



January 16, 2009

## 2008 Forest Health Aerial Survey Highlights

### Mountain Pine Beetle

The mountain pine beetle infestation continues to be one of the highest priorities for the US Forest Service in the Rocky Mountain Region and for the Colorado State Forest Service (CSFS).

The aerial survey results for Colorado reveal that about 400,000 new acres were infested in 2007; these are acres that previously had not been affected by the bark beetle epidemic. The total number of acres now impacted by the mountain pine beetle epidemic is about two million from when the outbreak began in 1996. Larger diameter lodgepole, ponderosa, limber, and bristlecone pines are attacked and killed by mountain pine beetles. The current epidemic is primarily in lodgepole pines where their trunks that have diameter greater than five inches

Because of greater variability in the age, size, density and species diversity in the ponderosa pine dominated forests of the northern Front Range, the course of the mountain pine beetle epidemic and the severity of losses are difficult to predict with any degree of confidence. We suspect that tree mortality in ponderosa pine will be more variable than the losses observed in lodgepole pine forests west of the Continental Divide.

A strong and coordinated effort among all of those impacted by this infestation is the only way to address an epidemic of this size and severity.

The CSFS Granby District works with communities, landowners and local governments in Eagle, Grand and Summit counties to facility fuels reduction projects.

The CSFS Steamboat Springs District works with the USFS and other partners to address the risks associated with falling dead trees in campgrounds and other recreational areas in Jackson and Routt counties. Working with industries, the USFS and landowners, the district also is raising awareness about local wood utilization including pellets for heating and blue-stained wood for construction, furniture and crafts.

In the lower elevations of Larimer County where new MPB occurrence has been detected, the CSFS Fort Collins District has implemented mitigation and forest health projects in area such as Horsetooth Mountain, Cherokee Park and Red Mountain.

Forest managers are concerned about public safety. Red and dead lodgepole pine trees can fall at any time due to shallow roots. It is important to check weather conditions and stay clear of areas with red and dead trees on windy days. If you are in a stand of red and dead trees when the wind picks up, move into an open area.

See the attached “Mountain Pine Beetle Mitigation Accomplishments” page for more information on what is being done to mitigate the impacts of the mountain pine beetle epidemic.

## **Spruce Beetle**

Spruce beetle is killing extensive areas of high elevation old Engelmann spruce forests. Spruce beetle epidemics typically start in windthrown spruce where they infest downed trees, and then attack and kill standing trees. The most active infestations are occurring in southern Colorado. In 2008, aerial surveys detected 64,000 acres of beetle-killed spruce. The largest outbreak is spreading from the Weminuche Wilderness on the San Juan National Forest; Hinsdale and Mineral counties have exhibited the most dramatic impacts. Notable spruce beetle outbreaks also are occurring on the Rio Grande National Forest in Conejos and Rio Grande counties and on the San Juan National Forest in Archuleta County. A large spruce beetle epidemic on the Routt National Forest in Routt and Jackson counties killed much of the older spruce in this area between 2001– 2004. Active spruce beetle populations also have been detected by ground surveys on the Arapaho Roosevelt National Forest in Larimer County.

Foresters on the Pike San Isabel National Forest and on the Gunnison National Forest are removing recently windthrown trees to protect standing trees from emerging spruce beetles. In areas where the spruce beetle epidemic is killing trees, infested trees are being removed along with dead trees that are being salvaged for timber.

## **Aspen Decline**

Aspen decline continues to be a forest health concern throughout the Rocky Mountain Region. Ground surveys are the most effective method for assessing aspen problems, so the 2008 aerial survey adjusted its methods to focus more on aspen tree mortality and severity of damage. The aerial survey revealed a range of low, moderate to high levels of aspen mortality on 500,000 acres. Many areas, especially in western Colorado, have poor aspen regeneration beneath the declining trees. Entomologists and pathologists have found several insect and disease agents that are killing trees; scientists are evaluating areas for varying aspen regeneration response.

The Gunnison and San Juan National Forests are cutting dying aspen stands in several areas to encourage root sprouting and regenerate dying forests.

On a smaller scale the CSFS Montrose District works with private landowners in Montrose, Ouray and San Miguel counties to help regenerate their aspen forests by cutting dying trees and encouraging root and sprout.

The CSFS Grand Junction District conducts site visits for landowners in Delta, Garfield, Mesa, Pitkin and Rio Blanco to help address their concerns about sick aspen trees.

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In some areas of Colorado where MPB, spruce beetle and aspen decline is still at endemic levels, the Colorado State Forest Service and US Forest Service are working together to help prevent large-scale epidemics.

The annual aerial survey provides a rough snapshot of landscape-level conditions that foresters use to prioritize projects that address forest health restoration and wildfire risk reduction.