

Utah Forest Health Highlights 2007



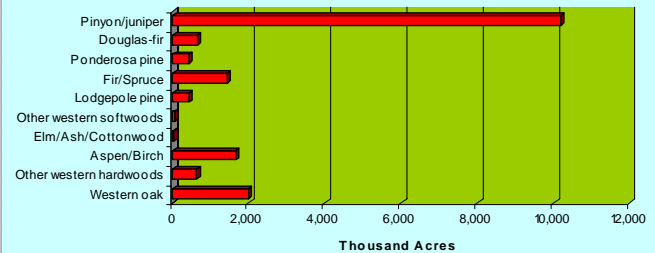
The Forest Resource

Utah forests are as diverse as the landscape itself. Forest visitors from around the world, and those that live in the

state, visit Utah's renowned canyon lands and alpine getaways to enjoy the great outdoors. While Utah is only 29% forested, these forests have high scenic, recreation, wildlife and other forest use values, so it is important to track their condition.

The following graph presents a breakdown of forest cover, or forest type, on all land ownerships using the latest annualized FIA surveys from 2000 to 2006. Over 15.1* million acres of forests are administered by federal, state, and local agencies. Another 3 million acres are privately owned. The main forest types in the state are pinyon-juniper (56%), hardwoods such as aspen, birch and oaks (20%), fir, spruce and hemlock (8%) and Douglas-fir (4%). Detailed information on Utah's forest vegetation is available from the [Interior West FIA](#).

Forest Land by Forest Type Group
Utah 2000-2006

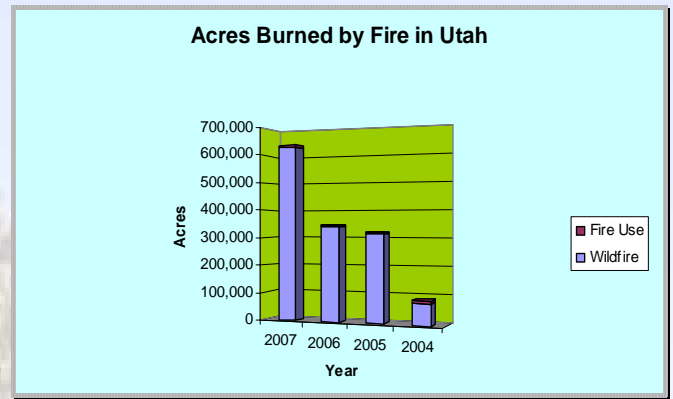


Components of Change

Several factors have contributed to the decline in forest health including historic logging and grazing patterns, and fire exclusion. Drought conditions can enhance detrimental forest health effects on vegetative conditions when combined with these human-caused practices. Forest conditions throughout much of Utah are composed of dense stands relatively uniform in age. As species or age class composition changes, particularly due to large scale insect outbreaks, large amounts of woody debris accumulate. Because of these changes, many lower elevation areas within Utah's forested landscapes are now at moderate to high risk from catastrophic wildfire. Although abundant spruce mortality occurs in high elevation sites, stand replacing wildfire intervals are much longer between wildfire events and driven by suitable fire weather at these high elevation sites. Fire activity in 2007 nearly doubled from 2006 with 629,000 acres burned. Approximately 2.2 million acres of Utah's forests are rated moderate to highly susceptible to bark beetle attack.

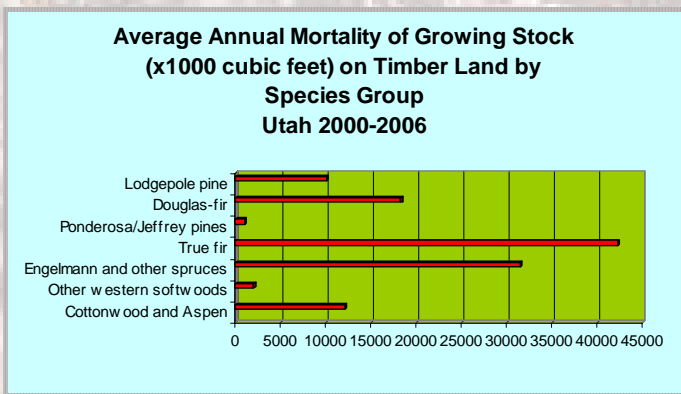
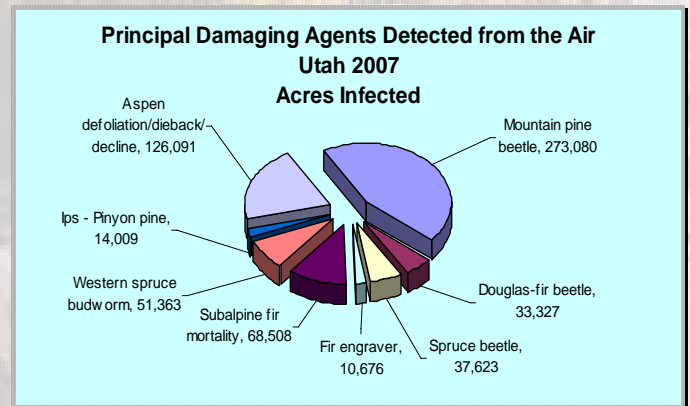
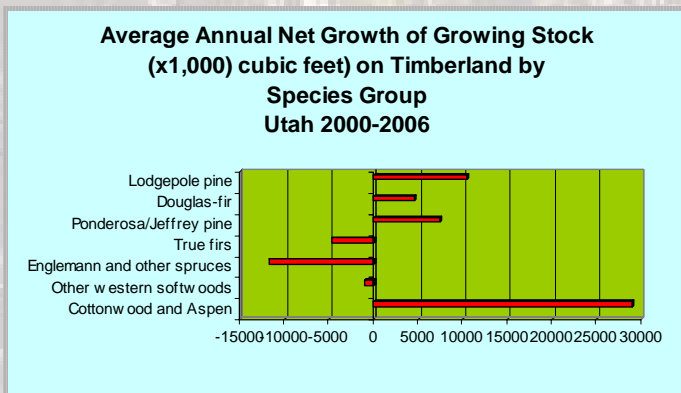
Average annual net growth from 2000 through 2006 of all live trees on forested lands has averaged 34,039 thousand cubic feet per year. The graph below includes tree mortality which has averaged 117,306 thousand cubic feet per year. Net growth estimates are based on the most recent 6 years of FIA inventory. However, it is not a complete representation of the state, and numbers will change as additional annual surveys are completed.

* acres of forest type slightly decreased from the 2006 forest health highlight report because FIA based annual reports on 10% forest cover rather than 5% forest cover used in prior years.



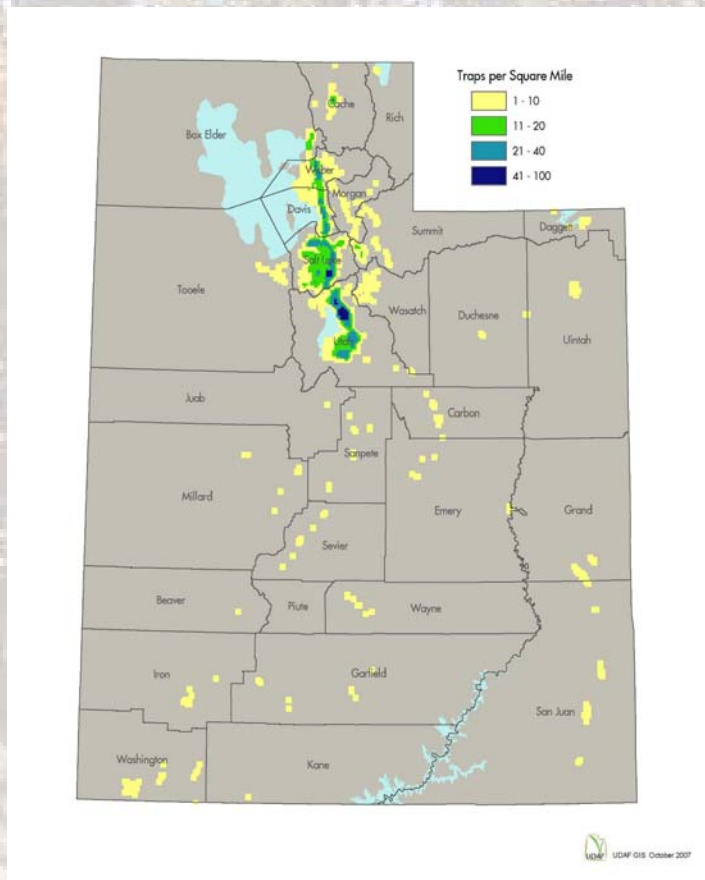
Forest Health Issues

The following chart provides data on the principle insect and disease agents causing tree mortality or decline in Utah's forests summarized from aerial observations conducted in 2007.

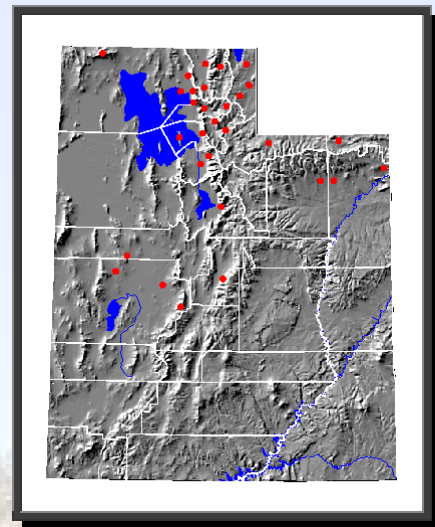


Although there was an observed decline in acres affected by damaging agents between 2005 and 2006, aerial survey results indicate an increase in insect/disease caused tree mortality in 2007. **Mountain pine beetle, Douglas-fir beetle and spruce beetle** caused tree mortality increased in 2007 compared to 2006 levels of tree mortality and acres affected by these insects. Utah also experienced a ten fold increase in **Aspen related insect/disease agents affecting aspen trees** (the affected aspen acreage recorded in ADS surveys is not actually declining; its insect/disease activity mapped capturing a wide variety of disturbance agents). The **gypsy moth** is a non-native insect defoliator that, if

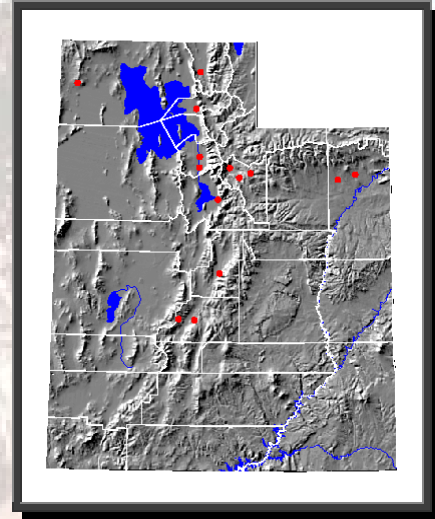
established, would alter our hardwood forest landscapes adversely affecting our high-value watersheds. Utah continues an aggressive monitoring program to delineate potential infestations before they become established in Utah's forested landscape. Delimiting and monitoring activities trapped two isolated male gypsy moths in 2007 in urban sites compared to no catches recorded in 2006.



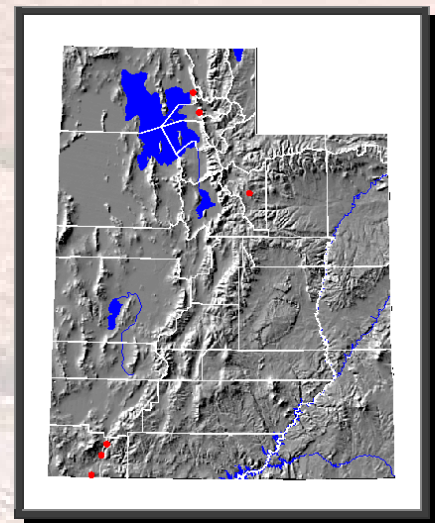
Non-native invasive plants are increasing in Utah's forests and rangelands. Eighteen plants are currently identified by the state as noxious weeds (<http://www.utahweed.org>). The distribution of several of these plants currently impacting forest and range land are pictured below and on the right. Others, such as spotted knapweed and Canada thistle, are found throughout the state. The state has 15 cooperative weed management areas established working together to address noxious weed issues within the state. In 2007 state and private land owners treated approximately 3,400 acres for noxious weeds while federal agencies treated over 25,000 acres.



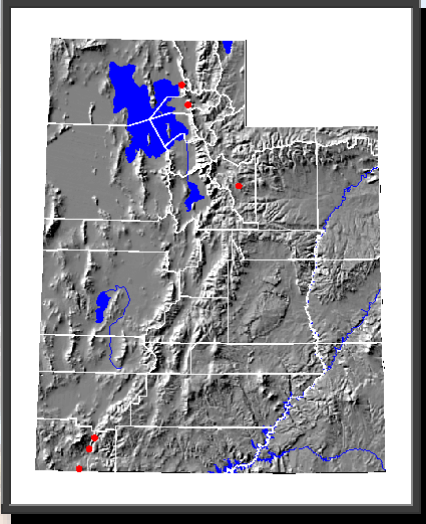
Dyer's Woad



Leafy Spurge



Yellow Starthistle



Russian Knapweed

(From Utah State University, Remote Sensing Laboratory <http://extension.usu.edu/weedweb/nweeds/NW.ht>)

For More Information:

Forest Health Protection

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