

Utah Forest Health Highlights 2005

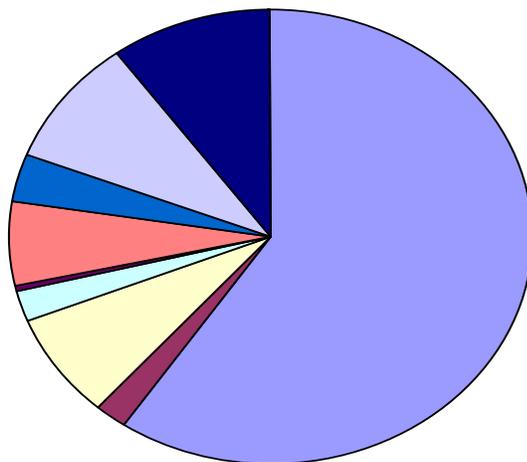


The Forest Resource

Utah forests are as diverse as the landscape itself. Forest visitors from around the world, as well as locally, flock to the state's renowned canyon lands and alpine getaways. While Utah is only 29 % forested, these forests have high scenic value, as well as many other values, so it is important to track their condition.

The main forest types in the state are pinyon-juniper (57 %), hardwoods such as aspen, birch and oaks (22 %), and Douglas-fir (7 %). Over 16.6 million acres of forests are administered by federal, state, and local agencies. Another 3.2 million acres are privately owned. Detailed information is available from the [Interior West FIA](#).

Utah Forest Types

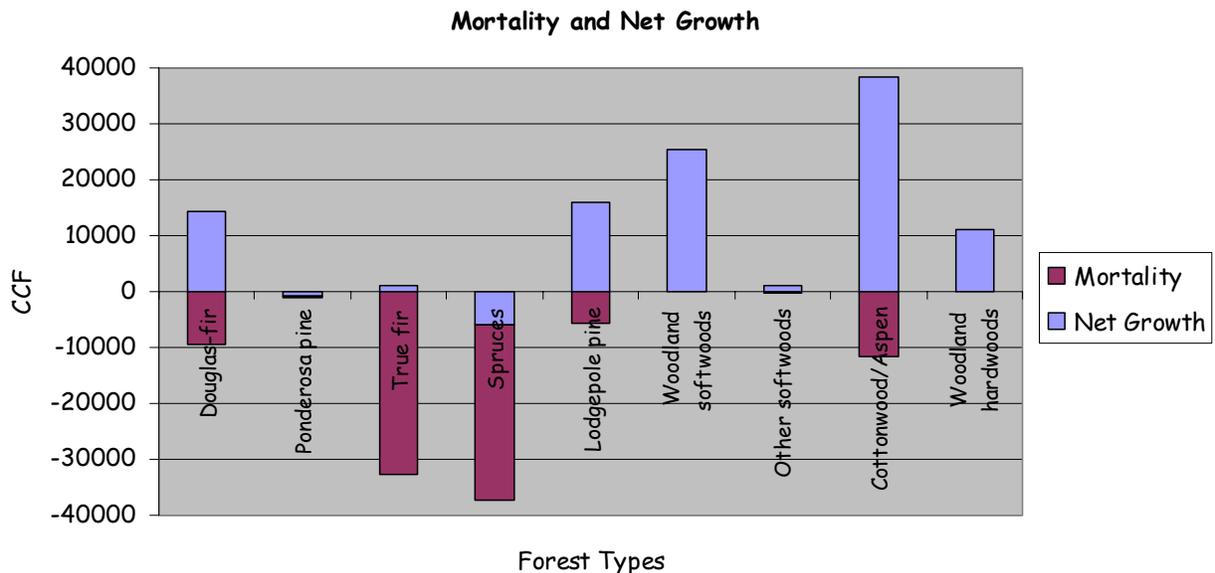


- Pinyon-Juniper
- Ponderosa pine
- Fir/Spruce/Hemlock
- Lodgepole pine
- Other softwoods
- Non-stocked
- Douglas-fir
- Aspen/Birch
- Western oaks

Components of Change

Several factors have contributed to the decline in forest health including past logging practices, past grazing patterns and fire exclusion. Drought currently is exacerbating these human-caused problems. The overstory canopy in many of Utah's forests is more dense and uniform in age, species compositions are changing, and large amounts of woody debris are accumulating. Because of these changes, most of Utah's forested landscapes are now at moderate to high risk from catastrophic wildfire and approximately 2.2 million acres of Utah's forests are rated moderate to highly susceptible to bark beetle attack. Fire activity increased in 2005 with over 313,000 acres burned compared with only 76,000 in 2004 even though Utah had its fifth wettest year on record.

As shown in the following graph, average annual net growth of all live trees on forested lands has averaged 100,841 thousand cubic feet per year. That figure includes the impact of the annual mortality which has averaged 91,530 thousand cubic feet per year.



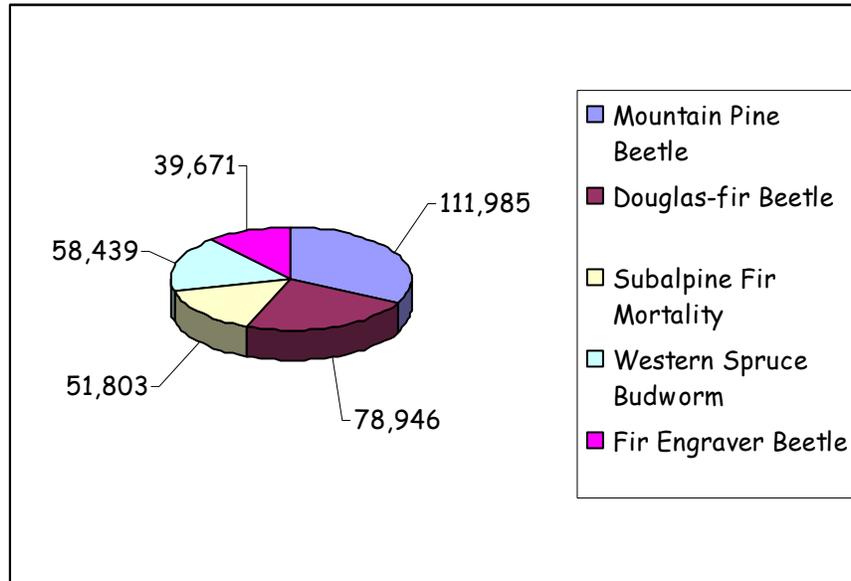
Forest Health

Spruce beetle has caused the most tree mortality within the state since the late 1980s, especially in central and southern Utah. Although pockets of *spruce beetle* activity still remain active within the state, landscape scale mortality has subsided as the host component has been depleted within previously affected areas. Forest Health Protection (FHP) surveys indicate that in the last ten to fifteen years, *spruce beetle* has affected approximately 43% of the spruce type within Utah. Over 217,000 acres of the 500,500 acres of spruce type have experienced various levels of *spruce beetle* caused mortality.



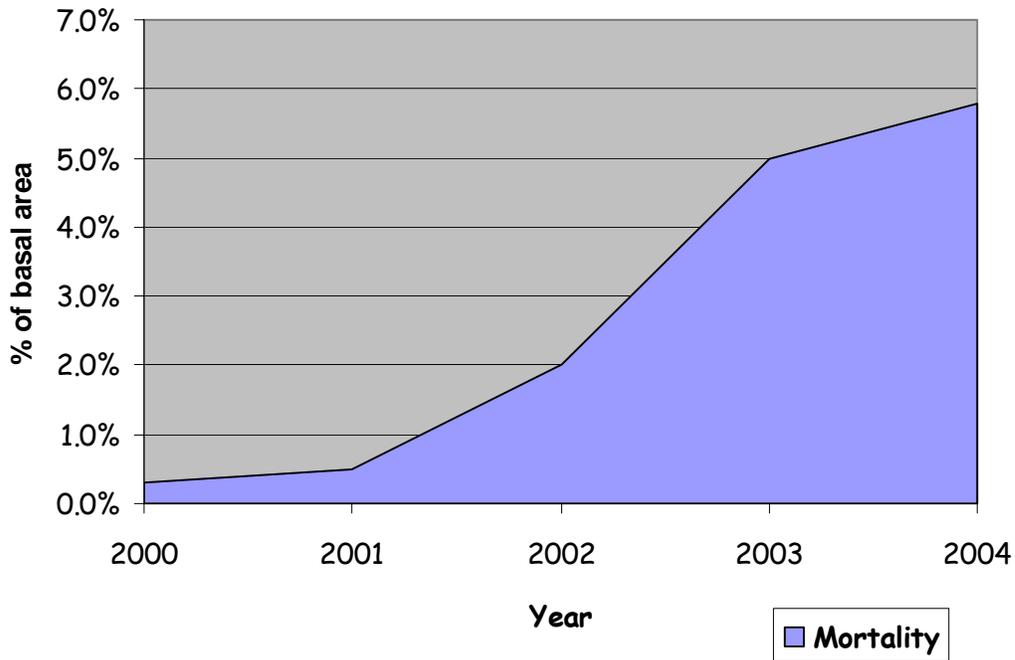
Sidney Valley (Dixie National Forest) before and after spruce beetle outbreak

**Principal Damaging Agents Detected from the Air in
Utah 2005
Acres Infested**



Annual forest inventory data has shown widespread mortality in the pinyon-juniper forest type. A complex of drought, insects and disease is responsible for pinyon mortality rates approaching 100 percent in some areas. In conjunction with stress caused by drought, a number of insects and diseases can affect the health of pinyons. Agents of particular importance include pinyon ips, twig beetles, pitch moths, black stain root disease and pinyon dwarf mistletoe. The graph below shows the mortality in basal area through five years of sampling.

Utah Pinyon Mortality



For More Information:

[Forest Health Protection](#)

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[Interior West Forest Inventory & Analysis](#)

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