

Montana

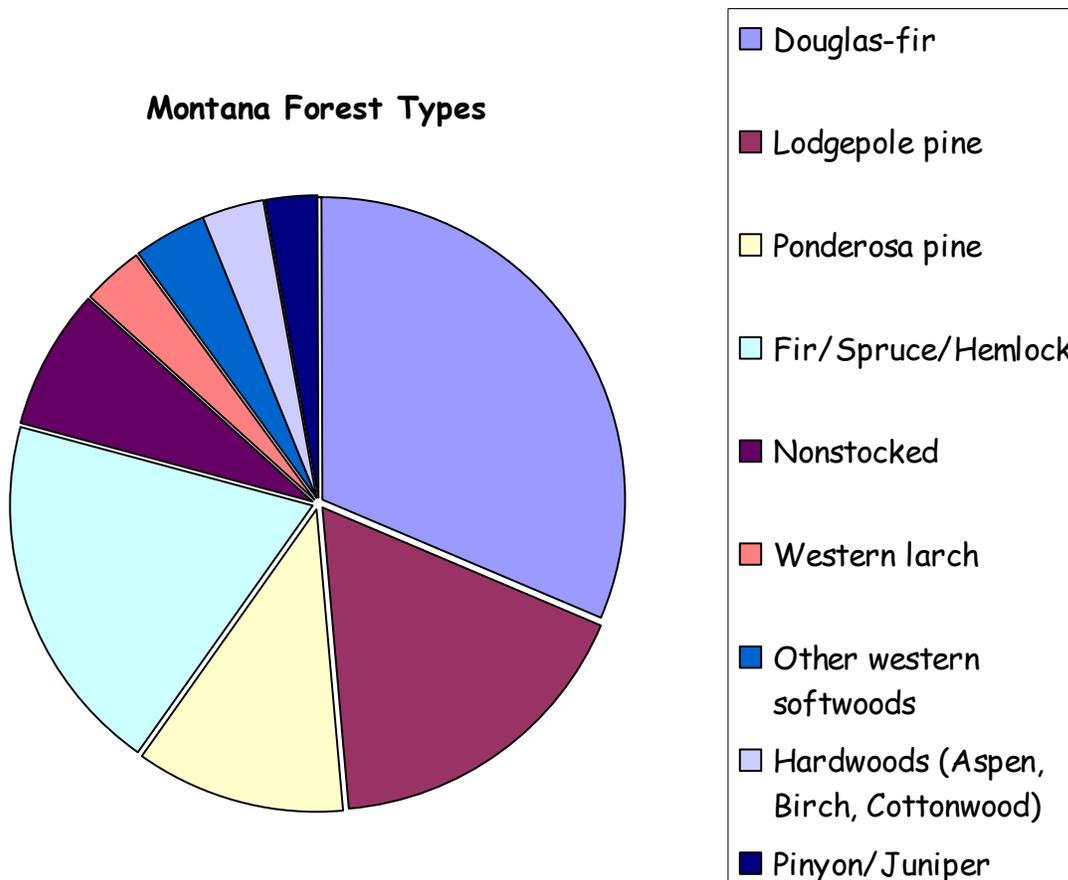
Forest Health Monitoring Highlights 2004



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

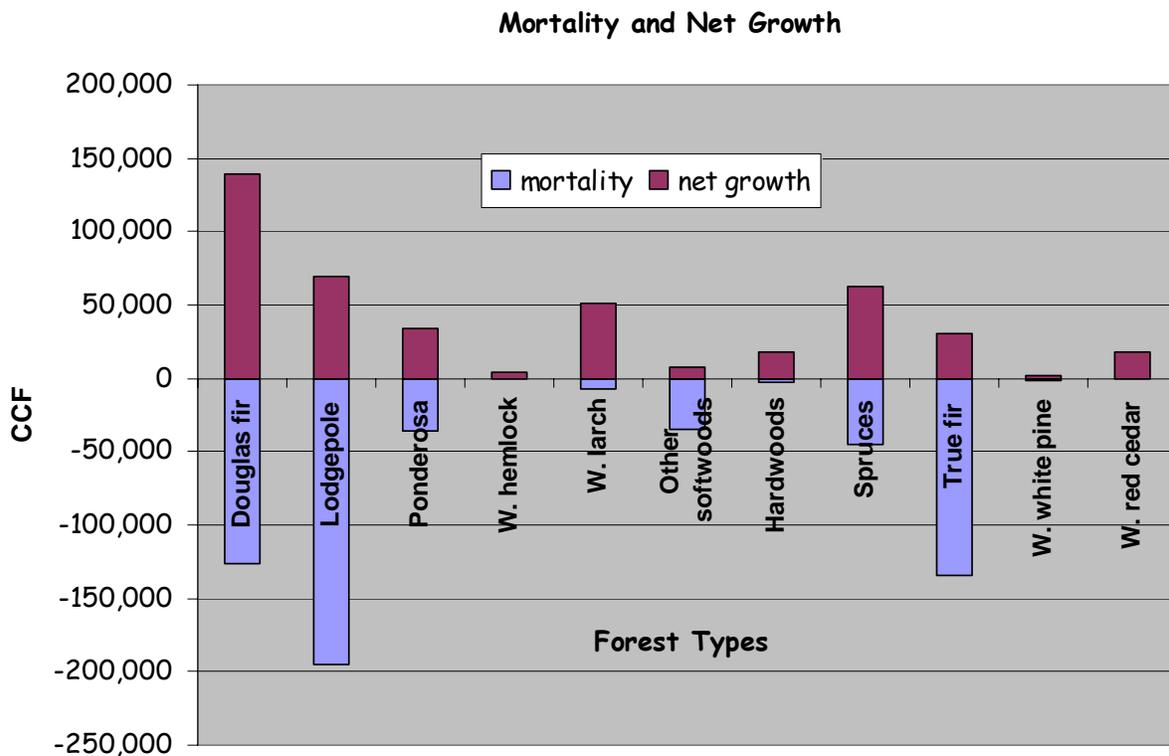
about 17.7 million acres publicly owned and almost 7.5 million acres privately owned. The predominant forest types are Douglas-fir (31 %), lodgepole pine (17 %), ponderosa pine (11 %) and subalpine fir (8 %). Detailed information is available at the [Interior West FIA](#) website.



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 2004 was considerably reduced from previous years: 18,446 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 584,230 thousand cubic feet per year.



Forest Health Issues

Most of Montana has been under drought conditions for the past 7 years. Both aerial and ground-collected data showed increasing bark beetle infestations for most species. Mountain pine beetle-infested areas increased in many locations though in some locations intensity of beetle caused the highest level of tree mortality, infesting nearly 450,000 acres of lodgepole, ponderosa, western white and whitebark pines.

Douglas-fir beetle-infested acres decreased in parts of northwestern Montana, but increased in southwestern and central Montana. Overall, infested acres increased in 2004, and beetle activity remained high in many areas. Grand fir mortality attributable to fir engraver once again

increased to all-time high levels; 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 population surge. 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 white bark pine.

Survey summaries are contained in insect and disease conditions reports available at [Forest Health Protection](#).

Results of Aerial Detection Survey - 2004

Agent	Acres Affected*
Douglas-fir beetle	92,395
Western balsam bark beetle	133,780
Mountain pine beetle	453,292
Fir engraver beetle	34,352
Spruce beetle	311
Western pine beetle	369
Pine engraver	16,283

*These acres were infested by insects in 2003 and had symptoms in 2004.

For More Information

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