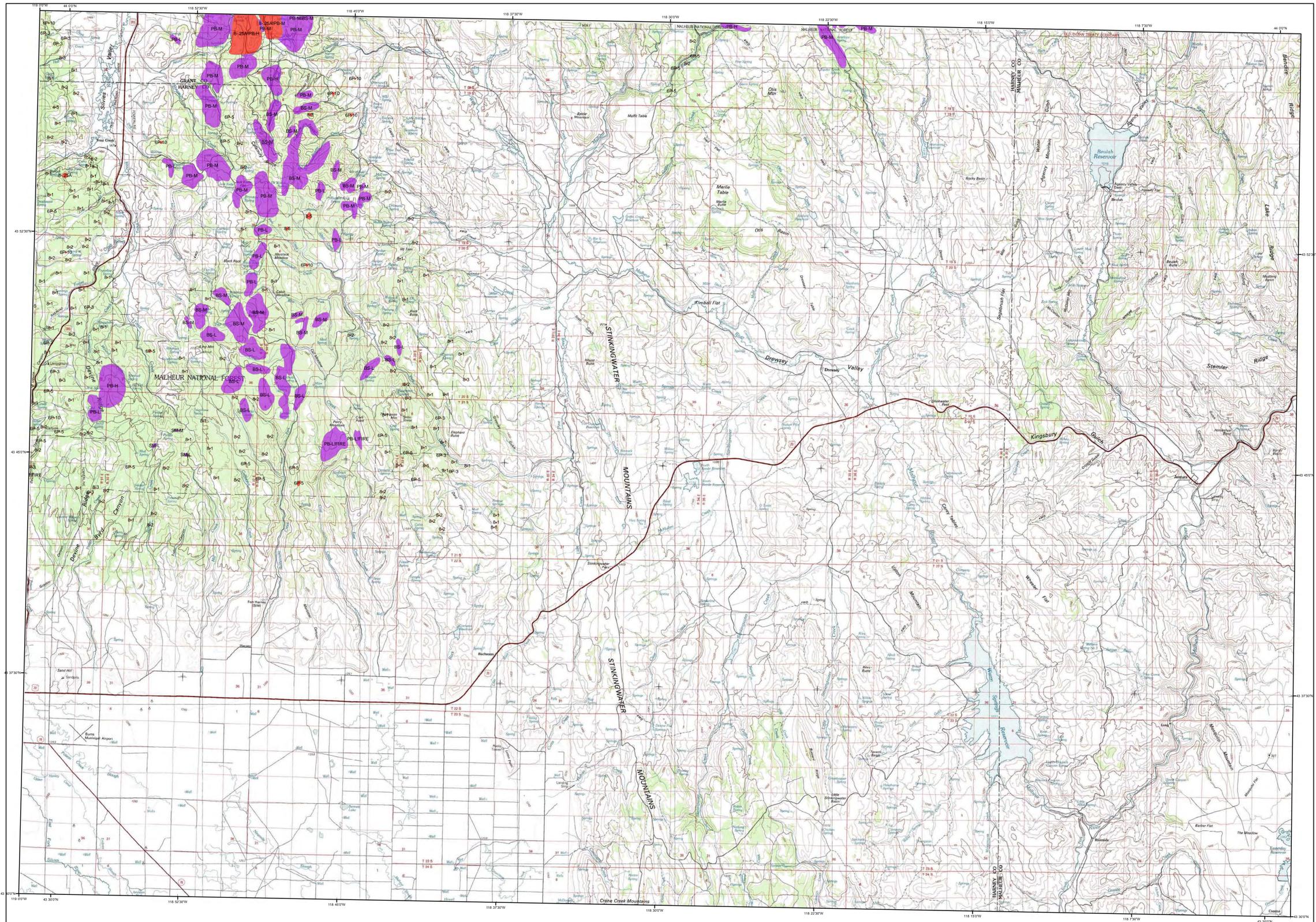


# 2010 Aerial Insect and Disease Survey

## USGS 100K Quad: Stinking Water Mountains - E143118; 7K



Defoliators		Mortality Agents	
Code	Damaging Agent	Code	Damaging Agent
AS	Spruce aphid	1	Douglas-fir beetle
BB	Western blackheaded budworm	2	Douglas-fir engraver
BM	Modoc budworm	3	Spruce leaf-bee
BP	Swainson's sawfly	4	Fir engraver
BS	Western spruce budworm	5	Western balsam bark beetle
BY	Byrrhus blythi/lythodermella	6J	Mountain pine beetle
CH	Larch sawfly	6K	Mountain pine beetle
HL	Western hemlock looper	6L	Mountain pine beetle
LO	Green striped forest looper	6M	Mountain pine beetle
LL	Larch looper	6S	Mountain pine beetle
LD	Douglas-fir budmoth	6W	Mountain pine beetle
LS	Larch budmoth	7	Western white pine
LN	Douglas-fir needle midge	8	Western white pine
MD	Spruce budmoth	8B	Western white pine
ND	Needle miner	BEAR	Bear damage
NJ	Needle miner	PL	Port Orford cedar root disease
NL	Needle miner	RD	Root disease
NS	Needle miner	WATR	Water damage
NT	Needle miner		
NW	Needle miner		
OL	Western oak looper		
PC	Pine caterpillar		
PH	Pine needle case		
PI	Pine needle sawfly		
PM	Pine needle sawfly		
PN	Pine needle sawfly		
PS	Pine needle sawfly		
RC	Needle case		
SD	Sawfly		
SA	Sawfly		
SB	Sawfly		
SC	Sawfly		
SD	Sawfly		
SE	Sawfly		
SF	Sawfly		
SG	Sawfly		
SH	Sawfly		
SI	Sawfly		
SK	Sawfly		
SL	Sawfly		
SM	Sawfly		
SN	Sawfly		
SO	Sawfly		
SP	Sawfly		
SR	Sawfly		
SS	Sawfly		
ST	Sawfly		
TA	Tent caterpillar, alder		
TC	Tent caterpillar, other		
TD	Douglas-fir tussock moth		
TS	Tent caterpillar, aspen		

**USGS 100K Quad: Stinking Water Mountains - E143118; 7K**  
**2010 Aerial Insect and Disease Detection Survey**  
**Mapscale: 1:100,000**  
**Date: January 11, 2011**

### Legend

- Defoliating Agents
- Mortality Agents
- Other Damage

The map base was created with TOPO! (Copyright 2001, National Geographic); available online at: [www.ngmapstore.com](http://www.ngmapstore.com)

A data dictionary, digital copies of this map and ArcGIS insect and disease data are available at: [www.fs.fed.us/r6/nr/rid/data.shtml](http://www.fs.fed.us/r6/nr/rid/data.shtml)

### 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 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, Oregon 97310**

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

DISCLAIMER  
 Forest Health Protection (FHP) 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 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/accuracyassessment.shtml>  
 Maps and data may be updated without notice. Please cite: "USDA Forest Service, Forest Health Protection and Oregon Department of Forestry, Forest Health Management" as the source of this data in maps and publications.