

2015 Wyoming Forest Health Highlights



Forest Resources:

Wyoming has a land area of over 62.6 million acres, and elevations range from a low of 3,099 feet on the Belle Fourche River in Crook County in the northeastern corner of the state, to 13,804 feet on Gannett Peak in Fremont County. Approximately 19 percent of Wyoming, or about 11.8 million acres, is forested. Wyoming's forests provide clean water and air, wood products, habitat for wildlife and other biota, forage for livestock, the foundation of a profitable travel and tourism economy, and places for recreation and spiritual reflection.

Wyoming's forests are facing significant challenges. Bark beetle infestations, drought, highly destructive wildfires, introduction of invasive non-native species, and increased residential development are happening at a level not seen in recent history. Such challenges may inhibit the ability of our forests to provide the full range of multiple uses and values people enjoy and rely on.

Most of Wyoming's forests are located at higher elevations on federal land. Lodgepole pine is the most dominant forest type, followed in order of prevalence by spruce-fir, ponderosa pine, Douglas-fir, juniper, aspen, whitebark pine, and limber pine.

More than half of Wyoming's forest land is administered by the US Forest Service (USFS), 17 percent is privately-owned (including Indian Trust Land), 15 percent is administered by the National Park Service, 11 percent is administered by the Bureau of Land Management (BLM), and 4 percent is owned by state, county, and various other federal agencies (Wyoming State Forestry Division - WSFD, 2010).

(Excerpt from Governor's Task Force Final Report, January, 2015)

Forest Health Issues

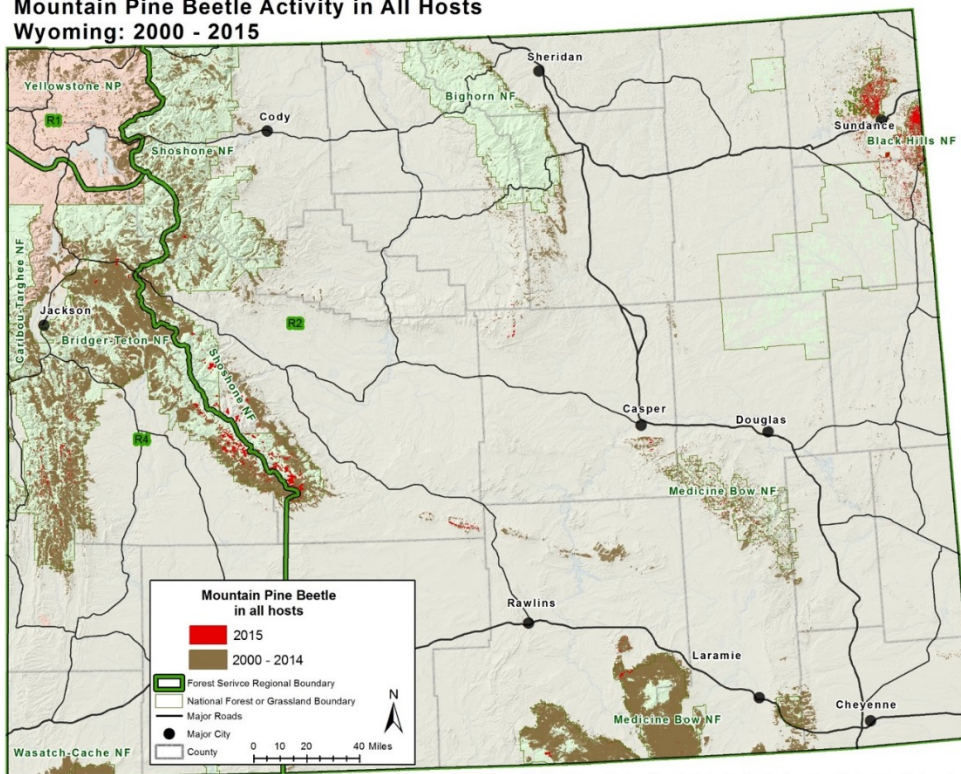
Mountain pine beetle (MPB) activity declined from 113,000 acres 2014 to 34,000 acres in 2015.

- The MPB epidemic ended in many areas of Wyoming, as mature pine trees were depleted in core outbreak areas.
- High elevation limber and whitebark pines, primarily in western Wyoming, accounted for 26,000 acres of the MPB affected areas.
- About 1,200 acres of ponderosa pine in northeastern Wyoming's Black Hills were also affected by MPB.

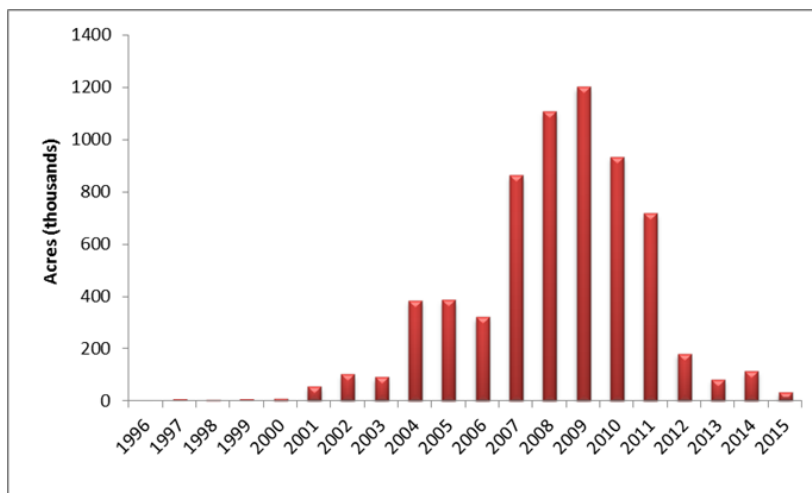
Rural and community forests were checked by WSFD in Albany, Campbell, Carbon, Converse, Cook, Fremont, Goshen, Johnson, Laramie, Natrona, Niobrara, Platte, and Weston Counties to detect MPB spread. There was a noticeable decline of MPB observed in 2015. Scattered, single-tree hits were remote from continuous pine forests and thus there were no large 'pockets' of beetle outbreaks. Many of the areas east of the Continental Divide & outside of National Forest lands were either recovering from past bark beetle activity or not attacked by MPB, yet.

"The area impacted by the MPB in the Black Hills is still growing; we continue working to slow the spread. The cooperation between South Dakota and Wyoming, the US Forest Service, the Bureau of Land Management, local governments, and industry serves as a model for other areas dealing with similar issues," said Bill Crapser, Wyoming State Forester.

**Mountain Pine Beetle Activity in All Hosts
Wyoming: 2000 - 2015**



Aerial detection survey map of MPB activity in all tree hosts (ponderosa, lodgepole, and white pines). Polygons in red represent MPB outbreaks in 2015, brown polygons are past outbreaks from 2000 - 2014.



Bar Graph Figure: The Annual Acres of observed mountain pine beetle activity in Wyoming. Not all areas were surveyed every year.



Photo of lodgepole pine stands in the aftermath of the mountain pine beetle epidemic on the Medicine Bow National Forest. Younger trees in older cutover areas survived and the older stands had high levels of pine mortality. Photo by Brian Howell, 2015.

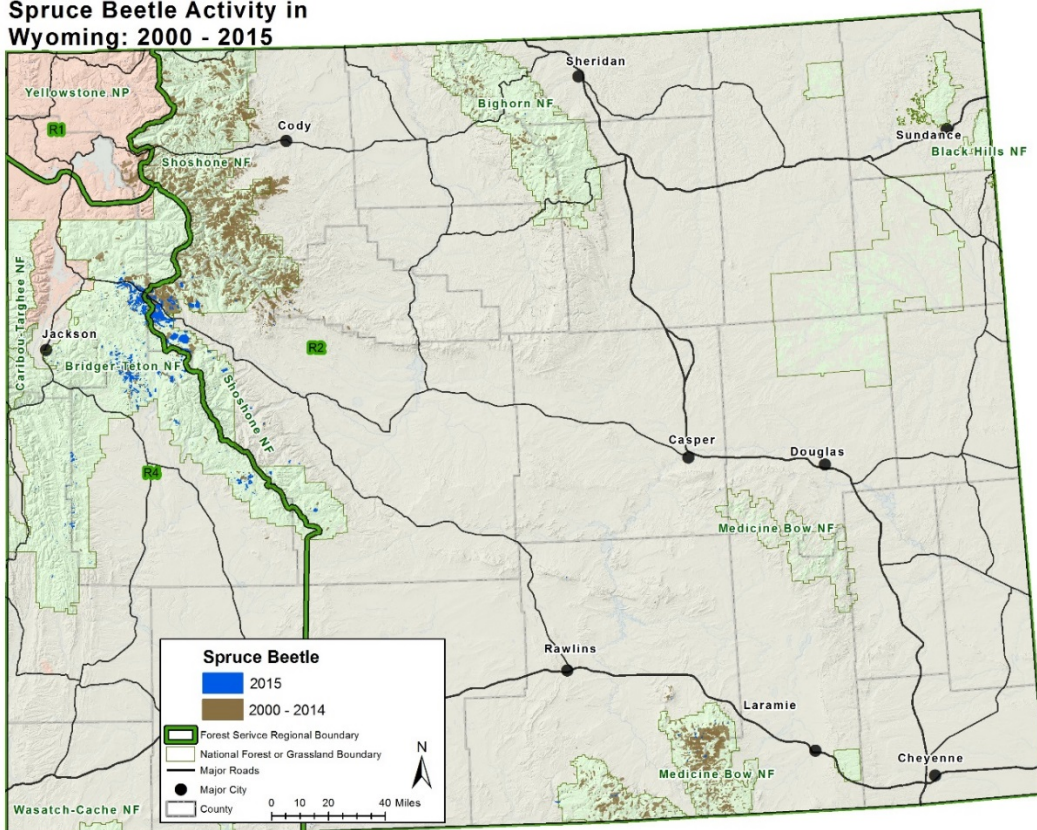


Picture from the Shoshone National Forest, Blue Ridge Area, with whitebark pine mortality killed by mountain pine beetle and white pine blister rust disease. Photo by Kendra Schotzko

Spruce beetle outbreaks caused spruce tree mortality primarily in western Wyoming.

- In 2015, spruce beetle infestations were detected on 68,000 acres in Wyoming. 66,000 of these acres were in the western Wyoming Counties of Fremont, Teton, and Sublette.
- Spruce beetle outbreaks expanded onto 44,000 acres of previously unaffected forests.
- Since 1996, spruce beetle outbreaks have caused varying degrees of tree mortality on more than 682,000 acres in Wyoming.
- Blowdown events, combined with long-term drought stress, warmer temperatures and extensive amounts of older, dense spruce, have contributed to ongoing epidemics.

Spruce Beetle Activity in Wyoming: 2000 - 2015



Aerial Detection Survey Map of Wyoming showing spruce beetle activity from 2000 - 2015

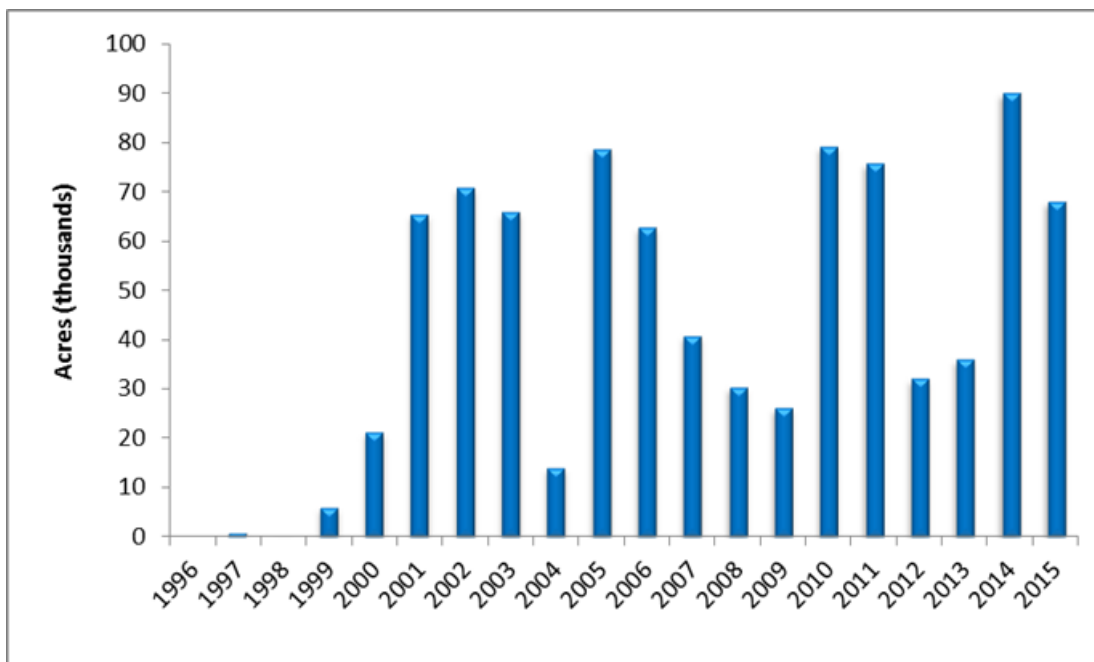


Figure of bar graphs indicating the annual acres of observed spruce beetle activity in Wyoming. Not all forested areas were surveyed every year.



Picture of spruce beetle caused tree mortality near Towgatee Pass, Shoshone National Forest. Photo by Al Dymerski, 2015.

Western spruce budworm caused detectable defoliation of Douglas-fir, and to a lesser extent of spruce, on 11,000 acres in Park County on the Shoshone National Forest. This is a decrease from 26,000 acres of defoliation detected in 2014.



Picture of damaged Douglas-fir trees from western spruce budworm on the Shoshone National Forest, Clark's Fork area. Photo by Kendra Schotzko, 2015

Monitoring for non-native insects continues.

- No adult **Gypsy Moths** were observed during the annual detection survey.
- **Emerald Ash Borer (EAB) beetle** was also closely monitored for spread from and established population in Northern Colorado.

WSFD Agency Highlights

The WSFD is committed to providing professional forestry service, information and education to the citizens of Wyoming to achieve resilient forests and communities.

In 2015, the WSFD treated more than 5,000 acres in Wyoming, predominantly on private and state lands, as part of forest management, forest health and wildfire mitigation efforts.

For more information and assistance, please contact:



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