

NATIVE PLANTS of the Vermilion Cliffs



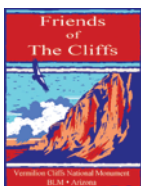
Plan Ahead AND Prepare

The best preparation for experiencing Vermilion Cliffs National Monument is to stop by the Bureau of Land Management's (BLM) Paria Contact Station or the BLM Visitor Center in Kanab, Utah before beginning your journey. These locations have maps and the latest information on road and hiking conditions.

There are no developed hiking trails in the monument and some areas require advance permits. Terrain is rarely level so bring sturdy, lightweight shoes for hiking on rough or sandy terrain.

There are no paved roads in the monument. A high clearance, 4WD vehicle is strongly recommended due to deep sand. Make sure you carry a spare tire and shovel in your vehicle.

For any desert adventure, tell someone where you are going and when you plan to return. Bring plenty of water and food.



Photos: Wendy Hodgson, Max Licher, Amy Prince, Kate Watters

Vermilion Cliffs is a 280,000-acre national monument designated in 2000 for the protection of its spectacular geology, rich cultural history, abundant wildlife, and unique combination of cold desert flora and warm desert grassland. This remote monument extends across a 4,000-foot elevation gradient, contains habitats ranging from riparian desert oases and slickrock badlands, to ponderosa pine transition zones. It is home to over 500 plant species.

Plant Communities IN VERMILION CLIFFS

Sandstone formations on the Paria Plateau support a unique variety of plants including dwarfed, or “bonsai” ponderosa pine trees. These trees may be relics of a time when the climate was cool and demonstrates how plants adapt to a changing climate.



Along the base of the Vermilion Cliffs are more than thirty small springs. These springs are hotspots of biodiversity and home to a rich variety of plant species. They provide shady, moist habitat and drinking water for small and large mammals, birds, and reptiles.



BIOLOGICAL SOIL CRUST is the backbone of desert plant communities. Crusts prevent erosion, promote soil fertility, and make atmospheric nitrogen available for plants to use.



Paria Plateau pincushion (*Sclerocactus sileri*) is a federally designated critically imperiled species and its range is restricted to only a small part of the Colorado Plateau. It is extremely tiny, barely protruding from the sand, but the peachy-yellow flowers it bears in April demand your attention.

RARE PLANTS OF VERMILION CLIFFS

Welsh's milkweed (*Asclepias welshi*), a federally listed threatened species, grows only on active, sparsely vegetated sand dunes. It is specially adapted to this harsh environment with deep, spreading roots. This milkweed has short, dense hairs covering its leaves, and spiny fruits. Education and regulations that protect dune habitat from off-road vehicles has helped to preserve the few populations that remain.



TREES



Pinyon pine



Utah juniper

Native Plants
OF VERMILION CLIFFS

FORBS



Sand penstemon



Sacred datura



Indian paintbrush



Tufted evening-primrose



Desert globemallow

TREES

Pinyon pine (*Pinus edulis*): Trees can grow up to 35 feet tall; their age is deceptive as trees with 10 inch diameter trunks may be 100–150 years old. The cones produce delicious pinyon nuts harvested by humans, animals and birds.

Utah juniper (*Juniperus osteosperma*): Trees grow no higher than 15 feet tall and produce lavender-blue berry-like miniature cones with a powdery coating. Native Americans use many parts of juniper for medicine and ceremonial purposes and the berries for beaded necklaces that offer them protection.

FORBS

Sand penstemon (*Penstemon ambiguus*): Unlike most penstemons, this species is shrub-like, forming a semi-woody mound up to three feet tall and wide. The pale pink flowers bloom prolifically and resemble pink cushions in the late spring through summer.

Tufted evening-primrose (*Oenothera caespitosa*): The large, delicate white flowers bloom in the evening unleashing a fragrance that attracts sphinx moths—large moths that look like hummingbirds and unfurl their proboscis to reach the nectar at the bottom of the long flower tube.

Sacred datura (*Datura wrightii*): Another night-blooming showstopper, the giant blossoms of datura make an audible pop when they unfurl each evening, also attracting sphinx moths. The leaves and flowers contain toxic alkaloids that can cause illness and even death to humans. Juicy green sphinx moth larvae feed on the poisonous leaves and gain protection from predators who have learned to avoid them.

Indian paintbrush (*Castilleja linariifolia*): The vermilion flowers appear like bursts of flames. Paintbrush seedlings initially rely on their own resources, but as plants mature they become partial parasites, utilizing the roots of grasses and shrubs for nourishment.

Desert globemallow (*Sphaeralcea ambigua*): During a wet spring the flowers of globemallow transform the desert with their apricot glow. Roots, leaves and flowers have healing properties and are used extensively by Native peoples.

SHRUBS



Sand sage



Rabbitbrush



Mormon tea



Rosemary-mint



Grizzly bear prickly-pear



Apache plume



Navajo yucca

SHRUBS

Sand sage (*Artemisia filifolia*): The wispy gray-green narrow leaves are pleasantly aromatic, especially after a summer rain. Its flowers are tiny and inconspicuous until it blooms in August through mid-September, producing copious amounts of pollen.

Rabbitbrush (*Ericameria nauseosus*): Rabbitbrush colonizes disturbed areas, and its small flowers conspire to create a beautiful golden glow when they bloom in the fall. The foliage and seeds provide valuable forage for rabbits, birds and browsing animals. Several varieties occur in the monument.

Mormon tea (*Ephedra viridis*): Mormon tea has erect, evergreen jointed stems, with vestigial leaves appearing like tiny crowns at the nodes. They produce cones and are closely related to pines and junipers. Native peoples and early settlers brewed a tea from the stems that has a strong diuretic effect. Its relatives in China and India are a source of the drug Ephedrine, an herbal stimulant.

Rosemary-mint (*Poliomintha incana*): This showy sand dune resident produces pale purple flowers characteristic of the mint family, from April through September. The aromatic leaves are clothed in minute, felt-like hairs, giving it a silvery appearance.

Grizzly bear prickly-pear (*Opuntia erinacea*): This low-growing prickly pear is covered in dense, white spines that give it a shaggy, unkempt appearance. The pink or pale yellow blossoms are followed by reddish-green fruits that dry brown. This species is frost tolerant and grows at elevations up to 7,000 feet.

Apache plume (*Fallugia paradoxa*): The solitary, graceful 5-petaled white flowers mature into feathery seed clusters, thus the common name given to the seed heads: Indian feather war bonnets. Native peoples used the slender branches for arrows and brooms; its leaves supply animals with winter forage.

Navajo yucca (*Yucca baileyi*): This low, densely clumped yucca produces a stalk of creamy white succulent flowers that arise from rosettes of narrow leaves. Native peoples use the leaf fibers to make a wide assortment of practical and ceremonial items. They also use the roots as soap.