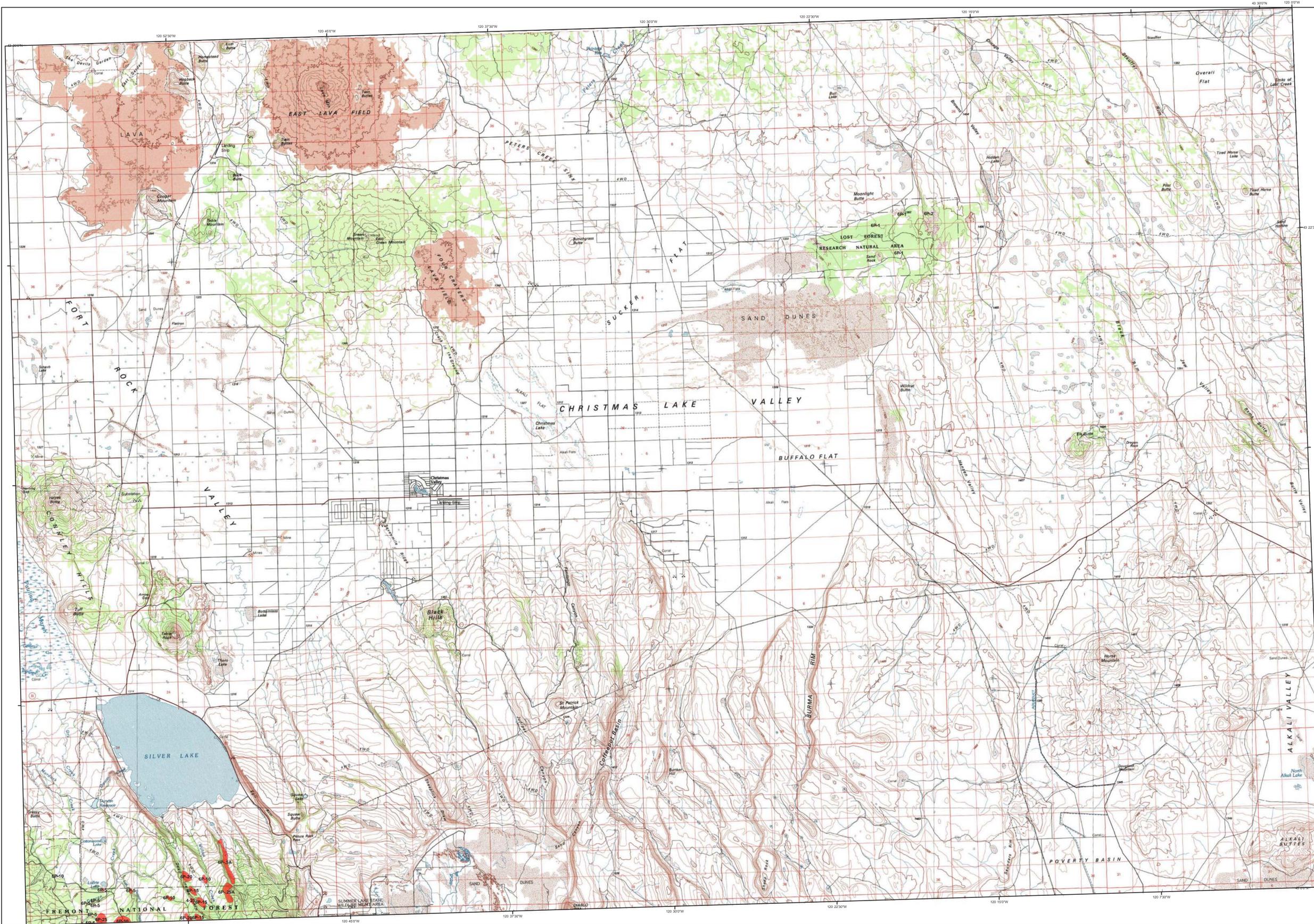


2006 Aerial Insect and Disease Survey

USGS 100K Quad: Christmas Valley - A143120; 5L



Defoliators		Mortality Agents	
Code	Damaging Agent	Code	Damaging Agent
AS	Spruce aphid	1	Sitka spruce
BB	Western blackheaded butworm	2	Douglas-fir beetle
BM	Motobac budworm	3	Douglas-fir engraver
BP	Sugar pine borer	4	Spruce beetle
BS	Western spruce budworm	5	Fir engraver
BY	Bynum's light-colored moth	6A	Western balsam bark beetle
CH	Larch	6B	Mountain pine beetle
HL	Western hemlock looper	6C	Mountain pine beetle
LG	Green striped forest looper	6D	Mountain pine beetle
LL	Larch looper	6E	Mountain pine beetle
LS	Black pine needle scale	6F	Mountain pine beetle
LD	Douglas-fir budmoth	6G	Mountain pine beetle
ML	Larch budmoth	6H	Mountain pine beetle
MN	Douglas-fir needle midge	6I	Mountain pine beetle
MS	Spruce budmoth	6J	Mountain pine beetle
ND	Needle miner	6K	Mountain pine beetle
NJ	Needle miner	6L	Mountain pine beetle
NK	Needle miner	6M	Mountain pine beetle
NL	Needle miner	6N	Mountain pine beetle
NP	Needle miner	6O	Mountain pine beetle
NS	Needle miner	6P	Mountain pine beetle
NT	Needle miner	6Q	Mountain pine beetle
CI	Western oak looper	6R	Mountain pine beetle
PB	Pine butterfly	6S	Mountain pine beetle
PC	Pine needle cast	6T	Mountain pine beetle
PH	Phantom hemlock looper	6U	Mountain pine beetle
PM	Pandora moth	6V	Mountain pine beetle
PN	Pine needlehead miner	6W	Mountain pine beetle
PS	Pine needle scale	6X	Mountain pine beetle
RC	Needle cast	6Y	Mountain pine beetle
SA	Spider mite	6Z	Mountain pine beetle
SD	Sawfly	7	Lip tip
SE	Sawfly	8	Western pine beetle
SH	Sawfly	9	Silver fir beetle
SK	Sawfly	10	Bear damage
SL	Sawfly	11	Cornifer
SN	Swiss needle cast	12	Flatheaded wood borer
SW	Sawfly	13	Black stain root disease
TA	Tent caterpillar, alder	14	Port Orford cedar root disease
TC	Tent caterpillar, other	15	Rust disease
TD	Douglas-fir tussock moth	16	Water damage
TS	Tent caterpillar, aspen		

USGS 100K Quad: Christmas Valley - A143120; 5L
2006 Aerial Insect and Disease Detection Survey
Mapscale: 1:100,000
Date: December 4, 2006

Legend

- Defoliating Agents
- Mortality Agents
- Other Damage

Other Damaging Agents

Code	Damaging Agent	Code	Damaging Agent	Code	Damaging Agent
AB	Balsam woolly adelgid	17	White pine	19	Whitebark pine
AC	Colony spruce gall adelgid	18	White pine	20	Whitebark pine
AM	Leaf discoloration	21	White pine	21	Whitebark pine
BR	Bitter rot	22	White pine	22	Whitebark pine
CC	Cystospora canker	23	White pine	23	Whitebark pine
CH	Dying hemlock	24	White pine	24	Whitebark pine
FR	Fir	25	White pine	25	Whitebark pine
GP	Gouty pitch midge	26	White pine	26	Whitebark pine
HAL	Hail	27	White pine	27	Whitebark pine
HD	Hardwood decline	28	White pine	28	Whitebark pine
HE	Heas not shown	29	White pine	29	Whitebark pine
OUT	No damage detected	30	White pine	30	Whitebark pine
PHD	Pacific madrone decline	31	White pine	31	Whitebark pine
PR	Leaf rust in poplars	32	White pine	32	Whitebark pine
RD	Rodent	33	White pine	33	Whitebark pine
SLD	Slide	34	White pine	34	Whitebark pine
UNKD	Unknown defoliation	35	White pine	35	Whitebark pine
UNKM	Unknown mortality	36	White pine	36	Whitebark pine
WATR	Water damage	37	White pine	37	Whitebark pine
WIND	Windthrow	38	White pine	38	Whitebark pine
WNTR	Winter Damage	39	White pine	39	Whitebark pine
		40	White pine	40	Whitebark pine

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/r6/nr/rid/data.shtml

Vicinity Map

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

-- OR --

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

DISCLAIMER

The insect and disease data presented should only be used as an indicator of insect and disease activity, and should be ground-checked for precise location, extent, severity and causal agent.

Color coded polygons show locations where trees were recently killed or defoliated. Intensity of damage is variable and not all trees within coded polygons are dead or defoliated.

The cooperators reserve the right to correct, update, modify or replace GIS products without notice. Using this map for purposes other than those for which it was intended may yield inaccurate or misleading results.