

# *the* TROPICAL GARDEN

SUMMER 2013



Summertime at Fairchild  
A Tropical Wonder



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**KENNETH SETZER** joined Fairchild as a writer and editor with the marketing team in 2013. He contributes to print and digital media. Setzer enjoys writing about natural and human history and is an enthusiastic photographer, with a particular fascination with fungi. His educational background is in linguistics, with a BA from Queens College, City University of New York, and an MA from Florida International University.

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**ON THE COVER**

Bailey Palm Glade vista

Photo by Gaby Orihuela/FTBG

# Painting a **BUTTERFLY** Haven into Reality

By Kenneth Setzer

Photos by Ricardo Aberle and Susan Ford-Collins

Since December 2012, Fairchild's Wings of the Tropics exhibit has enchanted visitors with shows of fluttering, seemingly magical, butterflies. It is almost pleasantly overwhelming, as though butterflies you've only dreamed of seeing are hovering en masse all around you in The Clinton Family Conservatory. But how do you house, feed and suitably show off hundreds of orange, metallic blue, white, red and green butterflies—to name just a few—once they are released into the exhibit?



The Garden's grounds director and landscape manager, Ricardo Aberle, adopted the task of turning 10,000 square feet of empty space into the tropical, palmy rainforest our butterflies today call home. Aberle—an accomplished watercolor artist who teaches painting at Fairchild and whose works have appeared in many of the Garden's publications—combined his expertise in landscaping with his artistic ability and vision to create a slice of tropical rainforest able to accommodate visitors, butterflies and hundreds of plants comfortably and beautifully.

Aberle spent a month studying the Monet Gardens outside Paris, visited London's Royal Botanic Gardens, Kew, and toured Singapore Botanic Gardens to prepare to design and landscape the Wings of the Tropics exhibit in The Clinton Family Conservatory. Just imagine the design challenges: The exhibit had to re-create a slice of a tropical forest, essentially indoors. While keeping to its tropical roots, it simultaneously had to be designed for shade while also admitting enough sunlight for the butterflies and the nectar plants from which they feed; it had to take into account the visitor's 360-degree viewing experience; and had to maintain the look of the rest of the Garden and feel like it had always been a part of Fairchild.

After the exhibit's space and dimensions were allocated, Aberle could begin to play with a design. One key element he knew it needed was water. A small stream flows through the exhibit, partially hidden at first

and beckoning visitors forward. Inhabited by tropical fish, the stream reinforces the feel of a walk through a tropical forest. The sinuous, meandering path increases visitors' interest, while elements like a Chaya tree (*Cnidoscolus aconitifolius*), with its white blooms, block their view and increase the illusion of depth. All of it conforms to ADA regulations, so none of our visitors are excluded. The path is decorated with fossil-like leaf imprints made in the still-wet cement by volunteers, staff and kids at Fairchild's summer camp. Even the rocks were hand-selected from the Garden to maintain an aged, mossy-green look. Many of them were used to make up the wall along the Ann Ziff Rare Fern Walk, which is misted automatically to nourish the ferns, orchids and other epiphytes that festoon it.

Aberle also designed much of the landscape surrounding the exhibit, continuing the theme outside and around The Paul and Swannee DiMare Science Village.

The exhibit is USDA-approved to house up to 200 different species of butterflies, though only between 30 and 40 species normally fly concurrently. To receive this approval, the landscaping must provide appropriate food for each species, in the form of nectar plants. Martin Feather, Fairchild's butterfly exhibit manager, chose all the plants with this in mind, including some seven species of neotropical *Psiguria* vine gracing the loggias at either end of the path. Feather needed to ensure that the plants would meet both the butterflies' requirements and those of the USDA, which prohibits butterfly host



Ricardo Aberle during his visit to Claude Monet's garden in the Village of Giverny, France, 2010.



Moving a mature tree takes time, effort, and patience.



Before: The Exhibit with the enclosure constructed, but not much yet in the way of landscape. Note the streambed.

plants in the exhibit. This is because the butterflies, which are non-native, cannot be allowed to reproduce.

Aberle, meanwhile, took into account the size, shape and colors of foliage and blooms of such nectar plants as porterweeds (*Stachytarpheta urticifolia*, *S. jamaicensis*, *S. frantzii*), jatropha (*Jatropha integerrima*), Panama rose (*Rondeletia leucophylla*), firespike (*Odontonema tubaeforme*), Egyptian starcluster (*Pentas lanceolata*), lignum vitae (*Guaiacum sanctum*), Dombeya 'Seminole,' firebush (*Hamelia patens*), tropical dogwood (*Mussaenda philippinensis*), pagoda flower (*Clerodendrum spp.*), Mexican flame vine (*Senecio confusus*) and firecracker plant (*Russelia equisetiformis*). As he does when painting, he employed rules of composition and color to sprinkle the white, blue, violet, pink, red, yellow and crimson blooms against the backdrop of green plants. "Unity, variety and contrast are key, the same as with a painting," Aberle says. He had to consider the plants' eventual size, too, so as to prevent them from outgrowing their neighbors and overpowering the composition. The upshot of this careful planning: Walking through the exhibit feels like walking inside a water color painting.

The larger plantings also posed a challenge. Each was chosen from already-existing plantings at Fairchild, since many aren't available commercially at all, or aren't available at the size the exhibit required. Here, patience and vision really paid off. Aberle found suitable trees throughout the Garden; some of them are quite old, rare and valuable. The *Coccothrinax* palms are mature

plants and tower over the exhibit. These had to be root-pruned in thirds over the course of months until they could safely be freed from the ground in the Lowlands area of the Garden and brought into the exhibit, which at that stage offered only limited access. Imagine tiptoeing around your landscape to avoid stepping on plants while digging for a new plant—only the new plant might be a 30-foot-tall palm and the landscape is surrounded by mesh screening. Remarkably, Aberle says, "Though it would be normal to have some loss due to transplanting, luckily we have not lost a single tree."

The relocated plants included a locust berry (*Byrsonima lucida*) that had been growing for about five years in Plot 193. It was moved nearly across the entire Garden to the Science Village area. Aberle has since placed several orchids on its branches, and according to Mary Collins, Fairchild's senior horticulturist, it's been producing new growth and is flourishing in its new location even more than in its previous home in the Lowlands.

Though the entire Science Village is an idea 10 years in the making, Aberle had only months to create and finish his landscaping. Planting started in April 2012 for the December 2012 opening of Wings of the Tropics. "It was very collaborative," he stresses. "It took a team effort of the Garden's administration, horticulture staff, Wings of the Tropics staff—pretty much all the staff and volunteers. It was really exciting for all of us."

It shows. Just look at a watercolor, or an Impressionist landscape. Then visit the Wings of the Tropics exhibit and you'll see those colors come to life. 



## One Palm Tree's Journey

Just outside the entrance to Wings of the Tropics stands an *Arenga westerhoutii*, Westerhout's Sugar Palm. It was collected as a seed in Malaysia by two Fairchild staff members in 1996. It went from the Garden's nursery into the ground in 2002, and ultimately to the Science Village area in August of 2012. It has a fairly wide distribution in Asian rainforests, where it is valued for both its intrinsic beauty and various other purposes: Its seeds can be used in desserts, its young shoots can be eaten and its more mature leaves can be used for roofing material. Even its flowers can be made into palm wine.



After: Water flowing, landscape blooming and butterflies flitting.