

Montana Forest Health Highlights 2005

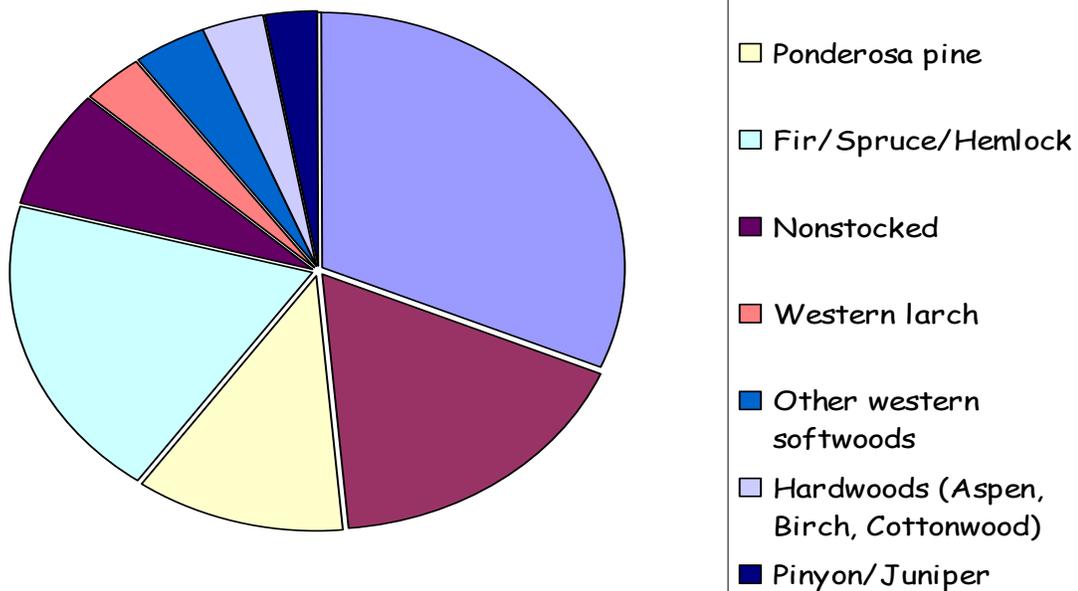


The Forest Resource

The forests of Montana's "Big Sky" country are a reflection of the states sweeping landscapes. West of the Continental Divide warm and moist Pacific air masses create lush, species-rich forests. East of the Divide, a colder and drier climate favors relatively sparser, more homogenous forests. The following graph presents a breakdown of forest cover, or forest type, on all land ownerships. The survey reflected about 25.3

million acres of forestland, with about 17.7 million acres publicly owned and almost 7.5 million acres privately owned. The predominant forest types are Douglas-fir (31 %), lodgepole pine (17 %), ponderosa pine (11 %) and subalpine fir (8 %). Detailed information is available from the [Interior West FIA](#).

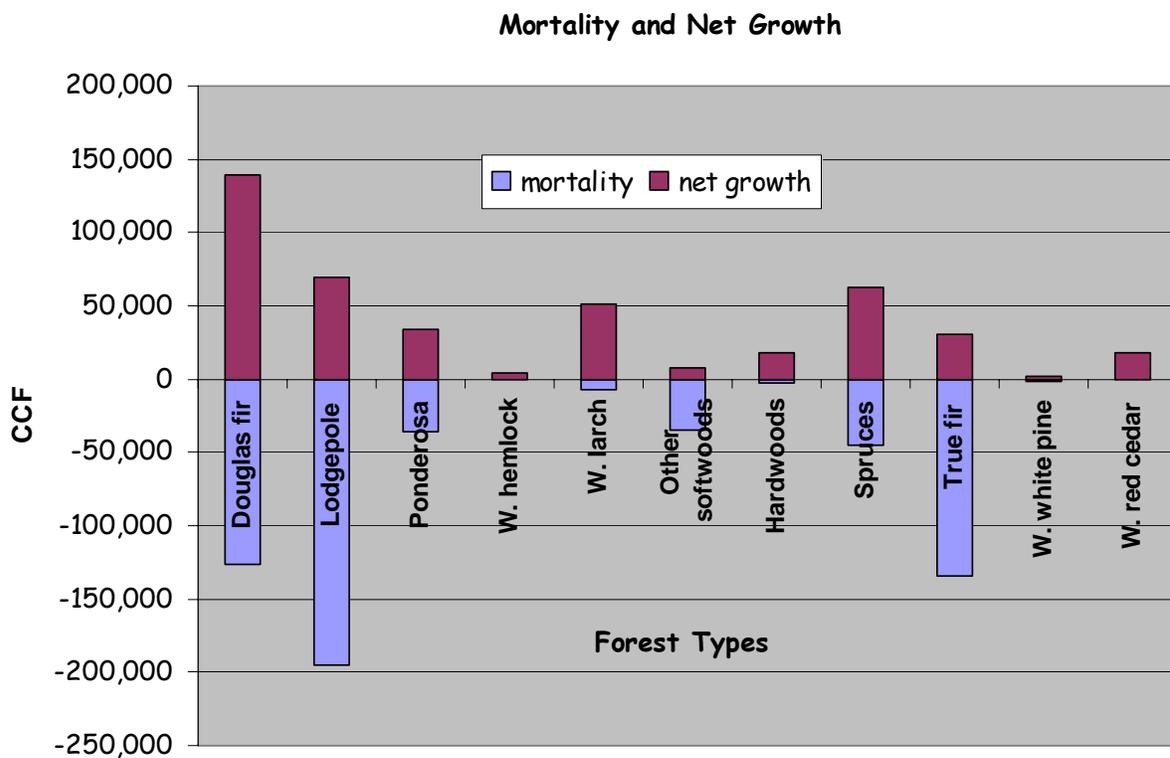
Montana Forest Types



Components of Change

Natural forces and human activities are responsible for changes in Montana's timber resource. Growth and mortality reflect the changes brought about by insects and disease, fire and harvesting. The acreage burned by wildland fires in Montana during 2005 was 103,267 acres compared to more than 736,000 acres in 2003.

Average annual net growth of all live trees on forested lands for the past five years has averaged 436,754 thousand cubic feet per year. The average annual mortality during that same time has been more than 584,230 thousand cubic feet per year.



Forest Health Issues

Most of Montana continued under drought conditions in 2005 although drought severity abated as 2004 and 2005 received near normal to above precipitation. Both aerial and ground-collected data showed increasing bark beetle infestations for several species. *Mountain pine beetle*-infested areas increased in many locations, though in some locations the intensity decreased as susceptible hosts were depleted. *Mountain pine beetle* caused the highest level of tree mortality, infesting nearly 800,000 acres of lodgepole, ponderosa, western white, and whitebark pines. The intensity and extent of *mountain pine beetle* increased significantly in whitebark pine stands. Over one-quarter of a million whitebark

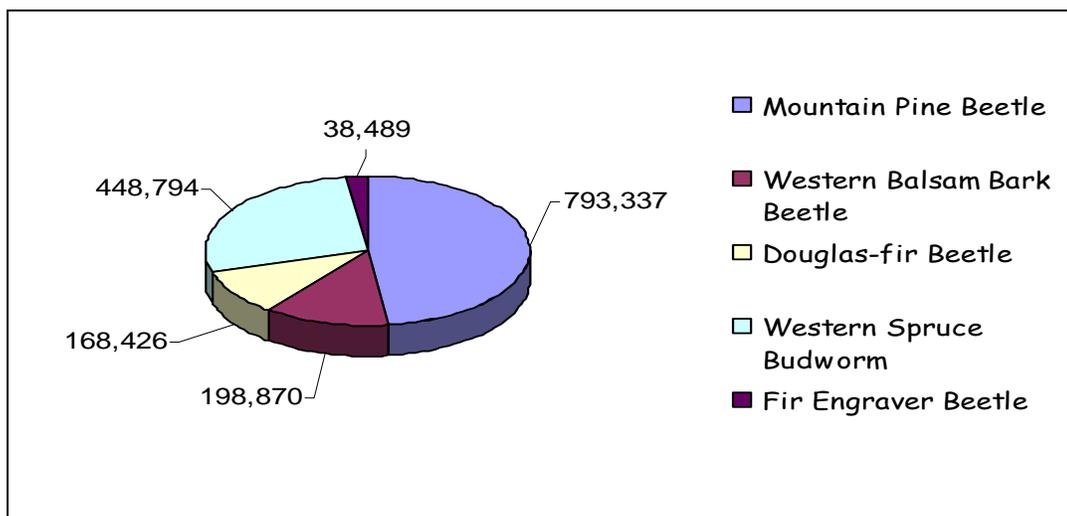
pine trees on more than 100,000 acres were recorded as having been killed in 2004 during the 2005 aerial detection survey in Montana.

Douglas-fir beetle-infested acres decreased in parts of northwestern Montana, but increased in southwestern and central Montana. Overall, infested acres increased in 2005, and beetle activity remained high in many areas. Ground surveys indicated, though, that *Douglas-fir beetle* activity is subsiding. Grand fir mortality attributable to *fir engraver* remained stable to decreasing; and *western balsam bark beetle*-killed subalpine fir was mapped on more acres than ever recorded.

Many areas are moderately to heavily infested with *western spruce budworm*, the most prevalent defoliator in Montana. On-going *Douglas-fir tussock moth* monitoring efforts conducted by Montana DNRC, correctly forecasted a continuing population near Flathead Lake. Other defoliators were more localized, with minimal acres of defoliation detected. No *gypsy moths* were found in monitoring traps. Mortality and growth losses from *root disease* continue to be high throughout the state. *Root disease*-caused mortality is more common west of the Continental Divide, causing mortality on over one million acres. *White pine blister rust* continues to be present throughout the range of five-needle pines in the state. Rust severity is highest in the northwestern part of the state where the disease continues to cause extensive mortality in western white pine and whitebark pine.

Survey details are contained in the annual insect and disease conditions report available at [Forest Health Protection](#) or [Current Insect & Disease Conditions](#).

Principal Damaging Agents Detected from the Air in Montana 2005 Acres Infested



For More Information:

[Forest Health Protection](#)

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