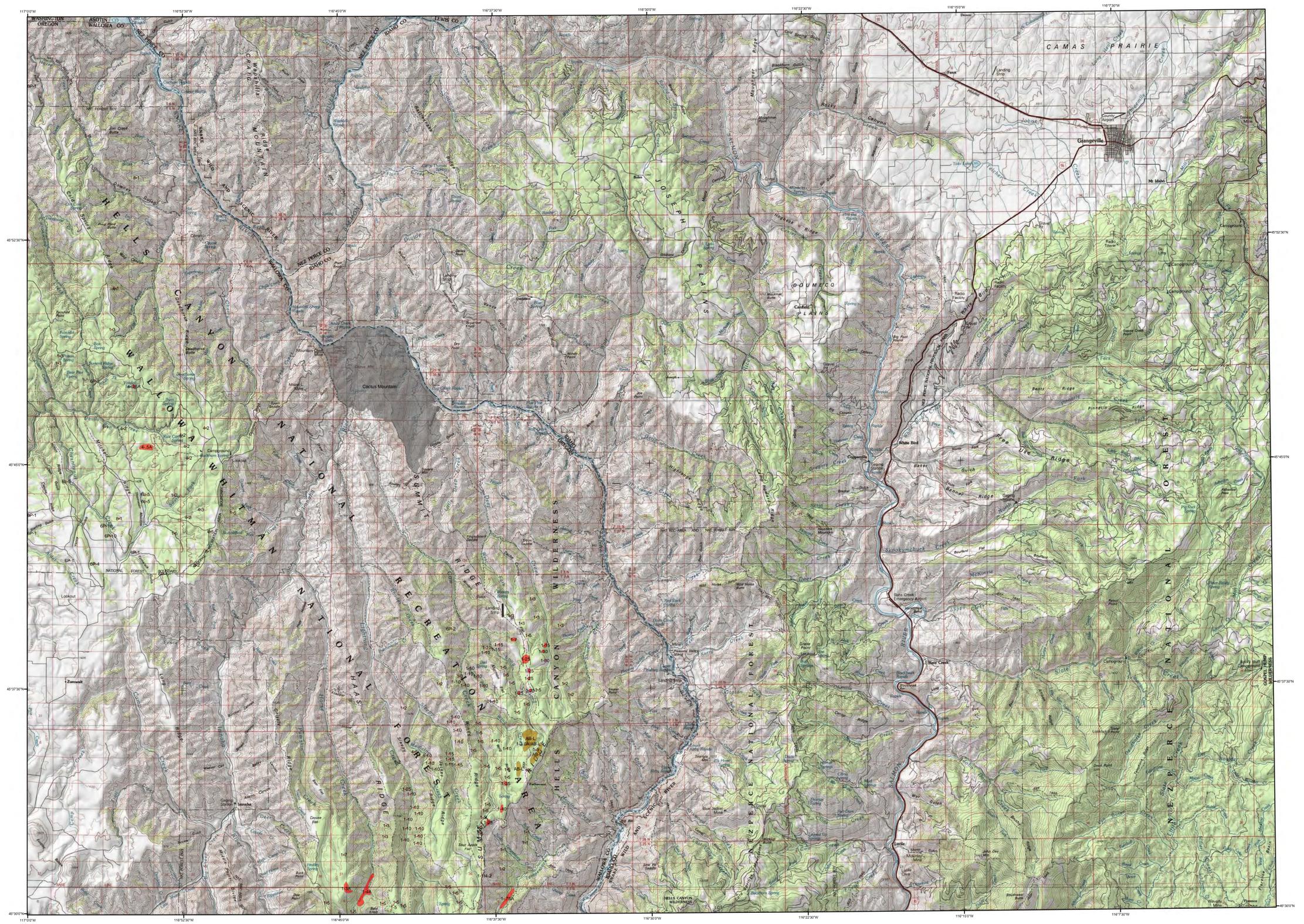


2011 Aerial Insect and Disease Survey

USGS 100K Quad: GRANGEVILLE - E145116; 9G



Mortality Agents		
Code	Damaging Agent	Primary Host
1	Douglas fir beetle	Douglas fir
2	Douglas fir engraver	Douglas fir
3	Spineless sawfly	True fir
4	Pine engraver	True fir
5	Western balsam bark beetle	Sub-alpine fir
6B	Mountain pine beetle	Whitebark pine
6L	Mountain pine beetle	Lodgepole pine
6P	Mountain pine beetle	Ponderosa pine
6S	Mountain pine beetle	Sugar pine
6W	Mountain pine beetle	Western white pine
7	Wet willow	Ponderosa, longleaf pines
8	Western pine beetle	Ponderosa pine
9	Wet willow	Pine-needle-pinecone pine
9A	Wet willow	Silver fir, true fir
9B	Wet willow	Conifer
9C	Wet willow	Douglas fir
9D	Wet willow	Whitebark pine
9E	Wet willow	Pine-needle-pinecone pine
9F	Wet willow	Pine-needle-pinecone pine
9G	Wet willow	Pine-needle-pinecone pine
9H	Wet willow	Pine-needle-pinecone pine
9I	Wet willow	Pine-needle-pinecone pine
9J	Wet willow	Pine-needle-pinecone pine
9K	Wet willow	Pine-needle-pinecone pine
9L	Wet willow	Pine-needle-pinecone pine
9M	Wet willow	Pine-needle-pinecone pine
9N	Wet willow	Pine-needle-pinecone pine
9O	Wet willow	Pine-needle-pinecone pine
9P	Wet willow	Pine-needle-pinecone pine
9Q	Wet willow	Pine-needle-pinecone pine
9R	Wet willow	Pine-needle-pinecone pine
9S	Wet willow	Pine-needle-pinecone pine
9T	Wet willow	Pine-needle-pinecone pine
9U	Wet willow	Pine-needle-pinecone pine
9V	Wet willow	Pine-needle-pinecone pine
9W	Wet willow	Pine-needle-pinecone pine
9X	Wet willow	Pine-needle-pinecone pine
9Y	Wet willow	Pine-needle-pinecone pine
9Z	Wet willow	Pine-needle-pinecone pine

USGS 100K Quad: GRANGEVILLE - E145116; 9G
 2011 Aerial Insect and Disease Survey
 Map Scale: 1:100,000
 Date: 16 December 2011

Legend

- Defoliating Agents
- Mortality Agents
- Other Damage
- Areas Not Flown
- 2011 Large Fires

Source: Northwest Interagency Coordination Center

The cause of damage is described by a symbol above and is followed by: number of trees affected; number of trees per acre (example: 5A1) or intensity of damage (L - Light, M - Moderate, H - Heavy).

The TOPOI maps are seamless, scanned images of United States Geological Survey (USGS) paper topographic maps. For more information on this map, visit us online at http://gto.arcgis.com/arcgis/rest/services/USGS_Topographic_Maps

A data dictionary, digital copies of this map and Arctics insect and disease data are available at www.fs.usda.gov/gto/r6/fhp/ads

How the Aerial Surveys Are Conducted

Data represented on this map are based on trees visibly affected by forest insects and diseases detected and recorded during aerial survey flights conducted by the USDA Forest Service, the Washington Department of Natural Resources and the Oregon Department of Forestry. Observers have just a few seconds to recognize the color difference between healthy and damaged trees of different species; diagnose causal agents correctly; estimate intensity; delineate the extent of damage; and precisely record this information on a georeferenced, digital map. Air turbulence, cloud shadows, distance from aircraft, haze, smoke and observer experience can all affect the quality of the survey. These data summaries provide an estimate of conditions on the ground and may differ from estimates derived by other methods.

The aerial survey provides information on the current status for many causal agents, and is important when examining insect activity trends by comparing historical and current survey data over large areas.

Overview surveys are a 'snap shot' in time and therefore may not be timed to accurately capture the true extent or severity of a particular disturbance activity. Specially designed surveys with modified flight patterns and timing may be conducted to more accurately delineate the extent and severity of a particular disturbance agent. Special surveys, such as Swiss needle cast surveys, are conducted when resources are available to address situations of sufficient economic, political or environmental importance.

DIRECT ALL INQUIRIES TO:

Oregon Department of Forestry
 Forest Health Management
 2600 State Street
 Salem, OR 97310

-- OR --

USDA Forest Service, Region 6
 Natural Resources
 Forest Health Protection
 PO Box 3623
 Portland, Oregon 97208

DISCLAIMER
 Forest Health Protection (FHP), Washington Department of Natural Resources (WDNR) and Oregon Department of Forestry (ODF) strive to maintain an accurate Aerial Detection Survey (ADS) Dataset, but due to the conditions under which the data are collected, FHP, WDNR and ODF shall not be held responsible for missing or inaccurate data. ADS are not intended to replace more specific information. An accuracy assessment has not been done for this dataset; however, ground checks are completed in accordance with local and national guidelines. <http://www.fs.fed.us/foresthealth/ads/>
 quality assurance.shtml. Maps and data may be updated without notice. Please cite: "USDA Forest Service, Forest Health Protection, Washington Department of Natural Resources, Resource Protection Division, and Oregon Department of Forestry, Forest Health Management" as the source of this data.