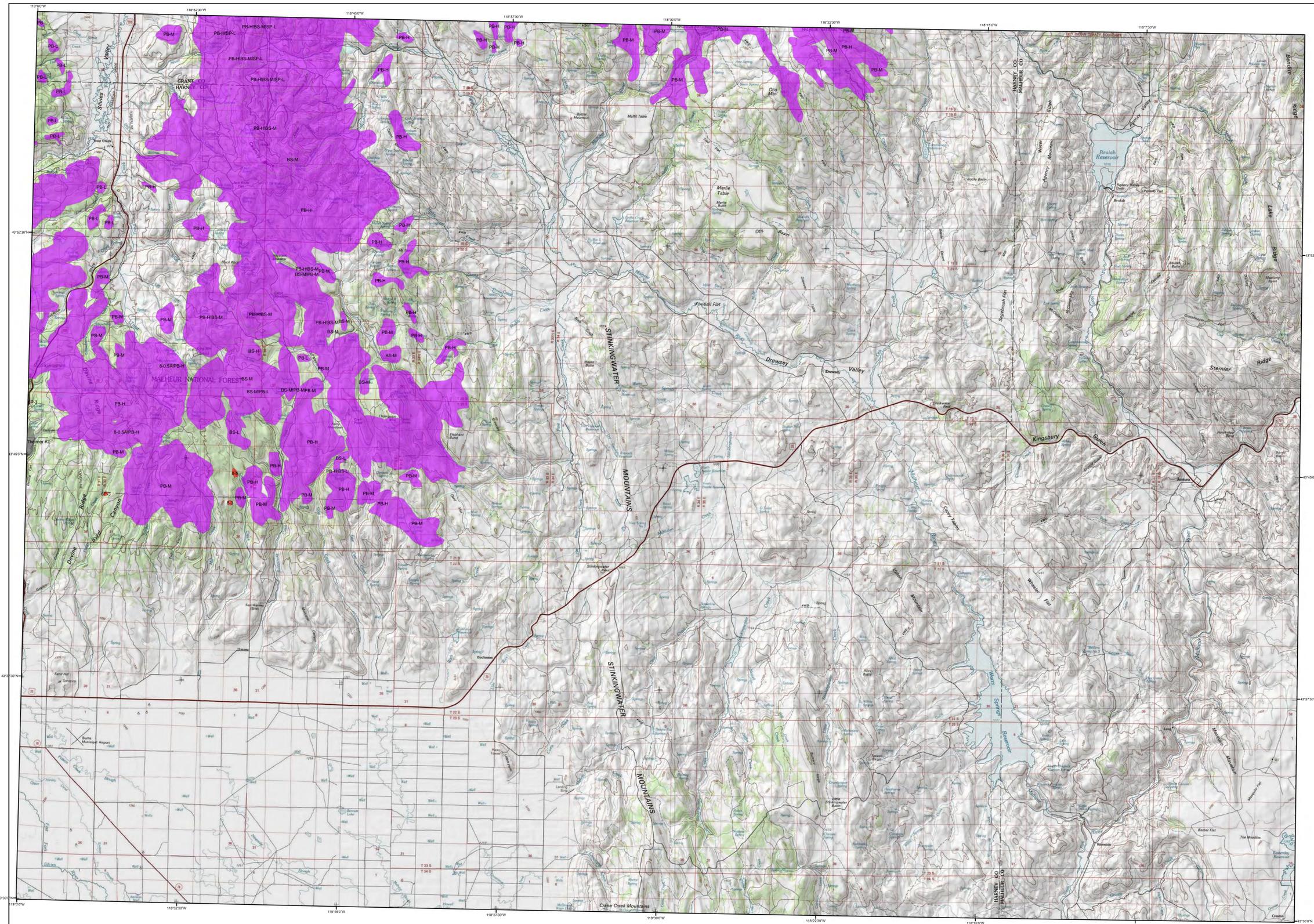


2011 Aerial Insect and Disease Survey

USGS 100K Quad: STINKINGWATER MOUNTAINS - E143118; 7K



Mortality Agents			Other Damaging Agents		
Code	Damaging Agent	Primary Host	Code	Damaging Agent	Primary Host
1	Douglas fir beetle	Douglas fir	AB	Balsam woolly adelgid	True fir
2	Douglas fir engraver	Douglas fir	AC	Cooley spruce gall adelgid	Sitka spruce, Douglas fir
3	San Jose scale	Various	AD	Leaf-miner	Various
4	Pine engraver	True fir	AE	Leaf-roller	Various
5	Western balsam bark beetle	Sub-alpine pine	AF	Blister rust	Various
6B	Mountain pine beetle	Whitebark pine	AG	Chrysobothris bark	True fir
6L	Mountain pine beetle	Lodgepole pine	AH	Dying hemlock	Hemlock
6P	Mountain pine beetle	Ponderosa pine	AI	Fire	All species
6S	Mountain pine beetle	Sugar pine	AJ	Hardwood decline	Hardwoods
6W	Mountain pine beetle	Western white pine	AK	Hardwood decline	Aspen
7	Wet pine beetle	Ponderosa pine	AL	Hardwood decline	Aspen
8	Western pine beetle	Pine	AM	Arava nut flower - non host	Oak
9	Western pine beetle	Pine	AN	Arava nut flower - host	Oak
9A	Western pine beetle	Pine	AO	Pacific madrone decline	Pacific madrone
9B	Western pine beetle	Pine	AP	Leaf roll in poplars	Poplars
9C	Western pine beetle	Pine	AR	Rail rust	All species
9D	Western pine beetle	Pine	AS	Water damage	All species
9E	Western pine beetle	Pine	AT	Winter damage	All species
9F	Western pine beetle	Pine	AW	Winter damage	All species
9G	Western pine beetle	Pine	AX	Winter damage	All species
9H	Western pine beetle	Pine	AY	Winter damage	All species
9I	Western pine beetle	Pine	AZ	Winter damage	All species
9J	Western pine beetle	Pine	AA	Winter damage	All species
9K	Western pine beetle	Pine	AB	Winter damage	All species
9L	Western pine beetle	Pine	AC	Winter damage	All species
9M	Western pine beetle	Pine	AD	Winter damage	All species
9N	Western pine beetle	Pine	AE	Winter damage	All species
9O	Western pine beetle	Pine	AF	Winter damage	All species
9P	Western pine beetle	Pine	AG	Winter damage	All species
9Q	Western pine beetle	Pine	AH	Winter damage	All species
9R	Western pine beetle	Pine	AI	Winter damage	All species
9S	Western pine beetle	Pine	AJ	Winter damage	All species
9T	Western pine beetle	Pine	AK	Winter damage	All species
9U	Western pine beetle	Pine	AL	Winter damage	All species
9V	Western pine beetle	Pine	AM	Winter damage	All species
9W	Western pine beetle	Pine	AN	Winter damage	All species
9X	Western pine beetle	Pine	AO	Winter damage	All species
9Y	Western pine beetle	Pine	AP	Winter damage	All species
9Z	Western pine beetle	Pine	AQ	Winter damage	All species
10	Various	Various	BA	Winter damage	All species
11	Various	Various	BB	Winter damage	All species
12	Various	Various	BC	Winter damage	All species
13	Various	Various	BD	Winter damage	All species
14	Various	Various	BE	Winter damage	All species
15	Various	Various	BF	Winter damage	All species
16	Various	Various	BG	Winter damage	All species
17	Various	Various	BH	Winter damage	All species
18	Various	Various	BI	Winter damage	All species
19	Various	Various	BJ	Winter damage	All species
20	Various	Various	BK	Winter damage	All species
21	Various	Various	BL	Winter damage	All species
22	Various	Various	BM	Winter damage	All species
23	Various	Various	BN	Winter damage	All species
24	Various	Various	BO	Winter damage	All species
25	Various	Various	BP	Winter damage	All species
26	Various	Various	BQ	Winter damage	All species
27	Various	Various	BR	Winter damage	All species
28	Various	Various	BS	Winter damage	All species
29	Various	Various	BT	Winter damage	All species
30	Various	Various	BU	Winter damage	All species
31	Various	Various	BV	Winter damage	All species
32	Various	Various	BW	Winter damage	All species
33	Various	Various	BX	Winter damage	All species
34	Various	Various	BY	Winter damage	All species
35	Various	Various	BZ	Winter damage	All species
36	Various	Various	CA	Winter damage	All species
37	Various	Various	CB	Winter damage	All species
38	Various	Various	CC	Winter damage	All species
39	Various	Various	CD	Winter damage	All species
40	Various	Various	CE	Winter damage	All species
41	Various	Various	CF	Winter damage	All species
42	Various	Various	CG	Winter damage	All species
43	Various	Various	CH	Winter damage	All species
44	Various	Various	CI	Winter damage	All species
45	Various	Various	CJ	Winter damage	All species
46	Various	Various	CK	Winter damage	All species
47	Various	Various	CL	Winter damage	All species
48	Various	Various	CM	Winter damage	All species
49	Various	Various	CN	Winter damage	All species
50	Various	Various	CO	Winter damage	All species
51	Various	Various	CP	Winter damage	All species
52	Various	Various	CQ	Winter damage	All species
53	Various	Various	CR	Winter damage	All species
54	Various	Various	CS	Winter damage	All species
55	Various	Various	CT	Winter damage	All species
56	Various	Various	CU	Winter damage	All species
57	Various	Various	CV	Winter damage	All species
58	Various	Various	CW	Winter damage	All species
59	Various	Various	CX	Winter damage	All species
60	Various	Various	CY	Winter damage	All species
61	Various	Various	CZ	Winter damage	All species
62	Various	Various	DA	Winter damage	All species
63	Various	Various	DB	Winter damage	All species
64	Various	Various	DC	Winter damage	All species
65	Various	Various	DD	Winter damage	All species
66	Various	Various	DE	Winter damage	All species
67	Various	Various	DF	Winter damage	All species
68	Various	Various	DG	Winter damage	All species
69	Various	Various	DH	Winter damage	All species
70	Various	Various	DI	Winter damage	All species
71	Various	Various	DJ	Winter damage	All species
72	Various	Various	DK	Winter damage	All species
73	Various	Various	DL	Winter damage	All species
74	Various	Various	DM	Winter damage	All species
75	Various	Various	DN	Winter damage	All species
76	Various	Various	DO	Winter damage	All species
77	Various	Various	DP	Winter damage	All species
78	Various	Various	DQ	Winter damage	All species
79	Various	Various	DR	Winter damage	All species
80	Various	Various	DS	Winter damage	All species
81	Various	Various	DT	Winter damage	All species
82	Various	Various	DU	Winter damage	All species
83	Various	Various	DV	Winter damage	All species
84	Various	Various	DW	Winter damage	All species
85	Various	Various	DX	Winter damage	All species
86	Various	Various	DY	Winter damage	All species
87	Various	Various	DZ	Winter damage	All species
88	Various	Various	EA	Winter damage	All species
89	Various	Various	EB	Winter damage	All species
90	Various	Various	EC	Winter damage	All species
91	Various	Various	ED	Winter damage	All species
92	Various	Various	EE	Winter damage	All species
93	Various	Various	EF	Winter damage	All species
94	Various	Various	EG	Winter damage	All species
95	Various	Various	EH	Winter damage	All species
96	Various	Various	EI	Winter damage	All species
97	Various	Various	EJ	Winter damage	All species
98	Various	Various	EK	Winter damage	All species
99	Various	Various	EL	Winter damage	All species
100	Various	Various	EM	Winter damage	All species

USGS 100K Quad: STINKINGWATER MOUNTAINS - E143118; 7K
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 cause of damage is described by a symbol above and is followed by: number of trees affected; number of trees (example: SAJ 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:

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 Forest Health Management
 2600 State Street
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-- 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/> quality assurance sheet. 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.