

Damage Agents Identified during the 2015 ADS Survey

Code	Beetle Agents:	Code	Defoliation Agents:	Code	Disease Agents:	Code	Other Agents:
1	Douglas fir beetle	17	Balsam woolly adelgid	41	White pine bark scale	67	Frost injury
2	Engelmann spruce beetle	20	Western spruce budworm	50	White pine blister rust	70	Fire
3	Pine engraver (PE)	30	Larch needle miner	55	White pine needle scale	72	Wintrow
4	Mountain pine beetle (MPB)	89	Scale	66	Larch needle scale	73	Flooding/high water
5	Mountain pine beetle (MPB)					79	Dietrich
6	Mountain pine beetle (MPB)					100	Clear dead
7	Mountain pine beetle (MPB)						
8	Western pine beetle						
9	Fire						
10	Subalpine fir mortality						
11	Pine engraver (PE)						
12	MPB (high elevation 5-needle pines)						
13							
14							
15							

COODING SYSTEM
The number before the dash is the numeric code for the causal agent. The number after the dash is the number of dead trees in the polygon. Numbers after the dash, followed by an "A", mean number of trees per acre. When trees are not counted, intensity is shown by the letters L or H signifying Low or High. Examples: Code 50-# means large volume western pine mortality (# indicates the number of trees). Code 50-A or H represents small volume white pine mortality, usually in tree plantations.

HOW THE AERIAL SURVEYS ARE CONDUCTED
Data represented on this map are based on trees visibly affected by forest insects and diseases which are detected and recorded or estimated by observers during aerial survey flights. These flights are conducted by a joint partnership between the USFS Forest Service, the Montana Department of Natural Resources and Conservation, and the Idaho Department of Lands.

Observers have just a few seconds to recognize the color differences between healthy and damaged trees of different species, diagnose causal agent correctly, estimate the intensity or extent of damage, and precisely record information on a map. All fatalities (dead trees, dead snags, and cleared areas) are marked on the map. The pilot cooperators observe the sketches and the resultant data summaries provide an estimate of conditions on the ground, and may differ from estimates derived by other methods.

Aerial surveys conducted annually provide information on the current status of some causal agents, and is important in examining insect activity trends by comparing previous and current survey data over large areas.

DISCLAIMER
The sources of the digital map layer used to compile the base map upon which the insect and disease data are presented vary in both source and scale. Therefore, accuracy is not guaranteed. The insect and disease data should be used only as an indicator of insect and disease activity and should be ground-truthed for actual location and causal agent. Polygons indicate locations of tree mortality, defoliation, and/or other damage. Intensity of damage is variable, and not all trees and areas indicated are dead or damaged. The pilot cooperators reserve the right to correct, modify, update, or replace the data as necessary. Using this data for purposes other than those for which it was intended may yield inaccurate or misleading results.

LEGEND

Affected Area Agents

- Bark Beetles
- Used with dual agent types
- Defoliators
- Used with dual agent types
- Disease
- Used with dual agent types
- Other

Reporting Area Bdy.

County Bdy.

Land Manager

- Private
- USFS
- BLM
- State
- Other Federal
- Tribal

Area Flown
 Area Not Flown

COEUR D'ALENE I/R REPORTING AREA

Forest Health Protection Annual Aerial Detection Survey 2015

Map Location: MONTANA, NORTH DAKOTA, SOUTH DAKOTA, IDAHO, WYOMING

Scale: 1:100,000 (0 to 4 Miles)

Logos: UAS, IDNR, DNRC

