

# Big Cypress

National Park Service  
U.S. Department of the Interior



Big Cypress  
National Preserve



## A Land Shaped By Fire

*During the transition between winter's dry season and the summer's rainy season, frequent lightning strikes often start natural fires within the Big Cypress Swamp. Over time, these fires have encouraged the growth of many plant communities adapted to fire. Recognizing the value of fire in the ecosystem, Preserve managers utilize fire in order to maintain these natural communities.*

**F**ire! The word can evoke different feelings and emotions in different people. At Big Cypress National Preserve, natural lightning fires were a regular feature of the land before the development of roads and human settlements. Now, however, when lightning fires start, they can threaten both life and property. While natural lightning-caused fires are unpredictable in where and when they start, the use of prescribed fire allows management of the natural process under a more controlled situation. If vegetation is allowed to accumulate, the excessive fuel buildup can result in extremely hot, catastrophic fire that may damage soil and prevent native plants from regenerating. Prescribed fire reduces the fuel buildup and allows for the release of nutrients back into the ecosystem.

In South Florida, the diverse mosaic of sawgrass prairies, cypress sloughs, hardwood hammocks, pine forests and other habitats evolved over centuries because of regular disturbances from fire caused by lightning strikes. Fire provides multiple benefits, such as burning away exotic invaders and heavy fuels and then recharging the soil

with ashy nutrients that will feed new growth, luring back wildlife and birds.

### Suppression

Visitors to the Preserve often ask, "How do you put a wildland fire out?" The answer is both simple and complex. All fires that are suppressed are treated similarly, with firefighter and public safety being the primary objective.

All actions come back to the fire triangle that is taught in elementary school. To put out a fire, either heat, fuel or oxygen must be removed from the equation. In nature, it is difficult to remove oxygen, so heat and fuel are the components most vulnerable. Putting dirt or water on fire does remove the heat and oxygen from the fuel and a single person using a hand tool such as a shovel, rake, or flapper may extinguish small fires. Larger fires require more people and equipment such as engines, pumps or helicopters. In many cases, the safest way to stop an advancing fire is to "burnout" the fuel before the main fire has a chance to get to it. Simply put, "Fight fire with fire."

### Good Fire or Bad Fire?

- Fire has helped shape the land for thousands of years, and is important for the survival of many plants and animals.
- When paired with the right terrain and weather conditions, a dense build-up of vegetation can lead to fires that burn hotter, last longer, and spread faster. As

- a result, these fires become difficult to manage and can threaten areas of residential development.
- Sometimes, it may be necessary and beneficial for land managers to start fires in a closely monitored area.
- Big Cypress National Preserve supports one of the largest fire management programs in the National Park System, burning over 80,000 acres each year.

### Prescribed fire

Prescribed fire is a planned fire, also called a “controlled burn,” and is used to meet management objectives. Planning carefully considers the safety of the public and fire staff, as well as the weather and probability of meeting the burn goals. Before any prescribed fires are permitted, the Preserve must complete a Fire Management Plan and a prescribed burn plan. Each prescribed fire must meet all the conditions identified in a “Go/No Go” checklist before ignition.

In most National Park Service units, prescribed fires are used to meet goals, while carefully allowing lightning-caused fires to burn. Prescribed burns in the Preserve have been used to reduce hazardous fuel loads near developed areas, manage landscapes, restore natural habitats and for research purposes.

Fuel reduction projects and vegetation treatments have been proven as a means to lessen catastrophic fire and its threat to public and firefighter safety, and damage to property. The objective is to remove enough fuel so that when a wildfire burns, it is less severe and can be more easily contained. When fuels are allowed to accumulate, fires may burn hotter, faster and with higher flame lengths. When a more severe fire encounters areas of continuous brush or small trees, it can burn these “ladder fuels” and may quickly move from a ground fire into the canopy, causing a crown fire. Controlled burns reduce the amount of fuel on the ground, as well as areas of thick brush, therefore reducing the chances of a more severe crown fire.

### What benefits from fire?

Sawgrass prairies and pinelands benefit from burning. Many pine, flower and grass seeds flourish just after a moderate fire has swept through, releasing nutrients that allow these fire adapted plants to grow. It doesn’t take long for the green shoots of sawgrass to peek through the blackened soil. On average, new growth will occur within a week of the fire.



Additionally, many animals benefit from the effects of fire. Some species, such as the red-cockaded woodpecker (above, right), thrive in forests that depend on fire. Fire reduces the ladder fuels in pinelands, fuels which can aid snakes in reaching the woodpeckers nests. The new growth of sawgrass after a fire is a favorite forage for whitetail deer (above, left), which in turn feed the endangered Florida panther. In this way, fire has become an important tool in the management of an endangered species

### How can you help?

We encourage visitors to be Firewise, while visiting the Preserve and at home. If camping, make sure your campfire is extinguished before leaving your campsite. Be aware of hazardous fuels around your home, including materials accumulating on the roof or in the gutters. Clear material from around your home for at least 30 feet, to create a defensible space in the instance of a wildfire.

Prescribed burns occur on a daily basis in the months of November through April, when weather and fuel conditions are ideal.

To ensure a safe visit, please avoid areas where prescribed burns are taking place. Be aware of smoke on the roadways and emergency personnel who may be working nearby.

For more information on closures, or for updates on fire activity, please stop by the visitor center, or call 239-695-1201 or 239-695-4758. Additional information can be found at [www.nps.gov/bicy](http://www.nps.gov/bicy).



These time lapse photos show the rapid regrowth of vegetation after a fire. Top to bottom: pre-burn, immediately post-burn, two months post-burn.