

Plants of Wupatki National Monument

The arid lands of Wupatki support a large number of plants which are well adapted to a desert environment. The gray-green foliage which characterizes much of the landscape absorbs less heat than the dark green leaves found in wetter and cooler areas. Many of the leaves are small to reduce water loss; others have a thick waxy coating. The succulent plants store water in their leaves or in their stems. Desert plants have either extensive shallow root systems that quickly absorb the occasional rainfall or very deep roots that tap water sources far below the soil surface. Many desert plants even differ physiologically from their wet climate relatives. They use a special type of photosynthesis which is most efficient in the hot, bright, dry conditions of the desert.

Wupatki has several areas of distinctly different vegetation. The western end of the park, because it receives slightly more rainfall, is a grassland. The grasses are typical of western short-grass prairies and include three-awns, grammas, galleta, needle grass and dropseeds.

The rest of the park has many juniper trees. The largest plant in the area, these evergreens have had numerous uses. The hard wood is suited for fencing, building material and fuel. The edible berries have flavored foods ranging from venison to gin. Juniper ash is used in several Hopi and Navajo breads and a red dye is made from it. The tree's bark, finely shredded, was a traditional diaper material.

A smaller distinctive plant is the yucca. During most of the year, the yucca appears to be a cluster of long pointed leaves growing from the ground. In the spring, a tall stalk develops which is covered first with large white blossoms and then with seed pods. Every part of the yucca has been used by Southwest residents. The leaves were used whole as basket weaving materials or beaten until fibrous and woven into sandals and rope. The seeds can be roasted and eaten and the mashed root used as soap.



Another distinctive bush is Mormon tea or ephedra. Mormon tea looks like a cluster of leafless green stems but there are actually tiny leaves at the joints of the stems. In the spring, Mormon tea blooms and produces a small seed-bearing cone. Mormon settlers did make tea from the plants and it has had many medicinal uses.

The warm spring weather and summer rains bring many otherwise nondescript plants into bloom. Many will flower once in the spring and a second time only if it rains. The tall orange-red flower seen along the desert portion of the road between Wupatki and Sunset Crater is the desert paintbrush. As with poinsettia and bougainvillea, the colorful part of the paintbrush is not the flower but specialized leaves. Globemallow has small orange cupped blossoms and is often seen along the road. The white flower blooming in spring in profusion around Wukoki ruin is Peeble's Blue-Star, a rare plant found only in the Little Colorado River valley. Prince's Plume, a member of the mustard family, produces bright yellow flowers on tall thin spikes.

A large flowering shrub is the Apache Plume. Apache Plume has a white flower reminiscent of the wild rose to which it is related. After the flower dies, the clusters of seeds develop long pink feathery tails. Apache Plume has traditional medicinal uses and was also used to make arrows and brooms.

In the western half of the park, several plants form clumps of bright yellow flowers. Snakeweed is a small bright green plant with masses of very tiny flowers. Paper flower has larger more distinct blooms. Rocky Mountain Zinnia, a wild relative of the common garden plant, is also yellow but has an orange center.

The most dramatic plant seen at Wupatki is Sacred Datura, or Jimson Weed. This dark green sprawling bush has large, white, heavily scented, trumpet-shaped blossoms which bloom in the morning and evening. Every part of the plant is highly poisonous.

As you travel the road between Sunset Crater and Wupatki National Monuments, you can see remarkable changes in vegetation in very short distances. The plants that live here are just one part of a large natural system. If they differ from one area to another, look to see what else has changed. The elevation, rainfall, frequency of fire, type of soil, and animal life all affect or are affected by the kinds of vegetation.

When admiring the plants of Wupatki, please leave the blossoms for others to see; allow the seed pods, fruits and pine cones to produce another generation of plants.

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