HUMBOLDT-TOIYABE NATIONAL FOREST

Austin and Tonopah Ranger Districts

2012 Aerial Insect and Disease Detection Survey

1:168,395

0 1 2 4 6 8 Miles

N

INSECT & DISEASE ACTIVITY

BARK BEETLES

		Mortality 1-4	5-14	15+ Trees
Mountain Pine Beetle (MPB) *Ips Confusus*	Limber pine	×	▲	△ 20
	Pinyon pine	✳	●	○ 20

MORTALITY & DISEASE

Dieback -Aspen — Low High Not Rated — Low <50% High >50%

Decline -Aspen — Low High — Low <50% High >50%

DEFOLIATORS

Sawfly -Pinyon pine — Light Heavy

Scale -Pinyon pine — Light Heavy

Forest tent caterpillar -Aspen — Light Heavy

Unknown defoliation -Aspen — Light Heavy

Defoliation Light <50% Heavy >50%

ADDITIONAL SYMBOLS AND DAMAGE AGENTS

Drought -MMH — Low High — Damage Low <50% High >50%

Frost damage -Aspen — Low High Not Rated — Low <50% High >50%

Survey -Boundary -Area

\# -Trees affected

#A -Trees/Acre affected

DUAL CODES

Dieback Lt, Asp / MPB -Lm

Aspen	-Asp		
Bristlecone pine	-B	Mountain Mahogany	-MMH
Douglas-fir	-DF	Pinyon pine	-PY
Larch	-L	Ponderosa pine	-PP
Limber pine	-Lim, Lm	Spruce	-S
Lodgepole pine	-LP	Subalpine fir	-SAF
Mixed Conifer	-MC	Whitebark pine	-WBP

*****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 obeserver experience can all affect the quality of the survey.

Forest Health Protection-Boise Field Office 12/11/2017