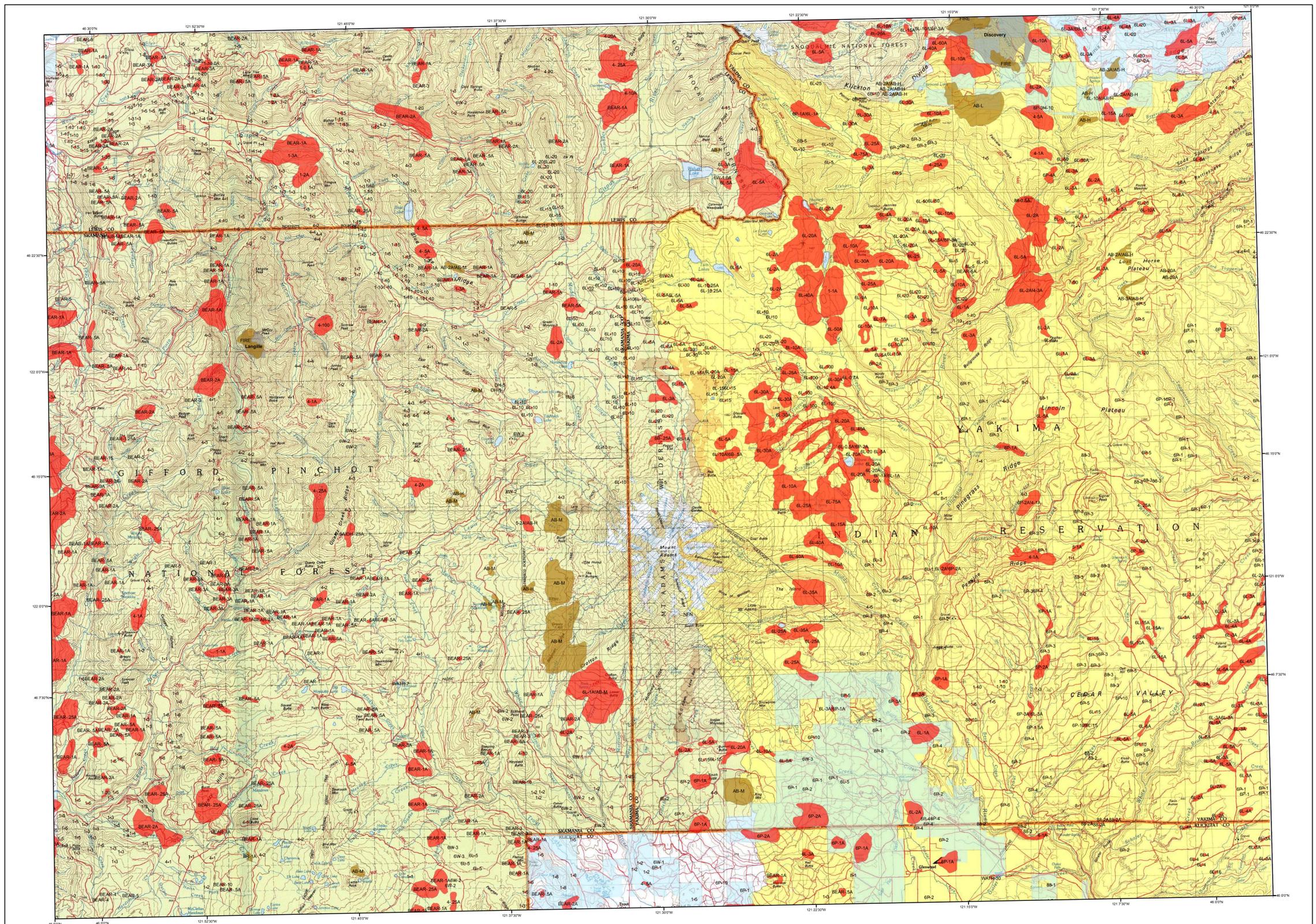


2009 Aerial Insect and Disease Survey Mt. Adams - USGS Quad E146121; 4F



Defoliators		Mortality Agents	
Code	Damaging Agent	Code	Damaging Agent
AS	Spruce aphid	1	Douglas fir beetle
BB	Western blackheaded budworm	2	Douglas fir spruce beetle
BM	Medior borealis	3	Spruce beetle
BP	Sugar pine tortrix	4	True fir
BS	Western spruce budworm	5	Western balsam bark beetle
BV	Byrum's bright/lophodermella	6	Mountain pine beetle
CH	Larch	7	Mountain pine beetle
HL	Western hemlock looper	8	Mountain pine beetle
LG	Green striped forest looper	9	Mountain pine beetle
LL	Larch looper	10	Mountain pine beetle
LS	Black pine needle scale	11	Mountain pine beetle
MD	Douglas fir budmoth	12	Mountain pine beetle
ML	Larch budmoth	13	Mountain pine beetle
MN	Douglas fir needle midge	14	Mountain pine beetle
MS	Spruce budmoth	15	Mountain pine beetle
ND	Needle miner	16	Mountain pine beetle
NL	Needle miner	17	Mountain pine beetle
NP	Needle miner	18	Mountain pine beetle
NS	Needle miner	19	Mountain pine beetle
NT	Needle miner	20	Mountain pine beetle
NW	Needle miner	21	Mountain pine beetle
OB	Western oak looper	22	Mountain pine beetle
PC	Pine needle cast	23	Mountain pine beetle
PH	Phantom hemlock looper	24	Mountain pine beetle
PN	Pine needle scale	25	Mountain pine beetle
PS	Pine needle scale	26	Mountain pine beetle
SA	Sawfly	27	Mountain pine beetle
SD	Sawfly	28	Mountain pine beetle
SH	Sawfly	29	Mountain pine beetle
SK	Sawfly	30	Mountain pine beetle
SL	Sawfly	31	Mountain pine beetle
SM	Sawfly	32	Mountain pine beetle
SN	Sawfly	33	Mountain pine beetle
SO	Sawfly	34	Mountain pine beetle
SP	Sawfly	35	Mountain pine beetle
SW	Sawfly	36	Mountain pine beetle
TA	Test caterpillar, other	37	Mountain pine beetle
TC	Test caterpillar, other	38	Mountain pine beetle
TD	Test caterpillar, other	39	Mountain pine beetle
TE	Test caterpillar, other	40	Mountain pine beetle
TF	Test caterpillar, other	41	Mountain pine beetle
TS	Test caterpillar, other	42	Mountain pine beetle

USGS 100K Quad - Mt. Adams; E146121; 4F
2009 Aerial Insect and Disease Detection Survey
Mapscale: 1:100,000
Date: January 21, 2010

Legend

- Defoliating Agents
- Mortality Agents
- Other Damage
- WadNR Managed Lands
- 2009 Large Fires
- Areas Not Flown

Source: Northwest Coordination Center

Source: Washington Dept. of Natural Resources

The map base was created with TOPOI (Copyright 2001, National Geographic), available online at: www.ngmapstore.com

A data dictionary, digital copies of this map and ArcGIS insect and disease data are available at: www.fs.fed.us/rn/rfd/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 Washington Department of Natural Resources. 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 agent. 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:

Washington State Department of Natural Resources
 Resource Protection Division
 Forest Health
 1111 Washington St. SE
 Olympia, WA 98504

-- OR --

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

DISCLAIMER
 Forest Health Protection (FHP) and Washington Department of Natural Resources (WDNR) strive to maintain an accurate Aerial Detection Survey (ADS) Dataset, but due to the conditions under which the data are collected, FHP and WDNR 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 and Washington Department of Natural Resources, Resource Protection Division, Forest Health, as the source of this data in maps and publications.