

SAWTOOTH NATIONAL FOREST

Minidoka Ranger District



Forest Health Protection Annual Aerial Detection Survey 2016

1:168,395



BARK BEETLES		DEFOLIATORS		DISEASE AGENTS		OTHER AGENTS	
Code	Agent	Code	Agent	Code	Agent	Code	Agent
1	Douglas fir beetle	17	Balsam woolly adelgid	50	White pine blister rust	66	Frost
2	Engelmann spruce beetle	20	Western spruce budworm	53	Aspen foliage disease	70	Fire
3	Pine engraver (PW/WP)	22	Douglas fir tussock moth	57	Rhabdocline (DF)	72	Windthrow
4	Mountain pine beetle (W/P)	23	Pine butterfly	69	Larch needle cast	73	Flooding
5	Mountain pine beetle (P/P)	24	Unidentified defoliator	81	Unknown rust	75	Dredline
6	Mountain pine beetle (L/P)	89	Scale insects	85	Unknown rust	76	Drought
7	Mountain pine beetle (WBP)	90	Satin moth			79	Debarack
8	Western pine beetle					80	Unknown Mortality
9	Fir engraver beetle						
11	Subalpine fir mortality						
13	Pine engraver (LPP)						
14	Mountain pine beetle (Lumber)						
15	MPB (high elevation 5-needle pines)						
16	Mountain pine beetle (Jeffery pine)						
88	Pyron tip						

TREE RANGE		SPECIES CODES		SPECIES CODES	
Code	% Stand Affected	Code	Species	Code	Species
1	(1)	DF	Douglas-fir	WBL	Whitebark pine
2	(2)	LP	Lodgepole pine	WLL	Willow
3	(3)	PP	Ponderosa pine	WLR	Western Larch
4	(4)	SAF	Subalpine fir	WLP	Western white pine
5	(5)	SPY	Single leaf pinyon	WRC	Western red cedar
		UCO	Unknown conifer		
		UHW	Unknown hardwood		

CODING SYSTEM
In 2016 Forest Health Protection began using a new coding scheme to document observable activity. For small spots, tree ranges were used to indicate the amount of activity. For larger areas delineated with polygons, the activity was documented as a range of the percent of stand affected.

The number before the dash is the numeric code for the causal agent, and if needed, followed by an 'L' or 'W' to indicate the severity of the activity. The number following the dash is the code representing the range of activity. For small points of data, the number represents the tree range. For larger polygons the number represents the percent (%) of the stand affected and will be enclosed by parentheses (%). If a species code or additional notation is added.

Examples: Code 5-2 represents mountain pine beetle in Ponderosa pine of 2-5 trees.
Code 20W(4) represents heavy defoliation of western spruce budworm affecting 30-50% of the delineated polygon.

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 on aircrafts by observers during aerial survey flights. These flights are conducted by a joint partnership between the USDA 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 difference 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. Air turbulence, cloud shadow, haze, smoke, and observer experience can affect the quality of the survey. These techniques 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 joint 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

Area Flow

- National Forest Bdy.
- County Bdy.
- State Line

