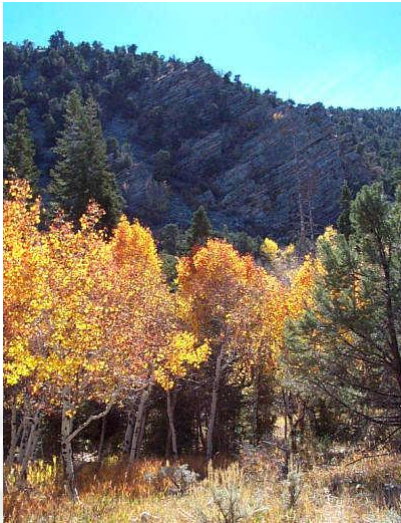


# Nevada Forest Health Highlights 2014



## The Forest Resource

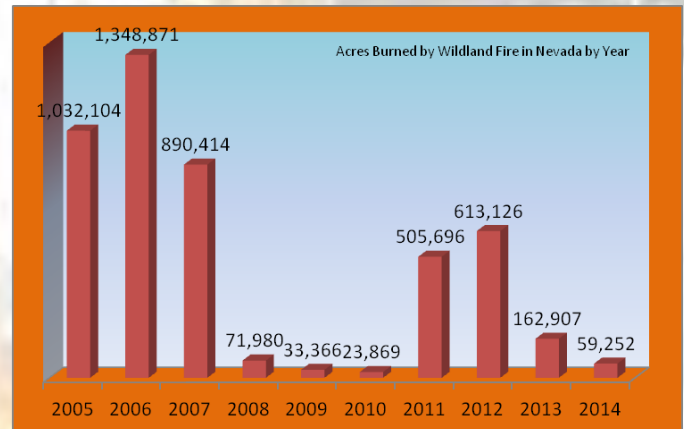
Nevada is unique in its forested component among the western states. The state is characterized by some 300 forested mountain "islands" separated by wide non-forested basins. Eighty-six percent of the state is non-

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 are in state and private ownership (using SW Regap 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 2014 was a low acreage wildfire year with 531 fires which only 59,252 acres were burned compared to 162,907 acres in 2013.



## Forest Health Issues

In 2014, most of the estimates of mortality caused by insect outbreaks decreased significantly from 2012 and 2013 levels. This occurred even with the ongoing drought in Nevada. The exceptions were increases in the total number of acres affected by fir engraver beetle, pinyon engraver beetle, and mountain pine beetle in lodgepole and whitebark pine. **Pinyon needle scale decreased nearly 89%** in 2014 with a total of approximately 5,440 acres. **Other defoliating agents decreased with pinyon sawfly acreage decreasing nearly 100%** to only approximately 100 acres being identified. **Pinyon ips**, increased dramatically since 2013 with approximately 24,007 acres and 67,995 trees. Mountain Pine Beetle

(MPB) mortality in lodgepole and five needle pines also increased with approximately 2,961 acres and 6,094 trees being affected. Drought damage continues to be a problem although it decreased approximately by 50%. This is anticipated to increase dramatically in 2015 due to ongoing drought conditions throughout the majority of Nevada. Drought damage was recorded on approximately 7,995 acres.

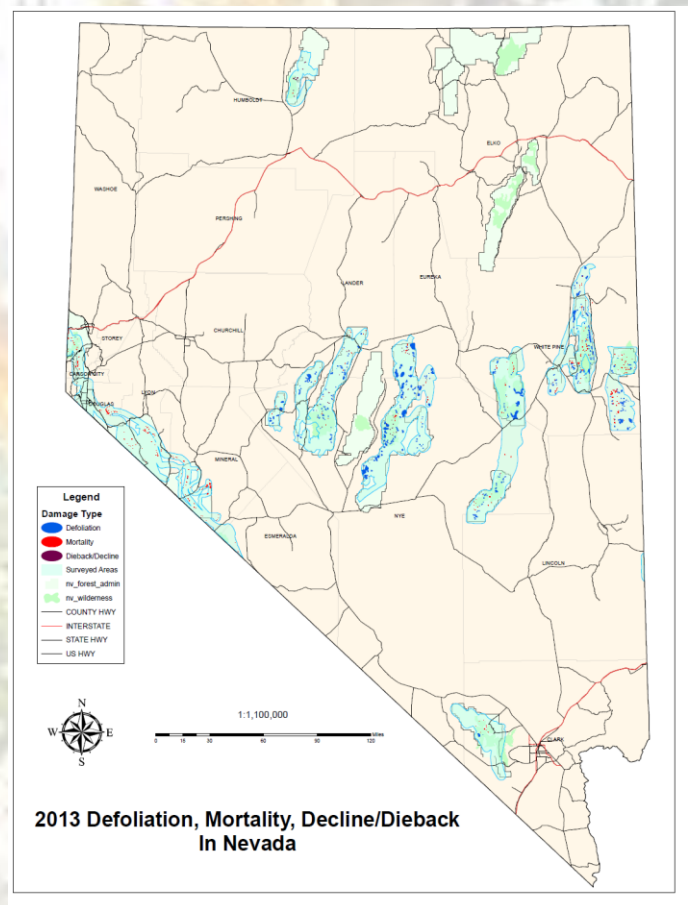
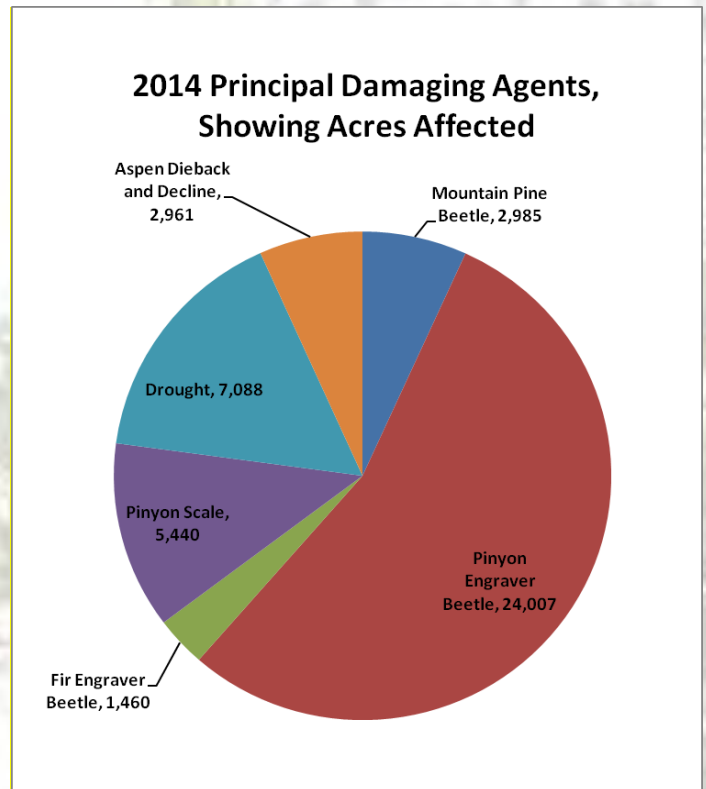


Extensive pinyon needle scale defoliation on lower fan of the Pinenut Mountains, W. NV

Lady bugs, pinyon scales natural enemy, are starting to make a difference in keeping the populations down on the larger trees. Below are cast off larvae shells and emerged lady bug.



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 2014.



White Satin Moth is still being detected in Western Nevada but the impact and spread seems to have slowed somewhat from the 2012 - 2013. Satin Moth acres detected within the Nevada is approximately 34 acres. The Majority of the affected acres is in the Sierra Front Range near the Spooner Summit area. Additional acres are found in Lander County near Battle Mountain, Nevada in the Mill Creek drainage. Insect populations in areas previously identified as heavily infested were almost not detected this past year. The hypothesis is that natural predators such as wasps and ants have found the moths on their larval stage and have been actively feeding on this new food source. This in turn may be causing the population, and levels of infestation and damage to decline. Although traps set out in 2013 did not trap any Satin Moth adults, this insect will be continue to be monitored with trapping in 2015.



Satin Moth Defoliation Spooner Lake Area

In 2010, the USFS provided grant funding to the 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. Continuing use of Educational banners has been useful in getting citizens involved and interested in the program. In 2014 the NDF forest Health Specialist investigated numerous possible invasive bark beetle sightings. As of this time the site visits did not find any evidence of invasive species being present. This is a positive impact to the program and to the state of Nevada. Additional training is planned to be conducted in the coming year.

CITIZEN MONITORING FOR URBAN FOREST HEALTH

# Tree Invaders ... They're BAD!

IF YOU HAVE A TREE IN YOUR YARD,  
YOU ARE PART OF THE URBAN FOREST.

### WHY WORRY? TREE INVADERS...

- ✓ Reduce property values
- ✓ Destroy shade
- ✓ Kill trees, causing a fire hazard
- ✓ Create heat islands
- ✓ Ruin curb appeal
- ✓ Cause hazards when dying and dead trees break or fall
- ✓ Destroy the beauty of your landscape

### HOW TO BE A CITIZEN MONITOR:

Watch out for these invaders



**SIREX WOOD WASP**  
Photo: Dr. David R. Lewis, USDA APHIS PPQ, Bugwood.com



**OAK SPLENDOUR BEETLE**  
Photo: Dr. Arnold Berman, University of Florida, Bugwood.com



**GOLD SPOTTED OAK BORER**  
Photo: Dr. Mark Lusk, Oregon Forestry Service, Bugwood.com



**ASIAN LONGHORNED BEETLE**  
Photo: Dr. Mueland Burns, USDA Forest Service, Bugwood.com



**EMERALD ASH BORER**  
Photo: BPH/Dr. Carlisle, Western State University, Bugwood.com

**IF YOU SEE THEM, CALL**

**Jeff Knight, State Entomologist**  
775.353.3767

**Gail Durham, NDF Forest Health Specialist**  
775.684.2513

**FOR MORE INFORMATION, CALL**

**JoAnne Skelly**  
775.887.2252

### WHAT CAN YOU DO?

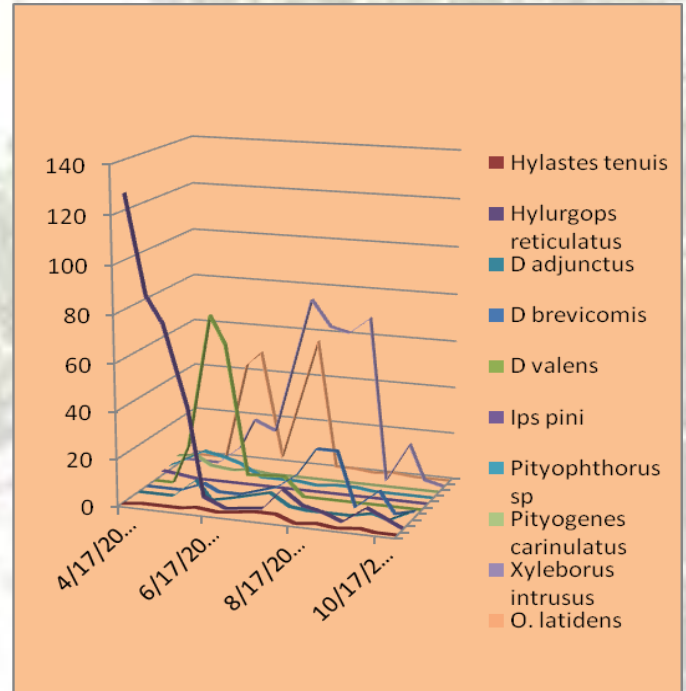
- ✓ Don't move firewood
- ✓ Be extra eyes on the lookout for invasive insects
- ✓ Be aware of which trees could be victims



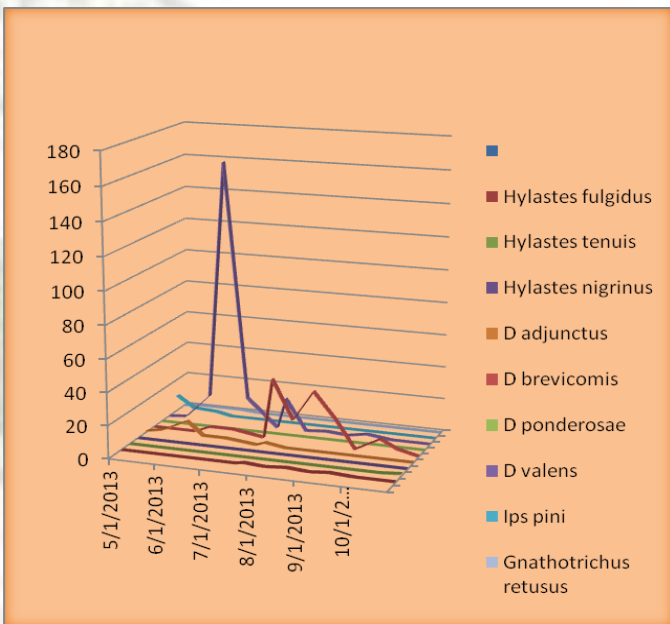



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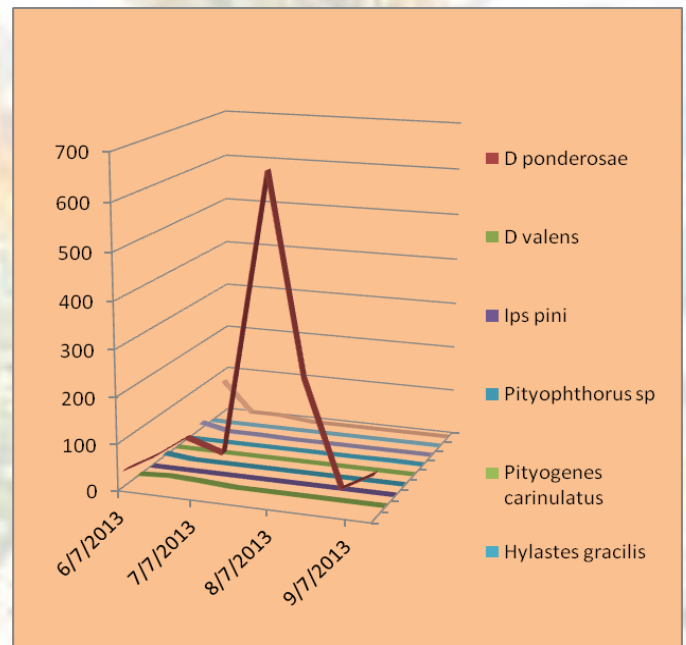
In the spring of 2011, NDF in coordination with Nevada Department of Agriculture's (NDOA) State Entomologist installed a series of 3 traps in 2 canyons in the Spring Mountains in Southern Nevada. In 2014 only the same traps were placed in the same locations. The traps in both canyons showed that the main mortality agent acting on the ponderosa pines (PP) in 2013 was pine engraver beetle (*Ips*) and red turpentine beetle (RTB) as the final causal agent. Large early populations in April and May predisposed trees to RTB later in the year. In Lee Canyon, WPB peaked in mid-August through September early and then crashed about by the beginning of October. Additional trapping has been ongoing on the Mt. Rose Ski Area to monitor mountain pine beetle (MPB) activity and mortality in both lodgepole and five needle pine trees in the along Sierra Front range. No large increases in mortality have been noted. Mountain pine beetle population spiked at the end of July and early August. Mortality related to MPB is of concern and continues to fluctuate due to drought related stress.



Kyle Canyon trap catches for the summer 2014 showing dominance of *Ips pini* and *Hylurgops* in mid-summer.



Lee Canyon trap catches summer of 2014 showing the dominance of *D. valens* in early to mid-summer and WPB in mid-summer.



Mt. Rose Ski Area trap catches for the summer 2014 showing dominance of mountain pine beetle in mid-summer

**For More Information:**

[Forest Health Protection](#)

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