

# Fire

*There have been an increasing number of prescribed fire projects based on the Healthy Forest Initiative on National Forests in the region. While parts of Southern Appalachian Forests require a natural fire regime, it is important that fire not be applied to areas where it is not needed. Burning portions of our diverse and varied landscape could kill non-fire adapted herbs, shrubs and trees, shifting the makeup of our forests. It is imperative that fire management is based on the ecology of **Southern Appalachian** forests and not other regions, like the west.*

Fire naturally played a role in Southern Appalachian forests, but it was a role very limited in comparison to the West. Natural fire ignitions occurred from lightning strikes on ridges, primarily during the summer. These lightning fires would burn the dryer habitat but extinguish as they burned down the slope and encountered moister conditions. In addition to being rare, (2-6 lightning ignited fires per million acres) these fires were relatively cool and rarely killed or burned all trees.



On the other hand, large portions of our Southern Appalachian forests, particularly mesic (moist) forests, would not have naturally burned. Species in these forests are not fire adapted; and the species mix can be changed if fire is artificially introduced in these forests; naturally occurring species, would be eliminated or marginalized.

The interspersed nature of these fire intolerant forest communities illustrates that fire **does not** gain momentum to burn across the landscape. Fire in the Southern Appalachians is fine textured, burning primarily on ridges and south slopes and being limited by mesic habitat. In moist years these fires go out quickly as they burn down slope and encounter moist conditions.

While a natural fire regime is needed, we must resist the push to ignite fire projects across the landscape. Fire projects should be tailored to fit the ecology of the forests.

# The Limited Role and Scale of Southern Appalachian Wildfires

The limited scale and role of wildfire in the Southern Appalachians is documented in statistics found in draft management plans recently released by the Forest Service.

## **Limited Role of Fire in the Southern Appalachians**

Forest	Ave. fires per year	Acres	Percent human caused
Jefferson GW	44	1,475	81%
Chattahoochee	135	1,428	76%
Sumter	30	2,000	90%
Alabama	92	1,963	87.5%

\* Data for other regional National Forests is not displayed, but is similar.

## **Small Size of Wildfires**

On the George Washington-Jefferson National Forest 73% of all wildfires were less than 10 acres in size. Only 1% of wildfires were 1,000 acres or greater. This pattern is also reflected in an analysis of the 79 year period between 1915 and 1993 on the George Washington National Forest with 76% of fires being less than 10 acres and only 1% being greater than 1,000 acres. On the Chattahoochee-Oconee only 0.4% of the fires were greater than 300 acres. On the Sumter 14% of fires were larger than 10 acres.

Individual wildfires averaged 33.5 acres on the George Washington–Jefferson National Forest, 13.2 acres on the Chattahoochee-Oconee National Forest, 6.7 acres on the Sumter National Forest, and 21.6 acres on Alabama National Forests. The average wildfire in the Southern Region during the period between 1999 and 2003 averaged 43 acres.

## **Our Largest Fires are of Limited Extent**

Any fire is cause for concern and should be monitored and controlled if it enters the wildland urban interface or threatens life and property. However, it is important to put the wildfires in the Southern Appalachians in perspective. On the George Washington-Jefferson NF the largest lightning ignited fire during the 1987 - 2001 period burned 382 acres. The largest human ignited fire burned 2,151 acres. The largest lightning fire on Alabama National Forests during the 1989 – 2000 time period was 200 acres. The largest wildfire on the Chattahoochee-Oconee from 1970 to 1999 was a 2,570 acre arson fire; the largest lightning caused fire burned 1,050 acres. Human ignited fires are generally set on lower slopes and burn upslope while lightning fires generally ignite on ridges and upper slopes and burn down slope. The human-set fires are generally larger because they can gain momentum burning upslope. It is also important to point out that even the largest of these regional fires do not burn everything; many trees survive in the path of these fires.