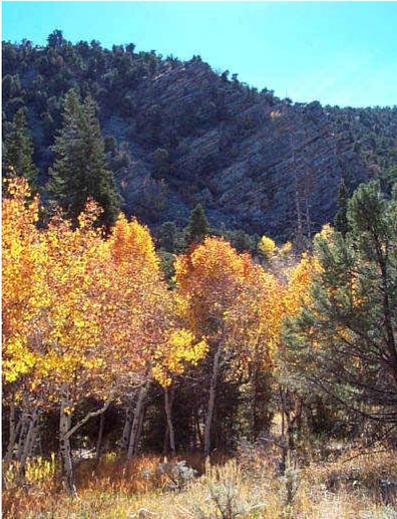


# Nevada Forest Health Highlights 2010



## The Forest Resource

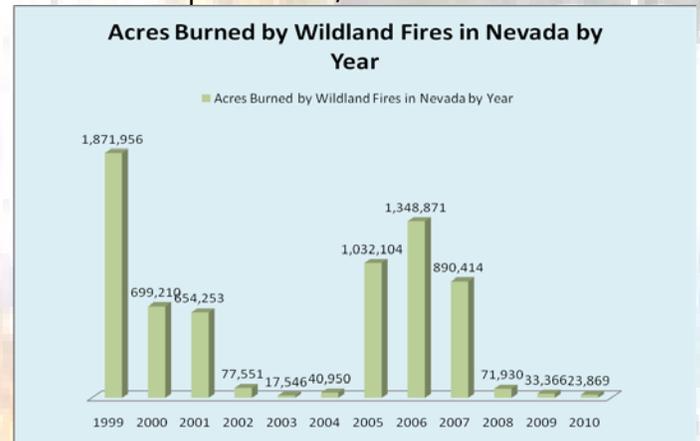
Nevada is unique in its forested component among the western states. The state is characterized by some 300 forested mountain "islands" separated by wide non-forested basins. Eighty-six percent of the state is non-

forest and about 83 % of the land is federally owned. Though the area of forest land is relatively small, the value of this resource is immeasurable in terms of commodities, recreational uses, and aesthetic properties. Healthy wildland and urban forests provide multiple benefits for Nevada's diverse population. Although little of Nevada's 11.1\* million acres of forestland produces commercial timber, it does provide other wood products, watershed protection, wildlife habitat and recreation opportunities. Together with the urban forests in the state's communities, Nevada's forests are a critical resource in this sparsely forested state.

The majority of the forested lands are publicly owned (92%). Approximately 866,989 acres of forest land in state and private ownership (using SWRegap data with the BLM 2007 land status layer data). From a statewide perspective, the majority (76%) of Nevada's forests are composed of pinyon and/or juniper species. Other forest types are restricted to the riparian areas and higher elevations in the state's 314 mountain ranges. Detailed information is available from the [Interior West FIA](#).

## Components of Change

Nevada's forests are host to several common pests which plague Western forests. Widespread stress to the trees - brought on by drought conditions - weakened individual trees creating favorable conditions for the pests. **Wildfire** is a major change component for Nevada's forest and rangelands. The year 2010 continued for the third year in a row to be a low acreage wildfire year with nearly 23,869 acres consumed compared to 33,366 acres in 2009.



## Forest Health Issues

In 2010, most of the estimates of mortality caused by insect outbreaks (acres affected and number of trees killed) remained the same or decreased significantly from 2009 levels mostly attributed to improved growing season moisture conditions. **The only increase was in pinyon needle scale** which increased 173% in 2010 with a total of about 1,161,000 acres. **Other defoliating agents decreased with pinyon sawfly acreage decreasing to 27,245** from 181,349 acres in 2009. **Mountain mahogany defoliation** decreased to 46,572 acres from 118,224 acres in 2009. Forest tent caterpillar defoliation on aspen decreased to 3,248 acres from 2009's to 5,789

acres. **Mortality agents that decreased included: Pinyon ips**, decreased 15% of 2009 figures in 2010 with approximately 3,000 trees being affected. **Mountain pine beetle (MPB)** mortality in limber pines was about half of 2009's 12,217 trees in 2010 down to 5,524 trees, while on whitebark, bristlecone and lodgepole pine mortality was similar to 2009.



Extensive pinyon needle scale defoliation on southern Pinenut Mountains, western Nevada

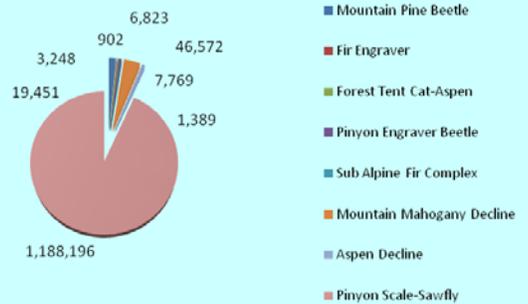
Pinyon needle scale defoliation 2009-2010



The following chart provides data on the main insect and disease agents causing damage to Nevada's forests based on observations from the air in 2010. These numbers are underestimates for the year because of limited aerial observations in some parts

of the state. Comparisons with other year's data can not be done directly because of this limitation.

### Principal Damaging Agents Detected from Nevada's 2010 Aerial Survey Showing Acres Affected



Sampling for Sudden Oak Death from 2004 - 2008 in forest environments were negative of *Phytophthora ramorum*. This result documented the freedom of SOD pathogen in both southern and northern Nevada forestry during the 5-year survey. However, in the urban forestry environment, a bleeding canker disease, symptomatically similar to sudden oak death, was found on maple trees and other tree species. *Phytophthora cactorum* and *P. citricola* were found to be associated with infected trees, and they are believed to be the primary cause of bleeding canker and the death of maple trees in northern Nevada. Road and facilities being protected by shaded fuelbreak installation in the Las Vegas area Spring Mountains by USFS/NDF removing dense stands of pinyon-juniper and mountain mahogany.



Prevention, Suppression and Restoration funding was used on private forestland to remove mistletoe and bark beetle infested yellow pines and improve the forest health on private lands adjacent to USFS lands to be treated in 2011.



Above and below: treated private forest in foreground with USFS lands to be treated in background.



Nevada Division of Forestry to develop an education and implementation program to the citizens of Nevada on identifying the invasive bark beetles that they may encounter in their urban environments. This was sub-contracted to the University of Nevada Cooperative Extension. See for more info: <http://www.recordcourier.com/article/20110227/COMMUNITY/110229924/0/NEWS&parentprofile=> One of the first "Train the Trainer's" workshop was held by Nevada's State Entomologist, Jeff Knight, on February 24, 2011 in Reno as pictured below:



**For More Information:**

[Forest Health Protection](#)

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In 2010, the USFS provided grant funding to the

