



Firewood Restriction Facts



Forests nationwide are being devastated by tree-killing insects and diseases that hitch a ride on firewood. These pests are a growing threat to the forests of the park.

Because of this threat, the National Park Service is requiring that campers use heat-treated firewood that is bundled and displays a seal issued by the United States Department of Agriculture (USDA) or a state department of agriculture. Campers may also use downed wood collected inside the park for campfires.

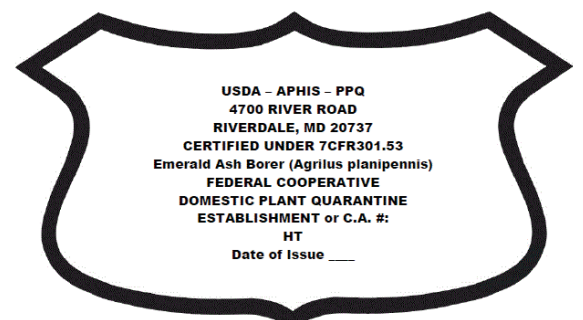
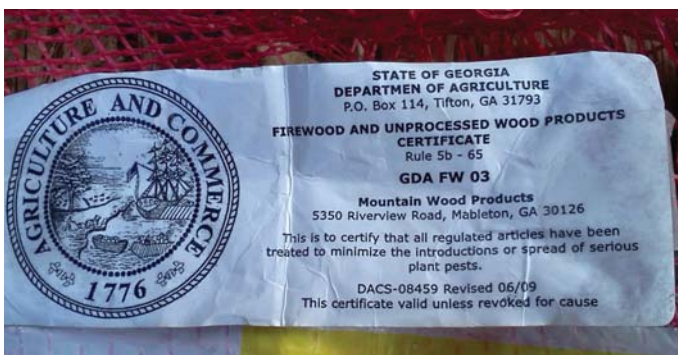
What kinds of firewood will be allowed? Where can I get it? Will it cost more?

Campers may still collect dead and downed wood in the park for campfires. Beginning March 1, 2015 only heat-treated firewood that is bundled and displays a seal issued by the USDA or a state agricultural agency may be brought into the park.

Certified heat-treated firewood is a high-quality hardwood product that lights easily, burns very well for campfires, is safe to cook over, and is already sold at many locations. The heat treatment kills insects and pathogens that may be in the wood. The current standard for emerald ash borer is 60° Celsius (140° F) for 60 minutes and it is considered effective on a number of pests. Kiln dried is a similar term but there are no time/temperature standards for the term.

Heat-treated wood is available from a growing list of businesses in communities around the park. Please visit www.nature.org/firewood-map for a list of available vendors near the park, or stop at a campground kiosk or park visitor center for a list. Concessioners at Cades Cove, Smokemont, and Elkmont will provide heat-treated wood for sale during their operating season (typically March through October at Smokemont and Elkmont and through December at Cades Cove).

Certified heat-treated firewood is packaged and clearly marked with a state or federal seal. The wood is packaged in bundles which are typically larger than non-heat treated bundles. The average cost per bundle is \$5.00, which is comparable to the cost of non-heat treated wood priced at \$4.00 - \$6.00 per bundle.



Samples of state and federal Department of Agriculture certification seals on heat-treated firewood. Seals from other states will vary in design.

Why can't I bring wood from my home? Aren't the pests going to get here anyway?

While a ban on the importation of non-treated firewood will not entirely halt the spread of destructive forest pests and diseases, it will greatly slow it down. Without being physically transported in firewood, these insects and diseases can't move far on their own, and will take longer to reach the park. This allows time to develop and implement treatment strategies that can control their impacts.

Unfortunately, many areas near the park already have infestations of invasive forest pests. Bringing local wood from home may

transport pests to new locations in the park, including your favorite campgrounds.

Another thing to consider—forest insects and diseases may be present in an area for several years before they are noticed and a quarantine is established. During this time, the pests can be spread to other areas in firewood. In addition, quarantines only cover known insects and diseases. Other equally devastating pests, which have yet to be recognized as a forest threat by quarantine agencies, may be living in the wood.

What type of pests live in firewood?

Movement of firewood has been implicated in the spread of gypsy moth, Dutch elm disease, emerald ash borer, thousand cankers disease of walnut, Asian longhorned beetle, Sirex wood wasp, goldspotted oak borer and other insects and diseases. Some of these pests live in or on wood while others produce fungal spores that can be transported on firewood.

Three that are of special concern to the park are: thousand cankers disease, emerald ash borer and Asian longhorned beetle.

Thousand cankers disease (TCD) is a fungal disease transmitted by a tiny wood boring insect, the walnut twig beetle. TCD was thought to be confined to western states until 2010, when a well-established infection with

significant mortality was identified on black walnut in Knoxville, TN.

Emerald ash borer was detected in the park in 2012 and could kill most ash trees. Because of rugged terrain and lack of access, only forests in limited areas of the park can be treated for the insects. The park shelters some of the finest white and green ash trees in North America, with some trees reaching 140' tall and more than 5' in diameter.

Asian longhorned beetle feeds on numerous species of trees. The insect has been found in north eastern states. Biologists believe that the spread of this pest to southern Appalachian forests would be catastrophic.

What's the threat?

Several of the pests currently threatening the country can live on more than one species of host tree. Asian longhorned beetle feeds on over 30 different species of trees that grow in the national park. European and Asian gypsy moth caterpillars feed on several hundred species of trees and shrubs—including oaks, which make up nearly 40 percent of the forest in Great Smoky Mountains National Park.

All in all, conservative estimates indicate that 50% of the park's trees could be killed or damaged by these pests.

Small mammals, bear, deer, and many bird species such as turkeys, depend on fruits,

seeds and nuts produced by walnut, oak, ash and other mast producing trees and shrubs. The reduced availability of hard and soft mast crops such as acorns and berries will affect many of the animals you visit the park in hopes of seeing.

Loss of the forest canopy and tree mortality may also cause stream temperatures to rise, impacting fish, amphibians, and the aquatic insects they feed on. In addition, the death of trees may lead to changes in fire behavior, exotic plant invasions, slope instability, changes in hydrology, and the associated increases in cost to mitigate these problems.

Did you know?

Ash is a valuable wood for making baseball bats due to its ability to provide flex on impact with the ball.

One large tree can provide a day's supply of oxygen for up to four people.

Tree leaves contain many colored pigments. Green chlorophyll hides them during the spring and summer growing seasons. Shorter days and cool temperatures in the fall cause the chlorophyll to break down and the other pigments to show.

All parts of the buckeye tree are toxic. Native Americans used crushed buckeye nuts to catch fish in pools of water. The fish had to be thoroughly rinsed before eating to avoid poisoning.

Wood from oak trees has such large pores you can blow air right through a lengthwise section, like a straw!

The Cherokee used hickory branches to make arrows and blowgun darts.