

Idaho

Forest Health Monitoring Highlights - 2004

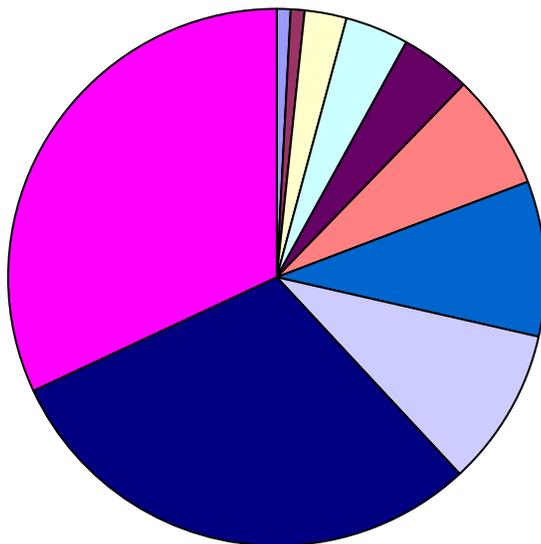
The Forest Resource



Idaho's forests extend from the large, crystal-clear lakes of the Idaho Panhandle, through the rugged central mountains of the Selway-Bitterroot, 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 %).

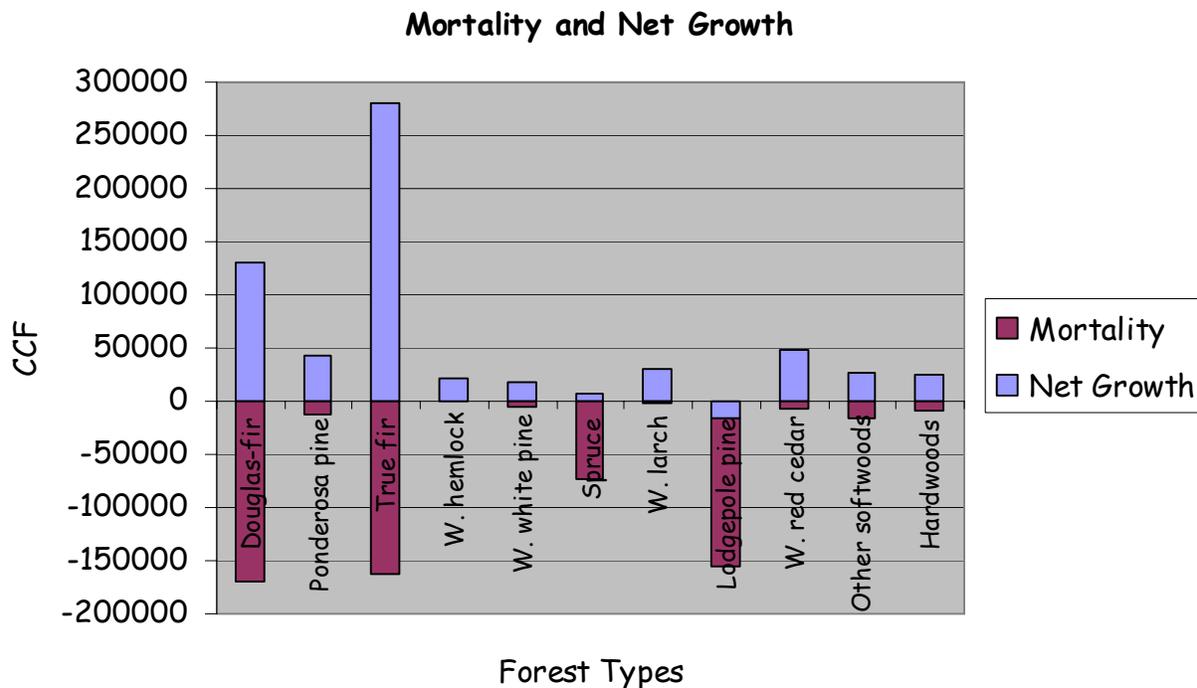
Idaho Forest Types



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

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 than 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.

Mountain pine beetle continues to be the most frequently encountered and damaging bark beetle in the state. *White pine blister rust* is now 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, tripling the amount of defoliated acreage recorded in 2002. Mortality from *western balsam bark beetle* nearly doubled across the state from 2002 estimates. *Douglas-fir beetle* tree mortality increased substantially, more so on areas affected by fires in 2000. *Western pine beetle* populations have also increased due to a combination of continued warm and droughty conditions and attacks on residual susceptible host trees that remained from the 2000 fires.

Trees killed and acres affected by bark beetles and defoliators in Idaho

Damage Agent	Trees killed (thousands)		Acres affected (thousands)	
	2002	2003	2002	2003
Mountain Pine Beetle	2,534.9	1,765.9	339.3	344.4
Ips beetle	2.5	9.0	1.2	3.8
W. pine beetle	11.7	18.9	8.6	16.7
Spruce beetle	.8	1.8	.5	.8
Douglas-fir beetle	97.7	159.4	52.8	49.2
Fir engraver	130.4	121.8	112.0	152.1
W. balsam bark beetles	115.0	191.2	74.8	99.4
Defoliators	---	---	82.2	160.2

For More Information:

Forest Health Protection

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 USDA Forest Service
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 Coeur d'Alene, ID 83814

and
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Interior West Forest
 Inventory & Analysis

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