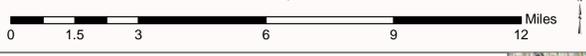


HUMBOLDT-TOIYABE NATIONAL FOREST

Bridgeport Ranger District

2012 Aerial Insect and Disease Detection Survey

1:126,720



INSECT & DISEASE ACTIVITY

BARK BEETLES		Mortality	
		1-4	5-14
Mountain Pine Beetle (MPB)	Lodgepole pine	●	○
	5-needle pines	▲	△
	Whitebark pine	■	□
	White pine	◆	◇
Jeffrey Pine Beetle (JPB)	Jeffrey pine	●	○
Fir Enggraver Beetle (FEB)	True fir	●	○
<i>Ips confusus</i>	Pinyon pine	●	○

MORTALITY & DISEASE		DEFOLIATORS	
		Light	Heavy
Decline -Aspen	Stand decline	Light <50%	Heavy >50%
Dieback -Aspen	Dieback	Light <50%	Heavy >50%
		Scale -Pinyon	Defoliation
		Light <50%	Heavy >50%

ADDITIONAL SYMBOLS AND DAMAGE AGENTS			
Drought -MMH	Light	Heavy	Damage
	Light <50%	Heavy >50%	Frost Dmg -Aspen
			Light <50%
			Heavy >50%
Surveyed Area	Unknown dmg -Aspen	Fire -JP, Pinyon	
# -Trees affected	Blowdown LP	Dual Codes:	
#A -Trees/Acre affected		MPB-LPP, WBP, WP	▲
Aspen -Asp	Mountain mahogany -MMH	FEB / MPB 5-needle pines	▲
Douglas-fir -DF	Pinyon pine -PY	FEB / JPB	▲
Jeffrey pine -JP	Ponderosa pine -PP	Decline -Asp / Frost -Asp	▲
Larch -L	Spruce -S	MPB-LP / MPB-WBP	▲
Lodgepole pine -LP	Subalpine fir -SAF		
Mixed Conifer -MC	Wstrn White pine -WP		
	Whitebark pine -WBP		

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.

*****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.