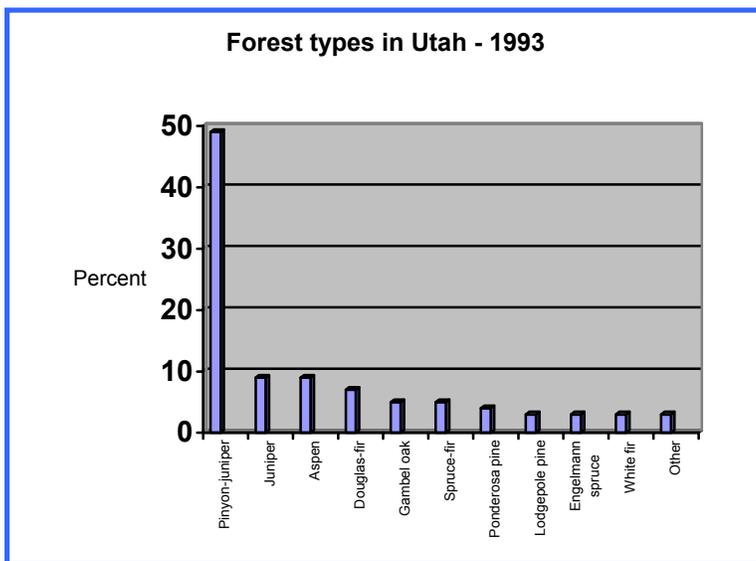


Forest Health Monitoring and Inventory Highlights 2003

The Resource

The latest survey of Utah's forest resource was completed in 1995. At that time, Utah had 15.7 million acres of forestland, a little more than one-fourth of the State's total area. The main forest types in the state are pinyon-juniper (49%) and pure juniper (9%) that occupy over 9.2 million acres. Over 13 million acres of forests are administered by federal, state, and local agencies. Around 2.7 million acres are privately owned. The main forest types are represented in the following figure.



Forest Inventory Summary - 2003

Annually, a portion of the permanent Forest Inventory and Forest Health Monitoring plots are sampled. This is the fourth year of annual inventory work in Utah. Field crews collected data on approximately 372 plots across the state during the 2003 field season. Data from these annual inventories will soon be available as the annual Utah data tables on the [Interior West Forest Inventory and Analysis](#) (FIA) website. Customized data summaries are available through [FIA data retrieval systems](#). Thus far, analysis of trend information has not begun for annual inventory plot data; however, planning is underway toward compiling the first 5-year comprehensive report in Utah.

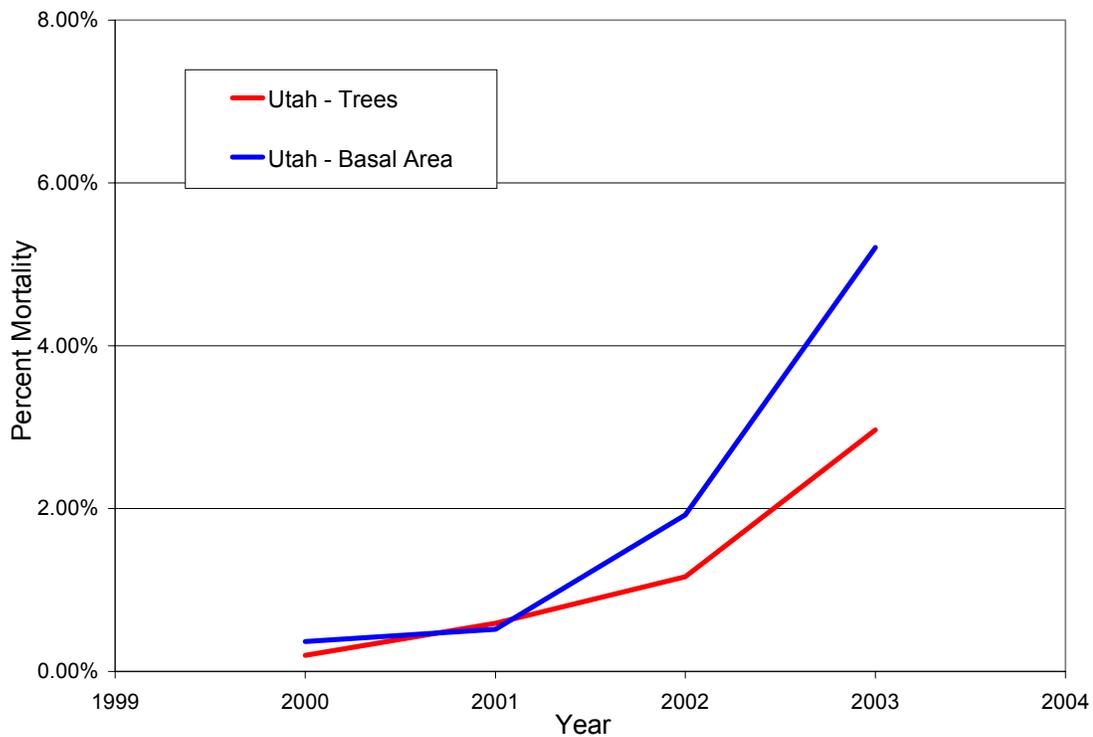
Forest Health Issue - 2003

This fifth year of severe to extreme statewide drought in Utah was a primary factor behind widespread tree mortality. Without adequate precipitation, trees were more susceptible to insect attack. Populations of bark beetles exploded and, as a result, approximately 23 million trees died. Pinyon pine, lodgepole pine and

ponderosa pine were the principal tree species affected. Detailed information about drought in Utah and other locales is available at the [National Climatic Data Center](#).



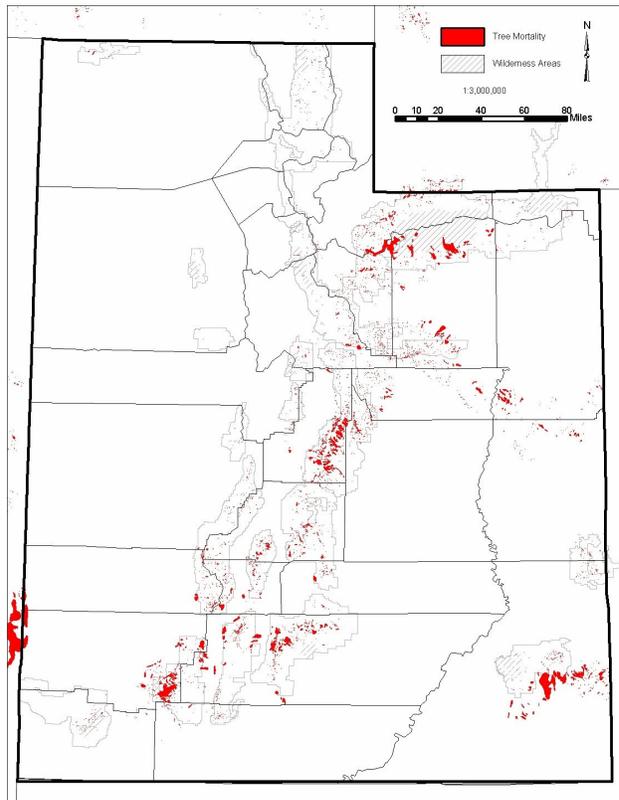
Preliminary annual forest inventory data suggest a strong upsurge in mortality in Utah's pinyon-juniper community. The graph below shows the mortality in tree count and basal area through four years of sampling. Effects of drought became most pronounced in 2003.



Insect and Disease Related Tree Mortality in Utah 1999-2003

Detected During Forest Health Protection's Annual
Aerial Insect and Disease Detection Survey

Not all forested lands are surveyed annually in Utah during FHP's aerial detection survey. As a result, all tree mortality resulting from insect and disease activity may not be depicted on this map.



As vegetation dried and died, the nature of these wildland fuels changed and the risk to wildfire became extreme. Over 1,630 wildfires were recorded in the state consuming vegetation over 115,994 acres. The impacts of these fires are many and the changes imposed on the forests will be long lasting.

Off Plot Survey – 2003

Approximately 12.2 million acres of forested lands were surveyed for insect and disease caused mortality in 2003. Most of this area was surveyed using small aircraft flown at low elevation over the state's forests while recording tree mortality on maps. These aerial survey maps are available for review by contacting one of the information contacts that follow.

Survey summaries are contained in insect and disease conditions reports available at [Forest Health Protection](#). In 2003 the insect most active in the state was pinyon ips (*Ips confusus*) that infested over 17 million pinyon pines over 210,000 acres. This infestation is unprecedented and will likely continue as long as drought persists.

Aerial survey results are summarized in the following table:

Results of Aerial Detection Survey - 2003	
Agent	Approximate Acres Affected
Douglas-fir beetle	20,100
Fir engraver beetle	11,300
Mountain pine beetle	53,400
Pinyon ips	209,700
Spruce beetle	24,100
Western spruce budworm	14,700
Subalpine fir mortality complex	34,900
Forest tent caterpillar	1,900

For more information contact:



[Forest Health Protection](#)

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