

Fire: A Natural Force

Fire is a natural force that has been operating in Yellowstone ecosystems for at least the last 12,000 years. In the late 1800's, the advent of European man effectively stopped fires for nearly 100 years. In 1972, Yellowstone began allowing some lightning-caused fires to burn themselves out, acknowledging the natural role of fire in sustaining the forests and grasslands of the park. All park fires, whether man-caused or natural, are managed according to criteria in the park's fire management plan. Natural fires are continuously monitored and tactics are planned daily. Fires which threaten adjacent public or private lands, gateway communities, and villages or significant resources in the park, are suppressed with the same vigor applied to fires on other public lands.

Fire Management Plan

Yellowstone's fire management plan, approved by the National Park Service, other Department of Interior agencies, and the U.S. Forest Service, has four basic goals:

1. To permit as many lightning-caused fires as possible to burn under natural conditions.
2. To prevent wildfire from destroying human life, property, historic and cultural sites, special natural features or endangered species.
3. To suppress wildfire in as safe, cost-effective and environmentally sensitive ways as possible.
4. To resort to prescribed burning when and where necessary to reduce hazardous fuels (fuels are primarily dead and downed trees).

During the past 16 years, the park has been guided by these objectives and we have learned by our experiences. We have discovered, for example, that tens of thousands of lightning strikes fizzle out and burn no significant acreage at all. We have learned that of the hundreds or thousands of strikes that reach the ground, lightning produced about 140 natural fires that burned only an average of 250 acres each before dying a natural death. Eighty percent of the fire starts go out by themselves, burning less than one acre. During these years we have lost no human lives, had no significant human injury, or lost any park structures or special features, and have created, not destroyed habitat for threatened or endangered species.

1988 Fire Conditions

This year conditions are very dry - unprecedented - which has contributed to more extensive fire spread than at any time in the past 16 years, and perhaps since the drought years of the 1930's. Early in the summer about 20 lightning-caused fires were allowed to burn, and for a number of weeks behaved as they had in previous years. Eleven of these fires died out on their own, confirming at the time, that fire behavior was similar to our experiences in the past. But almost no precipitation fell in June or July (this has never happened in the park's 112-year weather record), and fire conditions changed dramatically. Veteran fire officers began noting fire behavior they have never before witnessed. Lightning-caused fires that exceeded the previously defined prescriptions were reclassified as destructive wildfires and are being suppressed when they threaten developments.

Coping With Extreme Conditions

Fires under these conditions can, and are being manipulated, guided and/or suppressed, but the simple fact is that without help from the weather (rain or snow), there is no power or technology available to extinguish them.

Suppression tactics are planned on a daily basis, emphasizing those methods that will leave the least lasting impact upon the park resources, while still protecting developments. Interagency teams manage the fires under a delegation from the Superintendent, who defines his objectives and concerns for each fire. In addition, he assigns his representatives to work with each fire team providing continuous dialogue on acceptable alternatives and tactics.

Rebirth and Renewal

Finally, but very importantly, there is a positive and pragmatic side to the fires we see today. While many people only see destruction and devastation, these fires are in fact a rebirth, a renewal, of the park ecosystems. They represent the end of one important life cycle but assure the beginning of the next.

The vegetative mosaic we see was created by numerous fires over the past 200-300 years and provides a varied habitat for the rich diversity of wildlife that abounds in the park. Elk, deer and grizzly bears will greatly benefit from the results of these fires. Bird populations generally thought to be in decline, such as mountain bluebirds and three-toed woodpeckers, will go through something of a population boom.

The growth of the new biotic community begins immediately following the burn. Some insects begin to use the new food source provided by freshly killed trees. Root stalks of many plant species begin to resprout. By the fourth growing season the forest floor is essentially a mat of grasses, flowers and shrubs. Seedlings of future forests (fir, spruce and pine) become established. Plant growth is lush and vigorous because of abundant mineral nutrients available from the ashes and because of increased light levels. In fact, many plants actually need fire to enhance their survival in the vegetative community.

And what about the effect of these fires on future fire activity? Vegetation capable of sustaining another major fire is quite rare for decades following the burn. Lightning strikes and even firebrands from a neighboring forest fire can only ignite small spots. A mosaic of young and mature plant communities provides a natural firebreak, reducing the number of fire starts and limiting fire size over time while sustaining a greater variety of animal species.

If you visit Yellowstone during natural fire activity, you may witness the natural shaping of Yellowstone's ecosystem by this vital component.

Have A Safe Visit

Smoke from fires can reduce visibility; use your headlights and reduce your driving speed when travelling through smoky areas. Be extra alert for slow or stopped vehicles, and watch for wildlife on the roads.

Prolonged hot, dry conditions may cause extreme fire danger. Be sure your campfires are completely out before retiring for the night or leaving your campsite. Backcountry campers: campfires may be prohibited in the backcountry. Check with a ranger when you plan your hike. Carefully extinguish all cigarettes and matches, and dispose of them in ashtrays or garbage cans.