

Organ Pipe Cactus

by Corey Reinig

Organ pipe cacti are an important feature of Organ Pipe Cactus National Monument. Originally called pitayas, this cactus was named because the wood from a dead cactus resembles an organ with its pipes.[1] Usually found in the warmth of southern and eastern slopes, an adult cactus has several branches emerging from its base and can rise to a height of twenty feet. It has a nocturnal flower that blooms from the months of June through September.[2]

This cactus grows in the American southwest and in northern Mexico, and the majority of plants in the United States live in the national monument. Their range starts five-hundred miles south of the U.S-Mexican border in northwest Mexico extending one hundred miles into Arizona. In these northern regions, the plant is sparse and does not grow as well. As a result, ninety percent of organ pipes in the U.S. live within twenty miles of the Mexican border.[3] Living on elevation ranges up to 2000 feet, these cacti thrive on the conditions in the national monument, including the desert's two wet seasons. In the monument, the temperatures are not as extreme in other areas of the American Southwest. The cacti struggle when the climate gets too hot and dry. They also cannot withstand hard freezes, although they can tolerate the park's periodic light frosts. As a result, most organ pipe cacti in the monument have frost damage.[4]

The cactus is well adapted for living in the desert and can survive on as little rainfall as four inches per year. The cactus absorbs available moisture through its shallow root system, while it stores water in its stems. To conserve moisture, the plant only breaths carbon dioxide during the night so it can close its pores to avoid moisture loss during the day.[5] They also help animals to survive in the desert by providing food or shelter to birds, bats, coyotes, and fox. In return, these animals spread the plants seeds and pollinate its flowers.[6]

These plants played a vital role in lives of native people for thousands of years. Their wood was used for construction, and their fruit was picked for food.[7] The fruit is eaten raw, fermented into wine, or made into jelly. Today, much of their habitat is being replaced by buffelgrass and other types of grasses used by ranchers.[8] There is an effort in Mexico to preserve the cactus by commercially marketing its fruits, which could sustain the plant by making it economically desirable.[9] Fortunately in the United States, organ pipe's future is more secure due to the protection that Organ Pipe Cactus National Monument provides.

Further Reading:

Anderson, Edward F. *The Cactus Family*. Portland: Timber Press, 2001.

Schmidt, Cecilia A, and Brian F Powell. *Plant and Vertebrate Inventory of Organ Pipe Cactus National Monument*. Reston: U.S. Geological Survey, 2007.

Shreve, Forrest, and Ira Wiggins. *Vegetation and Flora of the Sonoran Desert*. Palo Alto, Stanford University Press, 1964.

Yetman, David. *The Great Cacti: Biogeography and Ethnobotany of Columnar Cacti*. Tucson: The University of Arizona Press, 2007.

[1] David Yetman, *The Organ Pipe Cactus* (Tucson: The University of Arizona Press, 2006), 4.

[2] W. Hubert Earle, *Cacti of the Southwest* (Phoenix: Desert Botanical Garden, 1963), 63.

[3] Yetman, 5.

[4] *Ibid.*

[5] Carrol Ann Basset, *Organ Pipe: Life on the Edge* (Tucson: The University of Arizona Press, 2004), 58.

[6] Yetman, 26

[7] *Ibid.*, 9.

[8] *Ibid.*, 53.

[9] *Ibid.*, 58.