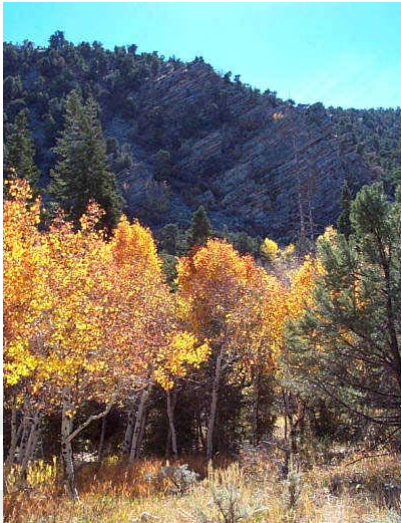


Nevada Forest Health Highlights 2009



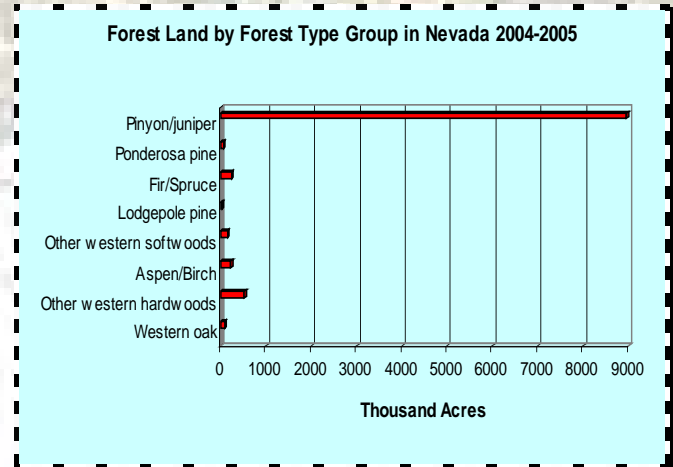
The Forest Resource

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.

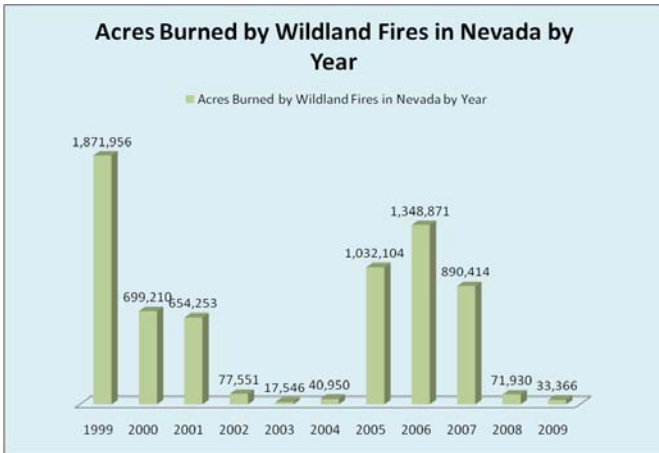
Detailed information is available from the [Interior West FIA](#).



* acres of forest type slightly decreased from the 2006 forest health highlight report due to FIA basing annual reports on 10% forest cover rather than 5% forest cover used in prior years. No new FIA plots have been completed from 2006 through 2009.

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 - weaken individual trees creating favorable conditions for the pests. **Wildfire** is a major change component for Nevada's forest and rangelands. The year 2009 saw over a 50% **decrease** in the amount of area burned in wildfire with nearly 33,366 acres consumed compared to 71,390 acres in 2008.



Forest Health Issues

In 2009, about half the estimates of mortality caused by insect outbreaks (acres affected and number of trees killed) remained the same or increased significantly from 2008 levels mostly attributed to drought conditions. **The largest increases were in the numbers of defoliators affecting the states forests. Pinyon needle scale and sawfly increased over a 400 fold in 2009 with a total of about 800,000 acres. Mountain mahogany defoliation tripled due to drought affects and was evident on more than 118,224 acres in 2009 throughout Nevada. Forest tent caterpillar defoliation on aspen increased nearly eight fold in 2009 to 5,789 acres. Mortality agents that increased included: Pinyon ips, increased eight fold over 2008 figures in 2009 with approximately 19,660 trees being affected. Mountain pine beetle (MPB) mortality in limber pines nearly doubled throughout Nevada from nearly 6,481 trees in 2008 to over 12,217 trees in 2009.**



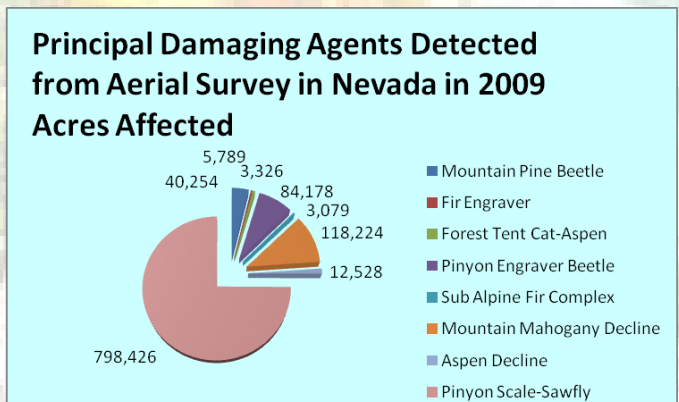
Pinyon needle sawfly defoliation on northeast end of Monitor Range, central, NV

Pinyon needle scale defoliation 2009



The Biggest Losers were: Jeffery pine beetle- caused tree mortality in 2009 decreased to half from 2008, affecting 163 trees on 190 acres in Nevada, and **fir engraver beetle** on white fir decreased to about 60% of 2008 levels, affecting 1,148 trees on 3,326 acres.

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 2009. 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.



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.

Juniper pocket rot was treated in areas in SE NV using ARRA contract crews on Beaver Dam State Park to remove dead and infected trees and create a ridgeline fuelbreak, improving access roads, campgrounds, and other park facilities.



Road and facilities being protected by shaded fuelbreak installation in the Las Vegas area Spring Mountains by USFS 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 2010.



Treated forest in foreground USFS lands to be treated in background.

For More Information:

[Forest Health Protection](#)
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USDA Forest Service
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Ogden, UT 84403

[Interior West Forest Inventory & Analysis](#)
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