UINTA-WASATCH-CACHE NATIONAL FOREST

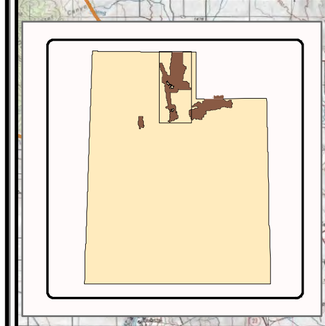
Logan, Ogden, and Salt Lake Ranger Districts

2014 Aerial Insect and Disease Detection Survey

1:168,395

0 2 4 8 Miles

N



INSECT & DISEASE ACTIVITY

BARK BEETLES

Mortality: 1-4 / 4-14 / 15+ Trees

Mountain Pine Beetle (MPB)	Lodgepole pine	✱ ●	20
	Limber pine	× ▲	20
	Whitebark pine	× ■	20
Douglas-fir Beetle (DFB)	Douglas-fir	✱ ●	20
Fir Engraver Beetle (FEB)	True fir	✱ ●	20
Spruce Beetle (SB)	Spruce	✱ ●	20
Ips Confusus	Pinyon pine	✱ ●	20

MORTALITY & DISEASE

Subalpine Fir Mortality — Subalpine fir ✱ ● 20

Decline -Aspen (Light / Heavy)

Damage: Light <50%, Heavy >50%

Dieback -Aspen (Light / Heavy)

DEFOLIATORS

Wstrn Spruce Bdwrm -Douglas-fir, True fir (Light / Heavy)

Unknown defoliation -Aspen, Oak (Light / Heavy)

Forest Tent Caterpillar -Maple, Oak (Light / Heavy)

Defoliation: Light <50%, Heavy >50%

ADDITIONAL SYMBOLS AND DAMAGE AGENTS

DUAL CODES

SAF mortality / MPB-LP

SAF mortality / FEB

Survey -Boundary -Area

\# -Trees affected

#A -Trees/Acre affected

Aspen	-Asp	Ponderosa pine	-PP
Douglas-fir	-DF	Spruce	-S
Larch	-L	Subalpine fir	-SAF
Limber pine	-X, Lm	Whitebark pine	-WBP
Lodgepole pine	-LP		

*****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 12/18/2014

Copyright © 2013 National Geographic Society, i-cubed