



*Exploring the*

# ARBORETUM

MAGAZINE FOR THE MEMBERS OF THE LOS ANGELES COUNTY ARBORETUM AND BOTANIC GARDEN

SUMMER/FALL 2013

## LAST STAND

*Going out with a big bang*

## ORCHIDS

*Meet their caretaker*

## FEAST

*A farm-to-table fundraiser  
at Baldwin Ranch*



# ONCE IN A LIFETIME

*Celebrating a botanical grand finale*



Above: Before blooming, MacDougall's century plant stands an average of 15 feet from a swollen base.

Some plants can grow for 50 years or more without flowering and producing fruits but when they finally do, their floral display can be spectacular—and bittersweet as a new phase begins in the plant's life. One such plant is the Arboretum's *Furcraea macdougallii*, a native of high-elevation dry forests, from 2,500 to 3,500 feet elevation in Oaxaca, Chiapas and Puebla in Mexico. Three plants flowered near the base of Tallac Knoll in February and March.

MacDougall's century plant is one of the most spectacular and dramatic plants in the agave family. It forms a slender trunk to 15 feet tall from an abruptly swollen base and is topped with a rosette of fleshy, narrow leaves to 7 feet long and 3 inches wide with curved teeth along the margins. A "skirt" of old, dead, dried, brown leaves somewhat conceals the slender trunk.

Looking like an agave with a trunk and growing in relative anonymity for many years, MacDougall's century plant really makes a name for itself when it shoots up a huge terminal flower stalk laden with greenish white, tubular flowers. The stalk is as large as the plant itself and adds an additional 20 feet to the overall height.

Although spectacular, this flowering event signals the end of the life of MacDougall's century plant because the plant dies after flowering, slowly disintegrating and decomposing over many years in dry climates. However, miniature plants called bulbils form on the flower stalks and these can be used to propagate new plants. Plants do best in full sun and require little water once established in the garden or landscape.

Thomas Baillie MacDougall (1895-1973), a Scotsman who lived in New York but traveled frequently to Mexico



Photos by Donald R. Hodel

to explore for plants, primarily in the southern part of the country, discovered this plant. The species is based on the botanical collection he made about 50 miles northeast of Tehuantepec in Oaxaca, Mexico on November 20, 1953. MacDougall, who fought in World War I and immigrated to the United States after the war, was trained in forestry in New York. He quickly became fascinated with Mexico and its fabulous flora, especially cacti and other succulents, and he made annual travels there, mostly to Oaxaca and Chiapas, for nearly 50 years.

Eizi Matuda (1894-1978), a Mexican botanist of Japanese ancestry and MacDougall's friend, named this plant in his honor in 1955. Many years before, French botanist Etienne Pierre Ventenat (1757-1808) named the genus *Furcraea* in honor of Antoine Fourcroy (1755-1809), a fellow countryman who was a chemist, politician and director of the Jardin des Plants in Paris, among other pursuits.

Opposite and below: MacDougall's century plant produces delicate greenish white, tubular flowers just once in its lifetime. Left: It doubles in height when a huge flower stake shoots up; Bottom right: Three-year-old plants.



The Arboretum's original acquisition of MacDougall's century plant in 1966 consisted of eight plants. A bevy of young plants, mostly only a few feet tall and without trunks, densely covers the ground marking the sites of previously-flowered plants. The new plants are the descendants of four plants that flowered at different times in recent years. One plant remains to flower in the near future, thus naturally concluding the lives of this acquisition except for the new generation of progeny that will flower in another half century. You can still catch this unusual and spectacular display of flowering structures and plantlets along the road at the base of the hill going up to Tallac Knoll. 🍀

— Donald R. Hodel, environmental horticulture advisor at University of California ANR, Cooperative Extension.

— James E. Henrich, curator of living collections at the Arboretum.