on canoes.

Kahanu also contains the largest collection of breadfruit in the world, some 130 cultivars. These trees were collected by Diane Ragone, director of NTBG’s Breadfruit Institute. Scientists at the Institute are studying breadfruit’s nutritional values and conducting tissue culture experiments with cultivars from the Kahanu collection with the goal of distributing plants to tropical nations that might benefit from a new food source. “We’re just at the tip of the iceberg in terms of breadfruit potential,” says Wichman, “and Diane has unlocked that potential through micro-propagation. We now have pilot breadfruit projects in 25 countries, and more than 60 countries have expressed interest in breadfruit.”

KAMPONG GARDEN

The only NTBG garden outside Hawaii, Kampong Garden is in Coconut Grove, Florida, located along Biscayne



The Kampong was the home of horticulturist and plant explorer David Fairchild.

Bay south of metropolitan Miami. The Kampong—from the Malaysian word for “village”—contains a fascinating array of tropical fruit cultivars and flowering trees. The focus at this garden is to use the property’s unparalleled living collections for educational programs. It serves as the mainland campus for the NTBG’s educational offerings and is a living classroom that universities and colleges use to teach botany and horticulture.

Some of the first plantings were brought to the Kampong from southeast Asia by David Fairchild, who owned the property in the early 1900s. The intrepid American plant explorer and horticulturist filled his garden with ornamental, edible, and ethnobotanic plants. Visitors can tour his home, where he wrote memoirs of his travels, such as *The World Was My Garden*, published in 1938. American botanist and philanthropist Catherine Sweeney, who followed Fairchild as owner of the Kampong, donated the garden to NTBG in 1984. Today, it contains a diverse array of plants from the tropics and warm subtropics, including fruits, palms, flowering trees, flowering shrubs, and vines.

Through a collaboration with Florida International University, NTBG is now developing the International Center for Tropical Botany (ICTB) at the Kampong. The ICTB will provide research-based knowledge and tools to preserve and sustainably cultivate tropical plants and develop programs to educate future generations of biologists specializing in tropical plants.

LOOKING AHEAD TO THE NEXT 50

In this era of climate change and focus on sustainable agriculture, the mission of NTBG is more important than ever. “We now know that more than 80 to 90 percent of all biodiversity on earth exists in the tropics,” says Wichman. “We also know that roughly one third of all tropical plants are threatened with extinction. So we have a unique opportunity in that our gardens are in the only American states located in this very important part of the world. And the importance of our mission is heightened by this awareness that plants are the keystone species in almost every ecosystem. They provide habitat, structure, and food, and they are essential to the survival of all other components of those ecosystems.”

Margaret A. Haapoja is a freelance writer based in Bovey, Minnesota.

UPCOMING ANNIVERSARY EVENTS

For more information about these events, visit the NTBG website (www.ntbg.org).

- Through August 29: **The Living Endemic Birds of Hawai‘i Art Exhibition**, showcasing paintings by Marian Berger. Botanical Research Center, NTBG Headquarters, Kalaheo, Kauai, Hawaii.
- August 9: **Moonlight & Music in the Garden**, a fundraiser for the NTBG, McBryde Garden, Lawai Valley, Kauai, Hawaii.
- August 19: **Dedication of the McBryde Garden’s new Biodiversity Trail**, McBryde Garden, Lawai Valley, Kauai, Hawaii.
- October 7: **Agents of Change—Botanic Gardens in the 21st Century**, a symposium co-sponsored by NTBG and the Smithsonian National Museum of Natural History, Washington, D.C.
- October 7: **Gala Dinner—An Evening with Thomas L. Friedman**, Pulitzer prize-winning author and columnist, St. Regis Hotel, Washington, D.C.