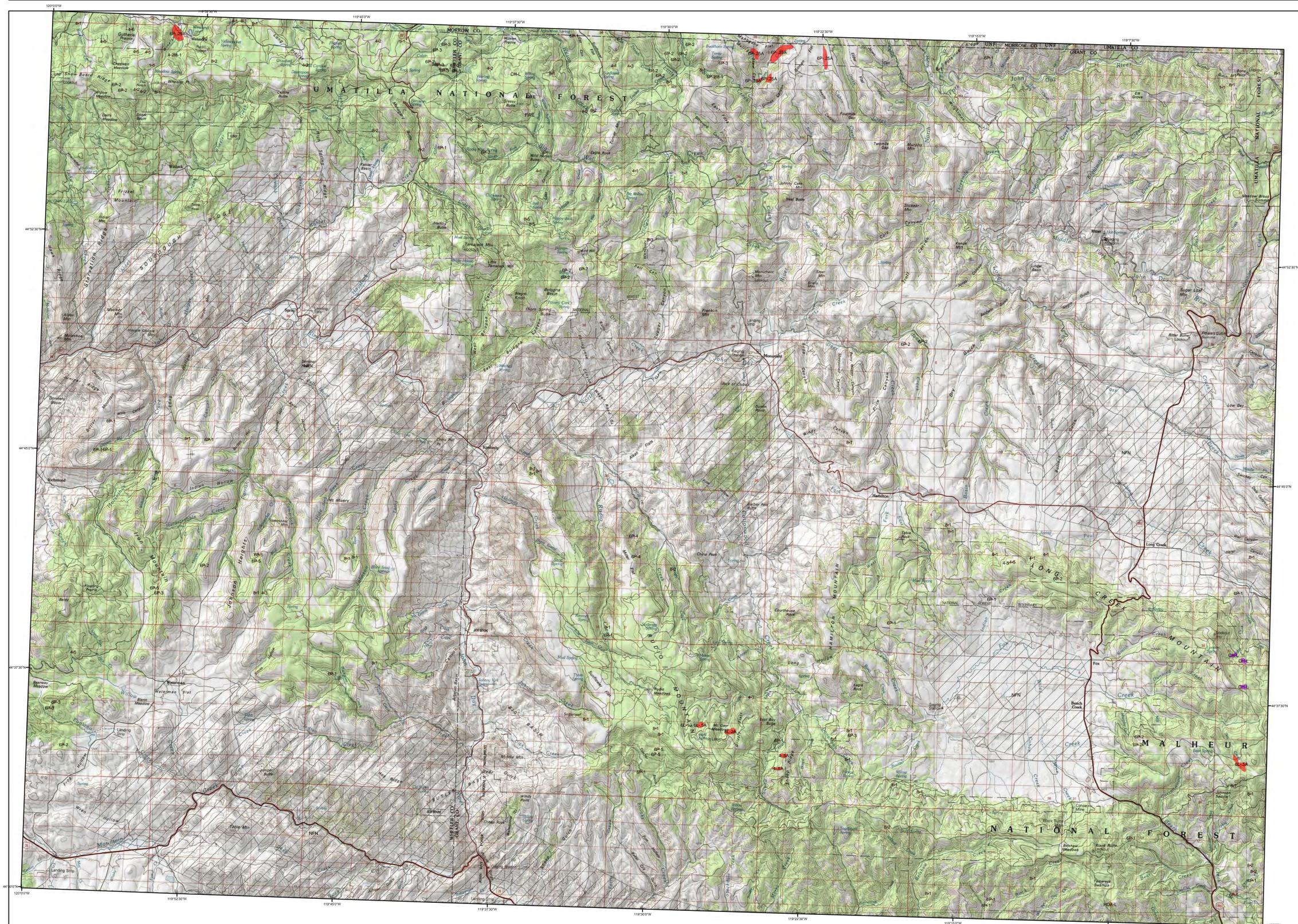


2011 Aerial Insect and Disease Survey

USGS 100K Quad: MONUMENT - E144119; 6I



USGS 100K Quad: MONUMENT - E144119; 6I
 2011 Aerial Insect and Disease Survey
 Map Scale: 1:100,000
 Date: 15 December 2011

Legend

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

Source: Northwest Interagency Coordination Center



The TOPO! 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://goto.arcgisonline.com/maps/USA_Topo_Maps

A data dictionary, digital copies of this map and Arctics insect and disease data are available at www.fs.usda.gov/goto/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) Database, 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/>
 qualityassurance.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.

Mortality Agents

Code	Damaging Agent	Primary Host
2	Douglas fir engraver	Douglas fir
3	Spineless knitter	Spineless knitter
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
6W	Mountain pine beetle	Western white pine
7	Wet pine beetle	Ponderosa, lodgepole pines
8	Western pine beetle	Ponderosa pine
9	Wet pine beetle	Pacific ponderosa pine
9A	Wet pine beetle	Silver fir, true fir
9B	Wet pine beetle	Douglas fir
9C	Wet pine beetle	Aspen
9D	Wet pine beetle	Western larch
9E	Wet pine beetle	Western hemlock
9F	Wet pine beetle	Western tanoak
9G	Wet pine beetle	Western white pine
9H	Wet pine beetle	Western yellow pine
9I	Wet pine beetle	Western yellow pine
9J	Wet pine beetle	Western yellow pine
9K	Wet pine beetle	Western yellow pine
9L	Wet pine beetle	Western yellow pine
9M	Wet pine beetle	Western yellow pine
9N	Wet pine beetle	Western yellow pine
9O	Wet pine beetle	Western yellow pine
9P	Wet pine beetle	Western yellow pine
9Q	Wet pine beetle	Western yellow pine
9R	Wet pine beetle	Western yellow pine
9S	Wet pine beetle	Western yellow pine
9T	Wet pine beetle	Western yellow pine
9U	Wet pine beetle	Western yellow pine
9V	Wet pine beetle	Western yellow pine
9W	Wet pine beetle	Western yellow pine
9X	Wet pine beetle	Western yellow pine
9Y	Wet pine beetle	Western yellow pine
9Z	Wet pine beetle	Western yellow pine

Other Damaging Agents

Code	Damaging Agent	Primary Host
AB	Balsam woolly adelgid	True fir
AC	Cooley spruce gall adelgid	Spineless, Douglas fir
AD	Leaf-miner	Whitebark pine
AE	Leaf-miner	Whitebark pine
AF	Leaf-miner	Whitebark pine
AG	Leaf-miner	Whitebark pine
AH	Leaf-miner	Whitebark pine
AI	Leaf-miner	Whitebark pine
AJ	Leaf-miner	Whitebark pine
AK	Leaf-miner	Whitebark pine
AL	Leaf-miner	Whitebark pine
AM	Leaf-miner	Whitebark pine
AN	Leaf-miner	Whitebark pine
AO	Leaf-miner	Whitebark pine
AP	Leaf-miner	Whitebark pine
AQ	Leaf-miner	Whitebark pine
AR	Leaf-miner	Whitebark pine
AS	Leaf-miner	Whitebark pine
AT	Leaf-miner	Whitebark pine
AU	Leaf-miner	Whitebark pine
AV	Leaf-miner	Whitebark pine
AW	Leaf-miner	Whitebark pine
AX	Leaf-miner	Whitebark pine
AY	Leaf-miner	Whitebark pine
AZ	Leaf-miner	Whitebark pine

Defoliators

Code	Damaging Agent	Primary Host
BS	Western spruce budworm	True fir, Douglas fir, spruce
CH	Larch casebearer/typhlocyba	Western larch
CL	Western hemlock looper	Western hemlock
LC	Needle cast	Lodgepole pine
LS	Black pine leaf scale	Ponderosa pine
ML	Larch budmoth	Western larch
PL	Pine budworm	Ponderosa pine
PC	Pine needle cast	Ponderosa pine
HC	Needle cast	Western larch
SP	Sawfly	True fir
SH	Sawfly	Aspen
SM	Sawfly	Aspen
SN	Sawfly	Aspen
SO	Sawfly	Aspen
SP	Sawfly	Ponderosa pine
TA	Tent caterpillar, alder	Alder
TM	Douglas fir tussock moth	True fir, Douglas fir

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

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