



Fire in the Desert

Joshua Tree National Park

Fire in Nature

Fire plays an important role in forests, grasslands, and other natural communities throughout the world. Some plants reproduce better after a fire. Fires can remove dense grasses and shrubs which compete for food and water with trees. Nature is constantly changing and fire is a part of that change.

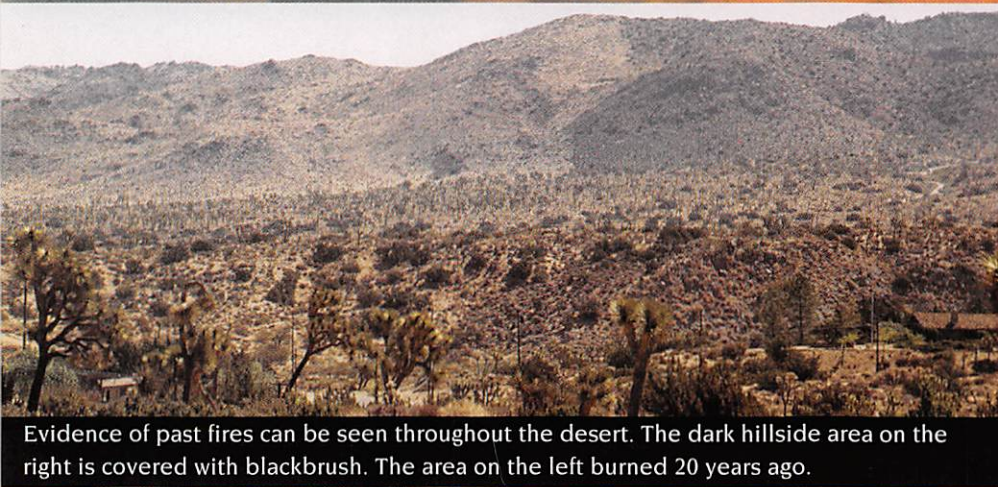
Fire is also important in deserts. Fires are not as common in deserts because there is less to burn - shrubs

are usually widely spaced and grasses not as abundant as in wetter areas. Nevertheless, the desert we see today in Joshua Tree National Park is the result of centuries of lightning-caused fires.

When we suppress fires an important natural process is stopped. In nature, fire returns nutrients to the soil. It breaks up big stands of vegetation into a mosaic of smaller patches. It changes the vegetation growing in the area from one type to another.

Most desert plants are highly susceptible to fire. Their shallow roots are easily burned. Seeds lying on the ground waiting to germinate are quickly destroyed.

As in a forest, recovery is slow after a fire. Joshua trees can live for hundreds of years. If one burns, it will take that long to grow back to full size. Even small shrubs like blackbrush may require 50 years to return to a burned area. As devastating as it may appear, fire is still a natural process. The desert does grow back.



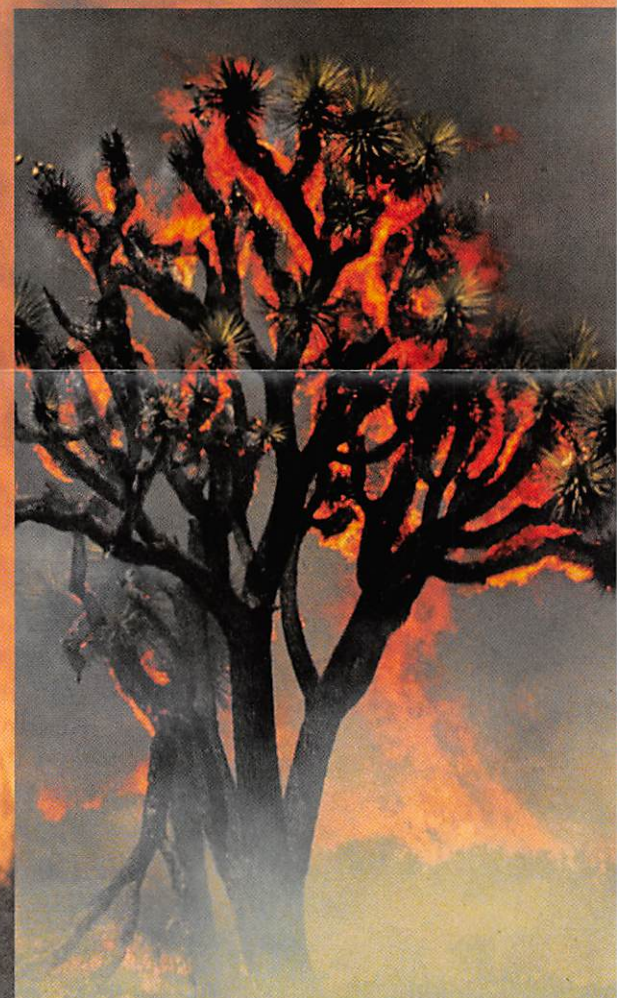
Evidence of past fires can be seen throughout the desert. The dark hillside area on the right is covered with blackbrush. The area on the left burned 20 years ago.

Fire History

Records of fires in the Park date back to 1945. Seventy-four percent of the fires were started by lightning. The remaining 26% were human caused. Most of the fires occurred between May 18 and September 20. All fires were fought by California Department of Forestry and Federal agency personnel.

The number and intensity of lightning fires has increased over the past 50 years. Before 1965, most lightning fires burned 0.25 acre or less. After 1965, many more large fires were reported. This may be due to an increase of grasses due to more rainfall, less cattle grazing, and the introduction of (non-native) species of grass. Since 1979, the Park has averaged four Class B fires (burning .25 to 9 acres) per year. All of the larger fires have occurred in the western half of the Park.

Two large fires burned in recent years. In 1979 the Quail Mountain Fire burned 6,000 acres. The 1995 Covington fire burned 5,158 acres. Both fires were started by lightning strikes.



Fire Management

Joshua Tree National Park has a Fire Management Plan with two main objectives. Most important is the protection of human life and property both within and adjacent to the Park. The second objective is to allow fire to play its natural role in the Park's plant and animal communities whenever possible. To help carry out the Plan, the Park is divided into three fire management units:

- Unit #1** - In this area, all fires are suppressed. The entire park boundary (3 mile wide buffer zone) is included in this unit. The Lost Horse and Hidden Valley area are also included. In addition, fires are suppressed around campgrounds and historic structures throughout the Park.
- Unit #2** - Man-caused fires are suppressed but lightning fires may be allowed to burn *only if certain conditions are met*. These conditions include wind speed and direction, air temperature, fuel moisture, and location. Thirty-seven percent of Park acres are within this unit.
- Unit #3** - This is a small unit near Yucca Valley, Black Rock Ranger Station, and Quail Wash in the northwest corner of the Park. All man and lightning - caused fires are suppressed here but on occasion the Park Service will deliberately burn vegetation for fire protection purposes. These fires serve to reduce fuel available for future fires, reducing hazard to the local communities.



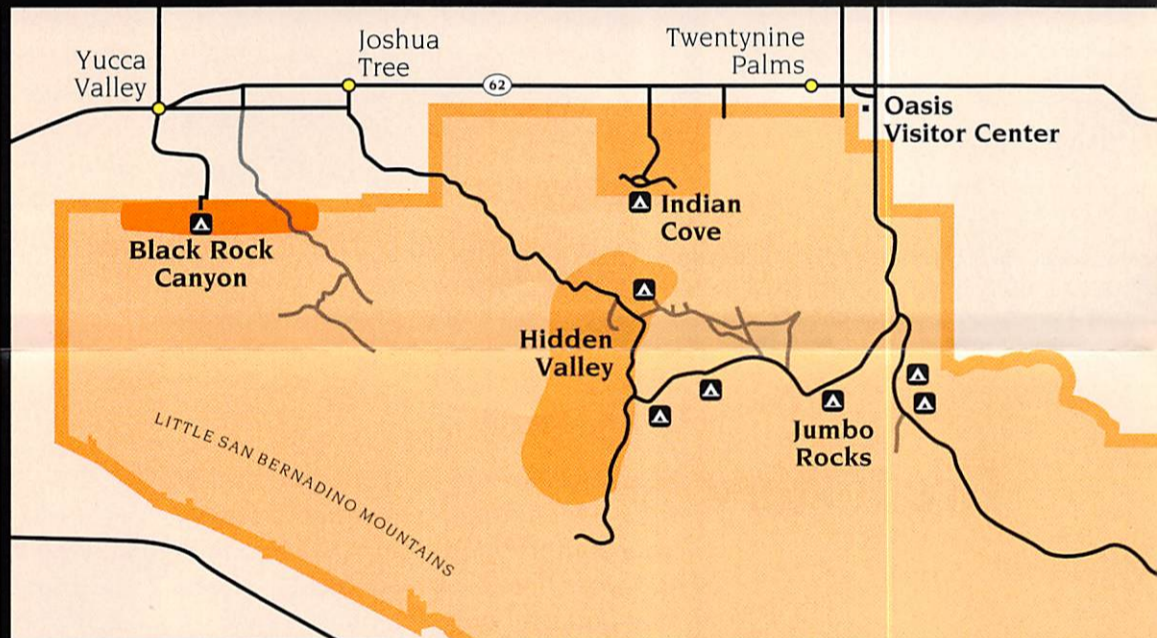
Management will burn some areas to reduce the fire hazard.

Fire Management Units Joshua Tree National Park (western section)

- Unit #1
- Unit #2
- Unit #3
- Campgrounds
- Roads

0 5 Kilometers
0 5 Miles

North
↑



Careful Stewardship

The National Park Service has a responsibility to manage fire within and near park boundaries. The million people who visit the park each year and the thousands of people who live near the Park also have a responsibility.

We can't stop the lightning and don't want to, but human-caused fires are considered unwelcome and may be dangerous. Lightning-caused fires occur with a particular frequency and timing. This is an ecological process as old as the hills. But human matches and carelessness accelerate and alter the process. Park visitors must be careful with every match or flame.

Nearby landowners also need to be careful with fire. Preventive measures, such as keeping flammable vegetation away from homes is an absolute necessity. Firefighters will do their best, but much responsibility rests with home or business owners living near the Park.

