# Other Succulents of Academy Village

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Today we will discuss some botany basics as to what are Succulent plants and Succulents (other than Cactus) native to the area around Academy Village. If time allows, we will review the four basic types of Cactus found in the area, which was the topic of an earlier talk.

### References:

Breslin, Peter; Romero, Rob; Starr, Greg; and Watkins, Vonn 2017 Field Guide to Cacti & Other Succulents of Arizona, Tucson, AZ; Arizona Lithography

Dortort, Fred 2011 *The Timber Press Guide to Succulent Plants of the World,* Portland, OR and London, UK; Timber Press

### Resources:

www.tucsoncactus.org www.cssainc.org

# **Succulent Plants**

Succulent plants have developed strategies for storing water in arid climates to survive periods of drought.

Succulent plants may have succulent stems, leaves, root systems or utilize a storage tuber called a caudex, which may be partially or fully underground.

Succulents still lose water in the process of photosynthesis.

Succulent plants found in Arizona that you may be familiar with include members of the Agave, Bursera, Dasylirion (desert spoon), Dudleya, Fouquieria (ocotillo), Graptopetalum, Hesperoyucca, Jatropha (limberbush), Nolina (beargrass) and Yucca genera.

Succulents (other than Cactus) found in Academy Village or surrounding Rincon Valley:

Agave palmeri, or Palmer agave
Agave schotti, or Schott agave
Dasylirion wheeleri, or sotol or desert spoon
Fouquieria splendens, or ocotillo or coachwhip
Jathropha cardiophylla, or sangre de drago or limberbush
Nolina microcarpa, or sacahuista or beargrass
Yucca baccata, or banana yucca
Yucca elata, or soaptree yucca



Agave palmeri (fireflyforest.com)

Agave from Greek "noble" by Carl Linnaeus

Edward Palmer botanized in the Southwest and Mexico



Agave schotti (americansouthwest.net)
Originally collected by Dr. Arthur Schott in 1855



Dasylirion wheeleri (worldofsucculents.com)
From the Greek dasy (shaggy) and lirio (lily)
LT G. M. Wheeler led an 1874 geographical survey



Fouquieria splendens (public.asu.edu)
For Pierre E. Fouquier, French professor of medicine splendens for splendid flowers



Jatropha cardiophylla (Cabeza Prieta NHA)
Jatropha from Greek iatros (physician) and trophe (nutrition), cardiophylla for the heart-shaped leaves



Nolina microcarpa (trees.stanford.edu)
Nolina for French arborculturist C. P. Nolin
From the Greek micro (small) and carp (fruit)



Yucca baccata (americansouthwest.net)
Yucca from yuca, Taino language for cassava
baccata from the Latin bacca (banana) for the fruit
shape



Yucca elata (americansouthwest.net elata from Latin elat (high or lofty)



Carnegia gigantica (National Park Service) Saguaro, a columnar-type cactus

Subfamily Cactoideae, Tribe Pachycereae Also includes *Echinocereus* (2 species of hedgehogs) and *Peniocereus* (Queen of the Night)



Ferocactus wislizeni (saguaro-juniper.com) Arizona Fishhook Cactus, a Barrel-type cactus

Subfamily Cactoideae, Tribe Cacteae Also includes *Corypantha*, *Echinomastus*, *Escobaria* and *Mammillaria* (one species each)



Opuntia engelmannii (National Park Service) Englemann Prickly Pear, a pad-type cactus

Subfamily Opuntioideae (5 species total)



Cylindropuntia bigelovii (National Park Service)
Teddy-bear cholla, a cylinder-type cactus

Subfamily Opuntioideae (6 species total)

## **Arizona Native Plant Law**

All native cacti in Arizona are protected by Arizona's Native Plant Law, administered by the Arizona Department of Agriculture.

Under this law, it is illegal to kill, damage, or remove any cacti or other listed plant in Arizona. Any land owner may destroy or remove for sale listed plants from their property, but must notify the Arizona Department of Agriculture 60 days prior to obtain a permit. This requirement is designed to allow as many plants as possible to be relocated instead of destroyed.

For more information, see agriculture.az.gov/protected-arizonanative-plants.

Some Arizona cacti are also protected by the Endangered Species Act of 1973. (Tyna Yost in Breslin, et al)