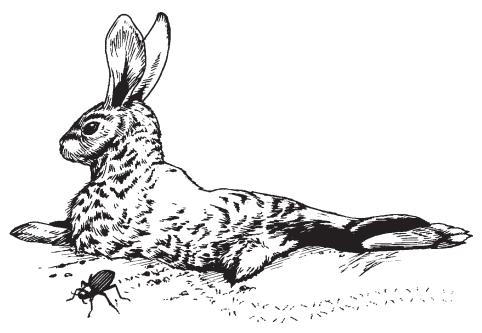
Petrified Forest National Park Petrified Forest, Arizona



# Grassland



## The Living Park

Although Petrified Forest is best known for its fossil clues to an ancient environment, it is also a *living* Park. Despite its seemingly barren appearance, Petrified Forest National Park supports hundreds of plant and animal species. The main environment of the park is classified as Intermountain Basins semidesert shrub steppe and grassland. Grasslands throughout the world are muchabused, little known ecosystems. In North America, grasslands are one of the most endangered environment, fragmented by development, overgrazing, and overuse. Petrified Forest National Park preserves some of the best remnants of grassland in northeastern Arizona.

#### Grassland



Too often, visitors hurry through the grassland. It seems to offer little in the way of scenery. Since the park has been protected from cattlegrazing for many years, much of the natural diversity of the grassland has returned. The dominant plants are grasses, over one hundred species, many native to the region. Although the miniscule blossoms of grasses usually go unnoticed, other types of wildflowers are abundant throughout the wide-open spaces of the grassland, such as luminous evening primrose, golden mariposa lily, and intensely blue flax. Larger shrubs form islands within the sea of grass, including several species of soft turquoise sagebrush, saltbush festooned with papery seedpods, and rabbitbrush gilded with bright yellow flowers.

Native perennial bunchgrasses grow in distinct clumps. With a variety of fascinating seed heads that resemble plumes, eyebrows, and miniature trees, a few of the native grasses include blue grama with its eyelash seed heads, sacaton (the tallest native bunchgrass in Arizona), sideoats grama sporting fringes of seeds, bearded sprangletop, and bush muhly. However, introduced annual lovegrass and brome crowd out many of the slower spreading natives.

Some of the animals that visitors see along the park road through the grassland include

pronghorn, jackrabbits, and prairie dogs. Pronghorn are permanent residents of the grassland, unique to this continent. Although females can grow small horns, the males are crowned with a much larger pair. Unlike true antelope found only in Africa and Asia, pronghorn shed the outer sheath of their dark horns, to be grown again next year. Pronghorn are the fastest land animal in North America, sprinting up to 60 mph. Predators, such as coyotes, seldom hunt healthy adult pronghorn.

Black-tailed jackrabbits have huge ears that act as air-conditioners. Their thin-walled ears are a maze of blood vessels, promoting heat exchange. Jackrabbits often fall prey to predators, such as coyotes, foxes, and hawks.

Gunnison's prairie dogs operate prairie apartment houses. Living in large communities called coteries, prairie dogs depend on each other for safety. While most of the coterie is feeding, guards watch for golden eagles, coyotes, and other predators. A sign of danger raises the alarm, sending all the prairie dogs racing to the safety of their many burrows. Prairie dogs are the apartment managers of the grasslands, dozens of species of other animals finding homes and food around their towns.

## **Riparian Corridor**





Bisecting the grasslands, washes, streams, and rivers provide a higher concentration of moisture for plants and animals. Trees and shrubs line the watercourses in narrow galleries, offering food and shelter for many amphibians, birds, reptiles, mammals, and insects. Willows and cottonwood are the larger native plants that find a home in the riparian areas, along with rushes, sedges, and other water-loving plants.

The abundance of life in this area lures predators. Bobcats and bullsnakes hunt smaller animals, such as deer mice and white-tailed antelope ground squirrels. Tiny western pipistrelle bats dart among the trees, snapping insects out of the night air. Blond-furred pallid bats search for scorpions on the ground.

Riparian habitats of the West are being invaded by an insidious alien. Tamarisk, also known as saltcedar, is from Eurasia. Invading tamarisks prevent native plants from surviving, by crowding and demanding most of the available water, sometimes completely drying up a water source. These alien plants also increase soil salinity by exuding salt through their leaves, killing native grasses, herbs, shrubs, and trees. Most animals do not eat tamarisk foliage and the seeds are too small to provide food for birds or rodents. The dense, bushy foliage of the tamarisk also obscures visibility, turning animals away from water sources for fear of predators. There is an ongoing battle against tamarisk in Petrified Forest National Park and other western parks.

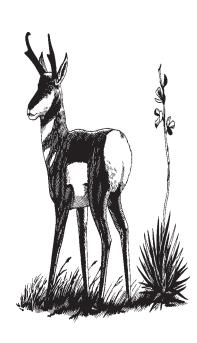
The riparian community is cooler than the surrounding grassland. People as well as animals and plants find shelter in the shade beneath elegant, whispering cottonwoods. The riparian habitat is truly an oasis.

### **Painted Desert Rim**

Due to difference in soil and moisture, a small, unexpected woodland winds along the rim of the Painted Desert. In contrast to the bare clay hills of the badlands below, this woodland is lush with shrubs, small trees, grasses, and herbs. The volcanic Bidahochi Formation provides nutrients, soil stability, and moisture retention

absent in the badlands hills. During the spring and summer, wildflowers add color to the landscape and perfume to the air. Small animals find food and shelter among the denser foliage. Occasionally a mule deer may be spotted among the cliffroses.

#### Seasons



Petrified Forest is a dynamic environment. In a land that initially appears sparse and barren, there is life. Through the extremes of temperature and moisture, both plants and animals survive by both behavioral and physical adaptations. Temperatures can soar over one hundred degrees Fahrenheit in the summer and drop well below freezing in the winter.

Spring and summer are the prime growth seasons of the park. The tall branches of cliffroses are heavy with fragrant, cream-colored blossoms. Small plumed seedpods replace the flowers, which are dispersed by wind or by catching rides on the pelts of passing animals. The bright yellow blossoms of skunkbush sumac give way to tart maroon berries. Intense magenta flowers cover the small rounded shrubs of four o'clocks. Bright regiments of white-flowered peppergrass line the roads. During spring, the wind can be unrelenting, helping to erode the fantastic landforms of the region.

Summer brings the monsoon season, thunderstorms inundating the surface of the park, causing flash floods. Dry washes and riverbeds fill with rushing, silty water.

After the monsoons of summer have gone, autumn offers some refreshing color to the

park. Skunkbush sumac paints its lobed leaves ochre and red. The last of the rubber rabbitbrush and snakeweed are crowned with the remains of golden flowers. Cottonwoods are a-flutter with brilliant yellow leaves. Asters are starred with purple blossoms. Hemispheric mounds of golden buckwheat become rusty red. Papery seedpods of saltbush blush copper and rose. It is a concert of color before the oncoming winter.

Infrequent snow can make a sparkling wonderland of the park, frosting sagebrush and dusting the badlands as many animals migrate or retreat into the warm protection of burrows. It is a time of quiet, waiting for the reawakening in spring.

Spend a moment in the grassland. You may spot a kestrel swooping down to catch a silky pocket mouse, watch pronghorn browsing among saltbush, or catch sight of prairie dogs dashing for their burrows. Underestimated, grasslands provide wide vistas, colorful flora, and fascinating animals. Petrified Forest National Park preserves and protects this American landscape for contemplation and enjoyment of generations to come.

Please remember Petrified Forest is a national park and federal law protects everything within its boundary. Animals and plants are a natural part of the park. Here, you are in their home; please respect them.

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