

# Palms and Art in the Jardín Botánico Culiacán

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**The Culiacán Botanical Garden is a gem of a garden in northwestern Mexico. The Garden is home to a burgeoning palm collection, as well as a world-class collection of contemporary sculpture. Both collections are a cultural resource for the residents of the city of Culiacán.**

Culiacán is the capital of the state of Sinaloa, in northwestern Mexico, located on the Pacific Coast of mainland Mexico, at the mouth of the Gulf of California. It experiences a frost-free climate with hot summers and mild winters. Most of the region's 667 mm (27 inches) of rainfall occurs in the summer. Overall, the climate is semi-arid, which means that plants require irrigation. The city is well known for seafood, agricultural crops and, unfortunately, the violent Sinaloa drug cartel. In the heart of the city, however, is the Jardín Botánico Culiacán (JBC) or Culiacán Botanical Garden, an oasis of green and calm in an urban setting.

The nucleus of the Culiacán Botanical Garden was the plant collection of the founder, Carlos Murillo Depraect, a civil engineer with a passion for plants, especially palms. He donated his collection, and the state government gave over 10 ha (25 acres) of land. Since 1986, the garden has been open to the public. For many years, there was no entrance fee, but in recognition of the increasing value of the garden as a cultural space, the administration introduced a small, nominal entrance fee two years ago. The Culiacán Botanical Garden is popular with local residents, who visit the Garden for a variety of



1. A bonsai *Washingtonia filifera* that is 20 years old. Photo by S. Zona.

reasons. Exercise classes, quinceañera and wedding portraits, and drawing by art students from the nearby university are almost daily sights in the Garden.

The JBC is focused on the flora of Mexico, especially the state of Sinaloa, and palms. Much of Sinaloa is arid or semi-arid, and the native plants are perfectly adapted to low





2. Palms in the nursery. Left. A collection of *Chamaedorea metallica*. Right. The distinctively windowed leaf of *Reinhardtia gracilis* var. *gracilior*. Photos by S. Zona.

rainfall and high evapo-transpiration. The coastal areas of the state were once covered with a vast expanse of tropical deciduous

forest, an ecosystem now threatened, as much of the land has been converted to agriculture and shrimp farms along the coast. The

3. *White Circle* (2003) by Kiyoto Ota. Photo by S. Zona.







4. *Encounter* (2007–2015) by James Turrell. The two photos were taken only 1 minute and 13 seconds apart at sunset and vividly illustrate the ever-changing colored lights that are projected on the canopy. Photos by S. Zona.





5. *Washingtonia robusta* and *Roystonea regia* tower over other palms in the Palmetum. Photo by S. Zona.

northern tip of the state, part of the Sonora Desert, boasts a fascinating flora of cacti, agaves and other succulents. The eastern portion of the state extends into the Sierra Madre Occidental, whose flanks support rich and diverse forests of pine and oak.

Consequently, the Garden has a wealth of plants that it can display. The JBC also holds the National Collection of palms. The Garden is building a collection focusing first on Mexican species and then on palms from other parts of the world. Much of the Garden's palms





6. *Astrocaryum mexicanum*. Photo by S. Zona.

are grown in the Palmetum, but palms also occur throughout the garden as particular details that enhance the landscape.

The JBC's plant collections offer something for everyone. There is an impressive collection of cacti and other succulents, a water garden, a bamboo collection, an edible garden, a

temperate plant collection and even a tropical bonsai collection. The latter boasts a 20-year old bonsai of *Washingtonia filifera* (Fig. 1).

Plants, including palms, are acquired for the JBC through collecting expeditions, donations or exchanges with other institutions. Propagation takes place in an on-site nursery,



where seeds are germinated and grown until the palms are large enough to plant out in the garden. A small back-up collection of palms is maintained to replace palms that die in the garden (Fig. 2).

Since 2002, the Garden has taken on a new role, that of a contemporary sculpture garden and gallery without walls (Figs. 3 & 4). Artists from all over the world were commissioned to produce site-specific works that address the issues most relevant to the citizens of Culiacán, including regional identity, violence and changes in the natural world wrought by humans. The Garden now is home to a world-class collection of contemporary art, beautifully displayed among the lush, tropical foliage. A stand-out piece is *Encounter* (2007–2015) by Californian artist James Turrell (Fig. 4). This is one of Turrell's "skyspace" constructions, which are generally built as a specifically proportioned chamber with an aperture in the ceiling open to the sky. In *Encounter*, viewers sit in benches inside a room in a pyramid that has a white canopy with a central, elliptical opening. Each day, through a combination of colored lights that are shown

on the ceiling, as well as light from the sky, a change of perception is created that transforms the viewers' experience of sunrise and sunset. The moment is enhanced with the sounds of crickets, birds and so forth. It is a sensorial close-encounter with nature.

The palm collection is diverse, comprising ca. 160 species. Large and imposing specimens of *Roystonea regia* and *Washingtonia robusta* are everywhere in the Garden (Fig. 5), along with specimens of *Phoenix canariensis*, *P. dactylifera*, *Wodyetia bifurcata*, *Saribus rotundifolius* and several species of *Sabal*. Understory palms include *Ptychosperma elegans* and *P. salomonense*, *Pinanga coronata*, *Rhapis excelsa* and *Astrocaryum mexicanum* (Fig. 6). The Garden has a rich collection of *Chamaedorea* species, representing a portion of the species that are native to the country. Some of the highlights include the rare and seldom-seen climbing *Chamaedorea elatior*, as well as the diminutive *Chamaedorea geonomiformis*, *C. tuerckheimii* and *C. metallica*. Given the threats faced by many species of *Chamaedorea* in Mexico, this *ex situ* collection can play a role in future conservation research.

7. A young *Latania lontaroides*. The bell sculptures are from the series *Return the World* (2014) by Argentine artist Adrián Villar Rojas. Photo by S. Zona.





8. Aluminum signs are clear and easy to read. The red dot in the lower right corner of the sign symbolizes that this species is endangered in the wild. Photo by S. Zona.

As many of the Garden's most unusual palms are still young, the palm collection is destined to become more interesting with the passage of time. Of course, many of the palms, although not yet reproductively mature, are still beautiful. A young *Latania lontoroides* still shows the red coloration that gives this palm its common name, the red latan palm (Fig. 7).

Signage in botanical gardens is always difficult, as signs must be weather-resistant, permanent and legible but not too obtrusive. Signage for the palms in the JBC is exceptional. Large aluminum signs (Fig. 8) are located at the base of specimens, and each sign features an embossed illustration of the palm, scientific and common names, geographic range and a brief text highlighting such things as uses or conservation status.

The Garden has an on-site laboratory and seed bank and is conducting research into long-term storage of native plant seeds, including

palms. Palms are notoriously difficult to store under the dry and cold conditions that are typical for seed banks, but the staff is experimenting with cold storage of *Chamaedorea* seeds. Seed bank storage is an important part of a multi-pronged approach to plant conservation.

A very important role of the Garden is its work in environmental education. The Garden receives up to 12,000 school children per year and hosts workshops for children of all ages to learn botany and art.

The JBC is an outstanding cultural centerpiece for the city of Culiacán and will probably, with time, become a must-see attraction for tourists from around the country and abroad. Both collections of palms and sculpture offer visitors the opportunity to appreciate form and space, to enjoy the interplay of color and texture, and to be transformed by the beauty around them.