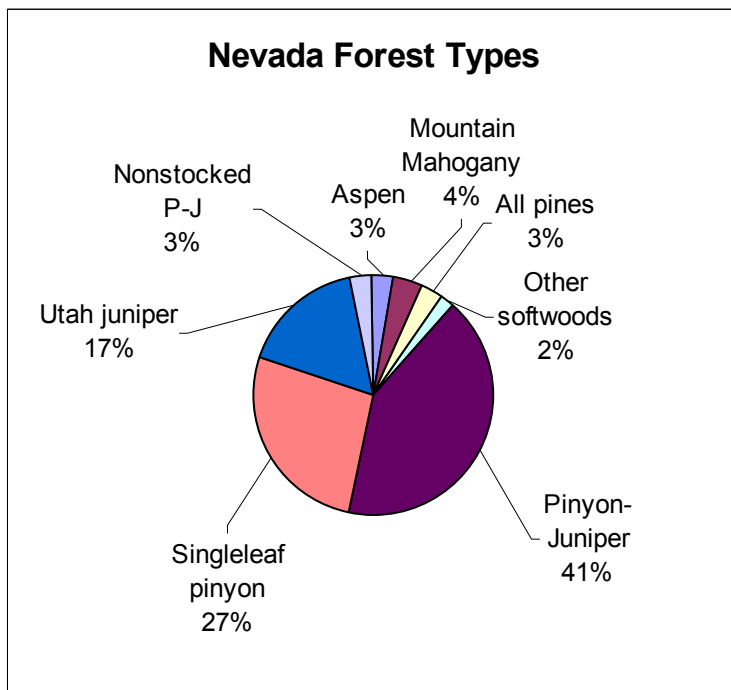


The Resource

Nevada is unique in its forested component among the western states. Some 300 forested mountain “islands” separated by wide non-forested valleys characterizes the state. Eighty-six percent of the state is non-forest and about 83 % of the land is federally owned. Though the area of forestland is relatively small, the value of this resource is tremendous in terms of commodities, watershed protection, wildlife habitat, recreational uses, and aesthetic properties. From a statewide perspective, the majority (92%) of Nevada's forests are composed of pinyon and/or juniper species. Other forest types are restricted to the higher elevations in the state's 314 mountain ranges. These forests comprise eight percent of the total forested acreage, and combined with the pinyon-juniper type, create a coniferous species diversity rivaling any other area in the country. The following chart displays the percentages of forest and woodland type in Nevada.



Forest Inventory Summary - 2003

In 1999, permanent field plots were established across the state to examine some aspects of forest health not provided by other programs, including crown assessments, lichen communities, soils, tree damage, and ozone bioindicators. These indicators were designed to

assess a greater breadth of forest ecosystem values than traditional forest inventories. Data collected on 67 forest health plots in 1999 has not been summarized to date, but may be useful as a baseline for future comparison when these plots are remeasured. Since 2000, field efforts of the Forest Inventory and Analysis (FIA) program have merged with the Forest Health Monitoring (FHM) program and both types of plots will be co-located statewide. This annual plot measurement system will begin in Nevada in 2004.

Forest Health Issue - 2003

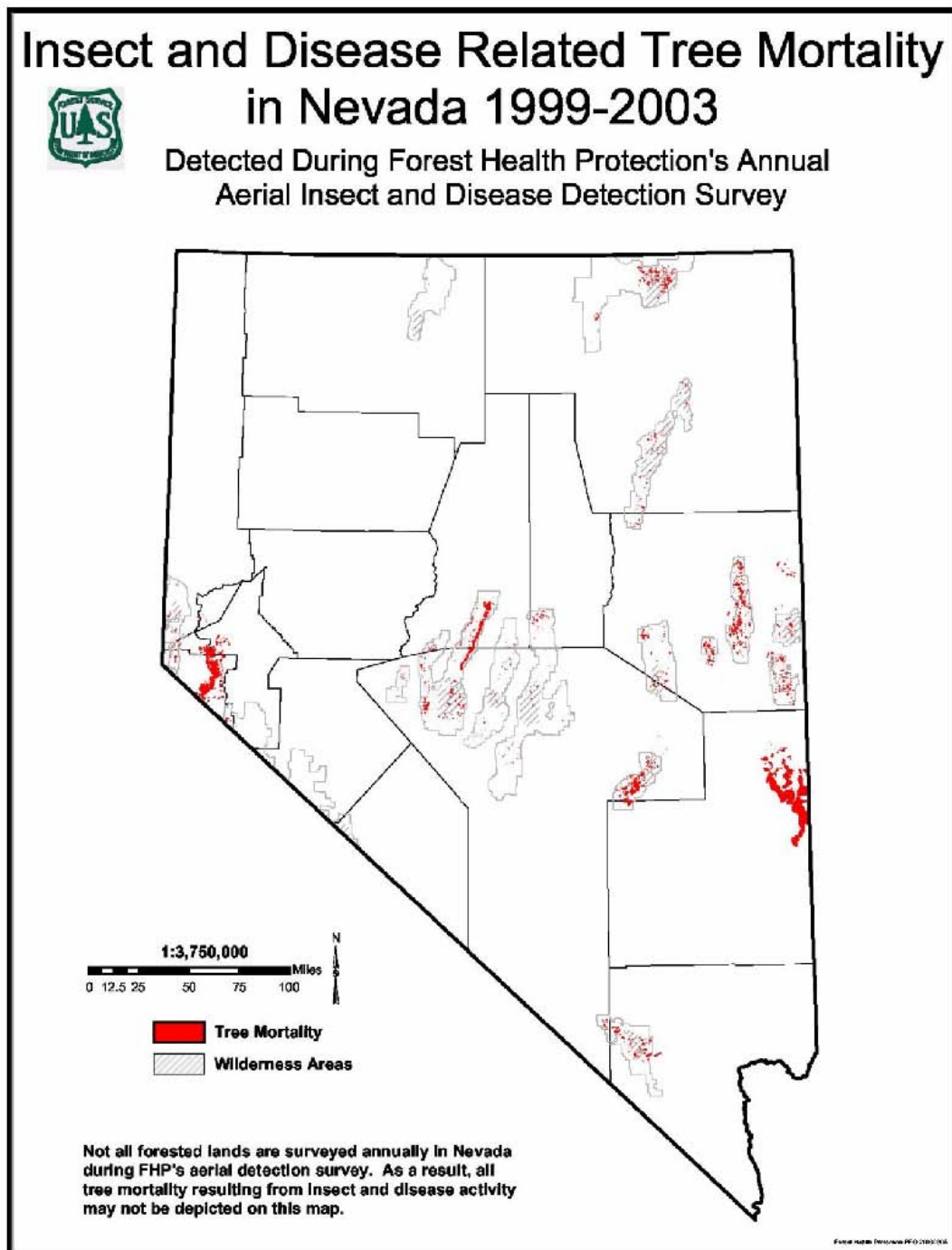
Drought in Nevada was a primary factor behind widespread tree mortality. Without adequate precipitation, trees were defenseless against insect attack. Populations of bark beetles exploded and, as a result, over 3.1 million trees died. Pinyon pine, white fir, and Shasta red fir were the principal tree species affected. Detailed information about drought in Nevada and other locales is available at the [National Climatic Data Center](#).

As vegetation dried and died, the nature of these wildland fuels changed and the risk to wildfire increased. Nearly 800 wildfires were recorded in the state consuming vegetation over 17,582 acres. The impacts of these fires are many and the changes imposed on the forests will be long lasting.



Off Plot Survey - 2003

Aerial detection surveys are widely used to monitor activity of forest insects and, to a limited extent, forest diseases. These surveys are conducted using small aircraft flown at low elevation over the state's forests while recording tree mortality and defoliation on maps. The following figure displays a compilation of survey results from 1999 through 2003.



Over 5 million acres of forested lands were aerially surveyed for insect and disease caused defoliation and mortality in 2003. The aerial survey maps are available for review by contacting the Forest Health Protection or Nevada Division of Forestry office listed at the bottom of this page. Aerial survey results are summarized in the following table:

Results of Aerial Detection Survey - 2003	
Agent	Approximate Acres Affected
Douglas-fir tussock moth	7,900
Fir engraver beetle	4,600
Mountain pine beetle	2,400
Pinyon ips & needle scale	259,200
Subalpine fir mortality complex	5,000
Forest tent caterpillar	9,000

Survey summaries are contained in insect and disease conditions reports available at [Forest Health Protection](#). In 2003, the insect most active in Nevada was pinyon ips (*Ips confusus*) that infested nearly 3.1 million pinyon pines over 259,000 acres. This infestation is unprecedented and will likely continue as long as drought persists.

Similarly, fir engraver beetle (*Scolytus ventralis*) populations increased as the drought intensified, killing almost 18,000 dominantly white fir over 4,600 acres.

In 2003, white pine blister rust (*Cronartium ribicola*), an introduced pathogen was reported on whitebark pine in the Ruby Mountains. The fungus is common throughout its host range in southern Idaho and was found in the Jarbidge Mountains in 2002. These new observations are cause for concern because of their proximity to sensitive bristlecone pine populations in Great Basin National Park.

For more information contact:



[Forest Health Protection](#)
Ogden Field Office
USDA Forest Service
4746 S. 1900 E.
Ogden, UT 84403

[Interior West Forest Inventory & Analysis](#)
USDA-Forest Service
Ogden Forestry Sciences Laboratory
507 25th St
Ogden, UT 84401

[Nevada Division of Forestry](#)
2525 S. Carson St.
Carson City, NV 89704