

# Tucson Cactus and Succulent Society

## Opuntioide Garden Proposal

### Tucson Prickly Park



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Desert Green Design

## **TUCSON CACTUS AND SUCCULENT SOCIETY:**

Started in 1960, the Tucson Cactus and Succulent Society now has over 1000 members. There have been many notable members who have contributed locally, nationally and internationally to the knowledge and advancement of our Society and the study of cacti and succulents in general. The Tucson Cactus and Succulent Society Cactus Rescue Crew saves cacti and other native plants that would otherwise be destroyed during the development of Arizona real estate. Since 1999, the rescue crew has accomplished 252 rescues, and over 49,743 native plants have been saved and provided new homes throughout Arizona. Many members have been photographing, collecting, growing and researching Opuntioids for years and are ready to share this knowledge with the community. We are a non-profit 501(c)3 educational organization.



Photo: Vonn Watkins



## **PROJECT DESCRIPTION:**

A several acre public demonstration, research and education garden facility to focus on the 200+ species of Opuntia and related genera (collectively known as Opuntiods), as well as compatible desert plant species.

## **GOAL STATEMENT:**

The Tucson Cactus and Succulent Society Opuntiod Garden will be several acres (9.4 ac) of demonstration gardens and related facilities to highlight the environmental, social and economic values of Opuntiods in Tucson, Arizona.

Prickly pears, chollas and other related plants are important sources of food and serve other functions necessary for human, animal and insect activity in the desert. Habitat destruction and invasive pests such as the cactoblastus moth are threatening the existence of some of these incredible species. Tucson has a great climate (not too hot and not too cold) for showcasing the many Opuntiod species, both native and non-native.

The educational opportunities of this facility would be substantial, including training and materials for teachers, hands-on workshops for students of all ages, and self-quizzing signage for visitors.

Community involvement in the creation and use of this space will result in the largest and most complete collection of this group of cacti in the United States.

The title “Tucson Prickly Park” conveys a sense of fun and describes the gardens the Tucson Cactus and Succulent Society wants to create.



Photo: © Ed Bartlett 2010

## DEMONSTRATION GARDENS

Garden goal: Landscape irrigation is the highest water use application by Tucson homeowners. As people look to reduce the amount of water spent on irrigation, the demonstration gardens will display a variety of ways to use Opuntoids in home landscaping situations. Trees, shrubs, wildflowers, vines and other species of complimentary desert plants will be included for further design ideas and inspiration.

**ORIGIN GARDEN** - The more primitive of the Opuntoids will be on display in the Origin garden. The ancestral species from South America with their primeval shapes and spines will be clustered among large boulders to express a sense of creation.

**SAGUAROHENGE** – A sacred space in the Opuntoid garden, the Saguarohenge garden will celebrate the ancient relationships between people and the Sonoran Desert. A pathway experience to the center of Saguarohenge will provide visitors with a new perspective on the Opuntoid garden and a heightened awareness of their own place in the desert.



**CHOLLA FOREST MAZE** - A stay-on-the-path experience through the cholla forest maze will force visitors to confront their fears about proximity to cactus stickers and encourage a sense of accomplishment at successful navigation through the spiny labyrinth.



Photo: Kevin Barber

**CHOLLA ROSE GARDEN** – Modeled after a traditional-style English rose garden, the Cholla rose garden will display the soft pinks, vibrant reds and warm oranges of cholla flowers in a familiar garden format.



Photos: Kevin Barber



**POLLINATOR GARDEN** – Many animals and insects rely on Opuntioide species, and the cacti rely on these critters for pollination services. The pollinator garden will highlight this reciprocal evolutionary relationship by providing masses of hummingbird- and insect-pollinated Opuntioide species for visitors to observe the interaction on a close scale.



photo: © Ed Bartlett 2010

### **PRICKLY PEAR FARM**

Garden goal: Many people rely on opuntias as a crop, for an important source of nutrition. Young pads (Nopales), flower buds and fruit are all edible. The prickly pear farm will focus on the ethnobotanical use of Opuntia species. Use of a traditional farm layout will reinforce the concept of growing cactus for food. The plants will provide the ingredients for on-site cooking demonstrations and events.

Species to include: Native and non-native species. Separate growing areas for pad cacti, flower bud cacti and fruit cacti.



photo: Vonn Watkins

## **SONORAN DESERT NATURAL AREA**

Garden Goal: Tucson has a higher concentration of cholla species than anywhere else in the world. The Sonoran Desert natural area will include all the Opuntoid species endemic to the Tucson Basin. Native trees and shrubs will be combined with these Opuntoids to immerse a visitor in a natural desert experience.

Species to include: All Opuntoid species endemic to the Tucson Basin.



Photo: © Ed Bartlett 2010

## **RESEARCH GARDENS**

Garden goal: Provide a living and digital database for Opuntoid species research, including taxonomic organization, locality data and site-specific climate data. As a park that will be featuring special plants, good records should be kept of the plants present. For educational purposes and to record successes and failures we must have good records. GPS technology, can easily record location. The proper name and vital plant statistics such as height or size, from a cutting or seed grown, age of the plant and any other information that will be needed for the future should be recorded. Each plant will be given a metal plant tag and numbered or named to the record books.

Species to include: Species of research interest.

## **CONSERVATORY GARDEN**

Garden Goal: While many Opuntoid species thrive in the Tucson climate, some are more sensitive to extremes in temperature and require special handling. The conservatory garden will showcase the Opuntoid species that require an additional level of protection from cold and heat beyond typical landscape conditions.

Species to include: Frost-tender Opuntoids, heat- and sun-sensitive Opuntoids.

## **OPUNTIOID NURSERY**

Garden goal: The Opuntoid nursery will provide a secure location for on-site plant propagation and care. The nursery will be used for growing and holding the plants used in creating the gardens, replacement plants as necessary, and for Opuntoid plant sales.

Species to include: All Opuntoid species used on site.



## PARKING LOT GARDEN

Garden goal: The parking lot garden will be visitor's first exposure to the Opuntioid garden. Existing parking islands will be planted with shade trees and a variety of Opuntioids for the initial experience. Dense perimeter plantings will buffer the parking lot from the garden and funnel visitors to the main garden entrance.

Species to include: Smaller-sized and lower-growing Opuntioid species tolerant of reflected heat.



photo: Kevin Barber

