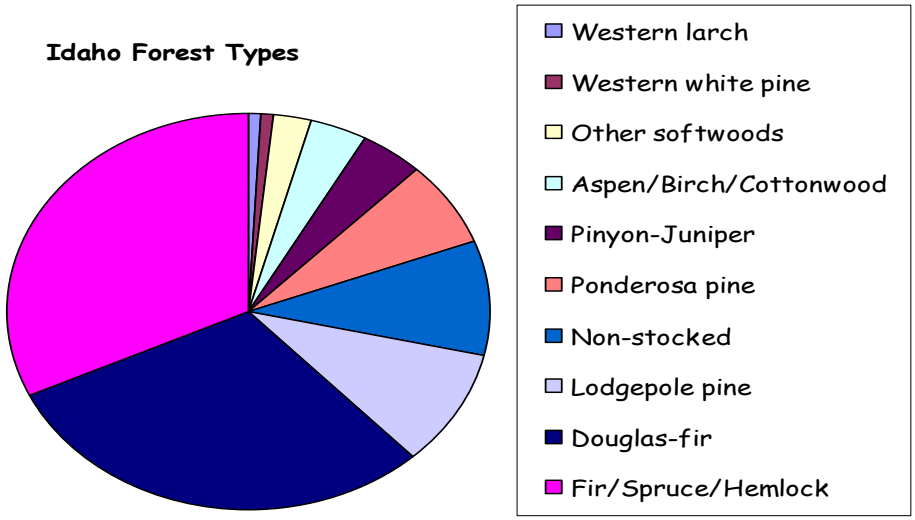
Idaho Forest Health Highlights
2005

The Forest Resource

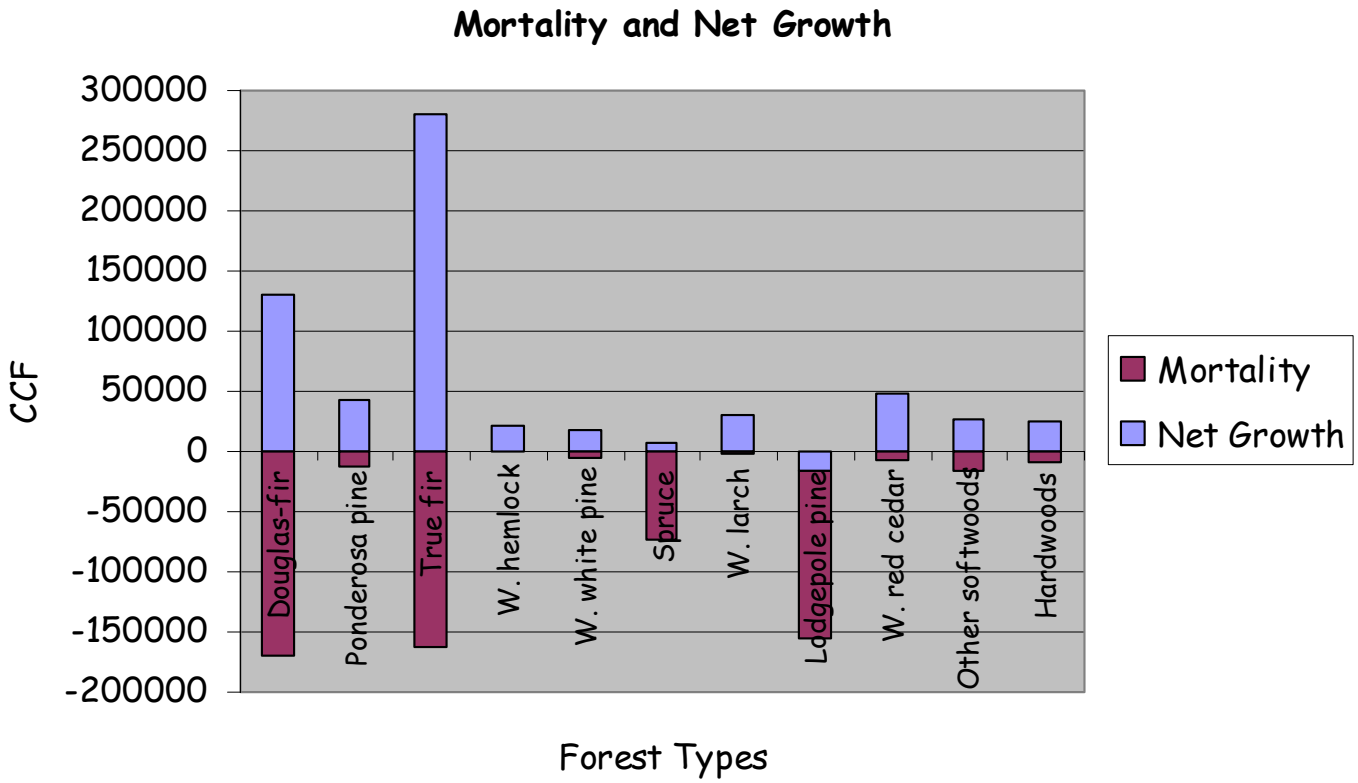
Idaho's forests extend from the large, crystal-clear lakes of the Idaho Panhandle, through the rugged central mountains of the Selway-Bitteroot, Frank Church-River of No Return, and Sawtooth Wilderness areas, past the Snake River plains to the "mountain islands" of Southeastern Idaho. Idaho contains some of the most remote, rugged, and varied forests in the West.

The following graph presents a breakdown of forest cover on all land ownerships from the 2004 Forest Inventory and Analysis Database available for Idaho's forest resource. The survey reflected more than 22 million acres of forestland, with about 19.2 million acres publicly owned and almost 2.8 million acres privately owned. Approximately 3.8 million acres of the forestland are in a reserve status, mainly National Forest wilderness areas, National Parks and Monuments. The predominant forest types in the state are Douglas-fir (29 %), subalpine fir (12 %), lodgepole pine (9 %), and grand fir (9 %). Detailed information is available from the Interior West FIA.



Components of Change

Because Idaho forests have high recreational, scenic, habitat, watershed and timber values, it is important to track their condition. Natural forces and human activities are responsible for changes in Idaho's forests. Growth and mortality reflect the changes brought about by insects and disease, fire and harvesting. In the past ten years, the level of mortality in Idaho's forests increased 50 %, from 247 to more than 597 million cubic feet (CCF) of growing stock volume. This is the highest statewide level of mortality reported since comprehensive forest inventories began. Average annual net growth of all live trees on forested lands for the past five years has averaged 611,813 thousand cubic feet per year. The average annual mortality during that same time has been 597,316 thousand cubic feet per year.

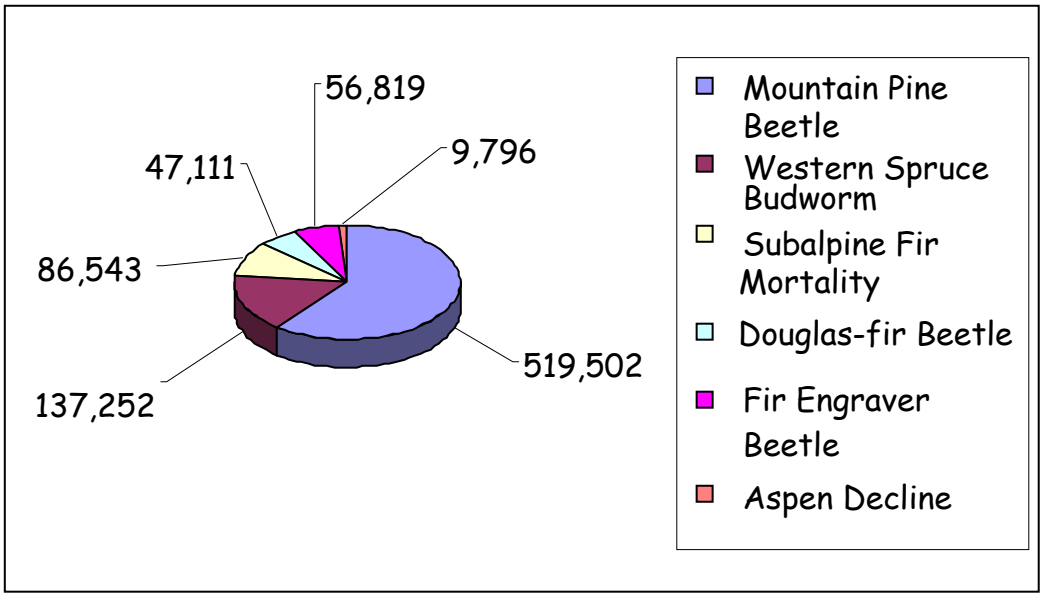


Forest Health Issues

The forests of Idaho are constantly barraged with factors that stress the trees including drought, fire, overcrowding and the influence of other biological agents. Warm and dry conditions over the last several years have compromised host tree health over Idaho forest landscapes, resulting in increased susceptibility to bark beetle and defoliator attack. Tree mortality in most reported species has increased, and that trend may continue as long as favorable conditions for insect infestation persist. Improving moisture conditions may improve tree health and reduce the level of mortality.

Mountain pine beetle continues to be the most frequently encountered and damaging bark beetle in the state. In some areas, intensity of damage may be decreasing because of the lack of suitable hosts to attack. *White pine blister rust* and *mountain pine beetle* are causing extensive mortality in high-elevation five-needled pines. Recent surveys in northern Idaho high-elevation forests have found infection rates of up to 90 percent in whitebark pine regeneration. There is a growing concern that severe losses of large diameter whitebark pine due to bark beetles, coupled with regeneration losses due to blister rust, may have considerable impacts on water and wildlife in these fragile ecosystems. *Western spruce budworm* has been on the rise, although damage levels remained static from 2004. Mortality from *western balsam bark beetle* is affecting about the same number of acres as in 2004, but the intensity has declined. Mortality from *Douglas-fir beetle* is decreasing as moister conditions have returned. *Western pine beetle* activity has also decreased with the return of improved precipitation. Grand fir mortality from *fir engraver* dropped dramatically in 2005 with the return of better precipitation. A decline of aspen was identified on nearly 10,000 acres across southern Idaho. A single cause has not been identified; rather, it appears that several pathogens and insects, along with droughty conditions, are responsible. Forest pathogens, including *root disease* and the exotic *white pine blister rust*, are responsible for shaping the current composition and structure of many Idaho Forests, particular in northern Idaho. These pathogens are not readily detected using traditional methods such as aerial detection survey, but their impact on Idaho's forest is significant.

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



For More Information:

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