

HUMBOLDT-TOIYABE NATIONAL FOREST

Carson Ranger District

2014 Aerial Insect and Disease Detection Survey



1:126,720



INSECT & DISEASE ACTIVITY

BARK BEETLES		Mortality		
		1-4	5-14	15+ Trees
Mountain Pine Beetle (MPB)	Lodgepole pine	★	●	○
	Ponderosa pine	◆	◆	◆
	Whitebark pine	×	×	×
	Sugar pine	◇	◇	◇
Douglas-fir Beetle (DFB)	Douglas-fir	★	●	○
Jeffrey Pine Beetle (JPB)	Jeffrey pine	◆	◆	◆
Fir Engraver Beetle (FEB)	True fir	★	●	○
<i>Ips confusus</i>	Pinyon pine	★	●	○
Pine Engraver	Jeffrey pine	◆	◆	◆

MORTALITY & DISEASE			
Drought -Juniper	Unknown Mort. -Hardwoods	Dieback -Aspen	Not Rated

DEFOLIATORS	
Unknown defoliation -Aspen	NR Light Heavy
Satin moth -Aspen	NR Defoliation NR -not rated Light <50% Heavy >50%

ADDITIONAL SYMBOLS AND DAMAGE AGENTS

DUAL CODES	
MPB -WBP / FEB	Pinyon Ips / Discoloration
Survey -Boundary -Area	# -Trees affected #A -Trees/Acre affected
Aspen -Asp	Ponderosa pine -PP
Douglas-fir -DF	Spruce -S
Jeffrey pine -JP	Subalpine fir -SAF
Larch -L	Wstrn White pine -WWP
Lodgepole pine -LPP	Whitebark pine -WBP
Mixed Conifer -MC	

Disclaimer

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.

Aerial Insect & Disease Detection Surveys

Aerial insect and disease detection surveys are conducted annually to detect and monitor annual, visible, vegetation damage primarily caused by insects. Aerial detection surveys are intended to detect new activity, to monitor the trend of ongoing activity, to provide general location information, and to subjectively rate levels of defoliation. These flights are conducted in a joint partnership between the USDA Forest Service, Idaho Department of Lands, and The Nevada Division of Forestry.

Data represented on this map are based on trees visibly affected by forest insects, as detected by aerial observers. Most bark beetle-killed trees are not typically symptomatic (faded foliage that is yellow, orange, or brown) until nearly a year following beetle attack. Therefore, the numbers of trees killed by bark beetles, as indicated on this map, are a reflection of last year's mortality. The numbers do not reflect the current year's beetle population or number of currently attacked trees.

Observers have just a few seconds to recognize, identify, and document observed activity. Air turbulence, cloud shadow, haze, smoke, and observer experience can all affect the quality of the survey.

Forest Health Protection-Boise Field Office 12/31/2014

